



Ursa Operating Company, LLC

Rockies Region

Yater

YATER 22B-17-07-95

Wellbore #1

Design: Actual

End of Well Report

15 July, 2015



Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well YATER 22B-17-07-95
Project:	Rockies Region	TVD Reference:	YATER 22B-17-07-95 @ 5536.0usft (CPSTAR 321)
Site:	Yater	MD Reference:	YATER 22B-17-07-95 @ 5536.0usft (CPSTAR 321)
Well:	YATER 22B-17-07-95	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 22B-17-07-95, SHL LAT: 39.435126049 LONG: -108.026395074				
Well Position	+N/-S	0.0 usft	Northing:	1,593,295.65 usft	Latitude:	39° 26' 6.454 N
	+E/-W	0.0 usft	Easting:	2,286,525.48 usft	Longitude:	108° 1' 35.022 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	6/15/2015	9.84	65.57	51,813

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	25.50

Survey Program		Date	7/15/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
237.0	7,083.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

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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	
237.0	0.97	79.45	237.0	1.2	0.4	2.0	0.41	0.41	0.00	
268.0	1.05	67.98	268.0	1.5	0.5	2.5	0.70	0.26	-37.00	
298.0	1.60	55.17	298.0	2.1	0.9	3.1	2.07	1.83	-42.70	
328.0	2.42	50.80	328.0	3.0	1.5	3.9	2.78	2.73	-14.57	
359.0	3.20	55.06	358.9	4.4	2.4	5.1	2.60	2.52	13.74	
390.0	4.22	56.20	389.9	6.1	3.5	6.8	3.30	3.29	3.68	
420.0	4.92	56.16	419.8	8.2	4.9	8.8	2.33	2.33	-0.13	
451.0	5.71	56.77	450.6	10.6	6.5	11.2	2.55	2.55	1.97	
481.0	6.86	59.54	480.4	13.4	8.2	14.0	3.96	3.83	9.23	
512.0	7.73	60.73	511.2	16.6	10.1	17.4	2.85	2.81	3.84	
543.0	8.75	61.87	541.9	20.2	12.3	21.3	3.33	3.29	3.68	
573.0	9.58	61.17	571.5	24.1	14.6	25.5	2.79	2.77	-2.33	
604.0	10.68	58.58	602.0	28.6	17.3	30.2	3.84	3.55	-8.35	
634.0	11.47	58.14	631.4	33.5	20.3	35.1	2.65	2.63	-1.47	
665.0	12.79	57.30	661.8	39.0	23.8	40.6	4.30	4.26	-2.71	
696.0	13.93	57.30	691.9	45.1	27.7	46.6	3.68	3.68	0.00	
727.0	14.77	57.61	721.9	51.6	31.8	53.1	2.72	2.71	1.00	
757.0	15.82	57.92	750.9	58.3	36.0	59.8	3.51	3.50	1.03	
800.0	17.36	57.21	792.1	68.7	42.6	70.2	3.61	3.58	-1.65	
843.0	18.68	55.67	833.0	80.1	50.0	81.2	3.26	3.07	-3.58	
885.0	19.86	54.05	872.6	92.2	57.9	92.6	3.08	2.81	-3.86	
928.0	21.18	51.94	912.9	105.5	67.0	104.6	3.52	3.07	-4.91	
971.0	22.32	49.74	952.8	119.9	77.1	117.0	3.26	2.65	-5.12	
1,014.0	23.69	47.89	992.4	135.4	88.2	129.6	3.60	3.19	-4.30	
1,056.0	24.65	45.96	1,030.7	151.4	99.9	142.2	2.96	2.29	-4.60	
1,099.0	25.29	43.34	1,069.7	168.5	112.8	154.9	2.97	1.49	-6.09	

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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)	
1,142.0	25.81	41.05	1,108.5	186.3	126.6	167.4	2.60	1.21	-5.33	
1,184.0	25.44	36.51	1,146.4	204.0	140.7	178.7	4.76	-0.88	-10.81	
1,227.0	25.80	32.03	1,185.2	222.3	156.1	189.2	4.58	0.84	-10.42	
1,270.0	26.12	26.53	1,223.8	241.1	172.5	198.4	5.65	0.74	-12.79	
1,313.0	27.03	22.23	1,262.3	260.3	190.0	206.3	4.95	2.12	-10.00	
1,355.0	28.21	20.30	1,299.5	279.7	208.1	213.4	3.53	2.81	-4.60	
1,398.0	28.34	20.43	1,337.4	300.0	227.2	220.4	0.33	0.30	0.30	
1,441.0	28.70	20.12	1,375.2	320.5	246.5	227.6	0.91	0.84	-0.72	
1,483.0	28.92	20.08	1,412.0	340.6	265.5	234.5	0.53	0.52	-0.10	
1,526.0	29.22	20.04	1,449.5	361.4	285.1	241.7	0.70	0.70	-0.09	
1,569.0	29.44	19.73	1,487.0	382.4	304.9	248.8	0.62	0.51	-0.72	
1,611.0	29.40	19.17	1,523.6	402.9	324.4	255.7	0.66	-0.10	-1.33	
1,654.0	29.27	19.95	1,561.1	423.8	344.2	262.8	0.94	-0.30	1.81	
1,697.0	29.63	22.17	1,598.5	444.9	364.0	270.4	2.67	0.84	5.16	
1,740.0	29.97	22.10	1,635.9	466.2	383.8	278.4	0.79	0.79	-0.16	
1,782.0	30.15	22.32	1,672.2	487.2	403.2	286.4	0.50	0.43	0.52	
1,800.0	30.23	21.88	1,687.8	496.3	411.6	289.8	1.31	0.44	-2.44	
1,888.0	30.19	21.75	1,763.8	540.5	452.7	306.2	0.09	-0.05	-0.15	
1,974.0	29.36	21.84	1,838.5	583.1	492.4	322.1	0.97	-0.97	0.10	
2,059.0	28.65	21.22	1,912.8	624.2	530.7	337.2	0.91	-0.84	-0.73	
2,145.0	27.51	20.78	1,988.7	664.6	568.5	351.7	1.35	-1.33	-0.51	
2,230.0	28.21	22.54	2,063.8	704.2	605.4	366.4	1.27	0.82	2.07	
2,315.0	28.17	24.91	2,138.7	744.3	642.2	382.5	1.32	-0.05	2.79	
2,401.0	28.74	23.90	2,214.4	785.3	679.5	399.5	0.87	0.66	-1.17	
2,486.0	30.15	22.67	2,288.4	827.0	717.9	416.0	1.80	1.66	-1.45	
2,572.0	30.50	21.71	2,362.6	870.4	758.1	432.4	0.70	0.41	-1.12	
2,657.0	29.71	21.31	2,436.1	912.9	797.7	448.0	0.96	-0.93	-0.47	

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2,743.0	30.41	23.99	2,510.6	955.9	837.5	464.6	1.76	0.81	3.12	
2,828.0	29.97	23.55	2,584.0	998.6	876.6	481.8	0.58	-0.52	-0.52	
2,913.0	29.40	22.23	2,657.9	1,040.7	915.4	498.2	1.02	-0.67	-1.55	
2,998.0	29.88	21.97	2,731.8	1,082.7	954.3	514.0	0.58	0.56	-0.31	
3,084.0	29.05	21.57	2,806.6	1,124.9	993.6	529.7	0.99	-0.97	-0.47	
3,169.0	28.36	20.88	2,881.2	1,165.6	1,031.7	544.5	0.90	-0.81	-0.81	
3,254.0	28.92	22.45	2,955.8	1,206.2	1,069.5	559.5	1.10	0.66	1.85	
3,340.0	27.82	21.97	3,031.5	1,247.0	1,107.3	575.0	1.31	-1.28	-0.56	
3,425.0	29.00	22.01	3,106.2	1,287.4	1,144.8	590.1	1.39	1.39	0.05	
3,511.0	29.88	21.53	3,181.1	1,329.6	1,184.1	605.8	1.06	1.02	-0.56	
3,596.0	29.56	23.58	3,254.9	1,371.6	1,223.0	622.0	1.25	-0.38	2.41	
3,682.0	28.14	23.02	3,330.3	1,413.1	1,261.1	638.4	1.68	-1.65	-0.65	
3,767.0	28.13	23.31	3,405.2	1,453.2	1,298.0	654.1	0.16	-0.01	0.34	
3,853.0	28.83	23.07	3,480.8	1,494.1	1,335.7	670.3	0.82	0.81	-0.28	
3,938.0	29.97	22.41	3,554.9	1,535.8	1,374.2	686.4	1.39	1.34	-0.78	
4,024.0	28.43	20.52	3,629.9	1,577.7	1,413.2	701.8	2.09	-1.79	-2.20	
4,109.0	28.17	21.79	3,704.8	1,617.8	1,450.8	716.3	0.77	-0.31	1.49	
4,195.0	25.80	20.34	3,781.4	1,656.7	1,487.2	730.4	2.86	-2.76	-1.69	
4,280.0	25.00	23.86	3,858.2	1,693.1	1,520.9	744.1	2.01	-0.94	4.14	
4,366.0	23.16	22.85	3,936.7	1,728.2	1,553.2	758.0	2.19	-2.14	-1.17	
4,451.0	20.57	20.34	4,015.6	1,759.7	1,582.6	769.7	3.24	-3.05	-2.95	
4,537.0	18.90	25.57	4,096.6	1,788.7	1,609.3	780.9	2.82	-1.94	6.08	
4,623.0	17.27	24.74	4,178.3	1,815.4	1,633.5	792.3	1.92	-1.90	-0.97	
4,708.0	14.10	24.78	4,260.1	1,838.4	1,654.3	801.9	3.73	-3.73	0.05	
4,793.0	11.12	21.18	4,343.1	1,856.9	1,671.4	809.2	3.62	-3.51	-4.24	
4,879.0	8.48	20.96	4,427.8	1,871.5	1,685.0	814.5	3.07	-3.07	-0.26	
4,964.0	7.25	16.70	4,512.0	1,883.1	1,696.0	818.3	1.60	-1.45	-5.01	

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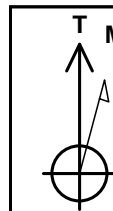
Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	
5,050.0	6.06	12.74	4,597.4	1,892.9	1,705.6	820.8	1.48	-1.38	-4.60	
5,135.0	5.23	4.43	4,682.0	1,900.9	1,713.9	822.1	1.37	-0.98	-9.78	
5,220.0	4.66	2.41	4,766.7	1,907.6	1,721.2	822.6	0.70	-0.67	-2.38	
5,305.0	3.12	30.45	4,851.5	1,913.1	1,726.6	823.9	2.83	-1.81	32.99	
5,391.0	2.37	34.19	4,937.4	1,917.2	1,730.1	826.1	0.90	-0.87	4.35	
5,476.0	1.80	23.42	5,022.3	1,920.3	1,732.8	827.6	0.81	-0.67	-12.67	
5,562.0	1.41	23.55	5,108.3	1,922.7	1,735.0	828.5	0.45	-0.45	0.15	
5,647.0	1.01	5.80	5,193.3	1,924.4	1,736.7	829.0	0.64	-0.47	-20.88	
5,732.0	0.66	355.60	5,278.3	1,925.6	1,738.0	829.1	0.45	-0.41	-12.00	
5,818.0	0.57	305.28	5,364.3	1,926.1	1,738.7	828.7	0.62	-0.10	-58.51	
5,903.0	0.70	281.91	5,449.3	1,926.0	1,739.0	827.8	0.34	0.15	-27.49	
5,989.0	0.79	246.53	5,535.3	1,925.5	1,738.9	826.8	0.54	0.10	-41.14	
6,074.0	0.94	225.15	5,620.3	1,924.4	1,738.2	825.7	0.42	0.18	-25.15	
6,159.0	1.17	195.09	5,705.2	1,922.8	1,736.9	825.0	0.69	0.27	-35.36	
6,245.0	1.58	191.17	5,791.2	1,920.8	1,734.8	824.6	0.49	0.48	-4.56	
6,330.0	0.83	107.09	5,876.2	1,919.8	1,733.5	824.9	2.01	-0.88	-98.92	
6,415.0	0.88	114.43	5,961.2	1,919.9	1,733.1	826.1	0.14	0.06	8.64	
6,501.0	0.62	162.81	6,047.2	1,919.6	1,732.4	826.8	0.77	-0.30	56.26	
6,586.0	0.92	190.94	6,132.2	1,918.6	1,731.2	826.9	0.56	0.35	33.09	
6,672.0	1.23	210.45	6,218.2	1,917.0	1,729.8	826.3	0.55	0.36	22.69	
6,757.0	0.57	52.86	6,303.2	1,916.4	1,729.2	826.1	2.08	-0.78	-185.40	
6,842.0	0.09	143.13	6,388.2	1,916.8	1,729.4	826.5	0.68	-0.56	106.20	
6,928.0	0.66	238.53	6,474.2	1,916.3	1,729.1	826.1	0.78	0.66	110.93	
7,013.0	0.70	238.36	6,559.2	1,915.5	1,728.6	825.3	0.05	0.05	-0.20	
7,026.0	0.78	240.42	6,572.2	1,915.4	1,728.5	825.1	0.65	0.62	15.85	
7,083.0	0.78	240.42	6,629.1	1,914.7	1,728.1	824.4	0.00	0.00	0.00	

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Design:	Actual	Database:	EDM 5000.1 Single User Db

Checked By: _____	Approved By: _____	Date: _____
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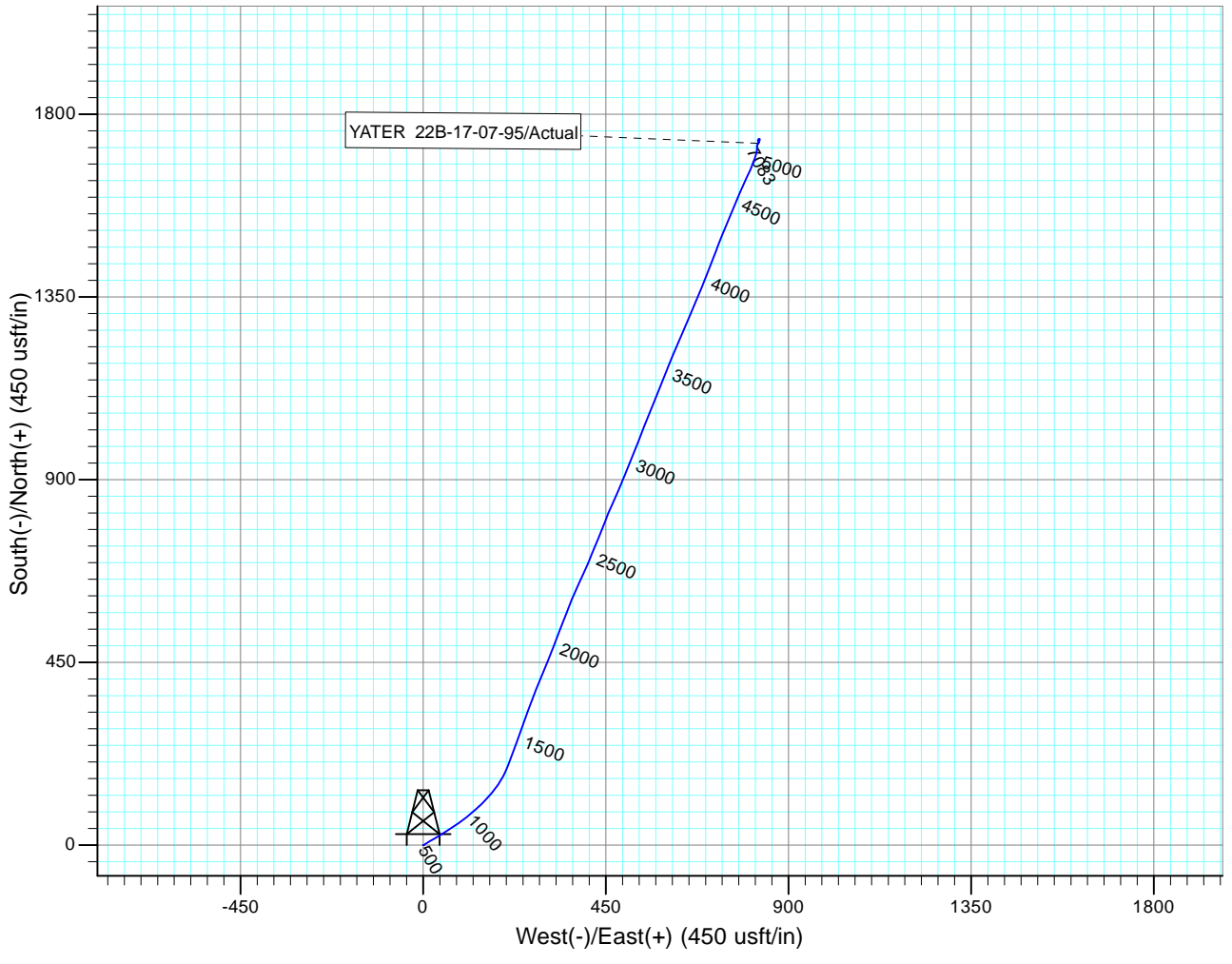
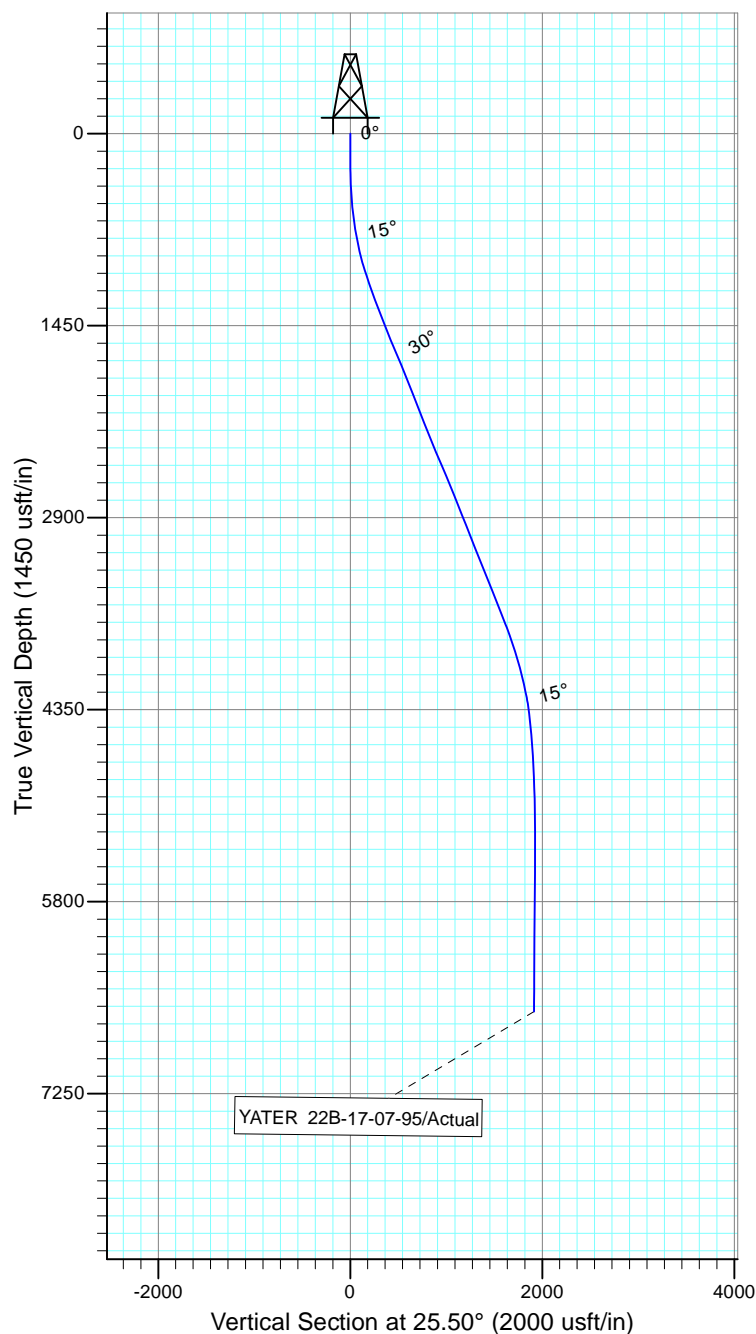


Project: Rockies Region
Site: Yater
Well: YATER 22B-17-07-95
Wellbore: Wellbore #1
Design: Actual



Azimuths to True North
Magnetic North: 9.84°

Magnetic Field
Strength: 51813.5nT
Dip Angle: 65.57°
Date: 6/15/2015
Model: IGRF2010



Design: Actual (YATER 22B-17-07-95/Wellbore #1)

Created By: *Matthew Linton* Date: 14:06, July 15 2015

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