

VERDAD RESOURCES

**WATTENBERG FIELD
2N-64W-28 GEORGENE PAD
GEORGENE 2828-02H**

Wellbore #1

Plan: Design #2

Standard Planning Report

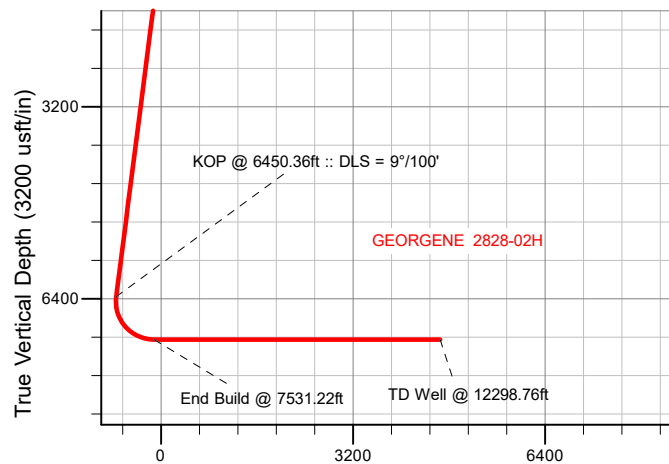
09 July, 2020

Project: WATTENBERG FIELD
Site: 2N-64W-28 GEORGENE PAD
Well: GEORGENE 2828-02H
Wellbore: Wellbore #1
Design: Design #2

VERDAD RESOURCES

CASING DETAILS

TVD	MD	Name	Size
1700.00	1715.59	9 5/8"	9-5/8



SHL
305' FSL
589' FEL

LP
1040' FSL
460' FEL

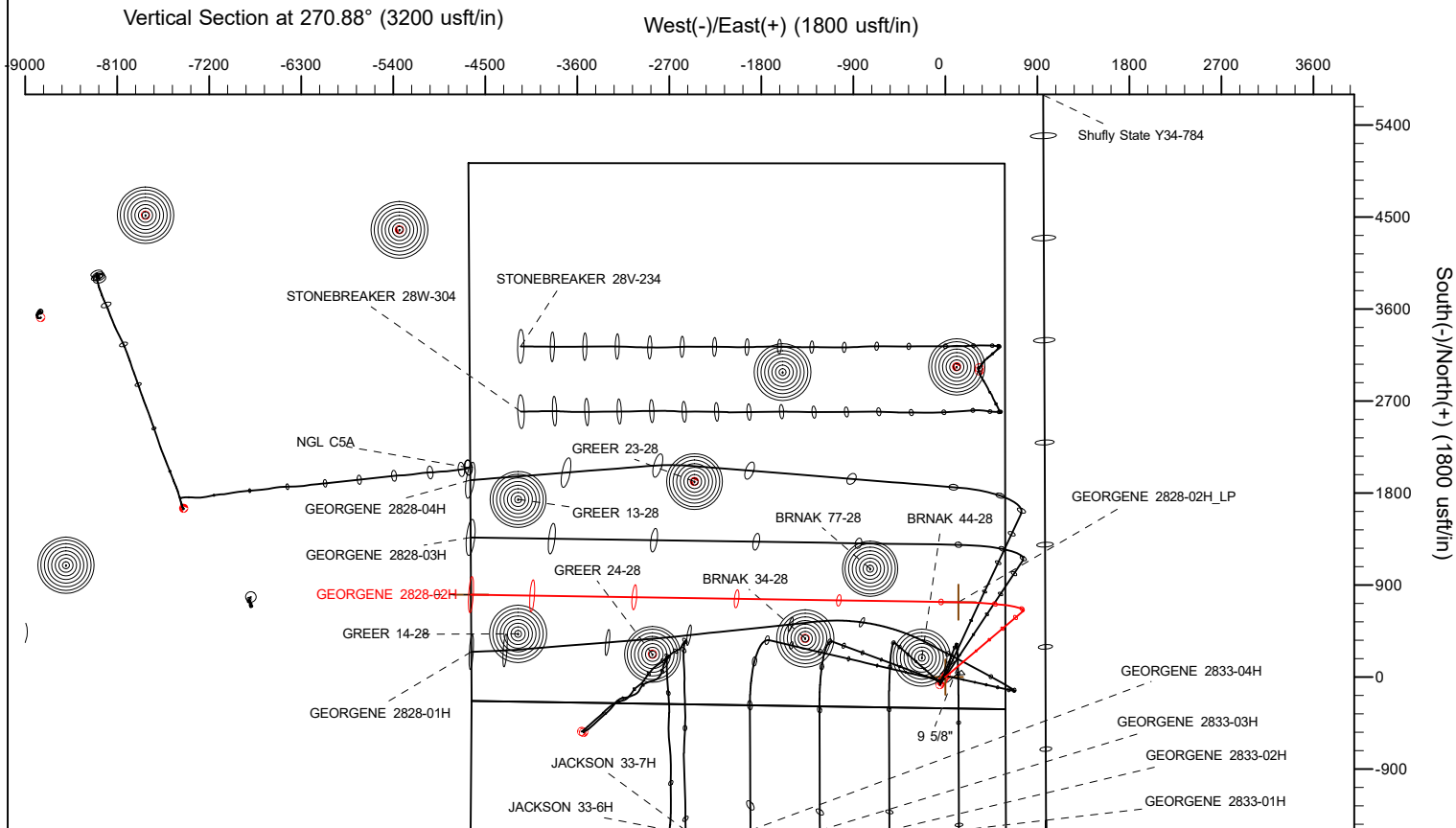
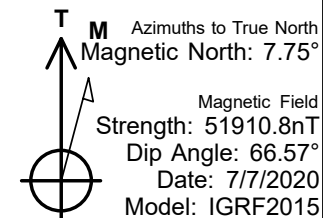
BHL
1040' FSL
0' FWL

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	784.50	9.69	49.70	782.19	26.44	31.17	2.00	49.70	-30.76	
4	6450.36	9.69	49.70	6367.22	643.25	758.50	0.00	0.00	-748.53	
5	7531.22	90.00	270.88	7080.00	733.09	128.32	9.00	-138.41	-117.04	
6	12298.76	90.00	270.88	7080.00	806.37	-4638.65	0.00	0.00	4650.49	GEORGENE 2828-02H_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
GEORGENE 2828-02H_SHL	0.00	0.00	0.00	40.102919	-104.548875
GEORGENE 2828-02H_BHL	7080.00	806.37	-4638.65	40.105132	-104.565458



WELL DETAILS: GEORGENE 2828-02H

GL = 5016'
RKB = 24' @ 5040.00usft (RIG)

Plan: Design #2 (GEORGENE 2828-02H/Wellbore #1)

Date: 7/08/2020

HP

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well GEORGENE 2828-02H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 24' @ 5040.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 5040.00usft (RIG)
Site:	2N-64W-28 GEORGENE PAD	North Reference:	True
Well:	GEORGENE 2828-02H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #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	2N-64W-28 GEORGENE PAD			
Site Position:		Northing:	1,281,723.49 usft	Latitude: 40.102807
From:	Lat/Long	Easting:	3,266,028.51 usft	Longitude: -104.548967
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	

Well	GEORGENE 2828-02H			
Well Position	+N/-S	0.00 usft	Northing:	1,281,764.70 usft
	+E/-W	0.00 usft	Easting:	3,266,053.86 usft
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft
Grid Convergence:		0.61 °	Ground Level:	5,016.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	7/7/2020	7.75	66.57	51,910.76962548

Design	Design #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	270.88

Plan Survey Tool Program		Date	7/9/2020		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	1,700.00	Design #2 (Wellbore #1)	ISCWSA MWD	
				Fixed:v2:standard declination	
2	1,700.00	12,298.76	Design #2 (Wellbore #1)	ISCWSA MWD	
				Fixed:v2:standard declination	

HP
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Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 5040.00usft (RIG)
Site:	2N-64W-28 GEORGENE PAD	North Reference:	True
Well:	GEORGENE 2828-02H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #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	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
784.50	9.69	49.70	782.19	26.44	31.17	2.00	2.00	0.00	49.70	
6,450.36	9.69	49.70	6,367.22	643.25	758.50	0.00	0.00	0.00	0.00	
7,531.23	90.00	270.88	7,080.00	733.09	128.32	9.00	7.43	-12.84	-138.41	
12,298.76	90.00	270.88	7,080.00	806.37	-4,638.65	0.00	0.00	0.00	0.00	GEORGENE 2828-02

HP

Planning Report

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Company:	VERDAD RESOURCES	TVD Reference:	RKB = 24' @ 5040.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 5040.00usft (RIG)
Site:	2N-64W-28 GEORGENE PAD	North Reference:	True
Well:	GEORGENE 2828-02H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #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
200.00	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
Begin Nudge @ 300.00ft									
400.00	2.00	49.70	399.98	1.13	1.33	-1.31	2.00	2.00	0.00
500.00	4.00	49.70	499.84	4.51	5.32	-5.25	2.00	2.00	0.00
600.00	6.00	49.70	599.45	10.15	11.97	-11.81	2.00	2.00	0.00
700.00	8.00	49.70	698.70	18.03	21.26	-20.98	2.00	2.00	0.00
784.50	9.69	49.70	782.19	26.44	31.17	-30.76	2.00	2.00	0.00
Hold Tangent @ 784.50ft									
800.00	9.69	49.70	797.47	28.12	33.16	-32.73	0.00	0.00	0.00
900.00	9.69	49.70	896.05	39.01	46.00	-45.39	0.00	0.00	0.00
1,000.00	9.69	49.70	994.62	49.90	58.84	-58.06	0.00	0.00	0.00
1,100.00	9.69	49.70	1,093.19	60.78	71.67	-70.73	0.00	0.00	0.00
1,200.00	9.69	49.70	1,191.77	71.67	84.51	-83.40	0.00	0.00	0.00
1,300.00	9.69	49.70	1,290.34	82.56	97.35	-96.07	0.00	0.00	0.00
1,400.00	9.69	49.70	1,388.91	93.44	110.18	-108.74	0.00	0.00	0.00
1,500.00	9.69	49.70	1,487.49	104.33	123.02	-121.40	0.00	0.00	0.00
1,600.00	9.69	49.70	1,586.06	115.22	135.86	-134.07	0.00	0.00	0.00
1,700.00	9.69	49.70	1,684.63	126.10	148.70	-146.74	0.00	0.00	0.00
1,715.59	9.69	49.70	1,700.00	127.80	150.70	-148.72	0.00	0.00	0.00
9 5/8"									
1,800.00	9.69	49.70	1,783.21	136.99	161.53	-159.41	0.00	0.00	0.00
1,900.00	9.69	49.70	1,881.78	147.88	174.37	-172.08	0.00	0.00	0.00
2,000.00	9.69	49.70	1,980.35	158.76	187.21	-184.75	0.00	0.00	0.00
2,100.00	9.69	49.70	2,078.93	169.65	200.04	-197.41	0.00	0.00	0.00
2,200.00	9.69	49.70	2,177.50	180.54	212.88	-210.08	0.00	0.00	0.00
2,300.00	9.69	49.70	2,276.07	191.42	225.72	-222.75	0.00	0.00	0.00
2,400.00	9.69	49.70	2,374.65	202.31	238.55	-235.42	0.00	0.00	0.00
2,500.00	9.69	49.70	2,473.22	213.20	251.39	-248.09	0.00	0.00	0.00
2,600.00	9.69	49.70	2,571.79	224.08	264.23	-260.76	0.00	0.00	0.00
2,700.00	9.69	49.70	2,670.37	234.97	277.07	-273.42	0.00	0.00	0.00
2,800.00	9.69	49.70	2,768.94	245.86	289.90	-286.09	0.00	0.00	0.00
2,900.00	9.69	49.70	2,867.51	256.74	302.74	-298.76	0.00	0.00	0.00
3,000.00	9.69	49.70	2,966.08	267.63	315.58	-311.43	0.00	0.00	0.00
3,100.00	9.69	49.70	3,064.66	278.51	328.41	-324.10	0.00	0.00	0.00
3,200.00	9.69	49.70	3,163.23	289.40	341.25	-336.77	0.00	0.00	0.00
3,300.00	9.69	49.70	3,261.80	300.29	354.09	-349.43	0.00	0.00	0.00
3,400.00	9.69	49.70	3,360.38	311.17	366.92	-362.10	0.00	0.00	0.00
3,500.00	9.69	49.70	3,458.95	322.06	379.76	-374.77	0.00	0.00	0.00
3,600.00	9.69	49.70	3,557.52	332.95	392.60	-387.44	0.00	0.00	0.00
3,700.00	9.69	49.70	3,656.10	343.83	405.44	-400.11	0.00	0.00	0.00
3,800.00	9.69	49.70	3,754.67	354.72	418.27	-412.78	0.00	0.00	0.00
3,900.00	9.69	49.70	3,853.24	365.61	431.11	-425.44	0.00	0.00	0.00
4,000.00	9.69	49.70	3,951.82	376.49	443.95	-438.11	0.00	0.00	0.00
4,100.00	9.69	49.70	4,050.39	387.38	456.78	-450.78	0.00	0.00	0.00
4,200.00	9.69	49.70	4,148.96	398.27	469.62	-463.45	0.00	0.00	0.00
4,300.00	9.69	49.70	4,247.54	409.15	482.46	-476.12	0.00	0.00	0.00
4,400.00	9.69	49.70	4,346.11	420.04	495.29	-488.79	0.00	0.00	0.00
4,500.00	9.69	49.70	4,444.68	430.93	508.13	-501.45	0.00	0.00	0.00
4,600.00	9.69	49.70	4,543.26	441.81	520.97	-514.12	0.00	0.00	0.00
4,700.00	9.69	49.70	4,641.83	452.70	533.81	-526.79	0.00	0.00	0.00

HP

Planning Report

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Company:	VERDAD RESOURCES	TVD Reference:	RKB = 24' @ 5040.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 5040.00usft (RIG)
Site:	2N-64W-28 GEORGENE PAD	North Reference:	True
Well:	GEORGENE 2828-02H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #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)
4,800.00	9.69	49.70	4,740.40	463.59	546.64	-539.46	0.00	0.00	0.00
4,900.00	9.69	49.70	4,838.98	474.47	559.48	-552.13	0.00	0.00	0.00
5,000.00	9.69	49.70	4,937.55	485.36	572.32	-564.80	0.00	0.00	0.00
5,100.00	9.69	49.70	5,036.12	496.25	585.15	-577.46	0.00	0.00	0.00
5,200.00	9.69	49.70	5,134.70	507.13	597.99	-590.13	0.00	0.00	0.00
5,300.00	9.69	49.70	5,233.27	518.02	610.83	-602.80	0.00	0.00	0.00
5,400.00	9.69	49.70	5,331.84	528.91	623.67	-615.47	0.00	0.00	0.00
5,500.00	9.69	49.70	5,430.42	539.79	636.50	-628.14	0.00	0.00	0.00
5,600.00	9.69	49.70	5,528.99	550.68	649.34	-640.81	0.00	0.00	0.00
5,700.00	9.69	49.70	5,627.56	561.57	662.18	-653.47	0.00	0.00	0.00
5,800.00	9.69	49.70	5,726.14	572.45	675.01	-666.14	0.00	0.00	0.00
5,900.00	9.69	49.70	5,824.71	583.34	687.85	-678.81	0.00	0.00	0.00
6,000.00	9.69	49.70	5,923.28	594.23	700.69	-691.48	0.00	0.00	0.00
6,100.00	9.69	49.70	6,021.86	605.11	713.52	-704.15	0.00	0.00	0.00
6,200.00	9.69	49.70	6,120.43	616.00	726.36	-716.82	0.00	0.00	0.00
6,300.00	9.69	49.70	6,219.00	626.89	739.20	-729.48	0.00	0.00	0.00
6,400.00	9.69	49.70	6,317.58	637.77	752.04	-742.15	0.00	0.00	0.00
6,450.36	9.69	49.70	6,367.22	643.25	758.50	-748.53	0.00	0.00	0.00
KOP @ 6450.36ft :: DLS = 9°/100'									
6,500.00	7.00	24.60	6,416.34	648.71	762.95	-752.89	9.00	-5.42	-50.57
6,600.00	8.91	316.73	6,515.57	659.91	760.17	-749.95	9.00	1.90	-67.87
6,700.00	16.46	293.25	6,613.12	671.16	741.81	-731.42	9.00	7.55	-23.48
6,800.00	24.98	284.85	6,706.59	682.19	708.32	-697.76	9.00	8.52	-8.40
6,900.00	33.73	280.57	6,793.67	692.71	660.52	-649.80	9.00	8.76	-4.27
7,000.00	42.58	277.91	6,872.23	702.48	599.59	-588.73	9.00	8.85	-2.67
7,100.00	51.48	276.02	6,940.33	711.26	527.02	-516.04	9.00	8.89	-1.89
7,200.00	60.40	274.54	6,996.28	718.81	444.62	-433.52	9.00	8.92	-1.47
7,300.00	69.33	273.31	7,038.72	724.97	354.39	-343.22	9.00	8.93	-1.23
7,400.00	78.26	272.22	7,066.60	729.58	258.58	-247.34	9.00	8.94	-1.09
7,500.00	87.21	271.19	7,079.23	732.52	159.52	-148.25	9.00	8.94	-1.02
7,531.23	90.00	270.88	7,080.00	733.09	128.32	-117.04	9.00	8.94	-1.01
End Build @ 7531.22ft									
7,600.00	90.00	270.88	7,080.00	734.15	59.55	-48.27	0.00	0.00	0.00
7,700.00	90.00	270.88	7,080.00	735.68	-40.44	51.73	0.00	0.00	0.00
7,800.00	90.00	270.88	7,080.00	737.22	-140.43	151.73	0.00	0.00	0.00
7,900.00	90.00	270.88	7,080.00	738.76	-240.42	251.73	0.00	0.00	0.00
8,000.00	90.00	270.88	7,080.00	740.29	-340.40	351.73	0.00	0.00	0.00
8,100.00	90.00	270.88	7,080.00	741.83	-440.39	451.73	0.00	0.00	0.00
8,200.00	90.00	270.88	7,080.00	743.37	-540.38	551.73	0.00	0.00	0.00
8,300.00	90.00	270.88	7,080.00	744.91	-640.37	651.73	0.00	0.00	0.00
8,400.00	90.00	270.88	7,080.00	746.44	-740.36	751.73	0.00	0.00	0.00
8,500.00	90.00	270.88	7,080.00	747.98	-840.34	851.73	0.00	0.00	0.00
8,600.00	90.00	270.88	7,080.00	749.52	-940.33	951.73	0.00	0.00	0.00
8,700.00	90.00	270.88	7,080.00	751.05	-1,040.32	1,051.73	0.00	0.00	0.00
8,800.00	90.00	270.88	7,080.00	752.59	-1,140.31	1,151.73	0.00	0.00	0.00
8,900.00	90.00	270.88	7,080.00	754.13	-1,240.30	1,251.73	0.00	0.00	0.00
9,000.00	90.00	270.88	7,080.00	755.66	-1,340.29	1,351.73	0.00	0.00	0.00
9,100.00	90.00	270.88	7,080.00	757.20	-1,440.27	1,451.73	0.00	0.00	0.00
9,200.00	90.00	270.88	7,080.00	758.74	-1,540.26	1,551.73	0.00	0.00	0.00
9,300.00	90.00	270.88	7,080.00	760.28	-1,640.25	1,651.73	0.00	0.00	0.00
9,400.00	90.00	270.88	7,080.00	761.81	-1,740.24	1,751.73	0.00	0.00	0.00
9,500.00	90.00	270.88	7,080.00	763.35	-1,840.23	1,851.73	0.00	0.00	0.00
9,600.00	90.00	270.88	7,080.00	764.89	-1,940.21	1,951.73	0.00	0.00	0.00
9,700.00	90.00	270.88	7,080.00	766.42	-2,040.20	2,051.73	0.00	0.00	0.00

HP

Planning Report

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Company:	VERDAD RESOURCES	TVD Reference:	RKB = 24' @ 5040.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 5040.00usft (RIG)
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Well:	GEORGENE 2828-02H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #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)	
9,800.00	90.00	270.88	7,080.00	767.96	-2,140.19	2,151.73	0.00	0.00	0.00	
9,900.00	90.00	270.88	7,080.00	769.50	-2,240.18	2,251.73	0.00	0.00	0.00	
10,000.00	90.00	270.88	7,080.00	771.03	-2,340.17	2,351.73	0.00	0.00	0.00	
10,100.00	90.00	270.88	7,080.00	772.57	-2,440.16	2,451.73	0.00	0.00	0.00	
10,200.00	90.00	270.88	7,080.00	774.11	-2,540.14	2,551.73	0.00	0.00	0.00	
10,300.00	90.00	270.88	7,080.00	775.65	-2,640.13	2,651.73	0.00	0.00	0.00	
10,400.00	90.00	270.88	7,080.00	777.18	-2,740.12	2,751.73	0.00	0.00	0.00	
10,500.00	90.00	270.88	7,080.00	778.72	-2,840.11	2,851.73	0.00	0.00	0.00	
10,600.00	90.00	270.88	7,080.00	780.26	-2,940.10	2,951.73	0.00	0.00	0.00	
10,700.00	90.00	270.88	7,080.00	781.79	-3,040.08	3,051.73	0.00	0.00	0.00	
10,800.00	90.00	270.88	7,080.00	783.33	-3,140.07	3,151.73	0.00	0.00	0.00	
10,900.00	90.00	270.88	7,080.00	784.87	-3,240.06	3,251.73	0.00	0.00	0.00	
11,000.00	90.00	270.88	7,080.00	786.40	-3,340.05	3,351.73	0.00	0.00	0.00	
11,100.00	90.00	270.88	7,080.00	787.94	-3,440.04	3,451.73	0.00	0.00	0.00	
11,200.00	90.00	270.88	7,080.00	789.48	-3,540.03	3,551.73	0.00	0.00	0.00	
11,300.00	90.00	270.88	7,080.00	791.02	-3,640.01	3,651.73	0.00	0.00	0.00	
11,400.00	90.00	270.88	7,080.00	792.55	-3,740.00	3,751.73	0.00	0.00	0.00	
11,500.00	90.00	270.88	7,080.00	794.09	-3,839.99	3,851.73	0.00	0.00	0.00	
11,600.00	90.00	270.88	7,080.00	795.63	-3,939.98	3,951.73	0.00	0.00	0.00	
11,700.00	90.00	270.88	7,080.00	797.16	-4,039.97	4,051.73	0.00	0.00	0.00	
11,800.00	90.00	270.88	7,080.00	798.70	-4,139.95	4,151.73	0.00	0.00	0.00	
11,900.00	90.00	270.88	7,080.00	800.24	-4,239.94	4,251.73	0.00	0.00	0.00	
12,000.00	90.00	270.88	7,080.00	801.77	-4,339.93	4,351.73	0.00	0.00	0.00	
12,100.00	90.00	270.88	7,080.00	803.31	-4,439.92	4,451.73	0.00	0.00	0.00	
12,200.00	90.00	270.88	7,080.00	804.85	-4,539.91	4,551.73	0.00	0.00	0.00	
12,298.76	90.00	270.88	7,080.00	806.37	-4,638.65	4,650.49	0.00	0.00	0.00	
TD Well @ 12298.76ft										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,715.59	1,700.00	9 5/8"	9-5/8	13-1/2	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment	
300.00	300.00	0.00	0.00	Begin Nudge @ 300.00ft	
784.50	782.19	26.44	31.17	Hold Tangent @ 784.50ft	
6,450.36	6,367.22	643.25	758.50	KOP @ 6450.36ft :: DLS = 9°/100'	
7,531.23	7,080.00	733.09	128.32	End Build @ 7531.22ft	
12,298.76	7,080.00	806.37	-4,638.65	TD Well @ 12298.76ft	