

# **VERDAD RESOURCES**

**WATTENBERG FIELD  
1N-65W-31 COUNTY LINE 3130 PAD  
COUNTY LINE 3130-01H**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**13 July, 2018**

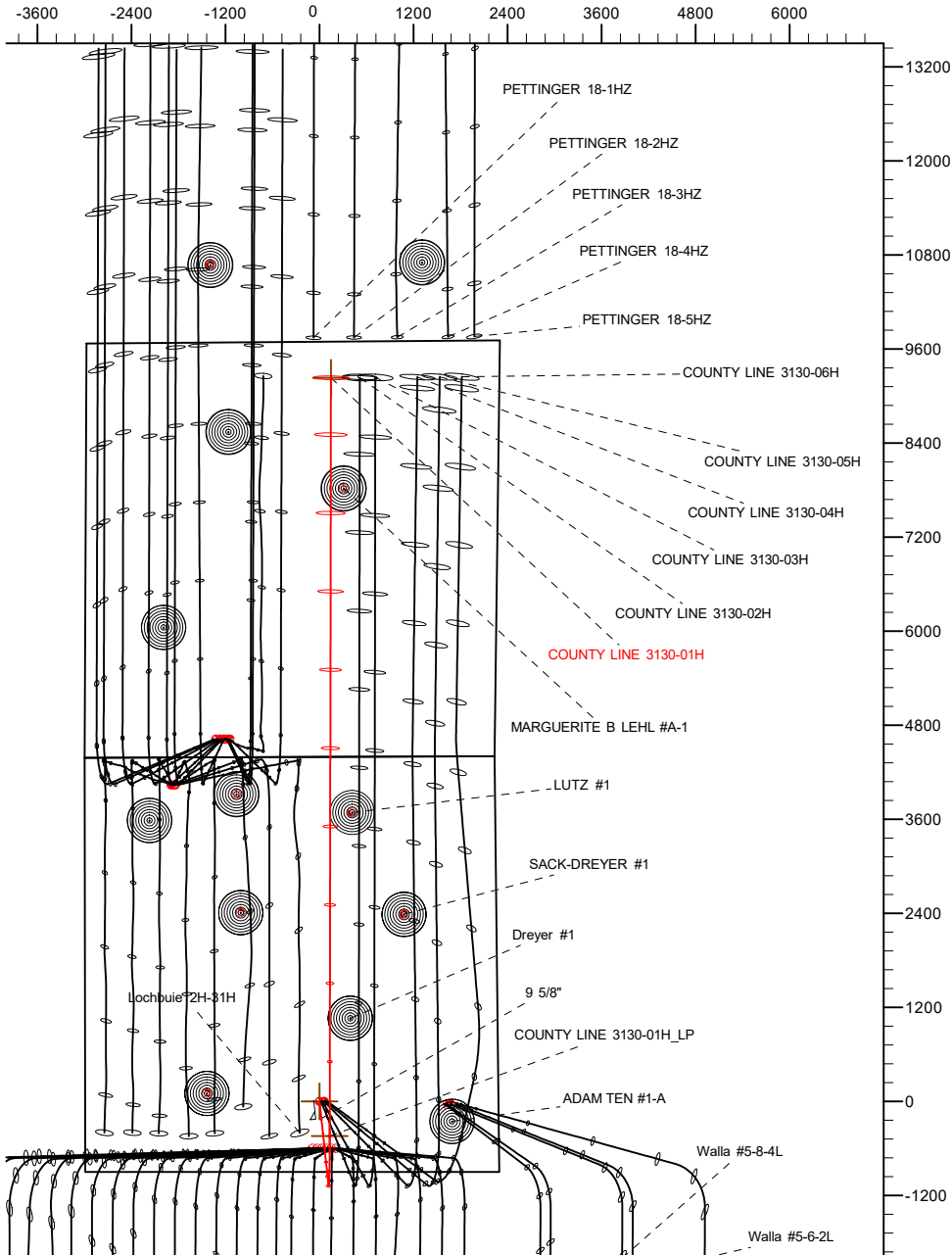
Project: WATTENBERG FIELD  
Site: 1N-65W-31 COUNTY LINE 3130 PAD  
Well: COUNTY LINE 3130-01H  
Wellbore: Wellbore #1  
Design: Design #1

# VERDAD RESOURCES

## CASING DETAILS

TVD	MD	Name	Size
1700.00	1718.55	9 5/8"	9-5/8

West(-)/East(+) (2400 usft/in)

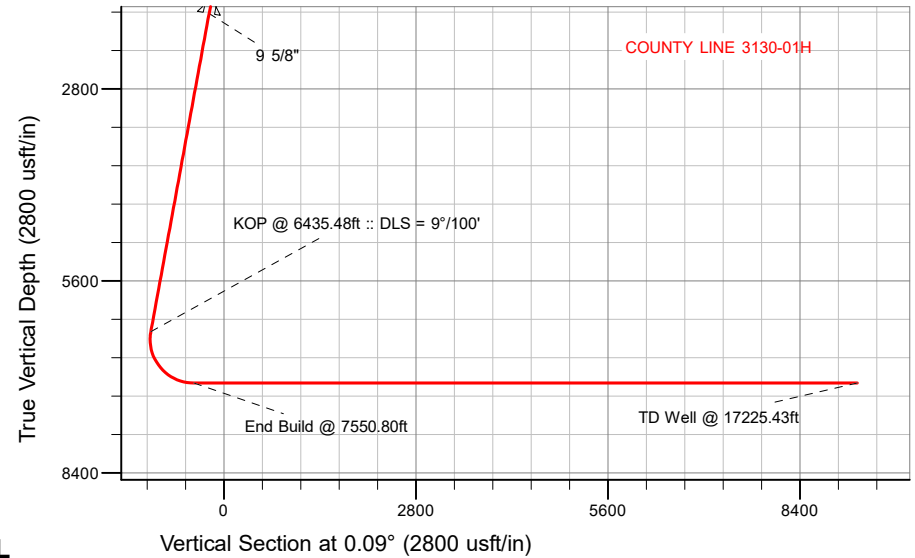


## SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	
772.00	10.44	173.90	769.12	-47.16	5.04	2.00	173.90	-47.15	
6435.48	10.44	173.90	6338.84	-1067.80	114.09	0.00	0.00	-1067.42	
7550.80	90.00	0.09	7090.00	-441.42	130.01	9.00	-173.71	-441.22	
17225.43	90.00	0.09	7090.00	9233.20	145.31	0.00	0.00	9233.42	COUNTY LINE 3130-01H_BHL

## WELLBORE TARGET DETAILS (LAT/LONG)

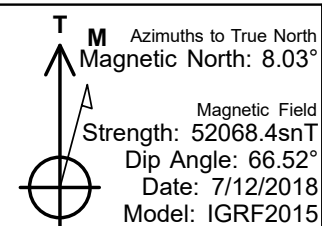
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
COUNTY LINE 3130-01H_SHL	0.00	0.00	0.00	40.002996	-104.705450
COUNTY LINE 3130-01H_BHL	7090.00	9233.20	145.31	40.028343	-104.704931



SHL  
901' FSL  
2283' FEL

LP  
460' FSL  
2159' FEL

BHL  
460' FNL  
2150' FEL



## WELL DETAILS: COUNTY LINE 3130-01H

GROUND LEVEL = 5029'

RKB = 20' @ 5049.00usft (RIG)

Plan: Design #1 (COUNTY LINE 3130-01H/Wellbore #1)

Date: 7/13/2018

# Hewlett-Packard

## Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well COUNTY LINE 3130-01H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5049.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5049.00usft (RIG)
<b>Site:</b>	1N-65W-31 COUNTY LINE 3130 PAD	<b>North Reference:</b>	True
<b>Well:</b>	COUNTY LINE 3130-01H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	WATTENBERG FIELD		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

<b>Site</b>	1N-65W-31 COUNTY LINE 3130 PAD			
<b>Site Position:</b>		<b>Northing:</b>	1,244,936.30 usft	<b>Latitude:</b> 40.002996
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,222,683.37 usft	<b>Longitude:</b> -104.705093
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b> 0.51 °

<b>Well</b>	COUNTY LINE 3130-01H			
<b>Well Position</b>	<b>+N/-S</b>	-0.08 usft	<b>Northing:</b>	1,244,935.32 usft
	<b>+E/-W</b>	-100.01 usft	<b>Easting:</b>	3,222,583.37 usft
<b>Position Uncertainty</b>		3.28 usft	<b>Wellhead Elevation:</b>	<b>Ground Level:</b> 5,029.00 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	7/12/2018	8.03	66.52	52,068.36001150

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	0.09

<b>Plan Survey Tool Program</b>	<b>Date</b>	7/13/2018		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	1,700.00	Design #1 (Wellbore #1)	ISCWSA REV 2 MWD Fixed:v2:standard declination
2	1,700.00	17,225.43	Design #1 (Wellbore #1)	ISCWSA REV 2 MWD Fixed:v2:standard declination

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00	
772.00	10.44	173.90	769.12	-47.16	5.04	2.00	2.00	0.00	173.90	
6,435.48	10.44	173.90	6,338.84	-1,067.60	114.09	0.00	0.00	0.00	0.00	
7,550.80	90.00	0.09	7,090.00	-441.42	130.01	9.00	7.13	-15.58	-173.71	
17,225.43	90.00	0.09	7,090.00	9,233.20	145.31	0.00	0.00	0.00	0.00	COUNTY LINE 3130-

# Hewlett-Packard

## Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well COUNTY LINE 3130-01H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5049.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5049.00usft (RIG)
<b>Site:</b>	1N-65W-31 COUNTY LINE 3130 PAD	<b>North Reference:</b>	True
<b>Well:</b>	COUNTY LINE 3130-01H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Tangent @ 250.00ft									
300.00	1.00	173.90	300.00	-0.43	0.05	-0.43	2.00	2.00	0.00
400.00	3.00	173.90	399.93	-3.90	0.42	-3.90	2.00	2.00	0.00
500.00	5.00	173.90	499.68	-10.84	1.16	-10.84	2.00	2.00	0.00
600.00	7.00	173.90	599.13	-21.23	2.27	-21.23	2.00	2.00	0.00
700.00	9.00	173.90	698.15	-35.07	3.75	-35.06	2.00	2.00	0.00
772.00	10.44	173.90	769.12	-47.16	5.04	-47.15	2.00	2.00	0.00
End Tangent @ 772.00ft									
800.00	10.44	173.90	796.65	-52.20	5.58	-52.19	0.00	0.00	0.00
900.00	10.44	173.90	895.00	-70.22	7.50	-70.21	0.00	0.00	0.00
1,000.00	10.44	173.90	993.34	-88.24	9.43	-88.22	0.00	0.00	0.00
1,100.00	10.44	173.90	1,091.69	-106.26	11.36	-106.24	0.00	0.00	0.00
1,200.00	10.44	173.90	1,190.03	-124.27	13.28	-124.25	0.00	0.00	0.00
1,300.00	10.44	173.90	1,288.38	-142.29	15.21	-142.27	0.00	0.00	0.00
1,400.00	10.44	173.90	1,386.72	-160.31	17.13	-160.28	0.00	0.00	0.00
1,500.00	10.44	173.90	1,485.06	-178.33	19.06	-178.30	0.00	0.00	0.00
1,600.00	10.44	173.90	1,583.41	-196.35	20.98	-196.31	0.00	0.00	0.00
1,700.00	10.44	173.90	1,681.75	-214.36	22.91	-214.33	0.00	0.00	0.00
1,718.55	10.44	173.90	1,700.00	-217.71	23.27	-217.67	0.00	0.00	0.00
9 5/8"									
1,800.00	10.44	173.90	1,780.10	-232.38	24.83	-232.34	0.00	0.00	0.00
1,900.00	10.44	173.90	1,878.44	-250.40	26.76	-250.36	0.00	0.00	0.00
2,000.00	10.44	173.90	1,976.79	-268.42	28.69	-268.37	0.00	0.00	0.00
2,100.00	10.44	173.90	2,075.13	-286.44	30.61	-286.39	0.00	0.00	0.00
2,200.00	10.44	173.90	2,173.48	-304.45	32.54	-304.40	0.00	0.00	0.00
2,300.00	10.44	173.90	2,271.82	-322.47	34.46	-322.42	0.00	0.00	0.00
2,400.00	10.44	173.90	2,370.17	-340.49	36.39	-340.43	0.00	0.00	0.00
2,500.00	10.44	173.90	2,468.51	-358.51	38.31	-358.45	0.00	0.00	0.00
2,600.00	10.44	173.90	2,566.85	-376.53	40.24	-376.46	0.00	0.00	0.00
2,700.00	10.44	173.90	2,665.20	-394.54	42.16	-394.48	0.00	0.00	0.00
2,800.00	10.44	173.90	2,763.54	-412.56	44.09	-412.49	0.00	0.00	0.00
2,900.00	10.44	173.90	2,861.89	-430.58	46.02	-430.51	0.00	0.00	0.00
3,000.00	10.44	173.90	2,960.23	-448.60	47.94	-448.52	0.00	0.00	0.00
3,100.00	10.44	173.90	3,058.58	-466.62	49.87	-466.54	0.00	0.00	0.00
3,200.00	10.44	173.90	3,156.92	-484.63	51.79	-484.55	0.00	0.00	0.00
3,300.00	10.44	173.90	3,255.27	-502.65	53.72	-502.57	0.00	0.00	0.00
3,400.00	10.44	173.90	3,353.61	-520.67	55.64	-520.58	0.00	0.00	0.00
3,500.00	10.44	173.90	3,451.95	-538.69	57.57	-538.60	0.00	0.00	0.00
3,600.00	10.44	173.90	3,550.30	-556.71	59.49	-556.61	0.00	0.00	0.00
3,700.00	10.44	173.90	3,648.64	-574.72	61.42	-574.63	0.00	0.00	0.00
3,800.00	10.44	173.90	3,746.99	-592.74	63.35	-592.64	0.00	0.00	0.00
3,900.00	10.44	173.90	3,845.33	-610.76	65.27	-610.66	0.00	0.00	0.00
4,000.00	10.44	173.90	3,943.68	-628.78	67.20	-628.67	0.00	0.00	0.00
4,100.00	10.44	173.90	4,042.02	-646.80	69.12	-646.69	0.00	0.00	0.00
4,200.00	10.44	173.90	4,140.37	-664.81	71.05	-664.70	0.00	0.00	0.00
4,300.00	10.44	173.90	4,238.71	-682.83	72.97	-682.72	0.00	0.00	0.00
4,400.00	10.44	173.90	4,337.06	-700.85	74.90	-700.73	0.00	0.00	0.00
4,500.00	10.44	173.90	4,435.40	-718.87	76.82	-718.75	0.00	0.00	0.00
4,600.00	10.44	173.90	4,533.74	-736.89	78.75	-736.76	0.00	0.00	0.00

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## Planning Report

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<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5049.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5049.00usft (RIG)
<b>Site:</b>	1N-65W-31 COUNTY LINE 3130 PAD	<b>North Reference:</b>	True
<b>Well:</b>	COUNTY LINE 3130-01H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)
4,700.00	10.44	173.90	4,632.09	-754.90	80.68	-754.78	0.00	0.00	0.00
4,800.00	10.44	173.90	4,730.43	-772.92	82.60	-772.79	0.00	0.00	0.00
4,900.00	10.44	173.90	4,828.78	-790.94	84.53	-790.81	0.00	0.00	0.00
5,000.00	10.44	173.90	4,927.12	-808.96	86.45	-808.82	0.00	0.00	0.00
5,100.00	10.44	173.90	5,025.47	-826.98	88.38	-826.84	0.00	0.00	0.00
5,200.00	10.44	173.90	5,123.81	-844.99	90.30	-844.85	0.00	0.00	0.00
5,300.00	10.44	173.90	5,222.16	-863.01	92.23	-862.87	0.00	0.00	0.00
5,400.00	10.44	173.90	5,320.50	-881.03	94.15	-880.88	0.00	0.00	0.00
5,500.00	10.44	173.90	5,418.85	-899.05	96.08	-898.90	0.00	0.00	0.00
5,600.00	10.44	173.90	5,517.19	-917.07	98.01	-916.91	0.00	0.00	0.00
5,700.00	10.44	173.90	5,615.53	-935.08	99.93	-934.93	0.00	0.00	0.00
5,800.00	10.44	173.90	5,713.88	-953.10	101.86	-952.94	0.00	0.00	0.00
5,900.00	10.44	173.90	5,812.22	-971.12	103.78	-970.96	0.00	0.00	0.00
6,000.00	10.44	173.90	5,910.57	-989.14	105.71	-988.97	0.00	0.00	0.00
6,100.00	10.44	173.90	6,008.91	-1,007.16	107.63	-1,006.98	0.00	0.00	0.00
6,200.00	10.44	173.90	6,107.26	-1,025.17	109.56	-1,025.00	0.00	0.00	0.00
6,300.00	10.44	173.90	6,205.60	-1,043.19	111.48	-1,043.01	0.00	0.00	0.00
6,400.00	10.44	173.90	6,303.95	-1,061.21	113.41	-1,061.03	0.00	0.00	0.00
6,435.48	10.44	173.90	6,338.84	-1,067.60	114.09	-1,067.42	0.00	0.00	0.00
<b>KOP @ 6435.48ft :: DLS = 9°/100'</b>									
6,500.00	4.71	166.14	6,402.77	-1,075.99	115.35	-1,075.81	9.00	-8.88	-12.03
6,600.00	4.57	14.48	6,502.65	-1,076.12	117.34	-1,075.94	9.00	-0.14	-151.66
6,700.00	13.48	4.85	6,601.32	-1,060.62	119.32	-1,060.43	9.00	8.90	-9.63
6,800.00	22.46	2.85	6,696.34	-1,029.87	121.26	-1,029.68	9.00	8.98	-2.00
6,900.00	31.45	1.95	6,785.39	-984.63	123.10	-984.44	9.00	8.99	-0.89
7,000.00	40.44	1.43	6,866.27	-926.02	124.80	-925.82	9.00	8.99	-0.53
7,100.00	49.44	1.07	6,936.98	-855.47	126.31	-855.27	9.00	9.00	-0.36
7,200.00	58.44	0.79	6,995.79	-774.73	127.61	-774.53	9.00	9.00	-0.28
7,300.00	67.43	0.56	7,041.24	-685.78	128.65	-685.58	9.00	9.00	-0.23
7,400.00	76.43	0.37	7,072.22	-590.81	129.42	-590.61	9.00	9.00	-0.20
7,500.00	85.43	0.18	7,087.97	-492.16	129.89	-491.96	9.00	9.00	-0.18
7,550.80	90.00	0.09	7,090.00	-441.42	130.01	-441.22	9.00	9.00	-0.18
<b>End Build @ 7550.80ft</b>									
7,600.00	90.00	0.09	7,090.00	-392.22	130.09	-392.01	0.00	0.00	0.00
7,700.00	90.00	0.09	7,090.00	-292.22	130.25	-292.01	0.00	0.00	0.00
7,800.00	90.00	0.09	7,090.00	-192.22	130.40	-192.01	0.00	0.00	0.00
7,900.00	90.00	0.09	7,090.00	-92.22	130.56	-92.01	0.00	0.00	0.00
8,000.00	90.00	0.09	7,090.00	7.78	130.72	7.99	0.00	0.00	0.00
8,100.00	90.00	0.09	7,090.00	107.78	130.88	107.99	0.00	0.00	0.00
8,200.00	90.00	0.09	7,090.00	207.78	131.04	207.99	0.00	0.00	0.00
8,300.00	90.00	0.09	7,090.00	307.78	131.19	307.99	0.00	0.00	0.00
8,400.00	90.00	0.09	7,090.00	407.78	131.35	407.99	0.00	0.00	0.00
8,500.00	90.00	0.09	7,090.00	507.78	131.51	507.99	0.00	0.00	0.00
8,600.00	90.00	0.09	7,090.00	607.78	131.67	607.99	0.00	0.00	0.00
8,700.00	90.00	0.09	7,090.00	707.78	131.83	707.99	0.00	0.00	0.00
8,800.00	90.00	0.09	7,090.00	807.78	131.99	807.99	0.00	0.00	0.00
8,900.00	90.00	0.09	7,090.00	907.78	132.14	907.99	0.00	0.00	0.00
9,000.00	90.00	0.09	7,090.00	1,007.78	132.30	1,007.99	0.00	0.00	0.00
9,100.00	90.00	0.09	7,090.00	1,107.78	132.46	1,107.99	0.00	0.00	0.00
9,200.00	90.00	0.09	7,090.00	1,207.78	132.62	1,207.99	0.00	0.00	0.00
9,300.00	90.00	0.09	7,090.00	1,307.78	132.78	1,307.99	0.00	0.00	0.00
9,400.00	90.00	0.09	7,090.00	1,407.78	132.93	1,407.99	0.00	0.00	0.00
9,500.00	90.00	0.09	7,090.00	1,507.78	133.09	1,507.99	0.00	0.00	0.00
9,600.00	90.00	0.09	7,090.00	1,607.78	133.25	1,607.99	0.00	0.00	0.00

# Hewlett-Packard

## Planning Report

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<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5049.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5049.00usft (RIG)
<b>Site:</b>	1N-65W-31 COUNTY LINE 3130 PAD	<b>North Reference:</b>	True
<b>Well:</b>	COUNTY LINE 3130-01H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)	
9,700.00	90.00	0.09	7,090.00	1,707.78	133.41	1,707.99	0.00	0.00	0.00	
9,800.00	90.00	0.09	7,090.00	1,807.78	133.57	1,807.99	0.00	0.00	0.00	
9,900.00	90.00	0.09	7,090.00	1,907.78	133.72	1,907.99	0.00	0.00	0.00	
10,000.00	90.00	0.09	7,090.00	2,007.78	133.88	2,007.99	0.00	0.00	0.00	
10,100.00	90.00	0.09	7,090.00	2,107.78	134.04	2,107.99	0.00	0.00	0.00	
10,200.00	90.00	0.09	7,090.00	2,207.78	134.20	2,207.99	0.00	0.00	0.00	
10,300.00	90.00	0.09	7,090.00	2,307.78	134.36	2,307.99	0.00	0.00	0.00	
10,400.00	90.00	0.09	7,090.00	2,407.78	134.52	2,407.99	0.00	0.00	0.00	
10,500.00	90.00	0.09	7,090.00	2,507.78	134.67	2,507.99	0.00	0.00	0.00	
10,600.00	90.00	0.09	7,090.00	2,607.78	134.83	2,607.99	0.00	0.00	0.00	
10,700.00	90.00	0.09	7,090.00	2,707.78	134.99	2,707.99	0.00	0.00	0.00	
10,800.00	90.00	0.09	7,090.00	2,807.78	135.15	2,807.99	0.00	0.00	0.00	
10,900.00	90.00	0.09	7,090.00	2,907.78	135.31	2,907.99	0.00	0.00	0.00	
11,000.00	90.00	0.09	7,090.00	3,007.78	135.46	3,007.99	0.00	0.00	0.00	
11,100.00	90.00	0.09	7,090.00	3,107.78	135.62	3,107.99	0.00	0.00	0.00	
11,200.00	90.00	0.09	7,090.00	3,207.78	135.78	3,207.99	0.00	0.00	0.00	
11,300.00	90.00	0.09	7,090.00	3,307.78	135.94	3,307.99	0.00	0.00	0.00	
11,400.00	90.00	0.09	7,090.00	3,407.78	136.10	3,407.99	0.00	0.00	0.00	
11,500.00	90.00	0.09	7,090.00	3,507.78	136.26	3,507.99	0.00	0.00	0.00	
11,600.00	90.00	0.09	7,090.00	3,607.78	136.41	3,607.99	0.00	0.00	0.00	
11,700.00	90.00	0.09	7,090.00	3,707.78	136.57	3,707.99	0.00	0.00	0.00	
11,800.00	90.00	0.09	7,090.00	3,807.78	136.73	3,807.99	0.00	0.00	0.00	
11,900.00	90.00	0.09	7,090.00	3,907.78	136.89	3,907.99	0.00	0.00	0.00	
12,000.00	90.00	0.09	7,090.00	4,007.78	137.05	4,007.99	0.00	0.00	0.00	
12,100.00	90.00	0.09	7,090.00	4,107.78	137.20	4,107.99	0.00	0.00	0.00	
12,200.00	90.00	0.09	7,090.00	4,207.78	137.36	4,207.99	0.00	0.00	0.00	
12,300.00	90.00	0.09	7,090.00	4,307.78	137.52	4,307.99	0.00	0.00	0.00	
12,400.00	90.00	0.09	7,090.00	4,407.78	137.68	4,407.99	0.00	0.00	0.00	
12,500.00	90.00	0.09	7,090.00	4,507.78	137.84	4,507.99	0.00	0.00	0.00	
12,600.00	90.00	0.09	7,090.00	4,607.78	138.00	4,607.99	0.00	0.00	0.00	
12,700.00	90.00	0.09	7,090.00	4,707.78	138.15	4,707.99	0.00	0.00	0.00	
12,800.00	90.00	0.09	7,090.00	4,807.78	138.31	4,807.99	0.00	0.00	0.00	
12,900.00	90.00	0.09	7,090.00	4,907.78	138.47	4,907.99	0.00	0.00	0.00	
13,000.00	90.00	0.09	7,090.00	5,007.78	138.63	5,007.99	0.00	0.00	0.00	
13,100.00	90.00	0.09	7,090.00	5,107.77	138.79	5,107.99	0.00	0.00	0.00	
13,200.00	90.00	0.09	7,090.00	5,207.77	138.94	5,207.99	0.00	0.00	0.00	
13,300.00	90.00	0.09	7,090.00	5,307.77	139.10	5,307.99	0.00	0.00	0.00	
13,400.00	90.00	0.09	7,090.00	5,407.77	139.26	5,407.99	0.00	0.00	0.00	
13,500.00	90.00	0.09	7,090.00	5,507.77	139.42	5,507.99	0.00	0.00	0.00	
13,600.00	90.00	0.09	7,090.00	5,607.77	139.58	5,607.99	0.00	0.00	0.00	
13,700.00	90.00	0.09	7,090.00	5,707.77	139.74	5,707.99	0.00	0.00	0.00	
13,800.00	90.00	0.09	7,090.00	5,807.77	139.89	5,807.99	0.00	0.00	0.00	
13,900.00	90.00	0.09	7,090.00	5,907.77	140.05	5,907.99	0.00	0.00	0.00	
14,000.00	90.00	0.09	7,090.00	6,007.77	140.21	6,007.99	0.00	0.00	0.00	
14,100.00	90.00	0.09	7,090.00	6,107.77	140.37	6,107.99	0.00	0.00	0.00	
14,200.00	90.00	0.09	7,090.00	6,207.77	140.53	6,207.99	0.00	0.00	0.00	
14,300.00	90.00	0.09	7,090.00	6,307.77	140.68	6,307.99	0.00	0.00	0.00	
14,400.00	90.00	0.09	7,090.00	6,407.77	140.84	6,407.99	0.00	0.00	0.00	
14,500.00	90.00	0.09	7,090.00	6,507.77	141.00	6,507.99	0.00	0.00	0.00	
14,600.00	90.00	0.09	7,090.00	6,607.77	141.16	6,607.99	0.00	0.00	0.00	
14,700.00	90.00	0.09	7,090.00	6,707.77	141.32	6,707.99	0.00	0.00	0.00	
14,800.00	90.00	0.09	7,090.00	6,807.77	141.48	6,807.99	0.00	0.00	0.00	
14,900.00	90.00	0.09	7,090.00	6,907.77	141.63	6,907.99	0.00	0.00	0.00	
15,000.00	90.00	0.09	7,090.00	7,007.77	141.79	7,007.99	0.00	0.00	0.00	

# Hewlett-Packard

## Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well COUNTY LINE 3130-01H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5049.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5049.00usft (RIG)
<b>Site:</b>	1N-65W-31 COUNTY LINE 3130 PAD	<b>North Reference:</b>	True
<b>Well:</b>	COUNTY LINE 3130-01H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)
15,100.00	90.00	0.09	7,090.00	7,107.77	141.95	7,107.99	0.00	0.00	0.00
15,200.00	90.00	0.09	7,090.00	7,207.77	142.11	7,207.99	0.00	0.00	0.00
15,300.00	90.00	0.09	7,090.00	7,307.77	142.27	7,307.99	0.00	0.00	0.00
15,400.00	90.00	0.09	7,090.00	7,407.77	142.42	7,407.99	0.00	0.00	0.00
15,500.00	90.00	0.09	7,090.00	7,507.77	142.58	7,507.99	0.00	0.00	0.00
15,600.00	90.00	0.09	7,090.00	7,607.77	142.74	7,607.99	0.00	0.00	0.00
15,700.00	90.00	0.09	7,090.00	7,707.77	142.90	7,707.99	0.00	0.00	0.00
15,800.00	90.00	0.09	7,090.00	7,807.77	143.06	7,807.99	0.00	0.00	0.00
15,900.00	90.00	0.09	7,090.00	7,907.77	143.21	7,907.99	0.00	0.00	0.00
16,000.00	90.00	0.09	7,090.00	8,007.77	143.37	8,007.99	0.00	0.00	0.00
16,100.00	90.00	0.09	7,090.00	8,107.77	143.53	8,107.99	0.00	0.00	0.00
16,200.00	90.00	0.09	7,090.00	8,207.77	143.69	8,207.99	0.00	0.00	0.00
16,300.00	90.00	0.09	7,090.00	8,307.77	143.85	8,307.99	0.00	0.00	0.00
16,400.00	90.00	0.09	7,090.00	8,407.77	144.01	8,407.99	0.00	0.00	0.00
16,500.00	90.00	0.09	7,090.00	8,507.77	144.16	8,507.99	0.00	0.00	0.00
16,600.00	90.00	0.09	7,090.00	8,607.77	144.32	8,607.99	0.00	0.00	0.00
16,700.00	90.00	0.09	7,090.00	8,707.77	144.48	8,707.99	0.00	0.00	0.00
16,800.00	90.00	0.09	7,090.00	8,807.77	144.64	8,807.99	0.00	0.00	0.00
16,900.00	90.00	0.09	7,090.00	8,907.77	144.80	8,907.99	0.00	0.00	0.00
17,000.00	90.00	0.09	7,090.00	9,007.77	144.95	9,007.99	0.00	0.00	0.00
17,100.00	90.00	0.09	7,090.00	9,107.77	145.11	9,107.99	0.00	0.00	0.00
17,200.00	90.00	0.09	7,090.00	9,207.77	145.27	9,207.99	0.00	0.00	0.00
17,225.43	90.00	0.09	7,090.00	9,233.20	145.31	9,233.42	0.00	0.00	0.00
TD Well @ 17225.43ft									

Casing Points				
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,718.55	1,700.00	9 5/8"	9-5/8	13-1/2

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
250.00	250.00	0.00	0.00	Begin Tangent @ 250.00ft
772.00	769.12	-47.16	5.04	End Tangent @ 772.00ft
6,435.48	6,338.84	-1,067.60	114.09	KOP @ 6435.48ft :: DLS = 9°/100'
7,550.80	7,090.00	-441.42	130.01	End Build @ 7550.80ft
17,225.43	7,090.00	9,233.20	145.31	TD Well @ 17225.43ft