

VERDAD RESOURCES

WATTENBERG FIELD

2N-63W-19 KBL PAD

KBL 1830-19H

Plan A

Plan: Design #1

Standard Planning Report

17 September, 2024

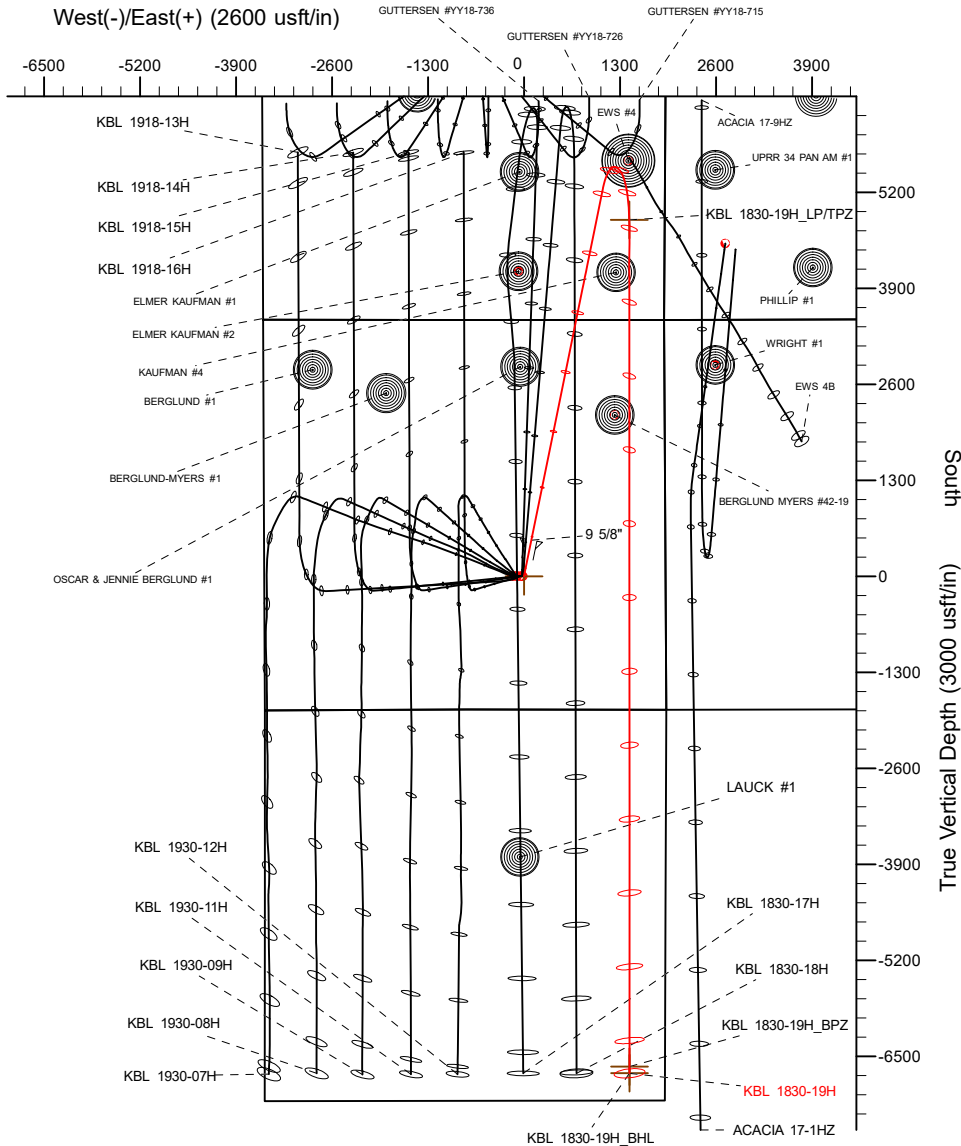
Project: WATTENBERG FIELD
Site: 2N-63W-19 KBL PAD
Well: KBL 1830-19H
Wellbore: Plan A
Design: Design #1

VERDAD RESOURCES

CASING DETAILS

TVD	MD	Name	Size
1816.00	1916.96	9 5/8"	9-5/8

West(-)/East(+) (2600 usft/in)



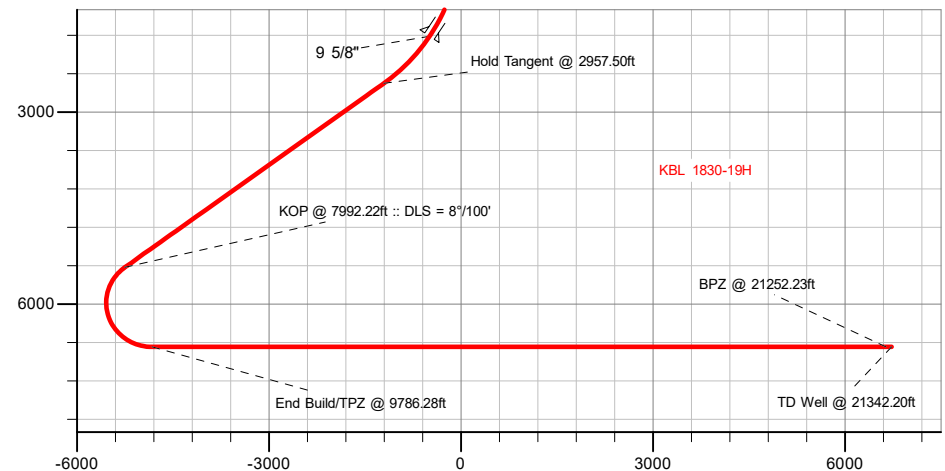
SECTION DETAILS

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	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
2957.50	55.15	11.50	2550.99	1203.12	244.78	2.00	11.50	-1203.03	
7992.22	55.15	11.50	5427.98	5251.92	1068.51	0.00	0.00	-5251.54	
9786.28	90.00	179.98	6670.00	4826.29	1424.92	8.00	160.37	-4825.79	
21342.20	90.00	179.98	6670.00	-6729.63	1429.14	0.00	0.00	6730.13	KBL 1830-19H_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	Northing	Easting	Latitude	Longitude
KBL 1830-19H_SHL	0.00	1288791.51	3285885.68	40.121602	-104.477694
KBL 1830-19H_LP/TPZ	6670.00	1293635.10	3287254.85	40.134854	-104.472598
KBL 1830-19H_BPZ	6670.00	1282168.77	3287391.27	40.103375	-104.472585
KBL 1830-19H_BHL	6670.00	1282078.80	3287392.31	40.103128	-104.472585

True Vertical Depth (3000 usft/in)



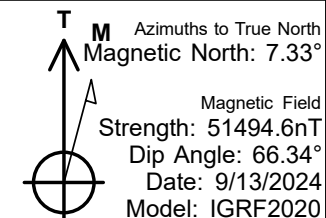
Vertical Section at 179.98° (3000 usft/in)

SHL
1805' FSL
1916' FEL

TPZ
1356' FSL
480' FEL

BPZ
460' FSL
480' FEL

BHL
370' FSL
480' FEL



WELL DETAILS: KBL 1830-19H

GL = 4861'

RKB = 21' @ 4882.00usft (RIG)

Plan: Design #1 (KBL 1830-19H/Plan A)

Date: 9/17/2024

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well KBL 1830-19H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 21' @ 4882.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 21' @ 4882.00usft (RIG)
Site:	2N-63W-19 KBL PAD	North Reference:	True
Well:	KBL 1830-19H	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		2N-63W-19 KBL PAD				
Site Position:		Northing:	1,288,791.50	usft	Latitude:	40.121610
From:	Lat/Long	Easting:	3,285,630.62	usft	Longitude:	-104.478606
Position Uncertainty:		0.00	usft	Slot Radius:	13-3/16	"

Well	KBL 1830-19H					
Well Position	+N/-S	0.00 usft	Northing:	1,288,791.51 usft	Latitude:	40.121602
	+E/-W	0.00 usft	Easting:	3,285,885.68 usft	Longitude:	-104.477694
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft	Ground Level:	4,861.00 usft
Grid Convergence:		0.66 °				

Wellbore	Plan A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF202013	9/13/2024	7.33	66.34	51,494.55144465

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	179.98

Plan Survey Tool Program		Date	9/17/2024		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	1,816.00	Design #1 (Plan A)	ISCWSA MWD	
				Fixed:v2:standard declination	
2	1,816.00	21,342.20	Design #1 (Plan A)	ISCWSA MWD	
				Fixed:v2:standard declination	

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Site:	2N-63W-19 KBL PAD	North Reference:	True
Well:	KBL 1830-19H	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	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,957.50	55.15	11.50	2,550.99	1,203.12	244.78	2.00	2.00	0.00	11.50	
7,992.22	55.15	11.50	5,427.98	5,251.92	1,068.51	0.00	0.00	0.00	0.00	
9,786.28	90.00	179.98	6,670.00	4,826.29	1,424.92	8.00	1.94	9.39	160.37	
21,342.20	90.00	179.98	6,670.00	-6,729.63	1,429.14	0.00	0.00	0.00	0.00	KBL 1830-19H_BHL

Planning Report

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Company:	VERDAD RESOURCES	TVD Reference:	RKB = 21' @ 4882.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 21' @ 4882.00usft (RIG)
Site:	2N-63W-19 KBL PAD	North Reference:	True
Well:	KBL 1830-19H	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
Begin Nudge @ 200.00ft									
300.00	2.00	11.50	299.98	1.71	0.35	-1.71	2.00	2.00	0.00
400.00	4.00	11.50	399.84	6.84	1.39	-6.84	2.00	2.00	0.00
500.00	6.00	11.50	499.45	15.38	3.13	-15.38	2.00	2.00	0.00
600.00	8.00	11.50	598.70	27.32	5.56	-27.32	2.00	2.00	0.00
700.00	10.00	11.50	697.47	42.65	8.68	-42.65	2.00	2.00	0.00
800.00	12.00	11.50	795.62	61.35	12.48	-61.34	2.00	2.00	0.00
900.00	14.00	11.50	893.06	83.39	16.97	-83.38	2.00	2.00	0.00
1,000.00	16.00	11.50	989.64	108.75	22.13	-108.74	2.00	2.00	0.00
1,100.00	18.00	11.50	1,085.27	137.40	27.95	-137.39	2.00	2.00	0.00
1,200.00	20.00	11.50	1,179.82	169.30	34.44	-169.29	2.00	2.00	0.00
1,300.00	22.00	11.50	1,273.17	204.42	41.59	-204.40	2.00	2.00	0.00
1,400.00	24.00	11.50	1,365.21	242.70	49.38	-242.68	2.00	2.00	0.00
1,500.00	26.00	11.50	1,455.84	284.11	57.80	-284.09	2.00	2.00	0.00
1,600.00	28.00	11.50	1,544.94	328.60	66.85	-328.58	2.00	2.00	0.00
1,700.00	30.00	11.50	1,632.39	376.10	76.52	-376.08	2.00	2.00	0.00
1,800.00	32.00	11.50	1,718.11	426.57	86.79	-426.54	2.00	2.00	0.00
1,900.00	34.00	11.50	1,801.97	479.94	97.64	-479.90	2.00	2.00	0.00
1,916.96	34.34	11.50	1,816.00	489.27	99.54	-489.24	2.00	2.00	0.00
9 5/8"									
2,000.00	36.00	11.50	1,883.88	536.14	109.08	-536.10	2.00	2.00	0.00
2,100.00	38.00	11.50	1,963.74	595.11	121.08	-595.07	2.00	2.00	0.00
2,200.00	40.00	11.50	2,041.45	656.78	133.62	-656.73	2.00	2.00	0.00
2,300.00	42.00	11.50	2,116.92	721.06	146.70	-721.01	2.00	2.00	0.00
2,400.00	44.00	11.50	2,190.05	787.89	160.30	-787.84	2.00	2.00	0.00
2,500.00	46.00	11.50	2,260.76	857.18	174.39	-857.12	2.00	2.00	0.00
2,600.00	48.00	11.50	2,328.95	928.84	188.98	-928.78	2.00	2.00	0.00
2,700.00	50.00	11.50	2,394.56	1,002.79	204.02	-1,002.72	2.00	2.00	0.00
2,800.00	52.00	11.50	2,457.48	1,078.94	219.51	-1,078.87	2.00	2.00	0.00
2,900.00	54.00	11.50	2,517.66	1,157.20	235.44	-1,157.12	2.00	2.00	0.00
2,957.50	55.15	11.50	2,550.99	1,203.12	244.78	-1,203.03	2.00	2.00	0.00
Hold Tangent @ 2957.50ft									
3,000.00	55.15	11.50	2,575.28	1,237.29	251.73	-1,237.20	0.00	0.00	0.00
3,100.00	55.15	11.50	2,632.42	1,317.71	268.09	-1,317.62	0.00	0.00	0.00
3,200.00	55.15	11.50	2,689.56	1,398.13	284.45	-1,398.03	0.00	0.00	0.00
3,300.00	55.15	11.50	2,746.71	1,478.55	300.81	-1,478.44	0.00	0.00	0.00
3,400.00	55.15	11.50	2,803.85	1,558.96	317.17	-1,558.85	0.00	0.00	0.00
3,500.00	55.15	11.50	2,860.99	1,639.38	333.54	-1,639.26	0.00	0.00	0.00
3,600.00	55.15	11.50	2,918.14	1,719.80	349.90	-1,719.68	0.00	0.00	0.00
3,700.00	55.15	11.50	2,975.28	1,800.22	366.26	-1,800.09	0.00	0.00	0.00
3,800.00	55.15	11.50	3,032.42	1,880.63	382.62	-1,880.50	0.00	0.00	0.00
3,900.00	55.15	11.50	3,089.56	1,961.05	398.98	-1,960.91	0.00	0.00	0.00
4,000.00	55.15	11.50	3,146.71	2,041.47	415.34	-2,041.32	0.00	0.00	0.00
4,100.00	55.15	11.50	3,203.85	2,121.89	431.70	-2,121.74	0.00	0.00	0.00
4,200.00	55.15	11.50	3,260.99	2,202.30	448.06	-2,202.15	0.00	0.00	0.00
4,300.00	55.15	11.50	3,318.14	2,282.72	464.42	-2,282.56	0.00	0.00	0.00
4,400.00	55.15	11.50	3,375.28	2,363.14	480.79	-2,362.97	0.00	0.00	0.00
4,500.00	55.15	11.50	3,432.42	2,443.56	497.15	-2,443.38	0.00	0.00	0.00
4,600.00	55.15	11.50	3,489.57	2,523.97	513.51	-2,523.79	0.00	0.00	0.00
4,700.00	55.15	11.50	3,546.71	2,604.39	529.87	-2,604.21	0.00	0.00	0.00

Planning Report

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Project:	WATTENBERG FIELD	MD Reference:	RKB = 21' @ 4882.00usft (RIG)
Site:	2N-63W-19 KBL PAD	North Reference:	True
Well:	KBL 1830-19H	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)	
4,800.00	55.15	11.50	3,603.85	2,684.81	546.23	-2,684.62	0.00	0.00	0.00	
4,900.00	55.15	11.50	3,660.99	2,765.23	562.59	-2,765.03	0.00	0.00	0.00	
5,000.00	55.15	11.50	3,718.14	2,845.64	578.95	-2,845.44	0.00	0.00	0.00	
5,100.00	55.15	11.50	3,775.28	2,926.06	595.31	-2,925.85	0.00	0.00	0.00	
5,200.00	55.15	11.50	3,832.42	3,006.48	611.68	-3,006.27	0.00	0.00	0.00	
5,300.00	55.15	11.50	3,889.57	3,086.90	628.04	-3,086.68	0.00	0.00	0.00	
5,400.00	55.15	11.50	3,946.71	3,167.32	644.40	-3,167.09	0.00	0.00	0.00	
5,500.00	55.15	11.50	4,003.85	3,247.73	660.76	-3,247.50	0.00	0.00	0.00	
5,600.00	55.15	11.50	4,061.00	3,328.15	677.12	-3,327.91	0.00	0.00	0.00	
5,700.00	55.15	11.50	4,118.14	3,408.57	693.48	-3,408.33	0.00	0.00	0.00	
5,800.00	55.15	11.50	4,175.28	3,488.99	709.84	-3,488.74	0.00	0.00	0.00	
5,900.00	55.15	11.50	4,232.42	3,569.40	726.20	-3,569.15	0.00	0.00	0.00	
6,000.00	55.15	11.50	4,289.57	3,649.82	742.56	-3,649.56	0.00	0.00	0.00	
6,100.00	55.15	11.50	4,346.71	3,730.24	758.93	-3,729.97	0.00	0.00	0.00	
6,200.00	55.15	11.50	4,403.85	3,810.66	775.29	-3,810.39	0.00	0.00	0.00	
6,300.00	55.15	11.50	4,461.00	3,891.07	791.65	-3,890.80	0.00	0.00	0.00	
6,400.00	55.15	11.50	4,518.14	3,971.49	808.01	-3,971.21	0.00	0.00	0.00	
6,500.00	55.15	11.50	4,575.28	4,051.91	824.37	-4,051.62	0.00	0.00	0.00	
6,600.00	55.15	11.50	4,632.43	4,132.33	840.73	-4,132.03	0.00	0.00	0.00	
6,700.00	55.15	11.50	4,689.57	4,212.74	857.09	-4,212.44	0.00	0.00	0.00	
6,800.00	55.15	11.50	4,746.71	4,293.16	873.45	-4,292.86	0.00	0.00	0.00	
6,900.00	55.15	11.50	4,803.85	4,373.58	889.81	-4,373.27	0.00	0.00	0.00	
7,000.00	55.15	11.50	4,861.00	4,454.00	906.18	-4,453.68	0.00	0.00	0.00	
7,100.00	55.15	11.50	4,918.14	4,534.41	922.54	-4,534.09	0.00	0.00	0.00	
7,200.00	55.15	11.50	4,975.28	4,614.83	938.90	-4,614.50	0.00	0.00	0.00	
7,300.00	55.15	11.50	5,032.43	4,695.25	955.26	-4,694.92	0.00	0.00	0.00	
7,400.00	55.15	11.50	5,089.57	4,775.67	971.62	-4,775.33	0.00	0.00	0.00	
7,500.00	55.15	11.50	5,146.71	4,856.08	987.98	-4,855.74	0.00	0.00	0.00	
7,600.00	55.15	11.50	5,203.86	4,936.50	1,004.34	-4,936.15	0.00	0.00	0.00	
7,700.00	55.15	11.50	5,261.00	5,016.92	1,020.70	-5,016.56	0.00	0.00	0.00	
7,800.00	55.15	11.50	5,318.14	5,097.34	1,037.07	-5,096.98	0.00	0.00	0.00	
7,900.00	55.15	11.50	5,375.28	5,177.76	1,053.43	-5,177.39	0.00	0.00	0.00	
7,992.22	55.15	11.50	5,427.98	5,251.92	1,068.51	-5,251.54	0.00	0.00	0.00	
KOP @ 7992.22ft :: DLS = 8°/100'										
8,000.00	54.56	11.76	5,432.46	5,258.15	1,069.80	-5,257.77	8.00	-7.53	3.30	
8,050.00	50.81	13.50	5,462.76	5,296.95	1,078.47	-5,296.57	8.00	-7.50	3.49	
8,100.00	47.09	15.44	5,495.59	5,333.45	1,087.88	-5,333.07	8.00	-7.45	3.88	
8,150.00	43.40	17.63	5,530.79	5,367.49	1,097.96	-5,367.10	8.00	-7.37	4.38	
8,200.00	39.77	20.14	5,568.19	5,398.88	1,108.68	-5,398.50	8.00	-7.28	5.02	
8,250.00	36.19	23.06	5,607.60	5,427.49	1,119.97	-5,427.10	8.00	-7.15	5.84	
8,300.00	32.70	26.52	5,648.83	5,453.17	1,131.79	-5,452.77	8.00	-6.98	6.91	
8,350.00	29.32	30.69	5,691.68	5,475.79	1,144.07	-5,475.39	8.00	-6.75	8.34	
8,400.00	26.11	35.81	5,735.94	5,495.25	1,156.76	-5,494.85	8.00	-6.43	10.24	
8,450.00	23.12	42.20	5,781.40	5,511.45	1,169.79	-5,511.04	8.00	-5.98	12.78	
8,500.00	20.45	50.26	5,827.84	5,524.31	1,183.11	-5,523.90	8.00	-5.33	16.12	
8,550.00	18.26	60.38	5,875.03	5,533.77	1,196.64	-5,533.36	8.00	-4.39	20.24	
8,600.00	16.72	72.70	5,922.73	5,539.79	1,210.32	-5,539.36	8.00	-3.07	24.64	
8,650.00	16.03	86.71	5,970.72	5,542.32	1,224.08	-5,541.89	8.00	-1.38	28.02	
8,700.00	16.29	101.08	6,018.76	5,541.37	1,237.86	-5,540.94	8.00	0.53	28.75	
8,750.00	17.47	114.28	6,066.63	5,536.93	1,251.59	-5,536.50	8.00	2.35	26.40	
8,800.00	19.39	125.41	6,114.07	5,529.03	1,265.21	-5,528.59	8.00	3.85	22.25	
8,850.00	21.87	134.35	6,160.88	5,517.71	1,278.64	-5,517.26	8.00	4.95	17.90	
8,900.00	24.72	141.45	6,206.80	5,503.02	1,291.81	-5,502.57	8.00	5.72	14.19	
8,950.00	27.85	147.10	6,251.64	5,485.03	1,304.68	-5,484.57	8.00	6.25	11.30	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well KBL 1830-19H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 21' @ 4882.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 21' @ 4882.00usft (RIG)
Site:	2N-63W-19 KBL PAD	North Reference:	True
Well:	KBL 1830-19H	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)	
9,000.00	31.16	151.66	6,295.15	5,463.83	1,317.17	-5,463.37	8.00	6.62	9.13	
9,050.00	34.60	155.41	6,337.14	5,439.53	1,329.22	-5,439.06	8.00	6.89	7.51	
9,100.00	38.14	158.56	6,377.39	5,412.23	1,340.78	-5,411.76	8.00	7.08	6.29	
9,150.00	41.76	161.24	6,415.72	5,382.08	1,351.78	-5,381.61	8.00	7.22	5.36	
9,200.00	45.42	163.56	6,451.93	5,349.23	1,362.18	-5,348.75	8.00	7.33	4.65	
9,250.00	49.13	165.61	6,485.85	5,313.82	1,371.92	-5,313.34	8.00	7.41	4.09	
9,300.00	52.87	167.44	6,517.32	5,276.04	1,380.96	-5,275.56	8.00	7.48	3.66	
9,350.00	56.63	169.09	6,546.17	5,236.07	1,389.25	-5,235.58	8.00	7.53	3.31	
9,400.00	60.42	170.61	6,572.27	5,194.10	1,396.76	-5,193.61	8.00	7.57	3.03	
9,450.00	64.22	172.02	6,595.50	5,150.34	1,403.43	-5,149.85	8.00	7.60	2.81	
9,500.00	68.03	173.34	6,615.73	5,105.00	1,409.25	-5,104.51	8.00	7.63	2.64	
9,550.00	71.86	174.59	6,632.87	5,058.30	1,414.19	-5,057.81	8.00	7.65	2.50	
9,600.00	75.69	175.78	6,646.85	5,010.47	1,418.21	-5,009.98	8.00	7.66	2.39	
9,650.00	79.52	176.94	6,657.58	4,961.75	1,421.31	-4,961.25	8.00	7.67	2.31	
9,700.00	83.37	178.07	6,665.01	4,912.36	1,423.46	-4,911.86	8.00	7.68	2.26	
9,750.00	87.21	179.18	6,669.12	4,862.55	1,424.66	-4,862.06	8.00	7.69	2.22	
9,786.28	90.00	179.98	6,670.00	4,826.29	1,424.92	-4,825.79	8.00	7.69	2.21	
End Build/TPZ @ 9786.28ft										
9,800.00	90.00	179.98	6,670.00	4,812.57	1,424.93	-4,812.07	0.00	0.00	0.00	
9,900.00	90.00	179.98	6,670.00	4,712.57	1,424.96	-4,712.07	0.00	0.00	0.00	
10,000.00	90.00	179.98	6,670.00	4,612.57	1,425.00	-4,612.07	0.00	0.00	0.00	
10,100.00	90.00	179.98	6,670.00	4,512.57	1,425.04	-4,512.07	0.00	0.00	0.00	
10,200.00	90.00	179.98	6,670.00	4,412.57	1,425.07	-4,412.07	0.00	0.00	0.00	
10,300.00	90.00	179.98	6,670.00	4,312.57	1,425.11	-4,312.07	0.00	0.00	0.00	
10,400.00	90.00	179.98	6,670.00	4,212.57	1,425.15	-4,212.07	0.00	0.00	0.00	
10,500.00	90.00	179.98	6,670.00	4,112.57	1,425.18	-4,112.07	0.00	0.00	0.00	
10,600.00	90.00	179.98	6,670.00	4,012.57	1,425.22	-4,012.07	0.00	0.00	0.00	
10,700.00	90.00	179.98	6,670.00	3,912.57	1,425.26	-3,912.07	0.00	0.00	0.00	
10,800.00	90.00	179.98	6,670.00	3,812.57	1,425.29	-3,812.07	0.00	0.00	0.00	
10,900.00	90.00	179.98	6,670.00	3,712.57	1,425.33	-3,712.07	0.00	0.00	0.00	
11,000.00	90.00	179.98	6,670.00	3,612.57	1,425.37	-3,612.07	0.00	0.00	0.00	
11,100.00	90.00	179.98	6,670.00	3,512.57	1,425.40	-3,512.07	0.00	0.00	0.00	
11,200.00	90.00	179.98	6,670.00	3,412.57	1,425.44	-3,412.07	0.00	0.00	0.00	
11,300.00	90.00	179.98	6,670.00	3,312.57	1,425.47	-3,312.07	0.00	0.00	0.00	
11,400.00	90.00	179.98	6,670.00	3,212.57	1,425.51	-3,212.07	0.00	0.00	0.00	
11,500.00	90.00	179.98	6,670.00	3,112.57	1,425.55	-3,112.07	0.00	0.00	0.00	
11,600.00	90.00	179.98	6,670.00	3,012.57	1,425.58	-3,012.07	0.00	0.00	0.00	
11,700.00	90.00	179.98	6,670.00	2,912.57	1,425.62	-2,912.07	0.00	0.00	0.00	
11,800.00	90.00	179.98	6,670.00	2,812.57	1,425.66	-2,812.07	0.00	0.00	0.00	
11,900.00	90.00	179.98	6,670.00	2,712.57	1,425.69	-2,712.07	0.00	0.00	0.00	
12,000.00	90.00	179.98	6,670.00	2,612.57	1,425.73	-2,612.07	0.00	0.00	0.00	
12,100.00	90.00	179.98	6,670.00	2,512.57	1,425.77	-2,512.07	0.00	0.00	0.00	
12,200.00	90.00	179.98	6,670.00	2,412.57	1,425.80	-2,412.07	0.00	0.00	0.00	
12,300.00	90.00	179.98	6,670.00	2,312.57	1,425.84	-2,312.07	0.00	0.00	0.00	
12,400.00	90.00	179.98	6,670.00	2,212.57	1,425.88	-2,212.07	0.00	0.00	0.00	
12,500.00	90.00	179.98	6,670.00	2,112.57	1,425.91	-2,112.07	0.00	0.00	0.00	
12,600.00	90.00	179.98	6,670.00	2,012.57	1,425.95	-2,012.07	0.00	0.00	0.00	
12,700.00	90.00	179.98	6,670.00	1,912.57	1,425.99	-1,912.07	0.00	0.00	0.00	
12,800.00	90.00	179.98	6,670.00	1,812.57	1,426.02	-1,812.07	0.00	0.00	0.00	
12,900.00	90.00	179.98	6,670.00	1,712.57	1,426.06	-1,712.07	0.00	0.00	0.00	
13,000.00	90.00	179.98	6,670.00	1,612.57	1,426.10	-1,612.07	0.00	0.00	0.00	
13,100.00	90.00	179.98	6,670.00	1,512.57	1,426.13	-1,512.07	0.00	0.00	0.00	
13,200.00	90.00	179.98	6,670.00	1,412.57	1,426.17	-1,412.07	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well KBL 1830-19H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 21' @ 4882.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 21' @ 4882.00usft (RIG)
Site:	2N-63W-19 KBL PAD	North Reference:	True
Well:	KBL 1830-19H	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)
13,300.00	90.00	179.98	6,670.00	1,312.57	1,426.20	-1,312.07	0.00	0.00	0.00
13,400.00	90.00	179.98	6,670.00	1,212.57	1,426.24	-1,212.07	0.00	0.00	0.00
13,500.00	90.00	179.98	6,670.00	1,112.57	1,426.28	-1,112.07	0.00	0.00	0.00
13,600.00	90.00	179.98	6,670.00	1,012.57	1,426.31	-1,012.07	0.00	0.00	0.00
13,700.00	90.00	179.98	6,670.00	912.57	1,426.35	-912.07	0.00	0.00	0.00
13,800.00	90.00	179.98	6,670.00	812.57	1,426.39	-812.07	0.00	0.00	0.00
13,900.00	90.00	179.98	6,670.00	712.57	1,426.42	-712.07	0.00	0.00	0.00
14,000.00	90.00	179.98	6,670.00	612.57	1,426.46	-612.07	0.00	0.00	0.00
14,100.00	90.00	179.98	6,670.00	512.57	1,426.50	-512.07	0.00	0.00	0.00
14,200.00	90.00	179.98	6,670.00	412.57	1,426.53	-412.07	0.00	0.00	0.00
14,300.00	90.00	179.98	6,670.00	312.57	1,426.57	-312.07	0.00	0.00	0.00
14,400.00	90.00	179.98	6,670.00	212.57	1,426.61	-212.07	0.00	0.00	0.00
14,500.00	90.00	179.98	6,670.00	112.57	1,426.64	-112.07	0.00	0.00	0.00
14,600.00	90.00	179.98	6,670.00	12.57	1,426.68	-12.07	0.00	0.00	0.00
14,700.00	90.00	179.98	6,670.00	-87.43	1,426.72	87.93	0.00	0.00	0.00
14,800.00	90.00	179.98	6,670.00	-187.43	1,426.75	187.93	0.00	0.00	0.00
14,900.00	90.00	179.98	6,670.00	-287.43	1,426.79	287.93	0.00	0.00	0.00
15,000.00	90.00	179.98	6,670.00	-387.43	1,426.83	387.93	0.00	0.00	0.00
15,100.00	90.00	179.98	6,670.00	-487.43	1,426.86	487.93	0.00	0.00	0.00
15,200.00	90.00	179.98	6,670.00	-587.43	1,426.90	587.93	0.00	0.00	0.00
15,300.00	90.00	179.98	6,670.00	-687.43	1,426.93	687.93	0.00	0.00	0.00
15,400.00	90.00	179.98	6,670.00	-787.43	1,426.97	787.93	0.00	0.00	0.00
15,500.00	90.00	179.98	6,670.00	-887.43	1,427.01	887.93	0.00	0.00	0.00
15,600.00	90.00	179.98	6,670.00	-987.43	1,427.04	987.93	0.00	0.00	0.00
15,700.00	90.00	179.98	6,670.00	-1,087.43	1,427.08	1,087.93	0.00	0.00	0.00
15,800.00	90.00	179.98	6,670.00	-1,187.43	1,427.12	1,187.93	0.00	0.00	0.00
15,900.00	90.00	179.98	6,670.00	-1,287.43	1,427.15	1,287.93	0.00	0.00	0.00
16,000.00	90.00	179.98	6,670.00	-1,387.43	1,427.19	1,387.93	0.00	0.00	0.00
16,100.00	90.00	179.98	6,670.00	-1,487.43	1,427.23	1,487.93	0.00	0.00	0.00
16,200.00	90.00	179.98	6,670.00	-1,587.43	1,427.26	1,587.93	0.00	0.00	0.00
16,300.00	90.00	179.98	6,670.00	-1,687.43	1,427.30	1,687.93	0.00	0.00	0.00
16,400.00	90.00	179.98	6,670.00	-1,787.43	1,427.34	1,787.93	0.00	0.00	0.00
16,500.00	90.00	179.98	6,670.00	-1,887.43	1,427.37	1,887.93	0.00	0.00	0.00
16,600.00	90.00	179.98	6,670.00	-1,987.43	1,427.41	1,987.93	0.00	0.00	0.00
16,700.00	90.00	179.98	6,670.00	-2,087.43	1,427.45	2,087.93	0.00	0.00	0.00
16,800.00	90.00	179.98	6,670.00	-2,187.43	1,427.48	2,187.93	0.00	0.00	0.00
16,900.00	90.00	179.98	6,670.00	-2,287.43	1,427.52	2,287.93	0.00	0.00	0.00
17,000.00	90.00	179.98	6,670.00	-2,387.43	1,427.56	2,387.93	0.00	0.00	0.00
17,100.00	90.00	179.98	6,670.00	-2,487.43	1,427.59	2,487.93	0.00	0.00	0.00
17,200.00	90.00	179.98	6,670.00	-2,587.43	1,427.63	2,587.93	0.00	0.00	0.00
17,300.00	90.00	179.98	6,670.00	-2,687.43	1,427.66	2,687.93	0.00	0.00	0.00
17,400.00	90.00	179.98	6,670.00	-2,787.43	1,427.70	2,787.93	0.00	0.00	0.00
17,500.00	90.00	179.98	6,670.00	-2,887.43	1,427.74	2,887.93	0.00	0.00	0.00
17,600.00	90.00	179.98	6,670.00	-2,987.43	1,427.77	2,987.93	0.00	0.00	0.00
17,700.00	90.00	179.98	6,670.00	-3,087.43	1,427.81	3,087.93	0.00	0.00	0.00
17,800.00	90.00	179.98	6,670.00	-3,187.43	1,427.85	3,187.93	0.00	0.00	0.00
17,900.00	90.00	179.98	6,670.00	-3,287.43	1,427.88	3,287.93	0.00	0.00	0.00
18,000.00	90.00	179.98	6,670.00	-3,387.43	1,427.92	3,387.93	0.00	0.00	0.00
18,100.00	90.00	179.98	6,670.00	-3,487.43	1,427.96	3,487.93	0.00	0.00	0.00
18,200.00	90.00	179.98	6,670.00	-3,587.43	1,427.99	3,587.93	0.00	0.00	0.00
18,300.00	90.00	179.98	6,670.00	-3,687.43	1,428.03	3,687.93	0.00	0.00	0.00
18,400.00	90.00	179.98	6,670.00	-3,787.43	1,428.07	3,787.93	0.00	0.00	0.00
18,500.00	90.00	179.98	6,670.00	-3,887.43	1,428.10	3,887.93	0.00	0.00	0.00
18,600.00	90.00	179.98	6,670.00	-3,987.43	1,428.14	3,987.93	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well KBL 1830-19H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 21' @ 4882.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 21' @ 4882.00usft (RIG)
Site:	2N-63W-19 KBL PAD	North Reference:	True
Well:	KBL 1830-19H	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)	
18,700.00	90.00	179.98	6,670.00	-4,087.43	1,428.18	4,087.93	0.00	0.00	0.00	
18,800.00	90.00	179.98	6,670.00	-4,187.43	1,428.21	4,187.93	0.00	0.00	0.00	
18,900.00	90.00	179.98	6,670.00	-4,287.43	1,428.25	4,287.93	0.00	0.00	0.00	
19,000.00	90.00	179.98	6,670.00	-4,387.43	1,428.29	4,387.93	0.00	0.00	0.00	
19,100.00	90.00	179.98	6,670.00	-4,487.43	1,428.32	4,487.93	0.00	0.00	0.00	
19,200.00	90.00	179.98	6,670.00	-4,587.43	1,428.36	4,587.93	0.00	0.00	0.00	
19,300.00	90.00	179.98	6,670.00	-4,687.43	1,428.39	4,687.93	0.00	0.00	0.00	
19,400.00	90.00	179.98	6,670.00	-4,787.43	1,428.43	4,787.93	0.00	0.00	0.00	
19,500.00	90.00	179.98	6,670.00	-4,887.43	1,428.47	4,887.93	0.00	0.00	0.00	
19,600.00	90.00	179.98	6,670.00	-4,987.43	1,428.50	4,987.93	0.00	0.00	0.00	
19,700.00	90.00	179.98	6,670.00	-5,087.43	1,428.54	5,087.93	0.00	0.00	0.00	
19,800.00	90.00	179.98	6,670.00	-5,187.43	1,428.58	5,187.93	0.00	0.00	0.00	
19,900.00	90.00	179.98	6,670.00	-5,287.43	1,428.61	5,287.93	0.00	0.00	0.00	
20,000.00	90.00	179.98	6,670.00	-5,387.43	1,428.65	5,387.93	0.00	0.00	0.00	
20,100.00	90.00	179.98	6,670.00	-5,487.43	1,428.69	5,487.93	0.00	0.00	0.00	
20,200.00	90.00	179.98	6,670.00	-5,587.43	1,428.72	5,587.93	0.00	0.00	0.00	
20,300.00	90.00	179.98	6,670.00	-5,687.43	1,428.76	5,687.93	0.00	0.00	0.00	
20,400.00	90.00	179.98	6,670.00	-5,787.43	1,428.80	5,787.93	0.00	0.00	0.00	
20,500.00	90.00	179.98	6,670.00	-5,887.43	1,428.83	5,887.93	0.00	0.00	0.00	
20,600.00	90.00	179.98	6,670.00	-5,987.43	1,428.87	5,987.93	0.00	0.00	0.00	
20,700.00	90.00	179.98	6,670.00	-6,087.43	1,428.91	6,087.93	0.00	0.00	0.00	
20,800.00	90.00	179.98	6,670.00	-6,187.43	1,428.94	6,187.93	0.00	0.00	0.00	
20,900.00	90.00	179.98	6,670.00	-6,287.43	1,428.98	6,287.93	0.00	0.00	0.00	
21,000.00	90.00	179.98	6,670.00	-6,387.43	1,429.02	6,387.93	0.00	0.00	0.00	
21,100.00	90.00	179.98	6,670.00	-6,487.43	1,429.05	6,487.93	0.00	0.00	0.00	
21,200.00	90.00	179.98	6,670.00	-6,587.43	1,429.09	6,587.93	0.00	0.00	0.00	
21,252.23	90.00	179.98	6,670.00	-6,639.66	1,429.11	6,640.16	0.00	0.00	0.00	
BPZ @ 21252.23ft										
21,300.00	90.00	179.98	6,670.00	-6,687.43	1,429.12	6,687.93	0.00	0.00	0.00	
21,342.20	90.00	179.98	6,670.00	-6,729.63	1,429.14	6,730.13	0.00	0.00	0.00	
TD Well @ 21342.20ft										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
1,916.96	1,816.00	9 5/8"		9-5/8	13-1/2

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
200.00	200.00	+N/-S (usft)	+E/-W (usft)	Begin Nudge @ 200.00ft	
2,957.50	2,550.99	1,203.12	244.78	Hold Tangent @ 2957.50ft	
7,992.22	5,427.98	5,251.92	1,068.51	KOP @ 7992.22ft :: DLS = 8°/100'	
9,786.28	6,670.00	4,826.29	1,424.92	End Build/TPZ @ 9786.28ft	
21,252.23	6,670.00	-6,639.66	1,429.11	BPZ @ 21252.23ft	
21,342.20	6,670.00	-6,729.63	1,429.14	TD Well @ 21342.20ft	