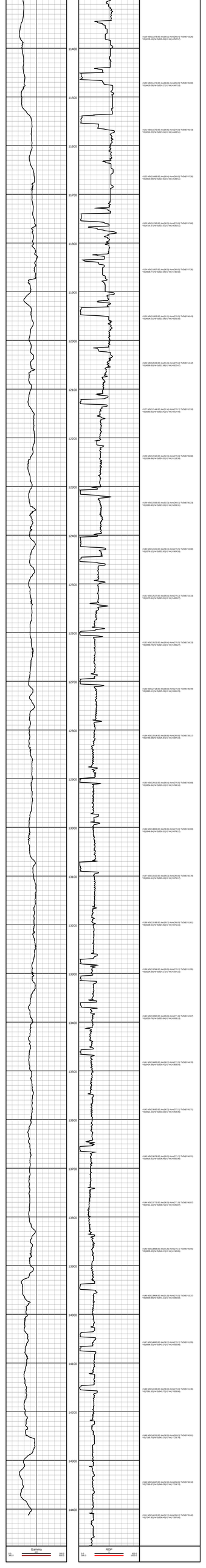

Polaris Guidance Systems LLC

McGlothlin Farms 4W-334

MD
2":100'

Company: Petroleum Development Corp.
Well Name: McGlothlin Farms 4W-334
API: 05123400600
County/Parish: Weld
State: Colorado
Country: United States
Job number: 161-95
Field: Wattenburg
Rig Id: Ensign 161
Survey Company: Ensign Directional Services
Operator: Petroleum Development Corp.
Company Man: Brady Sharp / John Falton
Swing Shift DD: Chris Saykally
Daylight DD: Zach Gentry
Night DD: Tony Callow
Daylight MWD: Justin Klatt
Night MWD: Terry Ash

Log measurements: Gamma, ROP
Depth measured from:
Maximum temperature:

	Depth	Date
Start:	0 ft	10-5-2017
End:	14475 ft	10-11-2017

Casing	Depth	Size
Surface:		9 5/8"
Intermediate:		

Mud Type: H2O
Density:
Viscosity:
Rm: **Rmf:** **Rmc:**

Elevations
KB: 4639 ft
GL: 4616 ft
DF: 4639 ft

Run	Bit Size	Offsets Gamma	Offsets Survey	Depths Start	Depths End	Dates Start	Dates End
1	12.25"			0 ft	1685 ft	10-5-2017	
2	8.5"	62.24 ft	57.24 ft	1685 ft	14475 ft	10-11-2017	
3							
4							
5							
6							
7							
8							
9							
10							

Ensign 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.

#25 MD(2352.00) Inc(15.2) Azm(33.6) TVD(2321.87)
VS(-110.97) N/-S(252.73) E/-W(143.78)

#26 MD(2447.00) Inc(14.8) Azm(34.3) TVD(2413.63)
VS(-122.04) N/-S(273.13) E/-W(157.51)

#27 MD(2543.00) Inc(14.3) Azm(33.6) TVD(2506.55)
VS(-132.89) N/-S(293.13) E/-W(170.98)

#28 MD(2638.00) Inc(13.8) Azm(32.0) TVD(2598.71)
VS(-142.86) N/-S(312.51) E/-W(183.48)

#29 MD(2733.00) Inc(15.4) Azm(31.8) TVD(2690.64)
VS(-152.87) N/-S(332.84) E/-W(196.13)

#30 MD(2829.00) Inc(14.9) Azm(30.4) TVD(2783.30)
VS(-163.03) N/-S(354.32) E/-W(209.09)

#31 MD(2925.00) Inc(14.5) Azm(28.5) TVD(2876.16)
VS(-172.26) N/-S(375.53) E/-W(221.07)

#32 MD(3020.00) Inc(13.9) Azm(27.4) TVD(2968.26)
VS(-180.52) N/-S(396.11) E/-W(232.00)

#33 MD(3116.00) Inc(13.1) Azm(25.8) TVD(3061.60)
VS(-187.97) N/-S(416.14) E/-W(242.04)

#34 MD(3212.00) Inc(13.5) Azm(27.6) TVD(3155.03)
VS(-195.35) N/-S(435.87) E/-W(251.97)

#35 MD(3308.00) Inc(14.6) Azm(26.7) TVD(3248.16)
VS(-203.30) N/-S(456.61) E/-W(262.59)

#36 MD(3404.00) Inc(13.0) Azm(26.2) TVD(3341.38)
VS(-210.85) N/-S(477.11) E/-W(272.80)

#37 MD(3499.00) Inc(13.5) Azm(33.0) TVD(3433.86)
VS(-219.16) N/-S(496.00) E/-W(283.56)

#38 MD(3595.00) Inc(13.3) Azm(32.7) TVD(3527.24)
VS(-228.79) N/-S(514.69) E/-W(295.62)

#39 MD(3691.00) Inc(15.6) Azm(31.8) TVD(3620.20)
VS(-238.91) N/-S(534.95) E/-W(308.39)

#40 MD(3787.00) Inc(15.6) Azm(32.3) TVD(3712.66)
VS(-249.76) N/-S(556.83) E/-W(322.09)

#41 MD(3883.00) Inc(15.7) Azm(31.6) TVD(3805.11)
VS(-260.61) N/-S(578.81) E/-W(335.80)

#42 MD(3978.00) Inc(14.9) Azm(32.2) TVD(3896.74)
VS(-271.08) N/-S(600.09) E/-W(349.04)

#43 MD(4074.00) Inc(13.7) Azm(31.3) TVD(3989.76)
VS(-280.94) N/-S(620.25) E/-W(361.52)

#44 MD(4170.00) Inc(13.0) Azm(32.7) TVD(4083.17)
VS(-290.23) N/-S(639.05) E/-W(373.26)

#45 MD(4265.00) Inc(12.6) Azm(34.8) TVD(4175.81)
VS(-299.63) N/-S(656.55) E/-W(384.95)

#46 MD(4361.00) Inc(14.5) Azm(33.7) TVD(4269.13)
VS(-309.84) N/-S(675.15) E/-W(397.60)

#47 MD(4457.00) Inc(14.0) Azm(31.8) TVD(4362.18)
VS(-320.04) N/-S(695.02) E/-W(410.38)

#48 MD(4553.00) Inc(13.3) Azm(34.4) TVD(4455.47)
VS(-329.92) N/-S(714.00) E/-W(422.74)

#49 MD(4648.00) Inc(14.5) Azm(31.6) TVD(4547.68)
VS(-339.83) N/-S(733.14) E/-W(435.15)

#50 MD(4744.00) Inc(14.3) Azm(29.7) TVD(4640.67)
VS(-349.33) N/-S(753.68) E/-W(447.32)

#51 MD(4840.00) Inc(13.3) Azm(29.3) TVD(4733.90)
VS(-358.02) N/-S(773.61) E/-W(458.60)

#52 MD(4936.00) Inc(14.6) Azm(30.6) TVD(4827.06)
VS(-366.98) N/-S(793.65) E/-W(470.16)

#53 MD(5032.00) Inc(14.3) Azm(30.2) TVD(4920.03)
VS(-376.42) N/-S(814.31) E/-W(482.28)

#54 MD(5128.00) Inc(13.4) Azm(30.4) TVD(5013.23)
VS(-385.43) N/-S(834.15) E/-W(493.88)

#55 MD(5223.00) Inc(11.8) Azm(29.9) TVD(5105.94)
VS(-393.52) N/-S(852.07) E/-W(504.29)

#56 MD(5319.00) Inc(10.9) Azm(30.4) TVD(5200.06)
VS(-400.88) N/-S(868.41) E/-W(513.78)

#57 MD(5415.00) Inc(9.6) Azm(26.2) TVD(5294.53)
VS(-407.07) N/-S(883.42) E/-W(521.90)

#58 MD(5511.00) Inc(7.5) Azm(26.7) TVD(5389.46)
VS(-411.76) N/-S(896.20) E/-W(528.25)

#59 MD(5607.00) Inc(6.9) Azm(19.5) TVD(5484.70)
VS(-415.08) N/-S(907.24) E/-W(532.99)

#60 MD(5703.00) Inc(4.4) Azm(28.3) TVD(5580.23)
VS(-417.64) N/-S(915.92) E/-W(536.67)

#61 MD(5798.00) Inc(1.8) Azm(27.8) TVD(5675.08)
VS(-419.48) N/-S(920.44) E/-W(539.09)

#62 MD(5894.00) Inc(1.1) Azm(34.8) TVD(5771.05)
VS(-420.43) N/-S(922.54) E/-W(540.32)

#63 MD(5990.00) Inc(1.6) Azm(40.8) TVD(5867.03)
VS(-421.60) N/-S(924.31) E/-W(541.72)

#64 MD(6086.00) Inc(1.2) Azm(61.2) TVD(5963.00)
VS(-423.16) N/-S(925.81) E/-W(543.48)

#65 MD(6181.00) Inc(2.6) Azm(264.7) TVD(6057.97)
VS(-421.86) N/-S(926.09) E/-W(542.20)

#66 MD(6277.00) Inc(11.5) Azm(275.8) TVD(6153.15)
VS(-410.14) N/-S(926.85) E/-W(530.49)

#67 MD(6401.00) Inc(15.2) Azm(283.0) TVD(6273.79)
VS(-381.60) N/-S(931.76) E/-W(502.34)

#68 MD(6497.00) Inc(20.5) Azm(272.1) TVD(6365.16)
VS(-352.31) N/-S(935.21) E/-W(473.25)

#69 MD(6593.00) Inc(31.8) Azm(269.8) TVD(6451.20)
VS(-310.34) N/-S(935.74) E/-W(431.02)

#70 MD(6689.00) Inc(40.9) Azm(268.1) TVD(6528.44)
VS(-254.11) N/-S(934.61) E/-W(374.20)

#71 MD(6784.00) Inc(48.0) Azm(265.8) TVD(6596.22)
VS(-188.71) N/-S(930.99) E/-W(307.82)

#72 MD(6880.00) Inc(59.2) Azm(268.9) TVD(6653.10)
VS(-112.69) N/-S(927.57) E/-W(230.76)

#73 MD(6976.00) Inc(71.8) Azm(270.2) TVD(6692.83)
VS(-26.28) N/-S(926.94) E/-W(143.59)

#74 MD(7072.00) Inc(79.5) Azm(271.2) TVD(6716.61)
VS(66.06) N/-S(928.09) E/-W(50.66)

#75 MD(7167.00) Inc(79.1) Azm(270.9) TVD(6734.25)
VS(158.87) N/-S(929.80) E/-W(-42.67)

#76 MD(7263.00) Inc(85.1) Azm(270.5) TVD(6747.44)
VS(253.30) N/-S(930.96) E/-W(-137.71)

#77 MD(7359.00) Inc(89.3) Azm(269.8) TVD(6752.13)
VS(348.44) N/-S(931.21) E/-W(-233.57)

#78 MD(7455.00) Inc(88.5) Azm(270.0) TVD(6753.97)
VS(443.64) N/-S(931.04) E/-W(-329.55)

#79 MD(7550.00) Inc(90.8) Azm(269.5) TVD(6754.55)
VS(537.83) N/-S(930.62) E/-W(-424.54)

#80 MD(7646.00) Inc(90.0) Azm(268.1) TVD(6753.88)
VS(632.80) N/-S(928.61) E/-W(-520.52)

#81 MD(7742.00) Inc(89.5) Azm(267.9) TVD(6754.30)
VS(727.56) N/-S(925.26) E/-W(-616.46)

#82 MD(7838.00) Inc(89.7) Azm(267.0) TVD(6754.97)
VS(822.17) N/-S(920.99) E/-W(-712.36)

#83 MD(7934.00) Inc(90.9) Azm(268.6) TVD(6754.46)
VS(916.88) N/-S(917.31) E/-W(-808.28)

#84 MD(8029.00) Inc(90.0) Azm(270.7) TVD(6753.72)
VS(1011.04) N/-S(916.73) E/-W(-903.27)

#85 MD(8125.00) Inc(90.0) Azm(270.5) TVD(6753.72)
VS(1106.41) N/-S(917.73) E/-W(-999.27)

#86 MD(8221.00) Inc(89.6) Azm(270.7) TVD(6754.05)
VS(1201.77) N/-S(918.74) E/-W(-1095.26)

#87 MD(8316.00) Inc(89.6) Azm(269.8) TVD(6754.72)
VS(1296.07) N/-S(919.15) E/-W(-1190.26)

#88 MD(8411.00) Inc(89.9) Azm(271.2) TVD(6755.13)
VS(1390.42) N/-S(919.98) E/-W(-1285.25)

#89 MD(8507.00) Inc(90.0) Azm(270.2) TVD(6755.22)
VS(1485.80) N/-S(921.15) E/-W(-1381.24)

#90 MD(8603.00) Inc(89.9) Azm(270.0) TVD(6755.30)
VS(1581.06) N/-S(921.32) E/-W(-1477.24)

#91 MD(8699.00) Inc(89.7) Azm(269.5) TVD(6755.63)
VS(1676.25) N/-S(920.90) E/-W(-1573.24)

#92 MD(8794.00) Inc(88.5) Azm(270.7) TVD(6757.13)
VS(1770.51) N/-S(921.07) E/-W(-1668.22)

#93 MD(8890.00) Inc(88.8) Azm(271.2) TVD(6759.39)
VS(1865.91) N/-S(922.66) E/-W(-1764.18)

#94 MD(8985.00) Inc(90.0) Azm(271.9) TVD(6760.38)
VS(1960.44) N/-S(925.23) E/-W(-1859.14)

#95 MD(9081.00) Inc(91.4) Azm(272.1) TVD(6759.21)
VS(2056.04) N/-S(928.58) E/-W(-1955.07)

#96 MD(9177.00) Inc(91.2) Azm(271.0) TVD(6757.03)
VS(2151.55) N/-S(931.17) E/-W(-2051.01)

#97 MD(9273.00) Inc(90.6) Azm(271.0) TVD(6755.52)
VS(2246.97) N/-S(932.85) E/-W(-2146.98)

#98 MD(9369.00) Inc(90.1) Azm(270.7) TVD(6754.94)
VS(2342.38) N/-S(934.27) E/-W(-2242.97)

#99 MD(9465.00) Inc(89.9) Azm(269.8) TVD(6754.94)
VS(2437.67) N/-S(934.69) E/-W(-2338.97)

#100 MD(9561.00) Inc(89.8) Azm(269.3) TVD(6755.19)
VS(2532.82) N/-S(933.94) E/-W(-2434.97)

#101 MD(9657.00) Inc(90.2) Azm(269.1) TVD(6755.19)
VS(2627.88) N/-S(932.60) E/-W(-2530.96)

#102 MD(9752.00) Inc(91.2) Azm(270.0) TVD(6754.03)
VS(2722.03) N/-S(931.85) E/-W(-2625.94)

#103 MD(9848.00) Inc(90.8) Azm(268.6) TVD(6752.35)
VS(2817.10) N/-S(930.68) E/-W(-2721.92)

#104 MD(9944.00) Inc(90.4) Azm(267.5) TVD(6751.35)
VS(2911.87) N/-S(927.41) E/-W(-2817.86)

#105 MD(10039.00) Inc(90.3) Azm(268.4) TVD(6750.77)
VS(3005.63) N/-S(924.01) E/-W(-2912.79)

#106 MD(10135.00) Inc(90.7) Azm(269.6) TVD(6749.93)
VS(3100.65) N/-S(922.34) E/-W(-3008.77)

#107 MD(10231.00) Inc(90.0) Azm(270.9) TVD(6749.34)
VS(3195.94) N/-S(922.76) E/-W(-3104.77)

#108 MD(10326.00) Inc(89.8) Azm(270.2) TVD(6749.51)
VS(3290.30) N/-S(923.67) E/-W(-3199.76)

#109 MD(10422.00) Inc(90.1) Azm(269.6) TVD(6749.59)
VS(3385.52) N/-S(923.50) E/-W(-3295.76)

#110 MD(10517.00) Inc(90.6) Azm(271.0) TVD(6749.01)
VS(3479.83) N/-S(924.00) E/-W(-3390.76)

#111 MD(10613.00) Inc(90.3) Azm(270.5) TVD(6748.26)
VS(3575.22) N/-S(925.26) E/-W(-3486.74)

#112 MD(10708.00) Inc(90.4) Azm(269.3) TVD(6747.68)
VS(3669.44) N/-S(925.09) E/-W(-3581.74)

#113 MD(10804.00) Inc(91.5) Azm(270.7) TVD(6746.09)
VS(3764.67) N/-S(925.09) E/-W(-3677.72)

#114 MD(10900.00) Inc(92.2) Azm(270.3) TVD(6742.99)
VS(3859.96) N/-S(925.93) E/-W(-3773.67)

#115 MD(10995.00) Inc(90.7) Azm(271.0) TVD(6740.58)
VS(3954.31) N/-S(927.01) E/-W(-3868.63)

#116 MD(11091.00) Inc(90.0) Azm(270.5) TVD(6740.00)
VS(4049.70) N/-S(928.26) E/-W(-3964.62)

#117 MD(11187.00) Inc(89.3) Azm(270.2) TVD(6740.58)
VS(4145.01) N/-S(928.85) E/-W(-4060.61)

#118 MD(11283.00) Inc(89.2) Azm(269.3) TVD(6741.84)
VS(4240.19) N/-S(928.43) E/-W(-4156.60)

#119 MD(11379.00) Inc(89.1) Azm(268.4) TVD(6743.26)
VS(4335.16) N/-S(926.50) E/-W(-4252.57)

#120 MD(11474.00) Inc(88.8) Azm(268.9) TVD(6745.00)
VS(4429.09) N/-S(924.27) E/-W(-4347.53)

#121 MD(11570.00) Inc(89.5) Azm(270.0) TVD(6746.43)
VS(4524.20) N/-S(923.34) E/-W(-4443.51)

#122 MD(11666.00) Inc(89.4) Azm(269.5) TVD(6747.35)
VS(4619.39) N/-S(922.92) E/-W(-4539.51)

#123 MD(11762.00) Inc(90.3) Azm(270.0) TVD(6747.60)
VS(4714.57) N/-S(922.51) E/-W(-4635.51)

#124 MD(11857.00) Inc(90.0) Azm(269.5) TVD(6747.35)
VS(4808.77) N/-S(922.09) E/-W(-4730.50)

#125 MD(11953.00) Inc(91.1) Azm(270.5) TVD(6746.43)
VS(4904.01) N/-S(922.09) E/-W(-4826.50)

#126 MD(12049.00) Inc(91.3) Azm(270.2) TVD(6744.42)
VS(4999.30) N/-S(922.68) E/-W(-4922.47)

#127 MD(12144.00) Inc(91.4) Azm(270.7) TVD(6742.18)
VS(5093.62) N/-S(923.42) E/-W(-5017.44)

#128 MD(12240.00) Inc(92.3) Azm(270.0) TVD(6739.08)
VS(5188.88) N/-S(924.01) E/-W(-5113.39)

#129 MD(12336.00) Inc(92.3) Azm(269.1) TVD(6735.23)
VS(5283.95) N/-S(923.26) E/-W(-5209.31)

#130 MD(12431.00) Inc(90.3) Azm(270.5) TVD(6733.08)
VS(5378.12) N/-S(922.93) E/-W(-5304.28)

#131 MD(12527.00) Inc(89.4) Azm(270.2) TVD(6733.33)
VS(5473.44) N/-S(923.51) E/-W(-5400.27)

#132 MD(12623.00) Inc(89.4) Azm(270.5) TVD(6734.33)
VS(5568.75) N/-S(924.10) E/-W(-5496.27)

#133 MD(12718.00) Inc(88.0) Azm(270.9) TVD(6736.49)
VS(5663.11) N/-S(925.26) E/-W(-5591.23)

#134 MD(12814.00) Inc(88.8) Azm(269.8) TVD(6739.17)
VS(5758.38) N/-S(925.84) E/-W(-5687.19)

#135 MD(12911.00) Inc(89.4) Azm(270.5) TVD(6740.69)
VS(5854.64) N/-S(926.10) E/-W(-5784.18)

#136 MD(13006.00) Inc(90.6) Azm(270.0) TVD(6740.69)
VS(5948.94) N/-S(926.51) E/-W(-5879.17)

#137 MD(13102.00) Inc(89.3) Azm(269.6) TVD(6740.78)
VS(6044.14) N/-S(926.18) E/-W(-5975.17)

#138 MD(13198.00) Inc(89.7) Azm(268.9) TVD(6741.61)
VS(6139.21) N/-S(924.92) E/-W(-6071.16)

#139 MD(13294.00) Inc(89.9) Azm(270.2) TVD(6741.95)
VS(6234.35) N/-S(924.17) E/-W(-6167.15)

#140 MD(13390.00) Inc(89.0) Azm(271.8) TVD(6742.87)
VS(6329.78) N/-S(925.84) E/-W(-6263.13)

#141 MD(13485.00) Inc(88.7) Azm(272.5) TVD(6744.78)
VS(6424.39) N/-S(929.41) E/-W(-6358.04)

#142 MD(13582.00) Inc(90.2) Azm(272.1) TVD(6745.71)
VS(6521.03) N/-S(933.30) E/-W(-6454.96)

#143 MD(13678.00) Inc(89.2) Azm(271.7) TVD(6746.21)
VS(6616.62) N/-S(936.48) E/-W(-6550.90)

#144 MD(13773.00) Inc(90.0) Azm(271.0) TVD(6746.87)
VS(6711.12) N/-S(938.72) E/-W(-6645.87)

#145 MD(13868.00) Inc(91.6) Azm(270.7) TVD(6745.55)
VS(6805.53) N/-S(940.13) E/-W(-6740.85)

#146 MD(13964.00) Inc(91.0) Azm(270.5) TVD(6743.37)
VS(6900.86) N/-S(941.13) E/-W(-6836.82)

#147 MD(14060.00) Inc(90.7) Azm(270.7) TVD(6741.95)
VS(6996.22) N/-S(942.14) E/-W(-6932.80)

#148 MD(14156.00) Inc(90.0) Azm(270.0) TVD(6741.36)
VS(7091.53) N/-S(942.72) E/-W(-7028.80)

#149 MD(14251.00) Inc(90.9) Azm(269.3) TVD(6740.61)
VS(7185.70) N/-S(942.14) E/-W(-7123.79)

#150 MD(14347.00) Inc(92.0) Azm(268.6) TVD(6738.18)
VS(7280.67) N/-S(940.39) E/-W(-7219.74)

#151 MD(14415.00) Inc(92.7) Azm(268.2) TVD(6735.40)
VS(7347.82) N/-S(938.49) E/-W(-7287.66)