

VERDAD RESOURCES

WATTENBERG FIELD

8N-60W-14 SCHNEIDER 1414 PAD

SCHNEIDER 1414-01H

Plan A

Plan: Permit Rev-1

Standard Planning Report

22 July, 2021

Project: WATTENBERG FIELD
Site: 8N-60W-14 SCHNEIDER 1414 PAD
Well: SCHNEIDER 1414-01H
Wellbore: Plan A
Design: Permit Rev-1

VERDAD RESOURCES

CASING DETAILS

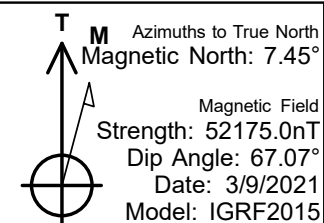
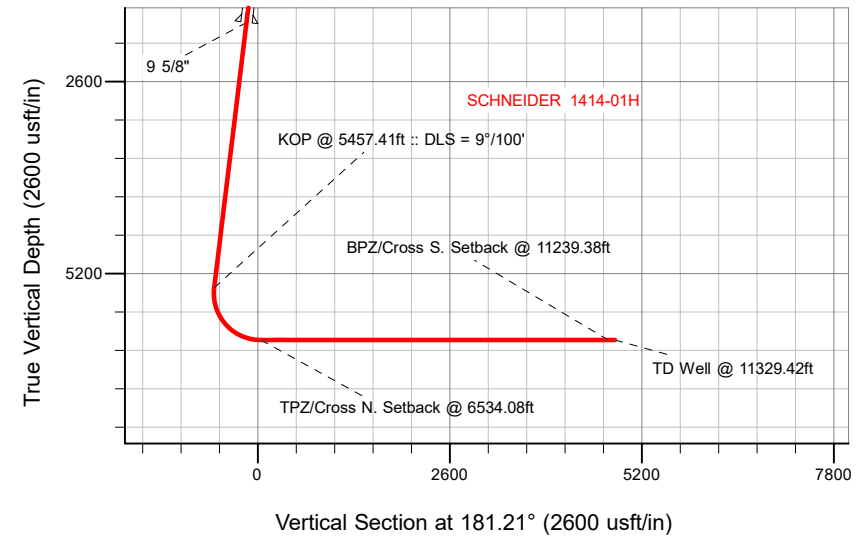
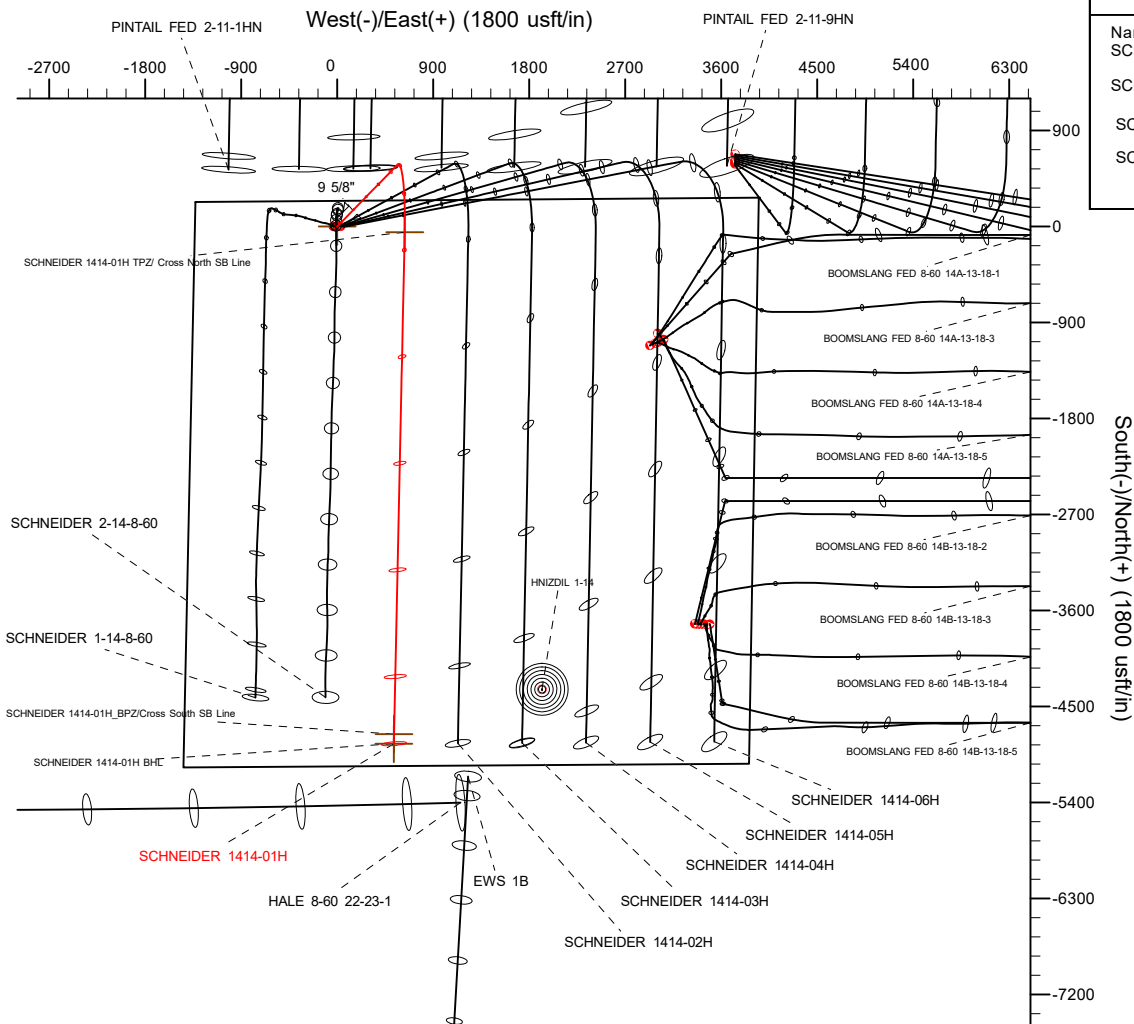
TVD	MD	Name	Size
1800.00	1816.31	9 5/8"	9-5/8

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	
304.00	0.00	0.00	304.00	0.00	0.00	0.00	0.00	0.00	
777.50	9.47	44.31	775.35	27.94	27.27	2.00	44.31	-28.51	
5457.41	9.47	44.31	5391.48	578.92	565.14	0.00	0.00	-590.73	
6534.08	90.00	181.21	6100.00	-54.66	632.48	9.00	136.51	41.29	
11329.42	90.00	181.21	6100.00	-4848.93	530.89	0.00	0.00	4836.63	SCHNEIDER 1414-01H BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
SCHNEIDER 1414-01H SHL	0.00	0.00	0.00	40.669102	-104.062553
SCHNEIDER 1414-01H TPZ/ Cross North SB Line	6100.00	-54.66	632.48	40.668952	-104.060273
SCHNEIDER 1414-01H_BPZ/Cross South SB Line	6100.00	-4758.90	532.80	40.656039	-104.060632
SCHNEIDER 1414-01H BHL	6100.00	-4848.93	530.89	40.655792	-104.060639



WELL DETAILS: SCHNEIDER 1414-01H

GL = 4943'

RKB = 20' @ 4963.00usft (RIG)

Plan: Permit Rev-1 (SCHNEIDER 1414-01H/Plan A)

Date: 7/22/2021

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well SCHNEIDER 1414-01H
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 1414-01H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-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	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 1414-01H			
Well Position	+N/-S	0.00 usft	Northing:	1,489,828.48 usft
	+E/-W	0.00 usft	Easting:	3,398,737.29 usft
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft
Grid Convergence:		0.93 °	Ground Level:	4,943.00 usft

Wellbore	Plan A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/9/2021	7.45	67.07	52,174.98090393

Design	Permit Rev-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	181.21	

Plan Survey Tool Program	Date	7/22/2021			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	1,800.00	Permit Rev-1 (Plan A)	ISCWSA MWD	
				Fixed:v2:standard declination	
2	1,800.00	11,329.42	Permit Rev-1 (Plan A)	ISCWSA MWD	
				Fixed:v2:standard declination	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well SCHNEIDER 1414-01H
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 1414-01H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-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	
304.00	0.00	0.00	304.00	0.00	0.00	0.00	0.00	0.00	0.00	
777.50	9.47	44.31	775.35	27.94	27.27	2.00	2.00	0.00	44.31	
5,457.41	9.47	44.31	5,391.48	578.92	565.14	0.00	0.00	0.00	0.00	
6,534.08	90.00	181.21	6,100.00	-54.66	632.48	9.00	7.48	12.72	136.51	
11,329.42	90.00	181.21	6,100.00	-4,848.93	530.89	0.00	0.00	0.00	0.00	SCHNEIDER 1414-01

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well SCHNEIDER 1414-01H
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 1414-01H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-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
304.00	0.00	0.00	304.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 304.00ft									
400.00	1.92	44.31	399.98	1.15	1.12	-1.17	2.00	2.00	0.00
500.00	3.92	44.31	499.85	4.80	4.68	-4.89	2.00	2.00	0.00
600.00	5.92	44.31	599.47	10.93	10.67	-11.16	2.00	2.00	0.00
700.00	7.92	44.31	698.74	19.55	19.09	-19.95	2.00	2.00	0.00
777.50	9.47	44.31	775.35	27.94	27.27	-28.51	2.00	2.00	0.00
Hold Tangent @ 777.50ft									
800.00	9.47	44.31	797.54	30.59	29.86	-31.21	0.00	0.00	0.00
900.00	9.47	44.31	896.18	42.36	41.35	-43.22	0.00	0.00	0.00
1,000.00	9.47	44.31	994.81	54.13	52.84	-55.24	0.00	0.00	0.00
1,100.00	9.47	44.31	1,093.45	65.91	64.34	-67.25	0.00	0.00	0.00
1,200.00	9.47	44.31	1,192.09	77.68	75.83	-79.26	0.00	0.00	0.00
1,300.00	9.47	44.31	1,290.73	89.45	87.32	-91.28	0.00	0.00	0.00
1,400.00	9.47	44.31	1,389.36	101.23	98.82	-103.29	0.00	0.00	0.00
1,500.00	9.47	44.31	1,488.00	113.00	110.31	-115.30	0.00	0.00	0.00
1,600.00	9.47	44.31	1,586.64	124.77	121.80	-127.32	0.00	0.00	0.00
1,700.00	9.47	44.31	1,685.28	136.55	133.30	-139.33	0.00	0.00	0.00
1,800.00	9.47	44.31	1,783.91	148.32	144.79	-151.34	0.00	0.00	0.00
1,816.31	9.47	44.31	1,800.00	150.24	146.66	-153.30	0.00	0.00	0.00
9 5/8"									
1,900.00	9.47	44.31	1,882.55	160.09	156.28	-163.36	0.00	0.00	0.00
2,000.00	9.47	44.31	1,981.19	171.87	167.78	-175.37	0.00	0.00	0.00
2,100.00	9.47	44.31	2,079.82	183.64	179.27	-187.38	0.00	0.00	0.00
2,200.00	9.47	44.31	2,178.46	195.41	190.76	-199.40	0.00	0.00	0.00
2,300.00	9.47	44.31	2,277.10	207.19	202.26	-211.41	0.00	0.00	0.00
2,400.00	9.47	44.31	2,375.74	218.96	213.75	-223.42	0.00	0.00	0.00
2,500.00	9.47	44.31	2,474.37	230.73	225.24	-235.44	0.00	0.00	0.00
2,600.00	9.47	44.31	2,573.01	242.51	236.74	-247.45	0.00	0.00	0.00
2,700.00	9.47	44.31	2,671.65	254.28	248.23	-259.47	0.00	0.00	0.00
2,800.00	9.47	44.31	2,770.28	266.05	259.72	-271.48	0.00	0.00	0.00
2,900.00	9.47	44.31	2,868.92	277.83	271.21	-283.49	0.00	0.00	0.00
3,000.00	9.47	44.31	2,967.56	289.60	282.71	-295.51	0.00	0.00	0.00
3,100.00	9.47	44.31	3,066.20	301.37	294.20	-307.52	0.00	0.00	0.00
3,200.00	9.47	44.31	3,164.83	313.15	305.69	-319.53	0.00	0.00	0.00
3,300.00	9.47	44.31	3,263.47	324.92	317.19	-331.55	0.00	0.00	0.00
3,400.00	9.47	44.31	3,362.11	336.69	328.68	-343.56	0.00	0.00	0.00
3,500.00	9.47	44.31	3,460.74	348.47	340.17	-355.57	0.00	0.00	0.00
3,600.00	9.47	44.31	3,559.38	360.24	351.67	-367.59	0.00	0.00	0.00
3,700.00	9.47	44.31	3,658.02	372.01	363.16	-379.60	0.00	0.00	0.00
3,800.00	9.47	44.31	3,756.66	383.79	374.65	-391.61	0.00	0.00	0.00
3,900.00	9.47	44.31	3,855.29	395.56	386.15	-403.63	0.00	0.00	0.00
4,000.00	9.47	44.31	3,953.93	407.33	397.64	-415.64	0.00	0.00	0.00
4,100.00	9.47	44.31	4,052.57	419.11	409.13	-427.65	0.00	0.00	0.00
4,200.00	9.47	44.31	4,151.20	430.88	420.63	-439.67	0.00	0.00	0.00
4,300.00	9.47	44.31	4,249.84	442.65	432.12	-451.68	0.00	0.00	0.00
4,400.00	9.47	44.31	4,348.48	454.43	443.61	-463.69	0.00	0.00	0.00
4,500.00	9.47	44.31	4,447.12	466.20	455.11	-475.71	0.00	0.00	0.00
4,600.00	9.47	44.31	4,545.75	477.97	466.60	-487.72	0.00	0.00	0.00
4,700.00	9.47	44.31	4,644.39	489.75	478.09	-499.73	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well SCHNEIDER 1414-01H
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 1414-01H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-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	9.47	44.31	4,743.03	501.52	489.58	-511.75	0.00	0.00	0.00
4,900.00	9.47	44.31	4,841.67	513.29	501.08	-523.76	0.00	0.00	0.00
5,000.00	9.47	44.31	4,940.30	525.07	512.57	-535.77	0.00	0.00	0.00
5,100.00	9.47	44.31	5,038.94	536.84	524.06	-547.79	0.00	0.00	0.00
5,200.00	9.47	44.31	5,137.58	548.61	535.56	-559.80	0.00	0.00	0.00
5,300.00	9.47	44.31	5,236.21	560.39	547.05	-571.81	0.00	0.00	0.00
5,400.00	9.47	44.31	5,334.85	572.16	558.54	-583.83	0.00	0.00	0.00
5,457.41	9.47	44.31	5,391.48	578.92	565.14	-590.73	0.00	0.00	0.00
KOP @ 5457.41ft :: DLS = 9°/100'									
5,500.00	7.19	65.89	5,433.63	582.52	570.02	-594.42	9.00	-5.36	50.67
5,550.00	6.66	103.67	5,483.29	583.11	575.70	-595.14	9.00	-1.06	75.56
5,600.00	8.79	133.76	5,532.85	579.78	581.28	-591.93	9.00	4.27	60.18
5,650.00	12.27	149.62	5,582.01	572.55	586.73	-584.81	9.00	6.96	31.73
5,700.00	16.26	158.21	5,630.46	561.46	592.01	-573.84	9.00	7.97	17.17
5,750.00	20.45	163.42	5,677.91	546.58	597.11	-559.07	9.00	8.39	10.42
5,800.00	24.75	166.90	5,724.07	528.00	601.97	-540.60	9.00	8.60	6.96
5,850.00	29.11	169.40	5,768.63	505.85	606.59	-518.54	9.00	8.71	5.00
5,900.00	33.50	171.30	5,811.35	480.24	610.91	-493.03	9.00	8.78	3.79
5,950.00	37.91	172.80	5,851.94	451.35	614.93	-464.23	9.00	8.83	3.00
6,000.00	42.34	174.03	5,890.16	419.34	618.61	-432.31	9.00	8.86	2.46
6,050.00	46.78	175.07	5,925.78	384.43	621.93	-397.47	9.00	8.88	2.07
6,100.00	51.23	175.96	5,958.57	346.81	624.87	-359.93	9.00	8.90	1.79
6,150.00	55.69	176.75	5,988.33	306.73	627.41	-319.91	9.00	8.91	1.58
6,200.00	60.15	177.46	6,014.88	264.43	629.54	-277.67	9.00	8.92	1.42
6,250.00	64.61	178.11	6,038.06	220.18	631.24	-233.46	9.00	8.93	1.30
6,300.00	69.07	178.72	6,057.72	174.23	632.51	-187.55	9.00	8.93	1.21
6,350.00	73.54	179.28	6,073.74	126.89	633.33	-140.24	9.00	8.94	1.14
6,400.00	78.01	179.83	6,086.02	78.44	633.71	-91.80	9.00	8.94	1.09
6,450.00	82.48	180.35	6,094.49	29.17	633.63	-42.55	9.00	8.94	1.05
6,500.00	86.95	180.87	6,099.09	-20.60	633.10	7.23	9.00	8.94	1.03
6,534.08	90.00	181.21	6,100.00	-54.66	632.48	41.29	9.00	8.94	1.02
TPZ/Cross N. Setback @ 6534.08ft									
6,600.00	90.00	181.21	6,100.00	-120.56	631.08	107.21	0.00	0.00	0.00
6,700.00	90.00	181.21	6,100.00	-220.54	628.97	207.21	0.00	0.00	0.00
6,800.00	90.00	181.21	6,100.00	-320.52	626.85	307.21	0.00	0.00	0.00
6,900.00	90.00	181.21	6,100.00	-420.49	624.73	407.21	0.00	0.00	0.00
7,000.00	90.00	181.21	6,100.00	-520.47	622.61	507.21	0.00	0.00	0.00
7,100.00	90.00	181.21	6,100.00	-620.45	620.49	607.21	0.00	0.00	0.00
7,200.00	90.00	181.21	6,100.00	-720.43	618.37	707.21	0.00	0.00	0.00
7,300.00	90.00	181.21	6,100.00	-820.41	616.25	807.21	0.00	0.00	0.00
7,400.00	90.00	181.21	6,100.00	-920.38	614.14	907.21	0.00	0.00	0.00
7,500.00	90.00	181.21	6,100.00	-1,020.36	612.02	1,007.21	0.00	0.00	0.00
7,600.00	90.00	181.21	6,100.00	-1,120.34	609.90	1,107.21	0.00	0.00	0.00
7,700.00	90.00	181.21	6,100.00	-1,220.32	607.78	1,207.21	0.00	0.00	0.00
7,800.00	90.00	181.21	6,100.00	-1,320.29	605.66	1,307.21	0.00	0.00	0.00
7,900.00	90.00	181.21	6,100.00	-1,420.27	603.54	1,407.21	0.00	0.00	0.00
8,000.00	90.00	181.21	6,100.00	-1,520.25	601.43	1,507.21	0.00	0.00	0.00
8,100.00	90.00	181.21	6,100.00	-1,620.23	599.31	1,607.21	0.00	0.00	0.00
8,200.00	90.00	181.21	6,100.00	-1,720.20	597.19	1,707.21	0.00	0.00	0.00
8,300.00	90.00	181.21	6,100.00	-1,820.18	595.07	1,807.21	0.00	0.00	0.00
8,400.00	90.00	181.21	6,100.00	-1,920.16	592.95	1,907.21	0.00	0.00	0.00
8,500.00	90.00	181.21	6,100.00	-2,020.14	590.83	2,007.21	0.00	0.00	0.00
8,600.00	90.00	181.21	6,100.00	-2,120.11	588.71	2,107.21	0.00	0.00	0.00
8,700.00	90.00	181.21	6,100.00	-2,220.09	586.60	2,207.21	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well SCHNEIDER 1414-01H
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 1414-01H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-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	181.21	6,100.00	-2,320.07	584.48	2,307.21	0.00	0.00	0.00	
8,900.00	90.00	181.21	6,100.00	-2,420.05	582.36	2,407.21	0.00	0.00	0.00	
9,000.00	90.00	181.21	6,100.00	-2,520.02	580.24	2,507.21	0.00	0.00	0.00	
9,100.00	90.00	181.21	6,100.00	-2,620.00	578.12	2,607.21	0.00	0.00	0.00	
9,200.00	90.00	181.21	6,100.00	-2,719.98	576.00	2,707.21	0.00	0.00	0.00	
9,300.00	90.00	181.21	6,100.00	-2,819.96	573.88	2,807.21	0.00	0.00	0.00	
9,400.00	90.00	181.21	6,100.00	-2,919.93	571.77	2,907.21	0.00	0.00	0.00	
9,500.00	90.00	181.21	6,100.00	-3,019.91	569.65	3,007.21	0.00	0.00	0.00	
9,600.00	90.00	181.21	6,100.00	-3,119.89	567.53	3,107.21	0.00	0.00	0.00	
9,700.00	90.00	181.21	6,100.00	-3,219.87	565.41	3,207.21	0.00	0.00	0.00	
9,800.00	90.00	181.21	6,100.00	-3,319.84	563.29	3,307.21	0.00	0.00	0.00	
9,900.00	90.00	181.21	6,100.00	-3,419.82	561.17	3,407.21	0.00	0.00	0.00	
10,000.00	90.00	181.21	6,100.00	-3,519.80	559.05	3,507.21	0.00	0.00	0.00	
10,100.00	90.00	181.21	6,100.00	-3,619.78	556.94	3,607.21	0.00	0.00	0.00	
10,200.00	90.00	181.21	6,100.00	-3,719.75	554.82	3,707.21	0.00	0.00	0.00	
10,300.00	90.00	181.21	6,100.00	-3,819.73	552.70	3,807.21	0.00	0.00	0.00	
10,400.00	90.00	181.21	6,100.00	-3,919.71	550.58	3,907.21	0.00	0.00	0.00	
10,500.00	90.00	181.21	6,100.00	-4,019.69	548.46	4,007.21	0.00	0.00	0.00	
10,600.00	90.00	181.21	6,100.00	-4,119.66	546.34	4,107.21	0.00	0.00	0.00	
10,700.00	90.00	181.21	6,100.00	-4,219.64	544.23	4,207.21	0.00	0.00	0.00	
10,800.00	90.00	181.21	6,100.00	-4,319.62	542.11	4,307.21	0.00	0.00	0.00	
10,900.00	90.00	181.21	6,100.00	-4,419.60	539.99	4,407.21	0.00	0.00	0.00	
11,000.00	90.00	181.21	6,100.00	-4,519.57	537.87	4,507.21	0.00	0.00	0.00	
11,100.00	90.00	181.21	6,100.00	-4,619.55	535.75	4,607.21	0.00	0.00	0.00	
11,200.00	90.00	181.21	6,100.00	-4,719.53	533.63	4,707.21	0.00	0.00	0.00	
11,239.38	90.00	181.21	6,100.00	-4,758.90	532.80	4,746.59	0.00	0.00	0.00	
BPZ/Cross S. Setback @ 11239.38ft										
11,300.00	90.00	181.21	6,100.00	-4,819.51	531.51	4,807.21	0.00	0.00	0.00	
11,329.42	90.00	181.21	6,100.00	-4,848.93	530.89	4,836.63	0.00	0.00	0.00	
TD Well @ 11329.42ft										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
1,816.31	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)		
304.00	304.00	0.00	0.00	Begin Nudge @ 304.00ft	
777.50	775.35	27.94	27.27	Hold Tangent @ 777.50ft	
5,457.41	5,391.48	578.92	565.14	KOP @ 5457.41ft :: DLS = 9°/100'	
6,534.08	6,100.00	-54.66	632.48	TPZ/Cross N. Setback @ 6534.08ft	
11,239.38	6,100.00	-4,758.90	532.80	BPZ/Cross S. Setback @ 11239.38ft	
11,329.42	6,100.00	-4,848.93	530.89	TD Well @ 11329.42ft	