

Rudolph ATX State Com. #4H

30-015-38564

Contingency Casing Design

If hole conditions dictate, 7" casing will be set at 9,300' MD (8,945' TVD). A 6 1/8" hole will then be drilled to 13,372' MD (8,900' TVD) where 4 1/2" casing will be set and cemented with one stage up to dv tool. After completion procedures, the 4 1/2" casing will be cut and pulled at 8400'.

2nd Intermediate

0 ft to 1,000 ft		Make up Torque ft-lbs			Total ft = 1,000
O.D.	Weight	Grade	Threads	opt. min. mx.	
7 inches	26 #/ft	J-55	LT&C	3670 2750 4590	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield	Drift
4,320 psi	4,980 psi	367,000 #		415,000 #	6.151

1,000 ft to 5,700 ft		Make up Torque ft-lbs			Total ft = 4,700
O.D.	Weight	Grade	Threads	opt. min. mx.	
7 inches	23 #/ft	J-55	LT&C	3130 2350 3910	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield	Drift
3,270 psi	4,360 psi	313,000 #		366,000 #	6.25

5,700 ft to 8,000 ft		Make up Torque ft-lbs			Total ft = 2,300
O.D.	Weight	Grade	Threads	opt. min. mx.	
7 inches	26 #/ft	J-55	LT&C	3670 2750 4590	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield	Drift
4,320 psi	4,980 psi	367,000 #		415,000 #	6.151

8,000 ft to 9,300 ft		Make up Torque ft-lbs			Total ft = 1,300
O.D.	Weight	Grade	Threads	opt. min. mx.	
7 inches	26 #/ft	L-80	LT&C	5110 3830 6390	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield	Drift
5,410 psi	7,240 psi	511,000 #		604,000 #	6.151

DV tool placed at 4700'.

Stage I: Cemented w/975sx PVL (YLD 1.41 Wt 13) TOC= 4700'

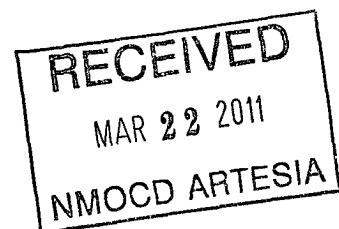
Stage II: Lead w/200sx Lite Crete (YLD 2.78 Wt 9.9), tail w/100sx PVL (YLD 1.41 Wt 13) TOC= 2500'

Production

0 ft to 13,372 ft		Make up Torque ft-lbs			Total ft = 13,372
O.D.	Weight	Grade	Threads	opt. min. mx.	
4.5 inches	11.6 #/ft	HCP-110	LT&C	3020 2270 3780	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield	Drift
8,650 psi	10,690 psi	279,000 #		367,000 #	3.875

DV tool placed at approx. 8400' and cemented with one stage up to dv tool. After completion procedures, the 4 1/2" casing will be cut and pulled at 8400'.

Cemented w/675sx PVL (YLD 1.41 Wt 13) TOC= 8400'



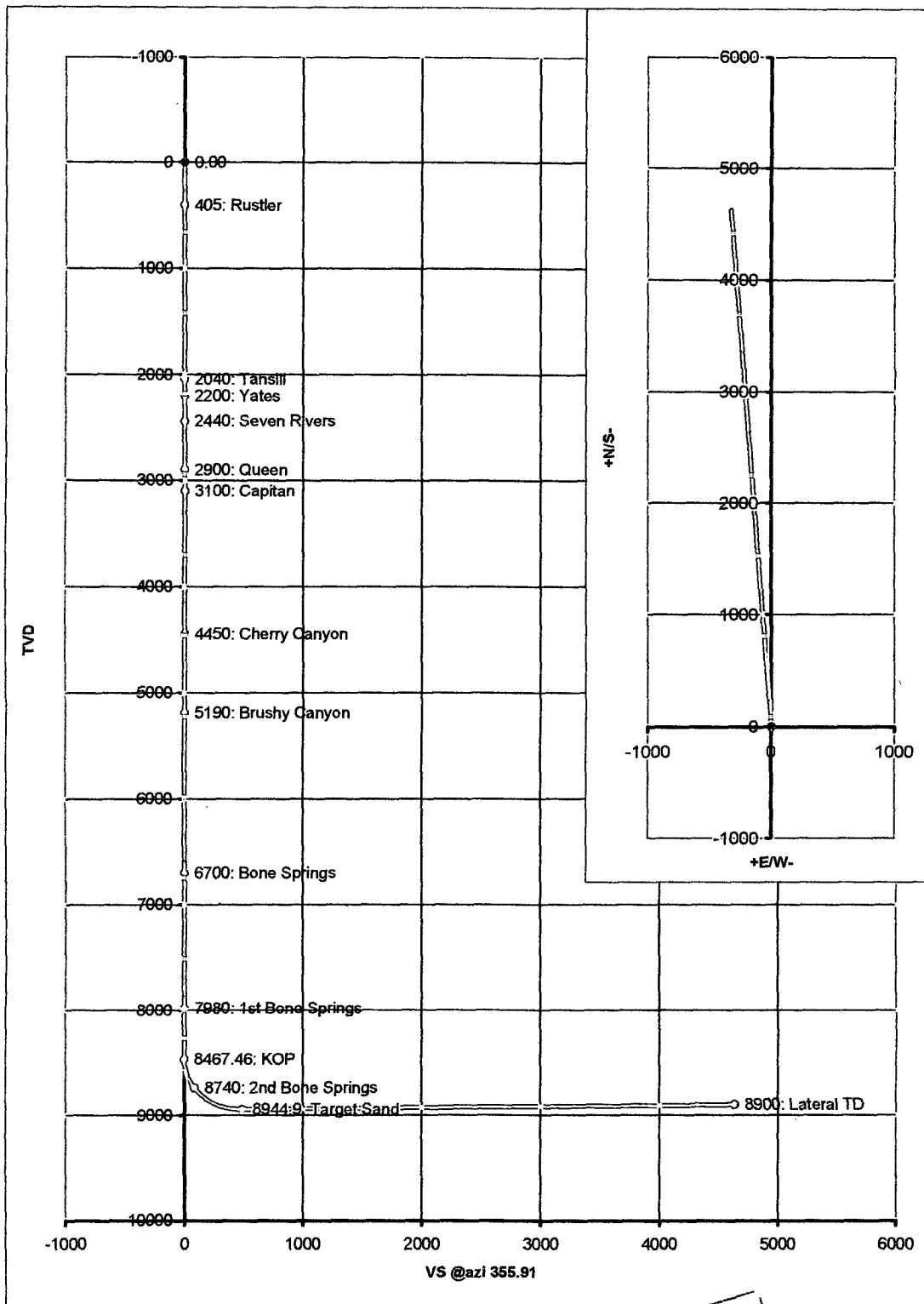
Co: Yates Petroleum Corporation
 Drillers: 0
 Well Name: Rudolph ATX State Com. #4H
 Location: Sect. 16, 19S-31E

Units: Feet, ° 100ft
 Elevation:
 Northing:
 Easting:

VS Az: 355.91
 Tgt Radius: 0.00
 Tgt N/S: 4620.00
 Tgt EW: -330.00
 Tgt TVD: 8900.00
 Tgt MD: 0.00
 Tgt Displ.: 0.00
 Method: Minimum Curvature

No.	MD	CL	Inc.	AZ	TVD	VS	+NS-	+EW-	BR	WR	DLS	Comments
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 Rustler
1	405.00	405.00	0.00	360.00	405.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 Tansill
2	2040.00	1635.00	0.00	360.00	2040.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 Yates
3	2200.00	160.00	0.00	360.00	2200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 Seven Rivers
4	2440.00	240.00	0.00	360.00	2440.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 Queen
5	2900.00	460.00	0.00	360.00	2900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 Capitan
6	3100.00	200.00	0.00	360.00	3100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 Cherry Canyon
7	4450.00	1350.00	0.00	360.00	4450.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 Brushy Canyon
8	5190.00	740.00	0.00	360.00	5190.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 Bone Springs
9	6700.00	1510.00	0.00	360.00	6700.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00 1st Bone Springs
10	7980.00	1280.00	0.00	360.00	7980.00	0.01	0.01	0.00	0.00	-0.05	0.00	0.00 KOP
11	8467.46	8467.46	0.00	355.91	8467.46	0.01	0.01	0.00	0.00	0.00	12.00	12.00
12	8500.00	32.54	3.90	355.91	8499.97	1.12	1.11	-0.08	12.00	0.00	12.00	12.00
13	8600.00	100.00	15.90	355.91	8598.30	18.28	18.24	-1.30	12.00	0.00	12.00	12.00
14	8700.00	100.00	27.90	355.91	8690.92	55.52	55.38	-3.96	12.00	0.00	12.00	12.00
15	8757.51	57.51	34.81	355.91	8740.00	85.43	85.21	-6.09	12.00	0.00	12.00	12.00 2nd Bone Springs
16	8800.00	100.00	39.90	355.91	8773.76	111.20	110.92	-7.92	12.00	0.00	12.00	12.00
17	8900.00	100.00	51.90	355.91	8843.22	182.89	182.42	-13.03	12.00	0.00	12.00	12.00
18	9000.00	100.00	63.90	355.91	8896.26	267.45	266.77	-19.05	12.00	0.00	12.00	12.00
19	9100.00	100.00	75.90	355.91	8930.55	361.19	360.27	-25.73	12.00	0.00	12.00	12.00
20	9200.00	100.00	87.90	355.91	8944.61	460.01	458.84	-32.77	12.00	0.00	12.00	12.00
21	9222.63	755.17	90.62	355.91	8944.90	482.64	481.41	-34.39	12.00	0.00	12.00	12.00 Target Sand
22	13372.01	4149.38	90.62	355.91	8900.00	4631.78	4620.01	-330.00	0.00	0.00	0.00	0.00 Lateral TD





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