Century WIRELINE SERVICES

GAMMA - CALIPER COMPENSATED DENSITY

DH-14-01

COMPANY :ATRUM COAL
WELL :DH-14-01
FIELD :GROUND HOG
COUNTRY :CANADA
PROVINCE :BRITISH COLUMBIA

OTHER SERVICES:
SONIC
NEUTRON
DIP

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

PERMANENT DATUM :GL
LOG MEASURED FROM :GL
DRL MEASURED FROM :GL

ELEVATION KB :N/A
ELEVATION DF :N/A
ELEVATION GL :N/A

DATE :04/06/14
DEPTH DRILLER :101.49
BIT SIZE :97.00
LOG TOP :4.51
LOG BOTTOM :100.89
CASING LOGGER :6.52
CASING DRILLER :6.10
CASING TYPE :SURFACE
BOREHOLE FLUID :H2O
RM TEMPERATURE :N/A
MUD RES :N/A
MUD WEIGHT :1.00
WITNESSED BY :HAYDEN MCKENZIE
RECORDED BY :JSTAPELBERG
REMARKS 1 :ATV DATA COMPROMISED DUE TO B/H CONDITIONS
REMARKS 2 :DENSITY LOGGED FROM TD TO 4M TOOL GOT

RIG NUMBER #2
LOGGER TD :101.13
ARRIVAL TIME :19:30
DEPARTURE TIME :19:00
CIRC STOPPED :N/A

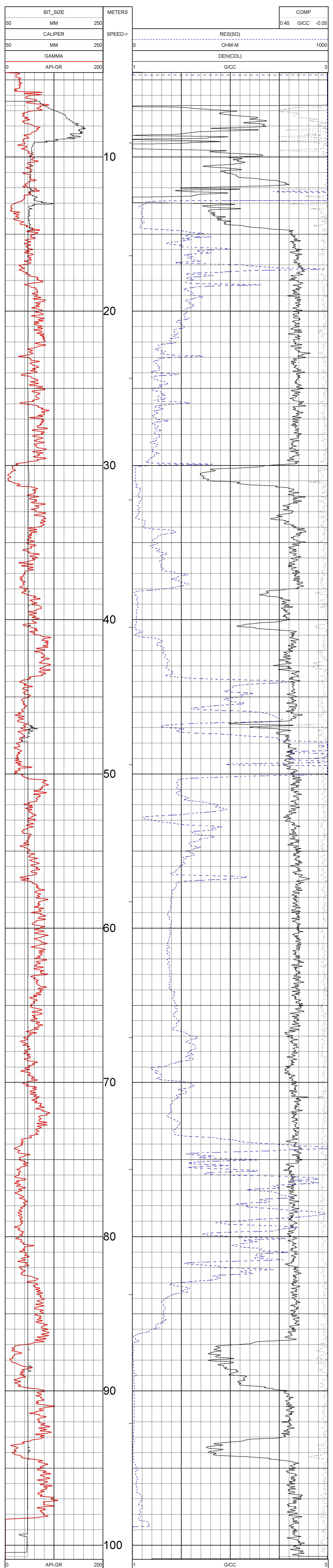
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

DENSITY LOG 1:100 OPEN HOLE DH-14-01 04/06/14

LOG PARAMETERS

MATRIX DENSITY : 2.65 NEUTRON MATRIX : SANDSTONE MATRIX DELTA T : 177
MAGNETIC DECL : 19.50 ELECT. CUTOFF : 75000 BIT SIZE : 97.00
PRESENTATION NAME/DATE = Atrum_9239.0 04/07/2014 VERSION = 3.64LD

BIT_SIZE (50 MM 250)	METERS		COMP (0.45 G/CC -0.05)
CALIPER (50 MM 250)	SPEED->	RES(SG) (0 OHM-M 1000)	
GAMMA (0 API-GR 200)		DEN(CDL) (1 G/CC 3)	



GAMMA 0 API-GR 200 / CALIPER 50 MM 250 / BIT_SIZE 50 MM 250 / SPEED-> / METERS / DEN(CDL) 1 G/CC 3 / RES(SG) 0 OHM-M 1000 / COMP 0.45 G/CC -0.05

DENSITY LOG 1:100 OPEN HOLE DH-14-01 04/06/14

LOG PARAMETERS

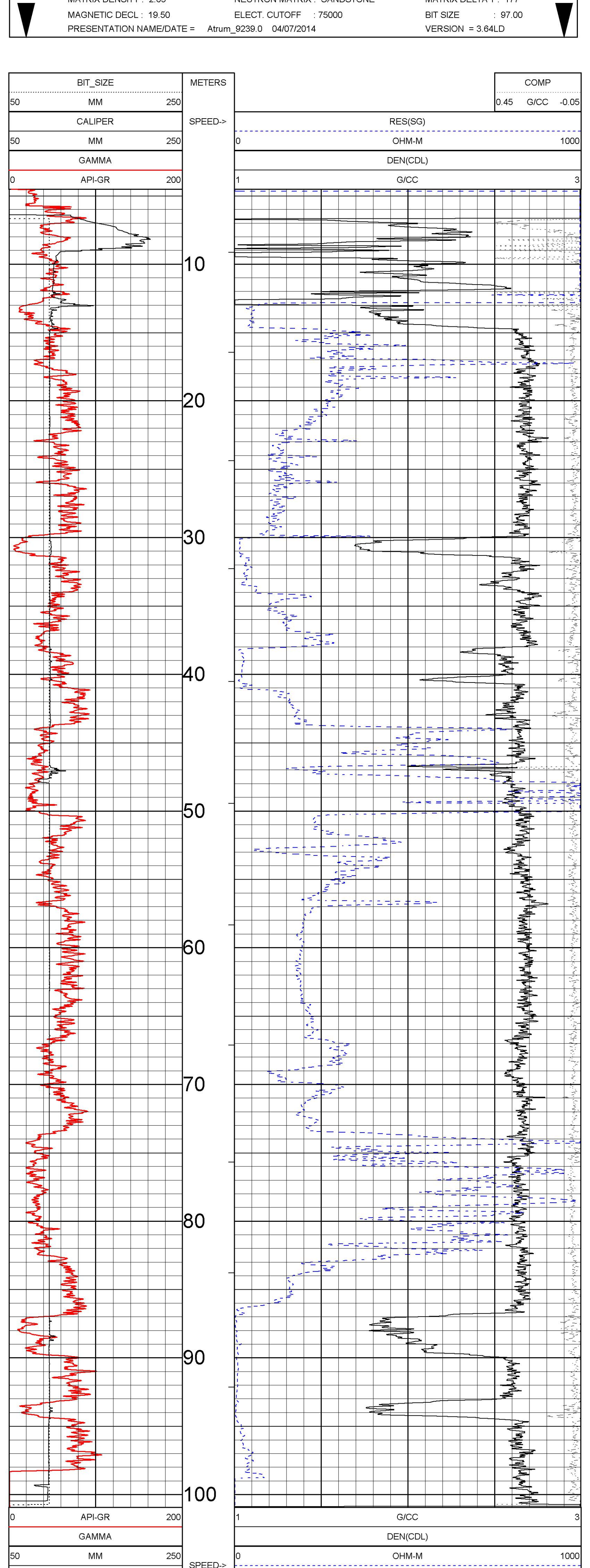
MATRIX DENSITY : 2.65 NEUTRON MATRIX : SANDSTONE MATRIX DELTA T : 177
MAGNETIC DECL : 19.50 ELECT. CUTOFF : 75000 BIT SIZE : 97.00
PRESENTATION NAME/DATE = Atrum_9239.0 04/07/2014 VERSION = 3.64LD

DENSITY LOG 1:200 OPEN HOLE DH-14-01 04/06/14

LOG PARAMETERS

MATRIX DENSITY : 2.65 NEUTRON MATRIX : SANDSTONE MATRIX DELTA T : 177
MAGNETIC DECL : 19.50 ELECT. CUTOFF : 75000 BIT SIZE : 97.00
PRESENTATION NAME/DATE = Atrum_9239.0 04/07/2014 VERSION = 3.64LD

BIT_SIZE 50 MM 250 / CALIPER 50 MM 250 / GAMMA 0 API-GR 200 / METERS / SPEED-> / COMP 0.45 G/CC -0.05 / RES(SG) 0 OHM-M 1000 / DEN(CDL) 1 G/CC 3



GAMMA 50 MM 250 CALIPER 50 MM 250 BIT_SIZE / SPEED-> / METERS / DEN(CDL) 0 OHM-M 1000 RES(SG) / 0.45 G/CC -0.05 COMP

DENSITY LOG 1:200 OPEN HOLE DH-14-01 04/06/14

LOG PARAMETERS

MATRIX DENSITY : 2.65 NEUTRON MATRIX : SANDSTONE MATRIX DELTA T : 177
MAGNETIC DECL : 19.50 ELECT. CUTOFF : 75000 BIT SIZE : 97.00
PRESENTATION NAME/DATE = Atrum_9239.0 04/07/2014 VERSION = 3.64LD

TOOL CALIBRATION DH-14-01 04/06/14 14:41
TOOL 9239C TM VERSION 2025
SERIAL NUMBER 2477

	DATE	TIME	SENSOR	STANDARD		RESPONSE	
1	Mar21,14	14:16:58	GAMMA	0.100	[API-GR]	4.000	[CPS]
	Mar21,14	14:16:58	GAMMA	545.000	[API-GR]	589.000	[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	Mar21,14	13:59:03	DEN(SS)	1.590	[G/CC]	31905.000	[CPS]
	Mar21,14	13:59:03	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]		