Century Wireline Services

GAMMA - CALIPER
THRU PIPE DENSITY
DHGH-14-37

OTHER SERVICES:
NEUTRON

COMPANY :ATRUM COAL
WELL :DHGH-14-37
FIELD :GROUNDHOG
COUNTRY :CANADA
PROVINCE :BRITISH COLUMBIA

LSD :GROUNDHOG
SECTION :N/A
TOWNSHIP :N/A
RANGE :N/A
LICENSE NO. :N/A
UNIQUE WELL ID. :N/A

PERMANENT DATUM :GL
ELEVATION KB :N/A
LOG MEASURED FROM :GL
ELEVATION DF :N/A
DRL MEASURED FROM :GL
ELEVATION GL :N/A

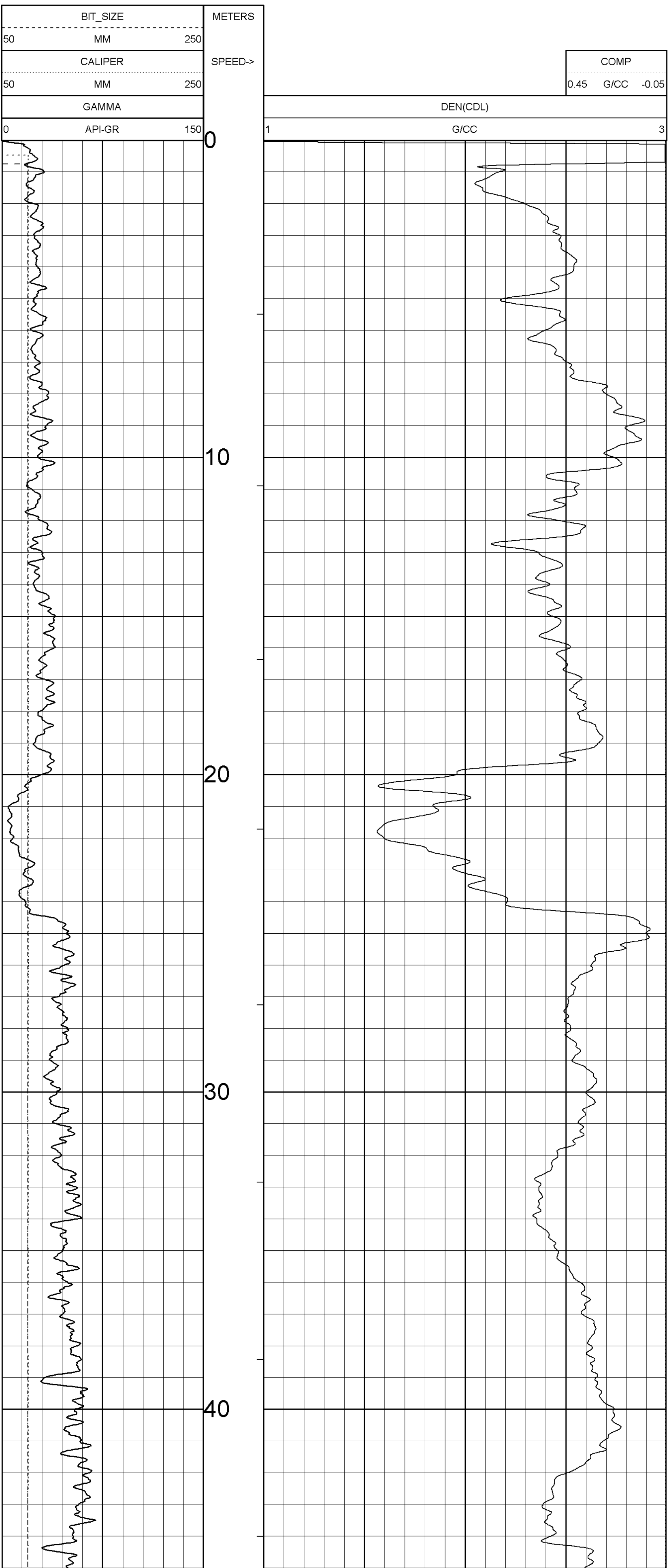
DATE :08/15/14
RIG NUMBER :
DEPTH DRILLER :350.21
LOGGER TD :350.23
BIT SIZE :76.20
ARRIVAL TIME :9:00
LOG TOP :-1.48
DEPARTURE TIME : 14:30
LOG BOTTOM :350.23
CIRC STOPPED :N/A
CASING LOGGER :25.91
CASING DRILLER :25.91
CASING TYPE :STEEL
BOREHOLE FLUID :WATER
RM TEMPERATURE :N/A
MUD RES :N/A
MUD WEIGHT :1.00
WITNESSED BY :N/A
RECORDED BY :T. NEAL
REMARKS 1 :VERTICAL
REMARKS 2 :IN-PIPE

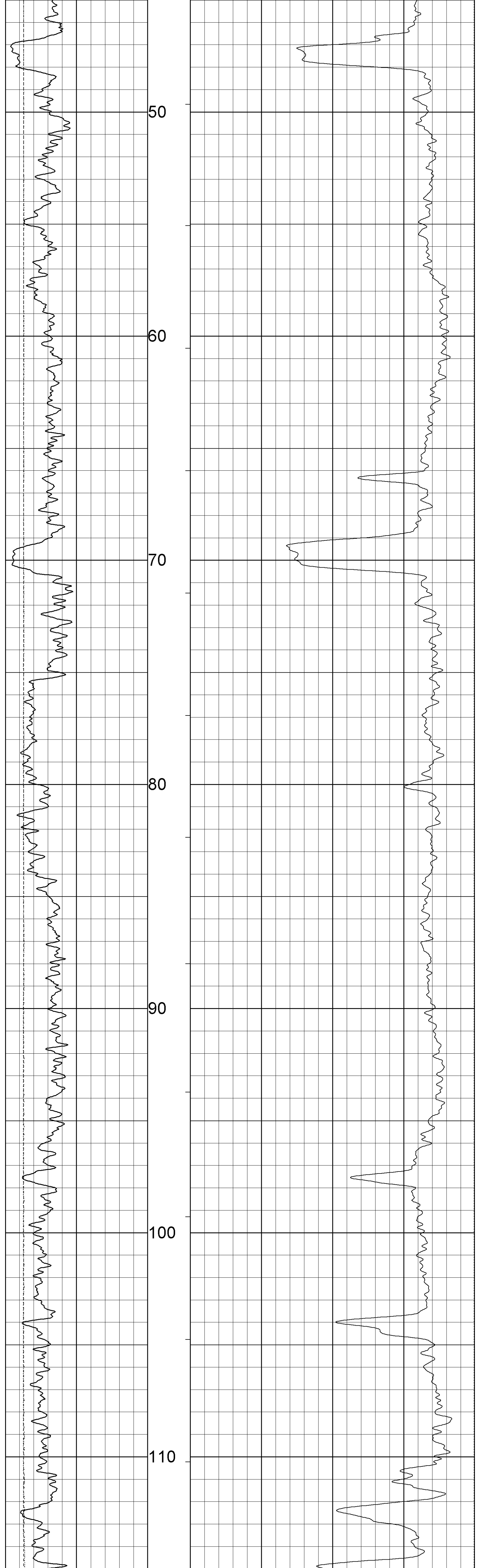
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

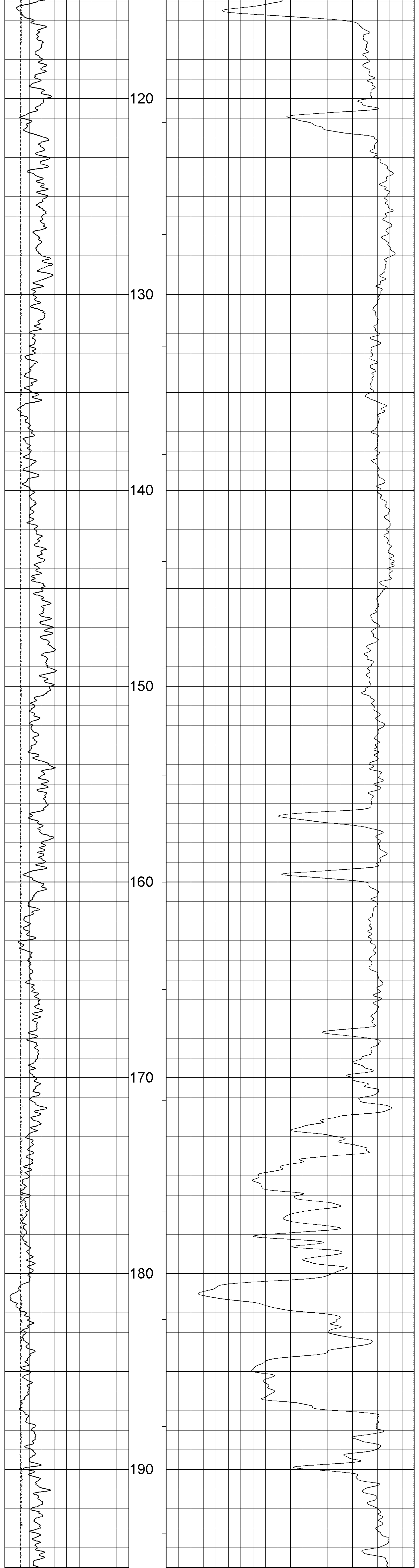
DENSITY LOG 1:100 (THRU-PIPE) DHGH-14-37 08/15/14

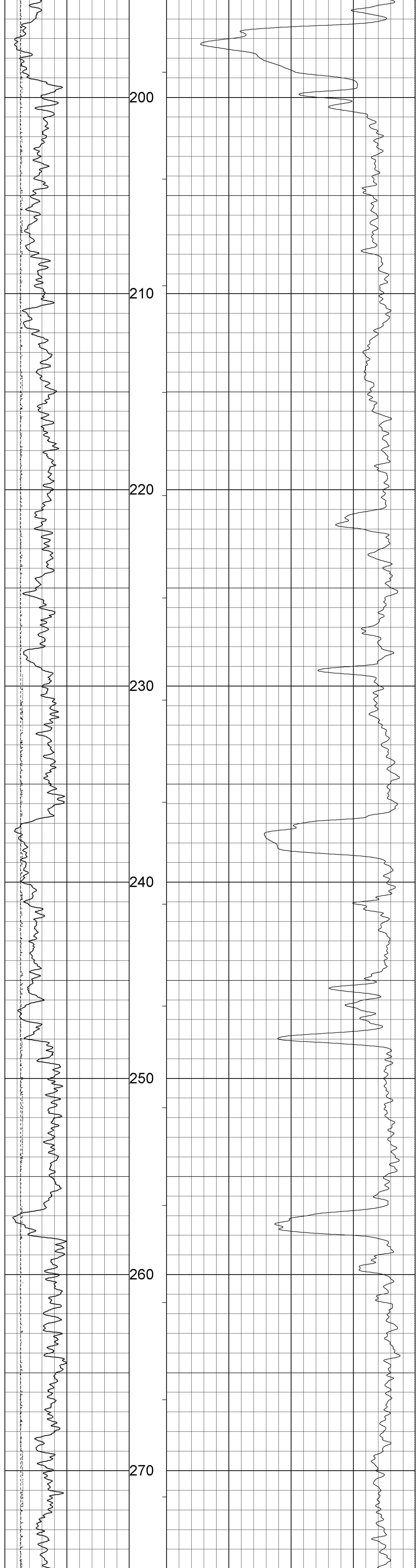
LOG PARAMETERS

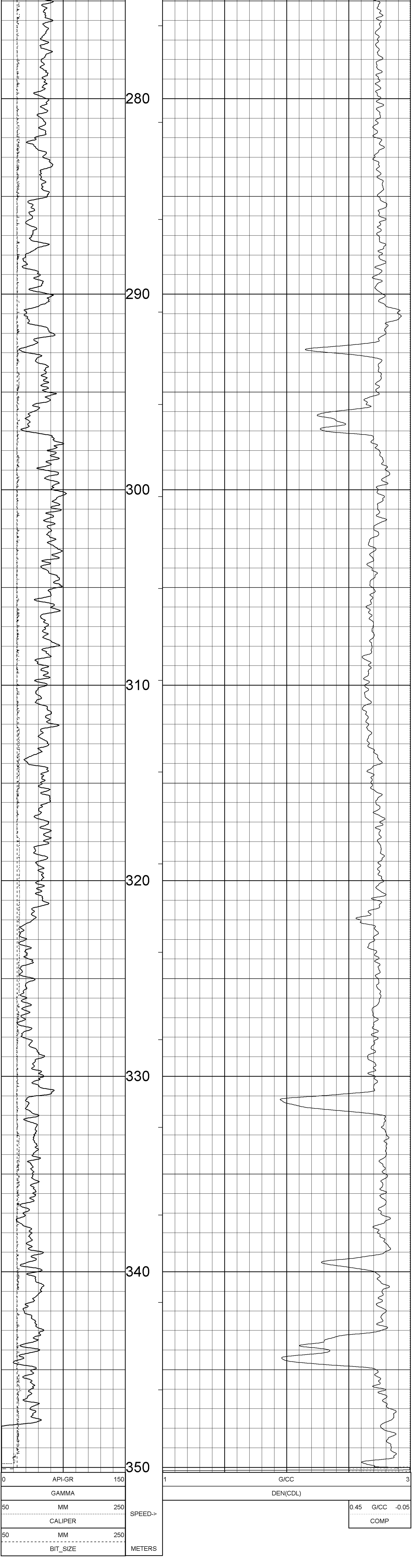
MATRIX DENSITY : 2.65	NEUTRON MATRIX : SANDSTONE	MATRIX DELTA T : 177
MAGNETIC DECL : 19.5	ELECT. CUTOFF : 75000	BIT SIZE : 76.20
PRESENTATION NAME/DATE = Atrum_9239_(IN-PIPE)_(100scale).0 06/12/2014		VERSION = 3.64KX











DENSITY LOG 1:100 (THRU-PIPE) DHGH-14-37 08/15/14

LOG PARAMETERS

MATRIX DENSITY : 2.65
NEUTRON MATRIX : SANDSTONE
MATRIX DELTA T : 177
MAGNETIC DECL : 19.5
ELECT. CUTOFF : 75000
BIT SIZE : 76.20
PRESENTATION NAME/DATE = Atrum_9239_(IN-PIPE)_(100scale).0 06/12/2014
VERSION = 3.64KX

```
    TOOL CALIBRATION  DHGH-14-37 08/15/14 10:55
    TOOL  9239C      TM VERSION 2025
    SERIAL NUMBER   2477
     DATE       TIME                 SENSOR       STANDARD                      RESPONSE
1    Aug15,14   16:56:47             GAMMA        0.100   [API-GR ]             4.000     [CPS]
     Aug15,14   16:56:47             GAMMA      545.000   [API-GR ]           559.000     [CPS]
2    Jun14,13   08:36:44             VOLTAGE     26.400   [MV     ]          8050.000     [CPS]
     Jun14,13   08:36:44             VOLTAGE    229.200   [MV     ]         35258.000     [CPS]
3    Mar21,14   13:07:48             CALIPER    100.000   [MM     ]        168300.000     [CPS]
     Mar21,14   13:07:48             CALIPER    200.000   [MM     ]        423180.000     [CPS]
4    Mar21,14   13:58:29             DEN(LS)      1.620   [G/CC   ]          8686.000     [CPS]
     Mar21,14   13:58:29             DEN(LS)      2.612   [G/CC   ]          1205.000     [CPS]
5    Jun16,14   20:21:35             DEN(SS)      1.620   [G/CC   ]         31905.000     [CPS]
     Jun16,14   20:21:35             DEN(SS)      2.580   [G/CC   ]         14021.000     [CPS]
6    Jun14,13   07:59:07             CALIPERL   Default   [CPS]               Default     [CPS]
     Jun14,13   07:59:07             CALIPERL   Default   [CPS]               Default     [CPS]
7    Mar21,14   13:27:18             CURRENT     26.400   [UA     ]          6623.000     [CPS]
     Mar21,14   13:27:18             CURRENT    229.200   [UA     ]         23884.000     [CPS]
8    Jun14,13   07:59:07             F          Default   [CPS]
9    Jun14,13   07:59:07             X          Default   [CPS]
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