

Well Name: **WALCKER AC17-09**

API 05-123-35370	Surface Legal Location	Regulatory Field WATTENBERG	License #	State/Province COLORADO	Well Configuration Type DEVIATED
Ground Elevation (ft) 4,798.00	Casing Flange Elevation (ft)	KB - GL / MSL (ftKB) 13.00	KB-Casing Flange Distance (ft)	Spud Date 8/6/2012 15:00	Rig Release Date 8/18/2012 16:30

Wellbore Name ORIGINAL HOLE	Parent Wellbore ORIGINAL HOLE	Kick Off Depth (ftKB)	Vertical Section Direction (°)
Date 8/5/2012	Definitive? Yes	Description ORIGINAL	Proposed? No
MD Tie In (ftKB)	TVD Tie In (ftKB)	Inclination Tie In (°)	Azimuth Tie In (°)
		NSTie In (ft)	EW Tie In (ft)

Survey Data										
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	+N / -S (ft)	+E / -W (ft)	DLS (°/100ft)	Method	Survey Company
	76.00	0.50	184.20	76.00	-0.32	-0.33	-0.02	0.66	MWD	ENSIGN DRILLING
	294.00	0.30	194.00	293.99	-1.76	-1.83	-0.23	0.10	MWD	ENSIGN DRILLING
	514.00	0.60	226.70	513.99	-2.92	-3.18	-1.21	0.17	MWD	ENSIGN DRILLING
	739.00	0.50	347.30	738.98	-2.59	-3.03	-2.28	0.43	MWD	ENSIGN DRILLING
	765.00	0.10	19.50	764.98	-2.46	-2.90	-2.30	1.61	MWD	ENSIGN DRILLING
	850.00	0.20	44.10	849.98	-2.30	-2.72	-2.17	0.14	MWD	ENSIGN DRILLING
	937.00	0.10	325.30	936.98	-2.15	-2.55	-2.11	0.24	MWD	ENSIGN DRILLING
	1,022.00	0.00	256.60	1,021.98	-2.08	-2.49	-2.15	0.12	MWD	ENSIGN DRILLING
	1,108.00	0.00	103.00	1,107.98	-2.08	-2.49	-2.15	0.00	MWD	ENSIGN DRILLING
	1,191.00	0.10	341.50	1,190.98	-2.01	-2.42	-2.18	0.12	MWD	ENSIGN DRILLING
	1,277.00	0.10	287.40	1,276.98	-1.90	-2.33	-2.27	0.11	MWD	ENSIGN DRILLING
	1,363.00	1.10	359.10	1,362.98	-1.05	-1.48	-2.36	1.25	MWD	ENSIGN DRILLING
	1,449.00	1.80	354.50	1,448.95	1.11	0.69	-2.50	0.82	MWD	ENSIGN DRILLING
	1,535.00	2.60	356.50	1,534.88	4.40	3.98	-2.75	0.93	MWD	ENSIGN DRILLING
	1,622.00	3.30	354.20	1,621.77	8.86	8.44	-3.12	0.82	MWD	ENSIGN DRILLING
	1,707.00	4.20	357.30	1,706.58	14.38	13.98	-3.51	1.08	MWD	ENSIGN DRILLING
	1,791.00	4.40	350.00	1,790.35	20.66	20.23	-4.22	0.69	MWD	ENSIGN DRILLING
	1,876.00	4.90	347.80	1,875.07	27.54	26.99	-5.55	0.62	MWD	ENSIGN DRILLING
	1,961.00	5.80	347.30	1,959.70	35.46	34.73	-7.26	1.06	MWD	ENSIGN DRILLING
	2,049.00	7.00	347.80	2,047.15	45.26	44.31	-9.37	1.37	MWD	ENSIGN DRILLING
	2,133.00	7.10	346.10	2,130.51	55.56	54.35	-11.70	0.28	MWD	ENSIGN DRILLING
	2,219.00	6.90	345.90	2,215.87	66.01	64.52	-14.24	0.23	MWD	ENSIGN DRILLING
	2,306.00	7.00	346.60	2,302.23	76.52	74.74	-16.74	0.15	MWD	ENSIGN DRILLING
	2,389.00	7.00	348.00	2,384.61	86.62	84.61	-18.96	0.21	MWD	ENSIGN DRILLING
	2,475.00	7.00	348.40	2,469.97	97.10	94.87	-21.11	0.06	MWD	ENSIGN DRILLING
	2,562.00	6.90	345.00	2,556.33	107.60	105.11	-23.52	0.49	MWD	ENSIGN DRILLING
	2,648.00	7.40	343.40	2,641.66	118.25	115.41	-26.44	0.63	MWD	ENSIGN DRILLING

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Survey Data

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	+N / -S (ft)	+E / -W (ft)	DLS (°/100ft)	Method	Survey Company
	2,733.00	7.10	344.30	2,725.98	128.91	125.71	-29.43	0.38	MWD	ENSIGN DRILLING
	2,817.00	7.10	346.60	2,809.34	139.26	135.76	-32.04	0.34	MWD	ENSIGN DRILLING
	2,903.00	7.20	349.10	2,894.67	149.96	146.22	-34.29	0.38	MWD	ENSIGN DRILLING
	2,988.00	7.10	349.60	2,979.01	160.54	156.62	-36.24	0.14	MWD	ENSIGN DRILLING
	3,073.00	7.40	351.70	3,063.33	171.26	167.20	-37.98	0.47	MWD	ENSIGN DRILLING
	3,157.00	7.10	357.30	3,146.66	181.82	177.74	-39.01	0.91	MWD	ENSIGN DRILLING
	3,244.00	7.20	358.60	3,232.98	192.54	188.56	-39.39	0.22	MWD	ENSIGN DRILLING
	3,330.00	6.80	0.80	3,318.34	202.87	199.04	-39.45	0.56	MWD	ENSIGN DRILLING
	3,414.00	5.00	1.20	3,401.90	211.34	207.67	-39.31	2.14	MWD	ENSIGN DRILLING
	3,502.00	2.20	7.50	3,489.71	216.72	213.18	-39.01	3.21	MWD	ENSIGN DRILLING
	3,586.00	0.80	32.80	3,573.68	218.69	215.27	-38.48	1.80	MWD	ENSIGN DRILLING
	3,674.00	0.10	308.50	3,661.68	219.19	215.84	-38.21	0.90	MWD	ENSIGN DRILLING
	3,759.00	0.10	175.20	3,746.68	219.18	215.81	-38.26	0.22	MWD	ENSIGN DRILLING
	4,101.00	0.10	308.60	4,088.68	219.10	215.70	-38.47	0.05	MWD	ENSIGN DRILLING
	4,187.00	0.10	324.80	4,174.68	219.23	215.81	-38.57	0.03	MWD	ENSIGN DRILLING
	4,273.00	0.20	319.70	4,260.68	219.42	215.98	-38.71	0.12	MWD	ENSIGN DRILLING
	4,358.00	0.10	21.90	4,345.68	219.62	216.17	-38.78	0.21	MWD	ENSIGN DRILLING
	4,443.00	0.20	46.60	4,430.68	219.76	216.34	-38.64	0.14	MWD	ENSIGN DRILLING
	4,529.00	0.10	183.50	4,516.68	219.77	216.36	-38.54	0.33	MWD	ENSIGN DRILLING
	4,615.00	0.10	46.20	4,602.68	219.74	216.34	-38.49	0.22	MWD	ENSIGN DRILLING
	4,700.00	0.10	311.60	4,687.68	219.84	216.44	-38.49	0.17	MWD	ENSIGN DRILLING
	4,785.00	0.10	349.20	4,772.68	219.97	216.56	-38.56	0.08	MWD	ENSIGN DRILLING
	4,871.00	0.10	322.90	4,858.68	220.11	216.70	-38.62	0.05	MWD	ENSIGN DRILLING
	4,956.00	0.10	131.10	4,943.68	220.12	216.71	-38.61	0.23	MWD	ENSIGN DRILLING
	5,042.00	0.10	146.70	5,029.68	219.99	216.60	-38.51	0.03	MWD	ENSIGN DRILLING
	5,127.00	0.10	217.60	5,114.68	219.87	216.48	-38.51	0.14	MWD	ENSIGN DRILLING
	5,213.00	0.10	125.10	5,200.68	219.77	216.37	-38.50	0.17	MWD	ENSIGN DRILLING
	5,299.00	0.10	76.10	5,286.68	219.72	216.35	-38.36	0.10	MWD	ENSIGN DRILLING
	5,384.00	0.10	249.80	5,371.68	219.71	216.34	-38.36	0.23	MWD	ENSIGN DRILLING

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	5,470.00	0.10	88.00	5,457.68	219.69	216.32	-38.36	0.23	MWD	ENSIGN DRILLING
	5,555.00	0.10	256.60	5,542.68	219.68	216.30	-38.36	0.23	MWD	ENSIGN DRILLING
	5,641.00	0.10	142.50	5,628.68	219.61	216.22	-38.38	0.20	MWD	ENSIGN DRILLING
	5,726.00	0.20	122.50	5,713.68	219.44	216.09	-38.21	0.13	MWD	ENSIGN DRILLING
	5,812.00	0.10	246.40	5,799.68	219.32	215.98	-38.15	0.31	MWD	ENSIGN DRILLING
	5,897.00	0.10	312.20	5,884.68	219.36	216.00	-38.28	0.13	MWD	ENSIGN DRILLING
	5,984.00	0.10	32.70	5,971.68	219.48	216.11	-38.29	0.15	MWD	ENSIGN DRILLING
	6,068.00	0.10	22.50	6,055.68	219.59	216.24	-38.22	0.02	MWD	ENSIGN DRILLING
	6,155.00	0.10	130.20	6,142.68	219.60	216.26	-38.14	0.19	MWD	ENSIGN DRILLING
	6,241.00	0.10	49.40	6,228.68	219.58	216.26	-38.02	0.15	MWD	ENSIGN DRILLING
	6,327.00	0.20	297.90	6,314.68	219.71	216.38	-38.10	0.30	MWD	ENSIGN DRILLING
	6,412.00	0.10	262.40	6,399.68	219.80	216.44	-38.30	0.16	MWD	ENSIGN DRILLING
	6,498.00	0.10	208.30	6,485.68	219.75	216.36	-38.41	0.11	MWD	ENSIGN DRILLING
	6,584.00	0.20	44.80	6,571.68	219.78	216.40	-38.34	0.35	MWD	ENSIGN DRILLING
	6,669.00	0.10	64.50	6,656.68	219.88	216.54	-38.17	0.13	MWD	ENSIGN DRILLING
	6,755.00	0.10	56.40	6,742.68	219.93	216.62	-38.04	0.02	MWD	ENSIGN DRILLING
	6,840.00	0.10	254.00	6,827.68	219.95	216.64	-38.05	0.23	MWD	ENSIGN DRILLING
	6,926.00	0.10	210.90	6,913.68	219.89	216.55	-38.16	0.09	MWD	ENSIGN DRILLING
	7,011.00	0.10	249.40	6,998.68	219.82	216.46	-38.27	0.08	MWD	ENSIGN DRILLING
	7,097.00	0.10	122.50	7,084.68	219.75	216.39	-38.28	0.21	MWD	ENSIGN DRILLING
	7,182.00	0.10	204.60	7,169.68	219.64	216.29	-38.24	0.15	MWD	ENSIGN DRILLING
	7,268.00	0.10	275.20	7,255.68	219.60	216.23	-38.35	0.13	MWD	ENSIGN DRILLING
	7,353.00	0.10	253.30	7,340.67	219.61	216.21	-38.50	0.04	MWD	ENSIGN DRILLING
	7,439.00	0.10	278.90	7,426.67	219.63	216.20	-38.64	0.05	MWD	ENSIGN DRILLING
	7,525.00	0.10	111.10	7,512.67	219.61	216.19	-38.65	0.23	MWD	ENSIGN DRILLING
	7,610.00	0.10	7.50	7,597.67	219.65	216.23	-38.57	0.18	MWD	ENSIGN DRILLING
	7,696.00	0.10	20.00	7,683.67	219.78	216.38	-38.53	0.03	MWD	ENSIGN DRILLING
	7,781.00	0.10	190.20	7,768.67	219.78	216.37	-38.52	0.23	MWD	ENSIGN DRILLING
	7,867.00	0.10	326.00	7,854.67	219.77	216.36	-38.57	0.22	MWD	ENSIGN DRILLING

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	7,952.00	0.10	148.00	7,939.67	219.77	216.36	-38.58	0.24	MWD	ENSIGN DRILLING
	8,038.00	0.10	208.40	8,025.67	219.64	216.23	-38.57	0.12	MWD	ENSIGN DRILLING
	8,124.00	0.10	146.40	8,111.67	219.52	216.10	-38.57	0.12	MWD	ENSIGN DRILLING
	8,209.00	0.10	127.90	8,196.67	219.39	216.00	-38.47	0.04	MWD	ENSIGN DRILLING
	8,295.00	0.10	134.10	8,282.67	219.28	215.90	-38.35	0.01	MWD	ENSIGN DRILLING
	8,443.00	0.10	134.10	8,430.67	219.07	215.72	-38.17	0.00	MWD	ENSIGN DRILLING
	8,520.00	0.10	315.80	8,507.67	219.07	215.72	-38.17	0.26	MWD	ENSIGN DRILLING
	8,551.00	0.10	133.00	8,538.67	219.07	215.72	-38.17	0.64	MWD	ENSIGN DRILLING
	8,636.00	0.10	164.30	8,623.67	218.94	215.60	-38.09	0.06	MWD	ENSIGN DRILLING
	8,721.00	0.10	201.20	8,708.67	218.80	215.46	-38.10	0.07	MWD	ENSIGN DRILLING
	8,807.00	0.10	223.20	8,794.67	218.69	215.33	-38.18	0.04	MWD	ENSIGN DRILLING
	8,857.00	0.10	11.70	8,844.67	218.71	215.34	-38.20	0.38	MWD	ENSIGN DRILLING
	8,930.00	0.10	11.70	8,917.67	218.82	215.47	-38.17	0.00	MWD	ENSIGN DRILLING

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