



Weatherford®

6 3/4 & 4 3/4 in. WeatherfordM/LWD™
Gamma Ray & Resistivity
1 in. & 5 in. TRUE VERTICAL DEPTH
RECORDED DATA
FINAL PRINT

Company: Anadarko Petroleum Corp.
Well: Sparboe 27C-26 HZ
Field: Wattenburg
Rig: Xtreme 23
County: Weld

COMPANY Anadarko Petroleum Corp.
WELL Sparboe 27C-26 HZ
FIELD Wattenburg
RIG Xtreme 23
COUNTY Weld STATE Colorado
API # 05-123-36247

Location	
Latitude: 40.08845° N	x = 3,243,920 ft
Longitude: 104.62819° W	y = 1,276,264
Other Services: Directional and Temperature	
Mag Decl: 8.60°	Mag Dip: 66.74°

Permanent Datum: <u>Mean Sea Level</u>	
Log Measured From: <u>Drill Floor</u>	Elev: <u>4985 ft</u> above perm. datum
Depth Reference: <u>Drillers Tally</u>	Total Depth: <u>17129 ft</u>
Depth Logged: 6602 ft	Runs: 4
Date Logged: 19-Mar-13 to 2-Apr-05	Spud Date: 17-Mar-13

Borehole Record			Casing Record			
Hole Size	From	To	Size	Weight	From	To
8.750 in	6645 ft	7650 ft	7.000 in	26.0 lb/ft	Surface	7638 ft
6.125 in	7650 ft	17129 ft				

Borehole Deviation Record			Mud Record			
Hole Size	Min. Inc.	Max. Inc.	Type	Weight	From	To
8.750 in	0.14°	92.17°	WBM	8.80 - 9.20 ppq	1800 ft	7650 ft
6.125 in	87.28°	93.64°	OBM	9.40 - 10.50 ppq	7650 ft	17129 ft

All interpretations of log data are opinions based on inferences from electrical or other measurements. Weatherford International does not guarantee the accuracy or correctness of any interpretation or recommendation and we shall not be liable or responsible for any loss, cost, damages or expenses incurred or sustained by anyone resulting from any interpretation or recommendation made by any of our employees or agents.

RUN SUMMARY							
M/LWD Run Number		1	2	3	4		
Bit Size	in.	8.750	8.750	6.125	6.125		
Bit Type		PDC	PDC	PDC	PDC		
Bit TFA	sq.in.	1.240	1.530	0.980	1.243		
Bit Start Depth	ft	1800	6645	7650	12251		
Bit End Depth	ft	6569	7650	12251	17129		
Top Log Interval	ft	N/A	6602	7595	12174		
Bottom Log Interval	ft	N/A	7606	12171	17129		
Begin Log Time	hrs	N/A	7:07	16:30	6:17		
Begin Log Date	DD-MMM-YY	N/A	19-Mar-13	25-Mar-13	30-Mar-13		
End Log Time	hrs	N/A	10:35	7:28	18:45		
End Log Date	DD-MMM-YY	N/A	21-Mar-13	29-Mar-13	2-Apr-13		
Drill or Wipe		N/A	Drill	Wipe/Drill	Wipe/Drill		
Flow Rate	gal/min	600	600	300	268		
Max AV / CV @ MWD	ft/min	541 / 99	458 / 334	465 / 429	419 / 449		
Min Inc @ Depth	deg @ ft	0.14 @ 6243	0.63 @ 6585	87.28 @ 12180	87.59 @ 12520		
Max Inc @ Depth	deg @ ft	7.60 @ 4450	92.17 @ 75.90	93.64 @ 11838	92.04 @ 12776		
MUD DATA							
Depth	ft	5878	7460	9800	17129		
Fluid Type		Water	Water	OBM	OBM		
Mud Weight	ppg	8.60	9.90	9.60	10.50		
Plastic Viscosity	cP	1	12	20	20		
Solids / Sand	%	1.7 / 0.3	9.2 / 0.3	9.6 / 0.3	15.7 / 1.3		
NaCl Equiv. Chlorides	ppm	3135	3960	102300	56100		
pH		8.8	8.8	OBM	OBM		
Oil:Water Ratio	% Vol	1.7 : 98.3	10.0 : 90.0	72.0 : 28.0	82.0 : 18.0		
Rm @ Temperature	ohm-m @ deg F	N/A	N/A	OBM	OBM		
Rmc @ Temperature	ohm-m @ deg F	N/A	N/A	OBM	OBM		
Rmf @ Temperature	ohm-m @ deg F	N/A	N/A	OBM	OBM		
KCl	% Vol	0	0	0	0		
Client Representative		R. McPeters	R. McPeters	D. Bell	D. Bell		
WeatherfordLWD Engineer		D. Palmer	D. Palmer	A. Danna	M. Nguyen		

EQUIPMENT SUMMARY

M/LWD Run Number	1	2	3	4	
MWD/HEL Serial Number	CP130111PDYBG-TO3	CP130111PDYBG-TO3	NW130771PDBBI4.75	NW130771PDBBI4.75	
MFR Serial Number	N/A	N/A	NW130770RSBK4.75	NW130770RSBK4.75	
SAGR Serial Number	N/A	N/A	NW130772JS4.75	NW130772JS4.75	
Sensor to Bit Offsets / Acquisition Rates					
Directional	ft / sec	57.08 / RT	57.22 / RT	53.49 / RT	51.42 / RT
Gamma Ray	ft / sec	42.87 / 10	43.01 / 10	38.64 / 5	70.18 / 5
Resistivity	ft / sec	N/A	N/A	81.82 / 10	79.75 / 10
Other Information					
Total BHA Length	ft	1003.57	1003.57	4493.81	4493.81
BHA Assembly Type		Steerable	Steerable	Steerable	Steerable
Stabilizer Location	ft	2.51	2.49	34.02	34.02
Stabilizer Location	ft	80.75	80.75	102.87	102.87
Run Circulating Time	hr	10.04	25.77	78.42	72.57
Run Drilling Time	hr	2.24	12.88	43.20	37.74

MUD SUMMARY

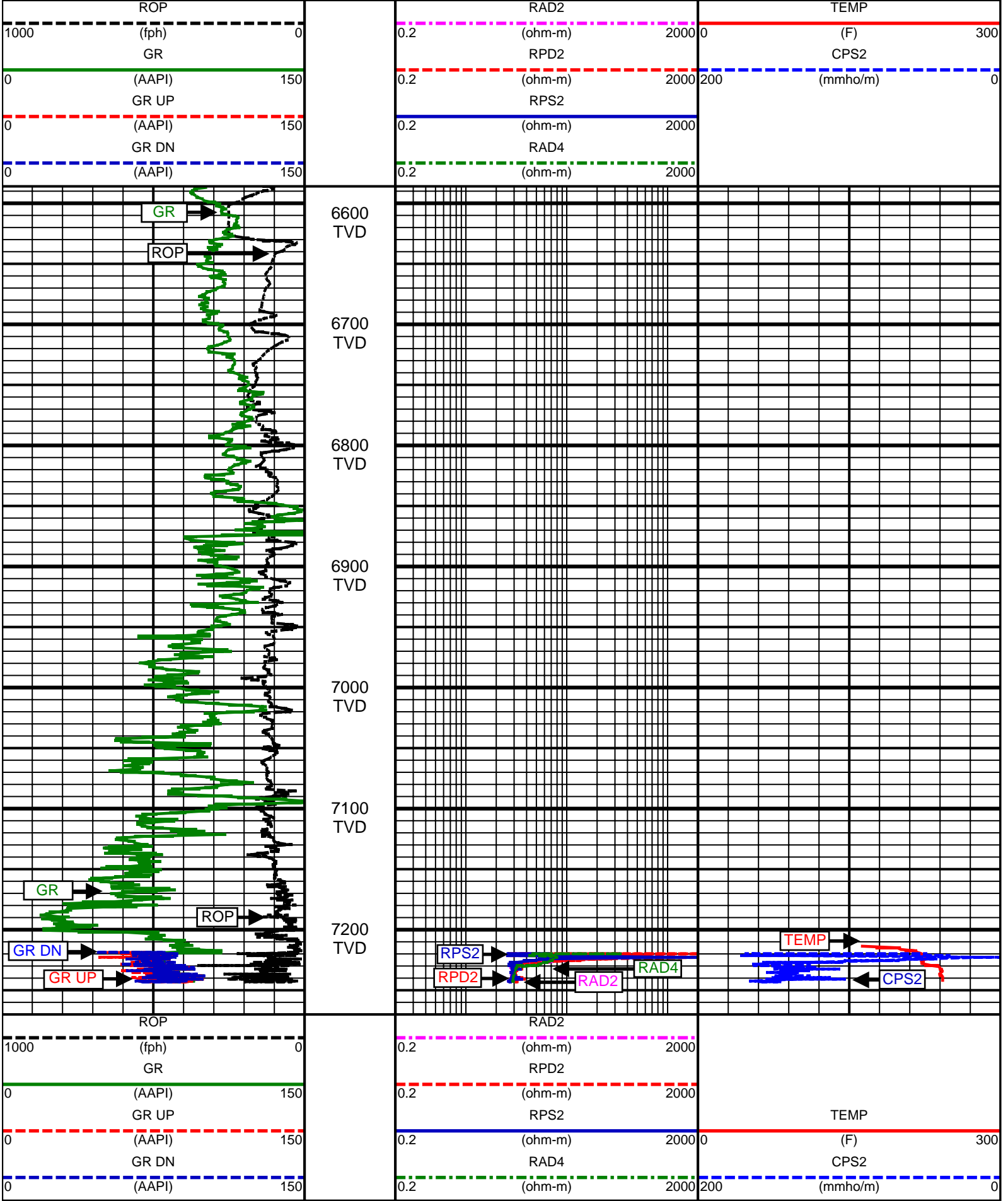
Date and Time	Run	Bit Depth	Mud Weight	% K	Rm @ Temp	Rmf @ Temp	Rmc @ Temp	BHCT
19 Mar 13 @ 00:30	01	5878 ft	8.60 ppg	0	N/A	N/A	N/A	136 F
21 Mar 13 @ 00:30	02	7460 ft	9.90 ppg	0	N/A	N/A	N/A	164 F
27 Mar 13 @ 00:30	03	9800 ft	9.60 ppg	0	OBM	OBM	OBM	235 F
02 Apr 13 @ 03:00	04	17129 ft	10.50 ppg	0	OBM	OBM	OBM	245 F

MWD RUN REMARKS			
Run Number: 1 :: RECORDED DATA LOG			
WFT Services Provided:			
Recorded and Real Time Logging: Gamma Ray and Temperature.			
Directional Services: On demand Inclination and Azimuth.			
Borehole and Environmental Correction:			
Hole Size:	8.750 in.	Gamma Ray: Hole size, mudweight, Collar O.D., Collar I.D. and K1 factor.	
Mud Weight:	9.80 ppg	Collar O.D.:	6.750 in.
K1 Factor:	3.179	Collar I.D.:	3.250 in.
Run Number: 2 :: RECORDED DATA LOG			
WFT Services Provided:			
Recorded and Real Time Logging: Gamma Ray and Temperature.			
Directional Services: On demand Inclination and Azimuth.			
Borehole and Environmental Correction:			
Hole Size:	8.750 in.	Gamma Ray: Hole size, mudweight, Collar O.D., Collar I.D. and K1 factor.	
Mud Weight:	9.90 ppg	Collar O.D.:	6.750 in.
K1 Factor:	3.179	Collar I.D.:	3.250 in.
Run Number: 3 :: RECORDED DATA LOG			
WFT Services Provided:			
Recorded and Real Time Logging: Gamma Ray, Deep, Medium and Shallow Resistivity, and Temperature.			
Directional Services: On demand Inclination and Azimuth.			
Borehole and Environmental Correction:			
Hole Size:	6.125 in.	Gamma Ray: Corrected for mud weight, hole size and KCl concentration.	
Mud Weight:	9.60 ppg	Resistivities: Corrected for borehole temperature, hole size, drilling fluid resistivity	
Borehole Temperature:	235° F	and dielectric correction.	
Drilling Fluid Resistivity:	OBM (500 ohm-m)		
KCl Concentration:	0%		
Run Number: 4 :: RECORDED DATA LOG			
WFT Services Provided:			
Recorded and Real Time Logging: Gamma Ray, Deep, Medium and Shallow Resistivity, and Temperature.			
Directional Services: On demand Inclination and Azimuth.			
Borehole and Environmental Correction:			
Hole Size:	6.125 in.	Gamma Ray: Corrected for mud weight, hole size and KCl concentration.	
Mud Weight:	10.50 ppg	Resistivities: Corrected for borehole temperature, hole size, drilling fluid resistivity	
Borehole Temperature:	245° F	and dielectric correction.	
Drilling Fluid Resistivity:	OBM (500 ohm-m)		
KCl Concentration:	0%		

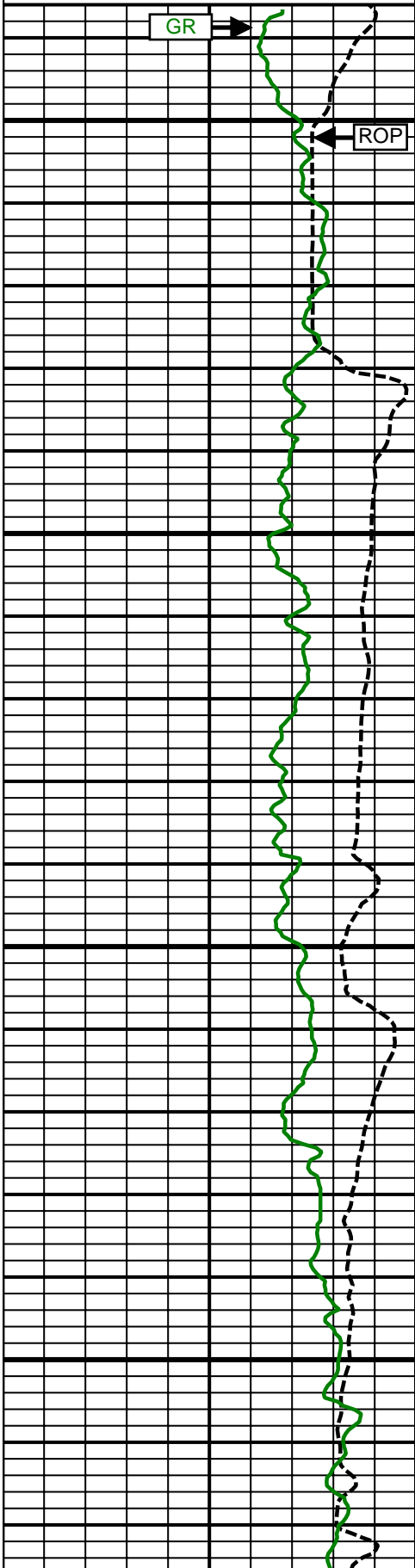
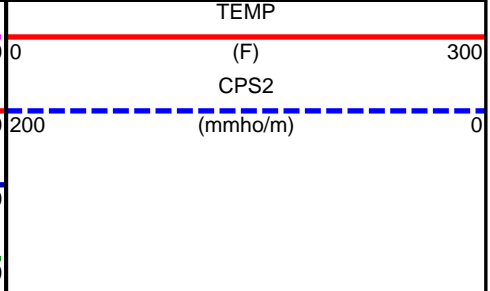
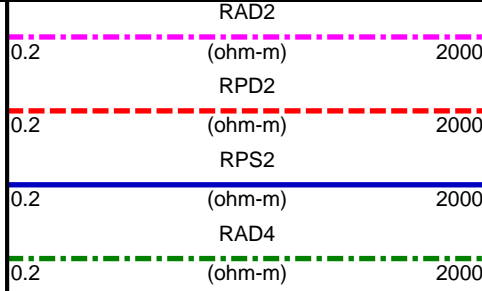
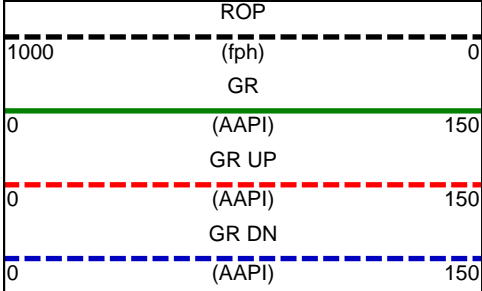
M/LWD LOG COMMENTS	
Comment No. 1-1	No logging during this run.
Comment No. 2-1	RECORDED DATA LOG Start of M/LWD Drilling Run 02 Weatherford International provided 6 3/4 in. Directional, Gamma Ray, and Temperature for Run 02. Run 02 started formation drilling March 19, 2013 at 7:07 at 6645 MD / 6569 TVD. Weatherford International logged the 8.750 in. borehole. The WBM at the start of drilling was 9.90 ppg.
Comment No. 2-2	End of M/LWD Drilling Run 02 Run 02 ended drilling formation March 21, 2013 at 10:35 at 7650 MD / 7218 TVD. The OBM at the end of drilling was 9.90 ppg.
Comment No. 3-1	RECORDED DATA LOG Start of LWD Drilling Run 03 Weatherford International provided 4 3/4 in. Directional, Resistivity, Gamma Ray, and Temperature for Run 03. Run 03 started formation drilling March 25, 2013 at 16:30 at 7650 MD / 7218 TVD. Weatherford International logged the 6.125 in. borehole. The OBM at the start of drilling was 9.40 ppg.
Comment No. 3-2	End of LWD Drilling Run 03 Run 03 ended drilling formation March 29, 2013 at 07:28 at 12251 MD / 7213 TVD. The OBM at the end of drilling was 9.60 ppg.
Comment No. 4-1	RECORDED DATA LOG Start of LWD Drilling Run 04 Weatherford International provided 4 3/4 in. Directional, Resistivity, Gamma Ray, and Temperature for Run 04. Run 04 started formation drilling March 30, 2013 at 6:17 at 12251 MD / 7213 TVD. Weatherford International logged the 6.125 in. borehole. During this run, the Spectral Gamma Ray was providing inconsistent data. Spectral Gamma Ray inconsistent data started at 12300 MD / 7217 TVD. Azimuthal Gamma Ray was spliced in at 12300 MD / 7217 TVD. The OBM at the start of drilling was 9.60 ppg.
Comment No. 4-2	End of LWD Drilling Run 04 Run 04 ended drilling formation April 02, 2013 at 18:45 at 17129 MD / 7229 TVD. The OBM at the end of drilling was 10.50 ppg.

CURVE SPECIFICATIONS				
CURVE TYPE	MNEMONIC	UNITS	COMMENTS	CORRECTIONS
Rate of Penetration	ROP	fph	Rate of Penetration 3.0 ft window 0.5 ft Exponential Smoothing	None
Gamma Ray	GR	AAPI	Gamma Ray 3.0 ft window 0.5 ft Exponential Smoothing	See M/LWD Run Remarks
Azimuthal Gamma Ray	GR UP	AAPI	Recorded Azimuthal Gamma Ray 3.0 ft window 0.5 ft Exponential Smoothing	
Azimuthal Gamma Ray	GR Down	AAPI	Recorded Azimuthal Gamma Ray 3.0 ft window 0.5 ft Exponential Smoothing	
Deep Phase Resistivity	RPD2	ohm-m	2MHz Deep Phase Resistivity 3.0 ft window 0.5 ft Exponential Smoothing	
Deep Attenuation Resistivity	RAD2	ohm-m	2MHz Deep Attenuation Resistivity 3.0 ft window 0.5 ft Exponential Smoothing	
Deep Attenuation Resistivity	RAD4	ohm-m	400kHz Deep Attenuation Resistivity 3.0 ft window 0.5 ft Exponential Smoothing	
Shallow Phase Resistivity	RPS2	ohm-m	2MHz Shallow Phase Resistivity 3.0 ft window 0.5 ft Exponential Smoothing	
Shallow Phase Conductivity	CPS2	mmho/m	2MHz Shallow Phase Conductivity 3.0 ft window 0.5 ft Exponential Smoothing	
Temperature	TEMP	F	Recorded Borehole Tmperature 3.0 ft window 0.5 ft Exponential Smoothing	None

1 Inch - True Vertical Depth

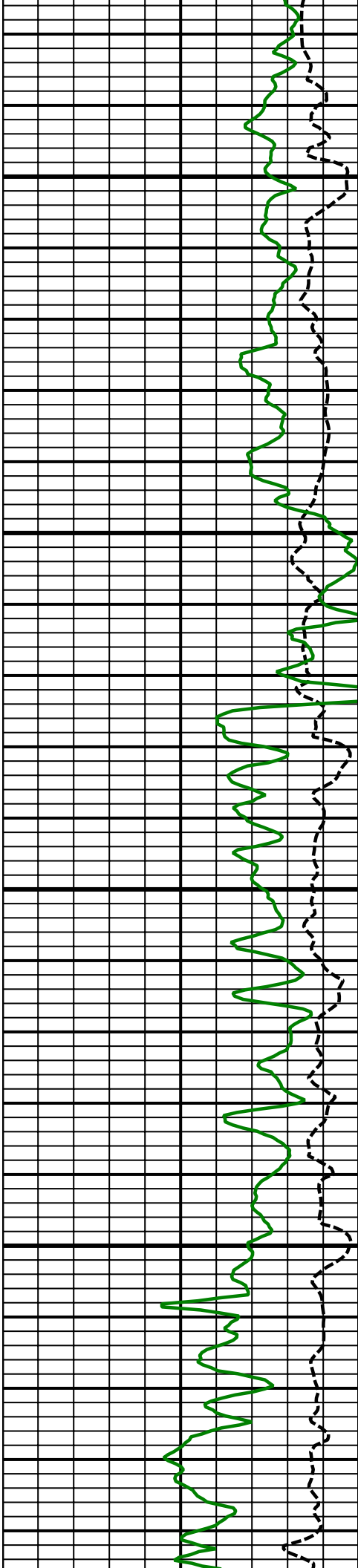


5 Inch - True Vertical Depth



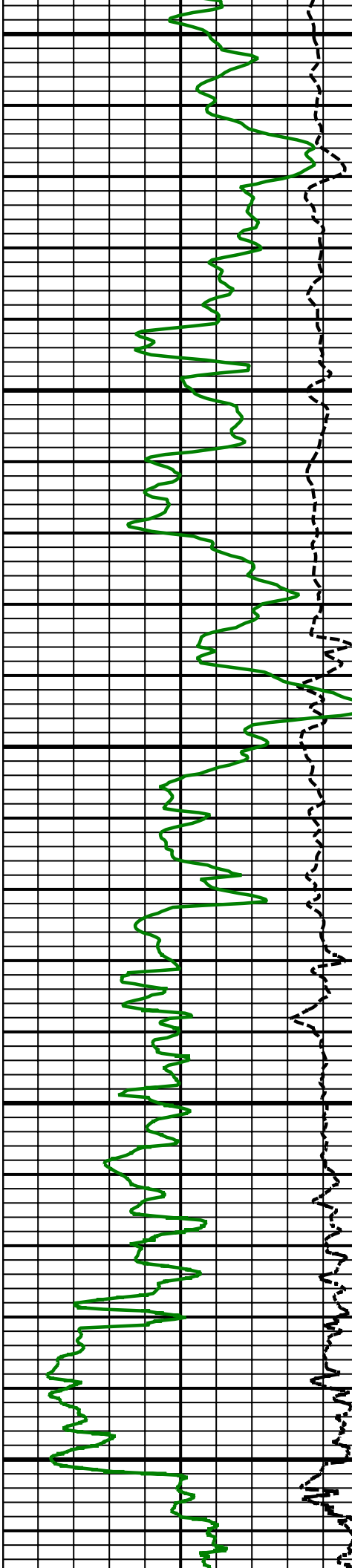
6600
TVD

6700
TVD



6800
TVD

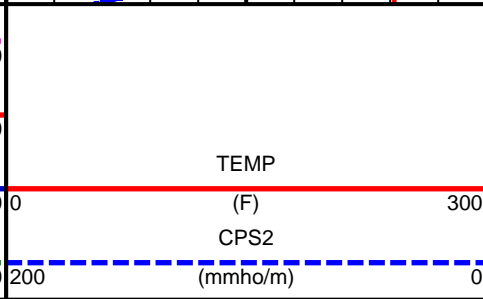
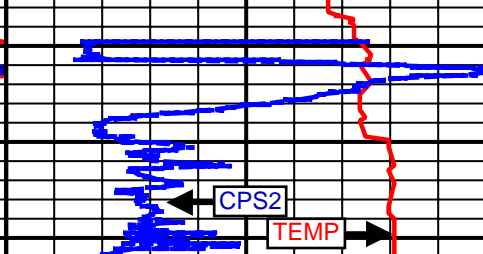
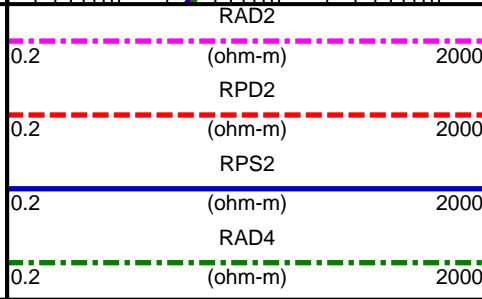
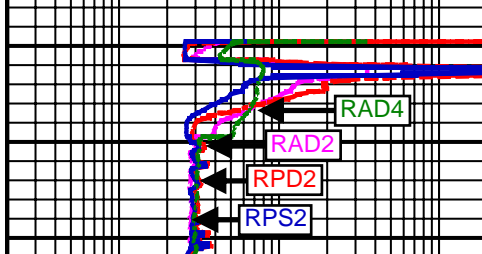
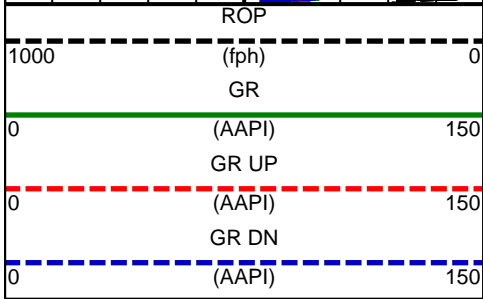
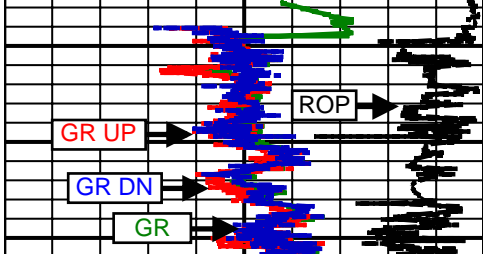
6900
TVD



7000
TVD

7100
TVD

7200
TVD



SURVEY						
Survey Calculation Method: Minimum Curvature						
Magnetic Reference	Target Direction	Total Magnetic Field	Magnetic Dip Angle	Magnetic Declination	Grid Convergence	Total Correction
True North	0.02 deg	52935 nT	66.74 deg	8.41 deg	0.00 deg	8.41 deg
Survey Tie-On	Depth	INC	AZ	TVD	NS	EW
	1746.00 ft	0.09 deg	50.15 deg	1745.93 ft	-2.16 ft	1.95 ft

Well Head							
Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	NS (ft)	EW (ft)	VSect (ft)	Dogleg (deg/100ft)
1902.00	1.19	299.62	1901.92	-1.28	0.64	-1.28	0.78
1995.00	0.88	184.05	1994.91	-1.52	-0.25	-1.52	1.89
2087.00	3.09	166.65	2086.85	-4.63	0.27	-4.63	2.46
2178.00	4.41	152.68	2177.66	-10.13	2.44	-10.13	1.75
2271.00	4.21	152.29	2270.39	-16.33	5.67	-16.33	0.22
2363.00	3.57	150.50	2362.18	-21.81	8.65	-21.81	0.71
2457.00	4.42	146.67	2455.95	-27.38	12.08	-27.38	0.95
2549.00	4.01	144.35	2547.70	-32.96	15.90	-32.95	0.48
2642.00	5.01	153.44	2640.41	-39.23	19.62	-39.23	1.32
2735.00	4.34	150.81	2733.10	-45.94	23.15	-45.93	0.76
2827.00	3.94	152.34	2824.86	-51.78	26.31	-51.77	0.45
2912.00	4.48	152.90	2909.63	-57.32	29.18	-57.31	0.64
2997.00	4.57	153.73	2994.37	-63.31	32.19	-63.30	0.13
3083.00	4.12	151.53	3080.12	-69.10	35.18	-69.09	0.56
3168.00	3.72	153.64	3164.92	-74.25	37.86	-74.24	0.50
3254.00	3.99	158.04	3250.73	-79.53	40.22	-79.52	0.47
3339.00	4.29	158.55	3335.51	-85.23	42.49	-85.22	0.36
3425.00	5.42	160.76	3421.20	-92.06	45.00	-92.04	1.33
3510.00	6.34	168.86	3505.75	-100.45	47.23	-100.44	1.46
3595.00	6.27	174.44	3590.24	-109.68	48.59	-109.66	0.73
3681.00	6.45	169.14	3675.71	-119.10	49.95	-119.08	0.71
3766.00	6.87	159.62	3760.14	-128.55	52.62	-128.53	1.39
3852.00	7.07	160.62	3845.50	-138.37	56.17	-138.35	0.27
3937.00	6.09	159.37	3929.94	-147.52	59.49	-147.50	1.17
4023.00	6.18	158.80	4015.45	-156.11	62.78	-156.08	0.13
4108.00	6.84	160.14	4099.90	-165.13	66.15	-165.11	0.80
4193.00	6.63	160.18	4184.31	-174.51	69.53	-174.48	0.25
4279.00	5.59	159.30	4269.82	-183.10	72.70	-183.07	1.21
4364.00	5.80	148.46	4354.41	-190.63	76.41	-190.60	1.29
4450.00	7.60	148.13	4439.81	-199.17	81.68	-199.14	2.09
4536.00	7.15	151.09	4525.10	-208.68	87.27	-208.65	0.68
4621.00	6.83	149.33	4609.47	-217.66	92.41	-217.63	0.45
4706.00	6.69	150.61	4693.88	-226.32	97.42	-226.29	0.24
4792.00	6.66	151.42	4779.30	-235.06	102.26	-235.03	0.11
4877.00	5.85	151.52	4863.79	-243.20	106.68	-243.16	0.95
4963.00	5.00	148.99	4949.41	-250.26	110.71	-250.23	1.03
5048.00	4.65	147.82	5034.10	-256.36	114.45	-256.32	0.43
5133.00	4.36	157.52	5118.84	-262.26	117.52	-262.22	0.96
5218.00	5.05	157.98	5203.56	-268.71	120.16	-268.67	0.81
5304.00	4.90	150.37	5289.23	-275.41	123.39	-275.37	0.79
5389.00	4.14	147.91	5373.97	-281.17	126.82	-281.12	0.92
5474.00	3.71	148.29	5458.77	-286.11	129.89	-286.06	0.51

5560.00	1.83	138.84	5544.66	-289.51	132.26	-289.46	2.24
5645.00	1.17	155.48	5629.63	-291.32	133.51	-291.27	0.92
5731.00	0.82	158.66	5715.62	-292.69	134.10	-292.64	0.41
5901.00	1.09	106.29	5885.60	-294.28	136.10	-294.23	0.52
5987.00	0.98	101.92	5971.59	-294.66	137.60	-294.61	0.16
6072.00	0.56	148.73	6056.58	-295.16	138.53	-295.12	0.85
6158.00	0.30	143.01	6142.58	-295.70	138.88	-295.65	0.31
6243.00	0.14	133.55	6227.58	-295.95	139.09	-295.90	0.19
6328.00	0.21	214.47	6312.58	-296.15	139.08	-296.10	0.27
6414.00	0.30	172.20	6398.58	-296.51	139.02	-296.46	0.24
6499.00	0.42	202.06	6483.57	-297.01	138.93	-296.97	0.26
6585.00	0.63	216.57	6569.57	-297.69	138.53	-297.64	0.29
6663.00	3.07	336.08	6647.53	-296.12	137.43	-296.07	4.39
6748.00	12.13	358.59	6731.71	-285.09	136.28	-285.04	11.02
6834.00	19.00	0.72	6814.51	-262.03	136.24	-261.98	8.01
6919.00	25.70	359.15	6893.08	-229.73	136.14	-229.68	7.91
7004.00	31.88	355.77	6967.54	-188.87	134.21	-188.83	7.52
7090.00	42.05	357.69	7036.17	-137.31	131.36	-137.26	11.90
7175.00	50.27	355.46	7095.00	-76.18	127.62	-76.13	9.85
7260.00	61.21	356.09	7142.78	-6.22	122.48	-6.18	12.89
7303.00	67.18	357.79	7161.49	32.42	120.43	32.46	14.33
7346.00	71.37	358.73	7176.70	72.61	119.21	72.65	9.96
7389.00	73.50	359.79	7189.68	113.60	118.68	113.64	5.48
7431.00	76.25	0.74	7200.63	154.14	118.87	154.18	6.90
7474.00	78.12	1.85	7210.17	196.05	119.82	196.09	5.02
7517.00	83.42	1.49	7217.07	238.46	121.06	238.50	12.35
7559.00	89.93	1.10	7219.50	280.36	122.01	280.40	15.53
7590.00	92.17	0.65	7218.93	311.35	122.48	311.39	7.37
7677.00	93.46	359.65	7214.66	398.24	122.71	398.28	1.88
7762.00	90.86	359.03	7211.46	483.17	121.73	483.21	3.14
7848.00	90.43	358.35	7210.49	569.14	119.76	569.18	0.94
7933.00	89.91	358.01	7210.24	654.09	117.06	654.13	0.73
8018.00	89.20	356.39	7210.90	738.99	112.91	739.03	2.08
8104.00	89.21	358.18	7212.09	824.88	108.84	824.92	2.08
8189.00	88.85	359.95	7213.53	909.85	107.45	909.89	2.12
8275.00	90.18	359.77	7214.26	995.85	107.24	995.88	1.56
8360.00	89.88	358.73	7214.21	1080.84	106.13	1080.87	1.27
8445.00	90.68	359.92	7213.80	1165.83	105.13	1165.86	1.69
8530.00	90.79	359.24	7212.71	1250.82	104.50	1250.85	0.81
8616.00	89.75	0.65	7212.30	1336.81	104.42	1336.85	2.04
8701.00	89.57	359.59	7212.81	1421.81	104.60	1421.85	1.26
8787.00	89.56	1.36	7213.46	1507.80	105.31	1507.84	2.06
8872.00	89.88	0.44	7213.87	1592.79	106.65	1592.83	1.15
8957.00	90.35	0.30	7213.70	1677.79	107.20	1677.82	0.58
9043.00	89.94	0.56	7213.49	1763.78	107.84	1763.82	0.56
9128.00	89.57	0.86	7213.85	1848.78	108.89	1848.81	0.56
9214.00	89.14	0.99	7214.82	1934.76	110.28	1934.80	0.52
9299.00	90.74	0.19	7214.91	2019.75	111.16	2019.79	2.10
9384.00	90.37	359.81	7214.08	2104.75	111.16	2104.79	0.62
9470.00	89.81	358.90	7213.95	2190.74	110.19	2190.78	1.24
9555.00	88.77	357.99	7215.00	2275.70	107.88	2275.74	1.63
9640.00	89.01	359.46	7216.65	2360.66	105.99	2360.70	1.75
9726.00	90.62	359.91	7216.93	2446.66	105.52	2446.69	1.94
9811.00	89.63	358.85	7216.74	2531.65	104.60	2531.69	1.71
9896.00	90.26	359.77	7216.82	2616.64	103.58	2616.68	1.31
9982.00	89.51	359.29	7217.00	2702.64	102.87	2702.67	1.04
10067.00	89.82	359.64	7217.49	2787.63	102.08	2787.67	0.55
10152.00	90.06	358.66	7217.58	2872.62	100.82	2872.66	1.19
10238.00	88.89	359.18	7218.37	2958.60	99.20	2958.64	1.49
10323.00	89.63	1.29	7219.47	3043.59	99.54	3043.62	2.63
10409.00	90.43	1.58	7219.42	3129.56	101.70	3129.60	0.99

10485.00	90.55	1.29	7218.77	3205.53	103.60	3205.57	0.41
10570.00	90.06	1.60	7218.32	3290.50	105.74	3290.54	0.68
10656.00	90.43	0.78	7217.95	3376.48	107.53	3376.52	1.05
10741.00	89.94	0.29	7217.68	3461.48	108.32	3461.52	0.82
10826.00	89.20	359.49	7218.32	3546.48	108.16	3546.51	1.28
10912.00	88.40	358.33	7220.12	3632.44	106.53	3632.48	1.64
10997.00	89.82	359.07	7221.44	3717.40	104.60	3717.44	1.88
11082.00	90.25	359.74	7221.38	3802.40	103.71	3802.44	0.94
11168.00	88.33	358.71	7222.45	3888.38	102.55	3888.42	2.53
11253.00	87.66	357.84	7225.42	3973.29	99.99	3973.32	1.29
11339.00	88.40	357.89	7228.38	4059.18	96.79	4059.21	0.86
11412.00	89.94	359.03	7229.44	4132.14	94.83	4132.17	2.62
11497.00	90.31	359.99	7229.25	4217.13	94.10	4217.17	1.21
11582.00	92.64	0.83	7227.06	4302.10	94.71	4302.13	2.91
11668.00	92.56	1.01	7223.16	4388.00	96.09	4388.03	0.23
11753.00	93.46	2.31	7218.70	4472.84	98.55	4472.88	1.86
11838.00	93.64	3.25	7213.44	4557.58	102.66	4557.61	1.12
11924.00	90.80	2.30	7210.11	4643.40	106.82	4643.44	3.48
12009.00	88.83	1.67	7210.38	4728.35	109.77	4728.39	2.43
12095.00	89.88	1.80	7211.35	4814.30	112.37	4814.34	1.23
12180.00	87.28	357.72	7213.46	4899.25	112.02	4899.29	5.69
12264.00	88.15	354.81	7216.81	4982.99	106.55	4983.03	3.61
12349.00	88.95	354.66	7218.96	5067.61	98.75	5067.64	0.96
12435.00	87.84	353.94	7221.36	5153.15	90.22	5153.18	1.54
12520.00	87.59	354.72	7224.75	5237.66	81.82	5237.69	0.96
12605.00	90.68	356.80	7226.04	5322.41	75.54	5322.43	4.38
12691.00	91.42	357.18	7224.46	5408.27	71.03	5408.30	0.97
12776.00	92.04	358.97	7221.89	5493.18	68.17	5493.21	2.23
12861.00	91.30	0.40	7219.42	5578.14	67.71	5578.16	1.89
12947.00	89.82	0.98	7218.58	5664.13	68.74	5664.15	1.85
13032.00	89.51	1.04	7219.07	5749.11	70.24	5749.14	0.37
13118.00	88.40	1.85	7220.64	5835.07	72.41	5835.10	1.60
13203.00	89.32	1.60	7222.33	5920.01	74.97	5920.04	1.12
13289.00	90.18	1.89	7222.71	6005.97	77.58	6006.00	1.06
13374.00	88.71	1.56	7223.53	6090.93	80.14	6090.95	1.77
13460.00	89.12	1.71	7225.16	6176.88	82.60	6176.91	0.51
13545.00	90.18	1.36	7225.68	6261.84	84.87	6261.87	1.31
13631.00	90.00	1.20	7225.54	6347.82	86.79	6347.85	0.28
13716.00	90.68	0.92	7225.04	6432.80	88.37	6432.84	0.87
13801.00	89.44	0.98	7224.95	6517.79	89.78	6517.82	1.46
13887.00	90.06	1.40	7225.33	6603.77	91.56	6603.80	0.87
13972.00	90.86	1.89	7224.64	6688.73	94.00	6688.77	1.10
14058.00	90.43	2.10	7223.68	6774.67	97.00	6774.71	0.56
14143.00	90.00	359.80	7223.36	6859.66	98.41	6859.69	2.75
14228.00	88.94	359.07	7224.14	6944.65	97.57	6944.68	1.51
14314.00	90.43	1.34	7224.62	7030.64	97.87	7030.67	3.16
14398.00	90.74	1.56	7223.76	7114.61	100.00	7114.64	0.45
14484.00	90.53	1.36	7222.81	7200.57	102.19	7200.61	0.34
14569.00	89.38	359.03	7222.87	7285.56	102.48	7285.60	3.06
14654.00	89.45	0.47	7223.74	7370.56	102.11	7370.59	1.70
14740.00	90.00	2.89	7224.15	7456.51	104.63	7456.55	2.89
14825.00	88.03	1.03	7225.61	7541.44	107.54	7541.48	3.19
14911.00	88.64	1.95	7228.11	7627.38	109.77	7627.41	1.28
14996.00	88.03	1.58	7230.58	7712.30	112.39	7712.34	0.84
15081.00	87.53	2.01	7233.88	7797.19	115.05	7797.23	0.78
15167.00	87.47	0.93	7237.63	7883.08	117.25	7883.12	1.26
15252.00	89.20	1.69	7240.10	7968.02	119.20	7968.06	2.22
15338.00	88.71	0.53	7241.66	8053.99	120.86	8054.03	1.46
15423.00	89.63	0.53	7242.90	8138.97	121.65	8139.02	1.08
15508.00	91.11	0.79	7242.35	8223.96	122.63	8224.01	1.77
15593.00	91.23	1.38	7240.61	8308.93	124.24	8308.97	0.71

15678.00	91.23	1.72	7238.79	8393.88	126.54	8393.92	0.40
15764.00	91.36	1.88	7236.84	8479.82	129.24	8479.86	0.24
15849.00	90.88	1.36	7235.18	8564.76	131.64	8564.81	0.83
15935.00	90.06	0.21	7234.48	8650.75	132.82	8650.80	1.64
16020.00	89.26	0.14	7234.98	8735.75	133.08	8735.79	0.94
16105.00	89.94	0.36	7235.57	8820.75	133.45	8820.79	0.84
16191.00	90.00	0.65	7235.62	8906.74	134.21	8906.79	0.34
16276.00	90.35	0.48	7235.36	8991.74	135.04	8991.78	0.46
16362.00	91.06	0.65	7234.30	9077.73	135.89	9077.77	0.85
16447.00	90.71	0.65	7232.99	9162.71	136.86	9162.76	0.41
16533.00	90.37	0.48	7232.18	9248.70	137.70	9248.75	0.44
16618.00	89.32	359.50	7232.41	9333.70	137.69	9333.75	1.69
16704.00	89.94	0.78	7232.96	9419.70	137.90	9419.74	1.65
16789.00	90.93	0.49	7232.32	9504.69	138.84	9504.73	1.21
16875.00	90.93	0.57	7230.92	9590.67	139.64	9590.72	0.09
16960.00	90.37	0.33	7229.96	9675.66	140.30	9675.71	0.72
17075.00	89.63	359.99	7229.96	9790.66	140.63	9790.71	0.71
17129.00	89.63	359.99	7230.31	9844.66	140.62	9844.71	0.00

Weatherford surveys from 1902 ft MD to 17075 ft MD.

TD well at 17129 ft MD.

The total correction is 8.41 deg relative to True North.



Weatherford®

Final Print

COMPANY	<u>Anadarko Petroleum Corp.</u>		
WELL	<u>Sparboe 27C-26 HZ</u>		
FIELD	<u>Wattenburg</u>		
RIG	<u>Xtreme 23</u>		
LOC.	<u>Colorado</u>	COUNTY	<u>Weld</u>