

# **VERDAD RESOURCES**

**WATTENBERG FIELD**

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

**BERG 1930-04H**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**22 May, 2019**

Project: WATTENBERG FIELD  
Site: 1N-64W-19 BERG 1930 PAD  
Well: BERG 1930-04H  
Wellbore: Wellbore #1  
Design: Design #1

# VERDAD RESOURCES

## CASING DETAILS

TVD	MD	Name	Size
1700.00	1738.43	9 5/8"	9-5/8

**SHL**  
**1943' FSL**  
**1785' FWL**

**LP**  
**2180' FSL**  
**1651' FEL**

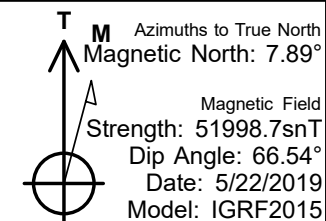
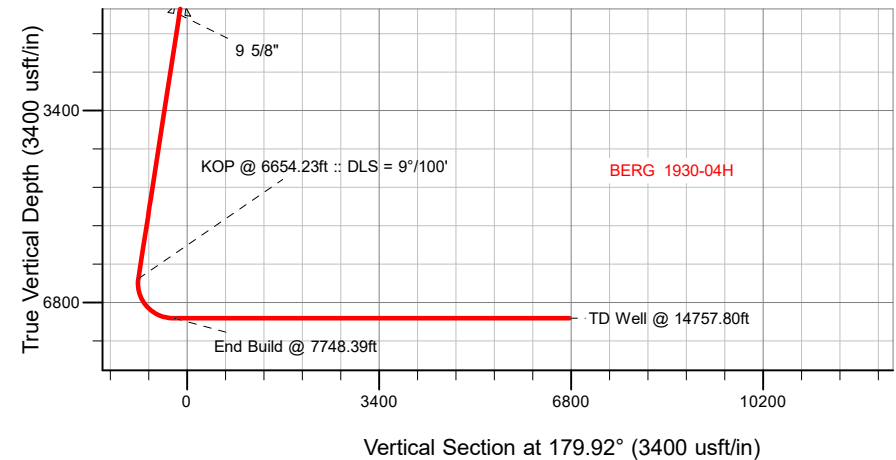
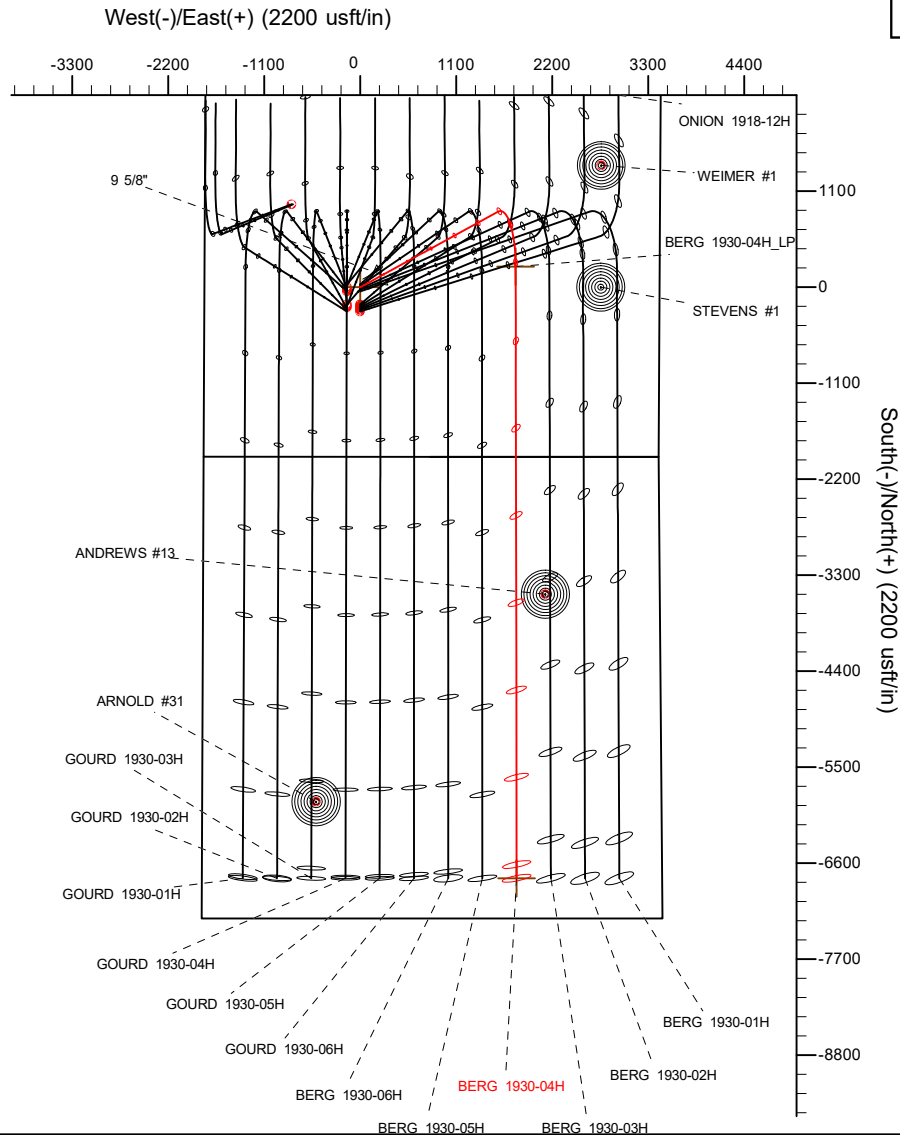
**BHL**  
**460' FSL**  
**1668' FEL**

## 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	
350.00	0.00	0.00	350.00	0.00	0.00	0.00	0.00	0.00	
1246.00	17.92	61.30	1231.46	66.74	121.91	2.00	61.30	-66.57	
6654.23	17.92	61.30	6377.32	865.86	1581.52	0.00	0.00	-863.65	
7748.39	90.00	179.92	7080.00	236.48	1781.91	9.00	117.43	-233.99	
14757.80	90.00	179.92	7080.00	-6772.93	1792.16	0.00	0.00	6775.42	BERG 1930-04H_BHL

## WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
BERG 1930-04H_SHL	0.00	0.00	0.00	40.034889	-104.596437
BERG 1930-04H_BHL	7080.00	-6772.93	1792.16	40.016296	-104.590038



## WELL DETAILS: BERG 1930-04H

GL = 5011'

RKB = 24' @ 5035.00usft (RIG)

Plan: Design #1 (BERG 1930-04H/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 1930-04H
<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 1930-04H	<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 1930-04H					
Well Position	+N/-S	-31.99 usft	Northing:	1,256,845.01 usft	Latitude:	40.034889
	+E/-W	-0.17 usft	Easting:	3,253,002.63 usft	Longitude:	-104.596437
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	51,998.72590082

<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	179.92

<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	14,757.80	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	
350.00	0.00	0.00	350.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,246.00	17.92	61.30	1,231.46	66.74	121.91	2.00	2.00	0.00	61.30	
6,654.23	17.92	61.30	6,377.32	865.86	1,581.52	0.00	0.00	0.00	0.00	
7,748.39	90.00	179.92	7,080.00	236.48	1,781.91	9.00	6.59	10.84	117.43	
14,757.80	90.00	179.92	7,080.00	-6,772.93	1,792.16	0.00	0.00	0.00	0.00	BERG 1930-04H_BHI

# Hewlett-Packard

## Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BERG 1930-04H
<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 1930-04H	<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
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
350.00	0.00	0.00	350.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 350.00ft									
400.00	1.00	61.30	400.00	0.21	0.38	-0.21	2.00	2.00	0.00
500.00	3.00	61.30	499.93	1.89	3.44	-1.88	2.00	2.00	0.00
600.00	5.00	61.30	599.68	5.24	9.56	-5.22	2.00	2.00	0.00
700.00	7.00	61.30	699.13	10.25	18.73	-10.23	2.00	2.00	0.00
800.00	9.00	61.30	798.15	16.94	30.94	-16.89	2.00	2.00	0.00
900.00	11.00	61.30	896.63	25.28	46.17	-25.21	2.00	2.00	0.00
1,000.00	13.00	61.30	994.44	35.26	64.40	-35.17	2.00	2.00	0.00
1,100.00	15.00	61.30	1,091.46	46.88	85.62	-46.76	2.00	2.00	0.00
1,200.00	17.00	61.30	1,187.58	60.11	109.80	-59.96	2.00	2.00	0.00
1,246.00	17.92	61.30	1,231.46	66.74	121.91	-66.57	2.00	2.00	0.00
Hold Tangent @ 1246.00ft									
1,300.00	17.92	61.30	1,282.84	74.72	136.48	-74.53	0.00	0.00	0.00
1,400.00	17.92	61.30	1,377.99	89.50	163.47	-89.27	0.00	0.00	0.00
1,500.00	17.92	61.30	1,473.14	104.27	190.46	-104.01	0.00	0.00	0.00
1,600.00	17.92	61.30	1,568.29	119.05	217.45	-118.74	0.00	0.00	0.00
1,700.00	17.92	61.30	1,663.44	133.82	244.43	-133.48	0.00	0.00	0.00
1,738.43	17.92	61.30	1,700.00	139.50	254.80	-139.15	0.00	0.00	0.00
9 5/8"									
1,800.00	17.92	61.30	1,758.59	148.60	271.42	-148.22	0.00	0.00	0.00
1,900.00	17.92	61.30	1,853.74	163.38	298.41	-162.96	0.00	0.00	0.00
2,000.00	17.92	61.30	1,948.88	178.15	325.40	-177.70	0.00	0.00	0.00
2,100.00	17.92	61.30	2,044.03	192.93	352.39	-192.44	0.00	0.00	0.00
2,200.00	17.92	61.30	2,139.18	207.70	379.38	-207.17	0.00	0.00	0.00
2,300.00	17.92	61.30	2,234.33	222.48	406.37	-221.91	0.00	0.00	0.00
2,400.00	17.92	61.30	2,329.48	237.26	433.36	-236.65	0.00	0.00	0.00
2,500.00	17.92	61.30	2,424.63	252.03	460.34	-251.39	0.00	0.00	0.00
2,600.00	17.92	61.30	2,519.78	266.81	487.33	-266.13	0.00	0.00	0.00
2,700.00	17.92	61.30	2,614.93	281.58	514.32	-280.86	0.00	0.00	0.00
2,800.00	17.92	61.30	2,710.07	296.36	541.31	-295.60	0.00	0.00	0.00
2,900.00	17.92	61.30	2,805.22	311.14	568.30	-310.34	0.00	0.00	0.00
3,000.00	17.92	61.30	2,900.37	325.91	595.29	-325.08	0.00	0.00	0.00
3,100.00	17.92	61.30	2,995.52	340.69	622.28	-339.82	0.00	0.00	0.00
3,200.00	17.92	61.30	3,090.67	355.46	649.27	-354.56	0.00	0.00	0.00
3,300.00	17.92	61.30	3,185.82	370.24	676.26	-369.29	0.00	0.00	0.00
3,400.00	17.92	61.30	3,280.97	385.01	703.24	-384.03	0.00	0.00	0.00
3,500.00	17.92	61.30	3,376.12	399.79	730.23	-398.77	0.00	0.00	0.00
3,600.00	17.92	61.30	3,471.26	414.57	757.22	-413.51	0.00	0.00	0.00
3,700.00	17.92	61.30	3,566.41	429.34	784.21	-428.25	0.00	0.00	0.00
3,800.00	17.92	61.30	3,661.56	444.12	811.20	-442.99	0.00	0.00	0.00
3,900.00	17.92	61.30	3,756.71	458.89	838.19	-457.72	0.00	0.00	0.00
4,000.00	17.92	61.30	3,851.86	473.67	865.18	-472.46	0.00	0.00	0.00
4,100.00	17.92	61.30	3,947.01	488.45	892.17	-487.20	0.00	0.00	0.00
4,200.00	17.92	61.30	4,042.16	503.22	919.15	-501.94	0.00	0.00	0.00
4,300.00	17.92	61.30	4,137.30	518.00	946.14	-516.68	0.00	0.00	0.00
4,400.00	17.92	61.30	4,232.45	532.77	973.13	-531.41	0.00	0.00	0.00
4,500.00	17.92	61.30	4,327.60	547.55	1,000.12	-546.15	0.00	0.00	0.00
4,600.00	17.92	61.30	4,422.75	562.33	1,027.11	-560.89	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 1930-04H
<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 1930-04H	<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	17.92	61.30	4,517.90	577.10	1,054.10	-575.63	0.00	0.00	0.00
4,800.00	17.92	61.30	4,613.05	591.88	1,081.09	-590.37	0.00	0.00	0.00
4,900.00	17.92	61.30	4,708.20	606.65	1,108.08	-605.11	0.00	0.00	0.00
5,000.00	17.92	61.30	4,803.35	621.43	1,135.06	-619.84	0.00	0.00	0.00
5,100.00	17.92	61.30	4,898.49	636.21	1,162.05	-634.58	0.00	0.00	0.00
5,200.00	17.92	61.30	4,993.64	650.98	1,189.04	-649.32	0.00	0.00	0.00
5,300.00	17.92	61.30	5,088.79	665.76	1,216.03	-664.06	0.00	0.00	0.00
5,400.00	17.92	61.30	5,183.94	680.53	1,243.02	-678.80	0.00	0.00	0.00
5,500.00	17.92	61.30	5,279.09	695.31	1,270.01	-693.54	0.00	0.00	0.00
5,600.00	17.92	61.30	5,374.24	710.09	1,297.00	-708.27	0.00	0.00	0.00
5,700.00	17.92	61.30	5,469.39	724.86	1,323.99	-723.01	0.00	0.00	0.00
5,800.00	17.92	61.30	5,564.54	739.64	1,350.98	-737.75	0.00	0.00	0.00
5,900.00	17.92	61.30	5,659.68	754.41	1,377.96	-752.49	0.00	0.00	0.00
6,000.00	17.92	61.30	5,754.83	769.19	1,404.95	-767.23	0.00	0.00	0.00
6,100.00	17.92	61.30	5,849.98	783.97	1,431.94	-781.97	0.00	0.00	0.00
6,200.00	17.92	61.30	5,945.13	798.74	1,458.93	-796.70	0.00	0.00	0.00
6,300.00	17.92	61.30	6,040.28	813.52	1,485.92	-811.44	0.00	0.00	0.00
6,400.00	17.92	61.30	6,135.43	828.29	1,512.91	-826.18	0.00	0.00	0.00
6,500.00	17.92	61.30	6,230.58	843.07	1,539.90	-840.92	0.00	0.00	0.00
6,600.00	17.92	61.30	6,325.73	857.84	1,566.89	-855.66	0.00	0.00	0.00
6,654.23	17.92	61.30	6,377.32	865.86	1,581.52	-863.65	0.00	0.00	0.00
<b>KOP @ 6654.23ft :: DLS = 9°/100'</b>									
6,700.00	16.42	74.33	6,421.07	870.99	1,593.93	-868.76	9.00	-3.28	28.48
6,800.00	16.50	106.49	6,517.17	870.78	1,621.21	-868.51	9.00	0.08	32.15
6,900.00	20.80	131.55	6,612.05	854.94	1,648.17	-852.64	9.00	4.30	25.07
7,000.00	27.40	146.71	6,703.37	823.87	1,674.14	-821.53	9.00	6.60	15.16
7,100.00	35.02	156.02	6,788.88	778.32	1,698.48	-775.95	9.00	7.62	9.31
7,200.00	43.12	162.27	6,866.49	719.43	1,720.60	-717.03	9.00	8.10	6.25
7,300.00	51.47	166.85	6,934.27	648.64	1,739.94	-646.21	9.00	8.35	4.58
7,400.00	59.96	170.47	6,990.56	567.70	1,756.04	-565.25	9.00	8.49	3.62
7,500.00	68.54	173.51	7,033.97	478.60	1,768.49	-476.13	9.00	8.57	3.04
7,600.00	77.16	176.21	7,063.43	383.52	1,777.00	-381.04	9.00	8.62	2.70
7,700.00	85.81	178.72	7,078.23	284.82	1,781.34	-282.33	9.00	8.65	2.52
7,748.39	90.00	179.92	7,080.00	236.48	1,781.91	-233.99	9.00	8.66	2.46
<b>End Build @ 7748.39ft</b>									
7,800.00	90.00	179.92	7,080.00	184.87	1,781.99	-182.38	0.00	0.00	0.00
7,900.00	90.00	179.92	7,080.00	84.87	1,782.13	-82.38	0.00	0.00	0.00
8,000.00	90.00	179.92	7,080.00	-15.13	1,782.28	17.62	0.00	0.00	0.00
8,100.00	90.00	179.92	7,080.00	-115.13	1,782.43	117.62	0.00	0.00	0.00
8,200.00	90.00	179.92	7,080.00	-215.13	1,782.57	217.62	0.00	0.00	0.00
8,300.00	90.00	179.92	7,080.00	-315.13	1,782.72	317.62	0.00	0.00	0.00
8,400.00	90.00	179.92	7,080.00	-415.13	1,782.87	417.62	0.00	0.00	0.00
8,500.00	90.00	179.92	7,080.00	-515.13	1,783.01	517.62	0.00	0.00	0.00
8,600.00	90.00	179.92	7,080.00	-615.13	1,783.16	617.62	0.00	0.00	0.00
8,700.00	90.00	179.92	7,080.00	-715.13	1,783.30	717.62	0.00	0.00	0.00
8,800.00	90.00	179.92	7,080.00	-815.13	1,783.45	817.62	0.00	0.00	0.00
8,900.00	90.00	179.92	7,080.00	-915.13	1,783.60	917.62	0.00	0.00	0.00
9,000.00	90.00	179.92	7,080.00	-1,015.13	1,783.74	1,017.62	0.00	0.00	0.00
9,100.00	90.00	179.92	7,080.00	-1,115.13	1,783.89	1,117.62	0.00	0.00	0.00
9,200.00	90.00	179.92	7,080.00	-1,215.13	1,784.04	1,217.62	0.00	0.00	0.00
9,300.00	90.00	179.92	7,080.00	-1,315.13	1,784.18	1,317.62	0.00	0.00	0.00
9,400.00	90.00	179.92	7,080.00	-1,415.13	1,784.33	1,417.62	0.00	0.00	0.00
9,500.00	90.00	179.92	7,080.00	-1,515.13	1,784.47	1,517.62	0.00	0.00	0.00
9,600.00	90.00	179.92	7,080.00	-1,615.13	1,784.62	1,617.62	0.00	0.00	0.00

## Planning Report

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	179.92	7,080.00	-1,715.13	1,784.77	1,717.62	0.00	0.00	0.00
9,800.00	90.00	179.92	7,080.00	-1,815.13	1,784.91	1,817.62	0.00	0.00	0.00
9,900.00	90.00	179.92	7,080.00	-1,915.13	1,785.06	1,917.62	0.00	0.00	0.00
10,000.00	90.00	179.92	7,080.00	-2,015.13	1,785.21	2,017.62	0.00	0.00	0.00
10,100.00	90.00	179.92	7,080.00	-2,115.13	1,785.35	2,117.62	0.00	0.00	0.00
10,200.00	90.00	179.92	7,080.00	-2,215.13	1,785.50	2,217.62	0.00	0.00	0.00
10,300.00	90.00	179.92	7,080.00	-2,315.13	1,785.64	2,317.62	0.00	0.00	0.00
10,400.00	90.00	179.92	7,080.00	-2,415.13	1,785.79	2,417.62	0.00	0.00	0.00
10,500.00	90.00	179.92	7,080.00	-2,515.13	1,785.94	2,517.62	0.00	0.00	0.00
10,600.00	90.00	179.92	7,080.00	-2,615.13	1,786.08	2,617.62	0.00	0.00	0.00
10,700.00	90.00	179.92	7,080.00	-2,715.13	1,786.23	2,717.62	0.00	0.00	0.00
10,800.00	90.00	179.92	7,080.00	-2,815.13	1,786.38	2,817.62	0.00	0.00	0.00
10,900.00	90.00	179.92	7,080.00	-2,915.13	1,786.52	2,917.62	0.00	0.00	0.00
11,000.00	90.00	179.92	7,080.00	-3,015.13	1,786.67	3,017.62	0.00	0.00	0.00
11,100.00	90.00	179.92	7,080.00	-3,115.13	1,786.81	3,117.62	0.00	0.00	0.00
11,200.00	90.00	179.92	7,080.00	-3,215.13	1,786.96	3,217.62	0.00	0.00	0.00
11,300.00	90.00	179.92	7,080.00	-3,315.13	1,787.11	3,317.62	0.00	0.00	0.00
11,400.00	90.00	179.92	7,080.00	-3,415.13	1,787.25	3,417.62	0.00	0.00	0.00
11,500.00	90.00	179.92	7,080.00	-3,515.13	1,787.40	3,517.62	0.00	0.00	0.00
11,600.00	90.00	179.92	7,080.00	-3,615.13	1,787.55	3,617.62	0.00	0.00	0.00
11,700.00	90.00	179.92	7,080.00	-3,715.13	1,787.69	3,717.62	0.00	0.00	0.00
11,800.00	90.00	179.92	7,080.00	-3,815.13	1,787.84	3,817.62	0.00	0.00	0.00
11,900.00	90.00	179.92	7,080.00	-3,915.13	1,787.98	3,917.62	0.00	0.00	0.00
12,000.00	90.00	179.92	7,080.00	-4,015.13	1,788.13	4,017.62	0.00	0.00	0.00
12,100.00	90.00	179.92	7,080.00	-4,115.13	1,788.28	4,117.62	0.00	0.00	0.00
12,200.00	90.00	179.92	7,080.00	-4,215.13	1,788.42	4,217.62	0.00	0.00	0.00
12,300.00	90.00	179.92	7,080.00	-4,315.13	1,788.57	4,317.62	0.00	0.00	0.00
12,400.00	90.00	179.92	7,080.00	-4,415.13	1,788.71	4,417.62	0.00	0.00	0.00
12,500.00	90.00	179.92	7,080.00	-4,515.13	1,788.86	4,517.62	0.00	0.00	0.00
12,600.00	90.00	179.92	7,080.00	-4,615.13	1,789.01	4,617.62	0.00	0.00	0.00
12,700.00	90.00	179.92	7,080.00	-4,715.13	1,789.15	4,717.62	0.00	0.00	0.00
12,800.00	90.00	179.92	7,080.00	-4,815.13	1,789.30	4,817.62	0.00	0.00	0.00
12,900.00	90.00	179.92	7,080.00	-4,915.13	1,789.45	4,917.62	0.00	0.00	0.00
13,000.00	90.00	179.92	7,080.00	-5,015.13	1,789.59	5,017.62	0.00	0.00	0.00
13,100.00	90.00	179.92	7,080.00	-5,115.13	1,789.74	5,117.62	0.00	0.00	0.00
13,200.00	90.00	179.92	7,080.00	-5,215.13	1,789.88	5,217.62	0.00	0.00	0.00
13,300.00	90.00	179.92	7,080.00	-5,315.13	1,790.03	5,317.62	0.00	0.00	0.00
13,400.00	90.00	179.92	7,080.00	-5,415.13	1,790.18	5,417.62	0.00	0.00	0.00
13,500.00	90.00	179.92	7,080.00	-5,515.12	1,790.32	5,517.62	0.00	0.00	0.00
13,600.00	90.00	179.92	7,080.00	-5,615.12	1,790.47	5,617.62	0.00	0.00	0.00
13,700.00	90.00	179.92	7,080.00	-5,715.12	1,790.62	5,717.62	0.00	0.00	0.00
13,800.00	90.00	179.92	7,080.00	-5,815.12	1,790.76	5,817.62	0.00	0.00	0.00
13,900.00	90.00	179.92	7,080.00	-5,915.12	1,790.91	5,917.62	0.00	0.00	0.00
14,000.00	90.00	179.92	7,080.00	-6,015.12	1,791.05	6,017.62	0.00	0.00	0.00
14,100.00	90.00	179.92	7,080.00	-6,115.12	1,791.20	6,117.62	0.00	0.00	0.00
14,200.00	90.00	179.92	7,080.00	-6,215.12	1,791.35	6,217.62	0.00	0.00	0.00
14,300.00	90.00	179.92	7,080.00	-6,315.12	1,791.49	6,317.62	0.00	0.00	0.00
14,400.00	90.00	179.92	7,080.00	-6,415.12	1,791.64	6,417.62	0.00	0.00	0.00
14,500.00	90.00	179.92	7,080.00	-6,515.12	1,791.79	6,517.62	0.00	0.00	0.00
14,600.00	90.00	179.92	7,080.00	-6,615.12	1,791.93	6,617.62	0.00	0.00	0.00
14,700.00	90.00	179.92	7,080.00	-6,715.12	1,792.08	6,717.62	0.00	0.00	0.00
14,757.80	90.00	179.92	7,080.00	-6,772.93	1,792.16	6,775.42	0.00	0.00	0.00
TD Well @ 14757.80ft									

# Hewlett-Packard

## Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BERG 1930-04H
<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 1930-04H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
1,738.43	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)		
350.00	350.00	0.00	0.00	Begin Nudge @ 350.00ft	
1,246.00	1,231.46	66.74	121.91	Hold Tangent @ 1246.00ft	
6,654.23	6,377.32	865.86	1,581.52	KOP @ 6654.23ft :: DLS = 9°/100'	
7,748.39	7,080.00	236.48	1,781.91	End Build @ 7748.39ft	
14,757.80	7,080.00	-6,772.93	1,792.16	TD Well @ 14757.80ft	