

# **VERDAD RESOURCES**

**WATTENBERG FIELD**

**1N-64W-17 WARNER PAD**

**WARNER 1708-09H**

**Plan A**

**Plan: Design #1**

## **Standard Planning Report**

**24 May, 2023**

Project: WATTENBERG FIELD  
Site: 1N-64W-17 WARNER PAD  
Well: WARNER 1708-09H  
Wellbore: Plan A  
Design: Design #1

# VERDAD RESOURCES

## CASING DETAILS

TVD	MD	Name	Size
2120.00	2199.63	9 5/8"	9-5/8

SHL 185' FSL 2472' FWL	LP/TPZ 460' FSL 480' FEL	BPZ 460' FNL 480' FEL	BHL 370' FNL 480' FEL
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## 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	
1193.00	19.86	103.19	1173.23	-38.88	165.89	2.00	103.19	-38.07	
6774.93	19.86	103.19	6423.18	-471.58	2012.17	0.00	0.00	-461.74	
7954.34	90.00	0.28	7150.00	241.29	2271.57	8.00	-102.16	252.39	
17764.39	90.00	0.28	7150.00	10051.22	2319.73	0.00	0.00	10062.44	WARNER 1708-09H_BHL

## DESIGN TARGET DETAILS

Name	TVD	Northing	Easting	Latitude	Longitude
WARNER 1708-09H_SHL	0.00	1260454.98	3258886.03	40.044632	-104.575292
WARNER 1708-09H_LP	7150.00	1260719.92	3261154.77	40.045294	-104.567179
WARNER 1708-09H_BPZ	7150.00	1270439.87	3261100.37	40.071977	-104.567008
WARNER 1708-09H_BHL	7150.00	1270529.85	3261100.83	40.072224	-104.567003

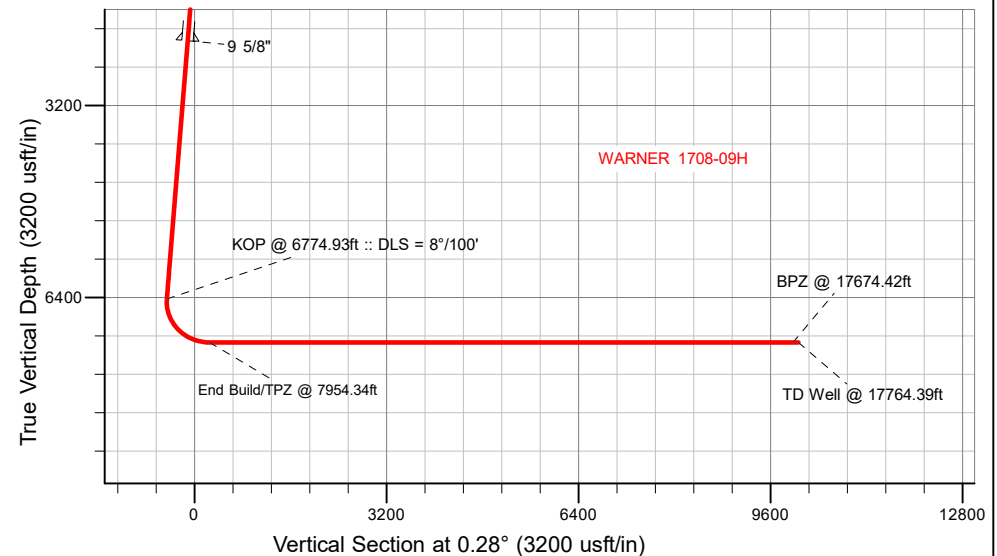
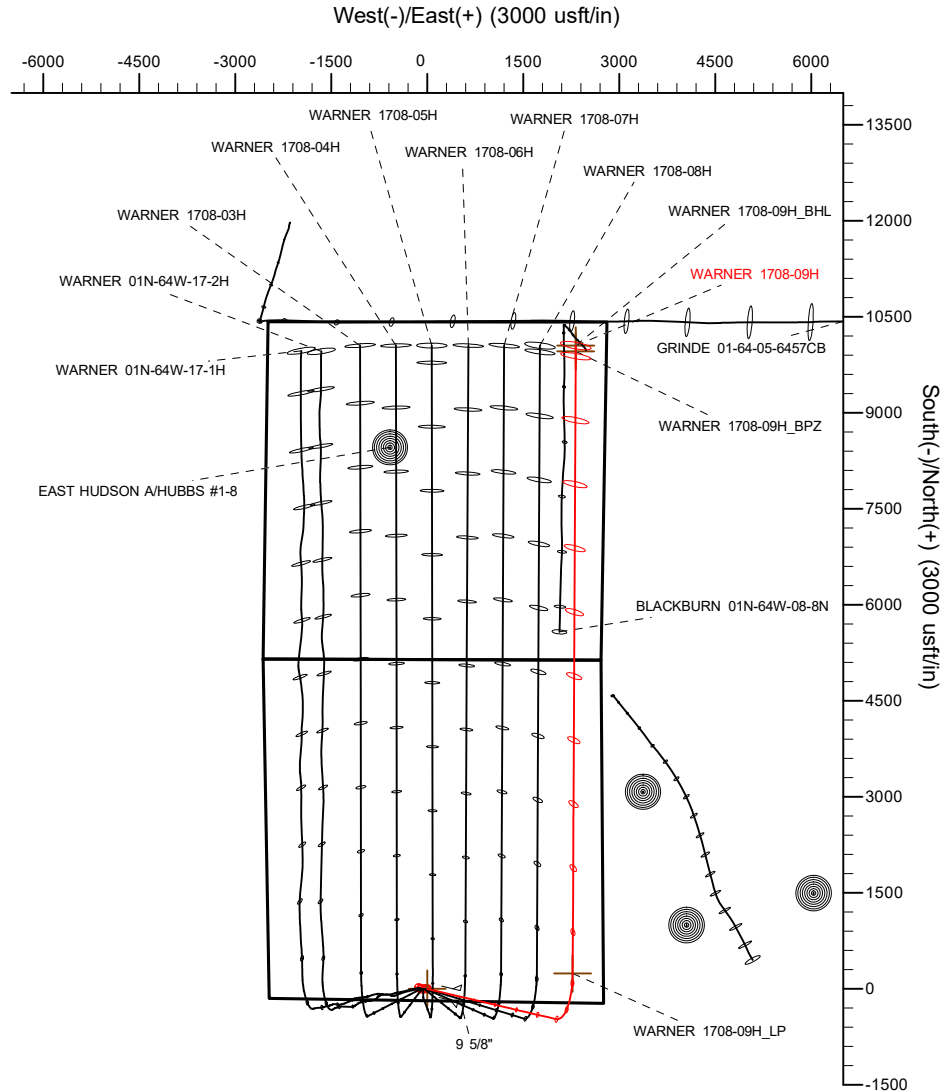
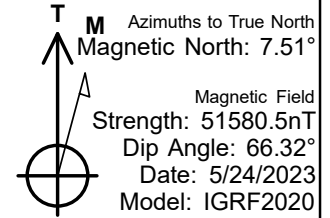
## WELL DETAILS: WARNER 1708-09H

GL = 5068'

RKB = 20' @ 5088.00usft (RIG)

Plan: Design #1 (WARNER 1708-09H/Plan A)

Date: 5/25/2023



## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well WARNER 1708-09H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5088.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5088.00usft (RIG)
<b>Site:</b>	1N-64W-17 WARNER PAD	<b>North Reference:</b>	True
<b>Well:</b>	WARNER 1708-09H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<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-64W-17 WARNER PAD			
<b>Site Position:</b>		<b>Northing:</b>	1,260,479.85 usft	<b>Latitude:</b> 40.044700
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,258,893.90 usft	<b>Longitude:</b> -104.575263
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	

<b>Well</b>	WARNER 1708-09H			
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	1,260,454.98 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	3,258,886.03 usft
<b>Position Uncertainty</b>		3.28 usft	<b>Wellhead Elevation:</b>	usft
<b>Grid Convergence:</b>		0.60 °	<b>Ground Level:</b>	5,068.00 usft

<b>Wellbore</b>	Plan A				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF202013	5/24/2023	7.51	66.32	51,580.54960759

<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	0.28

<b>Plan Survey Tool Program</b>		<b>Date</b>	5/24/2023		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.00	2,120.00	Design #1 (Plan A)	ISCWSA MWD	
				Fixed:v2:standard declination	
2	2,120.00	17,764.39	Design #1 (Plan A)	ISCWSA MWD	
				Fixed:v2:standard declination	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well WARNER 1708-09H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 5088.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 5088.00usft (RIG)
Site:	1N-64W-17 WARNER PAD	North Reference:	True
Well:	WARNER 1708-09H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Design #1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
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	
1,193.00	19.86	103.19	1,173.23	-38.88	165.89	2.00	2.00	0.00	103.19	
6,774.93	19.86	103.19	6,423.18	-471.58	2,012.17	0.00	0.00	0.00	0.00	
7,954.34	90.00	0.28	7,150.00	241.29	2,271.57	8.00	5.95	-8.73	-102.16	
17,764.39	90.00	0.28	7,150.00	10,051.22	2,319.73	0.00	0.00	0.00	0.00	WARNER 1708-09H_

# Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well WARNER 1708-09H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5088.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5088.00usft (RIG)
<b>Site:</b>	1N-64W-17 WARNER PAD	<b>North Reference:</b>	True
<b>Well:</b>	WARNER 1708-09H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<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	103.19	299.98	-0.40	1.70	-0.39	2.00	2.00	0.00
400.00	4.00	103.19	399.84	-1.59	6.79	-1.56	2.00	2.00	0.00
500.00	6.00	103.19	499.45	-3.58	15.28	-3.51	2.00	2.00	0.00
600.00	8.00	103.19	598.70	-6.36	27.14	-6.23	2.00	2.00	0.00
700.00	10.00	103.19	697.47	-9.93	42.37	-9.72	2.00	2.00	0.00
800.00	12.00	103.19	795.62	-14.28	60.95	-13.99	2.00	2.00	0.00
900.00	14.00	103.19	893.06	-19.42	82.85	-19.01	2.00	2.00	0.00
1,000.00	16.00	103.19	989.64	-25.32	108.05	-24.79	2.00	2.00	0.00
1,100.00	18.00	103.19	1,085.27	-31.99	136.51	-31.33	2.00	2.00	0.00
1,193.00	19.86	103.19	1,173.23	-38.88	165.89	-38.07	2.00	2.00	0.00
Hold Tangent @ 1193.00ft									
1,200.00	19.86	103.19	1,179.82	-39.42	168.20	-38.60	0.00	0.00	0.00
1,300.00	19.86	103.19	1,273.87	-47.17	201.28	-46.19	0.00	0.00	0.00
1,400.00	19.86	103.19	1,367.92	-54.92	234.35	-53.78	0.00	0.00	0.00
1,500.00	19.86	103.19	1,461.98	-62.68	267.43	-61.37	0.00	0.00	0.00
1,600.00	19.86	103.19	1,556.03	-70.43	300.51	-68.96	0.00	0.00	0.00
1,700.00	19.86	103.19	1,650.08	-78.18	333.58	-76.55	0.00	0.00	0.00
1,800.00	19.86	103.19	1,744.13	-85.93	366.66	-84.14	0.00	0.00	0.00
1,900.00	19.86	103.19	1,838.19	-93.68	399.73	-91.73	0.00	0.00	0.00
2,000.00	19.86	103.19	1,932.24	-101.44	432.81	-99.32	0.00	0.00	0.00
2,100.00	19.86	103.19	2,026.29	-109.19	465.89	-106.91	0.00	0.00	0.00
2,199.63	19.86	103.19	2,120.00	-116.91	498.84	-114.47	0.00	0.00	0.00
9 5/8"									
2,200.00	19.86	103.19	2,120.34	-116.94	498.96	-114.50	0.00	0.00	0.00
2,300.00	19.86	103.19	2,214.40	-124.69	532.04	-122.09	0.00	0.00	0.00
2,400.00	19.86	103.19	2,308.45	-132.44	565.12	-129.68	0.00	0.00	0.00
2,500.00	19.86	103.19	2,402.50	-140.19	598.19	-137.27	0.00	0.00	0.00
2,600.00	19.86	103.19	2,496.55	-147.95	631.27	-144.86	0.00	0.00	0.00
2,700.00	19.86	103.19	2,590.61	-155.70	664.34	-152.45	0.00	0.00	0.00
2,800.00	19.86	103.19	2,684.66	-163.45	697.42	-160.04	0.00	0.00	0.00
2,900.00	19.86	103.19	2,778.71	-171.20	730.50	-167.63	0.00	0.00	0.00
3,000.00	19.86	103.19	2,872.76	-178.95	763.57	-175.22	0.00	0.00	0.00
3,100.00	19.86	103.19	2,966.82	-186.71	796.65	-182.81	0.00	0.00	0.00
3,200.00	19.86	103.19	3,060.87	-194.46	829.72	-190.40	0.00	0.00	0.00
3,300.00	19.86	103.19	3,154.92	-202.21	862.80	-197.99	0.00	0.00	0.00
3,400.00	19.86	103.19	3,248.97	-209.96	895.88	-205.58	0.00	0.00	0.00
3,500.00	19.86	103.19	3,343.03	-217.71	928.95	-213.17	0.00	0.00	0.00
3,600.00	19.86	103.19	3,437.08	-225.46	962.03	-220.76	0.00	0.00	0.00
3,700.00	19.86	103.19	3,531.13	-233.22	995.10	-228.35	0.00	0.00	0.00
3,800.00	19.86	103.19	3,625.18	-240.97	1,028.18	-235.94	0.00	0.00	0.00
3,900.00	19.86	103.19	3,719.24	-248.72	1,061.26	-243.53	0.00	0.00	0.00
4,000.00	19.86	103.19	3,813.29	-256.47	1,094.33	-251.12	0.00	0.00	0.00
4,100.00	19.86	103.19	3,907.34	-264.22	1,127.41	-258.71	0.00	0.00	0.00
4,200.00	19.86	103.19	4,001.40	-271.98	1,160.48	-266.30	0.00	0.00	0.00
4,300.00	19.86	103.19	4,095.45	-279.73	1,193.56	-273.89	0.00	0.00	0.00
4,400.00	19.86	103.19	4,189.50	-287.48	1,226.64	-281.48	0.00	0.00	0.00
4,500.00	19.86	103.19	4,283.55	-295.23	1,259.71	-289.07	0.00	0.00	0.00
4,600.00	19.86	103.19	4,377.61	-302.98	1,292.79	-296.66	0.00	0.00	0.00
4,700.00	19.86	103.19	4,471.66	-310.73	1,325.86	-304.25	0.00	0.00	0.00

# Planning Report

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<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5088.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5088.00usft (RIG)
<b>Site:</b>	1N-64W-17 WARNER PAD	<b>North Reference:</b>	True
<b>Well:</b>	WARNER 1708-09H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<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	19.86	103.19	4,565.71	-318.49	1,358.94	-311.84	0.00	0.00	0.00
4,900.00	19.86	103.19	4,659.76	-326.24	1,392.02	-319.43	0.00	0.00	0.00
5,000.00	19.86	103.19	4,753.82	-333.99	1,425.09	-327.02	0.00	0.00	0.00
5,100.00	19.86	103.19	4,847.87	-341.74	1,458.17	-334.61	0.00	0.00	0.00
5,200.00	19.86	103.19	4,941.92	-349.49	1,491.25	-342.20	0.00	0.00	0.00
5,300.00	19.86	103.19	5,035.97	-357.25	1,524.32	-349.79	0.00	0.00	0.00
5,400.00	19.86	103.19	5,130.03	-365.00	1,557.40	-357.38	0.00	0.00	0.00
5,500.00	19.86	103.19	5,224.08	-372.75	1,590.47	-364.97	0.00	0.00	0.00
5,600.00	19.86	103.19	5,318.13	-380.50	1,623.55	-372.56	0.00	0.00	0.00
5,700.00	19.86	103.19	5,412.18	-388.25	1,656.63	-380.15	0.00	0.00	0.00
5,800.00	19.86	103.19	5,506.24	-396.00	1,689.70	-387.74	0.00	0.00	0.00
5,900.00	19.86	103.19	5,600.29	-403.76	1,722.78	-395.33	0.00	0.00	0.00
6,000.00	19.86	103.19	5,694.34	-411.51	1,755.85	-402.92	0.00	0.00	0.00
6,100.00	19.86	103.19	5,788.39	-419.26	1,788.93	-410.51	0.00	0.00	0.00
6,200.00	19.86	103.19	5,882.45	-427.01	1,822.01	-418.10	0.00	0.00	0.00
6,300.00	19.86	103.19	5,976.50	-434.76	1,855.08	-425.69	0.00	0.00	0.00
6,400.00	19.86	103.19	6,070.55	-442.52	1,888.16	-433.28	0.00	0.00	0.00
6,500.00	19.86	103.19	6,164.60	-450.27	1,921.23	-440.87	0.00	0.00	0.00
6,600.00	19.86	103.19	6,258.66	-458.02	1,954.31	-448.46	0.00	0.00	0.00
6,700.00	19.86	103.19	6,352.71	-465.77	1,987.39	-456.05	0.00	0.00	0.00
6,774.93	19.86	103.19	6,423.18	-471.58	2,012.17	-461.74	0.00	0.00	0.00
<b>KOP @ 6774.93ft :: DLS = 8°/100'</b>									
6,800.00	19.53	97.32	6,446.79	-473.09	2,020.47	-463.21	8.00	-1.31	-23.43
6,850.00	19.46	85.31	6,493.94	-473.47	2,037.07	-463.51	8.00	-0.14	-24.00
6,900.00	20.17	73.68	6,541.00	-470.37	2,053.66	-460.32	8.00	1.42	-23.26
6,950.00	21.58	63.16	6,587.73	-463.79	2,070.14	-453.67	8.00	2.82	-21.05
7,000.00	23.57	54.10	6,633.91	-453.77	2,086.45	-443.57	8.00	3.97	-18.13
7,050.00	26.00	46.50	6,679.31	-440.36	2,102.50	-430.08	8.00	4.86	-15.19
7,100.00	28.75	40.19	6,723.72	-423.63	2,118.22	-413.27	8.00	5.52	-12.62
7,150.00	31.76	34.94	6,766.91	-403.65	2,133.52	-393.22	8.00	6.01	-10.50
7,200.00	34.94	30.54	6,808.68	-380.52	2,148.34	-370.01	8.00	6.37	-8.81
7,250.00	38.26	26.79	6,848.82	-354.35	2,162.60	-343.78	8.00	6.64	-7.49
7,300.00	41.69	23.57	6,887.13	-325.28	2,176.24	-314.64	8.00	6.85	-6.45
7,350.00	45.19	20.75	6,923.44	-293.45	2,189.17	-282.74	8.00	7.00	-5.63
7,400.00	48.75	18.27	6,957.55	-259.00	2,201.36	-248.24	8.00	7.13	-4.98
7,450.00	52.36	16.04	6,989.31	-222.11	2,212.72	-211.29	8.00	7.22	-4.46
7,500.00	56.01	14.01	7,018.57	-182.95	2,223.21	-172.09	8.00	7.30	-4.04
7,550.00	59.69	12.16	7,045.17	-141.72	2,232.78	-130.81	8.00	7.36	-3.71
7,600.00	63.39	10.44	7,069.00	-98.63	2,241.38	-87.67	8.00	7.41	-3.44
7,650.00	67.12	8.83	7,089.92	-53.87	2,248.97	-42.87	8.00	7.45	-3.22
7,700.00	70.85	7.30	7,107.85	-7.66	2,255.51	3.36	8.00	7.48	-3.05
7,750.00	74.60	5.84	7,122.69	39.76	2,260.97	50.81	8.00	7.50	-2.91
7,800.00	78.36	4.44	7,134.38	88.17	2,265.32	99.24	8.00	7.52	-2.81
7,850.00	82.13	3.07	7,142.85	137.33	2,268.54	148.42	8.00	7.53	-2.74
7,900.00	85.90	1.73	7,148.06	187.01	2,270.62	198.10	8.00	7.54	-2.69
7,954.34	90.00	0.28	7,150.00	241.29	2,271.57	252.39	8.00	7.55	-2.66
<b>End Build/TPZ @ 7954.34ft</b>									
8,000.00	90.00	0.28	7,150.00	286.95	2,271.79	298.05	0.00	0.00	0.00
8,100.00	90.00	0.28	7,150.00	386.95	2,272.28	398.05	0.00	0.00	0.00
8,200.00	90.00	0.28	7,150.00	486.95	2,272.78	498.05	0.00	0.00	0.00
8,300.00	90.00	0.28	7,150.00	586.95	2,273.27	598.05	0.00	0.00	0.00
8,400.00	90.00	0.28	7,150.00	686.94	2,273.76	698.05	0.00	0.00	0.00
8,500.00	90.00	0.28	7,150.00	786.94	2,274.25	798.05	0.00	0.00	0.00
8,600.00	90.00	0.28	7,150.00	886.94	2,274.74	898.05	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well WARNER 1708-09H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5088.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5088.00usft (RIG)
<b>Site:</b>	1N-64W-17 WARNER PAD	<b>North Reference:</b>	True
<b>Well:</b>	WARNER 1708-09H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<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)	
8,700.00	90.00	0.28	7,150.00	986.94	2,275.23	998.05	0.00	0.00	0.00	
8,800.00	90.00	0.28	7,150.00	1,086.94	2,275.72	1,098.05	0.00	0.00	0.00	
8,900.00	90.00	0.28	7,150.00	1,186.94	2,276.21	1,198.05	0.00	0.00	0.00	
9,000.00	90.00	0.28	7,150.00	1,286.94	2,276.70	1,298.05	0.00	0.00	0.00	
9,100.00	90.00	0.28	7,150.00	1,386.94	2,277.19	1,398.05	0.00	0.00	0.00	
9,200.00	90.00	0.28	7,150.00	1,486.93	2,277.69	1,498.05	0.00	0.00	0.00	
9,300.00	90.00	0.28	7,150.00	1,586.93	2,278.18	1,598.05	0.00	0.00	0.00	
9,400.00	90.00	0.28	7,150.00	1,686.93	2,278.67	1,698.05	0.00	0.00	0.00	
9,500.00	90.00	0.28	7,150.00	1,786.93	2,279.16	1,798.05	0.00	0.00	0.00	
9,600.00	90.00	0.28	7,150.00	1,886.93	2,279.65	1,898.05	0.00	0.00	0.00	
9,700.00	90.00	0.28	7,150.00	1,986.93	2,280.14	1,998.05	0.00	0.00	0.00	
9,800.00	90.00	0.28	7,150.00	2,086.93	2,280.63	2,098.05	0.00	0.00	0.00	
9,900.00	90.00	0.28	7,150.00	2,186.93	2,281.12	2,198.05	0.00	0.00	0.00	
10,000.00	90.00	0.28	7,150.00	2,286.93	2,281.61	2,298.05	0.00	0.00	0.00	
10,100.00	90.00	0.28	7,150.00	2,386.92	2,282.10	2,398.05	0.00	0.00	0.00	
10,200.00	90.00	0.28	7,150.00	2,486.92	2,282.60	2,498.05	0.00	0.00	0.00	
10,300.00	90.00	0.28	7,150.00	2,586.92	2,283.09	2,598.05	0.00	0.00	0.00	
10,400.00	90.00	0.28	7,150.00	2,686.92	2,283.58	2,698.05	0.00	0.00	0.00	
10,500.00	90.00	0.28	7,150.00	2,786.92	2,284.07	2,798.05	0.00	0.00	0.00	
10,600.00	90.00	0.28	7,150.00	2,886.92	2,284.56	2,898.05	0.00	0.00	0.00	
10,700.00	90.00	0.28	7,150.00	2,986.92	2,285.05	2,998.05	0.00	0.00	0.00	
10,800.00	90.00	0.28	7,150.00	3,086.92	2,285.54	3,098.05	0.00	0.00	0.00	
10,900.00	90.00	0.28	7,150.00	3,186.91	2,286.03	3,198.05	0.00	0.00	0.00	
11,000.00	90.00	0.28	7,150.00	3,286.91	2,286.52	3,298.05	0.00	0.00	0.00	
11,100.00	90.00	0.28	7,150.00	3,386.91	2,287.01	3,398.05	0.00	0.00	0.00	
11,200.00	90.00	0.28	7,150.00	3,486.91	2,287.50	3,498.05	0.00	0.00	0.00	
11,300.00	90.00	0.28	7,150.00	3,586.91	2,288.00	3,598.05	0.00	0.00	0.00	
11,400.00	90.00	0.28	7,150.00	3,686.91	2,288.49	3,698.05	0.00	0.00	0.00	
11,500.00	90.00	0.28	7,150.00	3,786.91	2,288.98	3,798.05	0.00	0.00	0.00	
11,600.00	90.00	0.28	7,150.00	3,886.91	2,289.47	3,898.05	0.00	0.00	0.00	
11,700.00	90.00	0.28	7,150.00	3,986.90	2,289.96	3,998.05	0.00	0.00	0.00	
11,800.00	90.00	0.28	7,150.00	4,086.90	2,290.45	4,098.05	0.00	0.00	0.00	
11,900.00	90.00	0.28	7,150.00	4,186.90	2,290.94	4,198.05	0.00	0.00	0.00	
12,000.00	90.00	0.28	7,150.00	4,286.90	2,291.43	4,298.05	0.00	0.00	0.00	
12,100.00	90.00	0.28	7,150.00	4,386.90	2,291.92	4,398.05	0.00	0.00	0.00	
12,200.00	90.00	0.28	7,150.00	4,486.90	2,292.41	4,498.05	0.00	0.00	0.00	
12,300.00	90.00	0.28	7,150.00	4,586.90	2,292.91	4,598.05	0.00	0.00	0.00	
12,400.00	90.00	0.28	7,150.00	4,686.90	2,293.40	4,698.05	0.00	0.00	0.00	
12,500.00	90.00	0.28	7,150.00	4,786.90	2,293.89	4,798.05	0.00	0.00	0.00	
12,600.00	90.00	0.28	7,150.00	4,886.89	2,294.38	4,898.05	0.00	0.00	0.00	
12,700.00	90.00	0.28	7,150.00	4,986.89	2,294.87	4,998.05	0.00	0.00	0.00	
12,800.00	90.00	0.28	7,150.00	5,086.89	2,295.36	5,098.05	0.00	0.00	0.00	
12,900.00	90.00	0.28	7,150.00	5,186.89	2,295.85	5,198.05	0.00	0.00	0.00	
13,000.00	90.00	0.28	7,150.00	5,286.89	2,296.34	5,298.05	0.00	0.00	0.00	
13,100.00	90.00	0.28	7,150.00	5,386.89	2,296.83	5,398.05	0.00	0.00	0.00	
13,200.00	90.00	0.28	7,150.00	5,486.89	2,297.32	5,498.05	0.00	0.00	0.00	
13,300.00	90.00	0.28	7,150.00	5,586.89	2,297.82	5,598.05	0.00	0.00	0.00	
13,400.00	90.00	0.28	7,150.00	5,686.88	2,298.31	5,698.05	0.00	0.00	0.00	
13,500.00	90.00	0.28	7,150.00	5,786.88	2,298.80	5,798.05	0.00	0.00	0.00	
13,600.00	90.00	0.28	7,150.00	5,886.88	2,299.29	5,898.05	0.00	0.00	0.00	
13,700.00	90.00	0.28	7,150.00	5,986.88	2,299.78	5,998.05	0.00	0.00	0.00	
13,800.00	90.00	0.28	7,150.00	6,086.88	2,300.27	6,098.05	0.00	0.00	0.00	
13,900.00	90.00	0.28	7,150.00	6,186.88	2,300.76	6,198.05	0.00	0.00	0.00	
14,000.00	90.00	0.28	7,150.00	6,286.88	2,301.25	6,298.05	0.00	0.00	0.00	

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well WARNER 1708-09H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5088.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5088.00usft (RIG)
<b>Site:</b>	1N-64W-17 WARNER PAD	<b>North Reference:</b>	True
<b>Well:</b>	WARNER 1708-09H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<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)	
14,100.00	90.00	0.28	7,150.00	6,386.88	2,301.74	6,398.05	0.00	0.00	0.00	
14,200.00	90.00	0.28	7,150.00	6,486.87	2,302.23	6,498.05	0.00	0.00	0.00	
14,300.00	90.00	0.28	7,150.00	6,586.87	2,302.72	6,598.05	0.00	0.00	0.00	
14,400.00	90.00	0.28	7,150.00	6,686.87	2,303.22	6,698.05	0.00	0.00	0.00	
14,500.00	90.00	0.28	7,150.00	6,786.87	2,303.71	6,798.05	0.00	0.00	0.00	
14,600.00	90.00	0.28	7,150.00	6,886.87	2,304.20	6,898.05	0.00	0.00	0.00	
14,700.00	90.00	0.28	7,150.00	6,986.87	2,304.69	6,998.05	0.00	0.00	0.00	
14,800.00	90.00	0.28	7,150.00	7,086.87	2,305.18	7,098.05	0.00	0.00	0.00	
14,900.00	90.00	0.28	7,150.00	7,186.87	2,305.67	7,198.05	0.00	0.00	0.00	
15,000.00	90.00	0.28	7,150.00	7,286.87	2,306.16	7,298.05	0.00	0.00	0.00	
15,100.00	90.00	0.28	7,150.00	7,386.86	2,306.65	7,398.05	0.00	0.00	0.00	
15,200.00	90.00	0.28	7,150.00	7,486.86	2,307.14	7,498.05	0.00	0.00	0.00	
15,300.00	90.00	0.28	7,150.00	7,586.86	2,307.63	7,598.05	0.00	0.00	0.00	
15,400.00	90.00	0.28	7,150.00	7,686.86	2,308.13	7,698.05	0.00	0.00	0.00	
15,500.00	90.00	0.28	7,150.00	7,786.86	2,308.62	7,798.05	0.00	0.00	0.00	
15,600.00	90.00	0.28	7,150.00	7,886.86	2,309.11	7,898.05	0.00	0.00	0.00	
15,700.00	90.00	0.28	7,150.00	7,986.86	2,309.60	7,998.05	0.00	0.00	0.00	
15,800.00	90.00	0.28	7,150.00	8,086.86	2,310.09	8,098.05	0.00	0.00	0.00	
15,900.00	90.00	0.28	7,150.00	8,186.85	2,310.58	8,198.05	0.00	0.00	0.00	
16,000.00	90.00	0.28	7,150.00	8,286.85	2,311.07	8,298.05	0.00	0.00	0.00	
16,100.00	90.00	0.28	7,150.00	8,386.85	2,311.56	8,398.05	0.00	0.00	0.00	
16,200.00	90.00	0.28	7,150.00	8,486.85	2,312.05	8,498.05	0.00	0.00	0.00	
16,300.00	90.00	0.28	7,150.00	8,586.85	2,312.54	8,598.05	0.00	0.00	0.00	
16,400.00	90.00	0.28	7,150.00	8,686.85	2,313.04	8,698.05	0.00	0.00	0.00	
16,500.00	90.00	0.28	7,150.00	8,786.85	2,313.53	8,798.05	0.00	0.00	0.00	
16,600.00	90.00	0.28	7,150.00	8,886.85	2,314.02	8,898.05	0.00	0.00	0.00	
16,700.00	90.00	0.28	7,150.00	8,986.84	2,314.51	8,998.05	0.00	0.00	0.00	
16,800.00	90.00	0.28	7,150.00	9,086.84	2,315.00	9,098.05	0.00	0.00	0.00	
16,900.00	90.00	0.28	7,150.00	9,186.84	2,315.49	9,198.05	0.00	0.00	0.00	
17,000.00	90.00	0.28	7,150.00	9,286.84	2,315.98	9,298.05	0.00	0.00	0.00	
17,100.00	90.00	0.28	7,150.00	9,386.84	2,316.47	9,398.05	0.00	0.00	0.00	
17,200.00	90.00	0.28	7,150.00	9,486.84	2,316.96	9,498.05	0.00	0.00	0.00	
17,300.00	90.00	0.28	7,150.00	9,586.84	2,317.45	9,598.05	0.00	0.00	0.00	
17,400.00	90.00	0.28	7,150.00	9,686.84	2,317.94	9,698.05	0.00	0.00	0.00	
17,500.00	90.00	0.28	7,150.00	9,786.84	2,318.44	9,798.05	0.00	0.00	0.00	
17,600.00	90.00	0.28	7,150.00	9,886.83	2,318.93	9,898.05	0.00	0.00	0.00	
17,674.42	90.00	0.28	7,150.00	9,961.25	2,319.29	9,972.47	0.00	0.00	0.00	
BPZ @ 17674.42ft										
17,700.00	90.00	0.28	7,150.00	9,986.83	2,319.42	9,998.05	0.00	0.00	0.00	
17,764.39	90.00	0.28	7,150.00	10,051.22	2,319.73	10,062.44	0.00	0.00	0.00	
TD Well @ 17764.39ft										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
2,199.63	2,120.00	9 5/8"		9-5/8	13-1/2



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well WARNER 1708-09H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 5088.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 5088.00usft (RIG)
Site:	1N-64W-17 WARNER PAD	North Reference:	True
Well:	WARNER 1708-09H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Design #1		

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
1,193.00	1,173.23	-38.88	165.89	Hold Tangent @ 1193.00ft
6,774.93	6,423.18	-471.58	2,012.17	KOP @ 6774.93ft :: DLS = 8"/100'
7,954.34	7,150.00	241.29	2,271.57	End Build/TPZ @ 7954.34ft
17,674.42	7,150.00	9,961.25	2,319.29	BPZ @ 17674.42ft
17,764.39	7,150.00	10,051.22	2,319.73	TD Well @ 17764.39ft