# Harold 6y-214

TVD
2":100'

**Company:** Petroleum Development Corp.
**Well Name:** Harold 6y-214
**API:** 051234575400
**County/Parish:** Weld
**State:** Colorado
**Country:** United States
**Job number:** 161-162
**Field:** Wattenburg
**Rig Id:** Ensign 161
**Survey Company:** Ensign
**Operator:** Petroleum Development Corp.
**Company Man:** Brady Sharp / John Falton
**Daylight DD:** Zach Gentry
**Swing Shift DD:** Tony Callow
**Night DD:** Eric Mays
**Daylight MWD:** Ryan Prue
**Night MWD:** Bobby blevins

**Log measurements:** Gamma, ROP
**Depth measured from:** 2579 ft
**Maximum temperature:** 190

| Depth | Date |
|---|---|
| **Start:** 0 ft | 1-28-2019 |
| **End:** 11768 ft | 2-1-2019 |

| Casing | Depth | Size |
|---|---|---|
| **Surface:** | 2579 ft | 9 5/8" |
| **Intermediate:** | | |

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

**Elevations**
**KB:** 23 ft
**GL:** 4787 ft
**DF:** 4810 ft

| Run | Bit Size | Offsets | | Depths | | Dates | |
|---|---|---|---|---|---|---|---|
| | | Gamma | Survey | Start | End | Start | End |
| 1 | 12.25" | | 60.00 ft | 0 ft | 2579 ft | 1-28-2019 | 1-29-2019 |
| 2 | 8.5" | 63.63 ft | 60.00 ft | 2579 ft | 4815 ft | 1-30-2019 | 1-30-2019 |
| 3 | 8.5" | 63.73 ft | 60.00 ft | 4815 ft | 11768 ft | 1-30-2019 | 2-1-2019 |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |

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#25 MD(2519.00) Inc(8.4) Azm(97.9) TVD(2484.38)
VS(-356.55) N/-S(-69.41) E/-W(351.96)

#26 MD(2637.00) Inc(9.1) Azm(110.6) TVD(2601.03)
VS(-374.06) N/-S(-73.86) E/-W(369.16)

#27 MD(2733.00) Inc(11.5) Azm(104.5) TVD(2695.49)
VS(-390.74) N/-S(-78.92) E/-W(385.47)

#28 MD(2828.00) Inc(11.8) Azm(99.8) TVD(2788.54)
VS(-409.70) N/-S(-82.93) E/-W(404.16)

#29 MD(2924.00) Inc(11.9) Azm(97.4) TVD(2882.50)
VS(-429.37) N/-S(-85.87) E/-W(423.65)

#30 MD(3019.00) Inc(10.4) Azm(97.8) TVD(2975.70)
VS(-447.71) N/-S(-88.28) E/-W(441.86)

#31 MD(3115.00) Inc(11.4) Azm(100.6) TVD(3069.97)
VS(-465.81) N/-S(-91.19) E/-W(459.77)

#32 MD(3210.00) Inc(11.8) Azm(97.0) TVD(3163.03)
VS(-484.88) N/-S(-94.10) E/-W(478.66)

#33 MD(3306.00) Inc(10.9) Azm(98.2) TVD(3257.15)
VS(-503.76) N/-S(-96.59) E/-W(497.40)

#34 MD(3401.00) Inc(11.3) Azm(95.2) TVD(3350.36)
VS(-522.08) N/-S(-98.72) E/-W(515.61)

#35 MD(3497.00) Inc(12.7) Azm(95.0) TVD(3444.26)
VS(-542.05) N/-S(-100.51) E/-W(535.50)

#36 MD(3592.00) Inc(13.1) Azm(95.1) TVD(3536.86)
VS(-563.24) N/-S(-102.38) E/-W(556.60)

#37 MD(3688.00) Inc(11.8) Azm(93.4) TVD(3630.61)
VS(-583.90) N/-S(-103.92) E/-W(577.21)

#38 MD(3783.00) Inc(12.2) Azm(96.2) TVD(3723.54)
VS(-603.62) N/-S(-105.59) E/-W(596.86)

#39 MD(3879.00) Inc(12.8) Azm(96.8) TVD(3817.27)
VS(-624.38) N/-S(-107.96) E/-W(617.49)

#40 MD(3974.00) Inc(12.6) Azm(97.8) TVD(3909.95)
VS(-645.21) N/-S(-110.61) E/-W(638.17)

#41 MD(4070.00) Inc(11.8) Azm(98.7) TVD(4003.78)
VS(-665.45) N/-S(-113.52) E/-W(658.24)

#42 MD(4165.00) Inc(12.1) Azm(94.0) TVD(4096.73)
VS(-685.08) N/-S(-115.69) E/-W(677.75)

#43 MD(4261.00) Inc(11.7) Azm(94.6) TVD(4190.68)
VS(-704.80) N/-S(-117.17) E/-W(697.42)

#44 MD(4356.00) Inc(12.6) Azm(94.4) TVD(4283.57)
VS(-724.73) N/-S(-118.72) E/-W(717.29)

#45 MD(4452.00) Inc(11.8) Azm(95.0) TVD(4377.40)
VS(-745.03) N/-S(-120.39) E/-W(737.52)

#46 MD(4548.00) Inc(12.2) Azm(95.2) TVD(4471.29)
VS(-765.02) N/-S(-122.18) E/-W(757.43)

#47 MD(4643.00) Inc(12.6) Azm(96.3) TVD(4564.08)
VS(-785.41) N/-S(-124.23) E/-W(777.72)

#48 MD(4738.00) Inc(11.9) Azm(95.4) TVD(4656.91)
VS(-805.60) N/-S(-126.28) E/-W(797.81)

#49 MD(4833.00) Inc(10.9) Azm(93.6) TVD(4750.03)
VS(-824.39) N/-S(-127.76) E/-W(816.54)

#50 MD(4929.00) Inc(11.8) Azm(94.1) TVD(4844.16)
VS(-843.24) N/-S(-129.04) E/-W(835.36)

#51 MD(5025.00) Inc(10.6) Azm(89.0) TVD(4938.33)
VS(-861.84) N/-S(-129.58) E/-W(853.98)

#52 MD(5120.00) Inc(11.4) Azm(97.1) TVD(5031.59)
VS(-879.90) N/-S(-130.59) E/-W(872.01)

#53 MD(5216.00) Inc(10.8) Azm(96.1) TVD(5125.80)
VS(-898.37) N/-S(-132.72) E/-W(890.36)

#54 MD(5312.00) Inc(10.2) Azm(101.7) TVD(5220.18)
VS(-915.86) N/-S(-135.40) E/-W(907.69)

#55 MD(5407.00) Inc(11.0) Azm(97.4) TVD(5313.55)
VS(-933.32) N/-S(-138.27) E/-W(924.97)

#56 MD(5502.00) Inc(10.2) Azm(93.0) TVD(5406.92)
VS(-950.82) N/-S(-139.89) E/-W(942.40)

#57 MD(5598.00) Inc(9.4) Azm(90.6) TVD(5501.52)
VS(-967.15) N/-S(-140.42) E/-W(958.75)

#58 MD(5693.00) Inc(7.3) Azm(87.6) TVD(5595.51)
VS(-980.89) N/-S(-140.25) E/-W(972.54)

#59 MD(5789.00) Inc(4.8) Azm(84.3) TVD(5690.96)
VS(-990.93) N/-S(-139.60) E/-W(982.68)

#60 MD(5885.00) Inc(4.2) Azm(78.3) TVD(5786.66)
VS(-998.30) N/-S(-138.48) E/-W(990.17)

#61 MD(5980.00) Inc(1.9) Azm(84.3) TVD(5881.52)
VS(-1003.19) N/-S(-137.61) E/-W(995.15)

#62 MD(6076.00) Inc(1.3) Azm(94.9) TVD(5977.48)
VS(-1005.83) N/-S(-137.55) E/-W(997.80)

#63 MD(6172.00) Inc(1.3) Azm(79.6) TVD(6073.46)
VS(-1007.96) N/-S(-137.44) E/-W(999.95)

#64 MD(6267.00) Inc(0.5) Azm(221.6) TVD(6168.45)
VS(-1008.75) N/-S(-137.56) E/-W(1000.73)

#65 MD(6363.00) Inc(11.1) Azm(275.6) TVD(6263.84)
VS(-999.25) N/-S(-136.96) E/-W(991.25)

#66 MD(6458.00) Inc(19.2) Azm(271.9) TVD(6355.46)
VS(-974.47) N/-S(-135.56) E/-W(966.50)

#67 MD(6554.00) Inc(24.8) Azm(265.3) TVD(6444.46)
VS(-938.83) N/-S(-136.71) E/-W(930.64)

#68 MD(6650.00) Inc(31.7) Azm(264.6) TVD(6528.97)
VS(-894.11) N/-S(-140.77) E/-W(885.41)

#69 MD(6746.00) Inc(40.0) Azm(261.3) TVD(6606.72)
VS(-839.18) N/-S(-147.85) E/-W(829.69)

#70 MD(6842.00) Inc(47.6) Azm(263.6) TVD(6675.98)
VS(-774.33) N/-S(-156.48) E/-W(763.89)

#71 MD(6937.00) Inc(52.9) Azm(272.8) TVD(6736.80)
VS(-701.93) N/-S(-158.50) E/-W(691.06)

#72 MD(7033.00) Inc(62.6) Azm(274.3) TVD(6787.95)
VS(-620.86) N/-S(-153.43) E/-W(610.12)

#73 MD(7129.00) Inc(73.6) Azm(271.7) TVD(6823.67)
VS(-531.96) N/-S(-148.86) E/-W(521.30)
#121 MD(11708.00) Inc(92.5) Azm(268.7) TVD(6833.70)
VS(4025.82) N/-S(-143.84) E/-W(-4052.24)