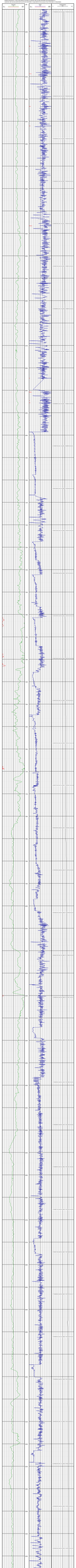

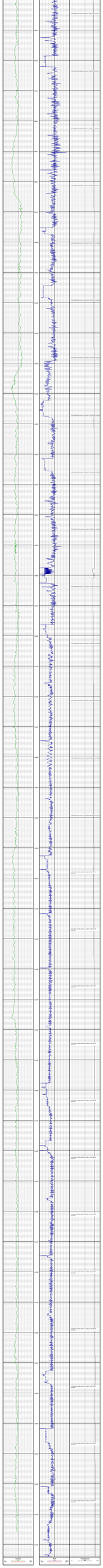

Extraction_Leonard 4N_Cyclone 37

MD
5":100'

Company: Extraction Oil and Gas
Well Name: Leonard 4N
API: 05-123-45046
County/Parish: Weld
State: CO
Country: USA
Job number:
Field: Wattenberg
Rig Id: Cyclone 37
Survey Company: Integrity Directional Inc.
Day Hand Josh Mahoney
Night Hand Andy King

Log measurements: Gamma
Depth measured from: Drill Floor ft
Maximum temperature: 250.7

	Depth	Date
Start:	1525 ft	09/15/17
End:	12170 ft	09/17/17

Casing	Depth	Size
Surface:	1533 ft	9.625"
Intermediate:		

Mud Type: OBM
Density: 9.7
Viscosity: 39
Rm: NA **Rmf:** NA **Rmc:** NA

Elevations
KB: 28 ft
GL: 5002 ft
DF: 5030 ft

Run	Bit Size	Offsets		Depths		Dates	
		Gamma	Survey	Start	End	Start	End
1	8.50"	33.44 ft	59.00 ft	1532 ft	10537 ft	09/15/17	09/16/17
2	8.50"	38.38 ft	65.00 ft	10537 ft	12170 ft	09/16/17	09/17/17
3							
4							
5							
6							
7							
8							
9							
10							

Integrity Directional Inc. 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.

9650
9700
9750
9800
9850
9900
9950
10000
10050
10100
10150
10200
10250
10300
10350
10400
10450
10500
10550
10600
10650
10700
10750
10800
10850
10900
10950
11000
11050
11100
11150
11200
11250
11300
11350
11400
11450
11500
11550
11600
11650
11700
11750
11800
11850
11900
11950
12000
12050
12100
12150
#85 MD(9623.00) Inc(91.0) Azm(90.1) TVD(7504.24) DLS(2.4)
#86 MD(9718.00) Inc(88.0) Azm(92.6) TVD(7505.10) DLS(4.1)
#87 MD(9812.00) Inc(88.8) Azm(91.1) TVD(7507.72) DLS(1.8)
#88 MD(9907.00) Inc(88.8) Azm(92.3) TVD(7509.68) DLS(1.3)
#89 MD(10002.00) Inc(88.1) Azm(92.2) TVD(7512.22) DLS(0.8)
#90 MD(10096.00) Inc(91.3) Azm(90.8) TVD(7512.71) DLS(3.7)
#91 MD(10191.00) Inc(91.9) Azm(90.0) TVD(7510.05) DLS(1.1)
#92 MD(10286.00) Inc(92.3) Azm(89.7) TVD(7506.55) DLS(0.5)
#93 MD(10380.00) Inc(89.1) Azm(91.0) TVD(7505.40) DLS(3.7)
#94 MD(10474.00) Inc(90.8) Azm(90.2) TVD(7505.48) DLS(2.0)
#95 MD(10569.00) Inc(87.8) Azm(90.5) TVD(7506.63) DLS(3.2)
#96 MD(10663.00) Inc(89.4) Azm(89.7) TVD(7508.93) DLS(1.9)
#97 MD(10757.00) Inc(90.4) Azm(89.7) TVD(7509.09) DLS(1.1)
#98 MD(10852.00) Inc(90.4) Azm(89.8) TVD(7508.41) DLS(0.2)
#99 MD(10947.00) Inc(91.6) Azm(88.8) TVD(7506.74) DLS(1.6)
#100 MD(11041.00) Inc(89.6) Azm(90.3) TVD(7505.74) DLS(2.7)
#101 MD(11135.00) Inc(89.5) Azm(88.8) TVD(7506.48) DLS(1.6)
#102 MD(11229.00) Inc(89.6) Azm(86.5) TVD(7507.22) DLS(2.4)
#103 MD(11324.00) Inc(90.5) Azm(85.9) TVD(7507.12) DLS(1.1)
#104 MD(11418.00) Inc(90.3) Azm(89.7) TVD(7506.48) DLS(4.0)
#105 MD(11512.00) Inc(89.3) Azm(89.7) TVD(7506.81) DLS(1.0)
#106 MD(11606.00) Inc(90.1) Azm(89.7) TVD(7507.30) DLS(0.8)
#107 MD(11701.00) Inc(90.1) Azm(90.5) TVD(7507.13) DLS(0.8)
#108 MD(11795.00) Inc(90.7) Azm(90.6) TVD(7506.46) DLS(0.7)
#109 MD(11890.00) Inc(90.2) Azm(90.9) TVD(7505.70) DLS(0.6)
#110 MD(11984.00) Inc(89.0) Azm(91.6) TVD(7506.37) DLS(1.5)
#111 MD(12079.00) Inc(90.6) Azm(91.0) TVD(7506.71) DLS(1.8)
Gamma
API
0.0
150.0
150.0
300.0
ROP
ft/hr
0.0
1000.0
1000.0
2000.0
Temperature
degF
0.0
300.0