

# **VERDAD RESOURCES**

**WATTENBERG FIELD  
1N-64W-19 CHIVE & SHALLOT PAD  
SHALLOT 1930-22H**

**Plan A**

**Plan: Design #1**

## **Standard Planning Report**

**19 May, 2023**

# VERDAD RESOURCES

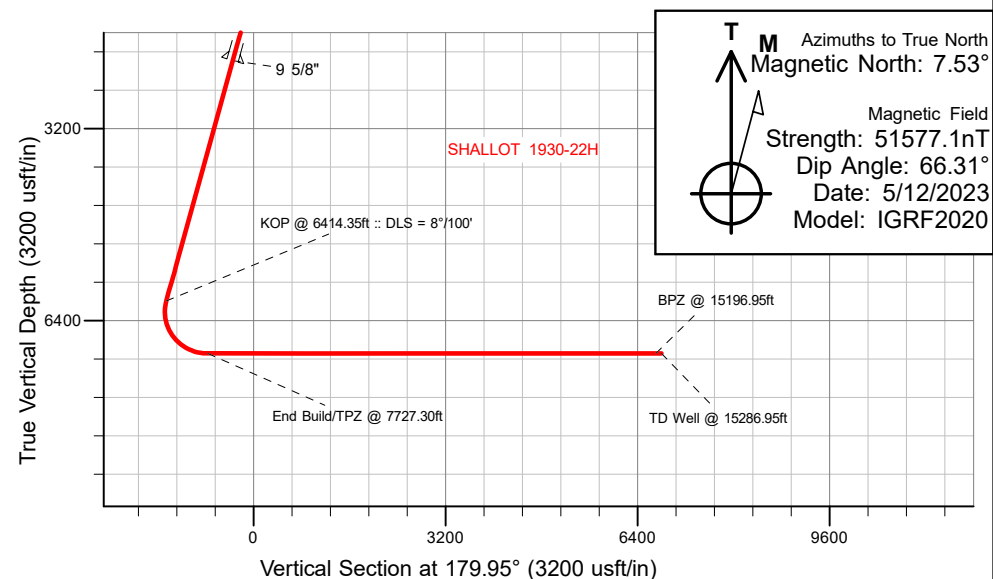
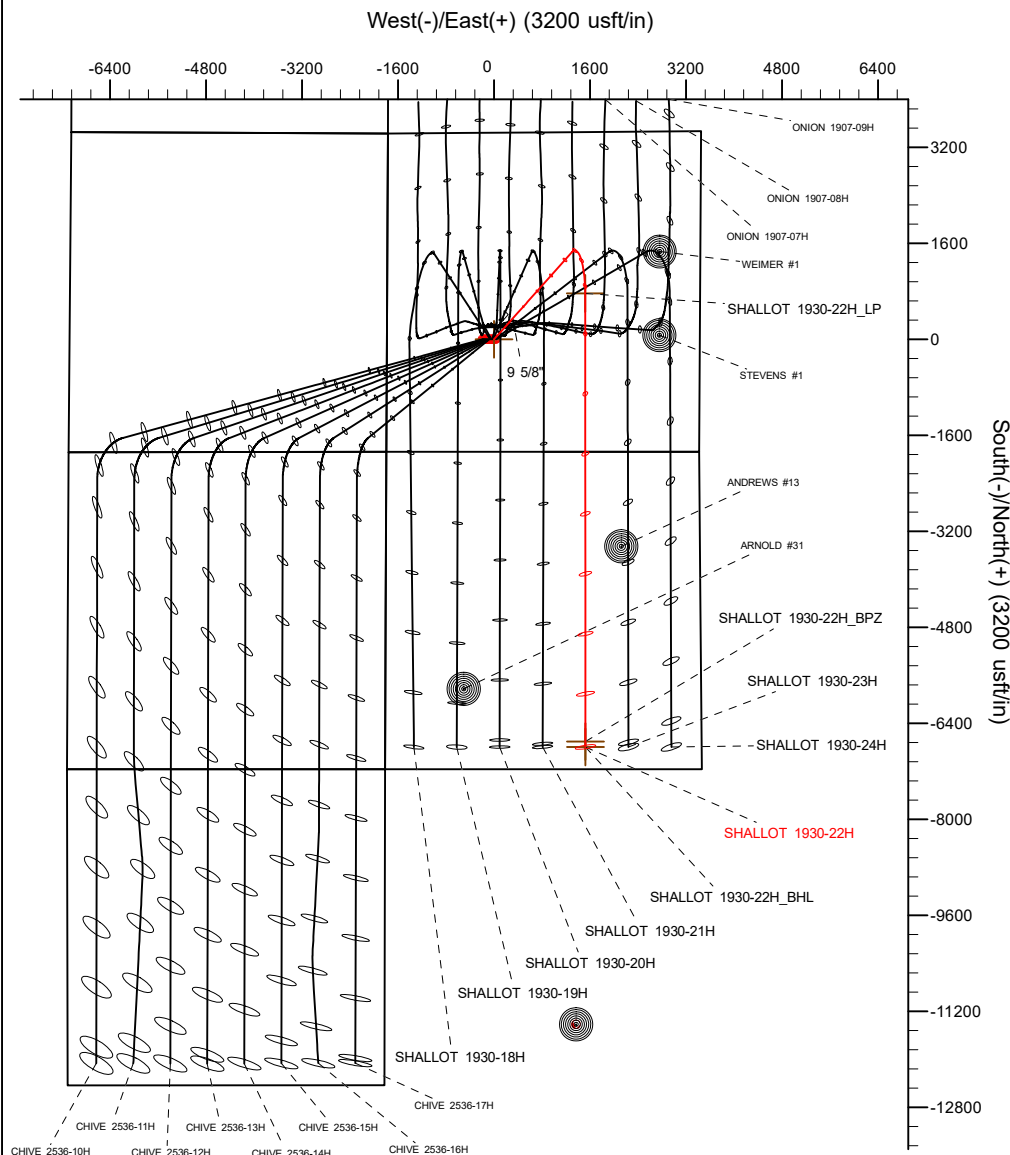
CASING DETAILS			
TVD	MD	Name	Size
2070.00	2142.79	9 5/8"	9-5/8

## SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
301.20	0.00	0.00	301.20	0.00	0.00	0.00	0.00	0.00	
1319.70	20.37	41.77	1298.38	133.62	119.34	2.00	41.77	-133.51	
6414.35	20.37	41.77	6074.43	1456.23	1300.64	0.00	0.00	-1455.09	
7727.30	90.00	179.95	6950.00	764.72	1517.94	8.00	136.34	-763.39	
15286.95	90.00	179.95	6950.00	-6794.93	1523.89	0.00	0.00	6796.26	SHALLOT 1930-22H BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	Northing	Easting	Latitude	Longitude
SHALLOT 1930-22H_SHL	0.00	1256777.01	3253005.13	40.034702	-104.596430
SHALLOT 1930-22H_LP	6950.00	1257557.10	3254515.06	40.036801	-104.591010
SHALLOT 1930-22H_BPZ	6950.00	1250087.96	3254597.19	40.016296	-104.590990
SHALLOT 1930-22H_BHL	6950.00	1249997.96	3254598.18	40.016049	-104.590989



WELL DETAILS: SHALLOT 1930-22H
GL = 5011'
RKB = 20' @ 5031.00usft (RIG)
Plan: Design #1 (SHALLOT 1930-22H/Plan A)
Date: 5/19/2023

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SHALLOT 1930-22H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5031.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5031.00usft (RIG)
<b>Site:</b>	1N-64W-19 CHIVE & SHALLOT PAD	<b>North Reference:</b>	True
<b>Well:</b>	SHALLOT 1930-22H	<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-19 CHIVE & SHALLOT PAD			
<b>Site Position:</b>		<b>Northing:</b>	1,256,775.08 usft	<b>Latitude:</b> 40.034702
<b>From:</b>	Map	<b>Easting:</b>	3,252,813.14 usft	<b>Longitude:</b> -104.597116
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	

<b>Well</b>	SHALLOT 1930-22H			
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	1,256,777.01 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	3,253,005.13 usft
<b>Position Uncertainty</b>		3.28 usft	<b>Wellhead Elevation:</b>	usft
<b>Grid Convergence:</b>		0.58 °	<b>Ground Level:</b>	5,011.00 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	5/12/2023	7.53	66.31	51,577.08087578

<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	179.95	

<b>Plan Survey Tool Program</b>	<b>Date</b>	5/15/2023			
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.00	2,070.00	Design #1 (Plan A)	ISCWSA MWD	
				Fixed:v2:standard declination	
2	2,070.00	15,286.95	Design #1 (Plan A)	ISCWSA MWD	
				Fixed:v2:standard declination	

Planning Report

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Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 5031.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 5031.00usft (RIG)
Site:	1N-64W-19 CHIVE & SHALLOT PAD	North Reference:	True
Well:	SHALLOT 1930-22H	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	
301.20	0.00	0.00	301.20	0.00	0.00	0.00	0.00	0.00	0.00	
1,319.70	20.37	41.77	1,298.38	133.62	119.34	2.00	2.00	0.00	41.77	
6,414.35	20.37	41.77	6,074.43	1,456.23	1,300.64	0.00	0.00	0.00	0.00	
7,727.30	90.00	179.95	6,950.00	764.72	1,517.94	8.00	5.30	10.52	136.34	
15,286.95	90.00	179.95	6,950.00	-6,794.93	1,523.89	0.00	0.00	0.00	0.00	SHALLOT 1930-22H_

# Planning Report

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<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5031.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5031.00usft (RIG)
<b>Site:</b>	1N-64W-19 CHIVE & SHALLOT PAD	<b>North Reference:</b>	True
<b>Well:</b>	SHALLOT 1930-22H	<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
301.20	0.00	0.00	301.20	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 301.20ft									
400.00	1.98	41.77	399.98	1.27	1.13	-1.27	2.00	2.00	0.00
500.00	3.98	41.77	499.84	5.14	4.59	-5.14	2.00	2.00	0.00
600.00	5.98	41.77	599.46	11.61	10.37	-11.60	2.00	2.00	0.00
700.00	7.98	41.77	698.71	20.67	18.46	-20.65	2.00	2.00	0.00
800.00	9.98	41.77	797.48	32.30	28.85	-32.28	2.00	2.00	0.00
900.00	11.98	41.77	895.65	46.50	41.54	-46.47	2.00	2.00	0.00
1,000.00	13.98	41.77	993.09	63.25	56.49	-63.20	2.00	2.00	0.00
1,100.00	15.98	41.77	1,089.69	82.52	73.71	-82.46	2.00	2.00	0.00
1,200.00	17.98	41.77	1,185.33	104.30	93.15	-104.22	2.00	2.00	0.00
1,300.00	19.98	41.77	1,279.89	128.55	114.81	-128.45	2.00	2.00	0.00
1,319.70	20.37	41.77	1,298.38	133.62	119.34	-133.51	2.00	2.00	0.00
Hold Tangent @ 1319.70ft									
1,400.00	20.37	41.77	1,373.66	154.46	137.96	-154.34	0.00	0.00	0.00
1,500.00	20.37	41.77	1,467.40	180.42	161.15	-180.28	0.00	0.00	0.00
1,600.00	20.37	41.77	1,561.15	206.38	184.33	-206.22	0.00	0.00	0.00
1,700.00	20.37	41.77	1,654.90	232.34	207.52	-232.16	0.00	0.00	0.00
1,800.00	20.37	41.77	1,748.64	258.31	230.71	-258.10	0.00	0.00	0.00
1,900.00	20.37	41.77	1,842.39	284.27	253.90	-284.04	0.00	0.00	0.00
2,000.00	20.37	41.77	1,936.14	310.23	277.08	-309.98	0.00	0.00	0.00
2,100.00	20.37	41.77	2,029.88	336.19	300.27	-335.93	0.00	0.00	0.00
2,142.79	20.37	41.77	2,070.00	347.30	310.19	-347.03	0.00	0.00	0.00
9 5/8"									
2,200.00	20.37	41.77	2,123.63	362.15	323.46	-361.87	0.00	0.00	0.00
2,300.00	20.37	41.77	2,217.38	388.11	346.64	-387.81	0.00	0.00	0.00
2,400.00	20.37	41.77	2,311.12	414.07	369.83	-413.75	0.00	0.00	0.00
2,500.00	20.37	41.77	2,404.87	440.03	393.02	-439.69	0.00	0.00	0.00
2,600.00	20.37	41.77	2,498.61	465.99	416.21	-465.63	0.00	0.00	0.00
2,700.00	20.37	41.77	2,592.36	491.95	439.39	-491.57	0.00	0.00	0.00
2,800.00	20.37	41.77	2,686.11	517.91	462.58	-517.51	0.00	0.00	0.00
2,900.00	20.37	41.77	2,779.85	543.87	485.77	-543.45	0.00	0.00	0.00
3,000.00	20.37	41.77	2,873.60	569.83	508.95	-569.39	0.00	0.00	0.00
3,100.00	20.37	41.77	2,967.35	595.80	532.14	-595.33	0.00	0.00	0.00
3,200.00	20.37	41.77	3,061.09	621.76	555.33	-621.27	0.00	0.00	0.00
3,300.00	20.37	41.77	3,154.84	647.72	578.52	-647.21	0.00	0.00	0.00
3,400.00	20.37	41.77	3,248.59	673.68	601.70	-673.15	0.00	0.00	0.00
3,500.00	20.37	41.77	3,342.33	699.64	624.89	-699.09	0.00	0.00	0.00
3,600.00	20.37	41.77	3,436.08	725.60	648.08	-725.03	0.00	0.00	0.00
3,700.00	20.37	41.77	3,529.83	751.56	671.26	-750.97	0.00	0.00	0.00
3,800.00	20.37	41.77	3,623.57	777.52	694.45	-776.91	0.00	0.00	0.00
3,900.00	20.37	41.77	3,717.32	803.48	717.64	-802.85	0.00	0.00	0.00
4,000.00	20.37	41.77	3,811.07	829.44	740.83	-828.80	0.00	0.00	0.00
4,100.00	20.37	41.77	3,904.81	855.40	764.01	-854.74	0.00	0.00	0.00
4,200.00	20.37	41.77	3,998.56	881.36	787.20	-880.68	0.00	0.00	0.00
4,300.00	20.37	41.77	4,092.30	907.32	810.39	-906.62	0.00	0.00	0.00
4,400.00	20.37	41.77	4,186.05	933.29	833.57	-932.56	0.00	0.00	0.00
4,500.00	20.37	41.77	4,279.80	959.25	856.76	-958.50	0.00	0.00	0.00
4,600.00	20.37	41.77	4,373.54	985.21	879.95	-984.44	0.00	0.00	0.00
4,700.00	20.37	41.77	4,467.29	1,011.17	903.14	-1,010.38	0.00	0.00	0.00

# Planning Report

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<b>Well:</b>	SHALLOT 1930-22H	<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	20.37	41.77	4,561.04	1,037.13	926.32	-1,036.32	0.00	0.00	0.00
4,900.00	20.37	41.77	4,654.78	1,063.09	949.51	-1,062.26	0.00	0.00	0.00
5,000.00	20.37	41.77	4,748.53	1,089.05	972.70	-1,088.20	0.00	0.00	0.00
5,100.00	20.37	41.77	4,842.28	1,115.01	995.88	-1,114.14	0.00	0.00	0.00
5,200.00	20.37	41.77	4,936.02	1,140.97	1,019.07	-1,140.08	0.00	0.00	0.00
5,300.00	20.37	41.77	5,029.77	1,166.93	1,042.26	-1,166.02	0.00	0.00	0.00
5,400.00	20.37	41.77	5,123.52	1,192.89	1,065.45	-1,191.96	0.00	0.00	0.00
5,500.00	20.37	41.77	5,217.26	1,218.85	1,088.63	-1,217.90	0.00	0.00	0.00
5,600.00	20.37	41.77	5,311.01	1,244.81	1,111.82	-1,243.84	0.00	0.00	0.00
5,700.00	20.37	41.77	5,404.75	1,270.77	1,135.01	-1,269.78	0.00	0.00	0.00
5,800.00	20.37	41.77	5,498.50	1,296.74	1,158.19	-1,295.72	0.00	0.00	0.00
5,900.00	20.37	41.77	5,592.25	1,322.70	1,181.38	-1,321.67	0.00	0.00	0.00
6,000.00	20.37	41.77	5,685.99	1,348.66	1,204.57	-1,347.61	0.00	0.00	0.00
6,100.00	20.37	41.77	5,779.74	1,374.62	1,227.76	-1,373.55	0.00	0.00	0.00
6,200.00	20.37	41.77	5,873.49	1,400.58	1,250.94	-1,399.49	0.00	0.00	0.00
6,300.00	20.37	41.77	5,967.23	1,426.54	1,274.13	-1,425.43	0.00	0.00	0.00
6,400.00	20.37	41.77	6,060.98	1,452.50	1,297.32	-1,451.37	0.00	0.00	0.00
6,414.35	20.37	41.77	6,074.43	1,456.23	1,300.64	-1,455.09	0.00	0.00	0.00
KOP @ 6414.35ft :: DLS = 8°/100'									
6,450.00	18.41	48.01	6,108.06	1,464.62	1,308.96	-1,463.48	8.00	-5.50	17.52
6,500.00	16.09	59.06	6,155.82	1,473.47	1,320.78	-1,472.32	8.00	-4.63	22.08
6,550.00	14.51	73.02	6,204.07	1,478.86	1,332.72	-1,477.70	8.00	-3.17	27.94
6,600.00	13.91	89.19	6,252.56	1,480.78	1,344.72	-1,479.60	8.00	-1.21	32.33
6,650.00	14.41	105.47	6,301.06	1,479.20	1,356.73	-1,478.02	8.00	1.01	32.56
6,700.00	15.91	119.69	6,349.33	1,474.15	1,368.68	-1,472.95	8.00	3.01	28.45
6,750.00	18.17	131.00	6,397.15	1,465.63	1,380.53	-1,464.43	8.00	4.52	22.61
6,800.00	20.94	139.65	6,444.27	1,453.70	1,392.20	-1,452.49	8.00	5.54	17.30
6,850.00	24.05	146.26	6,490.47	1,438.42	1,403.65	-1,437.19	8.00	6.21	13.22
6,900.00	27.37	151.39	6,535.51	1,419.85	1,414.82	-1,418.61	8.00	6.65	10.27
6,950.00	30.85	155.47	6,579.20	1,398.09	1,425.65	-1,396.84	8.00	6.95	8.15
7,000.00	34.43	158.78	6,621.30	1,373.24	1,436.09	-1,371.99	8.00	7.16	6.63
7,050.00	38.08	161.54	6,661.61	1,345.43	1,446.09	-1,344.17	8.00	7.31	5.51
7,100.00	41.79	163.87	6,699.95	1,314.78	1,455.61	-1,313.51	8.00	7.42	4.67
7,150.00	45.54	165.89	6,736.11	1,281.46	1,464.59	-1,280.18	8.00	7.50	4.04
7,200.00	49.32	167.67	6,769.93	1,245.62	1,472.99	-1,244.33	8.00	7.56	3.55
7,250.00	53.12	169.25	6,801.24	1,207.44	1,480.77	-1,206.14	8.00	7.61	3.17
7,300.00	56.95	170.69	6,829.89	1,167.09	1,487.89	-1,165.79	8.00	7.65	2.87
7,350.00	60.79	172.00	6,855.74	1,124.79	1,494.32	-1,123.48	8.00	7.68	2.63
7,400.00	64.64	173.22	6,878.66	1,080.73	1,500.03	-1,079.42	8.00	7.70	2.44
7,450.00	68.50	174.36	6,898.54	1,035.13	1,504.99	-1,033.82	8.00	7.72	2.28
7,500.00	72.37	175.44	6,915.28	988.22	1,509.17	-986.90	8.00	7.74	2.17
7,550.00	76.24	176.48	6,928.80	940.21	1,512.56	-938.89	8.00	7.75	2.08
7,600.00	80.12	177.48	6,939.05	891.35	1,515.13	-890.03	8.00	7.76	2.01
7,650.00	84.00	178.46	6,945.95	841.87	1,516.88	-840.54	8.00	7.76	1.96
7,700.00	87.88	179.43	6,949.49	792.01	1,517.80	-790.69	8.00	7.76	1.93
7,727.30	90.00	179.95	6,950.00	764.72	1,517.94	-763.39	8.00	7.77	1.92
End Build/TPZ @ 7727.30ft									
7,800.00	90.00	179.95	6,950.00	692.02	1,518.00	-690.69	0.00	0.00	0.00
7,900.00	90.00	179.95	6,950.00	592.02	1,518.08	-590.69	0.00	0.00	0.00
8,000.00	90.00	179.95	6,950.00	492.02	1,518.16	-490.69	0.00	0.00	0.00
8,100.00	90.00	179.95	6,950.00	392.02	1,518.23	-390.69	0.00	0.00	0.00
8,200.00	90.00	179.95	6,950.00	292.02	1,518.31	-290.69	0.00	0.00	0.00
8,300.00	90.00	179.95	6,950.00	192.02	1,518.39	-190.69	0.00	0.00	0.00
8,400.00	90.00	179.95	6,950.00	92.02	1,518.47	-90.69	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SHALLOT 1930-22H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5031.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5031.00usft (RIG)
<b>Site:</b>	1N-64W-19 CHIVE & SHALLOT PAD	<b>North Reference:</b>	True
<b>Well:</b>	SHALLOT 1930-22H	<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)	
8,500.00	90.00	179.95	6,950.00	-7.98	1,518.55	9.31	0.00	0.00	0.00	
8,600.00	90.00	179.95	6,950.00	-107.98	1,518.63	109.31	0.00	0.00	0.00	
8,700.00	90.00	179.95	6,950.00	-207.98	1,518.71	209.31	0.00	0.00	0.00	
8,800.00	90.00	179.95	6,950.00	-307.98	1,518.79	309.31	0.00	0.00	0.00	
8,900.00	90.00	179.95	6,950.00	-407.98	1,518.86	409.31	0.00	0.00	0.00	
9,000.00	90.00	179.95	6,950.00	-507.98	1,518.94	509.31	0.00	0.00	0.00	
9,100.00	90.00	179.95	6,950.00	-607.98	1,519.02	609.31	0.00	0.00	0.00	
9,200.00	90.00	179.95	6,950.00	-707.98	1,519.10	709.31	0.00	0.00	0.00	
9,300.00	90.00	179.95	6,950.00	-807.98	1,519.18	809.31	0.00	0.00	0.00	
9,400.00	90.00	179.95	6,950.00	-907.98	1,519.26	909.31	0.00	0.00	0.00	
9,500.00	90.00	179.95	6,950.00	-1,007.98	1,519.34	1,009.31	0.00	0.00	0.00	
9,600.00	90.00	179.95	6,950.00	-1,107.98	1,519.42	1,109.31	0.00	0.00	0.00	
9,700.00	90.00	179.95	6,950.00	-1,207.98	1,519.49	1,209.31	0.00	0.00	0.00	
9,800.00	90.00	179.95	6,950.00	-1,307.98	1,519.57	1,309.31	0.00	0.00	0.00	
9,900.00	90.00	179.95	6,950.00	-1,407.98	1,519.65	1,409.31	0.00	0.00	0.00	
10,000.00	90.00	179.95	6,950.00	-1,507.98	1,519.73	1,509.31	0.00	0.00	0.00	
10,100.00	90.00	179.95	6,950.00	-1,607.98	1,519.81	1,609.31	0.00	0.00	0.00	
10,200.00	90.00	179.95	6,950.00	-1,707.98	1,519.89	1,709.31	0.00	0.00	0.00	
10,300.00	90.00	179.95	6,950.00	-1,807.98	1,519.97	1,809.31	0.00	0.00	0.00	
10,400.00	90.00	179.95	6,950.00	-1,907.98	1,520.05	1,909.31	0.00	0.00	0.00	
10,500.00	90.00	179.95	6,950.00	-2,007.98	1,520.12	2,009.31	0.00	0.00	0.00	
10,600.00	90.00	179.95	6,950.00	-2,107.98	1,520.20	2,109.31	0.00	0.00	0.00	
10,700.00	90.00	179.95	6,950.00	-2,207.98	1,520.28	2,209.31	0.00	0.00	0.00	
10,800.00	90.00	179.95	6,950.00	-2,307.98	1,520.36	2,309.31	0.00	0.00	0.00	
10,900.00	90.00	179.95	6,950.00	-2,407.98	1,520.44	2,409.31	0.00	0.00	0.00	
11,000.00	90.00	179.95	6,950.00	-2,507.98	1,520.52	2,509.31	0.00	0.00	0.00	
11,100.00	90.00	179.95	6,950.00	-2,607.98	1,520.60	2,609.31	0.00	0.00	0.00	
11,200.00	90.00	179.95	6,950.00	-2,707.98	1,520.68	2,709.31	0.00	0.00	0.00	
11,300.00	90.00	179.95	6,950.00	-2,807.98	1,520.75	2,809.31	0.00	0.00	0.00	
11,400.00	90.00	179.95	6,950.00	-2,907.98	1,520.83	2,909.31	0.00	0.00	0.00	
11,500.00	90.00	179.95	6,950.00	-3,007.98	1,520.91	3,009.31	0.00	0.00	0.00	
11,600.00	90.00	179.95	6,950.00	-3,107.98	1,520.99	3,109.31	0.00	0.00	0.00	
11,700.00	90.00	179.95	6,950.00	-3,207.98	1,521.07	3,209.31	0.00	0.00	0.00	
11,800.00	90.00	179.95	6,950.00	-3,307.98	1,521.15	3,309.31	0.00	0.00	0.00	
11,900.00	90.00	179.95	6,950.00	-3,407.98	1,521.23	3,409.31	0.00	0.00	0.00	
12,000.00	90.00	179.95	6,950.00	-3,507.98	1,521.30	3,509.31	0.00	0.00	0.00	
12,100.00	90.00	179.95	6,950.00	-3,607.98	1,521.38	3,609.31	0.00	0.00	0.00	
12,200.00	90.00	179.95	6,950.00	-3,707.98	1,521.46	3,709.31	0.00	0.00	0.00	
12,300.00	90.00	179.95	6,950.00	-3,807.98	1,521.54	3,809.31	0.00	0.00	0.00	
12,400.00	90.00	179.95	6,950.00	-3,907.98	1,521.62	3,909.31	0.00	0.00	0.00	
12,500.00	90.00	179.95	6,950.00	-4,007.98	1,521.70	4,009.31	0.00	0.00	0.00	
12,600.00	90.00	179.95	6,950.00	-4,107.98	1,521.78	4,109.31	0.00	0.00	0.00	
12,700.00	90.00	179.95	6,950.00	-4,207.98	1,521.86	4,209.31	0.00	0.00	0.00	
12,800.00	90.00	179.95	6,950.00	-4,307.98	1,521.93	4,309.31	0.00	0.00	0.00	
12,900.00	90.00	179.95	6,950.00	-4,407.98	1,522.01	4,409.31	0.00	0.00	0.00	
13,000.00	90.00	179.95	6,950.00	-4,507.98	1,522.09	4,509.31	0.00	0.00	0.00	
13,100.00	90.00	179.95	6,950.00	-4,607.98	1,522.17	4,609.31	0.00	0.00	0.00	
13,200.00	90.00	179.95	6,950.00	-4,707.98	1,522.25	4,709.31	0.00	0.00	0.00	
13,300.00	90.00	179.95	6,950.00	-4,807.98	1,522.33	4,809.31	0.00	0.00	0.00	
13,400.00	90.00	179.95	6,950.00	-4,907.98	1,522.41	4,909.31	0.00	0.00	0.00	
13,500.00	90.00	179.95	6,950.00	-5,007.98	1,522.49	5,009.31	0.00	0.00	0.00	
13,600.00	90.00	179.95	6,950.00	-5,107.98	1,522.56	5,109.31	0.00	0.00	0.00	
13,700.00	90.00	179.95	6,950.00	-5,207.98	1,522.64	5,209.31	0.00	0.00	0.00	
13,800.00	90.00	179.95	6,950.00	-5,307.98	1,522.72	5,309.31	0.00	0.00	0.00	

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SHALLOT 1930-22H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5031.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5031.00usft (RIG)
<b>Site:</b>	1N-64W-19 CHIVE & SHALLOT PAD	<b>North Reference:</b>	True
<b>Well:</b>	SHALLOT 1930-22H	<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)	
13,900.00	90.00	179.95	6,950.00	-5,407.98	1,522.80	5,409.31	0.00	0.00	0.00	
14,000.00	90.00	179.95	6,950.00	-5,507.98	1,522.88	5,509.31	0.00	0.00	0.00	
14,100.00	90.00	179.95	6,950.00	-5,607.98	1,522.96	5,609.31	0.00	0.00	0.00	
14,200.00	90.00	179.95	6,950.00	-5,707.98	1,523.04	5,709.31	0.00	0.00	0.00	
14,300.00	90.00	179.95	6,950.00	-5,807.98	1,523.12	5,809.31	0.00	0.00	0.00	
14,400.00	90.00	179.95	6,950.00	-5,907.98	1,523.19	5,909.31	0.00	0.00	0.00	
14,500.00	90.00	179.95	6,950.00	-6,007.98	1,523.27	6,009.31	0.00	0.00	0.00	
14,600.00	90.00	179.95	6,950.00	-6,107.98	1,523.35	6,109.31	0.00	0.00	0.00	
14,700.00	90.00	179.95	6,950.00	-6,207.98	1,523.43	6,209.31	0.00	0.00	0.00	
14,800.00	90.00	179.95	6,950.00	-6,307.98	1,523.51	6,309.31	0.00	0.00	0.00	
14,900.00	90.00	179.95	6,950.00	-6,407.98	1,523.59	6,409.31	0.00	0.00	0.00	
15,000.00	90.00	179.95	6,950.00	-6,507.98	1,523.67	6,509.31	0.00	0.00	0.00	
15,100.00	90.00	179.95	6,950.00	-6,607.98	1,523.74	6,609.31	0.00	0.00	0.00	
15,196.95	90.00	179.95	6,950.00	-6,704.93	1,523.82	6,706.26	0.00	0.00	0.00	
BPZ @ 15196.95ft										
15,200.00	90.00	179.95	6,950.00	-6,707.98	1,523.82	6,709.31	0.00	0.00	0.00	
15,286.95	90.00	179.95	6,950.00	-6,794.93	1,523.89	6,796.26	0.00	0.00	0.00	
TD Well @ 15286.95ft										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
2,142.79	2,070.00	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)		
301.20	301.20	0.00	0.00	Begin Nudge @ 301.20ft	
1,319.70	1,298.38	133.62	119.34	Hold Tangent @ 1319.70ft	
6,414.35	6,074.43	1,456.23	1,300.64	KOP @ 6414.35ft :: DLS = 8°/100'	
7,727.30	6,950.00	764.72	1,517.94	End Build/TPZ @ 7727.30ft	
15,196.95	6,950.00	-6,704.93	1,523.82	BPZ @ 15196.95ft	
15,286.95	6,950.00	-6,794.93	1,523.89	TD Well @ 15286.95ft	