

# **VERDAD RESOURCES**

**WATTENBERG FIELD**

**1N-64W-19 BERG 1930 PAD**

**BERG 1930-01H**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**22 May, 2019**

Project: WATTENBERG FIELD  
Site: 1N-64W-19 BERG 1930 PAD  
Well: BERG 1930-01H  
Wellbore: Wellbore #1  
Design: Design #1

# VERDAD RESOURCES

## CASING DETAILS

TVD	MD	Name	Size
1700.00	1773.07	9 5/8"	9-5/8

**SHL**  
**1895' FSL**  
**1785' FWL**

**LP**  
**2180' FSL**  
**491' FEL**

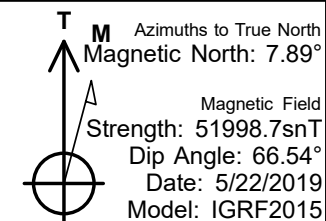
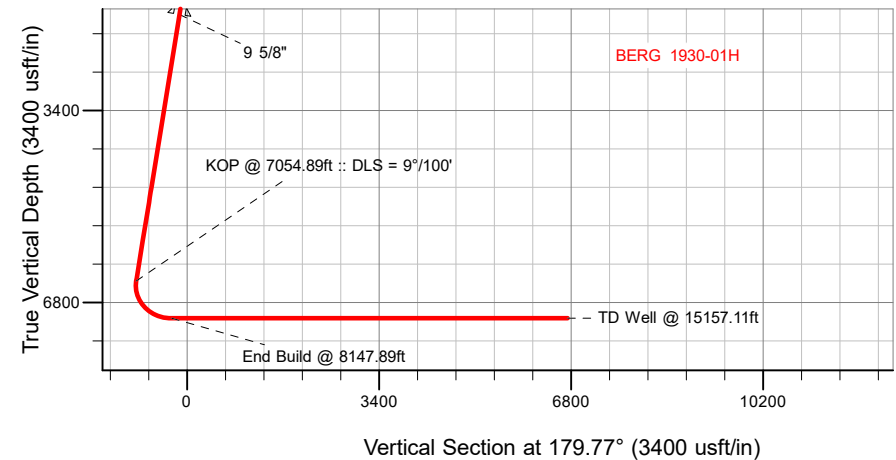
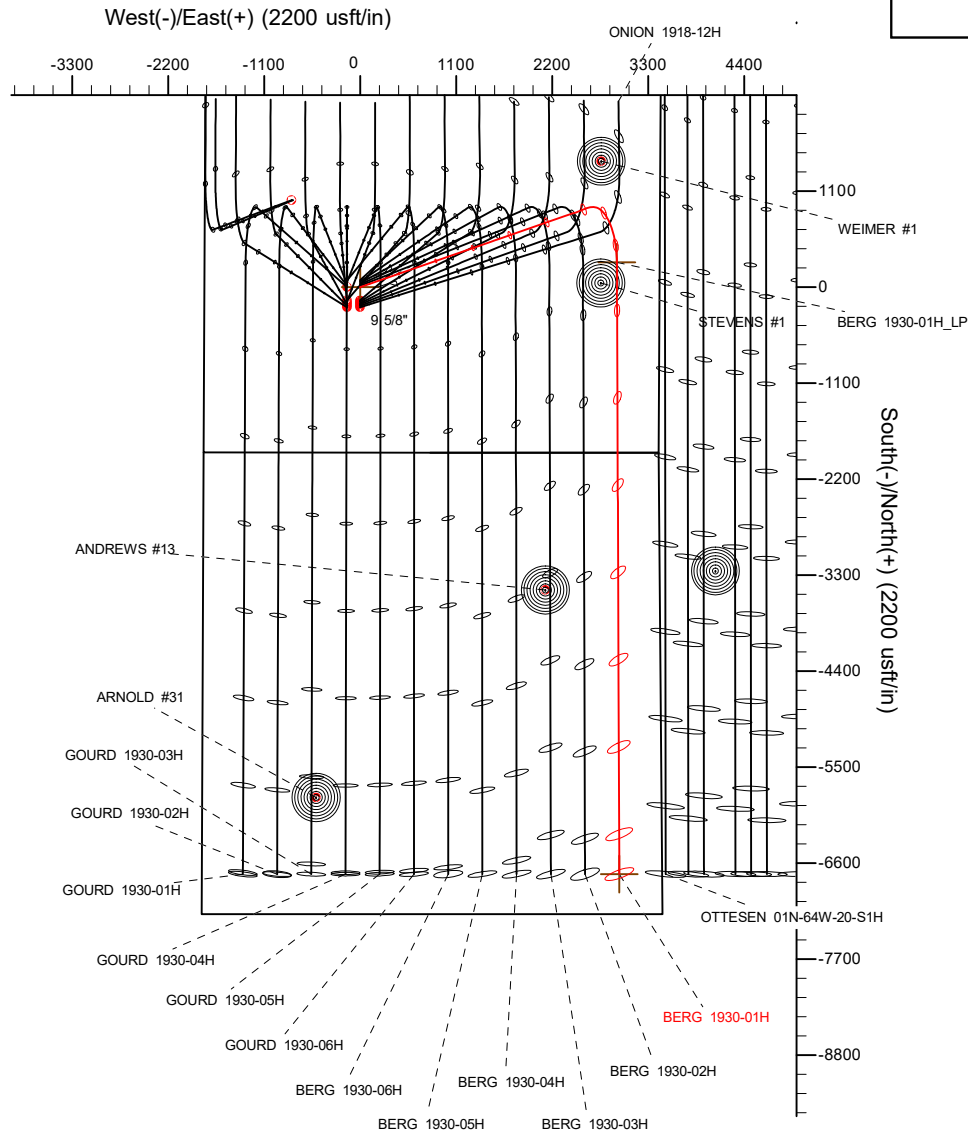
**BHL**  
**460' FSL**  
**491' FEL**

## 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	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
1532.00	26.64	70.83	1484.52	99.87	287.26	2.00	70.83	-98.71	
7054.89	26.64	70.83	6421.11	913.04	2626.31	0.00	0.00	-902.49	
8147.89	90.00	179.77	7080.00	284.43	2941.40	9.00	107.06	-272.62	
15157.11	90.00	179.77	7080.00	-6724.73	2968.95	0.00	0.00	6736.59	BERG 1930-01H_BHL

## WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
BERG 1930-01H_SHL	0.00	0.00	0.00	40.034757	-104.596437
BERG 1930-01H_BHL	7080.00	-6724.73	2968.95	40.016296	-104.585837



## WELL DETAILS: BERG 1930-01H

GL = 5011'

RKB = 24' @ 5035.00usft (RIG)

Plan: Design #1 (BERG 1930-01H/Wellbore #1)

Date: 5/22/2019

# Hewlett-Packard

## Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BERG 1930-01H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 24' @ 5035.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 24' @ 5035.00usft (RIG)
<b>Site:</b>	1N-64W-19 BERG 1930 PAD	<b>North Reference:</b>	True
<b>Well:</b>	BERG 1930-01H	<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		

Site		1N-64W-19 BERG 1930 PAD			
Site Position:		Northing:	1,256,877.00 usft	Latitude:	40.034977
From:	Lat/Long	Easting:	3,253,002.47 usft	Longitude:	-104.596436
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.58 °

Well		BERG 1930-01H				
Well Position	+N/-S	-80.00 usft	Northing:	1,256,796.99 usft	Latitude:	40.034757
	+E/-W	-0.39 usft	Easting:	3,253,002.89 usft	Longitude:	-104.596438
Position Uncertainty		3.28 usft	Wellhead Elevation:		Ground Level:	5,011.00 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	5/22/2019	7.89	66.54	51,998.65711992

<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	179.77	

<b>Plan Survey Tool Program</b>	<b>Date</b>	5/22/2019			
<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	15,157.11	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	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,532.00	26.64	70.83	1,484.52	99.87	287.26	2.00	2.00	0.00	70.83	
7,054.89	26.64	70.83	6,421.11	913.04	2,626.31	0.00	0.00	0.00	0.00	
8,147.89	90.00	179.77	7,080.00	284.43	2,941.40	9.00	5.80	9.97	107.06	
15,157.11	90.00	179.77	7,080.00	-6,724.73	2,968.95	0.00	0.00	0.00	0.00	BERG 1930-01H_BHI

# Hewlett-Packard

## Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BERG 1930-01H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 24' @ 5035.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 24' @ 5035.00usft (RIG)
<b>Site:</b>	1N-64W-19 BERG 1930 PAD	<b>North Reference:</b>	True
<b>Well:</b>	BERG 1930-01H	<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
Begin Nudge @ 200.00ft									
300.00	2.00	70.83	299.98	0.57	1.65	-0.57	2.00	2.00	0.00
400.00	4.00	70.83	399.84	2.29	6.59	-2.27	2.00	2.00	0.00
500.00	6.00	70.83	499.45	5.15	14.82	-5.09	2.00	2.00	0.00
600.00	8.00	70.83	598.70	9.15	26.33	-9.05	2.00	2.00	0.00
700.00	10.00	70.83	697.47	14.29	41.11	-14.13	2.00	2.00	0.00
800.00	12.00	70.83	795.62	20.56	59.13	-20.32	2.00	2.00	0.00
900.00	14.00	70.83	893.06	27.94	80.38	-27.62	2.00	2.00	0.00
1,000.00	16.00	70.83	989.64	36.44	104.82	-36.02	2.00	2.00	0.00
1,100.00	18.00	70.83	1,085.27	46.04	132.44	-45.51	2.00	2.00	0.00
1,200.00	20.00	70.83	1,179.82	56.73	163.19	-56.08	2.00	2.00	0.00
1,300.00	22.00	70.83	1,273.17	68.50	197.04	-67.71	2.00	2.00	0.00
1,400.00	24.00	70.83	1,365.21	81.33	233.94	-80.39	2.00	2.00	0.00
1,500.00	26.00	70.83	1,455.84	95.21	273.86	-94.11	2.00	2.00	0.00
1,532.00	26.64	70.83	1,484.52	99.87	287.26	-98.71	2.00	2.00	0.00
Hold Tangent @ 1532.00ft									
1,600.00	26.64	70.83	1,545.30	109.88	316.06	-108.61	0.00	0.00	0.00
1,700.00	26.64	70.83	1,634.69	124.60	358.41	-123.16	0.00	0.00	0.00
1,773.07	26.64	70.83	1,700.00	135.36	389.35	-133.80	0.00	0.00	0.00
9 5/8"									
1,800.00	26.64	70.83	1,724.07	139.32	400.76	-137.71	0.00	0.00	0.00
1,900.00	26.64	70.83	1,813.46	154.05	443.11	-152.27	0.00	0.00	0.00
2,000.00	26.64	70.83	1,902.84	168.77	485.47	-166.82	0.00	0.00	0.00
2,100.00	26.64	70.83	1,992.23	183.50	527.82	-181.38	0.00	0.00	0.00
2,200.00	26.64	70.83	2,081.61	198.22	570.17	-195.93	0.00	0.00	0.00
2,300.00	26.64	70.83	2,170.99	212.94	612.52	-210.48	0.00	0.00	0.00
2,400.00	26.64	70.83	2,260.38	227.67	654.87	-225.04	0.00	0.00	0.00
2,500.00	26.64	70.83	2,349.76	242.39	697.22	-239.59	0.00	0.00	0.00
2,600.00	26.64	70.83	2,439.15	257.11	739.58	-254.14	0.00	0.00	0.00
2,700.00	26.64	70.83	2,528.53	271.84	781.93	-268.70	0.00	0.00	0.00
2,800.00	26.64	70.83	2,617.91	286.56	824.28	-283.25	0.00	0.00	0.00
2,900.00	26.64	70.83	2,707.30	301.28	866.63	-297.80	0.00	0.00	0.00
3,000.00	26.64	70.83	2,796.68	316.01	908.98	-312.36	0.00	0.00	0.00
3,100.00	26.64	70.83	2,886.07	330.73	951.34	-326.91	0.00	0.00	0.00
3,200.00	26.64	70.83	2,975.45	345.46	993.69	-341.46	0.00	0.00	0.00
3,300.00	26.64	70.83	3,064.84	360.18	1,036.04	-356.02	0.00	0.00	0.00
3,400.00	26.64	70.83	3,154.22	374.90	1,078.39	-370.57	0.00	0.00	0.00
3,500.00	26.64	70.83	3,243.60	389.63	1,120.74	-385.12	0.00	0.00	0.00
3,600.00	26.64	70.83	3,332.99	404.35	1,163.10	-399.68	0.00	0.00	0.00
3,700.00	26.64	70.83	3,422.37	419.07	1,205.45	-414.23	0.00	0.00	0.00
3,800.00	26.64	70.83	3,511.76	433.80	1,247.80	-428.79	0.00	0.00	0.00
3,900.00	26.64	70.83	3,601.14	448.52	1,290.15	-443.34	0.00	0.00	0.00
4,000.00	26.64	70.83	3,690.52	463.24	1,332.50	-457.89	0.00	0.00	0.00
4,100.00	26.64	70.83	3,779.91	477.97	1,374.86	-472.45	0.00	0.00	0.00
4,200.00	26.64	70.83	3,869.29	492.69	1,417.21	-487.00	0.00	0.00	0.00
4,300.00	26.64	70.83	3,958.68	507.42	1,459.56	-501.55	0.00	0.00	0.00
4,400.00	26.64	70.83	4,048.06	522.14	1,501.91	-516.11	0.00	0.00	0.00
4,500.00	26.64	70.83	4,137.44	536.86	1,544.26	-530.66	0.00	0.00	0.00
4,600.00	26.64	70.83	4,226.83	551.59	1,586.62	-545.21	0.00	0.00	0.00
4,700.00	26.64	70.83	4,316.21	566.31	1,628.97	-559.77	0.00	0.00	0.00

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## Planning Report

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<b>Site:</b>	1N-64W-19 BERG 1930 PAD	<b>North Reference:</b>	True
<b>Well:</b>	BERG 1930-01H	<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)	
4,800.00	26.64	70.83	4,405.60	581.03	1,671.32	-574.32	0.00	0.00	0.00	
4,900.00	26.64	70.83	4,494.98	595.76	1,713.67	-588.87	0.00	0.00	0.00	
5,000.00	26.64	70.83	4,584.37	610.48	1,756.02	-603.43	0.00	0.00	0.00	
5,100.00	26.64	70.83	4,673.75	625.21	1,798.38	-617.98	0.00	0.00	0.00	
5,200.00	26.64	70.83	4,763.13	639.93	1,840.73	-632.53	0.00	0.00	0.00	
5,300.00	26.64	70.83	4,852.52	654.65	1,883.08	-647.09	0.00	0.00	0.00	
5,400.00	26.64	70.83	4,941.90	669.38	1,925.43	-661.64	0.00	0.00	0.00	
5,500.00	26.64	70.83	5,031.29	684.10	1,967.78	-676.20	0.00	0.00	0.00	
5,600.00	26.64	70.83	5,120.67	698.82	2,010.14	-690.75	0.00	0.00	0.00	
5,700.00	26.64	70.83	5,210.05	713.55	2,052.49	-705.30	0.00	0.00	0.00	
5,800.00	26.64	70.83	5,299.44	728.27	2,094.84	-719.86	0.00	0.00	0.00	
5,900.00	26.64	70.83	5,388.82	742.99	2,137.19	-734.41	0.00	0.00	0.00	
6,000.00	26.64	70.83	5,478.21	757.72	2,179.54	-748.96	0.00	0.00	0.00	
6,100.00	26.64	70.83	5,567.59	772.44	2,221.90	-763.52	0.00	0.00	0.00	
6,200.00	26.64	70.83	5,656.98	787.17	2,264.25	-778.07	0.00	0.00	0.00	
6,300.00	26.64	70.83	5,746.36	801.89	2,306.60	-792.62	0.00	0.00	0.00	
6,400.00	26.64	70.83	5,835.74	816.61	2,348.95	-807.18	0.00	0.00	0.00	
6,500.00	26.64	70.83	5,925.13	831.34	2,391.30	-821.73	0.00	0.00	0.00	
6,600.00	26.64	70.83	6,014.51	846.06	2,433.66	-836.28	0.00	0.00	0.00	
6,700.00	26.64	70.83	6,103.90	860.78	2,476.01	-850.84	0.00	0.00	0.00	
6,800.00	26.64	70.83	6,193.28	875.51	2,518.36	-865.39	0.00	0.00	0.00	
6,900.00	26.64	70.83	6,282.66	890.23	2,560.71	-879.94	0.00	0.00	0.00	
7,000.00	26.64	70.83	6,372.05	904.95	2,603.06	-894.50	0.00	0.00	0.00	
7,054.89	26.64	70.83	6,421.11	913.04	2,626.31	-902.49	0.00	0.00	0.00	
<b>KOP @ 7054.89ft :: DLS = 9°/100'</b>										
7,100.00	25.72	79.80	6,461.61	918.09	2,645.51	-907.47	9.00	-2.03	19.89	
7,200.00	25.78	100.61	6,551.86	917.93	2,688.33	-907.13	9.00	0.06	20.81	
7,300.00	28.62	119.38	6,640.96	902.14	2,730.66	-891.17	9.00	2.84	18.77	
7,400.00	33.54	134.06	6,726.70	871.12	2,771.47	-859.99	9.00	4.91	14.68	
7,500.00	39.76	145.00	6,806.98	825.62	2,809.74	-814.34	9.00	6.22	10.94	
7,600.00	46.76	153.28	6,879.82	766.77	2,844.53	-755.35	9.00	7.00	8.28	
7,700.00	54.23	159.79	6,943.43	696.02	2,874.99	-684.47	9.00	7.47	6.51	
7,800.00	62.00	165.16	6,996.24	615.11	2,900.36	-603.46	9.00	7.76	5.37	
7,900.00	69.94	169.80	7,036.95	526.03	2,920.02	-514.30	9.00	7.94	4.64	
8,000.00	77.99	173.98	7,064.55	430.97	2,933.50	-419.19	9.00	8.05	4.19	
8,100.00	86.11	177.92	7,078.38	332.28	2,940.44	-320.47	9.00	8.11	3.94	
8,147.89	90.00	179.77	7,080.00	284.43	2,941.40	-272.62	9.00	8.13	3.86	
<b>End Build @ 8147.89ft</b>										
8,200.00	90.00	179.77	7,080.00	232.33	2,941.61	-220.52	0.00	0.00	0.00	
8,300.00	90.00	179.77	7,080.00	132.33	2,942.00	-120.52	0.00	0.00	0.00	
8,400.00	90.00	179.77	7,080.00	32.33	2,942.39	-20.52	0.00	0.00	0.00	
8,500.00	90.00	179.77	7,080.00	-67.67	2,942.79	79.48	0.00	0.00	0.00	
8,600.00	90.00	179.77	7,080.00	-167.67	2,943.18	179.48	0.00	0.00	0.00	
8,700.00	90.00	179.77	7,080.00	-267.67	2,943.57	279.48	0.00	0.00	0.00	
8,800.00	90.00	179.77	7,080.00	-367.67	2,943.97	379.48	0.00	0.00	0.00	
8,900.00	90.00	179.77	7,080.00	-467.67	2,944.36	479.48	0.00	0.00	0.00	
9,000.00	90.00	179.77	7,080.00	-567.67	2,944.75	579.48	0.00	0.00	0.00	
9,100.00	90.00	179.77	7,080.00	-667.67	2,945.14	679.48	0.00	0.00	0.00	
9,200.00	90.00	179.77	7,080.00	-767.67	2,945.54	779.48	0.00	0.00	0.00	
9,300.00	90.00	179.77	7,080.00	-867.67	2,945.93	879.48	0.00	0.00	0.00	
9,400.00	90.00	179.77	7,080.00	-967.66	2,946.32	979.48	0.00	0.00	0.00	
9,500.00	90.00	179.77	7,080.00	-1,067.66	2,946.72	1,079.48	0.00	0.00	0.00	
9,600.00	90.00	179.77	7,080.00	-1,167.66	2,947.11	1,179.48	0.00	0.00	0.00	
9,700.00	90.00	179.77	7,080.00	-1,267.66	2,947.50	1,279.48	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 BERG 1930-01H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 24' @ 5035.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 24' @ 5035.00usft (RIG)
<b>Site:</b>	1N-64W-19 BERG 1930 PAD	<b>North Reference:</b>	True
<b>Well:</b>	BERG 1930-01H	<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)	
9,800.00	90.00	179.77	7,080.00	-1,367.66	2,947.90	1,379.48	0.00	0.00	0.00	
9,900.00	90.00	179.77	7,080.00	-1,467.66	2,948.29	1,479.48	0.00	0.00	0.00	
10,000.00	90.00	179.77	7,080.00	-1,567.66	2,948.68	1,579.48	0.00	0.00	0.00	
10,100.00	90.00	179.77	7,080.00	-1,667.66	2,949.07	1,679.48	0.00	0.00	0.00	
10,200.00	90.00	179.77	7,080.00	-1,767.66	2,949.47	1,779.48	0.00	0.00	0.00	
10,300.00	90.00	179.77	7,080.00	-1,867.66	2,949.86	1,879.48	0.00	0.00	0.00	
10,400.00	90.00	179.77	7,080.00	-1,967.66	2,950.25	1,979.48	0.00	0.00	0.00	
10,500.00	90.00	179.77	7,080.00	-2,067.66	2,950.65	2,079.48	0.00	0.00	0.00	
10,600.00	90.00	179.77	7,080.00	-2,167.66	2,951.04	2,179.48	0.00	0.00	0.00	
10,700.00	90.00	179.77	7,080.00	-2,267.65	2,951.43	2,279.48	0.00	0.00	0.00	
10,800.00	90.00	179.77	7,080.00	-2,367.65	2,951.82	2,379.48	0.00	0.00	0.00	
10,900.00	90.00	179.77	7,080.00	-2,467.65	2,952.22	2,479.48	0.00	0.00	0.00	
11,000.00	90.00	179.77	7,080.00	-2,567.65	2,952.61	2,579.48	0.00	0.00	0.00	
11,100.00	90.00	179.77	7,080.00	-2,667.65	2,953.00	2,679.48	0.00	0.00	0.00	
11,200.00	90.00	179.77	7,080.00	-2,767.65	2,953.40	2,779.48	0.00	0.00	0.00	
11,300.00	90.00	179.77	7,080.00	-2,867.65	2,953.79	2,879.48	0.00	0.00	0.00	
11,400.00	90.00	179.77	7,080.00	-2,967.65	2,954.18	2,979.48	0.00	0.00	0.00	
11,500.00	90.00	179.77	7,080.00	-3,067.65	2,954.58	3,079.48	0.00	0.00	0.00	
11,600.00	90.00	179.77	7,080.00	-3,167.65	2,954.97	3,179.48	0.00	0.00	0.00	
11,700.00	90.00	179.77	7,080.00	-3,267.65	2,955.36	3,279.48	0.00	0.00	0.00	
11,800.00	90.00	179.77	7,080.00	-3,367.65	2,955.75	3,379.48	0.00	0.00	0.00	
11,900.00	90.00	179.77	7,080.00	-3,467.65	2,956.15	3,479.48	0.00	0.00	0.00	
12,000.00	90.00	179.77	7,080.00	-3,567.64	2,956.54	3,579.48	0.00	0.00	0.00	
12,100.00	90.00	179.77	7,080.00	-3,667.64	2,956.93	3,679.48	0.00	0.00	0.00	
12,200.00	90.00	179.77	7,080.00	-3,767.64	2,957.33	3,779.48	0.00	0.00	0.00	
12,300.00	90.00	179.77	7,080.00	-3,867.64	2,957.72	3,879.48	0.00	0.00	0.00	
12,400.00	90.00	179.77	7,080.00	-3,967.64	2,958.11	3,979.48	0.00	0.00	0.00	
12,500.00	90.00	179.77	7,080.00	-4,067.64	2,958.51	4,079.48	0.00	0.00	0.00	
12,600.00	90.00	179.77	7,080.00	-4,167.64	2,958.90	4,179.48	0.00	0.00	0.00	
12,700.00	90.00	179.77	7,080.00	-4,267.64	2,959.29	4,279.48	0.00	0.00	0.00	
12,800.00	90.00	179.77	7,080.00	-4,367.64	2,959.68	4,379.48	0.00	0.00	0.00	
12,900.00	90.00	179.77	7,080.00	-4,467.64	2,960.08	4,479.48	0.00	0.00	0.00	
13,000.00	90.00	179.77	7,080.00	-4,567.64	2,960.47	4,579.48	0.00	0.00	0.00	
13,100.00	90.00	179.77	7,080.00	-4,667.64	2,960.86	4,679.48	0.00	0.00	0.00	
13,200.00	90.00	179.77	7,080.00	-4,767.64	2,961.26	4,779.48	0.00	0.00	0.00	
13,300.00	90.00	179.77	7,080.00	-4,867.63	2,961.65	4,879.48	0.00	0.00	0.00	
13,400.00	90.00	179.77	7,080.00	-4,967.63	2,962.04	4,979.48	0.00	0.00	0.00	
13,500.00	90.00	179.77	7,080.00	-5,067.63	2,962.43	5,079.48	0.00	0.00	0.00	
13,600.00	90.00	179.77	7,080.00	-5,167.63	2,962.83	5,179.48	0.00	0.00	0.00	
13,700.00	90.00	179.77	7,080.00	-5,267.63	2,963.22	5,279.48	0.00	0.00	0.00	
13,800.00	90.00	179.77	7,080.00	-5,367.63	2,963.61	5,379.48	0.00	0.00	0.00	
13,900.00	90.00	179.77	7,080.00	-5,467.63	2,964.01	5,479.48	0.00	0.00	0.00	
14,000.00	90.00	179.77	7,080.00	-5,567.63	2,964.40	5,579.48	0.00	0.00	0.00	
14,100.00	90.00	179.77	7,080.00	-5,667.63	2,964.79	5,679.48	0.00	0.00	0.00	
14,200.00	90.00	179.77	7,080.00	-5,767.63	2,965.19	5,779.48	0.00	0.00	0.00	
14,300.00	90.00	179.77	7,080.00	-5,867.63	2,965.58	5,879.48	0.00	0.00	0.00	
14,400.00	90.00	179.77	7,080.00	-5,967.63	2,965.97	5,979.48	0.00	0.00	0.00	
14,500.00	90.00	179.77	7,080.00	-6,067.63	2,966.36	6,079.48	0.00	0.00	0.00	
14,600.00	90.00	179.77	7,080.00	-6,167.62	2,966.76	6,179.48	0.00	0.00	0.00	
14,700.00	90.00	179.77	7,080.00	-6,267.62	2,967.15	6,279.48	0.00	0.00	0.00	
14,800.00	90.00	179.77	7,080.00	-6,367.62	2,967.54	6,379.48	0.00	0.00	0.00	
14,900.00	90.00	179.77	7,080.00	-6,467.62	2,967.94	6,479.48	0.00	0.00	0.00	
15,000.00	90.00	179.77	7,080.00	-6,567.62	2,968.33	6,579.48	0.00	0.00	0.00	
15,100.00	90.00	179.77	7,080.00	-6,667.62	2,968.72	6,679.48	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 BERG 1930-01H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 24' @ 5035.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 24' @ 5035.00usft (RIG)
<b>Site:</b>	1N-64W-19 BERG 1930 PAD	<b>North Reference:</b>	True
<b>Well:</b>	BERG 1930-01H	<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)
15,157.11	90.00	179.77	7,080.00	-6,724.73	2,968.95	6,736.59	0.00	0.00	0.00
TD Well @ 15157.11ft									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
1,773.07	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)	
200.00	200.00	0.00	0.00	Begin Nudge @ 200.00ft
1,532.00	1,484.52	99.87	287.26	Hold Tangent @ 1532.00ft
7,054.89	6,421.11	913.04	2,626.31	KOP @ 7054.89ft :: DLS = 9°/100'
8,147.89	7,080.00	284.43	2,941.40	End Build @ 8147.89ft
15,157.11	7,080.00	-6,724.73	2,968.95	TD Well @ 15157.11ft