Reeves

DUAL LATEROLOG MLL
COMPENSATED SONIC GR
1:500

COMPANY	LAKES OIL
WELL	ECHIDNA HIGH 1
FIELD	ECHIDNA
PROVINCE/COUNTY	STRADBROKE
COUNTRY/STATE	AUSTRALIA/VICTORIA
LOCATION	38°21'1.6" S 147°2'4.2" E

LSD	SEC	TWP	RGE	Other Services

API Number

Permit Number

Permanent Datum MSL , Elevation 68.0 metres

Log Measured From KB @71.6 m above Permanent Datum

Drilling Measured From KB

Elevations:
KB 71.60 metres
DF 71.30 metres
GL 68.00 metres

Date	22-MAR-2005		
Run Number	THREE		
Depth Driller	1868.00	metres	
Depth Logger	1869.00	metres	
First Reading	1869.00	metres	
Last Reading	1599.00	metres	
Casing Driller	1604.00	metres	
Casing Logger	1604.00	metres	
Bit Size	6.00	inches	
Hole Fluid Type	KCL/POLY		
Density / Viscosity	9.50 lb/USg	42.00 CP	
PH / Fluid Loss	10.50	6.00 ml/30Min	
Sample Source	FLOWLINE		
Rm @ Measured Temp	0.133 @ 25.0	ohm-m	
Rmf @ Measured Temp	0.119 @ 25.0	ohm-m	
Rmc @ Measured Temp	0.095 @ 25.0	ohm-m	
Source Rmf / Rmc	MEAS	MEAS	
Rm @ BHT	0.051 @ 64.0	ohm-m	
Time Since Circulation	6.75 HRS		
Max Recorded Temp	64.00	deg C	
Equipment Name	SONIC,LATERO		
Equipment / Base	1030	ROMA	
Recorded By	R.L.TENCH		
Witnessed By	Tim O'Brien		
Circ Stopped	02:00 22-03		

BOREHOLE RECORD

Bit Size inches	Depth From metres	Depth To metres
6.125	1604.00	1670.00
6.000	1670.00	1868.00

CASING RECORD

Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft
K-55	7.000	0.00	1604.00	26.00

REMARKS

1) SOFTWARE ISSUE: JUN 17,2004
2)CUSTOMER SCALES AND INTERVAL LOGGED
3)0.5" STANDOFFS RUN ON ALL TOOLS
4)FAST ARRIVALS SEEN ON SONIC TR TIMES. CLIENT OK WITH THIS USED TO IDENTIFY FRACTURED ZONES
5)CHLORIDES 24.5 KPPM
6)TOOLS ON BOTTOM 08:45
7)HVOL 6.6 CU M. 1869M TO 1600M

AFTER SURVEY CALIBRATION

C:\Data\Echidna\ECHIDNA RUN2\echidnarun2_002.dta

Laterolog Check DLE 005

Before Survey Check on 21-MAR-2005,13:11
After Survey Check on 22-MAR-2005 09:24

Channel	Before Survey (ohm-m)	After Survey (ohm-m)
Shallow	114.4	114.4
Deep	65.8	65.8
Groningen	65.9	65.9

Micro Laterolog Check MRS 005

Before Survey Check on 21-MAR-2005,13:37
After Survey Check on 22-MAR-2005 09:25

Before Survey (ohm-m)	After Survey (ohm-m)
9.7	9.7

MAIN LOG

Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Data\Echidna\ECHIDNA RUN2\echidnarun2_003.dta
System Configuration Dates: Logged 17-JUN-2004: Plotted 23-AUG-2004:
Plotted on 22-MAR-2005 15:27
Recorded on 22-MAR-2005 08:45

Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Data\Echidna\ECHIDNA RUN2\echidnarun2_003.dta
System Configuration Dates: Logged 17-JUN-2004: Plotted 23-AUG-2004:
Plotted on 22-MAR-2005 15:27
Recorded on 22-MAR-2005 08:45

MAIN LOG

BEFORE SURVEY CALIBRATION

C:\Data\Echidna\ECHIDNA RUN2\echidnarun2_002.dta

General Constants All 000

General Parameters		
Mud Resistivity	0.166	ohm-metres
Mud Resistivity Temperature	21.000	degrees C
Water Level	0.000	metres
Density/Neutron Processing	Wet Hole	
Hole/Annular Volume and Differential Caliper Parameters		
HVOL Caliper 1	Microlog Caliper	
HVOL Caliper 2	Microlog Caliper	
Annular Volume Diameter	4.500	inches
Caliper for Differential Caliper	None	
Rwa Parameters		
Porosity used	Limestone Sonic Porosity	
Resistivity used	Deep Laterolog	
RWA Constant A	0.610	
RWA Constant M	2.150	

Long Spaced Sonic Constants ATS 042

Sonde Mode	Compensated	
Maximum Boundary Contrast	100.00	micro-sec/ft
Fluid Transit Time	189.00	micro-sec/ft
Limestone Transit Time	47.50	micro-sec/ft
Sandstone Transit Time	55.50	micro-sec/ft
Dolomite Transit Time	43.50	micro-sec/ft
Sonic used for Porosities	0	
Correction for Sonde Skew	Applied	
Initial Discriminator Level 1	2.20	volts
Initial Discriminator Level 2	2.15	volts
Initial Discriminator Level 3	2.05	volts
Initial Discriminator Level 4	2.05	volts
Transmitter 1 Switch	Normal	
Transmitter 2 Switch	Normal	
Received Signal Polarity	Normal	
MN3FT	N/A	micro-sec
MX3FT	N/A	micro-sec
Waveform Parameters		
Standoff	N/A	N/A
Window Width	N/A	
Time Factor	N/A	
Significance Level	N/A	
S Velocity Despiker	N/A	N/A
P Velocity Despiker	N/A	N/A
Interval Pair 1	N/A	
Interval Pair 2	N/A	
Auto Range	N/A	
Waveform Gain Applied	N/A	
Invert W3TN	N/A	
Waveform 1 for Attenuation	N/A	
Waveform 2 for Attenuation	N/A	
CBL Waveform Parameters		
Peak Channel	N/A	
Peak Window Position	N/A	
Peak Window Start	N/A	micro-sec
Peak Window Width	N/A	micro-sec
Peak Gain Factor	N/A	
Waveform	N/A	
Waveform Gain Factor	N/A	
Transmitters Enabled	N/A	

SP Calibration DLP 005

Field Calibration on 15-FEB-2005 14:49

	Measured	Calibrated (mV)
Reference 1	1635.5	1606.0
Reference 2	-1637.2	-1606.0

SP Constants DLP 005

Interference Rejection 50 Hz

Laterolog Calibration DLE 005

Base Calibration on 19-JAN-2005 14:40
Field Check on 21-MAR-2005,13:11

Base Calibration

	Measured		Calibrated (ohm-m)	
Channel	Resistor 1	Resistor 2	Resistor 1	Resistor 2
Shallow	0.0	993.4	0.0	1430.0
Deep	0.0	990.3	0.0	820.0
Groningen	0.0	995.5	0.0	820.0

Channel	Base Check (ohm-m)	Field Check (ohm-m)
Shallow	114.4	114.4
Deep	65.8	65.8
Groningen	65.9	65.9

Laterolog Constants DLE 005

Squasher Start	40000	ohm-m
Shallow Laterolog K Factor	1.4300	
Deep Laterolog K Factor	0.8200	
Groningem Laterolog K Factor	0.8200	
Voltage Reference	Armour	
Deep Drive	On	
Interference Rejection	50 Hz	

Gamma Calibration DLE 005

Field Calibration on 21-MAR-2005 13:09

	Measured	Calibrated (API)
Background	44	37
Calibrator (Gross)	1303	1083
Calibrator (Net)	1259	1046

Gamma Constants DLE 005

Gamma Calibrator Number	86	
Mud Density	1.23	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Centred	
Concentration of KCl	0.00	kppm

Micro Laterolog Calibration MRS 005

Base Calibration on 19-JAN-2005 13:47
Field Check on 21-MAR-2005,13:37

Base Calibration

Measured		Calibrated (ohm-m)	
Ref 1	Ref 2	Ref 1	Ref 2
10.2	10127.2	0.2	196.0

Base Check (ohm-m)	Field Check (ohm-m)
9.7	9.7

Micro Laterolog Constants MRS 005

Micro Laterolog K Factor	0.0196	
Standoff Offset	N/A	inches

Micro Normal and Micro Inverse Calibration MRS 005

Base Calibration on 19-JAN-2005 14:09
Field Check on 15-FEB-2005 14:14

Base Calibration

	Measured		Calibrated (ohm-m)	
Channel	Resistor 1	Resistor 2	Resistor 1	Resistor 2
Micro Normal	10.0	50.0	6.1	30.6
Micro Inverse	9.9	49.8	3.4	16.9

Channel	Base Check (ohm-m)	Field Check (ohm-m)
Micro Normal	61.2	0.0
Micro Inverse	33.9	0.0

Micro Normal and Micro Inverse Constants MRS 005

Micro Normal K Factor	0.6130	
Micro Inverse K Factor	0.3380	
Standoff Offset	N/A	inches

Caliper Calibration MRS 005

Base Calibration on 19-JAN-2005,14:18
Field Calibration on 21-MAR-2005 13:17

Base Calibration

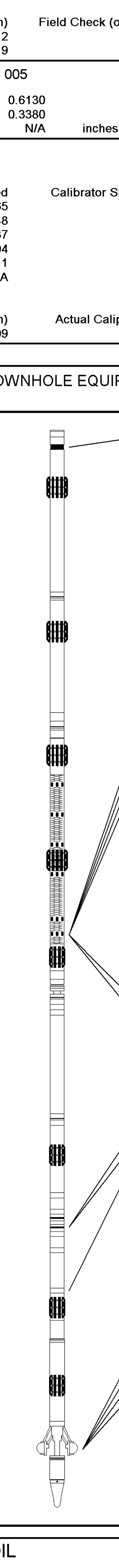
Reading No	Measured	Calibrator Size (in)
1	87365	5.99
2	136448	8.01
3	185387	10.01
4	239104	11.82
5	305611	14.01
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
8.09	8.01

DOWNHOLE EQUIPMENT

C:\Data\Echidna\ECHIDNA RUN2\echidnarun2_002.dta



Tool		Length	Weight
Stiff Bridle B	SBT 6	Length: 3.38 m	Weight: 163.1 lb
Sonic Processing Sub	WPS 22	Length: 2.63 m	Weight: 92.6 lb
Acoustic Transducer Sub	ATS 42	Length: 5.24 m	Weight: 154.3 lb
Inter-Tool Adaptor B (37-7)	ITA 101	Length: 0.25 m	Weight: 39.7 lb
Laterolog Processing Sub	DLP 5	Length: 2.52 m	Weight: 169.8 lb
Laterolog Electrode Sub	DLE 5	Length: 4.29 m	Weight: 160.9 lb
Micro Resistivity Sub	MRS 5	Length: 2.69 m	Weight: 101.4 lb
Hole Finder (7-way tools)	HFS 2	Length: 0.57 m	Weight: 11.0 lb
Total		Length: 21.57 m	Weight: 892.9 lb

20.19 m	SPLL - DLS Spontaneous Potent.
10.31 m	DTC1 - 3-5 ft Compensated Sonic
10.31 m	R4T1 - Sonic R4T1
10.31 m	R4T2 - Sonic R4T2
10.31 m	R3T2 - Sonic R3T2
10.31 m	R2T2 - Sonic R2T2
10.31 m	R1T2 - Sonic R1T2
4.41 m	DLL - Deep Laterolog
4.41 m	SLL - Shallow Laterolog
3.04 m	GRLL - DLS Gamma Ray
0.00 m	MLL - Micro-laterolog
0.00 m	HVOL - Hole Volume
0.00 m	CADF - Microlog Caliper
Tool Zero	(1.03m from bottom)

All measurements relative to tool zero.

COMPANY	LAKES OIL
WELL	ECHIDNA HIGH 1
FIELD	ECHIDNA
PROVINCE/COUNTY	STRADBROKE
COUNTRY/STATE	AUSTRALIA/VICTORIA

Elevation Kelly Bushing	71.60	metres	First Reading	1869.00	metres
Elevation Drill Floor	71.30	metres	Depth Driller	1868.00	metres
Elevation Ground Level	68.00	metres	Depth Logger	1869.00	metres

Reeves

DUAL LATEROLOG MLL
COMPENSATED SONIC GR
1:500