



Project: Weld Co., CO
 Site: Sec.22-T1N-R65W
 Well: Drake 01N-65W-22-6N
 Wellbore: Wellbore #1
 Design: Design #1
 Lat: 40° 1' 48.846 N
 Long: 104° 38' 43.919 W
 GL: 5090.00



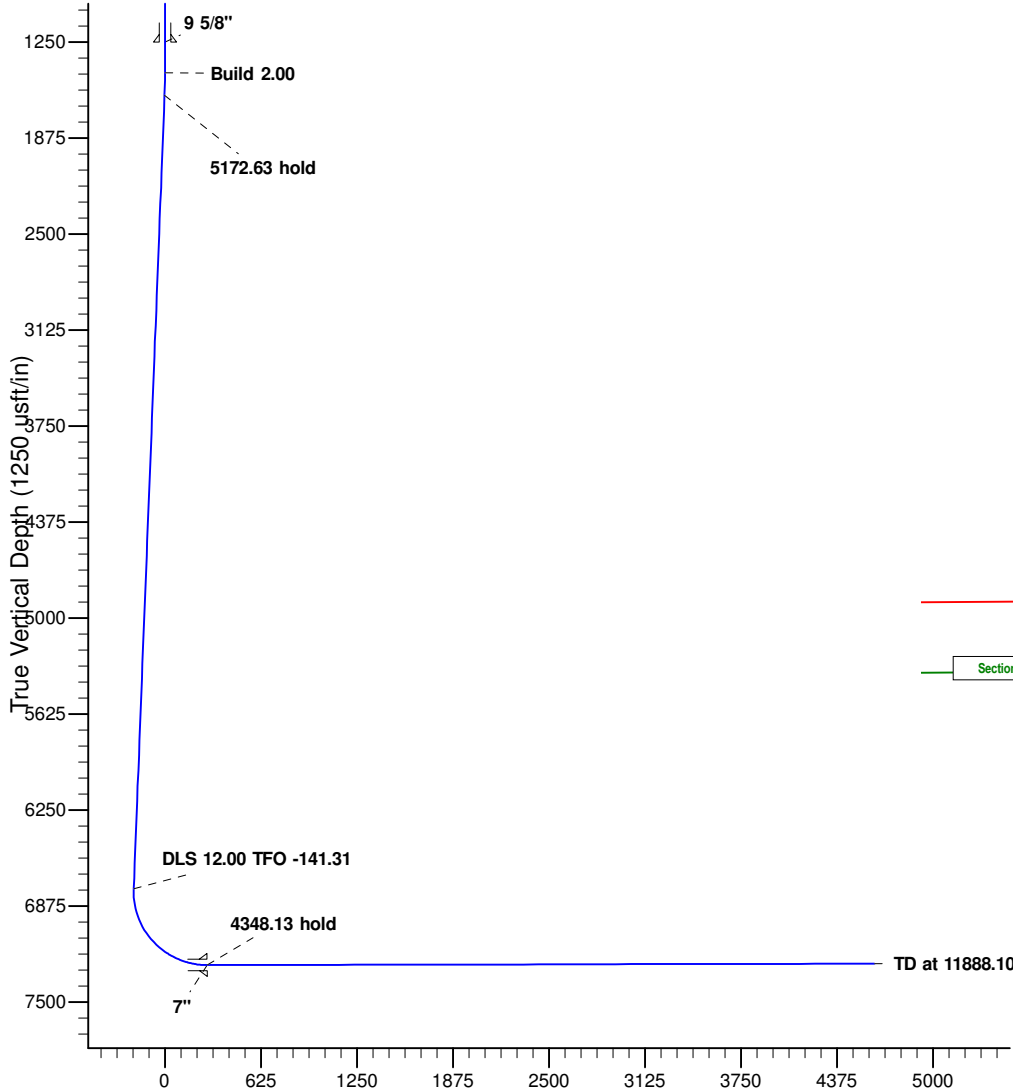
Precision
 Directional Services

KB: WELL @ 5114.30usft (Original Well Elev)

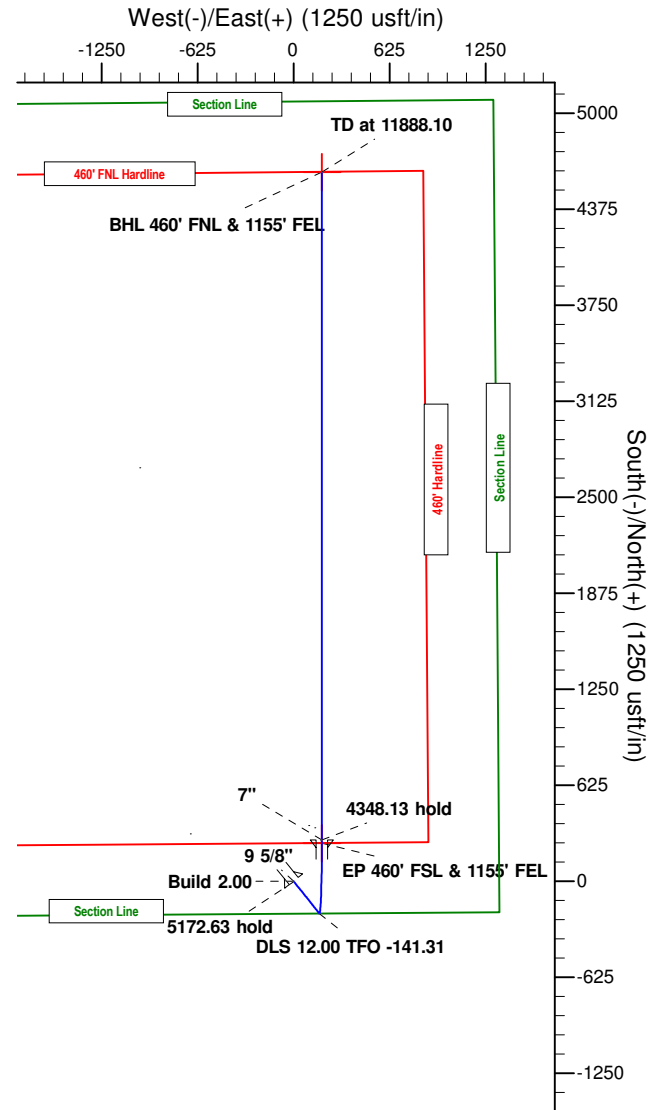


M Azimuths to True North
 Magnetic North: 8.33°
 Magnetic Field Strength: 52605.6snT
 Dip Angle: 66.66°
 Date: 09/12/2014
 Model: IGRF2010

CASING DETAILS:			
TVD	MD	Name	Size
1250.00	1250.00	9 5/8"	9-5/8
7259.30	7539.98	7"	7



Vertical Section at 2.29° (1250 usft/in)



WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
BHL 460' FNL & 1155' FEL	7250.30	4615.74	184.23	40° 2' 34.462 N	104° 38' 41.550 W	Shape
EP 460' FSL & 1155' FEL	7259.30	246.63	184.26	40° 1' 51.283 N	104° 38' 41.550 W	Point

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1450.00	0.00	0.00	1450.00	0.00	0.00	0.00	0.00	0.00	Build 2.00
1597.20	2.94	141.35	1597.14	-2.95	2.36	2.00	141.35	-2.86	5172.63 hold
6769.83	2.94	141.35	6762.94	-210.44	168.29	0.00	0.00	-203.56	DLS 12.00 TFO -141.31
7539.98	90.12	360.00	7259.30	267.63	184.26	12.00	-141.31	274.76	4348.13 hold
11888.10	90.12	360.00	7250.30	4615.74	184.23	0.00	0.00	4619.42	TD at 11888.10



Verdad Oil & Gas

Weld Co., CO

Sec.22-T1N-R65W

Drake 01N-65W-22-6N

Wellbore #1

Plan: Design #1

Standard Planning Report

12 September, 2014



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Drake 01N-65W-22-6N
Company:	Verdad Oil & Gas	TVD Reference:	WELL @ 5114.30usft (Original Well Elev)
Project:	Weld Co., CO	MD Reference:	WELL @ 5114.30usft (Original Well Elev)
Site:	Sec.22-T1N-R65W	North Reference:	True
Well:	Drake 01N-65W-22-6N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Weld Co., CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	Sec.22-T1N-R65W				
Site Position:		Northing:	1,255,012.76 usft	Latitude:	40° 1' 48.846 N
From:	Lat/Long	Easting:	3,239,197.12 usft	Longitude:	104° 38' 44.884 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.55

Well	Drake 01N-65W-22-6N					
Well Position	+N/-S	-0.01 usft	Northing:	1,255,013.47 usft	Latitude:	40° 1' 48.846 N
	+E/-W	75.05 usft	Easting:	3,239,272.17 usft	Longitude:	104° 38' 43.919 W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,090.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	09/12/14	8.33	66.66	52,606

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	2.29

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,450.00	0.00	0.00	1,450.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,597.20	2.94	141.35	1,597.14	-2.95	2.36	2.00	2.00	0.00	141.35	
6,769.83	2.94	141.35	6,762.94	-210.44	168.29	0.00	0.00	0.00	0.00	
7,539.98	90.12	360.00	7,259.30	267.63	184.26	12.00	11.32	-18.35	-141.31	EP 460' FSL & 1155'
11,888.11	90.12	360.00	7,250.30	4,615.75	184.23	0.00	0.00	0.00	0.00	BHL 460' FNL & 1155

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Drake 01N-65W-22-6N
Company:	Verdad Oil & Gas	TVD Reference:	WELL @ 5114.30usft (Original Well Elev)
Project:	Weld Co., CO	MD Reference:	WELL @ 5114.30usft (Original Well Elev)
Site:	Sec.22-T1N-R65W	North Reference:	True
Well:	Drake 01N-65W-22-6N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,450.00	0.00	0.00	1,450.00	0.00	0.00	0.00	0.00	0.00	0.00
Build 2.00									
1,500.00	1.00	141.35	1,500.00	-0.34	0.27	-0.33	2.00	2.00	0.00
1,597.20	2.94	141.35	1,597.14	-2.95	2.36	-2.86	2.00	2.00	0.00
5172.63 hold									
1,600.00	2.94	141.35	1,599.93	-3.07	2.45	-2.96	0.00	0.00	0.00
1,700.00	2.94	141.35	1,699.80	-7.08	5.66	-6.85	0.00	0.00	0.00
1,800.00	2.94	141.35	1,799.67	-11.09	8.87	-10.73	0.00	0.00	0.00
1,900.00	2.94	141.35	1,899.54	-15.10	12.07	-14.61	0.00	0.00	0.00
2,000.00	2.94	141.35	1,999.40	-19.11	15.28	-18.49	0.00	0.00	0.00
2,100.00	2.94	141.35	2,099.27	-23.12	18.49	-22.37	0.00	0.00	0.00
2,200.00	2.94	141.35	2,199.14	-27.13	21.70	-26.25	0.00	0.00	0.00
2,300.00	2.94	141.35	2,299.01	-31.14	24.91	-30.13	0.00	0.00	0.00
2,400.00	2.94	141.35	2,398.88	-35.16	28.11	-34.01	0.00	0.00	0.00
2,500.00	2.94	141.35	2,498.74	-39.17	31.32	-37.89	0.00	0.00	0.00
2,600.00	2.94	141.35	2,598.61	-43.18	34.53	-41.77	0.00	0.00	0.00
2,700.00	2.94	141.35	2,698.48	-47.19	37.74	-45.65	0.00	0.00	0.00
2,800.00	2.94	141.35	2,798.35	-51.20	40.94	-49.53	0.00	0.00	0.00
2,900.00	2.94	141.35	2,898.22	-55.21	44.15	-53.41	0.00	0.00	0.00
3,000.00	2.94	141.35	2,998.08	-59.22	47.36	-57.29	0.00	0.00	0.00
3,100.00	2.94	141.35	3,097.95	-63.23	50.57	-61.17	0.00	0.00	0.00
3,200.00	2.94	141.35	3,197.82	-67.25	53.77	-65.05	0.00	0.00	0.00
3,300.00	2.94	141.35	3,297.69	-71.26	56.98	-68.93	0.00	0.00	0.00
3,400.00	2.94	141.35	3,397.56	-75.27	60.19	-72.81	0.00	0.00	0.00
3,500.00	2.94	141.35	3,497.42	-79.28	63.40	-76.69	0.00	0.00	0.00
3,600.00	2.94	141.35	3,597.29	-83.29	66.61	-80.57	0.00	0.00	0.00
3,700.00	2.94	141.35	3,697.16	-87.30	69.81	-84.45	0.00	0.00	0.00
3,800.00	2.94	141.35	3,797.03	-91.31	73.02	-88.33	0.00	0.00	0.00
3,900.00	2.94	141.35	3,896.90	-95.32	76.23	-92.21	0.00	0.00	0.00
4,000.00	2.94	141.35	3,996.76	-99.34	79.44	-96.09	0.00	0.00	0.00
4,100.00	2.94	141.35	4,096.63	-103.35	82.64	-99.97	0.00	0.00	0.00
4,200.00	2.94	141.35	4,196.50	-107.36	85.85	-103.85	0.00	0.00	0.00
4,300.00	2.94	141.35	4,296.37	-111.37	89.06	-107.73	0.00	0.00	0.00
4,400.00	2.94	141.35	4,396.24	-115.38	92.27	-111.61	0.00	0.00	0.00
4,500.00	2.94	141.35	4,496.10	-119.39	95.48	-115.49	0.00	0.00	0.00
4,600.00	2.94	141.35	4,595.97	-123.40	98.68	-119.37	0.00	0.00	0.00
4,700.00	2.94	141.35	4,695.84	-127.41	101.89	-123.25	0.00	0.00	0.00
4,800.00	2.94	141.35	4,795.71	-131.43	105.10	-127.13	0.00	0.00	0.00
4,900.00	2.94	141.35	4,895.58	-135.44	108.31	-131.01	0.00	0.00	0.00

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Well:	Drake 01N-65W-22-6N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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)
5,000.00	2.94	141.35	4,995.44	-139.45	111.51	-134.89	0.00	0.00	0.00
5,100.00	2.94	141.35	5,095.31	-143.46	114.72	-138.77	0.00	0.00	0.00
5,200.00	2.94	141.35	5,195.18	-147.47	117.93	-142.65	0.00	0.00	0.00
5,300.00	2.94	141.35	5,295.05	-151.48	121.14	-146.53	0.00	0.00	0.00
5,400.00	2.94	141.35	5,394.92	-155.49	124.34	-150.41	0.00	0.00	0.00
5,500.00	2.94	141.35	5,494.78	-159.50	127.55	-154.29	0.00	0.00	0.00
5,600.00	2.94	141.35	5,594.65	-163.52	130.76	-158.17	0.00	0.00	0.00
5,700.00	2.94	141.35	5,694.52	-167.53	133.97	-162.05	0.00	0.00	0.00
5,800.00	2.94	141.35	5,794.39	-171.54	137.18	-165.93	0.00	0.00	0.00
5,900.00	2.94	141.35	5,894.26	-175.55	140.38	-169.81	0.00	0.00	0.00
6,000.00	2.94	141.35	5,994.12	-179.56	143.59	-173.69	0.00	0.00	0.00
6,100.00	2.94	141.35	6,093.99	-183.57	146.80	-177.57	0.00	0.00	0.00
6,200.00	2.94	141.35	6,193.86	-187.58	150.01	-181.45	0.00	0.00	0.00
6,300.00	2.94	141.35	6,293.73	-191.59	153.21	-185.33	0.00	0.00	0.00
6,400.00	2.94	141.35	6,393.60	-195.61	156.42	-189.21	0.00	0.00	0.00
6,500.00	2.94	141.35	6,493.46	-199.62	159.63	-193.09	0.00	0.00	0.00
6,600.00	2.94	141.35	6,593.33	-203.63	162.84	-196.97	0.00	0.00	0.00
6,700.00	2.94	141.35	6,693.20	-207.64	166.05	-200.85	0.00	0.00	0.00
6,769.83	2.94	141.35	6,762.94	-210.44	168.29	-203.56	0.00	0.00	0.00
DLS 12.00 TFO -141.31									
6,775.00	2.49	132.39	6,768.10	-210.62	168.45	-203.73	12.00	-8.78	-173.33
6,800.00	2.26	54.31	6,793.09	-210.70	169.25	-203.78	12.00	-0.90	-312.34
6,825.00	4.70	23.02	6,818.04	-209.47	170.06	-202.52	12.00	9.72	-125.15
6,850.00	7.55	14.03	6,842.90	-206.93	170.85	-199.95	12.00	11.41	-35.96
6,875.00	10.48	10.00	6,867.58	-203.10	171.65	-196.09	12.00	11.74	-16.13
6,900.00	13.45	7.73	6,892.04	-197.98	172.43	-190.94	12.00	11.85	-9.11
6,925.00	16.42	6.26	6,916.19	-191.58	173.21	-184.52	12.00	11.91	-5.86
6,950.00	19.41	5.24	6,939.98	-183.93	173.97	-176.85	12.00	11.93	-4.10
6,975.00	22.39	4.47	6,963.33	-175.05	174.72	-167.94	12.00	11.95	-3.04
7,000.00	25.38	3.89	6,986.19	-164.95	175.46	-157.82	12.00	11.96	-2.36
7,025.00	28.38	3.41	7,008.48	-153.67	176.18	-146.53	12.00	11.97	-1.89
7,050.00	31.37	3.02	7,030.16	-141.24	176.87	-134.08	12.00	11.97	-1.56
7,075.00	34.36	2.70	7,051.15	-127.69	177.55	-120.51	12.00	11.98	-1.31
7,100.00	37.36	2.41	7,071.41	-113.06	178.20	-105.87	12.00	11.98	-1.12
7,125.00	40.36	2.17	7,090.88	-97.39	178.83	-90.18	12.00	11.98	-0.98
7,150.00	43.35	1.95	7,109.50	-80.73	179.42	-73.51	12.00	11.99	-0.87
7,175.00	46.35	1.76	7,127.22	-63.10	180.00	-55.88	12.00	11.99	-0.78
7,200.00	49.35	1.58	7,143.99	-44.58	180.54	-37.35	12.00	11.99	-0.70
7,225.00	52.34	1.42	7,159.78	-25.20	181.04	-17.96	12.00	11.99	-0.64
7,250.00	55.34	1.28	7,174.53	-5.03	181.52	2.22	12.00	11.99	-0.59
7,275.00	58.34	1.14	7,188.20	15.90	181.96	23.14	12.00	11.99	-0.55
7,300.00	61.34	1.01	7,200.76	37.50	182.36	44.75	12.00	11.99	-0.52
7,325.00	64.34	0.89	7,212.17	59.74	182.73	66.98	12.00	11.99	-0.49
7,350.00	67.33	0.77	7,222.40	82.55	183.06	89.78	12.00	11.99	-0.46
7,375.00	70.33	0.66	7,231.43	105.85	183.35	113.08	12.00	11.99	-0.44
7,400.00	73.33	0.55	7,239.22	129.60	183.60	136.82	12.00	11.99	-0.43
7,425.00	76.33	0.45	7,245.77	153.73	183.82	160.94	12.00	11.99	-0.41
7,450.00	79.33	0.35	7,251.04	178.16	183.99	185.36	12.00	11.99	-0.40
7,475.00	82.33	0.25	7,255.02	202.84	184.12	210.02	12.00	11.99	-0.40
7,500.00	85.32	0.15	7,257.71	227.69	184.20	234.86	12.00	11.99	-0.39
7,525.00	88.32	0.06	7,259.10	252.65	184.25	259.80	12.00	11.99	-0.39
7,539.98	90.12	360.00	7,259.30	267.63	184.26	274.76	12.00	11.99	-0.39
4348.13 hold									
7,600.00	90.12	360.00	7,259.18	327.65	184.26	334.74	0.00	0.00	0.00

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Company:	Verdad Oil & Gas	TVD Reference:	WELL @ 5114.30usft (Original Well Elev)
Project:	Weld Co., CO	MD Reference:	WELL @ 5114.30usft (Original Well Elev)
Site:	Sec.22-T1N-R65W	North Reference:	True
Well:	Drake 01N-65W-22-6N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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)
7,700.00	90.12	360.00	7,258.97	427.65	184.26	434.66	0.00	0.00	0.00
7,800.00	90.12	360.00	7,258.76	527.65	184.26	534.58	0.00	0.00	0.00
7,900.00	90.12	360.00	7,258.55	627.65	184.25	634.50	0.00	0.00	0.00
8,000.00	90.12	360.00	7,258.35	727.65	184.25	734.42	0.00	0.00	0.00
8,100.00	90.12	360.00	7,258.14	827.65	184.25	834.34	0.00	0.00	0.00
8,200.00	90.12	360.00	7,257.93	927.65	184.25	934.26	0.00	0.00	0.00
8,300.00	90.12	360.00	7,257.73	1,027.65	184.25	1,034.18	0.00	0.00	0.00
8,400.00	90.12	360.00	7,257.52	1,127.65	184.25	1,134.10	0.00	0.00	0.00
8,500.00	90.12	360.00	7,257.31	1,227.65	184.25	1,234.02	0.00	0.00	0.00
8,600.00	90.12	360.00	7,257.11	1,327.65	184.25	1,333.94	0.00	0.00	0.00
8,700.00	90.12	360.00	7,256.90	1,427.65	184.25	1,433.86	0.00	0.00	0.00
8,800.00	90.12	360.00	7,256.69	1,527.65	184.25	1,533.78	0.00	0.00	0.00
8,900.00	90.12	360.00	7,256.49	1,627.65	184.25	1,633.70	0.00	0.00	0.00
9,000.00	90.12	360.00	7,256.28	1,727.65	184.25	1,733.62	0.00	0.00	0.00
9,100.00	90.12	360.00	7,256.07	1,827.65	184.25	1,833.54	0.00	0.00	0.00
9,200.00	90.12	360.00	7,255.86	1,927.65	184.25	1,933.46	0.00	0.00	0.00
9,300.00	90.12	360.00	7,255.66	2,027.65	184.24	2,033.38	0.00	0.00	0.00
9,400.00	90.12	360.00	7,255.45	2,127.65	184.24	2,133.30	0.00	0.00	0.00
9,500.00	90.12	360.00	7,255.24	2,227.65	184.24	2,233.22	0.00	0.00	0.00
9,600.00	90.12	360.00	7,255.04	2,327.65	184.24	2,333.14	0.00	0.00	0.00
9,700.00	90.12	360.00	7,254.83	2,427.64	184.24	2,433.06	0.00	0.00	0.00
9,800.00	90.12	360.00	7,254.62	2,527.64	184.24	2,532.98	0.00	0.00	0.00
9,900.00	90.12	360.00	7,254.42	2,627.64	184.24	2,632.90	0.00	0.00	0.00
10,000.00	90.12	360.00	7,254.21	2,727.64	184.24	2,732.82	0.00	0.00	0.00
10,100.00	90.12	360.00	7,254.00	2,827.64	184.24	2,832.74	0.00	0.00	0.00
10,200.00	90.12	360.00	7,253.79	2,927.64	184.24	2,932.66	0.00	0.00	0.00
10,300.00	90.12	360.00	7,253.59	3,027.64	184.24	3,032.58	0.00	0.00	0.00
10,400.00	90.12	360.00	7,253.38	3,127.64	184.24	3,132.50	0.00	0.00	0.00
10,500.00	90.12	360.00	7,253.17	3,227.64	184.24	3,232.42	0.00	0.00	0.00
10,600.00	90.12	360.00	7,252.97	3,327.64	184.23	3,332.34	0.00	0.00	0.00
10,700.00	90.12	360.00	7,252.76	3,427.64	184.23	3,432.26	0.00	0.00	0.00
10,800.00	90.12	360.00	7,252.55	3,527.64	184.23	3,532.18	0.00	0.00	0.00
10,900.00	90.12	360.00	7,252.35	3,627.64	184.23	3,632.10	0.00	0.00	0.00
11,000.00	90.12	360.00	7,252.14	3,727.64	184.23	3,732.02	0.00	0.00	0.00
11,100.00	90.12	360.00	7,251.93	3,827.64	184.23	3,831.94	0.00	0.00	0.00
11,200.00	90.12	360.00	7,251.72	3,927.64	184.23	3,931.86	0.00	0.00	0.00
11,300.00	90.12	360.00	7,251.52	4,027.64	184.23	4,031.78	0.00	0.00	0.00
11,400.00	90.12	360.00	7,251.31	4,127.64	184.23	4,131.70	0.00	0.00	0.00
11,500.00	90.12	360.00	7,251.10	4,227.64	184.23	4,231.62	0.00	0.00	0.00
11,600.00	90.12	360.00	7,250.90	4,327.64	184.23	4,331.55	0.00	0.00	0.00
11,700.00	90.12	360.00	7,250.69	4,427.64	184.23	4,431.47	0.00	0.00	0.00
11,800.00	90.12	360.00	7,250.48	4,527.64	184.23	4,531.39	0.00	0.00	0.00
11,888.11	90.12	360.00	7,250.30	4,615.75	184.23	4,619.42	0.00	0.00	0.00
TD at 11888.10									

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Drake 01N-65W-22-6N
Company:	Verdad Oil & Gas	TVD Reference:	WELL @ 5114.30usft (Original Well Elev)
Project:	Weld Co., CO	MD Reference:	WELL @ 5114.30usft (Original Well Elev)
Site:	Sec.22-T1N-R65W	North Reference:	True
Well:	Drake 01N-65W-22-6N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
BHL 460' FNL & 1155' F	0.00	0.00	7,250.30	4,615.75	184.23	1,259,630.78	3,239,411.91	40° 2' 34.462 N	104° 38' 41.550 W
- plan hits target center									
- Point									
EP 460' FSL & 1155' FE	0.00	0.00	7,259.30	246.63	184.26	1,255,261.86	3,239,454.04	40° 1' 51.283 N	104° 38' 41.550 W
- plan misses target center by 0.42usft at 7519.00usft MD (7258.88 TVD, 246.65 N, 184.24 E)									
- Point									

Casing Points					
Measured Depth	Vertical Depth	Name		Casing Diameter	Hole Diameter
(usft)	(usft)			(")	(")
1,250.00	1,250.00	9 5/8"		9-5/8	12-1/4
7,539.98	7,259.30	7"		7	7-1/2

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
1,450.00	1,450.00	0.00	0.00	Build 2.00
1,597.20	1,597.14	-2.95	2.36	5172.63 hold
6,769.83	6,762.94	-210.44	168.29	DLS 12.00 TFO -141.31
7,539.98	7,259.30	267.63	184.26	4348.13 hold
11,888.11	7,250.30	4,615.75	184.23	TD at 11888.10



Precision
Directional Services

Verdad Oil & Gas

Weld Co., CO

Sec.22-T1N-R65W

Drake 01N-65W-22-6N

Wellbore #1

Design #1

Anticollision Summary Report

12 September, 2014



Company:	Verdad Oil & Gas	Local Co-ordinate Reference:	Well Drake 01N-65W-22-6N
Project:	Weld Co., CO	TVD Reference:	WELL @ 5114.30usft (Original Well Elev)
Reference Site:	Sec.22-T1N-R65W	MD Reference:	WELL @ 5114.30usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Drake 01N-65W-22-6N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference	Design #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 9,999.98 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

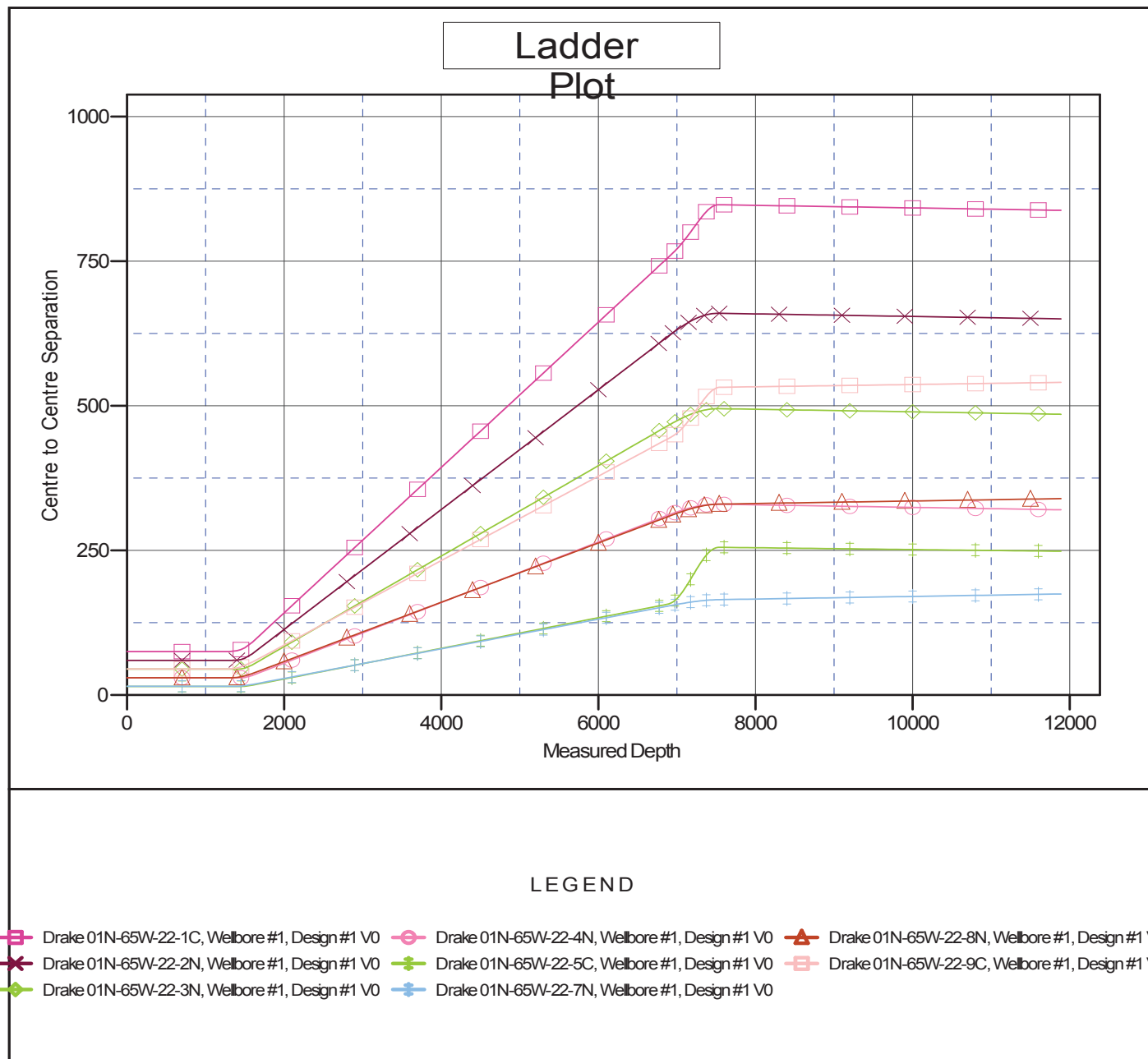
Survey Tool Program		Date	09/12/14		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	11,888.10	Design #1 (Wellbore #1)	MWD	Std MWD	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Sec.22-T1N-R65W						
Drake 01N-65W-22-1C - Wellbore #1 - Design #1	1,300.00	1,300.00	75.05	68.37	11.235	CC, ES
Drake 01N-65W-22-1C - Wellbore #1 - Design #1	1,450.00	1,446.33	78.60	71.14	10.543	SF
Drake 01N-65W-22-2N - Wellbore #1 - Design #1	1,333.40	1,333.40	59.93	53.07	8.743	CC, ES
Drake 01N-65W-22-2N - Wellbore #1 - Design #1	1,450.00	1,448.17	61.42	53.96	8.234	SF
Drake 01N-65W-22-3N - Wellbore #1 - Design #1	1,400.00	1,400.00	44.80	37.60	6.220	CC, ES
Drake 01N-65W-22-3N - Wellbore #1 - Design #1	1,500.00	1,498.80	46.38	38.66	6.005	SF
Drake 01N-65W-22-4N - Wellbore #1 - Design #1	1,450.00	1,450.00	29.96	22.50	4.014	CC, ES
Drake 01N-65W-22-4N - Wellbore #1 - Design #1	1,500.00	1,499.76	30.43	22.70	3.939	SF
Drake 01N-65W-22-5C - Wellbore #1 - Design #1	1,450.00	1,450.00	14.84	7.38	1.988	CC, ES
Drake 01N-65W-22-5C - Wellbore #1 - Design #1	1,500.00	1,500.00	15.12	7.39	1.957	SF
Drake 01N-65W-22-7N - Wellbore #1 - Design #1	1,400.00	1,400.00	15.12	7.92	2.099	CC, ES
Drake 01N-65W-22-7N - Wellbore #1 - Design #1	1,450.00	1,449.78	15.48	8.02	2.074	SF
Drake 01N-65W-22-8N - Wellbore #1 - Design #1	1,333.42	1,333.42	29.96	23.11	4.371	CC, ES
Drake 01N-65W-22-8N - Wellbore #1 - Design #1	1,400.00	1,399.53	30.35	23.15	4.215	SF
Drake 01N-65W-22-9C - Wellbore #1 - Design #1	1,300.00	1,300.00	45.08	38.41	6.750	CC, ES
Drake 01N-65W-22-9C - Wellbore #1 - Design #1	1,400.00	1,398.50	46.71	39.51	6.488	SF

Company:	Verdad Oil & Gas	Local Co-ordinate Reference:	Well Drake 01N-65W-22-6N
Project:	Weld Co., CO	TVD Reference:	WELL @ 5114.30usft (Original Well Elev)
Reference Site:	Sec.22-T1N-R65W	MD Reference:	WELL @ 5114.30usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Drake 01N-65W-22-6N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5114.30usft (Original Well E
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Drake 01N-65W-22-6N
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.55°



Company:	Verdad Oil & Gas	Local Co-ordinate Reference:	Well Drake 01N-65W-22-6N
Project:	Weld Co., CO	TVD Reference:	WELL @ 5114.30usft (Original Well Elev)
Reference Site:	Sec.22-T1N-R65W	MD Reference:	WELL @ 5114.30usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Drake 01N-65W-22-6N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5114.30usft (Original Well E

Offset Depths are relative to Offset Datum

Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Drake 01N-65W-22-6N

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.55°

