



2" = 100' FEET MD

COMPANY : TRIO PETROLRUM LLC  
WELL : HH-4  
FIELD : HANGMAN HOLLOW  
COUNTY : MONTEREY  
STATE : CALIFORNIA  
COUNTRY : US  
LWI :

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WELL LOCATION  
LAT: 35°59'39.974"N LONG: 120°51'41.634"W  
N: 1886431.79 Ft E: 6011000.61 Ft  
SEC: 23 TWP: 22S RANGE: 10E

OTHER SERVICES

DIRECTIONAL

ROP

CONDUCTIVITY  
FEET

DEPTH REF. : RKB  
REF. HEIGHT : 10.000 Ft  
GROUND LEVEL : 717.930 Ft  
RKB to Ground Level  
G.I. to MEAN SEA LEVEL

BOREHOLE RECORD

DEVIATION RECORD

HOLE SIZE in	FROM Ft	TO Ft	INCLINATION deg	FROM Ft	TO Ft
11	0	2611	0-1	0	1000
7 7/8	2611	3812	1-96 (+/-1)	1000	2716
CASING RECORD					
CASING SIZE in	FROM Ft	TO Ft			
8 5/8	0	2592			

DRILLING CO. : ENSIGN

RIG : 509

LWD UNIT NO. : LWD 6 DISTRICT : BAKERSFIELD

SPUD DATE : 11-22-2013

LWD START DATE : 11-22-2013 DEPTH : 261 Ft

LWD END DATE : 11/26/13 DEPTH : 2716 Ft

TOTAL DEPTH : 2716 Ft

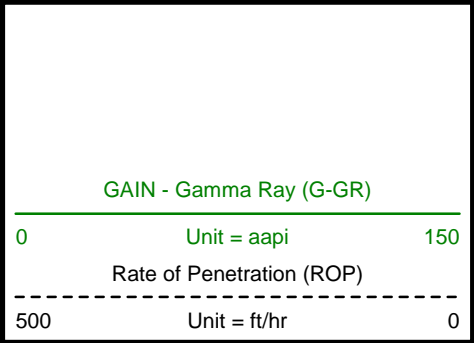
Run Data

RUN NUMBER	1	2			
START DATE	11/22/13	11/25/13			
START TIME	05:00	17:00			
END DATE	11/24/13	11/26/13			
END TIME	08:00	06:00			
DEPTH IN (ft)	261	2611			
DEPTH OUT (ft)	2611	2635			
LOG TOP (ft)	265	2611			
LOG BOTTOM (ft)	2611	2611			
HOLE SIZE (in)	11	7 7/8			
MUD DATA @ (ft)	1538	2630			
MUD TYPE	LSND	GEOZAN			
DENSITY (lb / gal)	9.0	8.5			
VISCOSITY (s / qt)	47	38			
pH	8	8.5			
FLUID LOSS (cm3 / 30)	5.7	15.3			
SALINITY (ppm)	550	17200			
Rm (ohmm @ deg F)	-	-			
Rmf (ohmm @ deg F)	-	-			
MAX TEMP (deg F)	113	103			
Rm @ MAX TEMP (ohmm)	-	-			
LWD ENGINEER #1	J. BIHM	J. BIHM			
LWD ENGINEER #2	L. CLEVINGER	L. CLEVINGER			
LWD ENGINEER #3	N. LUTU	N. LUTU			
LOG WITNESS #1					
LOG WITNESS #2					

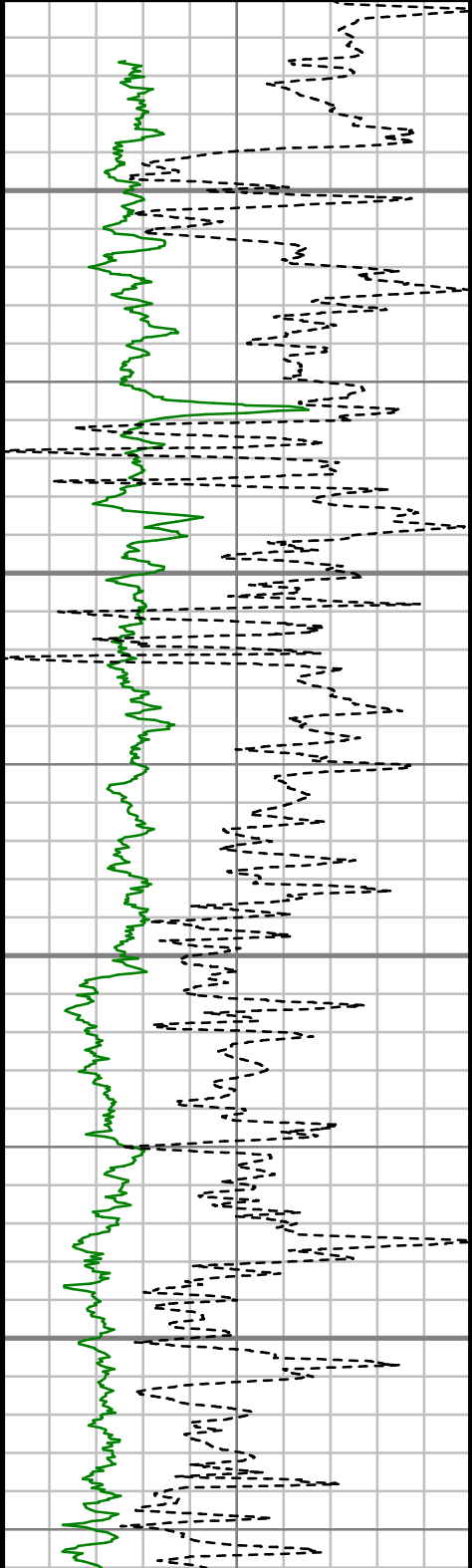
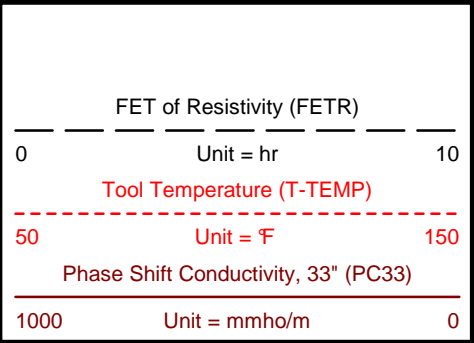
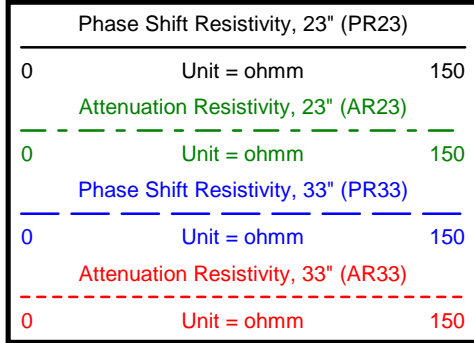


All interpretations are opinions based on inferences from electrical and other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions as set out in our current price schedule.

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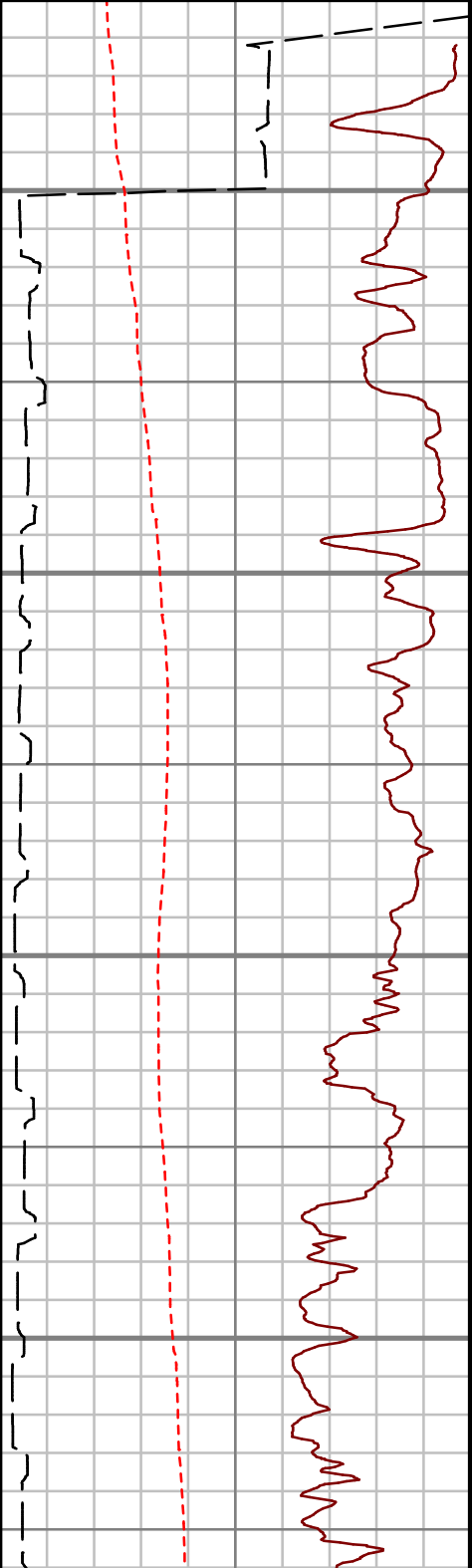
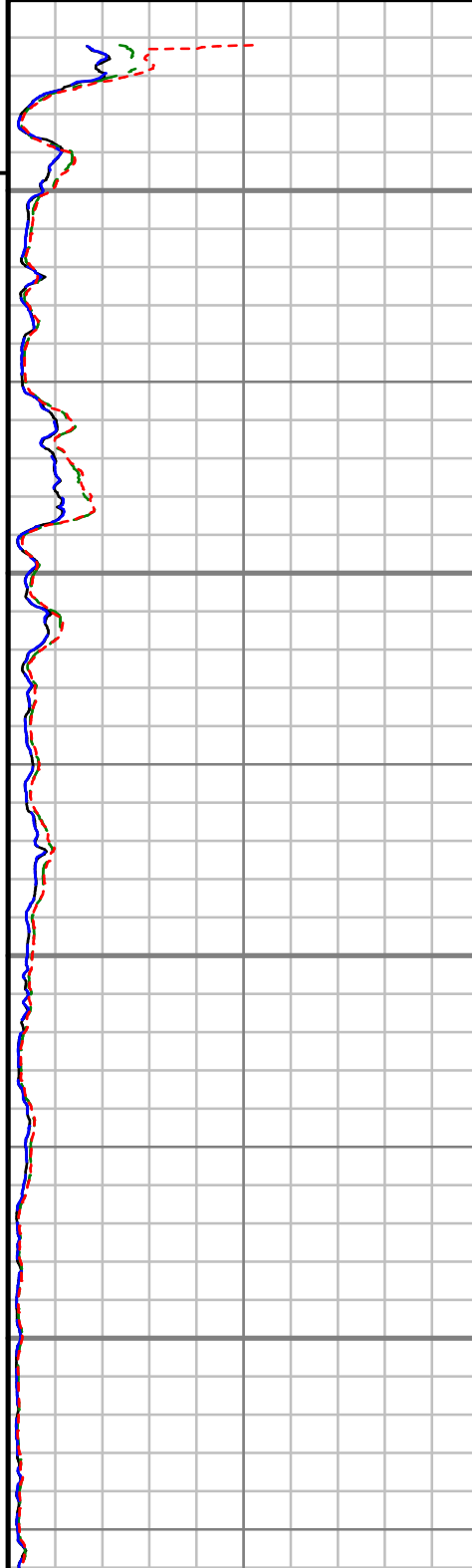


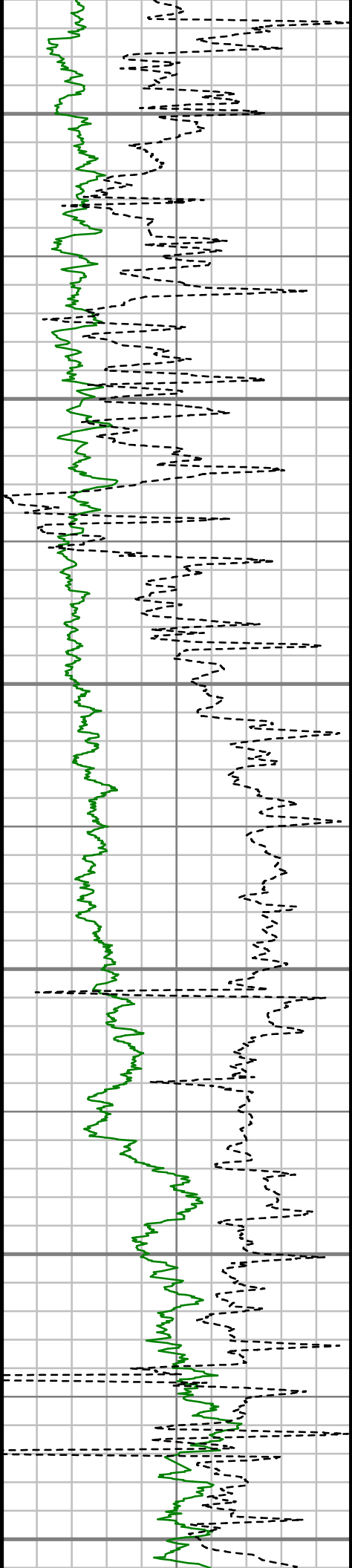
MEASURED DEPTH  
 1:600 (ft)



**RUN #1 300'**

300  
 400  
 500  
 600





700

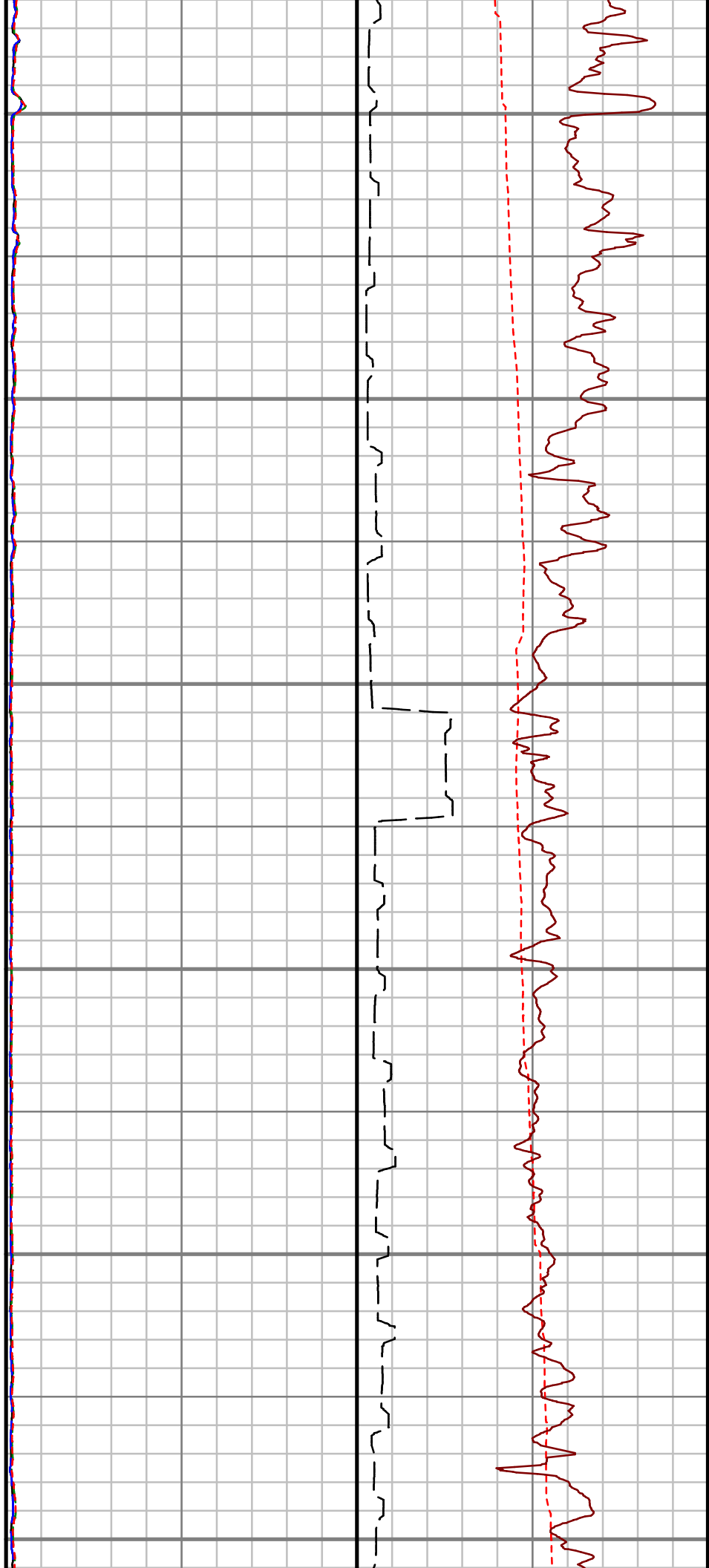
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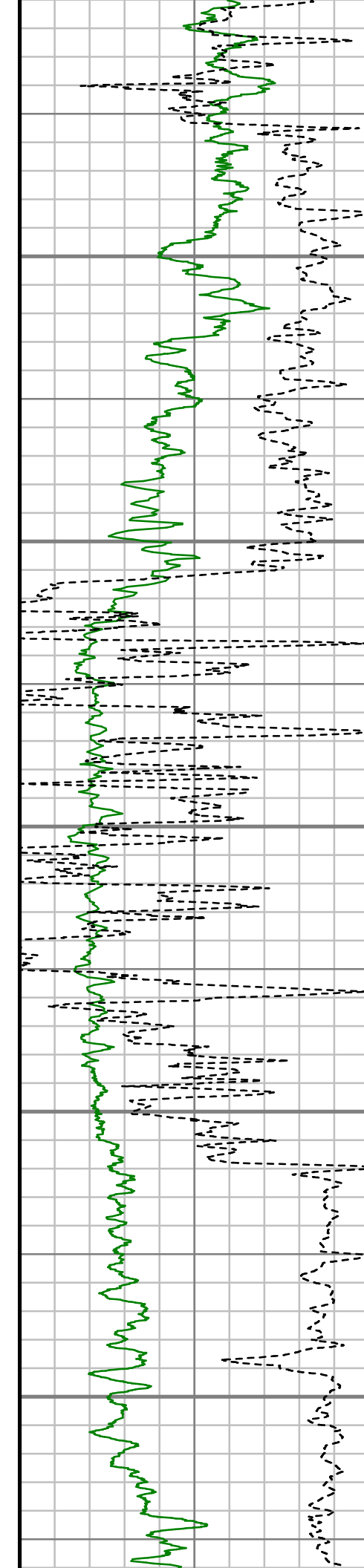
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1000

1100

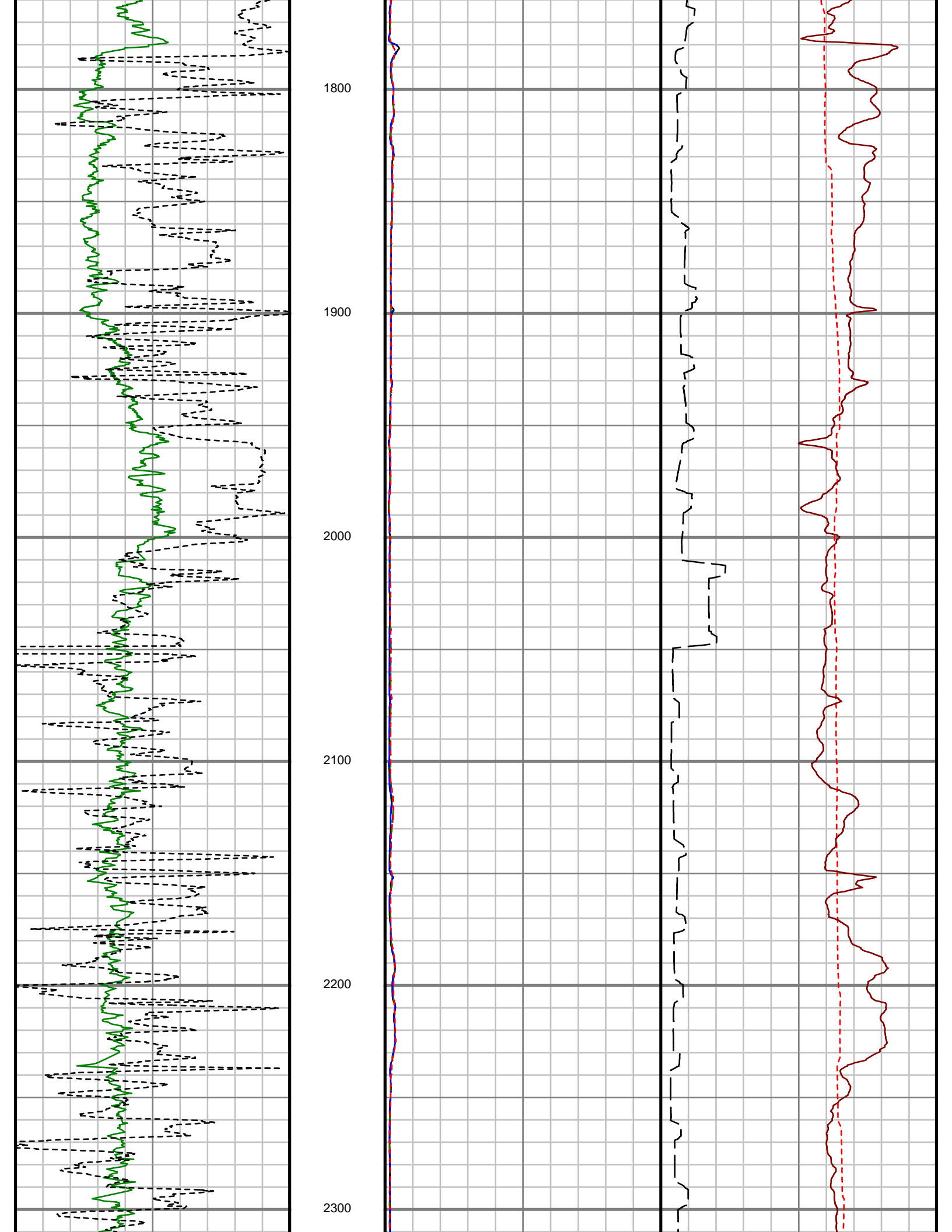
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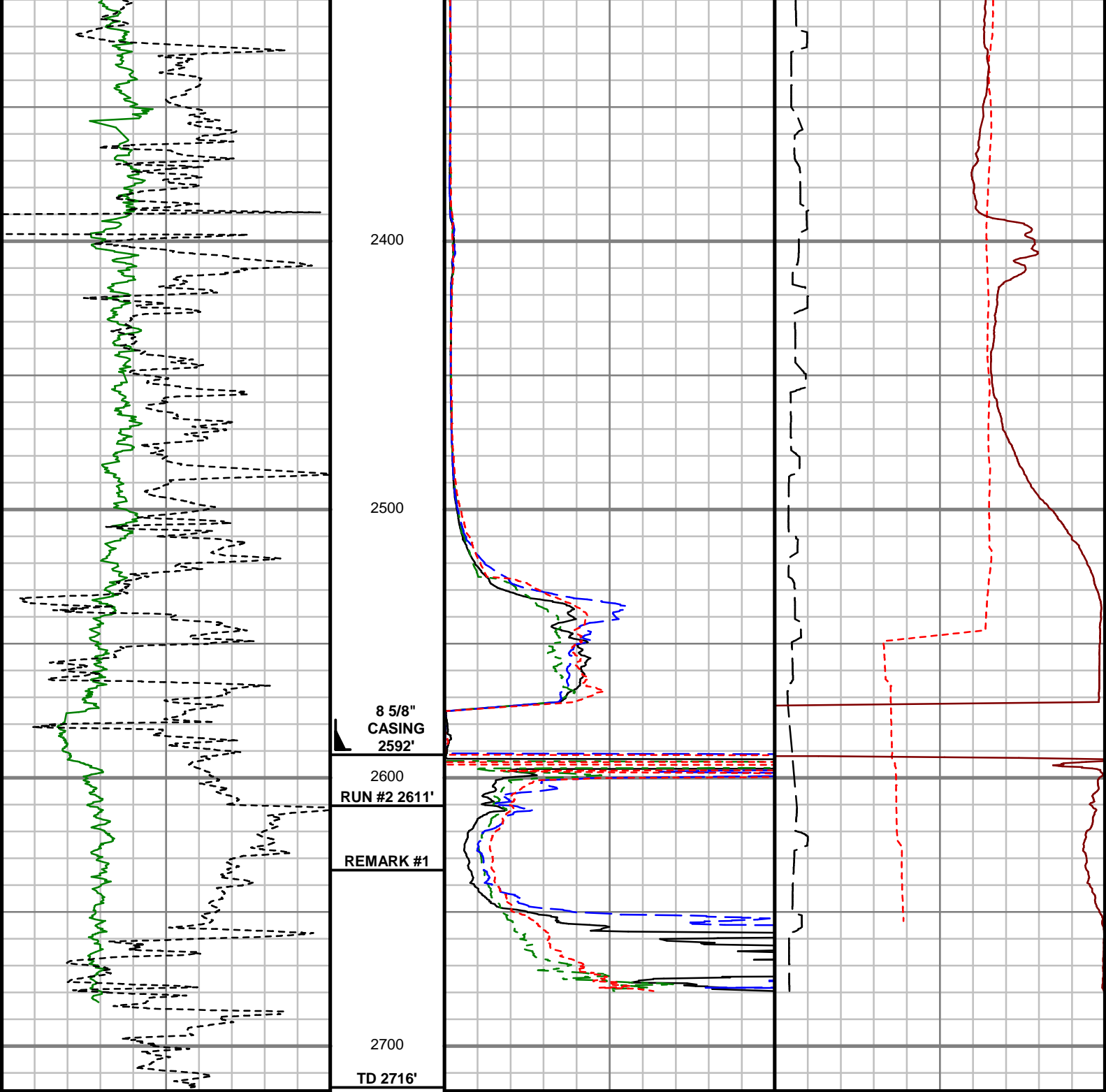




1300  
1400  
1500  
1600  
1700







8 5/8"  
CASING  
2592'

2600  
RUN #2 2611'

REMARK #1

2700  
TD 2716'

Rate of Penetration (ROP)		
500	Unit = ft/hr	0
GAIN - Gamma Ray (G-GR)		
0	Unit = aapi	150

MEASURED DEPTH  
1:600 (ft)

Attenuation Resistivity, 33" (AR33)		
0	Unit = ohmm	150
Phase Shift Resistivity, 33" (PR33)		
0	Unit = ohmm	150
Attenuation Resistivity, 23" (AR23)		
0	Unit = ohmm	150
Phase Shift Resistivity, 23" (PR23)		
0	Unit = ohmm	150

Phase Shift Conductivity, 33" (PC33)		
1000	Unit = mmho/m	0
Tool Temperature (T-TEMP)		
50	Unit = F	150
FET of Resistivity (FETR)		
0	Unit = hr	10

<b>Customer Name:</b>	TRIO PETROLRUM LLC
<b>Site Name:</b>	SECTION 23
<b>Well Name:</b>	HH-4
<b>Survey:</b>	HH-4
<b>Survey Date:</b>	11/22/2013
<b>Magnetic Declination:</b>	13.28 deg
<b>Grid Correction:</b>	1.11 deg
<b>North Reference:</b>	Grid North
<b>Calculation Method:</b>	Minimum Curvature
<b>Section (VS) Ref:</b>	0.00N (ft), 0.00E (ft), 341.22Azim (deg)

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid
104.00	0.27	206.99	104.00	-0.17	-0.22	-0.11	0.26
229.00	0.17	308.01	229.00	-0.22	-0.37	-0.39	0.28
322.00	0.35	295.93	322.00	0.09	-0.16	-0.75	0.20
416.00	0.10	288.20	416.00	0.34	-0.01	-1.08	0.26
509.00	0.64	221.70	509.00	0.13	-0.38	-1.51	0.65
602.00	0.73	277.09	601.99	0.13	-0.69	-2.44	0.69
696.00	0.24	13.00	695.99	0.57	-0.42	-2.99	0.85

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
789.00	0.27	28.08	788.99	0.88	-0.03	-2.85	0.08
881.00	0.50	108.29	880.98	0.79	0.03	-2.36	0.57
974.00	0.34	77.37	973.98	0.52	-0.04	-1.71	0.29
1034.00	1.14	273.09	1033.98	0.72	0.04	-2.13	2.46
1064.00	2.19	277.28	1063.97	1.08	0.12	-3.00	3.50
1094.00	4.10	277.11	1093.92	1.80	0.33	-4.63	6.36
1125.00	6.02	285.03	1124.80	3.19	0.89	-7.30	6.60
1154.00	7.70	289.44	1153.59	5.24	1.93	-10.60	6.07
1184.00	8.19	290.76	1183.30	7.84	3.36	-14.49	1.74
1215.00	8.76	290.02	1213.96	10.73	4.95	-18.78	1.86
1246.00	10.03	288.64	1244.55	13.85	6.62	-23.55	4.17
1276.00	10.99	286.67	1274.04	17.09	8.27	-28.77	3.42
1307.00	12.16	284.13	1304.41	20.58	9.92	-34.76	4.10
1337.00	14.01	282.02	1333.63	24.16	11.45	-41.38	6.37
1368.00	16.44	280.54	1363.54	28.23	13.03	-49.36	7.95
1399.00	19.02	281.57	1393.07	32.93	14.84	-58.62	8.38
1429.00	21.23	282.53	1421.23	38.22	17.00	-68.72	7.45
1460.00	22.94	283.63	1449.96	44.37	19.64	-80.07	5.68
1490.00	24.23	282.50	1477.45	50.70	22.35	-91.76	4.57
1521.00	26.52	282.93	1505.46	57.65	25.28	-104.72	7.42



<b>MD</b> ft	<b>Inc</b> deg	<b>Azim</b> deg	<b>TVD</b> ft	<b>VS</b> ft	<b>+N/-S</b> ft	<b>+E/-W</b> ft	<b>DLS</b> 7100ft
1552.00	29.46	283.34	1532.83	65.34	28.59	-118.88	9.50
1582.00	31.40	284.92	1558.70	73.60	32.30	-133.62	6.99
1613.00	32.58	285.14	1584.99	82.74	36.56	-149.48	3.81
1643.00	34.73	286.15	1609.96	92.14	41.05	-165.48	7.43
1673.00	36.34	289.16	1634.37	102.50	46.35	-182.09	7.91
1704.00	37.23	293.70	1659.21	114.48	53.13	-199.35	9.23
1735.00	38.71	299.03	1683.65	128.00	61.61	-216.42	11.59
1765.00	39.98	303.24	1706.85	142.55	71.45	-232.69	9.86
1796.00	41.59	306.29	1730.33	158.84	83.00	-249.32	8.26
1828.00	43.78	308.56	1753.85	176.87	96.19	-266.54	8.37
1859.00	45.05	309.87	1775.99	195.27	109.90	-283.34	5.03
1890.00	46.36	311.98	1797.64	214.43	124.44	-300.11	6.46
1921.00	47.04	314.02	1818.90	234.31	139.83	-316.60	5.28
1952.00	48.54	316.62	1839.73	254.96	156.16	-332.74	7.86
1983.00	50.61	319.29	1859.83	276.64	173.68	-348.53	9.36
2015.00	53.26	322.01	1879.56	300.23	193.16	-364.50	10.64
2046.00	54.58	324.75	1897.82	324.07	213.27	-379.44	8.32
2077.00	56.57	326.79	1915.35	348.72	234.41	-393.81	8.39
2108.00	59.20	328.52	1931.83	374.24	256.59	-407.85	9.73

<b>MD</b> ft	<b>Inc</b> deg	<b>Azim</b> deg	<b>TVD</b> ft	<b>VS</b> ft	<b>+N/-S</b> ft	<b>+E/-W</b> ft	<b>DLS</b> 7100ft
2139.00	61.76	330.24	1947.10	400.64	279.81	-421.59	9.57
2170.00	64.16	332.75	1961.20	427.85	304.07	-434.76	10.58
2201.00	65.67	333.62	1974.34	455.65	329.13	-447.42	5.49
2233.00	67.79	335.32	1986.98	484.84	355.65	-460.09	8.25
2264.00	69.51	336.82	1998.27	513.59	382.04	-471.79	7.14
2295.00	71.15	339.07	2008.70	542.73	409.10	-482.75	8.64
2326.00	73.44	341.37	2018.13	572.26	436.88	-492.74	10.22
2357.00	76.72	343.55	2026.11	602.20	465.44	-501.76	12.57
2388.00	79.97	345.34	2032.37	632.50	494.68	-509.90	11.91
2419.00	82.60	346.83	2037.07	663.03	524.42	-517.27	9.71
2450.00	84.63	347.98	2040.52	693.66	554.49	-523.99	7.53
2481.00	85.29	349.52	2043.24	724.27	584.77	-530.01	5.38
2512.00	85.32	350.74	2045.78	754.79	615.21	-535.30	3.92
2592.00	85.65	354.26	2052.08	832.99	694.27	-545.71	4.41
2623.00	90.13	355.67	2053.22	863.07	725.12	-548.42	15.16
2654.00	96.02	357.52	2051.56	892.91	756.01	-550.26	19.91



PROPAGATION RESISTIVITY  
GAMMA RAY

2" = 100' FEET MD