

Longs Peak Resources
Project: Weld County, Co (NAD 83)
Site: Dorada East Pad
Well: Dorada East 1411-7NH
Wellbore: Wellbore #1
Plan: Design #1 (Dorada East 1411-7NH/Wellbore #1)

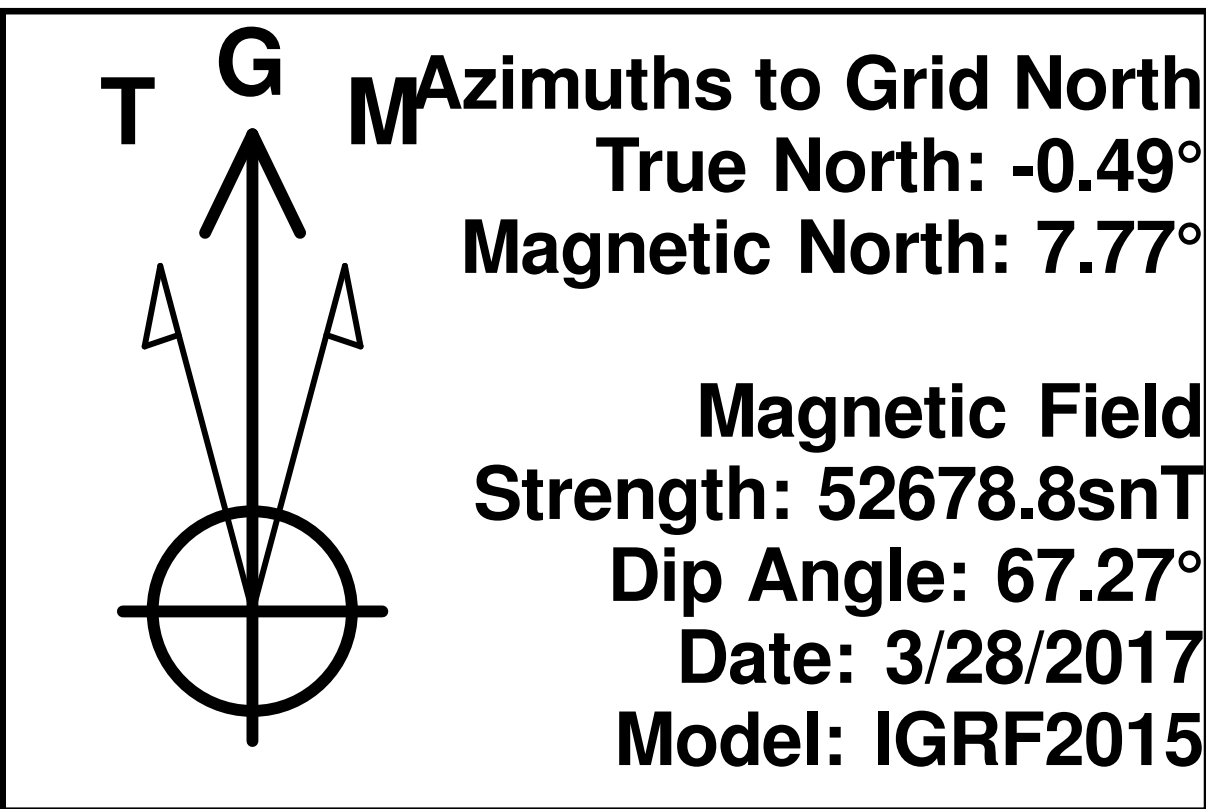
WELL DETAILS: Dorada East 1411-7NH

Ground Elevation:: 5666.00
RKB Elevation: KB=25' @ 5691.00ft
Rig Name:

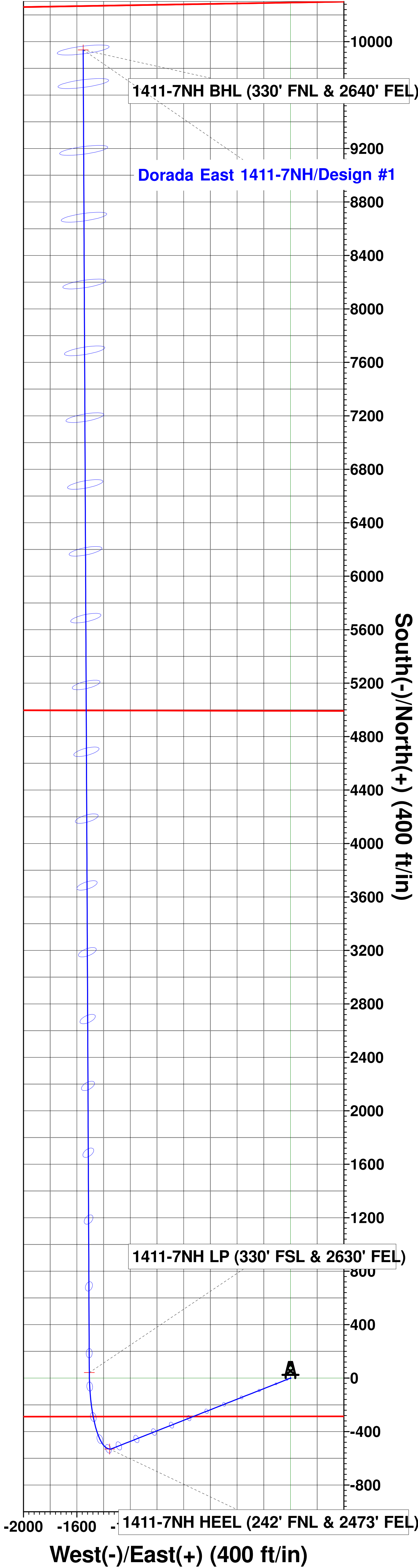
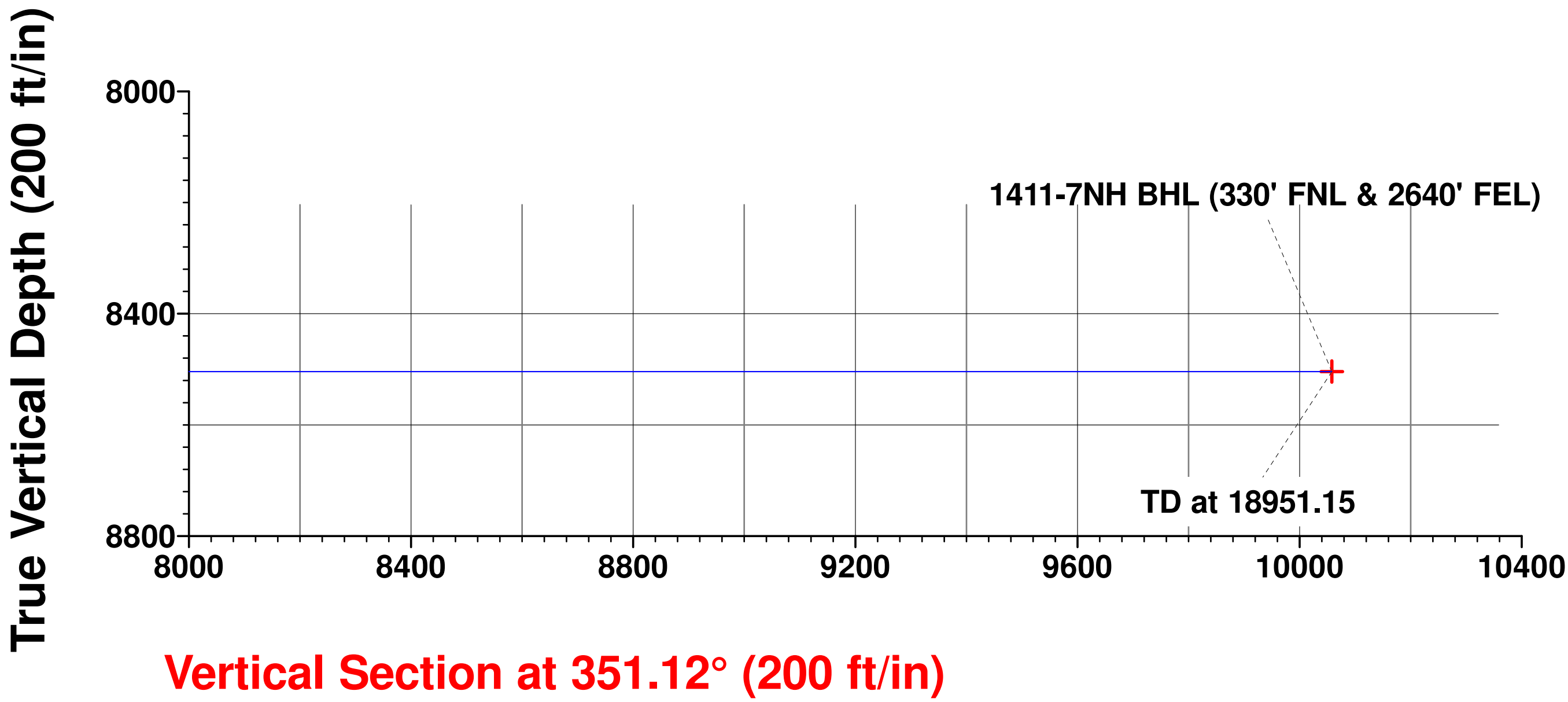
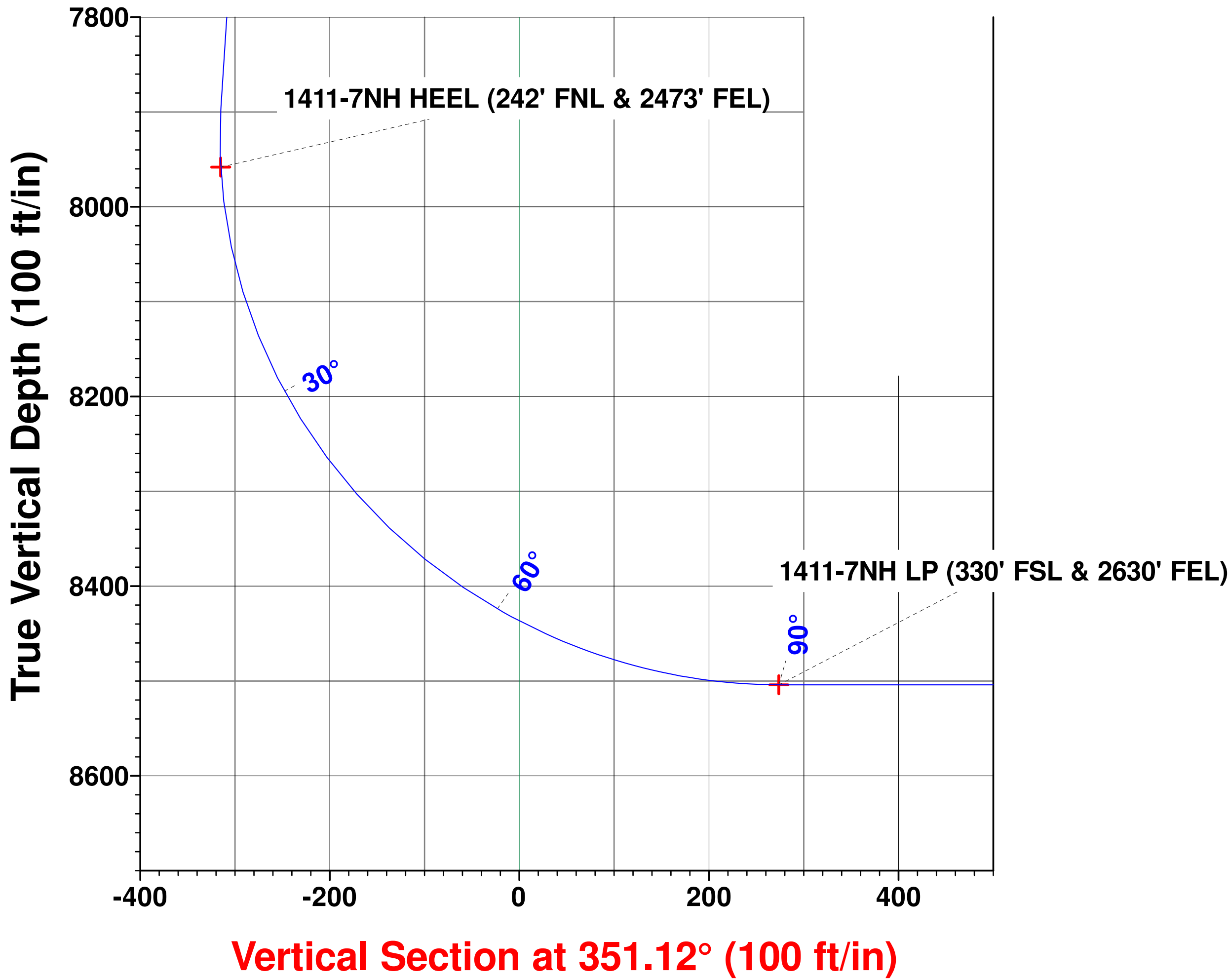
Northing	Easting	Latitude	Longitude
1576887.1075	3210592.3996	40° 54' 51.984 N	104° 44' 17.052 W



Planned Section Details									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2600.00	0.00	0.00	2600.00	0.00	0.00	0.00	0.00	0.00
3	3420.25	16.40	248.47	3409.09	-42.80	-108.49	2.00	248.47	-25.54
4	8096.40	16.40	248.47	7894.87	-527.41	-1337.02	0.00	0.00	-314.71
5	9055.19	90.00	359.74	8504.00	41.76	-1506.78	10.00	110.47	273.83
6	18951.15	90.00	359.74	8504.00	9937.62	-1552.52	0.00	0.00	10058.16



PROJECT DETAILS: Weld County, Co (NAD 83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
System Datum: Mean Sea Level
Local North: Grid



Longs Peak Resources

Weld County, Co (NAD 83)

Dorada East Pad

Dorada East 1411-7NH

Wellbore #1

Plan: Design #1

Standard Survey Report

31 March, 2017



Integrity Directional Services, LLC

Survey Report



Company:	Longs Peak Resources	Local Co-ordinate Reference:	Well Dorada East 1411-7NH
Project:	Weld County, Co (NAD 83)	TVD Reference:	KB=25' @ 5691.00ft
Site:	Dorada East Pad	MD Reference:	KB=25' @ 5691.00ft
Well:	Dorada East 1411-7NH	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDM 5000.1 Multi User Db

Project	Weld County, Co (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	Dorada East Pad		
Site Position:		Northing:	1,576,887.1115 usft
From:	Lat/Long	Easting:	3,210,592.3996 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	40° 54' 51.984 N
		Longitude:	104° 44' 17.052 W
		Grid Convergence:	0.49 °

Well	Dorada East 1411-7NH		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	0.00 ft
		Latitude:	40° 54' 51.984 N
		Longitude:	104° 44' 17.052 W
		Ground Level:	5,666.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/28/2017	8.26	67.27	52,679

Design	Design #1				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	351.12	

Survey Tool Program	Date	3/28/2017			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	18,951.15	Design #1 (Wellbore #1)	MWD	MWD - Standard	

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	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	

Integrity Directional Services, LLC

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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDM 5000.1 Multi User Db

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
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
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	2.00	248.47	2,699.98	-0.64	-1.62	-0.38	2.00	2.00	0.00
2,800.00	4.00	248.47	2,799.84	-2.56	-6.49	-1.53	2.00	2.00	0.00
2,900.00	6.00	248.47	2,899.45	-5.76	-14.60	-3.44	2.00	2.00	0.00
3,000.00	8.00	248.47	2,998.70	-10.23	-25.94	-6.10	2.00	2.00	0.00
3,100.00	10.00	248.47	3,097.47	-15.97	-40.49	-9.53	2.00	2.00	0.00
3,200.00	12.00	248.47	3,195.62	-22.97	-58.24	-13.71	2.00	2.00	0.00
3,300.00	14.00	248.47	3,293.06	-31.23	-79.16	-18.63	2.00	2.00	0.00
3,400.00	16.00	248.47	3,389.64	-40.72	-103.24	-24.30	2.00	2.00	0.00
3,420.25	16.40	248.47	3,409.09	-42.80	-108.49	-25.54	2.00	2.00	0.00
3,500.00	16.40	248.47	3,485.59	-51.06	-129.44	-30.47	0.00	0.00	0.00
3,600.00	16.40	248.47	3,581.52	-61.42	-155.72	-36.65	0.00	0.00	0.00
3,700.00	16.40	248.47	3,677.45	-71.79	-181.99	-42.84	0.00	0.00	0.00
3,800.00	16.40	248.47	3,773.38	-82.15	-208.26	-49.02	0.00	0.00	0.00
3,900.00	16.40	248.47	3,869.31	-92.52	-234.53	-55.21	0.00	0.00	0.00
4,000.00	16.40	248.47	3,965.24	-102.88	-260.80	-61.39	0.00	0.00	0.00
4,100.00	16.40	248.47	4,061.17	-113.24	-287.08	-67.57	0.00	0.00	0.00
4,200.00	16.40	248.47	4,157.09	-123.61	-313.35	-73.76	0.00	0.00	0.00
4,300.00	16.40	248.47	4,253.02	-133.97	-339.62	-79.94	0.00	0.00	0.00
4,400.00	16.40	248.47	4,348.95	-144.33	-365.89	-86.13	0.00	0.00	0.00
4,500.00	16.40	248.47	4,444.88	-154.70	-392.17	-92.31	0.00	0.00	0.00
4,600.00	16.40	248.47	4,540.81	-165.06	-418.44	-98.49	0.00	0.00	0.00
4,700.00	16.40	248.47	4,636.74	-175.42	-444.71	-104.68	0.00	0.00	0.00
4,800.00	16.40	248.47	4,732.67	-185.79	-470.98	-110.86	0.00	0.00	0.00
4,900.00	16.40	248.47	4,828.60	-196.15	-497.25	-117.05	0.00	0.00	0.00
5,000.00	16.40	248.47	4,924.53	-206.51	-523.53	-123.23	0.00	0.00	0.00
5,100.00	16.40	248.47	5,020.46	-216.88	-549.80	-129.41	0.00	0.00	0.00
5,200.00	16.40	248.47	5,116.38	-227.24	-576.07	-135.60	0.00	0.00	0.00

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Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.00	16.40	248.47	5,212.31	-237.60	-602.34	-141.78	0.00	0.00	0.00
5,400.00	16.40	248.47	5,308.24	-247.97	-628.62	-147.97	0.00	0.00	0.00
5,500.00	16.40	248.47	5,404.17	-258.33	-654.89	-154.15	0.00	0.00	0.00
5,600.00	16.40	248.47	5,500.10	-268.69	-681.16	-160.33	0.00	0.00	0.00
5,700.00	16.40	248.47	5,596.03	-279.06	-707.43	-166.52	0.00	0.00	0.00
5,800.00	16.40	248.47	5,691.96	-289.42	-733.70	-172.70	0.00	0.00	0.00
5,900.00	16.40	248.47	5,787.89	-299.79	-759.98	-178.89	0.00	0.00	0.00
6,000.00	16.40	248.47	5,883.82	-310.15	-786.25	-185.07	0.00	0.00	0.00
6,100.00	16.40	248.47	5,979.75	-320.51	-812.52	-191.26	0.00	0.00	0.00
6,200.00	16.40	248.47	6,075.67	-330.88	-838.79	-197.44	0.00	0.00	0.00
6,300.00	16.40	248.47	6,171.60	-341.24	-865.06	-203.62	0.00	0.00	0.00
6,400.00	16.40	248.47	6,267.53	-351.60	-891.34	-209.81	0.00	0.00	0.00
6,500.00	16.40	248.47	6,363.46	-361.97	-917.61	-215.99	0.00	0.00	0.00
6,600.00	16.40	248.47	6,459.39	-372.33	-943.88	-222.18	0.00	0.00	0.00
6,700.00	16.40	248.47	6,555.32	-382.69	-970.15	-228.36	0.00	0.00	0.00
6,800.00	16.40	248.47	6,651.25	-393.06	-996.43	-234.54	0.00	0.00	0.00
6,900.00	16.40	248.47	6,747.18	-403.42	-1,022.70	-240.73	0.00	0.00	0.00
7,000.00	16.40	248.47	6,843.11	-413.78	-1,048.97	-246.91	0.00	0.00	0.00
7,100.00	16.40	248.47	6,939.04	-424.15	-1,075.24	-253.10	0.00	0.00	0.00
7,200.00	16.40	248.47	7,034.96	-434.51	-1,101.51	-259.28	0.00	0.00	0.00
7,300.00	16.40	248.47	7,130.89	-444.87	-1,127.79	-265.46	0.00	0.00	0.00
7,400.00	16.40	248.47	7,226.82	-455.24	-1,154.06	-271.65	0.00	0.00	0.00
7,500.00	16.40	248.47	7,322.75	-465.60	-1,180.33	-277.83	0.00	0.00	0.00
7,600.00	16.40	248.47	7,418.68	-475.96	-1,206.60	-284.02	0.00	0.00	0.00
7,700.00	16.40	248.47	7,514.61	-486.33	-1,232.88	-290.20	0.00	0.00	0.00
7,800.00	16.40	248.47	7,610.54	-496.69	-1,259.15	-296.38	0.00	0.00	0.00
7,900.00	16.40	248.47	7,706.47	-507.06	-1,285.42	-302.57	0.00	0.00	0.00
8,000.00	16.40	248.47	7,802.40	-517.42	-1,311.69	-308.75	0.00	0.00	0.00
8,096.40	16.40	248.47	7,894.87	-527.41	-1,337.02	-314.71	0.00	0.00	0.00
8,100.00	16.28	249.68	7,898.33	-527.77	-1,337.96	-314.93	10.00	-3.40	33.42
8,200.00	15.97	286.24	7,994.64	-528.80	-1,364.38	-311.86	10.00	-0.31	36.56
8,300.00	20.98	314.04	8,089.63	-512.47	-1,390.52	-291.69	10.00	5.01	27.81
8,400.00	28.64	329.58	8,180.43	-479.27	-1,415.59	-255.03	10.00	7.66	15.53
8,500.00	37.35	338.67	8,264.28	-430.23	-1,438.82	-202.98	10.00	8.71	9.09
8,600.00	46.52	344.66	8,338.61	-366.82	-1,459.51	-137.14	10.00	9.17	5.99
8,700.00	55.93	349.04	8,401.19	-290.98	-1,477.03	-59.50	10.00	9.40	4.38
8,800.00	65.45	352.54	8,450.10	-205.00	-1,490.85	27.57	10.00	9.53	3.50
8,900.00	75.05	355.53	8,483.86	-111.51	-1,500.54	121.44	10.00	9.60	3.00
9,000.00	84.68	358.27	8,501.44	-13.34	-1,505.82	219.25	10.00	9.63	2.74
9,055.19	90.00	359.74	8,504.00	41.76	-1,506.78	273.83	10.00	9.64	2.65
9,100.00	90.00	359.74	8,504.00	86.57	-1,506.98	318.14	0.00	0.00	0.00
9,200.00	90.00	359.74	8,504.00	186.57	-1,507.45	417.02	0.00	0.00	0.00
9,300.00	90.00	359.74	8,504.00	286.57	-1,507.91	515.89	0.00	0.00	0.00

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9,400.00	90.00	359.74	8,504.00	386.57	-1,508.37	614.76	0.00	0.00	0.00
9,500.00	90.00	359.74	8,504.00	486.57	-1,508.83	713.63	0.00	0.00	0.00
9,600.00	90.00	359.74	8,504.00	586.57	-1,509.29	812.50	0.00	0.00	0.00
9,700.00	90.00	359.74	8,504.00	686.57	-1,509.76	911.38	0.00	0.00	0.00
9,800.00	90.00	359.74	8,504.00	786.56	-1,510.22	1,010.25	0.00	0.00	0.00
9,900.00	90.00	359.74	8,504.00	886.56	-1,510.68	1,109.12	0.00	0.00	0.00
10,000.00	90.00	359.74	8,504.00	986.56	-1,511.14	1,207.99	0.00	0.00	0.00
10,100.00	90.00	359.74	8,504.00	1,086.56	-1,511.61	1,306.86	0.00	0.00	0.00
10,200.00	90.00	359.74	8,504.00	1,186.56	-1,512.07	1,405.73	0.00	0.00	0.00
10,300.00	90.00	359.74	8,504.00	1,286.56	-1,512.53	1,504.61	0.00	0.00	0.00
10,400.00	90.00	359.74	8,504.00	1,386.56	-1,512.99	1,603.48	0.00	0.00	0.00
10,500.00	90.00	359.74	8,504.00	1,486.56	-1,513.45	1,702.35	0.00	0.00	0.00
10,600.00	90.00	359.74	8,504.00	1,586.56	-1,513.92	1,801.22	0.00	0.00	0.00
10,700.00	90.00	359.74	8,504.00	1,686.56	-1,514.38	1,900.09	0.00	0.00	0.00
10,800.00	90.00	359.74	8,504.00	1,786.55	-1,514.84	1,998.97	0.00	0.00	0.00
10,900.00	90.00	359.74	8,504.00	1,886.55	-1,515.30	2,097.84	0.00	0.00	0.00
11,000.00	90.00	359.74	8,504.00	1,986.55	-1,515.77	2,196.71	0.00	0.00	0.00
11,100.00	90.00	359.74	8,504.00	2,086.55	-1,516.23	2,295.58	0.00	0.00	0.00
11,200.00	90.00	359.74	8,504.00	2,186.55	-1,516.69	2,394.45	0.00	0.00	0.00
11,300.00	90.00	359.74	8,504.00	2,286.55	-1,517.15	2,493.32	0.00	0.00	0.00
11,400.00	90.00	359.74	8,504.00	2,386.55	-1,517.61	2,592.20	0.00	0.00	0.00
11,500.00	90.00	359.74	8,504.00	2,486.55	-1,518.08	2,691.07	0.00	0.00	0.00
11,600.00	90.00	359.74	8,504.00	2,586.55	-1,518.54	2,789.94	0.00	0.00	0.00
11,700.00	90.00	359.74	8,504.00	2,686.54	-1,519.00	2,888.81	0.00	0.00	0.00
11,800.00	90.00	359.74	8,504.00	2,786.54	-1,519.46	2,987.68	0.00	0.00	0.00
11,900.00	90.00	359.74	8,504.00	2,886.54	-1,519.93	3,086.56	0.00	0.00	0.00
12,000.00	90.00	359.74	8,504.00	2,986.54	-1,520.39	3,185.43	0.00	0.00	0.00
12,100.00	90.00	359.74	8,504.00	3,086.54	-1,520.85	3,284.30	0.00	0.00	0.00
12,200.00	90.00	359.74	8,504.00	3,186.54	-1,521.31	3,383.17	0.00	0.00	0.00
12,300.00	90.00	359.74	8,504.00	3,286.54	-1,521.77	3,482.04	0.00	0.00	0.00
12,400.00	90.00	359.74	8,504.00	3,386.54	-1,522.24	3,580.92	0.00	0.00	0.00
12,500.00	90.00	359.74	8,504.00	3,486.54	-1,522.70	3,679.79	0.00	0.00	0.00
12,600.00	90.00	359.74	8,504.00	3,586.54	-1,523.16	3,778.66	0.00	0.00	0.00
12,700.00	90.00	359.74	8,504.00	3,686.53	-1,523.62	3,877.53	0.00	0.00	0.00
12,800.00	90.00	359.74	8,504.00	3,786.53	-1,524.09	3,976.40	0.00	0.00	0.00
12,900.00	90.00	359.74	8,504.00	3,886.53	-1,524.55	4,075.27	0.00	0.00	0.00
13,000.00	90.00	359.74	8,504.00	3,986.53	-1,525.01	4,174.15	0.00	0.00	0.00
13,100.00	90.00	359.74	8,504.00	4,086.53	-1,525.47	4,273.02	0.00	0.00	0.00
13,200.00	90.00	359.74	8,504.00	4,186.53	-1,525.93	4,371.89	0.00	0.00	0.00
13,300.00	90.00	359.74	8,504.00	4,286.53	-1,526.40	4,470.76	0.00	0.00	0.00
13,400.00	90.00	359.74	8,504.00	4,386.53	-1,526.86	4,569.63	0.00	0.00	0.00
13,500.00	90.00	359.74	8,504.00	4,486.53	-1,527.32	4,668.51	0.00	0.00	0.00
13,600.00	90.00	359.74	8,504.00	4,586.52	-1,527.78	4,767.38	0.00	0.00	0.00

Integrity Directional Services, LLC

Survey Report



Company:	Longs Peak Resources	Local Co-ordinate Reference:	Well Dorada East 1411-7NH
Project:	Weld County, Co (NAD 83)	TVD Reference:	KB=25' @ 5691.00ft
Site:	Dorada East Pad	MD Reference:	KB=25' @ 5691.00ft
Well:	Dorada East 1411-7NH	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDM 5000.1 Multi User Db

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,700.00	90.00	359.74	8,504.00	4,686.52	-1,528.25	4,866.25	0.00	0.00	0.00
13,800.00	90.00	359.74	8,504.00	4,786.52	-1,528.71	4,965.12	0.00	0.00	0.00
13,900.00	90.00	359.74	8,504.00	4,886.52	-1,529.17	5,063.99	0.00	0.00	0.00
14,000.00	90.00	359.74	8,504.00	4,986.52	-1,529.63	5,162.86	0.00	0.00	0.00
14,100.00	90.00	359.74	8,504.00	5,086.52	-1,530.09	5,261.74	0.00	0.00	0.00
14,200.00	90.00	359.74	8,504.00	5,186.52	-1,530.56	5,360.61	0.00	0.00	0.00
14,300.00	90.00	359.74	8,504.00	5,286.52	-1,531.02	5,459.48	0.00	0.00	0.00
14,400.00	90.00	359.74	8,504.00	5,386.52	-1,531.48	5,558.35	0.00	0.00	0.00
14,500.00	90.00	359.74	8,504.00	5,486.51	-1,531.94	5,657.22	0.00	0.00	0.00
14,600.00	90.00	359.74	8,504.00	5,586.51	-1,532.41	5,756.10	0.00	0.00	0.00
14,700.00	90.00	359.74	8,504.00	5,686.51	-1,532.87	5,854.97	0.00	0.00	0.00
14,800.00	90.00	359.74	8,504.00	5,786.51	-1,533.33	5,953.84	0.00	0.00	0.00
14,900.00	90.00	359.74	8,504.00	5,886.51	-1,533.79	6,052.71	0.00	0.00	0.00
15,000.00	90.00	359.74	8,504.00	5,986.51	-1,534.25	6,151.58	0.00	0.00	0.00
15,100.00	90.00	359.74	8,504.00	6,086.51	-1,534.72	6,250.46	0.00	0.00	0.00
15,200.00	90.00	359.74	8,504.00	6,186.51	-1,535.18	6,349.33	0.00	0.00	0.00
15,300.00	90.00	359.74	8,504.00	6,286.51	-1,535.64	6,448.20	0.00	0.00	0.00
15,400.00	90.00	359.74	8,504.00	6,386.51	-1,536.10	6,547.07	0.00	0.00	0.00
15,500.00	90.00	359.74	8,504.00	6,486.50	-1,536.57	6,645.94	0.00	0.00	0.00
15,600.00	90.00	359.74	8,504.00	6,586.50	-1,537.03	6,744.81	0.00	0.00	0.00
15,700.00	90.00	359.74	8,504.00	6,686.50	-1,537.49	6,843.69	0.00	0.00	0.00
15,800.00	90.00	359.74	8,504.00	6,786.50	-1,537.95	6,942.56	0.00	0.00	0.00
15,900.00	90.00	359.74	8,504.00	6,886.50	-1,538.42	7,041.43	0.00	0.00	0.00
16,000.00	90.00	359.74	8,504.00	6,986.50	-1,538.88	7,140.30	0.00	0.00	0.00
16,100.00	90.00	359.74	8,504.00	7,086.50	-1,539.34	7,239.17	0.00	0.00	0.00
16,200.00	90.00	359.74	8,504.00	7,186.50	-1,539.80	7,338.05	0.00	0.00	0.00
16,300.00	90.00	359.74	8,504.00	7,286.50	-1,540.26	7,436.92	0.00	0.00	0.00
16,400.00	90.00	359.74	8,504.00	7,386.49	-1,540.73	7,535.79	0.00	0.00	0.00
16,500.00	90.00	359.74	8,504.00	7,486.49	-1,541.19	7,634.66	0.00	0.00	0.00
16,600.00	90.00	359.74	8,504.00	7,586.49	-1,541.65	7,733.53	0.00	0.00	0.00
16,700.00	90.00	359.74	8,504.00	7,686.49	-1,542.11	7,832.40	0.00	0.00	0.00
16,800.00	90.00	359.74	8,504.00	7,786.49	-1,542.58	7,931.28	0.00	0.00	0.00
16,900.00	90.00	359.74	8,504.00	7,886.49	-1,543.04	8,030.15	0.00	0.00	0.00
17,000.00	90.00	359.74	8,504.00	7,986.49	-1,543.50	8,129.02	0.00	0.00	0.00
17,100.00	90.00	359.74	8,504.00	8,086.49	-1,543.96	8,227.89	0.00	0.00	0.00
17,200.00	90.00	359.74	8,504.00	8,186.49	-1,544.42	8,326.76	0.00	0.00	0.00
17,300.00	90.00	359.74	8,504.00	8,286.48	-1,544.89	8,425.64	0.00	0.00	0.00
17,400.00	90.00	359.74	8,504.00	8,386.48	-1,545.35	8,524.51	0.00	0.00	0.00
17,500.00	90.00	359.74	8,504.00	8,486.48	-1,545.81	8,623.38	0.00	0.00	0.00
17,600.00	90.00	359.74	8,504.00	8,586.48	-1,546.27	8,722.25	0.00	0.00	0.00
17,700.00	90.00	359.74	8,504.00	8,686.48	-1,546.74	8,821.12	0.00	0.00	0.00
17,800.00	90.00	359.74	8,504.00	8,786.48	-1,547.20	8,920.00	0.00	0.00	0.00
17,900.00	90.00	359.74	8,504.00	8,886.48	-1,547.66	9,018.87	0.00	0.00	0.00
18,000.00	90.00	359.74	8,504.00	8,986.48	-1,548.12	9,117.74	0.00	0.00	0.00

Integrity Directional Services, LLC

Survey Report



Company:	Longs Peak Resources	Local Co-ordinate Reference:	Well Dorada East 1411-7NH
Project:	Weld County, Co (NAD 83)	TVD Reference:	KB=25' @ 5691.00ft
Site:	Dorada East Pad	MD Reference:	KB=25' @ 5691.00ft
Well:	Dorada East 1411-7NH	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDM 5000.1 Multi User Db

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
18,100.00	90.00	359.74	8,504.00	9,086.48	-1,548.58	9,216.61	0.00	0.00	0.00
18,200.00	90.00	359.74	8,504.00	9,186.48	-1,549.05	9,315.48	0.00	0.00	0.00
18,300.00	90.00	359.74	8,504.00	9,286.47	-1,549.51	9,414.35	0.00	0.00	0.00
18,400.00	90.00	359.74	8,504.00	9,386.47	-1,549.97	9,513.23	0.00	0.00	0.00
18,500.00	90.00	359.74	8,504.00	9,486.47	-1,550.43	9,612.10	0.00	0.00	0.00
18,600.00	90.00	359.74	8,504.00	9,586.47	-1,550.90	9,710.97	0.00	0.00	0.00
18,700.00	90.00	359.74	8,504.00	9,686.47	-1,551.36	9,809.84	0.00	0.00	0.00
18,800.00	90.00	359.74	8,504.00	9,786.47	-1,551.82	9,908.71	0.00	0.00	0.00
18,900.00	90.00	359.74	8,504.00	9,886.47	-1,552.28	10,007.59	0.00	0.00	0.00
18,951.15	90.00	359.74	8,504.00	9,937.62	-1,552.52	10,058.16	0.00	0.00	0.00

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
1411-7NH HEEL (242°) - hit/miss target - Shape - Point	0.00	0.00	7,958.19	-530.46	-1,354.38	1,576,356.648 6	3,209,238.023 9	40° 54' 46.858 N	104° 44' 34.751 W
- plan misses target center by 0.01ft at 8162.18ft MD (7958.21 TVD, -530.46 N, -1354.38 E)									
1411-7NH BHL (330°) - plan hits target center - Point	0.00	0.00	8,504.00	9,937.62	-1,552.52	1,586,824.704 8	3,209,039.884 5	40° 56' 30.300 N	104° 44' 36.168 W
1411-7NH LP (330°) - plan hits target center - Point	0.00	0.00	8,504.00	41.76	-1,506.78	1,576,928.865 5	3,209,085.626 1	40° 54' 52.524 N	104° 44' 36.672 W

Checked By: _____ Approved By: _____ Date: _____