

VERDAD RESOURCES

**WATTENBERG FIELD
1N-64W-17 WARNER PAD
WARNER 1708-07H**

Plan B

Plan: Design #1

Standard Planning Report

24 May, 2023

Project: WATTENBERG FIELD
Site: 1N-64W-17 WARNER PAD
Well: WARNER 1708-07H
Wellbore: Plan B
Design: Design #1

VERDAD RESOURCES

CASING DETAILS

TVD	MD	Name	Size
2120.00	2148.03	9 5/8"	9-5/8

SHL 185' FSL 2440' FWL	LP/TPZ 460' FSL 1599' FEL	BPZ 460' FNL 1599' FEL	BHL 370' FNL 1599' 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	
263.00	0.00	0.00	263.00	0.00	0.00	0.00	0.00	0.00	
814.50	11.03	113.57	811.10	-21.16	48.51	2.00	113.57	-20.92	
6500.12	11.03	113.57	6391.69	-456.13	1045.54	0.00	0.00	-451.02	
7679.34	90.00	0.28	7150.00	257.33	1184.83	8.00	-112.90	263.12	
17472.92	90.00	0.28	7150.00	10050.79	1233.05	0.00	0.00	10056.70	WARNER 1708-07H_BHL

DESIGN TARGET DETAILS

Name	TVD	Northing	Easting	Latitude	Longitude
WARNER 1708-07H_SHL	0.00	1260455.36	3258853.83	40.044634	-104.575407
WARNER 1708-07H_LP	7150.00	1260724.93	3260035.91	40.045340	-104.571175
WARNER 1708-07H_BPZ	7150.00	1270428.48	3259981.56	40.071978	-104.571006
WARNER 1708-07H_BHL	7150.00	1270518.47	3259982.02	40.072225	-104.571001

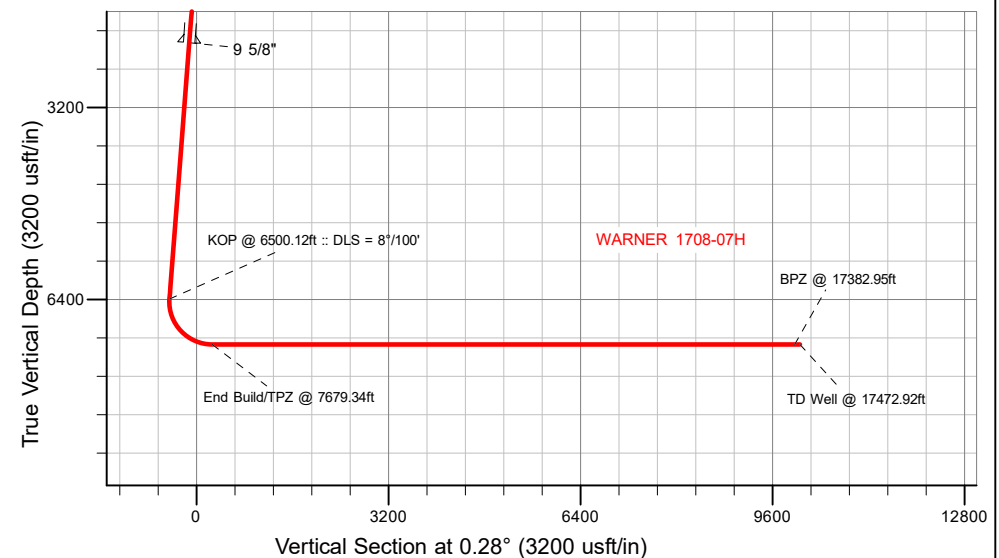
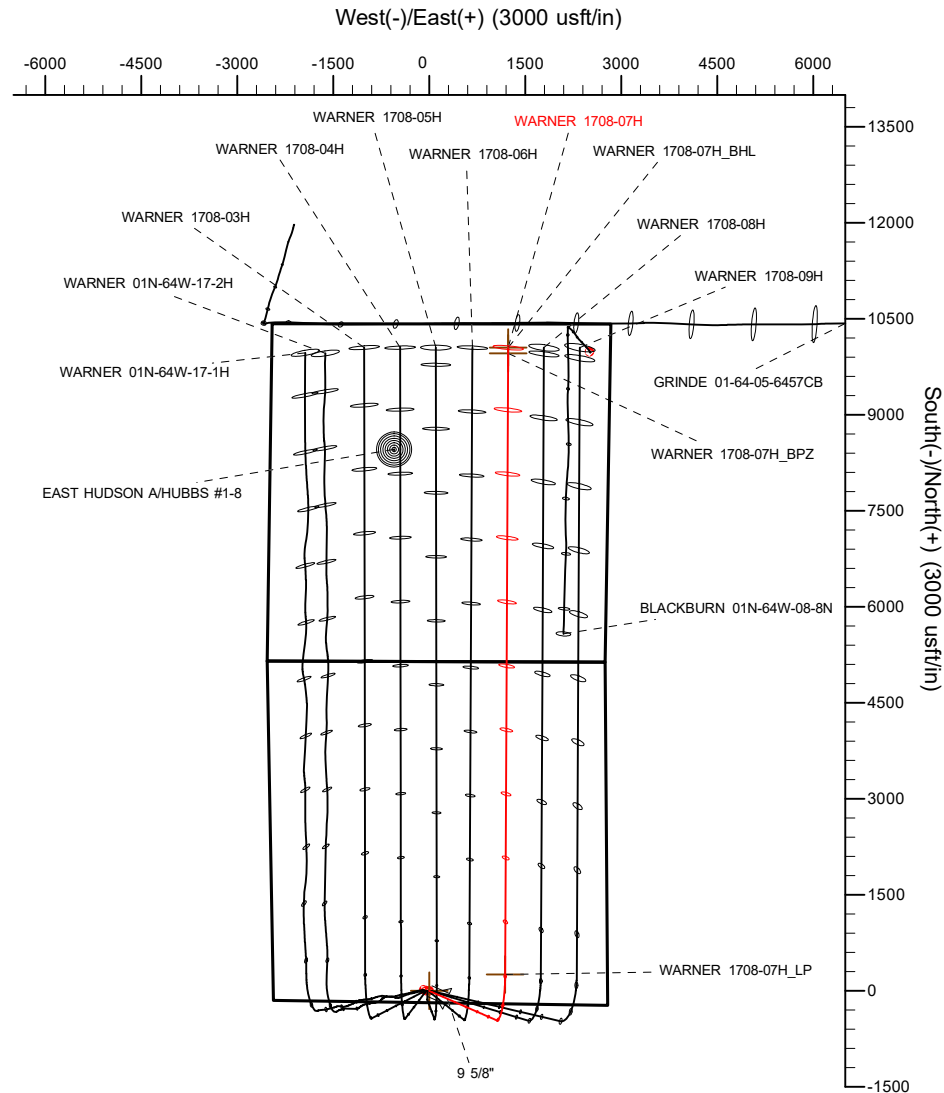
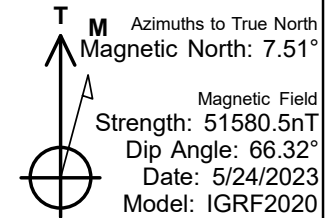
WELL DETAILS: WARNER 1708-07H

GL = 5068'

RKB = 20' @ 5088.00usft (RIG)

Plan: Design #1 (WARNER 1708-07H/Plan B)

Date: 5/25/2023



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well WARNER 1708-07H
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 1708-07H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
Design:	Design #1		

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

Site		1N-64W-17 WARNER PAD			
Site Position:		Northing:	1,260,479.85 usft	Latitude:	40.044700
From:	Lat/Long	Easting:	3,258,893.90 usft	Longitude:	-104.575263
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "		

Well		WARNER 1708-07H				
Well Position	+N/-S	0.00 usft	Northing:	1,260,455.36 usft	Latitude:	40.044634
	+E/-W	0.00 usft	Easting:	3,258,853.83 usft	Longitude:	-104.575407
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft	Ground Level:	5,068.00 usft
Grid Convergence:		0.60 °				

Wellbore	Plan B				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF202013	5/24/2023	7.51	66.32	51,580.53886430

Design	Design #1				
Audit Notes:					
Version:		Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	0.28	

Plan Survey Tool Program		Date	5/24/2023		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	2,120.00	Design #1 (Plan B)	ISCWSA MWD	
				Fixed:v2:standard declination	
2	2,120.00	17,472.92	Design #1 (Plan B)	ISCWSA MWD	
				Fixed:v2:standard declination	

Planning Report

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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 1708-07H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
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	
263.00	0.00	0.00	263.00	0.00	0.00	0.00	0.00	0.00	0.00	
814.50	11.03	113.57	811.10	-21.16	48.51	2.00	2.00	0.00	113.57	
6,500.12	11.03	113.57	6,391.69	-456.13	1,045.54	0.00	0.00	0.00	0.00	
7,679.35	90.00	0.28	7,150.00	257.33	1,184.83	8.00	6.70	-9.61	-112.90	
17,472.92	90.00	0.28	7,150.00	10,050.79	1,233.05	0.00	0.00	0.00	0.00	WARNER 1708-07H_

Planning Report

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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 1708-07H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
Design:	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
263.00	0.00	0.00	263.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 263.00ft									
300.00	0.74	113.57	300.00	-0.10	0.22	-0.09	2.00	2.00	0.00
400.00	2.74	113.57	399.95	-1.31	3.00	-1.29	2.00	2.00	0.00
500.00	4.74	113.57	499.73	-3.92	8.98	-3.87	2.00	2.00	0.00
600.00	6.74	113.57	599.22	-7.92	18.15	-7.83	2.00	2.00	0.00
700.00	8.74	113.57	698.31	-13.30	30.49	-13.15	2.00	2.00	0.00
800.00	10.74	113.57	796.86	-20.07	46.00	-19.84	2.00	2.00	0.00
814.50	11.03	113.57	811.10	-21.16	48.51	-20.92	2.00	2.00	0.00
Hold Tangent @ 814.50ft									
900.00	11.03	113.57	895.02	-27.70	63.50	-27.39	0.00	0.00	0.00
1,000.00	11.03	113.57	993.17	-35.35	81.04	-34.96	0.00	0.00	0.00
1,100.00	11.03	113.57	1,091.33	-43.00	98.57	-42.52	0.00	0.00	0.00
1,200.00	11.03	113.57	1,189.48	-50.65	116.11	-50.09	0.00	0.00	0.00
1,300.00	11.03	113.57	1,287.63	-58.30	133.64	-57.65	0.00	0.00	0.00
1,400.00	11.03	113.57	1,385.78	-65.95	151.18	-65.22	0.00	0.00	0.00
1,500.00	11.03	113.57	1,483.94	-73.61	168.72	-72.78	0.00	0.00	0.00
1,600.00	11.03	113.57	1,582.09	-81.26	186.25	-80.34	0.00	0.00	0.00
1,700.00	11.03	113.57	1,680.24	-88.91	203.79	-87.91	0.00	0.00	0.00
1,800.00	11.03	113.57	1,778.39	-96.56	221.32	-95.47	0.00	0.00	0.00
1,900.00	11.03	113.57	1,876.55	-104.21	238.86	-103.04	0.00	0.00	0.00
2,000.00	11.03	113.57	1,974.70	-111.86	256.40	-110.60	0.00	0.00	0.00
2,100.00	11.03	113.57	2,072.85	-119.51	273.93	-118.17	0.00	0.00	0.00
2,148.03	11.03	113.57	2,120.00	-123.18	282.36	-121.80	0.00	0.00	0.00
9 5/8"									
2,200.00	11.03	113.57	2,171.01	-127.16	291.47	-125.73	0.00	0.00	0.00
2,300.00	11.03	113.57	2,269.16	-134.81	309.00	-133.30	0.00	0.00	0.00
2,400.00	11.03	113.57	2,367.31	-142.46	326.54	-140.86	0.00	0.00	0.00
2,500.00	11.03	113.57	2,465.46	-150.11	344.08	-148.43	0.00	0.00	0.00
2,600.00	11.03	113.57	2,563.62	-157.76	361.61	-155.99	0.00	0.00	0.00
2,700.00	11.03	113.57	2,661.77	-165.41	379.15	-163.56	0.00	0.00	0.00
2,800.00	11.03	113.57	2,759.92	-173.06	396.69	-171.12	0.00	0.00	0.00
2,900.00	11.03	113.57	2,858.07	-180.71	414.22	-178.68	0.00	0.00	0.00
3,000.00	11.03	113.57	2,956.23	-188.36	431.76	-186.25	0.00	0.00	0.00
3,100.00	11.03	113.57	3,054.38	-196.01	449.29	-193.81	0.00	0.00	0.00
3,200.00	11.03	113.57	3,152.53	-203.66	466.83	-201.38	0.00	0.00	0.00
3,300.00	11.03	113.57	3,250.69	-211.31	484.37	-208.94	0.00	0.00	0.00
3,400.00	11.03	113.57	3,348.84	-218.96	501.90	-216.51	0.00	0.00	0.00
3,500.00	11.03	113.57	3,446.99	-226.61	519.44	-224.07	0.00	0.00	0.00
3,600.00	11.03	113.57	3,545.14	-234.26	536.97	-231.64	0.00	0.00	0.00
3,700.00	11.03	113.57	3,643.30	-241.91	554.51	-239.20	0.00	0.00	0.00
3,800.00	11.03	113.57	3,741.45	-249.56	572.05	-246.77	0.00	0.00	0.00
3,900.00	11.03	113.57	3,839.60	-257.21	589.58	-254.33	0.00	0.00	0.00
4,000.00	11.03	113.57	3,937.75	-264.87	607.12	-261.90	0.00	0.00	0.00
4,100.00	11.03	113.57	4,035.91	-272.52	624.66	-269.46	0.00	0.00	0.00
4,200.00	11.03	113.57	4,134.06	-280.17	642.19	-277.02	0.00	0.00	0.00
4,300.00	11.03	113.57	4,232.21	-287.82	659.73	-284.59	0.00	0.00	0.00
4,400.00	11.03	113.57	4,330.37	-295.47	677.26	-292.15	0.00	0.00	0.00
4,500.00	11.03	113.57	4,428.52	-303.12	694.80	-299.72	0.00	0.00	0.00
4,600.00	11.03	113.57	4,526.67	-310.77	712.34	-307.28	0.00	0.00	0.00

Planning Report

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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 1708-07H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
Design:	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	11.03	113.57	4,624.82	-318.42	729.87	-314.85	0.00	0.00	0.00
4,800.00	11.03	113.57	4,722.98	-326.07	747.41	-322.41	0.00	0.00	0.00
4,900.00	11.03	113.57	4,821.13	-333.72	764.94	-329.98	0.00	0.00	0.00
5,000.00	11.03	113.57	4,919.28	-341.37	782.48	-337.54	0.00	0.00	0.00
5,100.00	11.03	113.57	5,017.43	-349.02	800.02	-345.11	0.00	0.00	0.00
5,200.00	11.03	113.57	5,115.59	-356.67	817.55	-352.67	0.00	0.00	0.00
5,300.00	11.03	113.57	5,213.74	-364.32	835.09	-360.24	0.00	0.00	0.00
5,400.00	11.03	113.57	5,311.89	-371.97	852.63	-367.80	0.00	0.00	0.00
5,500.00	11.03	113.57	5,410.05	-379.62	870.16	-375.36	0.00	0.00	0.00
5,600.00	11.03	113.57	5,508.20	-387.27	887.70	-382.93	0.00	0.00	0.00
5,700.00	11.03	113.57	5,606.35	-394.92	905.23	-390.49	0.00	0.00	0.00
5,800.00	11.03	113.57	5,704.50	-402.57	922.77	-398.06	0.00	0.00	0.00
5,900.00	11.03	113.57	5,802.66	-410.22	940.31	-405.62	0.00	0.00	0.00
6,000.00	11.03	113.57	5,900.81	-417.87	957.84	-413.19	0.00	0.00	0.00
6,100.00	11.03	113.57	5,998.96	-425.52	975.38	-420.75	0.00	0.00	0.00
6,200.00	11.03	113.57	6,097.11	-433.17	992.91	-428.32	0.00	0.00	0.00
6,300.00	11.03	113.57	6,195.27	-440.82	1,010.45	-435.88	0.00	0.00	0.00
6,400.00	11.03	113.57	6,293.42	-448.48	1,027.99	-443.45	0.00	0.00	0.00
6,500.12	11.03	113.57	6,391.69	-456.13	1,045.54	-451.02	0.00	0.00	0.00
KOP @ 6500.12ft :: DLS = 8°/100'									
6,550.00	10.16	92.25	6,440.74	-458.22	1,054.32	-453.06	8.00	-1.75	-42.74
6,600.00	10.78	70.37	6,489.93	-456.82	1,063.13	-451.62	8.00	1.25	-43.76
6,650.00	12.69	52.96	6,538.89	-451.94	1,071.92	-446.69	8.00	3.81	-34.82
6,700.00	15.41	40.80	6,587.40	-443.60	1,080.65	-438.31	8.00	5.44	-24.32
6,750.00	18.59	32.45	6,635.22	-431.84	1,089.27	-426.51	8.00	6.36	-16.70
6,800.00	22.03	26.55	6,682.11	-416.72	1,097.74	-411.36	8.00	6.88	-11.81
6,850.00	25.62	22.20	6,727.85	-398.32	1,106.02	-392.91	8.00	7.19	-8.69
6,900.00	29.32	18.87	6,772.20	-376.72	1,114.06	-371.27	8.00	7.39	-6.66
6,950.00	33.08	16.24	6,814.97	-352.02	1,121.84	-346.54	8.00	7.52	-5.27
7,000.00	36.88	14.09	6,855.93	-324.36	1,129.31	-318.84	8.00	7.61	-4.30
7,050.00	40.72	12.29	6,894.89	-293.86	1,136.44	-288.30	8.00	7.68	-3.60
7,100.00	44.58	10.75	6,931.65	-260.67	1,143.18	-255.08	8.00	7.72	-3.08
7,150.00	48.46	9.41	6,966.05	-224.95	1,149.52	-219.33	8.00	7.76	-2.68
7,200.00	52.36	8.22	6,997.91	-186.88	1,155.41	-181.23	8.00	7.79	-2.38
7,250.00	56.26	7.15	7,027.07	-146.64	1,160.83	-140.97	8.00	7.81	-2.14
7,300.00	60.18	6.17	7,053.40	-104.43	1,165.75	-98.73	8.00	7.83	-1.95
7,350.00	64.10	5.27	7,076.77	-60.46	1,170.15	-54.74	8.00	7.84	-1.81
7,400.00	68.02	4.43	7,097.05	-14.93	1,174.01	-9.19	8.00	7.85	-1.69
7,450.00	71.95	3.63	7,114.16	31.92	1,177.30	37.68	8.00	7.86	-1.60
7,500.00	75.88	2.86	7,128.01	79.88	1,180.02	85.64	8.00	7.86	-1.53
7,550.00	79.82	2.13	7,138.54	128.70	1,182.14	134.48	8.00	7.87	-1.48
7,600.00	83.75	1.41	7,145.68	178.16	1,183.67	183.94	8.00	7.87	-1.44
7,650.00	87.69	0.70	7,149.41	228.00	1,184.58	233.78	8.00	7.87	-1.42
7,679.35	90.00	0.28	7,150.00	257.33	1,184.83	263.12	8.00	7.87	-1.41
End Build/TPZ @ 7679.34ft									
7,700.00	90.00	0.28	7,150.00	277.99	1,184.93	283.78	0.00	0.00	0.00
7,800.00	90.00	0.28	7,150.00	377.99	1,185.42	383.78	0.00	0.00	0.00
7,900.00	90.00	0.28	7,150.00	477.99	1,185.92	483.78	0.00	0.00	0.00
8,000.00	90.00	0.28	7,150.00	577.98	1,186.41	583.78	0.00	0.00	0.00
8,100.00	90.00	0.28	7,150.00	677.98	1,186.90	683.78	0.00	0.00	0.00
8,200.00	90.00	0.28	7,150.00	777.98	1,187.39	783.78	0.00	0.00	0.00
8,300.00	90.00	0.28	7,150.00	877.98	1,187.88	883.78	0.00	0.00	0.00
8,400.00	90.00	0.28	7,150.00	977.98	1,188.38	983.78	0.00	0.00	0.00
8,500.00	90.00	0.28	7,150.00	1,077.98	1,188.87	1,083.78	0.00	0.00	0.00

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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 1708-07H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
Design:	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)	
8,600.00	90.00	0.28	7,150.00	1,177.98	1,189.36	1,183.78	0.00	0.00	0.00	
8,700.00	90.00	0.28	7,150.00	1,277.98	1,189.85	1,283.78	0.00	0.00	0.00	
8,800.00	90.00	0.28	7,150.00	1,377.98	1,190.35	1,383.78	0.00	0.00	0.00	
8,900.00	90.00	0.28	7,150.00	1,477.97	1,190.84	1,483.78	0.00	0.00	0.00	
9,000.00	90.00	0.28	7,150.00	1,577.97	1,191.33	1,583.78	0.00	0.00	0.00	
9,100.00	90.00	0.28	7,150.00	1,677.97	1,191.82	1,683.78	0.00	0.00	0.00	
9,200.00	90.00	0.28	7,150.00	1,777.97	1,192.32	1,783.78	0.00	0.00	0.00	
9,300.00	90.00	0.28	7,150.00	1,877.97	1,192.81	1,883.78	0.00	0.00	0.00	
9,400.00	90.00	0.28	7,150.00	1,977.97	1,193.30	1,983.78	0.00	0.00	0.00	
9,500.00	90.00	0.28	7,150.00	2,077.97	1,193.79	2,083.78	0.00	0.00	0.00	
9,600.00	90.00	0.28	7,150.00	2,177.97	1,194.29	2,183.78	0.00	0.00	0.00	
9,700.00	90.00	0.28	7,150.00	2,277.96	1,194.78	2,283.78	0.00	0.00	0.00	
9,800.00	90.00	0.28	7,150.00	2,377.96	1,195.27	2,383.78	0.00	0.00	0.00	
9,900.00	90.00	0.28	7,150.00	2,477.96	1,195.76	2,483.78	0.00	0.00	0.00	
10,000.00	90.00	0.28	7,150.00	2,577.96	1,196.26	2,583.78	0.00	0.00	0.00	
10,100.00	90.00	0.28	7,150.00	2,677.96	1,196.75	2,683.78	0.00	0.00	0.00	
10,200.00	90.00	0.28	7,150.00	2,777.96	1,197.24	2,783.78	0.00	0.00	0.00	
10,300.00	90.00	0.28	7,150.00	2,877.96	1,197.73	2,883.78	0.00	0.00	0.00	
10,400.00	90.00	0.28	7,150.00	2,977.96	1,198.22	2,983.78	0.00	0.00	0.00	
10,500.00	90.00	0.28	7,150.00	3,077.95	1,198.72	3,083.78	0.00	0.00	0.00	
10,600.00	90.00	0.28	7,150.00	3,177.95	1,199.21	3,183.78	0.00	0.00	0.00	
10,700.00	90.00	0.28	7,150.00	3,277.95	1,199.70	3,283.78	0.00	0.00	0.00	
10,800.00	90.00	0.28	7,150.00	3,377.95	1,200.19	3,383.78	0.00	0.00	0.00	
10,900.00	90.00	0.28	7,150.00	3,477.95	1,200.69	3,483.78	0.00	0.00	0.00	
11,000.00	90.00	0.28	7,150.00	3,577.95	1,201.18	3,583.78	0.00	0.00	0.00	
11,100.00	90.00	0.28	7,150.00	3,677.95	1,201.67	3,683.78	0.00	0.00	0.00	
11,200.00	90.00	0.28	7,150.00	3,777.95	1,202.16	3,783.78	0.00	0.00	0.00	
11,300.00	90.00	0.28	7,150.00	3,877.94	1,202.66	3,883.78	0.00	0.00	0.00	
11,400.00	90.00	0.28	7,150.00	3,977.94	1,203.15	3,983.78	0.00	0.00	0.00	
11,500.00	90.00	0.28	7,150.00	4,077.94	1,203.64	4,083.78	0.00	0.00	0.00	
11,600.00	90.00	0.28	7,150.00	4,177.94	1,204.13	4,183.78	0.00	0.00	0.00	
11,700.00	90.00	0.28	7,150.00	4,277.94	1,204.63	4,283.78	0.00	0.00	0.00	
11,800.00	90.00	0.28	7,150.00	4,377.94	1,205.12	4,383.78	0.00	0.00	0.00	
11,900.00	90.00	0.28	7,150.00	4,477.94	1,205.61	4,483.78	0.00	0.00	0.00	
12,000.00	90.00	0.28	7,150.00	4,577.94	1,206.10	4,583.78	0.00	0.00	0.00	
12,100.00	90.00	0.28	7,150.00	4,677.94	1,206.59	4,683.78	0.00	0.00	0.00	
12,200.00	90.00	0.28	7,150.00	4,777.93	1,207.09	4,783.78	0.00	0.00	0.00	
12,300.00	90.00	0.28	7,150.00	4,877.93	1,207.58	4,883.78	0.00	0.00	0.00	
12,400.00	90.00	0.28	7,150.00	4,977.93	1,208.07	4,983.78	0.00	0.00	0.00	
12,500.00	90.00	0.28	7,150.00	5,077.93	1,208.56	5,083.78	0.00	0.00	0.00	
12,600.00	90.00	0.28	7,150.00	5,177.93	1,209.06	5,183.78	0.00	0.00	0.00	
12,700.00	90.00	0.28	7,150.00	5,277.93	1,209.55	5,283.78	0.00	0.00	0.00	
12,800.00	90.00	0.28	7,150.00	5,377.93	1,210.04	5,383.78	0.00	0.00	0.00	
12,900.00	90.00	0.28	7,150.00	5,477.93	1,210.53	5,483.78	0.00	0.00	0.00	
13,000.00	90.00	0.28	7,150.00	5,577.92	1,211.03	5,583.78	0.00	0.00	0.00	
13,100.00	90.00	0.28	7,150.00	5,677.92	1,211.52	5,683.78	0.00	0.00	0.00	
13,200.00	90.00	0.28	7,150.00	5,777.92	1,212.01	5,783.78	0.00	0.00	0.00	
13,300.00	90.00	0.28	7,150.00	5,877.92	1,212.50	5,883.78	0.00	0.00	0.00	
13,400.00	90.00	0.28	7,150.00	5,977.92	1,213.00	5,983.78	0.00	0.00	0.00	
13,500.00	90.00	0.28	7,150.00	6,077.92	1,213.49	6,083.78	0.00	0.00	0.00	
13,600.00	90.00	0.28	7,150.00	6,177.92	1,213.98	6,183.78	0.00	0.00	0.00	
13,700.00	90.00	0.28	7,150.00	6,277.92	1,214.47	6,283.78	0.00	0.00	0.00	
13,800.00	90.00	0.28	7,150.00	6,377.91	1,214.97	6,383.78	0.00	0.00	0.00	
13,900.00	90.00	0.28	7,150.00	6,477.91	1,215.46	6,483.78	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well WARNER 1708-07H
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 1708-07H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
Design:	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)	
14,000.00	90.00	0.28	7,150.00	6,577.91	1,215.95	6,583.78	0.00	0.00	0.00	
14,100.00	90.00	0.28	7,150.00	6,677.91	1,216.44	6,683.78	0.00	0.00	0.00	
14,200.00	90.00	0.28	7,150.00	6,777.91	1,216.93	6,783.78	0.00	0.00	0.00	
14,300.00	90.00	0.28	7,150.00	6,877.91	1,217.43	6,883.78	0.00	0.00	0.00	
14,400.00	90.00	0.28	7,150.00	6,977.91	1,217.92	6,983.78	0.00	0.00	0.00	
14,500.00	90.00	0.28	7,150.00	7,077.91	1,218.41	7,083.78	0.00	0.00	0.00	
14,600.00	90.00	0.28	7,150.00	7,177.90	1,218.90	7,183.78	0.00	0.00	0.00	
14,700.00	90.00	0.28	7,150.00	7,277.90	1,219.40	7,283.78	0.00	0.00	0.00	
14,800.00	90.00	0.28	7,150.00	7,377.90	1,219.89	7,383.78	0.00	0.00	0.00	
14,900.00	90.00	0.28	7,150.00	7,477.90	1,220.38	7,483.78	0.00	0.00	0.00	
15,000.00	90.00	0.28	7,150.00	7,577.90	1,220.87	7,583.78	0.00	0.00	0.00	
15,100.00	90.00	0.28	7,150.00	7,677.90	1,221.37	7,683.78	0.00	0.00	0.00	
15,200.00	90.00	0.28	7,150.00	7,777.90	1,221.86	7,783.78	0.00	0.00	0.00	
15,300.00	90.00	0.28	7,150.00	7,877.90	1,222.35	7,883.78	0.00	0.00	0.00	
15,400.00	90.00	0.28	7,150.00	7,977.90	1,222.84	7,983.78	0.00	0.00	0.00	
15,500.00	90.00	0.28	7,150.00	8,077.89	1,223.34	8,083.78	0.00	0.00	0.00	
15,600.00	90.00	0.28	7,150.00	8,177.89	1,223.83	8,183.78	0.00	0.00	0.00	
15,700.00	90.00	0.28	7,150.00	8,277.89	1,224.32	8,283.78	0.00	0.00	0.00	
15,800.00	90.00	0.28	7,150.00	8,377.89	1,224.81	8,383.78	0.00	0.00	0.00	
15,900.00	90.00	0.28	7,150.00	8,477.89	1,225.30	8,483.78	0.00	0.00	0.00	
16,000.00	90.00	0.28	7,150.00	8,577.89	1,225.80	8,583.78	0.00	0.00	0.00	
16,100.00	90.00	0.28	7,150.00	8,677.89	1,226.29	8,683.78	0.00	0.00	0.00	
16,200.00	90.00	0.28	7,150.00	8,777.89	1,226.78	8,783.78	0.00	0.00	0.00	
16,300.00	90.00	0.28	7,150.00	8,877.88	1,227.27	8,883.78	0.00	0.00	0.00	
16,400.00	90.00	0.28	7,150.00	8,977.88	1,227.77	8,983.78	0.00	0.00	0.00	
16,500.00	90.00	0.28	7,150.00	9,077.88	1,228.26	9,083.78	0.00	0.00	0.00	
16,600.00	90.00	0.28	7,150.00	9,177.88	1,228.75	9,183.78	0.00	0.00	0.00	
16,700.00	90.00	0.28	7,150.00	9,277.88	1,229.24	9,283.78	0.00	0.00	0.00	
16,800.00	90.00	0.28	7,150.00	9,377.88	1,229.74	9,383.78	0.00	0.00	0.00	
16,900.00	90.00	0.28	7,150.00	9,477.88	1,230.23	9,483.78	0.00	0.00	0.00	
17,000.00	90.00	0.28	7,150.00	9,577.88	1,230.72	9,583.78	0.00	0.00	0.00	
17,100.00	90.00	0.28	7,150.00	9,677.87	1,231.21	9,683.78	0.00	0.00	0.00	
17,200.00	90.00	0.28	7,150.00	9,777.87	1,231.71	9,783.78	0.00	0.00	0.00	
17,300.00	90.00	0.28	7,150.00	9,877.87	1,232.20	9,883.78	0.00	0.00	0.00	
17,382.95	90.00	0.28	7,150.00	9,960.82	1,232.61	9,966.73	0.00	0.00	0.00	
BPZ @ 17382.95ft										
17,400.00	90.00	0.28	7,150.00	9,977.87	1,232.69	9,983.78	0.00	0.00	0.00	
17,472.92	90.00	0.28	7,150.00	10,050.79	1,233.05	10,056.70	0.00	0.00	0.00	
TD Well @ 17472.92ft										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
2,148.03	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 1708-07H
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 1708-07H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
Design:	Design #1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
263.00	263.00	0.00	0.00	Begin Nudge @ 263.00ft
814.50	811.10	-21.16	48.51	Hold Tangent @ 814.50ft
6,500.12	6,391.69	-456.13	1,045.54	KOP @ 6500.12ft :: DLS = 8"/100'
7,679.35	7,150.00	257.33	1,184.83	End Build/TPZ @ 7679.34ft
17,382.95	7,150.00	9,960.82	1,232.61	BPZ @ 17382.95ft
17,472.92	7,150.00	10,050.79	1,233.05	TD Well @ 17472.92ft