

VERDAD RESOURCES

WATTENBERG FIELD

8N-60W-14 SCHNEIDER 1414 PAD

SCHNEIDER 1414-06H

Plan A

Plan: Permit Rev-2

Standard Planning Report

26 July, 2021

Project: WATTENBERG FIELD
Site: 8N-60W-14 SCHNEIDER 1414 PAD
Well: SCHNEIDER 1414-06H
Wellbore: Plan A
Design: Permit Rev-2

VERDAD RESOURCES

CASING DETAILS

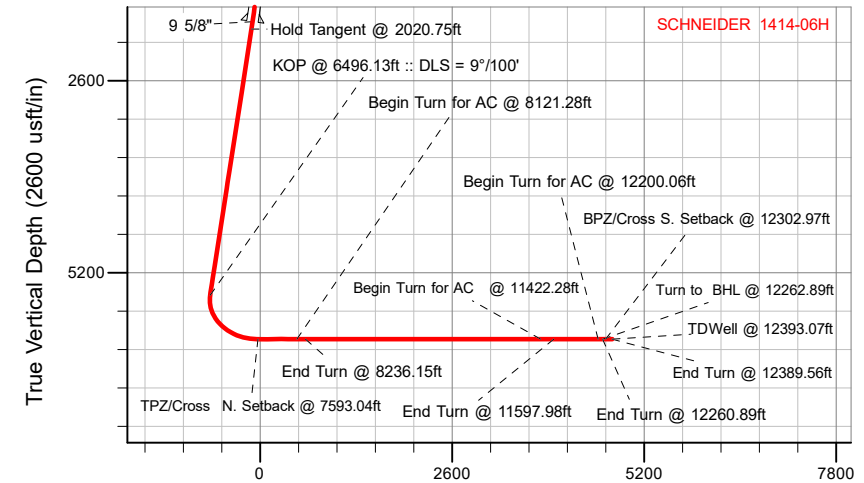
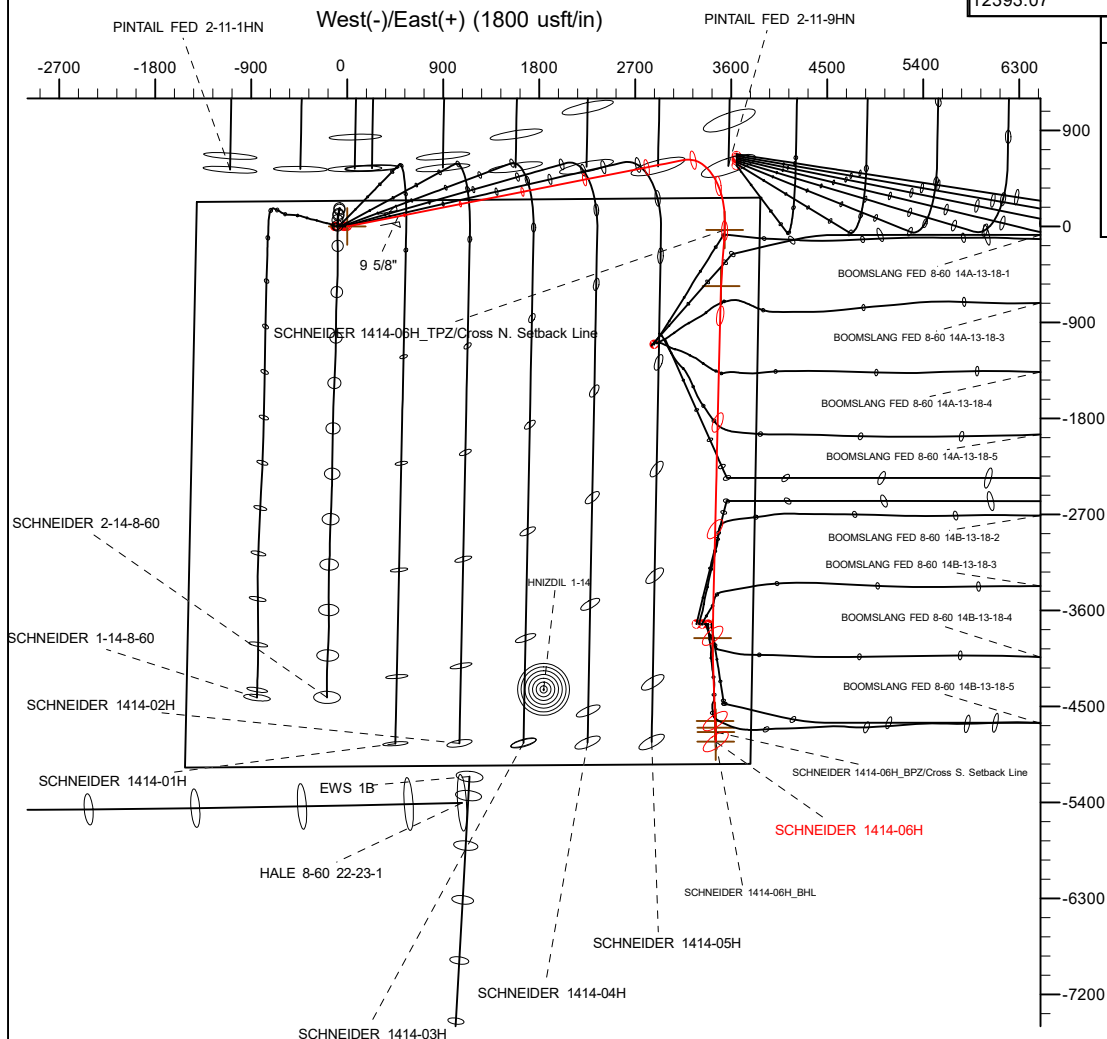
TVD	MD	Name	Size
1800.00	1897.47	9 5/8"	9-5/8

SECTION DETAILS

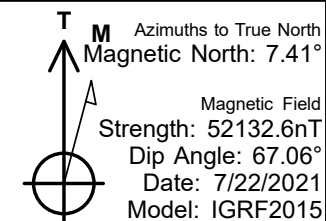
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.75	0.00	0.00	200.75	0.00	0.00	0.00	0.00	0.00	
2020.75	36.40	78.84	1900.77	108.18	548.37	2.00	78.84	-117.83	
6496.13	36.40	78.84	5502.98	622.21	3153.92	0.00	0.00	-677.70	
7593.04	90.00	183.65	6100.00	-32.84	3538.59	9.00	102.01	-29.54	
8121.28	90.00	183.65	6100.00	-560.00	3505.00	0.00	0.00	498.13	SCHNEIDER 1414-06H_Lat Tgt
8236.15	90.00	181.35	6100.00	-674.75	3499.99	2.00	-90.00	612.95	
11422.28	90.00	181.35	6100.00	-3860.00	3425.00	0.00	0.00	3799.03	SCHNEIDER 1414-06H_Lat Tgt 2
11597.98	90.00	177.83	6100.00	-4035.67	3426.25	2.00	-90.00	3974.65	
12200.06	90.00	177.83	6100.00	-4637.32	3449.00	0.00	0.00	4575.80	SCHNEIDER 1414-06H_Lat Tgt 3
12260.89	90.00	174.43	6100.00	-4698.00	3453.10	5.60	-90.00	4636.40	
12262.89	90.00	174.43	6100.00	-4700.00	3453.30	0.00	0.00	4638.40	SCHNEIDER 1414-06H_Lat Tgt 4
12389.56	90.00	184.37	6100.00	-4826.50	3454.64	7.85	90.00	4764.85	
12393.07	90.00	184.37	6100.00	-4830.00	3454.37	0.00	0.00	4768.36	SCHNEIDER 1414-06H_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
SCHNEIDER 1414-06H_SHL	0.00	0.00	0.00	40.669103	-104.062264
SCHNEIDER 1414-06H_TPZ/Cross N. Setback Line	6100.00	-32.84	3538.59	40.669012	-104.049509
SCHNEIDER 1414-06H_BPZ/Cross S. Setback Line	6100.00	-4739.97	3455.96	40.656092	-104.049809
SCHNEIDER 1414-06H_BHL	6100.00	-4830.00	3454.37	40.655845	-104.049814



Vertical Section at 181.01° (2600 usft/in)



WELL DETAILS: SCHNEIDER 1414-06H

GL = 4943'

RKB = 20' @ 4963.00usft (RIG)

Plan: Permit Rev-2 (SCHNEIDER 1414-06H/Plan A)

Date: 7/26/2021

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well SCHNEIDER 1414-06H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 4963.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 4963.00usft (RIG)
Site:	8N-60W-14 SCHNEIDER 1414 PAD	North Reference:	True
Well:	SCHNEIDER 1414-06H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-2		

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		8N-60W-14 SCHNEIDER 1414 PAD			
Site Position:		Northing:	1,489,828.18 usft	Latitude:	40.669102
From:	Lat/Long	Easting:	3,398,727.28 usft	Longitude:	-104.062589
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "		

Well		SCHNEIDER 1414-06H				
Well Position	+N/-S	0.00 usft	Northing:	1,489,830.36 usft	Latitude:	40.669103
	+E/-W	0.00 usft	Easting:	3,398,817.28 usft	Longitude:	-104.062265
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft	Ground Level:	4,943.00 usft
Grid Convergence:		0.93 °				

Wellbore	Plan A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	7/22/2021	7.41	67.06	52,132.63680716

Design	Permit Rev-2				
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	181.01	

Plan Survey Tool Program		Date	7/26/2021		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	1,800.00	Permit Rev-2 (Plan A)	ISCWSA MWD	Fixed:v2:standard declination
2	1,800.00	12,393.07	Permit Rev-2 (Plan A)	ISCWSA MWD	Fixed:v2:standard declination

Planning Report

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Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 4963.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 4963.00usft (RIG)
Site:	8N-60W-14 SCHNEIDER 1414 PAD	North Reference:	True
Well:	SCHNEIDER 1414-06H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-2		

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	
200.75	0.00	0.00	200.75	0.00	0.00	0.00	0.00	0.00	0.00	
2,020.75	36.40	78.84	1,900.77	108.18	548.37	2.00	2.00	0.00	78.84	
6,496.13	36.40	78.84	5,502.98	622.21	3,153.92	0.00	0.00	0.00	0.00	
7,593.04	90.00	183.65	6,100.00	-32.84	3,538.59	9.00	4.89	9.55	102.01	
8,121.28	90.00	183.65	6,100.00	-560.00	3,505.00	0.00	0.00	0.00	0.00	SCHNEIDER 1414-06H
8,236.15	90.00	181.35	6,100.00	-674.75	3,499.99	2.00	0.00	-2.00	-90.00	
11,422.28	90.00	181.35	6,100.00	-3,860.00	3,425.00	0.00	0.00	0.00	0.00	SCHNEIDER 1414-06H
11,597.98	90.00	177.83	6,100.00	-4,035.67	3,426.25	2.00	0.00	-2.00	-90.00	
12,200.06	90.00	177.83	6,100.00	-4,637.32	3,449.00	0.00	0.00	0.00	0.00	SCHNEIDER 1414-06H
12,260.89	90.00	174.43	6,100.00	-4,698.00	3,453.10	5.60	0.00	-5.60	-90.00	
12,262.89	90.00	174.43	6,100.00	-4,700.00	3,453.30	0.00	0.00	0.00	0.00	SCHNEIDER 1414-06H
12,389.56	90.00	184.37	6,100.00	-4,826.50	3,454.64	7.85	0.00	7.85	90.00	
12,393.07	90.00	184.37	6,100.00	-4,830.00	3,454.37	0.00	0.00	0.00	0.00	SCHNEIDER 1414-06H

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well SCHNEIDER 1414-06H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 4963.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 4963.00usft (RIG)
Site:	8N-60W-14 SCHNEIDER 1414 PAD	North Reference:	True
Well:	SCHNEIDER 1414-06H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-2		

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
200.75	0.00	0.00	200.75	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 200.75ft									
300.00	1.98	78.84	299.98	0.33	1.69	-0.36	2.00	2.00	0.00
400.00	3.98	78.84	399.84	1.34	6.80	-1.46	2.00	2.00	0.00
500.00	5.98	78.84	499.46	3.02	15.32	-3.29	2.00	2.00	0.00
600.00	7.98	78.84	598.71	5.38	27.25	-5.86	2.00	2.00	0.00
700.00	9.98	78.84	697.48	8.40	42.57	-9.15	2.00	2.00	0.00
800.00	11.98	78.84	795.64	12.09	61.27	-13.16	2.00	2.00	0.00
900.00	13.98	78.84	893.08	16.44	83.31	-17.90	2.00	2.00	0.00
1,000.00	15.98	78.84	989.67	21.44	108.68	-23.35	2.00	2.00	0.00
1,100.00	17.98	78.84	1,085.31	27.09	137.33	-29.51	2.00	2.00	0.00
1,200.00	19.98	78.84	1,179.86	33.39	169.25	-36.37	2.00	2.00	0.00
1,300.00	21.98	78.84	1,273.22	40.32	204.38	-43.92	2.00	2.00	0.00
1,400.00	23.98	78.84	1,365.28	47.88	242.69	-52.15	2.00	2.00	0.00
1,500.00	25.98	78.84	1,455.92	56.05	284.13	-61.05	2.00	2.00	0.00
1,600.00	27.98	78.84	1,545.02	64.83	328.64	-70.62	2.00	2.00	0.00
1,700.00	29.98	78.84	1,632.49	74.21	376.18	-80.83	2.00	2.00	0.00
1,800.00	31.98	78.84	1,718.22	84.18	426.69	-91.69	2.00	2.00	0.00
1,897.47	33.93	78.84	1,800.00	94.44	478.71	-102.86	2.00	2.00	0.00
9 5/8"									
1,900.00	33.98	78.84	1,802.10	94.71	480.10	-103.16	2.00	2.00	0.00
2,000.00	35.98	78.84	1,884.02	105.81	536.35	-115.25	2.00	2.00	0.00
2,020.75	36.40	78.84	1,900.77	108.18	548.37	-117.83	2.00	2.00	0.00
Hold Tangent @ 2020.75ft									
2,100.00	36.40	78.84	1,964.56	117.28	594.51	-127.75	0.00	0.00	0.00
2,200.00	36.40	78.84	2,045.05	128.77	652.73	-140.26	0.00	0.00	0.00
2,300.00	36.40	78.84	2,125.54	140.26	710.95	-152.77	0.00	0.00	0.00
2,400.00	36.40	78.84	2,206.03	151.74	769.17	-165.28	0.00	0.00	0.00
2,500.00	36.40	78.84	2,286.52	163.23	827.39	-177.79	0.00	0.00	0.00
2,600.00	36.40	78.84	2,367.00	174.71	885.61	-190.30	0.00	0.00	0.00
2,700.00	36.40	78.84	2,447.49	186.20	943.83	-202.81	0.00	0.00	0.00
2,800.00	36.40	78.84	2,527.98	197.68	1,002.05	-215.32	0.00	0.00	0.00
2,900.00	36.40	78.84	2,608.47	209.17	1,060.27	-227.83	0.00	0.00	0.00
3,000.00	36.40	78.84	2,688.96	220.65	1,118.49	-240.34	0.00	0.00	0.00
3,100.00	36.40	78.84	2,769.45	232.14	1,176.71	-252.85	0.00	0.00	0.00
3,200.00	36.40	78.84	2,849.94	243.63	1,234.93	-265.36	0.00	0.00	0.00
3,300.00	36.40	78.84	2,930.43	255.11	1,293.15	-277.87	0.00	0.00	0.00
3,400.00	36.40	78.84	3,010.92	266.60	1,351.36	-290.38	0.00	0.00	0.00
3,500.00	36.40	78.84	3,091.41	278.08	1,409.58	-302.89	0.00	0.00	0.00
3,600.00	36.40	78.84	3,171.90	289.57	1,467.80	-315.40	0.00	0.00	0.00
3,700.00	36.40	78.84	3,252.39	301.05	1,526.02	-327.91	0.00	0.00	0.00
3,800.00	36.40	78.84	3,332.88	312.54	1,584.24	-340.42	0.00	0.00	0.00
3,900.00	36.40	78.84	3,413.37	324.03	1,642.46	-352.93	0.00	0.00	0.00
4,000.00	36.40	78.84	3,493.86	335.51	1,700.68	-365.44	0.00	0.00	0.00
4,100.00	36.40	78.84	3,574.35	347.00	1,758.90	-377.95	0.00	0.00	0.00
4,200.00	36.40	78.84	3,654.83	358.48	1,817.12	-390.46	0.00	0.00	0.00
4,300.00	36.40	78.84	3,735.32	369.97	1,875.34	-402.97	0.00	0.00	0.00
4,400.00	36.40	78.84	3,815.81	381.45	1,933.56	-415.48	0.00	0.00	0.00
4,500.00	36.40	78.84	3,896.30	392.94	1,991.78	-427.99	0.00	0.00	0.00
4,600.00	36.40	78.84	3,976.79	404.42	2,050.00	-440.50	0.00	0.00	0.00
4,700.00	36.40	78.84	4,057.28	415.91	2,108.22	-453.01	0.00	0.00	0.00

Planning Report

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Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 4963.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 4963.00usft (RIG)
Site:	8N-60W-14 SCHNEIDER 1414 PAD	North Reference:	True
Well:	SCHNEIDER 1414-06H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-2		

Planned Survey

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
4,800.00	36.40	78.84	4,137.77	427.40	2,166.44	-465.52	0.00	0.00	0.00
4,900.00	36.40	78.84	4,218.26	438.88	2,224.66	-478.03	0.00	0.00	0.00
5,000.00	36.40	78.84	4,298.75	450.37	2,282.88	-490.54	0.00	0.00	0.00
5,100.00	36.40	78.84	4,379.24	461.85	2,341.10	-503.05	0.00	0.00	0.00
5,200.00	36.40	78.84	4,459.73	473.34	2,399.32	-515.56	0.00	0.00	0.00
5,300.00	36.40	78.84	4,540.22	484.82	2,457.54	-528.07	0.00	0.00	0.00
5,400.00	36.40	78.84	4,620.71	496.31	2,515.76	-540.58	0.00	0.00	0.00
5,500.00	36.40	78.84	4,701.20	507.79	2,573.98	-553.09	0.00	0.00	0.00
5,600.00	36.40	78.84	4,781.69	519.28	2,632.20	-565.60	0.00	0.00	0.00
5,700.00	36.40	78.84	4,862.18	530.77	2,690.42	-578.11	0.00	0.00	0.00
5,800.00	36.40	78.84	4,942.66	542.25	2,748.64	-590.62	0.00	0.00	0.00
5,900.00	36.40	78.84	5,023.15	553.74	2,806.86	-603.13	0.00	0.00	0.00
6,000.00	36.40	78.84	5,103.64	565.22	2,865.08	-615.64	0.00	0.00	0.00
6,100.00	36.40	78.84	5,184.13	576.71	2,923.30	-628.15	0.00	0.00	0.00
6,200.00	36.40	78.84	5,264.62	588.19	2,981.52	-640.66	0.00	0.00	0.00
6,300.00	36.40	78.84	5,345.11	599.68	3,039.74	-653.17	0.00	0.00	0.00
6,400.00	36.40	78.84	5,425.60	611.16	3,097.96	-665.68	0.00	0.00	0.00
6,496.13	36.40	78.84	5,502.98	622.21	3,153.92	-677.70	0.00	0.00	0.00
KOP @ 6496.13ft :: DLS = 9°/100'									
6,500.00	36.33	79.42	5,506.09	622.64	3,156.18	-678.18	9.00	-1.84	14.86
6,550.00	35.66	86.99	5,546.56	626.13	3,185.31	-682.18	9.00	-1.33	15.15
6,600.00	35.49	94.72	5,587.25	625.70	3,214.34	-682.26	9.00	-0.36	15.47
6,650.00	35.80	102.43	5,627.91	621.35	3,243.10	-678.42	9.00	0.63	15.41
6,700.00	36.60	109.93	5,668.28	613.12	3,271.41	-670.69	9.00	1.59	15.01
6,750.00	37.84	117.09	5,708.11	601.04	3,299.09	-659.10	9.00	2.49	14.30
6,800.00	39.50	123.79	5,747.16	585.21	3,325.97	-643.74	9.00	3.31	13.40
6,850.00	41.51	129.99	5,785.20	565.71	3,351.89	-624.70	9.00	4.02	12.40
6,900.00	43.82	135.69	5,821.97	542.66	3,376.69	-602.10	9.00	4.63	11.39
6,950.00	46.40	140.90	5,857.27	516.21	3,400.22	-576.07	9.00	5.15	10.42
7,000.00	49.19	145.66	5,890.87	486.52	3,422.32	-546.77	9.00	5.59	9.53
7,050.00	52.16	150.03	5,922.56	453.78	3,442.87	-514.39	9.00	5.95	8.74
7,100.00	55.29	154.05	5,952.14	418.18	3,461.73	-479.13	9.00	6.24	8.04
7,150.00	58.53	157.78	5,979.45	379.94	3,478.79	-441.20	9.00	6.49	7.45
7,200.00	61.87	161.25	6,004.29	339.30	3,493.95	-400.83	9.00	6.69	6.94
7,250.00	65.30	164.51	6,026.54	296.51	3,507.11	-358.29	9.00	6.85	6.52
7,300.00	68.79	167.59	6,046.04	251.84	3,518.19	-313.82	9.00	6.99	6.16
7,350.00	72.34	170.53	6,062.68	205.56	3,527.13	-267.70	9.00	7.09	5.88
7,400.00	75.93	173.35	6,076.35	157.95	3,533.86	-220.22	9.00	7.18	5.65
7,450.00	79.55	176.09	6,086.97	109.31	3,538.34	-171.66	9.00	7.24	5.47
7,500.00	83.19	178.76	6,094.47	59.94	3,540.56	-122.34	9.00	7.29	5.35
7,550.00	86.85	181.40	6,098.81	10.14	3,540.49	-72.55	9.00	7.31	5.27
7,593.04	90.00	183.65	6,100.00	-32.84	3,538.59	-29.54	9.00	7.33	5.23
TPZ/Cross N. Setback @ 7593.04ft									
7,600.00	90.00	183.65	6,100.00	-39.78	3,538.15	-22.59	0.00	0.00	0.00
7,700.00	90.00	183.65	6,100.00	-139.58	3,531.79	77.30	0.00	0.00	0.00
7,800.00	90.00	183.65	6,100.00	-239.37	3,525.43	177.20	0.00	0.00	0.00
7,900.00	90.00	183.65	6,100.00	-339.17	3,519.07	277.09	0.00	0.00	0.00
8,000.00	90.00	183.65	6,100.00	-438.97	3,512.71	376.98	0.00	0.00	0.00
8,100.00	90.00	183.65	6,100.00	-538.77	3,506.35	476.88	0.00	0.00	0.00
8,121.28	90.00	183.65	6,100.00	-560.00	3,505.00	498.13	0.00	0.00	0.00
Begin Turn for AC @ 8121.28ft									
8,200.00	90.00	182.07	6,100.00	-638.62	3,501.07	576.81	2.00	0.00	-2.00
8,236.15	90.00	181.35	6,100.00	-674.75	3,499.99	612.95	2.00	0.00	-2.00
End Turn @ 8236.15ft									

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well SCHNEIDER 1414-06H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 4963.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 4963.00usft (RIG)
Site:	8N-60W-14 SCHNEIDER 1414 PAD	North Reference:	True
Well:	SCHNEIDER 1414-06H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-2		

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)
8,300.00	90.00	181.35	6,100.00	-738.59	3,498.49	676.81	0.00	0.00	0.00
8,400.00	90.00	181.35	6,100.00	-838.56	3,496.14	776.81	0.00	0.00	0.00
8,500.00	90.00	181.35	6,100.00	-938.53	3,493.78	876.80	0.00	0.00	0.00
8,600.00	90.00	181.35	6,100.00	-1,038.51	3,491.43	976.80	0.00	0.00	0.00
8,700.00	90.00	181.35	6,100.00	-1,138.48	3,489.08	1,076.80	0.00	0.00	0.00
8,800.00	90.00	181.35	6,100.00	-1,238.45	3,486.72	1,176.80	0.00	0.00	0.00
8,900.00	90.00	181.35	6,100.00	-1,338.42	3,484.37	1,276.80	0.00	0.00	0.00
9,000.00	90.00	181.35	6,100.00	-1,438.40	3,482.02	1,376.80	0.00	0.00	0.00
9,100.00	90.00	181.35	6,100.00	-1,538.37	3,479.66	1,476.79	0.00	0.00	0.00
9,200.00	90.00	181.35	6,100.00	-1,638.34	3,477.31	1,576.79	0.00	0.00	0.00
9,300.00	90.00	181.35	6,100.00	-1,738.31	3,474.95	1,676.79	0.00	0.00	0.00
9,400.00	90.00	181.35	6,100.00	-1,838.29	3,472.60	1,776.79	0.00	0.00	0.00
9,500.00	90.00	181.35	6,100.00	-1,938.26	3,470.25	1,876.79	0.00	0.00	0.00
9,600.00	90.00	181.35	6,100.00	-2,038.23	3,467.89	1,976.78	0.00	0.00	0.00
9,700.00	90.00	181.35	6,100.00	-2,138.20	3,465.54	2,076.78	0.00	0.00	0.00
9,800.00	90.00	181.35	6,100.00	-2,238.17	3,463.19	2,176.78	0.00	0.00	0.00
9,900.00	90.00	181.35	6,100.00	-2,338.15	3,460.83	2,276.78	0.00	0.00	0.00
10,000.00	90.00	181.35	6,100.00	-2,438.12	3,458.48	2,376.78	0.00	0.00	0.00
10,100.00	90.00	181.35	6,100.00	-2,538.09	3,456.12	2,476.78	0.00	0.00	0.00
10,200.00	90.00	181.35	6,100.00	-2,638.06	3,453.77	2,576.77	0.00	0.00	0.00
10,300.00	90.00	181.35	6,100.00	-2,738.04	3,451.42	2,676.77	0.00	0.00	0.00
10,400.00	90.00	181.35	6,100.00	-2,838.01	3,449.06	2,776.77	0.00	0.00	0.00
10,500.00	90.00	181.35	6,100.00	-2,937.98	3,446.71	2,876.77	0.00	0.00	0.00
10,600.00	90.00	181.35	6,100.00	-3,037.95	3,444.35	2,976.77	0.00	0.00	0.00
10,700.00	90.00	181.35	6,100.00	-3,137.93	3,442.00	3,076.77	0.00	0.00	0.00
10,800.00	90.00	181.35	6,100.00	-3,237.90	3,439.65	3,176.76	0.00	0.00	0.00
10,900.00	90.00	181.35	6,100.00	-3,337.87	3,437.29	3,276.76	0.00	0.00	0.00
11,000.00	90.00	181.35	6,100.00	-3,437.84	3,434.94	3,376.76	0.00	0.00	0.00
11,100.00	90.00	181.35	6,100.00	-3,537.81	3,432.59	3,476.76	0.00	0.00	0.00
11,200.00	90.00	181.35	6,100.00	-3,637.79	3,430.23	3,576.76	0.00	0.00	0.00
11,300.00	90.00	181.35	6,100.00	-3,737.76	3,427.88	3,676.76	0.00	0.00	0.00
11,400.00	90.00	181.35	6,100.00	-3,837.73	3,425.52	3,776.75	0.00	0.00	0.00
11,422.28	90.00	181.35	6,100.00	-3,860.00	3,425.00	3,799.03	0.00	0.00	0.00
Begin Turn for AC @ 11422.28ft									
11,500.00	90.00	179.79	6,100.00	-3,937.72	3,424.22	3,876.75	2.00	0.00	-2.00
11,597.98	90.00	177.83	6,100.00	-4,035.67	3,426.25	3,974.65	2.00	0.00	-2.00
End Turn @ 11597.98ft									
11,600.00	90.00	177.83	6,100.00	-4,037.69	3,426.33	3,976.67	0.00	0.00	0.00
11,700.00	90.00	177.83	6,100.00	-4,137.62	3,430.11	4,076.52	0.00	0.00	0.00
11,800.00	90.00	177.83	6,100.00	-4,237.55	3,433.88	4,176.36	0.00	0.00	0.00
11,900.00	90.00	177.83	6,100.00	-4,337.48	3,437.66	4,276.21	0.00	0.00	0.00
12,000.00	90.00	177.83	6,100.00	-4,437.41	3,441.44	4,376.05	0.00	0.00	0.00
12,100.00	90.00	177.83	6,100.00	-4,537.33	3,445.22	4,475.90	0.00	0.00	0.00
12,200.06	90.00	177.83	6,100.00	-4,637.32	3,449.00	4,575.80	0.00	0.00	0.00
Begin Turn for AC @ 12200.06ft									
12,260.89	90.00	174.43	6,100.00	-4,698.00	3,453.10	4,636.40	5.60	0.00	-5.60
End Turn @ 12260.89ft									
12,262.89	90.00	174.43	6,100.00	-4,700.00	3,453.30	4,638.40	0.00	0.00	0.00
Turn to BHL @ 12262.89ft									
12,300.00	90.00	177.34	6,100.00	-4,737.01	3,455.96	4,675.35	7.85	0.00	7.85
12,302.97	90.00	177.57	6,100.00	-4,739.97	3,456.10	4,678.32	7.85	0.00	7.85
BPZ/Cross S. Setback @ 12302.97ft									
12,350.00	90.00	181.26	6,100.00	-4,786.99	3,456.58	4,725.32	7.85	0.00	7.85

Planning Report

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Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 4963.00usft (RIG)
Site:	8N-60W-14 SCHNEIDER 1414 PAD	North Reference:	True
Well:	SCHNEIDER 1414-06H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-2		

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)	
12,389.56	90.00	184.37	6,100.00	-4,826.50	3,454.64	4,764.85	7.85	0.00	7.85	
End Turn @ 12389.56ft										
12,393.07	90.00	184.37	6,100.00	-4,830.00	3,454.37	4,768.36	0.00	0.00	0.00	
TD Well @ 12393.07ft										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
1,897.47	1,800.00	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)		
200.75	200.75	0.00	0.00	Begin Nudge @ 200.75ft	
2,020.75	1,900.77	108.18	548.37	Hold Tangent @ 2020.75ft	
6,496.13	5,502.98	622.21	3,153.92	KOP @ 6496.13ft :: DLS = 9°/100'	
7,593.04	6,100.00	-32.84	3,538.59	TPZ/Cross N. Setback @ 7593.04ft	
8,121.28	6,100.00	-560.00	3,505.00	Begin Turn for AC @ 8121.28ft	
8,236.15	6,100.00	-674.75	3,499.99	End Turn @ 8236.15ft	
11,422.28	6,100.00	-3,860.00	3,425.00	Begin Turn for AC @ 11422.28ft	
11,597.98	6,100.00	-4,035.67	3,426.25	End Turn @ 11597.98ft	
12,200.06	6,100.00	-4,637.32	3,449.00	Begin Turn for AC @ 12200.06ft	
12,260.89	6,100.00	-4,698.00	3,453.10	End Turn @ 12260.89ft	
12,262.89	6,100.00	-4,700.00	3,453.30	Turn to BHL @ 12262.89ft	
12,302.97	6,100.00	-4,739.97	3,456.10	BPZ/Cross S. Setback @ 12302.97ft	
12,389.56	6,100.00	-4,826.50	3,454.64	End Turn @ 12389.56ft	
12,393.07	6,100.00	-4,830.00	3,454.37	TD Well @ 12393.07ft	