

ENSGN

United States Drilling Inc.

Company: HRM Resources

Field: Wattenberg

Cty/Blk/Par: Sec. 21-6N-66W

Well Name: FRITZLER 0-2-21

Rig: Ensign 7

Job Number: 207-??

Magnetic Decl.: 8.91

Grid Corr.:

Total Survey Corr.: 8.91

Target Info: BHL 1321'FNL &amp; 50'FWL

Calculation Method

Proposed Azimuth 309.03

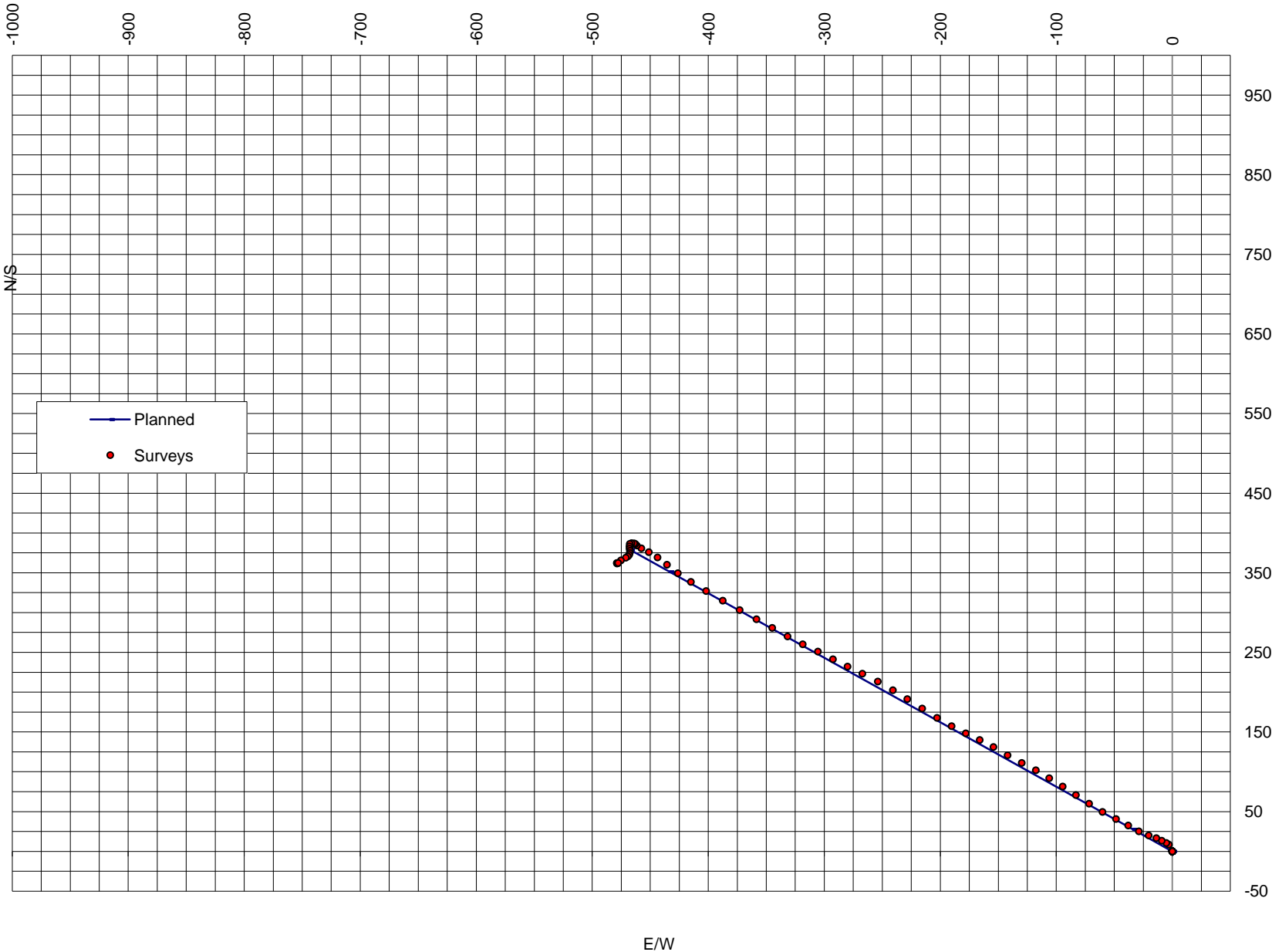
Depth Reference RKB

Tie Into WELL HEAD

Minimum Curvature

No.	Tool Type	Survey Depth (ft)	Incl (°)	Azimuth (°)	Course Lgth (ft)	TVD (ft)	VS (ft)	Coordinates		DLS (°/100')	Bld Rate (°/100')	Wlk Rate (°/100')	Remarks
								N/S (ft)	E/W (ft)				
0	Tie In	0	0.00	0.00		0.00	0.00	0.00	0.00				WELL HEAD
1	MWD	740	1.40	340.90	740	739.93	7.68	8.54	N 2.96 W	0.19	0.2	46.1	DIP=67.7
2	MWD	834	2.50	297.10	94	833.88	10.66	10.56	N 5.16 W	1.89	1.2	-46.6	
3	MWD	928	3.50	312.50	94	927.75	15.53	13.43	N 9.10 W	1.36	1.1	16.4	
4	MWD	1022	3.50	297.20	94	1021.57	21.20	16.68	N 13.77 W	0.99	0.0	-16.3	
5	MWD	1116	5.60	297.20	94	1115.27	28.50	20.09	N 20.40 W	2.23	2.2	0.0	
6	MWD	1209	6.60	304.60	93	1207.75	38.27	25.20	N 28.83 W	1.37	1.1	8.0	
7	MWD	1303	7.80	312.10	94	1301.00	50.03	32.55	N 38.01 W	1.62	1.3	8.0	
8	MWD	1396	8.70	303.80	93	1393.04	63.33	40.69	N 48.54 W	1.60	1.0	-8.9	
9	MWD	1490	9.30	310.70	94	1485.89	78.00	49.60	N 60.21 W	1.31	0.6	7.3	
10	MWD	1584	9.70	313.20	94	1578.60	93.50	59.97	N 71.74 W	0.61	0.4	2.7	
11	MWD	1678	9.50	313.90	94	1671.28	109.12	70.77	N 83.10 W	0.25	-0.2	0.7	
12	MWD	1772	9.70	312.60	94	1763.97	124.76	81.51	N 94.52 W	0.31	0.2	-1.4	
13	MWD	1865	9.60	311.40	93	1855.65	140.32	91.94	N 106.11 W	0.24	-0.1	-1.3	
14	MWD	1958	9.30	310.40	93	1947.39	155.58	101.94	N 117.64 W	0.37	-0.3	-1.1	
15	MWD	2052	9.40	303.90	94	2040.14	170.82	111.15	N 129.80 W	1.13	0.1	-6.9	
16	MWD	2144	10.10	312.20	92	2130.82	186.36	120.76	N 142.01 W	1.70	0.8	9.0	
17	MWD	2238	9.50	308.50	94	2223.45	202.35	131.12	N 154.19 W	0.93	-0.6	-3.9	
18	MWD	2331	8.80	304.80	93	2315.26	217.12	139.96	N 166.04 W	0.98	-0.8	-4.0	
19	MWD	2425	9.10	304.90	94	2408.12	231.70	148.32	N 178.04 W	0.32	0.3	0.1	
20	MWD	2518	9.70	307.80	93	2499.87	246.87	157.33	N 190.26 W	0.82	0.6	3.1	
21	MWD	2612	10.30	311.50	94	2592.44	263.18	167.75	N 202.81 W	0.93	0.6	3.9	
22	MWD	2706	11.00	313.40	94	2684.82	280.52	179.48	N 215.62 W	0.83	0.7	2.0	
23	MWD	2800	10.40	311.90	94	2777.19	297.94	191.31	N 228.45 W	0.70	-0.6	-1.6	
24	MWD	2893	10.30	312.00	93	2868.68	314.62	202.48	N 240.88 W	0.11	-0.1	0.1	
25	MWD	2987	10.50	308.00	94	2961.13	331.58	213.37	N 253.88 W	0.80	0.2	-4.3	
26	MWD	3081	9.80	304.90	94	3053.66	348.12	223.22	N 267.19 W	0.94	-0.7	-3.3	
27	MWD	3174	9.50	305.00	93	3145.35	363.67	232.15	N 279.96 W	0.32	-0.3	0.1	
28	MWD	3268	9.60	307.40	94	3238.04	379.25	241.36	N 292.55 W	0.44	0.1	2.6	
29	MWD	3362	10.20	306.00	94	3330.64	395.39	251.02	N 305.51 W	0.69	0.6	-1.5	
30	MWD	3455	9.60	303.90	93	3422.26	411.34	260.18	N 318.60 W	0.75	-0.6	-2.3	
31	MWD	3548	10.70	309.80	93	3513.80	427.70	270.03	N 331.67 W	1.63	1.2	6.3	
32	MWD	3642	10.20	308.40	94	3606.25	444.75	280.79	N 344.90 W	0.60	-0.5	-1.5	
33	MWD	3736	11.10	308.80	94	3698.62	462.12	291.63	N 358.48 W	0.96	1.0	0.4	
34	MWD	3830	11.60	308.10	94	3790.79	480.62	303.13	N 372.97 W	0.55	0.5	-0.7	
35	MWD	3923	11.70	310.10	93	3881.87	499.39	314.97	N 387.54 W	0.45	0.1	2.2	
36	MWD	4017	11.30	310.10	94	3973.98	518.13	327.05	N 401.87 W	0.43	-0.4	0.0	
37	MWD	4111	10.10	312.50	94	4066.35	535.57	338.55	N 414.99 W	1.36	-1.3	2.6	
38	MWD	4204	9.30	315.90	93	4158.02	551.17	349.45	N 426.24 W	1.06	-0.9	3.7	
39	MWD	4298	8.10	321.70	94	4250.94	565.17	360.10	N 435.63 W	1.58	-1.3	6.2	
40	MWD	4392	6.90	314.50	94	4344.13	577.25	369.26	N 443.76 W	1.62	-1.3	-7.7	
41	MWD	4485	5.50	307.70	93	4436.59	587.27	375.90	N 451.27 W	1.70	-1.5	-7.3	
42	MWD	4579	4.30	305.50	94	4530.24	595.29	380.70	N 457.70 W	1.29	-1.3	-2.3	
43	MWD	4673	2.20	324.80	94	4624.09	600.54	384.22	N 461.61 W	2.49	-2.2	20.5	
44	MWD	4766	0.60	333.80	93	4717.06	602.70	386.12	N 462.86 W	1.73	-1.7	9.7	
45	MWD	4954	0.40	262.60	188	4905.05	604.05	386.92	N 463.94 W	0.32	-0.1	-37.9	
46	MWD	5140	1.00	282.20	186	5091.04	605.95	387.18	N 466.17 W	0.34	0.3	10.5	
47	MWD	5325	0.80	177.40	185	5276.02	606.53	386.23	N 467.69 W	0.77	-0.1	-56.6	
48	MWD	5513	1.10	189.10	188	5464.00	604.76	383.13	N 467.92 W	0.19	0.2	6.2	
49	MWD	5700	0.70	163.20	187	5650.98	602.92	380.27	N 467.87 W	0.30	-0.2	-13.9	
50	MWD	5888	0.90	178.50	188	5838.96	601.01	377.69	N 467.50 W	0.15	0.1	8.1	
51	MWD	6075	0.80	190.30	187	6025.94	599.42	374.94	N 467.70 W	0.11	-0.1	6.3	
52	MWD	6267	0.70	193.80	192	6217.92	598.28	372.48	N 468.22 W	0.06	-0.1	1.8	
53	MWD	6455	0.70	227.00	188	6405.91	597.95	370.58	N 469.33 W	0.21	0.0	17.7	
54	MWD	6642	0.80	226.80	187	6592.89	598.28	368.91	N 471.12 W	0.17	0.05	-0.1	
55	MWD	6829	2.50	232.60	187	6779.81	599.42	365.54	N 475.31 W	0.91	0.9	3.1	
56	MWD	7017	0.50	201.10	188	6967.73	600.13	362.28	N 478.86 W	1.11	-1.1	-16.8	
57	MWD	7204	0.30	75.70	187	7154.73	599.58	361.64	N 478.68 W	0.38	-0.1	-67.1	
58	MWD	7321	0.50	49.20	117	7271.73	599.31	362.05	N 478.00 W	0.23	0.2	-22.6	
59	PROJ	7365	0.50	49.20	44	7315.73	599.24	362.30	N 477.71 W	0.00	0.0	0.0	PROJ. TO BIT

FRITZLER #0-2-21, SURVEY PLAN VIEW, Units 50'



# FRITZLER #0-2-21, SURVEY SECTION VIEW, Units 50'

