Century WIRELINE SERVICES

GAMMA - CALIPER THRU PIPE DENSITY DHGH-14-36

OTHER SERVICES: NEU, DIP


COMPANY	ATRUM COAL		
WELL	DHGH-14-36		
FIELD	GROUNDHOG		
COUNTRY	CANADA		
PROVINCE	BRITISH COLUMBIA		
LSD	N/A		
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	08/10/14	RIG NUMBER	1
DRILLER TD	221.88	LOGGER TD	221.78
BIT SIZE	97.00	ARRIVAL TIME	19:15
LOG TOP	0.00	DEPARTURE TIME	07:00
LOG BOTTOM	221.54	CIRC STOPPED	22:30
LOGGER CASING	24.38		
DRILLER CASING	24.38		
CASING TYPE	SURFACE		
BOREHOLE FLUID	H2O		
RM TEMPERATURE	N/A		
MUD RES	N/A		
MUD WEIGHT	1.01		
WITNESSED BY	H.MCKENZIE		
RECORDED BY	STAPELEBRG		
REMARKS 1			
REMARKS 2			

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

DENSITY TP 1:200 DHGH-14-36 08/10/14

LOG PARAMETERS

MATRIX DENSITY : 2.65
NEUTRON MATRIX : SANDSTONE
MATRIX DELTA T : 177
MAGNETIC DECL : 19.50
ELECT. CUTOFF : 99999
BIT SIZE : 97.00
PRESENTATION NAME/DATE = Atrum_9239_(IN-PIPE)_(200scale).0 06/12/2014
VERSION = 3.64LH



DENSITY TP 1:200 DHGH-14-36 08/10/14


LOG PARAMETERS

MATRIX DENSITY : 2.65
NEUTRON MATRIX : SANDSTONE
MATRIX DELTA T : 177
MAGNETIC DECL : 19.50
ELECT. CUTOFF : 99999
BIT SIZE : 97.00
PRESENTATION NAME/DATE = Atrum_9239_(IN-PIPE)_(200scale).0 06/12/2014
VERSION = 3.64LH

DENSITY TP 1:100 DHGH-14-36 08/10/14

LOG PARAMETERS

MATRIX DENSITY : 2.65
NEUTRON MATRIX : SANDSTONE
MATRIX DELTA T : 177
MAGNETIC DECL : 19.50
ELECT. CUTOFF : 99999
BIT SIZE : 97.00
PRESENTATION NAME/DATE = Atrum_9239_(IN-PIPE)_(100scale).0 06/12/2014
VERSION = 3.64LH



DENSITY TP 1:100 DHGH-14-36 08/10/14

LOG PARAMETERS

MATRIX DENSITY : 2.65
NEUTRON MATRIX : SANDSTONE
MATRIX DELTA T : 177
MAGNETIC DECL : 19.50
ELECT. CUTOFF : 99999
BIT SIZE : 97.00
PRESENTATION NAME/DATE = Atrum_9239_(IN-PIPE)_(100scale).0 06/12/2014
VERSION = 3.64LH

TOOL CALIBRATION DHGH-14-36 08/10/14 01:47
TOOL 9239C TM VERSION 2025
SERIAL NUMBER 2477

	DATE	TIME	SENSOR	STANDARD		RESPONSE	
1	Jul30,14	04:15:09	GAMMA	0.100	[API-GR]	0.000	[CPS]
	Jul30,14	04:15:09	GAMMA	545.000	[API-GR]	589.000	[CPS]
2	Jun14,13	09:36:44	VOLTAGE	26.400	[MV]	8050.000	[CPS]
	Jun14,13	09:36:44	VOLTAGE	229.200	[MV]	35258.000	[CPS]
3	Mar21,14	14:07:48	CALIPER	100.000	[MM]	168300.000	[CPS]
	Mar21,14	14:07:48	CALIPER	200.000	[MM]	423180.000	[CPS]
4	Mar21,14	14:58:29	DEN(LS)	1.620	[G/CC]	8686.000	[CPS]
	Mar21,14	14:58:29	DEN(LS)	2.612	[G/CC]	1205.000	[CPS]
5	Mar21,14	14:59:03	DEN(SS)	1.590	[G/CC]	31905.000	[CPS]
	Mar21,14	14:59:03	DEN(SS)	2.580	[G/CC]	14021.000	[CPS]
6	Jun14,13	08:59:07	CALIPERL	Default	[CPS]	Default	[CPS]
	Jun14,13	08:59:07	CALIPERL	Default	[CPS]	Default	[CPS]
7	Mar21,14	14:27:18	CURRENT	26.400	[UA]	6623.000	[CPS]
	Mar21,14	14:27:18	CURRENT	229.200	[UA]	23884.000	[CPS]
8	Jun14,13	08:59:07	F	Default	[CPS]		
9	Jun14,13	08:59:07	X	Default	[CPS]		