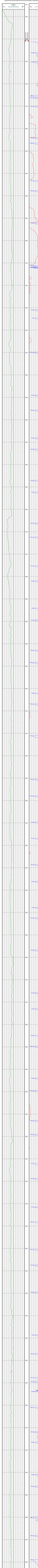

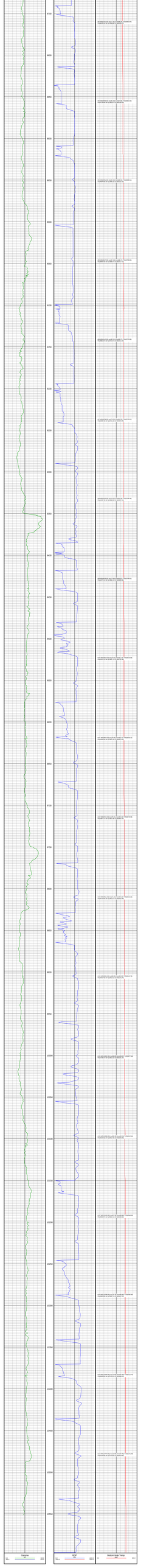

Polaris Guidance Systems LLC

Extraction_Patterson 901_Berthoud Farms 8E_10_9N

MD
5":100'

Company: Extraction Oil and Gas
Well Name: Berthoud Farms 8E-10-9N
API: 05-123-45723
County/Parish: Weld
State: CO
Country: US
Job number: 00010EX-CO
Field: DJ Basin
Rig Id: Patterson 901
Survey Company: Atlas Directional Services
Stephen Lebel Day Hand
Matt Fetterly Night Hand

Log measurements: Gamma
Depth measured from: RKB
Maximum temperature: 219.6

	Depth	Date
Start:	1605 ft	4/26/18
End:	10595 ft	4/29/18

Casing	Depth	Casing Size	Hole Size
Surface:	1605 ft	9.625"	12.5"
Intermediate:			"

Mud Type: OBM
Density: 9.1
Viscosity: 44
Rm: N/A **Rmf:** N/A **Rmc:** N/A

Elevations	
KB:	29 ft
DF:	5092 ft
GL:	5063 ft

Run	Tool S/N	Gamma Cal	Bit Size	Offsets			Mud Data		Depths		Dates	
				Survey	Gamma	Resis	Type	Weight	Start	End	Start	End
1	XGM0664	7.249	7.875"	55.00 ft	29.63 ft	N/A ft	OBM	9.1	1534 ft	8240 ft	4/27/18	4/28/18
2	XGM0664	7.249	7.875"	55.00 ft	29.63 ft	N/A ft	OBM	9.1	8240 ft	10595 ft	4/28/18	4/29/18
3												
4												
5												
6												
7												
8												
9												
10												

Atlas Directional Services uses its best efforts to provide its customers with accurate information and interpretations in conjunction with services performed but will not be held liable or responsible for the accuracy of such information or interpretation.

Gamma
API
0.0
300.0
300.0
600.0
MD
ROP
ft/hr
0.0
1000.0
1000.0
2000.0
Bottom Hole Temp
degF
0.0
300.0
1550
1600
1650
1700
1750
1800
1850
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1950
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5100
#18 MD(1673.00) Inc(22.18) Azm(26.43) TVD(1640.45) VS(172.37) N/-S(220.64) E/-W(95.59)
#19 MD(1768.00) Inc(24.70) Azm(27.66) TVD(1727.61) VS(201.08) N/-S(254.28) E/-W(112.79)
#20 MD(1863.00) Inc(26.12) Azm(22.24) TVD(1813.43) VS(230.98) N/-S(291.23) E/-W(129.92)
#21 MD(1959.00) Inc(27.09) Azm(13.87) TVD(1899.29) VS(258.76) N/-S(332.02) E/-W(143.17)
#22 MD(2054.00) Inc(25.98) Azm(11.05) TVD(1984.28) VS(283.01) N/-S(373.45) E/-W(152.34)
#23 MD(2150.00) Inc(24.61) Azm(8.45) TVD(2071.08) VS(304.83) N/-S(413.86) E/-W(159.31)
#24 MD(2246.00) Inc(25.50) Azm(9.55) TVD(2158.05) VS(326.00) N/-S(454.01) E/-W(165.67)
#25 MD(2341.00) Inc(24.30) Azm(8.35) TVD(2244.22) VS(346.80) N/-S(493.52) E/-W(171.91)
#26 MD(2437.00) Inc(26.51) Azm(10.96) TVD(2330.93) VS(368.66) N/-S(534.10) E/-W(178.85)
#27 MD(2532.00) Inc(26.60) Azm(15.37) TVD(2415.92) VS(393.33) N/-S(575.43) E/-W(188.52)
#28 MD(2627.00) Inc(27.80) Azm(20.26) TVD(2500.42) VS(421.36) N/-S(616.73) E/-W(201.83)
#29 MD(2723.00) Inc(30.89) Azm(20.26) TVD(2584.09) VS(453.22) N/-S(660.86) E/-W(218.12)
#30 MD(2818.00) Inc(34.20) Azm(24.45) TVD(2664.17) VS(489.22) N/-S(708.06) E/-W(237.62)
#31 MD(2913.00) Inc(36.01) Azm(22.46) TVD(2741.89) VS(528.38) N/-S(758.18) E/-W(259.34)
#32 MD(3009.00) Inc(36.90) Azm(25.24) TVD(2819.11) VS(569.56) N/-S(810.33) E/-W(282.42)
#33 MD(3104.00) Inc(36.41) Azm(27.13) TVD(2895.33) VS(612.07) N/-S(861.22) E/-W(307.43)
#34 MD(3199.00) Inc(33.10) Azm(24.14) TVD(2973.37) VS(652.34) N/-S(910.00) E/-W(330.91)
#35 MD(3295.00) Inc(34.11) Azm(26.96) TVD(3053.33) VS(691.78) N/-S(957.92) E/-W(353.83)
#36 MD(3390.00) Inc(36.59) Azm(28.15) TVD(3130.81) VS(733.84) N/-S(1006.63) E/-W(379.27)
#37 MD(3486.00) Inc(37.91) Azm(28.94) TVD(3207.23) VS(778.95) N/-S(1057.67) E/-W(407.04)
#38 MD(3581.00) Inc(39.11) Azm(29.95) TVD(3281.56) VS(825.45) N/-S(1109.18) E/-W(436.13)
#39 MD(3677.00) Inc(36.19) Azm(28.15) TVD(3357.57) VS(871.30) N/-S(1160.42) E/-W(464.62)
#40 MD(3772.00) Inc(37.12) Azm(30.35) TVD(3433.78) VS(915.76) N/-S(1209.89) E/-W(492.34)
#41 MD(3867.00) Inc(37.12) Azm(28.77) TVD(3509.53) VS(960.89) N/-S(1259.75) E/-W(520.62)
#42 MD(3963.00) Inc(35.48) Azm(26.96) TVD(3586.90) VS(1004.58) N/-S(1309.98) E/-W(547.20)
#43 MD(4058.00) Inc(35.22) Azm(29.03) TVD(3664.39) VS(1046.90) N/-S(1358.51) E/-W(572.99)
#44 MD(4153.00) Inc(35.71) Azm(26.34) TVD(3741.77) VS(1089.14) N/-S(1407.31) E/-W(598.59)
#45 MD(4249.00) Inc(37.61) Azm(26.74) TVD(3818.78) VS(1132.34) N/-S(1458.58) E/-W(624.20)
#46 MD(4344.00) Inc(38.40) Azm(28.06) TVD(3893.63) VS(1177.00) N/-S(1510.51) E/-W(651.12)
#47 MD(4439.00) Inc(34.69) Azm(25.86) TVD(3969.95) VS(1219.93) N/-S(1560.89) E/-W(676.80)
#48 MD(4535.00) Inc(35.31) Azm(25.86) TVD(4048.58) VS(1260.99) N/-S(1610.44) E/-W(700.82)
#49 MD(4656.00) Inc(37.78) Azm(29.73) TVD(4145.80) VS(1316.34) N/-S(1674.11) E/-W(734.46)
#50 MD(4751.00) Inc(36.81) Azm(29.03) TVD(4221.37) VS(1361.54) N/-S(1724.27) E/-W(762.71)
#51 MD(4847.00) Inc(34.91) Azm(28.24) TVD(4299.17) VS(1405.25) N/-S(1773.62) E/-W(789.66)
#52 MD(4942.00) Inc(34.38) Azm(23.96) TVD(4377.34) VS(1445.67) N/-S(1822.09) E/-W(813.42)
#53 MD(5037.00) Inc(35.40) Azm(27.13) TVD(4455.27) VS(1486.00) N/-S(1871.09) E/-W(836.87)
#54 MD(5133.00) Inc(37.69) Azm(29.56) TVD(4532.40) VS(1530.25) N/-S(1921.38) E/-W(864.03)

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#55 MD(5229.00) Inc(34.29) Azm(28.06) TVD(4610.06) VS(1574.22) N/-S(1970.78) E/-W(891.23)
#56 MD(5324.00) Inc(35.09) Azm(27.27) TVD(4688.17) VS(1615.65) N/-S(2018.67) E/-W(916.33)
#57 MD(5420.00) Inc(37.69) Azm(33.74) TVD(4765.48) VS(1661.07) N/-S(2067.63) E/-W(945.29)
#58 MD(5515.00) Inc(38.80) Azm(46.66) TVD(4840.21) VS(1713.05) N/-S(2112.28) E/-W(983.13)
#59 MD(5610.00) Inc(41.58) Azm(61.64) TVD(4912.94) VS(1772.35) N/-S(2147.77) E/-W(1032.65)
#60 MD(5706.00) Inc(47.81) Azm(68.34) TVD(4981.19) VS(1839.69) N/-S(2176.07) E/-W(1093.83)
#61 MD(5801.00) Inc(57.80) Azm(69.84) TVD(5038.55) VS(1915.24) N/-S(2202.98) E/-W(1164.45)
#62 MD(5897.00) Inc(67.39) Azm(68.73) TVD(5082.69) VS(2000.33) N/-S(2233.13) E/-W(1244.06)
#63 MD(5992.00) Inc(73.71) Azm(70.23) TVD(5114.30) VS(2089.82) N/-S(2264.49) E/-W(1327.92)
#64 MD(6087.00) Inc(76.98) Azm(84.16) TVD(5138.45) VS(2180.17) N/-S(2284.72) E/-W(1417.30)
#65 MD(6183.00) Inc(76.80) Azm(84.33) TVD(5160.22) VS(2269.77) N/-S(2294.09) E/-W(1510.32)
#66 MD(6279.00) Inc(78.48) Azm(87.07) TVD(5180.77) VS(2358.90) N/-S(2301.12) E/-W(1603.82)
#67 MD(6374.00) Inc(78.08) Azm(87.64) TVD(5200.07) VS(2446.46) N/-S(2305.41) E/-W(1696.74)
#68 MD(6469.00) Inc(77.69) Azm(87.46) TVD(5220.01) VS(2533.79) N/-S(2309.38) E/-W(1789.54)
#69 MD(6565.00) Inc(80.29) Azm(87.46) TVD(5238.34) VS(2622.43) N/-S(2313.56) E/-W(1883.67)
#70 MD(6660.00) Inc(80.20) Azm(86.45) TVD(5254.44) VS(2710.78) N/-S(2318.53) E/-W(1977.17)
#71 MD(6756.00) Inc(80.20) Azm(90.86) TVD(5270.79) VS(2799.05) N/-S(2320.75) E/-W(2071.71)
#72 MD(6851.00) Inc(77.11) Azm(90.46) TVD(5289.47) VS(2884.76) N/-S(2319.68) E/-W(2164.84)
#73 MD(6947.00) Inc(76.58) Azm(90.94) TVD(5311.32) VS(2970.77) N/-S(2318.53) E/-W(2258.31)
#74 MD(7042.00) Inc(79.89) Azm(88.43) TVD(5330.69) VS(3056.95) N/-S(2319.06) E/-W(2351.29)
#75 MD(7138.00) Inc(81.49) Azm(90.15) TVD(5346.22) VS(3144.99) N/-S(2320.23) E/-W(2446.02)
#76 MD(7233.00) Inc(81.40) Azm(89.75) TVD(5360.36) VS(3231.89) N/-S(2320.31) E/-W(2539.96)
#77 MD(7329.00) Inc(81.31) Azm(89.93) TVD(5374.79) VS(3319.76) N/-S(2320.57) E/-W(2634.87)
#78 MD(7425.00) Inc(81.00) Azm(90.37) TVD(5389.55) VS(3407.39) N/-S(2320.33) E/-W(2729.73)
#79 MD(7520.00) Inc(79.32) Azm(89.84) TVD(5405.78) VS(3493.87) N/-S(2320.15) E/-W(2823.32)
#80 MD(7616.00) Inc(79.19) Azm(90.24) TVD(5423.68) VS(3581.07) N/-S(2320.09) E/-W(2917.64)
#81 MD(7710.00) Inc(79.01) Azm(91.74) TVD(5441.46) VS(3665.80) N/-S(2318.49) E/-W(3009.93)
#82 MD(7805.00) Inc(80.91) Azm(86.36) TVD(5458.03) VS(3752.85) N/-S(2320.06) E/-W(3103.42)
#83 MD(7901.00) Inc(81.00) Azm(85.35) TVD(5473.12) VS(3842.90) N/-S(2326.91) E/-W(3197.98)
#84 MD(7997.00) Inc(79.32) Azm(86.36) TVD(5489.53) VS(3932.74) N/-S(2333.75) E/-W(3292.31)
#85 MD(8092.00) Inc(79.41) Azm(86.85) TVD(5507.06) VS(4021.04) N/-S(2339.28) E/-W(3385.52)
#86 MD(8188.00) Inc(79.32) Azm(86.05) TVD(5524.78) VS(4110.34) N/-S(2345.12) E/-W(3479.68)
#87 MD(8283.00) Inc(77.42) Azm(87.24) TVD(5543.93) VS(4198.31) N/-S(2350.57) E/-W(3572.57)
#88 MD(8379.00) Inc(76.09) Azm(89.27) TVD(5565.92) VS(4285.76) N/-S(2353.42) E/-W(3665.96)
#89 MD(8474.00) Inc(74.68) Azm(89.27) TVD(5589.89) VS(4371.21) N/-S(2354.59) E/-W(3757.88)
#90 MD(8570.00) Inc(74.42) Azm(89.27) TVD(5615.47) VS(4457.22) N/-S(2355.77) E/-W(3850.40)
#91 MD(8665.00) Inc(74.42) Azm(88.65) TVD(5640.98) VS(4542.46) N/-S(2357.43) E/-W(3941.90)

#92 MD(8761.00) Inc(77.91) Azm(88.34) TVD(5663.94)
VS(4629.55) N/-S(2359.88) E/-W(4035.07)

#93 MD(8856.00) Inc(80.29) Azm(87.86) TVD(5681.90)
VS(4716.94) N/-S(2362.97) E/-W(4128.29)

#94 MD(8951.00) Inc(82.02) Azm(88.04) TVD(5696.51)
VS(4804.96) N/-S(2366.33) E/-W(4222.10)

#95 MD(9047.00) Inc(82.19) Azm(88.17) TVD(5709.69)
VS(4894.04) N/-S(2369.47) E/-W(4317.14)

#96 MD(9142.00) Inc(80.51) Azm(89.27) TVD(5723.98)
VS(4981.67) N/-S(2371.57) E/-W(4411.03)

#97 MD(9238.00) Inc(76.01) Azm(91.25) TVD(5743.51)
VS(5068.40) N/-S(2371.16) E/-W(4504.99)

#98 MD(9333.00) Inc(76.01) Azm(91.56) TVD(5766.48)
VS(5152.76) N/-S(2368.90) E/-W(4597.14)

#99 MD(9429.00) Inc(74.50) Azm(91.87) TVD(5790.91)
VS(5237.51) N/-S(2366.12) E/-W(4689.94)

#100 MD(9524.00) Inc(74.02) Azm(91.16) TVD(5816.68)
VS(5321.12) N/-S(2363.71) E/-W(4781.34)

#101 MD(9620.00) Inc(70.00) Azm(90.77) TVD(5846.32)
VS(5404.94) N/-S(2362.16) E/-W(4872.62)

#102 MD(9715.00) Inc(70.31) Azm(90.24) TVD(5878.58)
VS(5487.27) N/-S(2361.38) E/-W(4961.97)

#103 MD(9811.00) Inc(71.10) Azm(90.15) TVD(5910.30)
VS(5570.94) N/-S(2361.07) E/-W(5052.58)

#104 MD(9906.00) Inc(68.89) Azm(89.93) TVD(5942.79)
VS(5653.46) N/-S(2361.01) E/-W(5141.84)

#105 MD(10002.00) Inc(68.80) Azm(89.67) TVD(5977.44)
VS(5736.37) N/-S(2361.32) E/-W(5231.37)

#106 MD(10098.00) Inc(68.18) Azm(90.15) TVD(6012.64)
VS(5819.02) N/-S(2361.46) E/-W(5320.68)

#107 MD(10193.00) Inc(67.30) Azm(88.96) TVD(6048.63)
VS(5900.57) N/-S(2362.14) E/-W(5408.60)

#108 MD(10288.00) Inc(70.79) Azm(86.45) TVD(6082.60)
VS(5983.89) N/-S(2365.71) E/-W(5497.22)

#109 MD(10384.00) Inc(72.60) Azm(87.64) TVD(6112.75)
VS(6069.84) N/-S(2370.41) E/-W(5588.24)

#110 MD(10479.00) Inc(72.69) Azm(87.95) TVD(6141.09)
VS(6154.96) N/-S(2373.90) E/-W(5678.84)