



Ursa Operating Company, LLC

Rockies Region

Yater

YATER 43A-18-07-95

Wellbore #1

Design: Actual

End of Well Report

31 March, 2015



Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well YATER 43A-18-07-95
Project:	Rockies Region	TVD Reference:	YATER 43A-18-07-95 @ 5536.0usft (Capstar 321)
Site:	Yater	MD Reference:	YATER 43A-18-07-95 @ 5536.0usft (Capstar 321)
Well:	YATER 43A-18-07-95	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM 5000.1 Single User Db

Project		Rockies Region	
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		Yater			
Site Position:		Northing:		1,593,358.14 usft	
From:	Lat/Long	Easting:		2,286,525.77 usft	
Position Uncertainty:		Slot Radius:		13-3/16 "	
				Latitude: 39° 26' 7.071 N	
				Longitude: 108° 1' 35.041 W	
				Grid Convergence: -1.59 °	

Well		YATER 43A-18-07-95, SHL LAT: 39.435158904 LONG: -108.026475705				
Well Position	+N/-S	0.0 usft	Northing:	1,593,308.24 usft	Latitude:	39° 26' 6.572 N
	+E/-W	0.0 usft	Easting:	2,286,503.05 usft	Longitude:	108° 1' 35.313 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	5,536.0 usft	Ground Level:	5,519.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/23/2014	9.93	65.59	51,878

Design		Actual			
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)		+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0		0.0	0.0	291.91

Survey Program		Date	3/31/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
149.0	7,025.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

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Site:	Yater	MD Reference:	YATER 43A-18-07-95 @ 5536.0usft (Capstar 321)
Well:	YATER 43A-18-07-95	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM 5000.1 Single User Db

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
149.0	0.12	288.64	149.0	0.2	0.0	-0.1	0.08	0.08	0.00	
177.0	0.15	65.03	177.0	0.2	0.1	-0.1	0.90	0.11	487.11	
206.0	0.35	38.89	206.0	0.1	0.2	-0.1	0.78	0.69	-90.14	
238.0	0.70	37.22	238.0	0.0	0.4	0.1	1.09	1.09	-5.22	
268.0	0.79	31.11	268.0	-0.1	0.7	0.3	0.40	0.30	-20.37	
298.0	0.97	324.45	298.0	0.1	1.1	0.3	3.26	0.60	-222.20	
328.0	1.76	305.07	328.0	0.8	1.6	-0.2	3.01	2.63	-64.60	
358.0	2.81	295.93	358.0	2.0	2.2	-1.3	3.69	3.50	-30.47	
388.0	3.60	293.11	387.9	3.6	2.8	-2.8	2.68	2.63	-9.40	
418.0	4.35	290.13	417.8	5.7	3.6	-4.7	2.59	2.50	-9.93	
448.0	5.05	289.99	447.7	8.2	4.5	-7.0	2.33	2.33	-0.47	
478.0	5.80	290.08	477.6	11.0	5.4	-9.7	2.50	2.50	0.30	
508.0	6.50	290.65	507.4	14.2	6.5	-12.7	2.34	2.33	1.90	
538.0	7.33	290.81	537.2	17.8	7.8	-16.1	2.77	2.77	0.53	
568.0	7.95	291.18	566.9	21.8	9.3	-19.8	2.07	2.07	1.23	
598.0	8.70	292.19	596.6	26.2	10.9	-23.8	2.55	2.50	3.37	
628.0	9.58	293.16	626.2	30.9	12.7	-28.2	2.98	2.93	3.23	
658.0	10.55	292.79	655.8	36.2	14.7	-33.1	3.24	3.23	-1.23	
688.0	11.25	290.87	685.2	41.9	16.8	-38.3	2.63	2.33	-6.40	
718.0	12.17	290.61	714.6	47.9	19.0	-44.0	3.07	3.07	-0.87	
748.0	13.05	290.56	743.9	54.5	21.3	-50.2	2.93	2.93	-0.17	
778.0	13.95	290.55	773.1	61.5	23.8	-56.7	3.00	3.00	-0.03	
808.0	14.59	291.00	802.1	68.9	26.4	-63.6	2.17	2.13	1.50	
838.0	15.49	291.89	831.1	76.7	29.2	-70.9	3.10	3.00	2.97	
868.0	16.39	293.73	860.0	84.9	32.4	-78.5	3.44	3.00	6.13	
898.0	17.18	292.81	888.7	93.6	35.9	-86.4	2.78	2.63	-3.07	

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Well:	YATER 43A-18-07-95	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM 5000.1 Single User Db

Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)
928.0	17.89	294.12	917.3	102.6	39.5	-94.7	2.71	2.37	4.37
958.0	18.59	293.16	945.8	112.0	43.2	-103.3	2.54	2.33	-3.20
988.0	19.56	293.11	974.1	121.8	47.1	-112.3	3.23	3.23	-0.17
1,018.0	20.30	292.45	1,002.3	132.0	51.0	-121.8	2.58	2.47	-2.20
1,048.0	21.22	292.50	1,030.4	142.6	55.1	-131.6	3.07	3.07	0.17
1,078.0	22.19	291.93	1,058.3	153.7	59.3	-141.9	3.31	3.23	-1.90
1,108.0	23.07	291.31	1,086.0	165.3	63.5	-152.6	3.04	2.93	-2.07
1,138.0	24.04	291.75	1,113.5	177.3	67.9	-163.7	3.29	3.23	1.47
1,168.0	24.74	291.44	1,140.8	189.7	72.5	-175.3	2.37	2.33	-1.03
1,198.0	25.58	290.48	1,167.9	202.4	77.1	-187.2	3.11	2.80	-3.20
1,228.0	26.19	289.73	1,194.9	215.5	81.6	-199.5	2.31	2.03	-2.50
1,258.0	27.12	289.72	1,221.7	228.9	86.1	-212.1	3.10	3.10	-0.03
1,288.0	28.17	289.64	1,248.3	242.9	90.8	-225.2	3.50	3.50	-0.27
1,318.0	29.14	289.51	1,274.6	257.2	95.6	-238.8	3.24	3.23	-0.43
1,348.0	30.15	290.87	1,300.7	272.1	100.7	-252.7	4.04	3.37	4.53
1,378.0	30.85	290.61	1,326.6	287.3	106.1	-267.0	2.37	2.33	-0.87
1,408.0	31.95	291.36	1,352.2	302.9	111.7	-281.6	3.89	3.67	2.50
1,438.0	32.61	291.27	1,377.5	318.9	117.5	-296.5	2.21	2.20	-0.30
1,468.0	33.09	291.53	1,402.7	335.2	123.5	-311.6	1.67	1.60	0.87
1,498.0	33.49	292.28	1,427.8	351.7	129.6	-326.9	1.91	1.33	2.50
1,528.0	33.98	291.62	1,452.7	368.3	135.9	-342.4	2.04	1.63	-2.20
1,558.0	34.47	292.11	1,477.6	385.2	142.1	-358.0	1.87	1.63	1.63
1,588.0	34.23	292.19	1,502.3	402.1	148.5	-373.7	0.81	-0.80	0.27
1,618.0	34.06	292.41	1,527.2	419.0	154.9	-389.3	0.70	-0.57	0.73
1,648.0	34.01	292.54	1,552.0	435.8	161.3	-404.8	0.29	-0.17	0.43
1,678.0	33.97	292.72	1,576.9	452.5	167.8	-420.3	0.36	-0.13	0.60
1,708.0	33.93	292.13	1,601.8	469.3	174.2	-435.8	1.11	-0.13	-1.97

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Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	
1,738.0	33.79	292.54	1,626.7	486.0	180.5	-451.2	0.89	-0.47	1.37	
1,768.0	33.71	292.01	1,651.6	502.7	186.8	-466.6	1.02	-0.27	-1.77	
1,798.0	33.57	291.88	1,676.6	519.3	193.1	-482.1	0.52	-0.47	-0.43	
1,889.0	33.79	292.50	1,752.3	569.7	212.1	-528.8	0.45	0.24	0.68	
1,974.0	32.34	292.19	1,823.6	616.1	229.7	-571.7	1.72	-1.71	-0.36	
2,060.0	31.99	292.23	1,896.4	661.9	247.1	-614.1	0.41	-0.41	0.05	
2,145.0	32.39	292.23	1,968.3	707.2	264.2	-656.0	0.47	0.47	0.00	
2,230.0	32.65	289.77	2,040.0	752.9	280.6	-698.6	1.59	0.31	-2.89	
2,316.0	33.11	288.85	2,112.2	799.5	296.0	-742.7	0.79	0.53	-1.07	
2,401.0	33.79	289.91	2,183.1	846.3	311.5	-786.9	1.05	0.80	1.25	
2,486.0	35.90	292.01	2,252.9	894.9	328.9	-832.2	2.86	2.48	2.47	
2,572.0	34.80	291.66	2,323.0	944.6	347.4	-878.4	1.30	-1.28	-0.41	
2,657.0	34.96	290.07	2,392.8	993.2	364.8	-923.8	1.09	0.19	-1.87	
2,742.0	34.45	290.83	2,462.6	1,041.6	381.7	-969.2	0.79	-0.60	0.89	
2,827.0	34.17	290.38	2,532.8	1,089.5	398.5	-1,014.0	0.44	-0.33	-0.53	
2,912.0	34.58	290.56	2,603.0	1,137.5	415.3	-1,059.0	0.50	0.48	0.21	
2,997.0	34.58	291.84	2,673.0	1,185.7	432.7	-1,104.0	0.85	0.00	1.51	
3,082.0	34.98	293.60	2,742.8	1,234.2	451.5	-1,148.7	1.27	0.47	2.07	
3,168.0	34.85	293.64	2,813.3	1,283.4	471.2	-1,193.8	0.15	-0.15	0.05	
3,253.0	34.46	294.44	2,883.2	1,331.7	490.9	-1,237.9	0.70	-0.46	0.94	
3,339.0	33.89	293.62	2,954.4	1,380.0	510.6	-1,282.0	0.85	-0.66	-0.95	
3,424.0	33.05	292.98	3,025.3	1,426.8	529.1	-1,325.1	1.07	-0.99	-0.75	
3,509.0	33.66	293.28	3,096.3	1,473.5	547.5	-1,368.1	0.74	0.72	0.35	
3,595.0	33.14	293.45	3,168.1	1,520.9	566.2	-1,411.5	0.61	-0.60	0.20	
3,680.0	32.83	292.63	3,239.4	1,567.1	584.4	-1,454.1	0.64	-0.36	-0.96	
3,765.0	31.55	292.37	3,311.3	1,612.4	601.7	-1,495.9	1.51	-1.51	-0.31	
3,851.0	28.92	291.62	3,385.6	1,655.7	617.9	-1,536.1	3.09	-3.06	-0.87	

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Survey										
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3,936.0	25.86	291.85	3,461.1	1,694.8	632.4	-1,572.4	3.60	-3.60	0.27	
4,022.0	23.12	292.85	3,539.3	1,730.5	645.9	-1,605.4	3.22	-3.19	1.16	
4,107.0	20.61	293.11	3,618.2	1,762.1	658.3	-1,634.5	2.96	-2.95	0.31	
4,192.0	18.62	293.02	3,698.3	1,790.6	669.5	-1,660.8	2.34	-2.34	-0.11	
4,278.0	15.42	294.39	3,780.5	1,815.8	679.5	-1,683.8	3.75	-3.72	1.59	
4,363.0	12.92	295.14	3,862.9	1,836.6	688.3	-1,702.7	2.95	-2.94	0.88	
4,449.0	10.37	292.94	3,947.1	1,853.9	695.4	-1,718.6	3.01	-2.97	-2.56	
4,534.0	8.09	295.09	4,031.0	1,867.5	700.9	-1,731.0	2.71	-2.68	2.53	
4,620.0	6.11	298.69	4,116.4	1,878.1	705.6	-1,740.5	2.36	-2.30	4.19	
4,705.0	3.87	317.46	4,201.0	1,885.2	709.9	-1,746.4	3.23	-2.64	22.08	
4,790.0	3.38	341.37	4,285.9	1,889.4	714.4	-1,749.2	1.85	-0.58	28.13	
4,876.0	2.68	358.86	4,371.8	1,891.8	718.8	-1,750.0	1.34	-0.81	20.34	
4,961.0	1.74	356.09	4,456.7	1,893.2	722.1	-1,750.1	1.11	-1.11	-3.26	
5,047.0	1.32	339.34	4,542.7	1,894.4	724.3	-1,750.6	0.71	-0.49	-19.48	
5,132.0	1.14	331.39	4,627.6	1,895.7	726.0	-1,751.3	0.29	-0.21	-9.35	
5,218.0	0.62	183.38	4,713.6	1,896.3	726.3	-1,751.8	1.97	-0.60	-172.10	
5,303.0	0.97	180.39	4,798.6	1,895.8	725.1	-1,751.8	0.41	0.41	-3.52	
5,388.0	0.75	190.11	4,883.6	1,895.5	723.8	-1,751.9	0.31	-0.26	11.44	
5,474.0	0.83	189.67	4,969.6	1,895.2	722.7	-1,752.1	0.09	0.09	-0.51	
5,559.0	1.05	187.12	5,054.6	1,894.9	721.3	-1,752.3	0.26	0.26	-3.00	
5,644.0	1.41	179.78	5,139.6	1,894.3	719.5	-1,752.4	0.46	0.42	-8.64	
5,730.0	0.70	251.63	5,225.6	1,894.3	718.2	-1,752.9	1.59	-0.83	83.55	
5,815.0	1.14	344.75	5,310.6	1,895.2	718.9	-1,753.6	1.61	0.52	109.55	
5,901.0	1.19	305.24	5,396.5	1,896.6	720.2	-1,754.6	0.92	0.06	-45.94	
5,986.0	1.50	281.37	5,481.5	1,898.5	721.0	-1,756.4	0.75	0.36	-28.08	
6,071.0	1.67	266.79	5,566.5	1,900.8	721.1	-1,758.7	0.51	0.20	-17.15	
6,157.0	1.98	257.28	5,652.4	1,903.1	720.7	-1,761.4	0.50	0.36	-11.06	

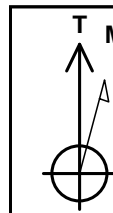
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6,242.0	2.42	255.01	5,737.4	1,905.8	719.9	-1,764.6	0.53	0.52	-2.67	
6,327.0	0.97	272.14	5,822.3	1,907.9	719.5	-1,767.0	1.79	-1.71	20.15	
6,413.0	1.31	257.41	5,908.3	1,909.4	719.3	-1,768.7	0.52	0.40	-17.13	
6,498.0	0.18	61.61	5,993.3	1,910.1	719.2	-1,769.5	1.75	-1.33	193.18	
6,583.0	0.18	217.44	6,078.3	1,910.0	719.1	-1,769.5	0.41	0.00	183.33	
6,669.0	0.62	217.84	6,164.3	1,910.2	718.6	-1,769.9	0.51	0.51	0.47	
6,754.0	1.01	228.16	6,249.3	1,910.7	717.8	-1,770.7	0.49	0.46	12.14	
6,840.0	1.10	233.30	6,335.3	1,911.4	716.8	-1,771.9	0.15	0.10	5.98	
6,925.0	1.41	234.31	6,420.3	1,912.4	715.7	-1,773.4	0.37	0.36	1.19	
6,968.0	1.45	227.42	6,463.3	1,912.9	715.0	-1,774.3	0.41	0.09	-16.02	
7,025.0	1.45	227.42	6,520.2	1,913.5	714.0	-1,775.3	0.00	0.00	0.00	

Checked By: _____	Approved By: _____	Date: _____
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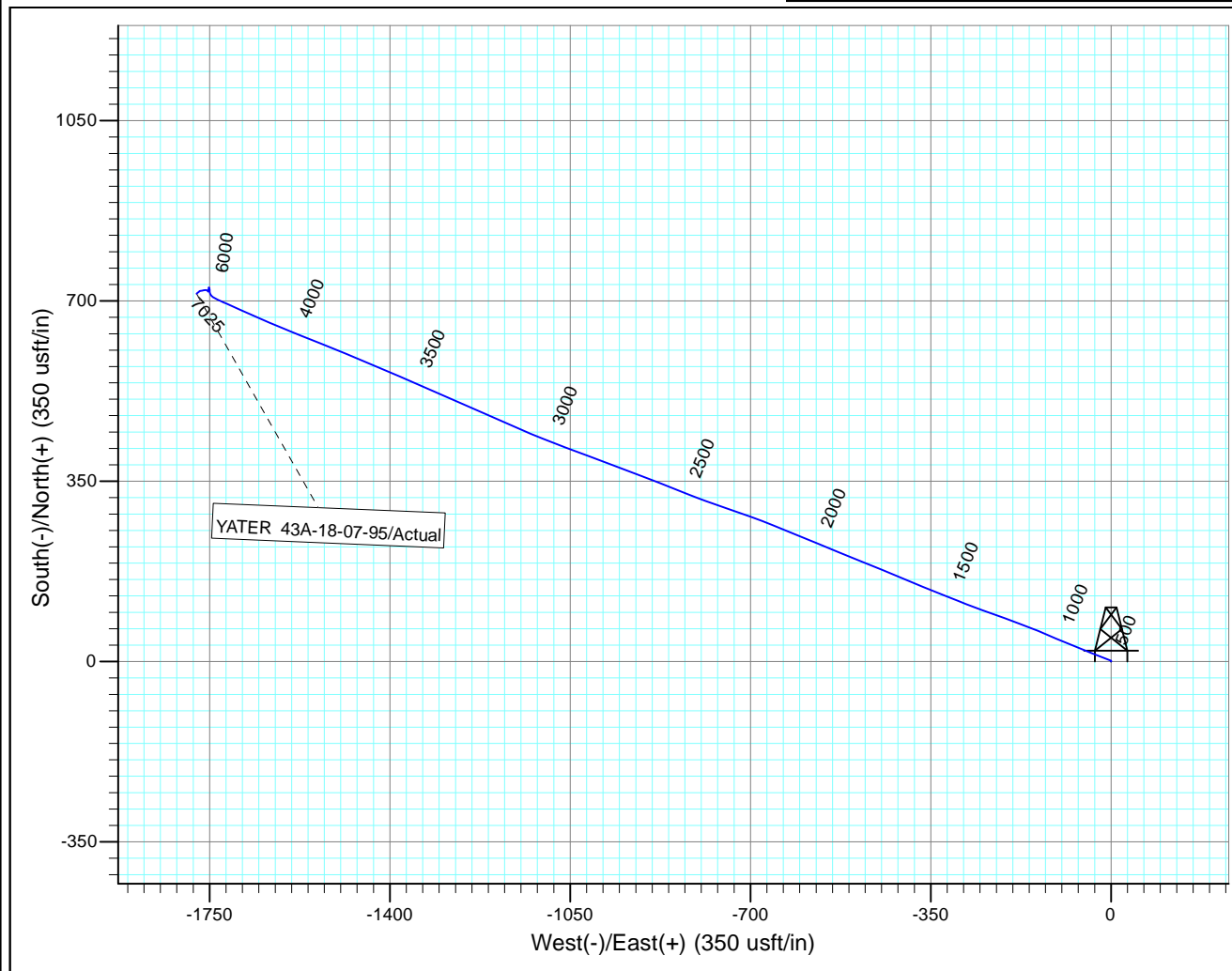
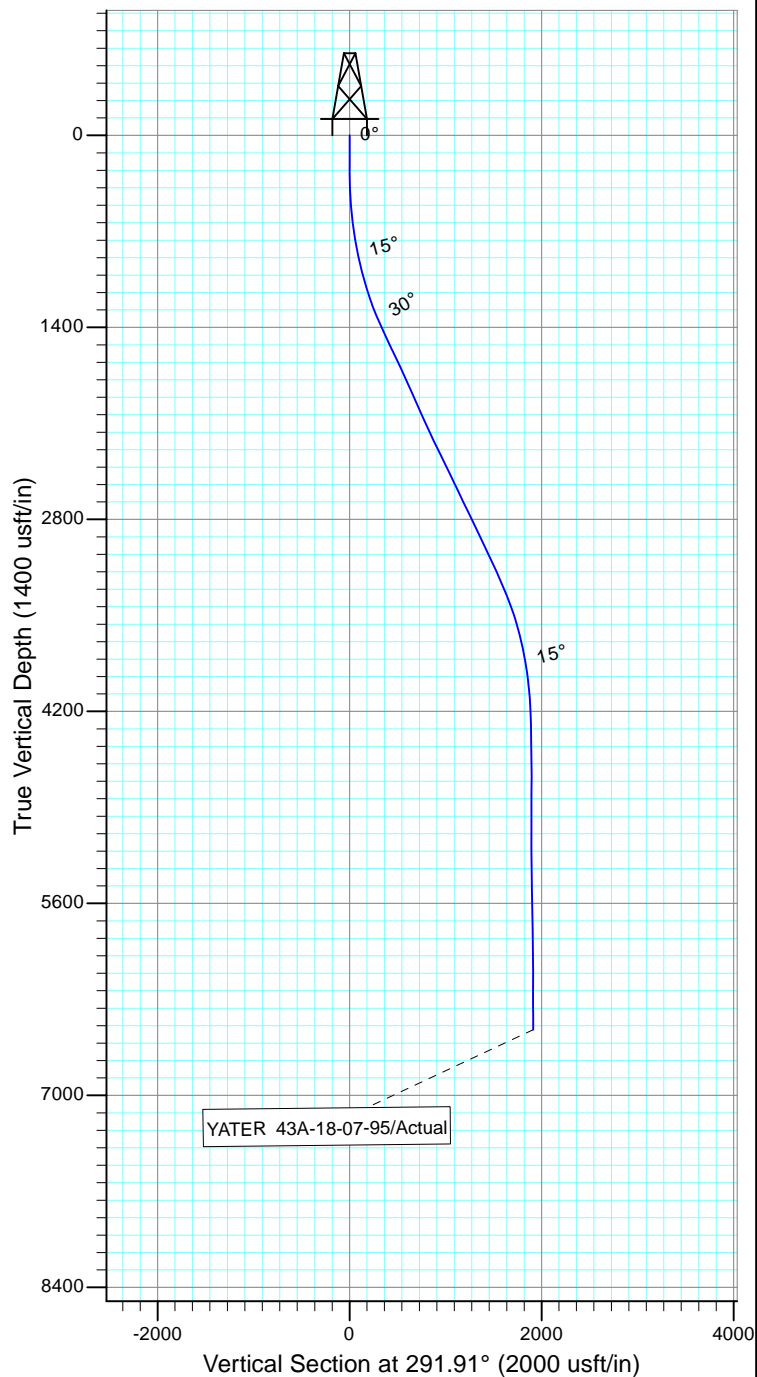


Project: Rockies Region
 Site: Yater
 Well: YATER 43A-18-07-95
 Wellbore: Wellbore #1
 Design: Actual



Azimuths to True North
 Magnetic North: 9.93°

Magnetic Field
 Strength: 51878.3snT
 Dip Angle: 65.59°
 Date: 10/23/2014
 Model: IGRF2010



Design: Actual (YATER 43A-18-07-95/Wellbore #1)

Created By: *Matthew Linton* Date: 11:07, March 31 2015

THIS SURVEY IS CORRECT TO THE BEST OF
 MY KNOWLEDGE AND IS SUPPORTED
 BY ACTUAL FIELD DATA