

VERDAD RESOURCES

WATTENBERG FIELD

1N-64W-19 ONION 1907 PAD

ONION 1907-09H

Plan A

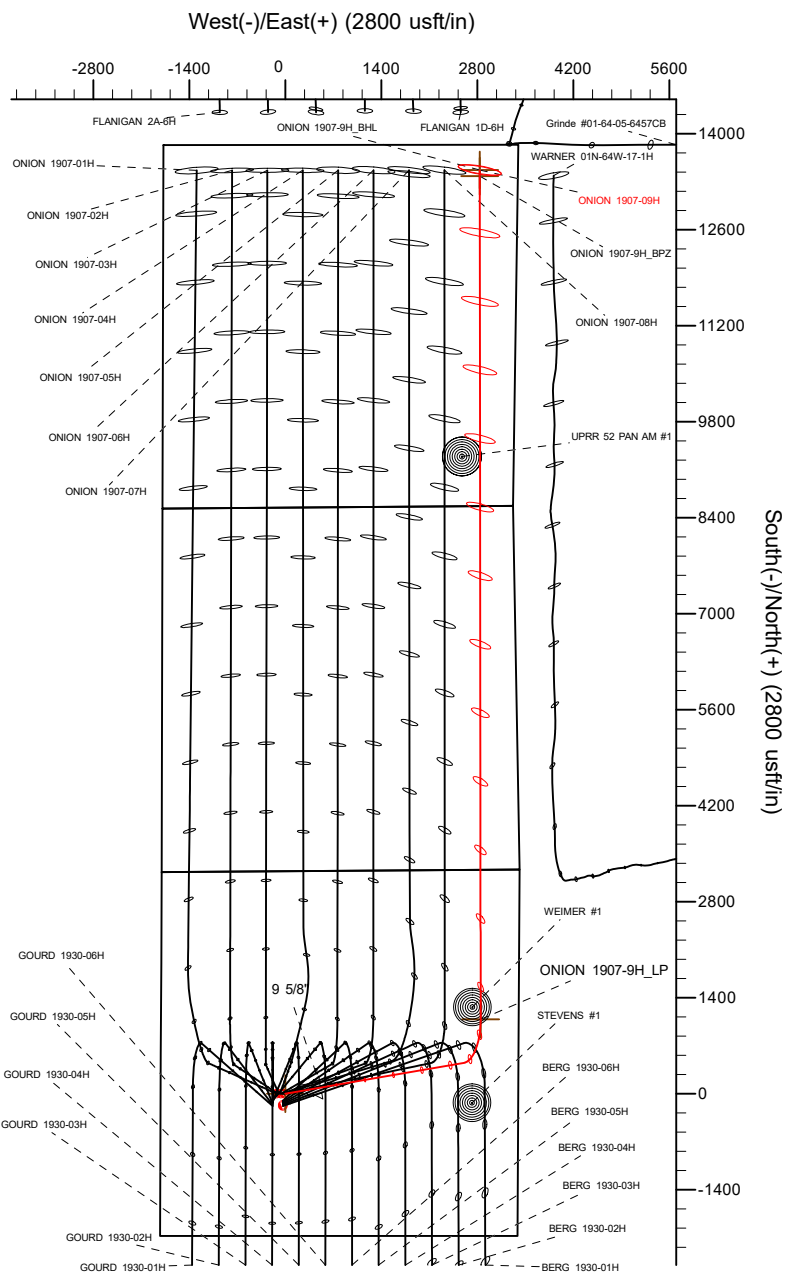
Plan: Design #1

Standard Planning Report

16 March, 2022

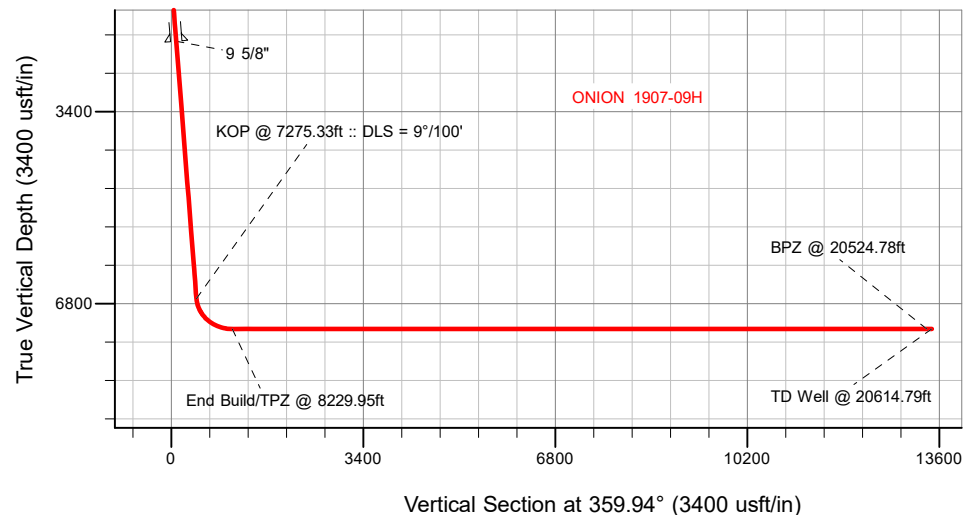
VERDAD RESOURCES

CASING DETAILS			
TVD	MD	Name	Size
2156.00	2252.08	9 5/8"	9-5/8



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	
391.15	0.00	0.00	391.15	0.00	0.00	0.00	0.00	0.00	
1636.15	24.90	80.20	1597.33	45.33	262.41	2.00	80.20	45.05	
7275.33	24.90	80.20	6712.31	449.45	2602.06	0.00	0.00	446.73	
8229.95	90.00	359.94	7250.00	1084.72	2847.37	9.00	-81.15	1081.74	
20614.79	90.00	359.94	7250.00	13469.55	2834.08	0.00	0.00	13466.57	ONION 1907-9H_BHL

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
ONION 1907-9H_SHL	0.00	0.00	0.00	40.035251	-104.596311
ONION 1907-9H_LP	7250.00	1084.72	2847.37	40.038228	-104.586142
ONION 1907-9H_BPZ	7250.00	13379.54	2834.20	40.071980	-104.586184
ONION 1907-9H_BHL	7250.00	13469.55	2834.08	40.072227	-104.586184

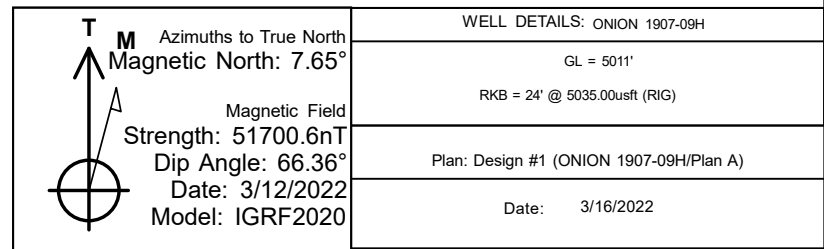


BHL
370' FNL
556' FEL

BPZ
460' FNL
555' FEL

TPZ
2180' FNL
555' FEL

SHL
2075' FSL
1819' FWL



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well ONION 1907-09H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 24' @ 5035.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 5035.00usft (RIG)
Site:	1N-64W-19 ONION 1907 PAD	North Reference:	True
Well:	ONION 1907-09H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
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-19 ONION 1907 PAD			
Site Position:		Northing:	1,256,976.07 usft	Latitude: 40.035252
From:	Lat/Long	Easting:	3,252,908.41 usft	Longitude: -104.596769
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	

Well	ONION 1907-09H			
Well Position	+N/-S	0.00 usft	Northing:	1,256,977.31 usft
	+E/-W	0.00 usft	Easting:	3,253,036.39 usft
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft
Grid Convergence:		0.58 °	Ground Level:	5,011.00 usft

Wellbore	Plan A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF202013	3/12/2022	7.65	66.36	51,700.56589015

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	359.94	

Plan Survey Tool Program		Date	3/16/2022		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	2,156.00	Design #1 (Plan A)	ISCWSA MWD	
				Fixed:v2:standard declination	
2	2,156.00	20,614.79	Design #1 (Plan A)	ISCWSA MWD	
				Fixed:v2:standard declination	

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Well:	ONION 1907-09H	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	
391.15	0.00	0.00	391.15	0.00	0.00	0.00	0.00	0.00	0.00	
1,636.15	24.90	80.20	1,597.33	45.33	262.41	2.00	2.00	0.00	80.20	
7,275.33	24.90	80.20	6,712.31	449.45	2,602.06	0.00	0.00	0.00	0.00	
8,229.95	90.00	359.94	7,250.00	1,084.72	2,847.37	9.00	6.82	-8.41	-81.15	
20,614.79	90.00	359.94	7,250.00	13,469.55	2,834.08	0.00	0.00	0.00	0.00	ONION 1907-9H_BHL

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Well:	ONION 1907-09H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
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
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
391.15	0.00	0.00	391.15	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 391.15ft									
400.00	0.18	80.20	400.00	0.00	0.01	0.00	2.00	2.00	0.00
500.00	2.18	80.20	499.97	0.35	2.04	0.35	2.00	2.00	0.00
600.00	4.18	80.20	599.82	1.30	7.50	1.29	2.00	2.00	0.00
700.00	6.18	80.20	699.40	2.83	16.39	2.81	2.00	2.00	0.00
800.00	8.18	80.20	798.61	4.96	28.70	4.93	2.00	2.00	0.00
900.00	10.18	80.20	897.33	7.67	44.42	7.63	2.00	2.00	0.00
1,000.00	12.18	80.20	995.43	10.97	63.52	10.90	2.00	2.00	0.00
1,100.00	14.18	80.20	1,092.79	14.85	85.98	14.76	2.00	2.00	0.00
1,200.00	16.18	80.20	1,189.30	19.31	111.77	19.19	2.00	2.00	0.00
1,300.00	18.18	80.20	1,284.83	24.33	140.87	24.19	2.00	2.00	0.00
1,400.00	20.18	80.20	1,379.28	29.92	173.24	29.74	2.00	2.00	0.00
1,500.00	22.18	80.20	1,472.52	36.07	208.84	35.85	2.00	2.00	0.00
1,600.00	24.18	80.20	1,564.44	42.77	247.62	42.51	2.00	2.00	0.00
1,636.15	24.90	80.20	1,597.33	45.33	262.41	45.05	2.00	2.00	0.00
Hold Tangent @ 1636.15ft									
1,700.00	24.90	80.20	1,655.24	49.90	288.90	49.60	0.00	0.00	0.00
1,800.00	24.90	80.20	1,745.95	57.07	330.39	56.72	0.00	0.00	0.00
1,900.00	24.90	80.20	1,836.65	64.24	371.88	63.85	0.00	0.00	0.00
2,000.00	24.90	80.20	1,927.36	71.40	413.37	70.97	0.00	0.00	0.00
2,100.00	24.90	80.20	2,018.06	78.57	454.86	78.09	0.00	0.00	0.00
2,200.00	24.90	80.20	2,108.77	85.73	496.35	85.21	0.00	0.00	0.00
2,252.08	24.90	80.20	2,156.00	89.47	517.96	88.92	0.00	0.00	0.00
9 5/8"									
2,300.00	24.90	80.20	2,199.47	92.90	537.84	92.34	0.00	0.00	0.00
2,400.00	24.90	80.20	2,290.17	100.07	579.33	99.46	0.00	0.00	0.00
2,500.00	24.90	80.20	2,380.88	107.23	620.82	106.58	0.00	0.00	0.00
2,600.00	24.90	80.20	2,471.58	114.40	662.31	113.71	0.00	0.00	0.00
2,700.00	24.90	80.20	2,562.29	121.57	703.80	120.83	0.00	0.00	0.00
2,800.00	24.90	80.20	2,652.99	128.73	745.29	127.95	0.00	0.00	0.00
2,900.00	24.90	80.20	2,743.70	135.90	786.77	135.08	0.00	0.00	0.00
3,000.00	24.90	80.20	2,834.40	143.07	828.26	142.20	0.00	0.00	0.00
3,100.00	24.90	80.20	2,925.11	150.23	869.75	149.32	0.00	0.00	0.00
3,200.00	24.90	80.20	3,015.81	157.40	911.24	156.44	0.00	0.00	0.00
3,300.00	24.90	80.20	3,106.51	164.57	952.73	163.57	0.00	0.00	0.00
3,400.00	24.90	80.20	3,197.22	171.73	994.22	170.69	0.00	0.00	0.00
3,500.00	24.90	80.20	3,287.92	178.90	1,035.71	177.81	0.00	0.00	0.00
3,600.00	24.90	80.20	3,378.63	186.06	1,077.20	184.94	0.00	0.00	0.00
3,700.00	24.90	80.20	3,469.33	193.23	1,118.69	192.06	0.00	0.00	0.00
3,800.00	24.90	80.20	3,560.04	200.40	1,160.18	199.18	0.00	0.00	0.00
3,900.00	24.90	80.20	3,650.74	207.56	1,201.67	206.31	0.00	0.00	0.00
4,000.00	24.90	80.20	3,741.44	214.73	1,243.16	213.43	0.00	0.00	0.00
4,100.00	24.90	80.20	3,832.15	221.90	1,284.65	220.55	0.00	0.00	0.00
4,200.00	24.90	80.20	3,922.85	229.06	1,326.13	227.67	0.00	0.00	0.00
4,300.00	24.90	80.20	4,013.56	236.23	1,367.62	234.80	0.00	0.00	0.00
4,400.00	24.90	80.20	4,104.26	243.40	1,409.11	241.92	0.00	0.00	0.00
4,500.00	24.90	80.20	4,194.97	250.56	1,450.60	249.04	0.00	0.00	0.00
4,600.00	24.90	80.20	4,285.67	257.73	1,492.09	256.17	0.00	0.00	0.00

Planning Report

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Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 5035.00usft (RIG)
Site:	1N-64W-19 ONION 1907 PAD	North Reference:	True
Well:	ONION 1907-09H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
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	24.90	80.20	4,376.38	264.90	1,533.58	263.29	0.00	0.00	0.00
4,800.00	24.90	80.20	4,467.08	272.06	1,575.07	270.41	0.00	0.00	0.00
4,900.00	24.90	80.20	4,557.78	279.23	1,616.56	277.54	0.00	0.00	0.00
5,000.00	24.90	80.20	4,648.49	286.39	1,658.05	284.66	0.00	0.00	0.00
5,100.00	24.90	80.20	4,739.19	293.56	1,699.54	291.78	0.00	0.00	0.00
5,200.00	24.90	80.20	4,829.90	300.73	1,741.03	298.90	0.00	0.00	0.00
5,300.00	24.90	80.20	4,920.60	307.89	1,782.52	306.03	0.00	0.00	0.00
5,400.00	24.90	80.20	5,011.31	315.06	1,824.00	313.15	0.00	0.00	0.00
5,500.00	24.90	80.20	5,102.01	322.23	1,865.49	320.27	0.00	0.00	0.00
5,600.00	24.90	80.20	5,192.72	329.39	1,906.98	327.40	0.00	0.00	0.00
5,700.00	24.90	80.20	5,283.42	336.56	1,948.47	334.52	0.00	0.00	0.00
5,800.00	24.90	80.20	5,374.12	343.73	1,989.96	341.64	0.00	0.00	0.00
5,900.00	24.90	80.20	5,464.83	350.89	2,031.45	348.76	0.00	0.00	0.00
6,000.00	24.90	80.20	5,555.53	358.06	2,072.94	355.89	0.00	0.00	0.00
6,100.00	24.90	80.20	5,646.24	365.23	2,114.43	363.01	0.00	0.00	0.00
6,200.00	24.90	80.20	5,736.94	372.39	2,155.92	370.13	0.00	0.00	0.00
6,300.00	24.90	80.20	5,827.65	379.56	2,197.41	377.26	0.00	0.00	0.00
6,400.00	24.90	80.20	5,918.35	386.72	2,238.90	384.38	0.00	0.00	0.00
6,500.00	24.90	80.20	6,009.05	393.89	2,280.39	391.50	0.00	0.00	0.00
6,600.00	24.90	80.20	6,099.76	401.06	2,321.88	398.63	0.00	0.00	0.00
6,700.00	24.90	80.20	6,190.46	408.22	2,363.36	405.75	0.00	0.00	0.00
6,800.00	24.90	80.20	6,281.17	415.39	2,404.85	412.87	0.00	0.00	0.00
6,900.00	24.90	80.20	6,371.87	422.56	2,446.34	419.99	0.00	0.00	0.00
7,000.00	24.90	80.20	6,462.58	429.72	2,487.83	427.12	0.00	0.00	0.00
7,100.00	24.90	80.20	6,553.28	436.89	2,529.32	434.24	0.00	0.00	0.00
7,200.00	24.90	80.20	6,643.99	444.06	2,570.81	441.36	0.00	0.00	0.00
7,275.33	24.90	80.20	6,712.31	449.45	2,602.06	446.73	0.00	0.00	0.00
KOP @ 7275.33ft :: DLS = 9°/100'									
7,300.00	25.33	75.07	6,734.65	451.70	2,612.28	448.96	9.00	1.75	-20.81
7,350.00	26.72	65.30	6,779.60	459.16	2,632.84	456.40	9.00	2.77	-19.54
7,400.00	28.70	56.60	6,823.89	470.47	2,653.09	467.69	9.00	3.97	-17.39
7,450.00	31.18	49.06	6,867.22	485.57	2,672.90	482.77	9.00	4.94	-15.09
7,500.00	34.03	42.59	6,909.35	504.36	2,692.15	501.54	9.00	5.70	-12.94
7,550.00	37.17	37.05	6,950.02	526.72	2,710.73	523.88	9.00	6.28	-11.08
7,600.00	40.54	32.28	6,988.96	552.53	2,728.52	549.67	9.00	6.73	-9.54
7,650.00	44.07	28.14	7,025.94	581.61	2,745.40	578.74	9.00	7.07	-8.28
7,700.00	47.74	24.51	7,060.73	613.80	2,761.29	610.91	9.00	7.33	-7.27
7,750.00	51.51	21.27	7,093.12	648.88	2,776.07	645.98	9.00	7.54	-6.46
7,800.00	55.35	18.37	7,122.91	686.65	2,789.66	683.73	9.00	7.70	-5.81
7,850.00	59.26	15.72	7,149.92	726.88	2,801.97	723.94	9.00	7.82	-5.29
7,900.00	63.23	13.29	7,173.97	769.31	2,812.93	766.36	9.00	7.92	-4.88
7,950.00	67.22	11.01	7,194.92	813.68	2,822.46	810.72	9.00	8.00	-4.55
8,000.00	71.25	8.87	7,212.64	859.72	2,830.52	856.75	9.00	8.06	-4.28
8,050.00	75.31	6.83	7,227.02	907.14	2,837.05	904.17	9.00	8.11	-4.08
8,100.00	79.38	4.86	7,237.98	955.66	2,842.01	952.69	9.00	8.14	-3.94
8,150.00	83.46	2.95	7,245.44	1,004.98	2,845.37	1,002.00	9.00	8.16	-3.83
8,200.00	87.55	1.06	7,249.36	1,054.78	2,847.11	1,051.80	9.00	8.18	-3.77
8,229.95	90.00	359.94	7,250.00	1,084.72	2,847.37	1,081.74	9.00	8.18	-3.75
End Build/TPZ @ 8229.95ft									
8,300.00	90.00	359.94	7,250.00	1,154.77	2,847.30	1,151.79	0.00	0.00	0.00
8,400.00	90.00	359.94	7,250.00	1,254.77	2,847.19	1,251.79	0.00	0.00	0.00
8,500.00	90.00	359.94	7,250.00	1,354.77	2,847.08	1,351.79	0.00	0.00	0.00
8,600.00	90.00	359.94	7,250.00	1,454.77	2,846.97	1,451.79	0.00	0.00	0.00
8,700.00	90.00	359.94	7,250.00	1,554.77	2,846.87	1,551.79	0.00	0.00	0.00

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Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 5035.00usft (RIG)
Site:	1N-64W-19 ONION 1907 PAD	North Reference:	True
Well:	ONION 1907-09H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
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)	
8,800.00	90.00	359.94	7,250.00	1,654.77	2,846.76	1,651.79	0.00	0.00	0.00	
8,900.00	90.00	359.94	7,250.00	1,754.77	2,846.65	1,751.79	0.00	0.00	0.00	
9,000.00	90.00	359.94	7,250.00	1,854.77	2,846.54	1,851.79	0.00	0.00	0.00	
9,100.00	90.00	359.94	7,250.00	1,954.77	2,846.44	1,951.79	0.00	0.00	0.00	
9,200.00	90.00	359.94	7,250.00	2,054.77	2,846.33	2,051.79	0.00	0.00	0.00	
9,300.00	90.00	359.94	7,250.00	2,154.77	2,846.22	2,151.79	0.00	0.00	0.00	
9,400.00	90.00	359.94	7,250.00	2,254.77	2,846.11	2,251.79	0.00	0.00	0.00	
9,500.00	90.00	359.94	7,250.00	2,354.77	2,846.01	2,351.79	0.00	0.00	0.00	
9,600.00	90.00	359.94	7,250.00	2,454.77	2,845.90	2,451.79	0.00	0.00	0.00	
9,700.00	90.00	359.94	7,250.00	2,554.77	2,845.79	2,551.79	0.00	0.00	0.00	
9,800.00	90.00	359.94	7,250.00	2,654.77	2,845.69	2,651.79	0.00	0.00	0.00	
9,900.00	90.00	359.94	7,250.00	2,754.77	2,845.58	2,751.79	0.00	0.00	0.00	
10,000.00	90.00	359.94	7,250.00	2,854.77	2,845.47	2,851.79	0.00	0.00	0.00	
10,100.00	90.00	359.94	7,250.00	2,954.77	2,845.36	2,951.79	0.00	0.00	0.00	
10,200.00	90.00	359.94	7,250.00	3,054.77	2,845.26	3,051.79	0.00	0.00	0.00	
10,300.00	90.00	359.94	7,250.00	3,154.77	2,845.15	3,151.79	0.00	0.00	0.00	
10,400.00	90.00	359.94	7,250.00	3,254.77	2,845.04	3,251.79	0.00	0.00	0.00	
10,500.00	90.00	359.94	7,250.00	3,354.77	2,844.93	3,351.79	0.00	0.00	0.00	
10,600.00	90.00	359.94	7,250.00	3,454.77	2,844.83	3,451.79	0.00	0.00	0.00	
10,700.00	90.00	359.94	7,250.00	3,554.77	2,844.72	3,551.79	0.00	0.00	0.00	
10,800.00	90.00	359.94	7,250.00	3,654.77	2,844.61	3,651.79	0.00	0.00	0.00	
10,900.00	90.00	359.94	7,250.00	3,754.77	2,844.51	3,751.79	0.00	0.00	0.00	
11,000.00	90.00	359.94	7,250.00	3,854.77	2,844.40	3,851.79	0.00	0.00	0.00	
11,100.00	90.00	359.94	7,250.00	3,954.77	2,844.29	3,951.79	0.00	0.00	0.00	
11,200.00	90.00	359.94	7,250.00	4,054.77	2,844.18	4,051.79	0.00	0.00	0.00	
11,300.00	90.00	359.94	7,250.00	4,154.77	2,844.08	4,151.79	0.00	0.00	0.00	
11,400.00	90.00	359.94	7,250.00	4,254.77	2,843.97	4,251.79	0.00	0.00	0.00	
11,500.00	90.00	359.94	7,250.00	4,354.77	2,843.86	4,351.79	0.00	0.00	0.00	
11,600.00	90.00	359.94	7,250.00	4,454.77	2,843.75	4,451.79	0.00	0.00	0.00	
11,700.00	90.00	359.94	7,250.00	4,554.77	2,843.65	4,551.79	0.00	0.00	0.00	
11,800.00	90.00	359.94	7,250.00	4,654.77	2,843.54	4,651.79	0.00	0.00	0.00	
11,900.00	90.00	359.94	7,250.00	4,754.77	2,843.43	4,751.79	0.00	0.00	0.00	
12,000.00	90.00	359.94	7,250.00	4,854.77	2,843.33	4,851.79	0.00	0.00	0.00	
12,100.00	90.00	359.94	7,250.00	4,954.77	2,843.22	4,951.79	0.00	0.00	0.00	
12,200.00	90.00	359.94	7,250.00	5,054.77	2,843.11	5,051.79	0.00	0.00	0.00	
12,300.00	90.00	359.94	7,250.00	5,154.77	2,843.00	5,151.79	0.00	0.00	0.00	
12,400.00	90.00	359.94	7,250.00	5,254.77	2,842.90	5,251.79	0.00	0.00	0.00	
12,500.00	90.00	359.94	7,250.00	5,354.77	2,842.79	5,351.79	0.00	0.00	0.00	
12,600.00	90.00	359.94	7,250.00	5,454.77	2,842.68	5,451.79	0.00	0.00	0.00	
12,700.00	90.00	359.94	7,250.00	5,554.77	2,842.57	5,551.79	0.00	0.00	0.00	
12,800.00	90.00	359.94	7,250.00	5,654.77	2,842.47	5,651.79	0.00	0.00	0.00	
12,900.00	90.00	359.94	7,250.00	5,754.77	2,842.36	5,751.79	0.00	0.00	0.00	
13,000.00	90.00	359.94	7,250.00	5,854.77	2,842.25	5,851.79	0.00	0.00	0.00	
13,100.00	90.00	359.94	7,250.00	5,954.77	2,842.15	5,951.79	0.00	0.00	0.00	
13,200.00	90.00	359.94	7,250.00	6,054.77	2,842.04	6,051.79	0.00	0.00	0.00	
13,300.00	90.00	359.94	7,250.00	6,154.77	2,841.93	6,151.79	0.00	0.00	0.00	
13,400.00	90.00	359.94	7,250.00	6,254.77	2,841.82	6,251.79	0.00	0.00	0.00	
13,500.00	90.00	359.94	7,250.00	6,354.77	2,841.72	6,351.79	0.00	0.00	0.00	
13,600.00	90.00	359.94	7,250.00	6,454.77	2,841.61	6,451.79	0.00	0.00	0.00	
13,700.00	90.00	359.94	7,250.00	6,554.77	2,841.50	6,551.79	0.00	0.00	0.00	
13,800.00	90.00	359.94	7,250.00	6,654.77	2,841.39	6,651.79	0.00	0.00	0.00	
13,900.00	90.00	359.94	7,250.00	6,754.77	2,841.29	6,751.79	0.00	0.00	0.00	
14,000.00	90.00	359.94	7,250.00	6,854.77	2,841.18	6,851.79	0.00	0.00	0.00	
14,100.00	90.00	359.94	7,250.00	6,954.77	2,841.07	6,951.79	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well ONION 1907-09H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 24' @ 5035.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 5035.00usft (RIG)
Site:	1N-64W-19 ONION 1907 PAD	North Reference:	True
Well:	ONION 1907-09H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
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)
14,200.00	90.00	359.94	7,250.00	7,054.77	2,840.97	7,051.79	0.00	0.00	0.00
14,300.00	90.00	359.94	7,250.00	7,154.77	2,840.86	7,151.79	0.00	0.00	0.00
14,400.00	90.00	359.94	7,250.00	7,254.77	2,840.75	7,251.79	0.00	0.00	0.00
14,500.00	90.00	359.94	7,250.00	7,354.77	2,840.64	7,351.79	0.00	0.00	0.00
14,600.00	90.00	359.94	7,250.00	7,454.77	2,840.54	7,451.79	0.00	0.00	0.00
14,700.00	90.00	359.94	7,250.00	7,554.77	2,840.43	7,551.79	0.00	0.00	0.00
14,800.00	90.00	359.94	7,250.00	7,654.77	2,840.32	7,651.79	0.00	0.00	0.00
14,900.00	90.00	359.94	7,250.00	7,754.77	2,840.21	7,751.79	0.00	0.00	0.00
15,000.00	90.00	359.94	7,250.00	7,854.77	2,840.11	7,851.79	0.00	0.00	0.00
15,100.00	90.00	359.94	7,250.00	7,954.77	2,840.00	7,951.79	0.00	0.00	0.00
15,200.00	90.00	359.94	7,250.00	8,054.77	2,839.89	8,051.79	0.00	0.00	0.00
15,300.00	90.00	359.94	7,250.00	8,154.77	2,839.78	8,151.79	0.00	0.00	0.00
15,400.00	90.00	359.94	7,250.00	8,254.77	2,839.68	8,251.79	0.00	0.00	0.00
15,500.00	90.00	359.94	7,250.00	8,354.77	2,839.57	8,351.79	0.00	0.00	0.00
15,600.00	90.00	359.94	7,250.00	8,454.77	2,839.46	8,451.79	0.00	0.00	0.00
15,700.00	90.00	359.94	7,250.00	8,554.77	2,839.36	8,551.79	0.00	0.00	0.00
15,800.00	90.00	359.94	7,250.00	8,654.76	2,839.25	8,651.79	0.00	0.00	0.00
15,900.00	90.00	359.94	7,250.00	8,754.76	2,839.14	8,751.79	0.00	0.00	0.00
16,000.00	90.00	359.94	7,250.00	8,854.76	2,839.03	8,851.79	0.00	0.00	0.00
16,100.00	90.00	359.94	7,250.00	8,954.76	2,838.93	8,951.79	0.00	0.00	0.00
16,200.00	90.00	359.94	7,250.00	9,054.76	2,838.82	9,051.79	0.00	0.00	0.00
16,300.00	90.00	359.94	7,250.00	9,154.76	2,838.71	9,151.79	0.00	0.00	0.00
16,400.00	90.00	359.94	7,250.00	9,254.76	2,838.60	9,251.79	0.00	0.00	0.00
16,500.00	90.00	359.94	7,250.00	9,354.76	2,838.50	9,351.79	0.00	0.00	0.00
16,600.00	90.00	359.94	7,250.00	9,454.76	2,838.39	9,451.79	0.00	0.00	0.00
16,700.00	90.00	359.94	7,250.00	9,554.76	2,838.28	9,551.79	0.00	0.00	0.00
16,800.00	90.00	359.94	7,250.00	9,654.76	2,838.18	9,651.79	0.00	0.00	0.00
16,900.00	90.00	359.94	7,250.00	9,754.76	2,838.07	9,751.79	0.00	0.00	0.00
17,000.00	90.00	359.94	7,250.00	9,854.76	2,837.96	9,851.79	0.00	0.00	0.00
17,100.00	90.00	359.94	7,250.00	9,954.76	2,837.85	9,951.79	0.00	0.00	0.00
17,200.00	90.00	359.94	7,250.00	10,054.76	2,837.75	10,051.79	0.00	0.00	0.00
17,300.00	90.00	359.94	7,250.00	10,154.76	2,837.64	10,151.79	0.00	0.00	0.00
17,400.00	90.00	359.94	7,250.00	10,254.76	2,837.53	10,251.79	0.00	0.00	0.00
17,500.00	90.00	359.94	7,250.00	10,354.76	2,837.42	10,351.79	0.00	0.00	0.00
17,600.00	90.00	359.94	7,250.00	10,454.76	2,837.32	10,451.79	0.00	0.00	0.00
17,700.00	90.00	359.94	7,250.00	10,554.76	2,837.21	10,551.79	0.00	0.00	0.00
17,800.00	90.00	359.94	7,250.00	10,654.76	2,837.10	10,651.79	0.00	0.00	0.00
17,900.00	90.00	359.94	7,250.00	10,754.76	2,837.00	10,751.79	0.00	0.00	0.00
18,000.00	90.00	359.94	7,250.00	10,854.76	2,836.89	10,851.79	0.00	0.00	0.00
18,100.00	90.00	359.94	7,250.00	10,954.76	2,836.78	10,951.79	0.00	0.00	0.00
18,200.00	90.00	359.94	7,250.00	11,054.76	2,836.67	11,051.79	0.00	0.00	0.00
18,300.00	90.00	359.94	7,250.00	11,154.76	2,836.57	11,151.79	0.00	0.00	0.00
18,400.00	90.00	359.94	7,250.00	11,254.76	2,836.46	11,251.79	0.00	0.00	0.00
18,500.00	90.00	359.94	7,250.00	11,354.76	2,836.35	11,351.79	0.00	0.00	0.00
18,600.00	90.00	359.94	7,250.00	11,454.76	2,836.24	11,451.79	0.00	0.00	0.00
18,700.00	90.00	359.94	7,250.00	11,554.76	2,836.14	11,551.79	0.00	0.00	0.00
18,800.00	90.00	359.94	7,250.00	11,654.76	2,836.03	11,651.79	0.00	0.00	0.00
18,900.00	90.00	359.94	7,250.00	11,754.76	2,835.92	11,751.79	0.00	0.00	0.00
19,000.00	90.00	359.94	7,250.00	11,854.76	2,835.82	11,851.79	0.00	0.00	0.00
19,100.00	90.00	359.94	7,250.00	11,954.76	2,835.71	11,951.79	0.00	0.00	0.00
19,200.00	90.00	359.94	7,250.00	12,054.76	2,835.60	12,051.79	0.00	0.00	0.00
19,300.00	90.00	359.94	7,250.00	12,154.76	2,835.49	12,151.79	0.00	0.00	0.00
19,400.00	90.00	359.94	7,250.00	12,254.76	2,835.39	12,251.79	0.00	0.00	0.00
19,500.00	90.00	359.94	7,250.00	12,354.76	2,835.28	12,351.79	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well ONION 1907-09H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 24' @ 5035.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 5035.00usft (RIG)
Site:	1N-64W-19 ONION 1907 PAD	North Reference:	True
Well:	ONION 1907-09H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
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)	
19,600.00	90.00	359.94	7,250.00	12,454.76	2,835.17	12,451.79	0.00	0.00	0.00	
19,700.00	90.00	359.94	7,250.00	12,554.76	2,835.06	12,551.79	0.00	0.00	0.00	
19,800.00	90.00	359.94	7,250.00	12,654.76	2,834.96	12,651.79	0.00	0.00	0.00	
19,900.00	90.00	359.94	7,250.00	12,754.76	2,834.85	12,751.79	0.00	0.00	0.00	
20,000.00	90.00	359.94	7,250.00	12,854.76	2,834.74	12,851.79	0.00	0.00	0.00	
20,100.00	90.00	359.94	7,250.00	12,954.76	2,834.64	12,951.79	0.00	0.00	0.00	
20,200.00	90.00	359.94	7,250.00	13,054.76	2,834.53	13,051.79	0.00	0.00	0.00	
20,300.00	90.00	359.94	7,250.00	13,154.76	2,834.42	13,151.79	0.00	0.00	0.00	
20,400.00	90.00	359.94	7,250.00	13,254.76	2,834.31	13,251.79	0.00	0.00	0.00	
20,500.00	90.00	359.94	7,250.00	13,354.76	2,834.21	13,351.79	0.00	0.00	0.00	
20,524.78	90.00	359.94	7,250.00	13,379.54	2,834.18	13,376.57	0.00	0.00	0.00	
BPZ @ 20524.78ft										
20,600.00	90.00	359.94	7,250.00	13,454.76	2,834.10	13,451.79	0.00	0.00	0.00	
20,614.79	90.00	359.94	7,250.00	13,469.55	2,834.08	13,466.57	0.00	0.00	0.00	
TD Well @ 20614.79ft										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
2,252.08	2,156.00	9 5/8"	9-5/8	13-1/2	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
391.15	391.15	0.00	0.00	Begin Nudge @ 391.15ft	
1,636.15	1,597.33	45.33	262.41	Hold Tangent @ 1636.15ft	
7,275.33	6,712.31	449.45	2,602.06	KOP @ 7275.33ft :: DLS = 9°/100'	
8,229.95	7,250.00	1,084.72	2,847.37	End Build/TPZ @ 8229.95ft	
20,524.78	7,250.00	13,379.54	2,834.18	BPZ @ 20524.78ft	
20,614.79	7,250.00	13,469.55	2,834.08	TD Well @ 20614.79ft	