

COMPANY ORIGIN ENERGY
RIG OD&E-30
AREA OTWAY BASIN
COUNTRY VICTORIA, AUSTRALIA
LOCATION 38° 32' 53.79" S 142° 54' 23.11" E
GROUND LVL 77.2m (AMSL)
RT HEIGHT 81.8m (AMSL)
DEPTH REF ROTARY TABLE

SPUD DATE 19-03-2001
TD DATE 23-03-2001
TD DRILLER 1636.0mRT
TD WIRELINE 1635.7mRT
LOGGED FROM 1180.0mRT
LOGGED TO 1636.0mRT
STATUS CASED & SUSPENDED

WELL CONFIGURATION

BIT SIZE (mm)	HOLE DEPTH (m)	CASING SIZE (mm)	CASING DEPTH (m)
152mm	1636m	178mm	1209.8m
		73mm	1634.5m

LOGGING ENGINEERS

ALAN DUNN
DERICK ZURCHER

DEPTH SCALE 1/ 500

SYMBOLS

	NEW BIT RUN		CORED INTERVAL		NO SHOW
	NEW CORE BIT RUN				WEAK SHOW
	CASING SHOE				FAIR SHOW
	LINER HANGER		DST INTERVAL		GOOD SHOW
	Recovered SIDEWALL CORES				
	Not Recovered				

ABBREVIATIONS

NB NEW BIT	DS DIRECTIONAL SURVEY
NCB NEW CORE BIT	WT WIPER TRIP
RRB RE-RUN BIT	POH PULL OUT OF HOLE
CS CASING SHOE	RIH RUN IN HOLE
SWC SIDE WALL CORE	WOW WAIT ON WEATHER
EL ELECTRIC LOG	LAT LOGGED AFTER TRIP
WOB WEIGHT ON BIT	LCM LOST CIRCULATION MATERIAL
RPM REVS PER MINUTE	DC DEPTH CORRECTION
PP PUMP PRESSURE	DST DRILL STEM TEST
SPM STROKES PER MINUTE	RMG REAMING
CR CIRCULATED RETURNS	ML MUD LOSSES
PR POOR RETURNS	FR FLOW RATE
NR NO RETURNS	FC FLOW CHECK
TG TRIP GAS	BR BIT RUN
CG CONNECTION GAS	
WTG WIPER TRIP GAS	

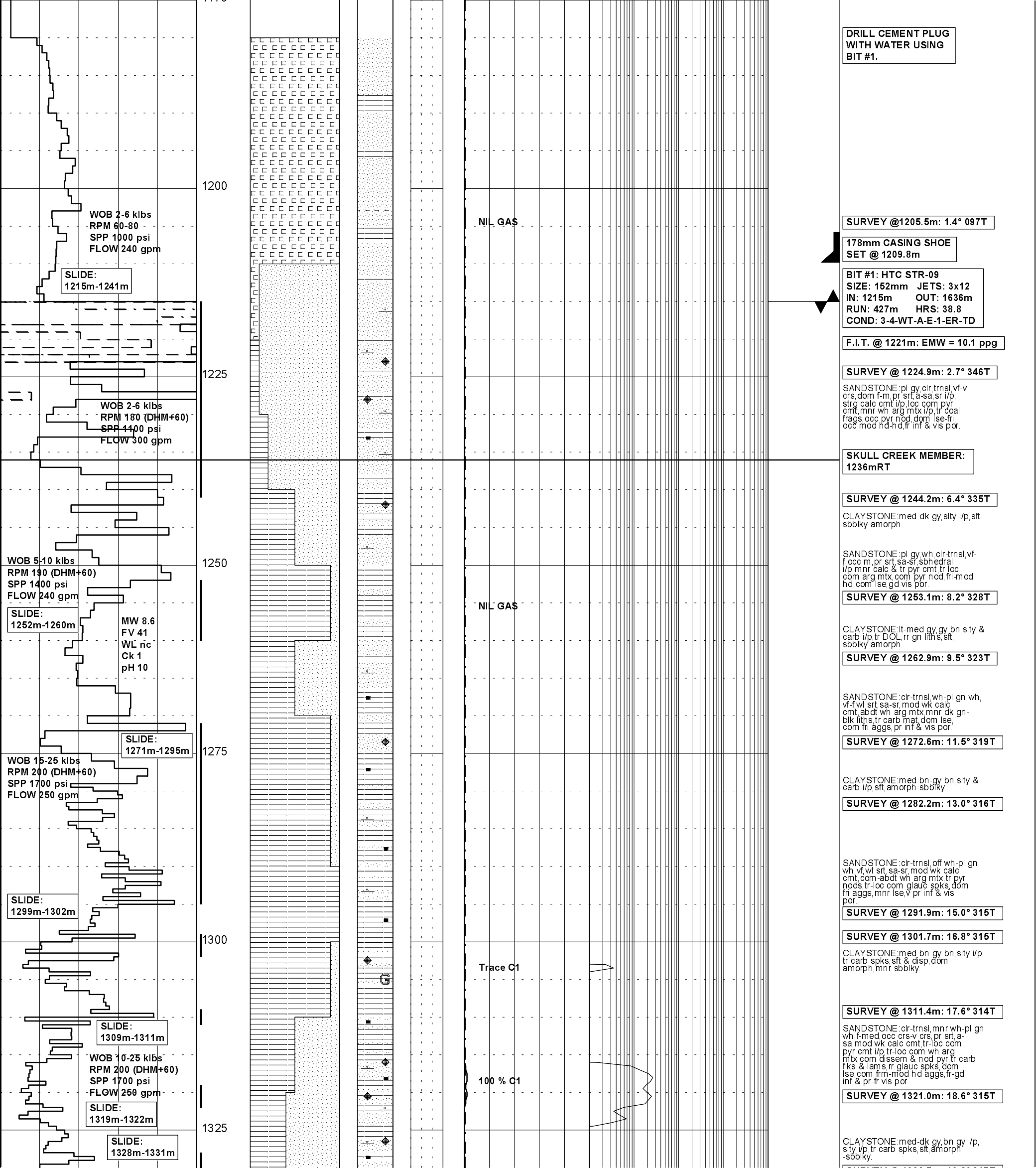
MUD DATA

W WEIGHT	lb/gal
MG MUD GRADIENT	psi/ft
V VISCOSITY	s/qt
PV PLASTIC VISCOSITY	Cp
YP YIELD POINT	lb/ft ²
GEL GEL STRENGTH	lb/ft ²
pH ACIDITY	
F FILTRATE	cm ³ /30
CK CAKE THICKNESS	in/32
S SALINITY	kg/m ³
SD SAND CONTENT	%
O OIL CONTENT	%
WL WATER LOSS	cm ³ /30
SOL SOLIDS CONTENT	%
pF FILTRATE ALKALINITY	%
GYP GYPSUM CONTENT	lb/bbl

	CLAYSTONE		MEDIUM SST		LIMESTONE		GYPSUM		TUFF		FERRUGINOUS		CALCAREOUS		GLAUCONITE		MICROFOSSILS
	SILTSTONE		FINE SANDSTONE		DOLOMITIC LIMES		CEMENT		VOLCANIC ROCK		FORAMINIFERA		DOLOMITIC		MICACEOUS		FOSSILS
	CONGLOMERATE		VF SANDSTONE		DOLOMITE		HALITE		IGNEOUS ROCK		BRYOZOA		CARBONACEOUS		PYRITE		CONCRETIONS
	COARSE SST		BRECCIA		COAL		CALCARENITE		METAMORPHICS		FELDSPAR		CHERTY		BROKEN FOSSILS		SIDERITE

DEPTH (m) (mdRT)	SIDEWALLS	CUTTINGS	LITH	OIL SHOWS	GFW	TOTAL GAS Units	CO ₂ %	CHROMATOLOG(ppm)	BITS	SHOES	CORED INTERVALS	DST INTERVALS	COMMENTS
0						0	0	C1 _____ IC4 _ _ _					
10						100	0	C2 _ _ _ nC4 _ _					
20						0	0	C3 IC5 _ _ .					
								nC5 _ . . .					
1150		0 % 100						100 1K 10K					
1175													

DUNBAR1-DW1 SPUNDED @ 16:00 HRS ON 19-03-2001



DRILL CEMENT PLUG WITH WATER USING BIT #1.

SURVEY @ 1205.5m: 1.4° 097T

178mm CASING SHOE SET @ 1209.8m

BIT #1: HTC STR-09
SIZE: 152mm JETS: 3x12
IN: 1215m OUT: 1636m
RUN: 427m HRS: 38.8
COND: 3-4-WT-A-E-1-ER-TD

F.I.T. @ 1221m: EMW = 10.1 ppg

SURVEY @ 1224.9m: 2.7° 346T

SANDSTONE: pl gy, clr, trns, vf-v crs, dom f-m, pr srt, a-sa, sr i/p, strg calc cmt i/p, loc com pyr cmt, mnr wh arg mtx i/p, tr coal frags, occ pyr nod, dom lse-fr, occ mod hd-hd, fr inf & vis por.

SKULL CREEK MEMBER: 1236mRT

SURVEY @ 1244.2m: 6.4° 335T

CLAYSTONE: med-dk gy, stly i/p, sft sbbiky-amorph.

SANDSTONE: pl gy, wh, clr-trns, vf-f, occ m, pr srt, sa-sr, sbhedral i/p, mnr calc & tr pyr cmt, tr loc com arg mtx, com pyr nod, fr-mod hd, com lse, gd vis por.

SURVEY @ 1253.1m: 8.2° 328T

CLAYSTONE: lt-med gy, bn, stly & carb i/p, tr DOL, rr gn liths, sft, sbbiky-amorph.

SURVEY @ 1262.9m: 9.5° 323T

SANDSTONE: clr-trns, wh-pl gn, wh, vf, wl srt, sa-sr, mod wk calc cmt, abdt wh arg mtx, mnr dk gn-bik liths, tr carb mat, dom lse, com fr aggs, pr inf & vis por.

SURVEY @ 1272.6m: 11.5° 319T

CLAYSTONE: med bn-gy, bn, stly & carb i/p, sft, amorph-sbbiky.

SURVEY @ 1282.2m: 13.0° 316T

SANDSTONE: clr-trns, off wh-pl gn, wh, vf, wl srt, sa-sr, mod wk calc cmt, com-abdt wh arg mtx, tr pyr nodes, tr-loc com glauc spks, dom fr aggs, mnr lse, v pr inf & vis por.

SURVEY @ 1291.9m: 15.0° 315T

SURVEY @ 1301.7m: 16.8° 315T

CLAYSTONE: med bn-gy, bn, stly i/p, tr carb spks, sft & disp, dom amorph, mnr sbbiky.

SURVEY @ 1311.4m: 17.6° 314T

SANDSTONE: clr-trns, mnr wh-pl gn, wh, f-med, occ crs-v crs, pr srt, a-sa, mod wk calc cmt, tr-loc com pyr cmt i/p, tr-loc com wh arg mtx, com dissem & nod pyr, tr carb flks & lam, rr glauc spks, dom lse, com frm-mod hd aggs, fr-gd inf & pr-fr vis por.

SURVEY @ 1321.0m: 18.6° 315T

CLAYSTONE: med-dk gy, bn gy i/p, stly i/p, tr carb spks, sft, amorph-sbbiky.

WOB 2-6 klbs
 RPM 60-80
 SPP 1000 psi
 FLOW 240 gpm

SLIDE:
 1215m-1241m

WOB 2-6 klbs
 RPM 180 (DHM+60)
 SPP 4400 psi
 FLOW 300 gpm

WOB 5-10 klbs
 RPM 190 (DHM+60)
 SPP 1400 psi
 FLOW 240 gpm

SLIDE:
 1252m-1260m

MW 8.6
 FV 41
 WL nc
 Ck 1
 pH 10

WOB 15-25 klbs
 RPM 200 (DHM+60)
 SPP 1700 psi
 FLOW 250 gpm

SLIDE:
 1271m-1295m

SLIDE:
 1299m-1302m

WOB 10-25 klbs
 RPM 200 (DHM+60)
 SPP 1700 psi
 FLOW 250 gpm

SLIDE:
 1319m-1322m

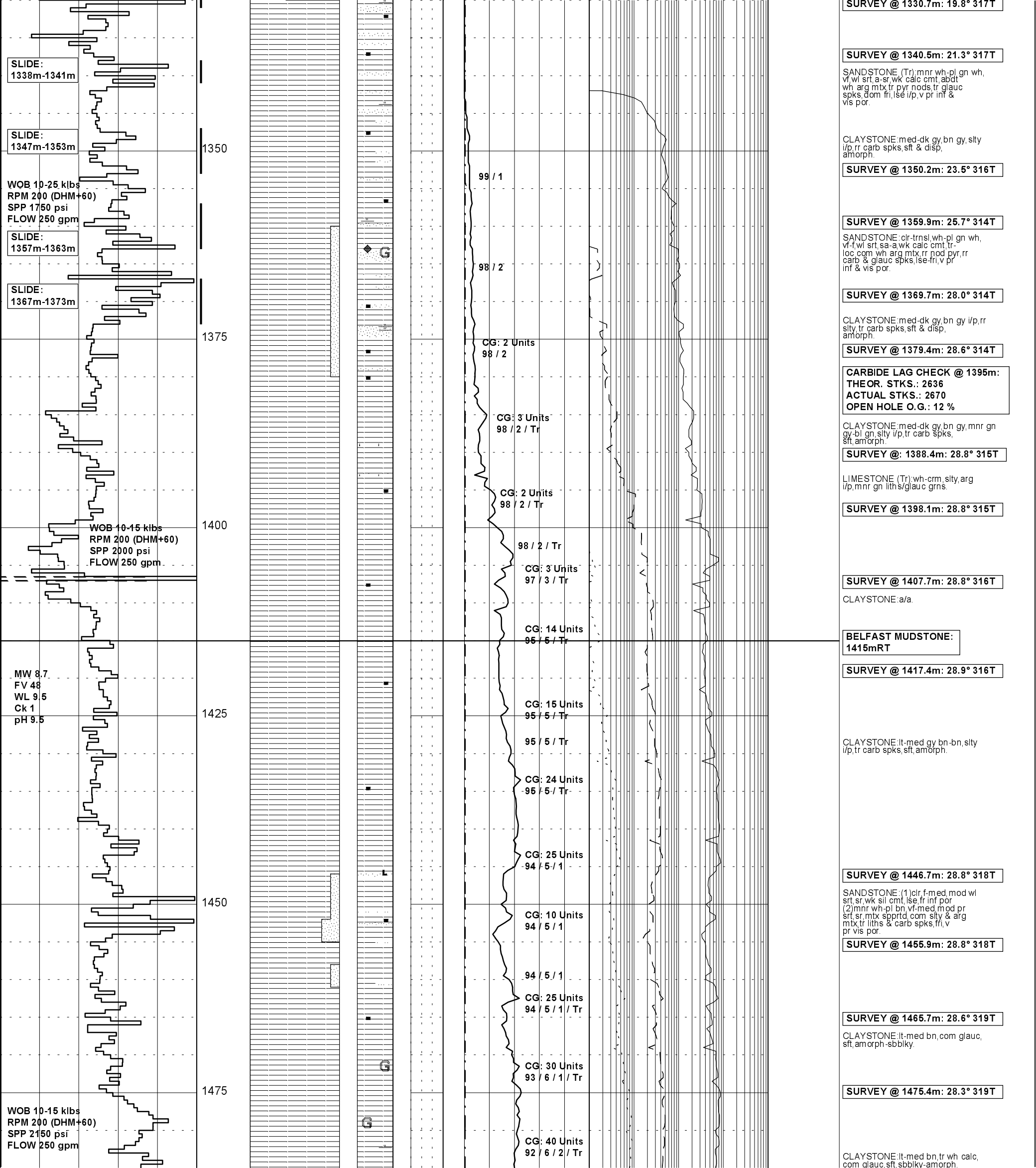
SLIDE:
 1328m-1331m

NIL GAS

NIL GAS

Trace C1

100 % C1



SURVEY @ 1330.5m: 19.8° 317T

SURVEY @ 1340.5m: 21.3° 317T

SANDSTONE (Tr): mnr wh-pl, gn wh, vf, wl srt, a-sr, wk calc cmt, abdt wh, arg mtx, tr pyr nods, tr glauc spks, dom fri, lse i/p, v pr inf & vis por.

CLAYSTONE: med-dk gy, bn gy, slty i/p, rr carb spks, sft & disp, amorph.

SURVEY @ 1350.2m: 23.5° 316T

SURVEY @ 1359.9m: 25.7° 314T

SANDSTONE: cr-trnsl, wh-pl, gn wh, vf-f, wl srt, sa-a, wk calc cmt, tr-loc, com wh, arg mtx, rr nod pyr, rr carb & glauc spks, lse-rr, v pr inf & vis por.

SURVEY @ 1369.7m: 28.0° 314T

CLAYSTONE: med-dk gy, bn gy i/p, rr slty, tr carb spks, sft & disp, amorph.

SURVEY @ 1379.4m: 28.6° 314T

CARBIDE LAG CHECK @ 1395m:
THEOR. STKS.: 2636
ACTUAL STKS.: 2670
OPEN HOLE O.G.: 12 %

CLAYSTONE: med-dk gy, bn gy, mnr gn gy-bl, gn, slty i/p, tr carb spks, sft, amorph.

SURVEY @: 1388.4m: 28.8° 315T

LIMESTONE (Tr): wh-crm, slty, arg i/p, mnr gn liths/glauc grns.

SURVEY @ 1398.1m: 28.8° 315T

SURVEY @ 1407.7m: 28.8° 316T

CLAYSTONE: a/a.

BELFAST MUDSTONE:
1415mRT

SURVEY @ 1417.4m: 28.9° 316T

CLAYSTONE: lt-med gy, bn-bn, slty i/p, tr carb spks, sft, amorph.

SURVEY @ 1446.7m: 28.8° 318T

SANDSTONE: (1) cr, f-med, mod wl srt, sr, wk sil cmt, lse, fr inf por (2) mnr wh-pl, bn, vf-med, mod pr srt, sr, mtx sportd, com, slty & arg mtx, tr liths & carb spks, fri, v pr vis por.

SURVEY @ 1455.9m: 28.8° 318T

SURVEY @ 1465.7m: 28.6° 319T

CLAYSTONE: lt-med bn, com glauc, sft, amorph-sbbkly.

SURVEY @ 1475.4m: 28.3° 319T

CLAYSTONE: lt-med bn, tr wh calc, com glauc, sft, sbbkly-amorph.

SLIDE:
1338m-1341m

SLIDE:
1347m-1353m

WOB 10-25 klbs
RPM 200 (DHM+60)
SPP 1750 psi
FLOW 250 gpm

SLIDE:
1357m-1363m

SLIDE:
1367m-1373m

WOB 10-15 klbs
RPM 200 (DHM+60)
SPP 2000 psi
FLOW 250 gpm

MW 8.7
FV 48
WL 9.5
Ck 1
pH 9.5

WOB 10-15 klbs
RPM 200 (DHM+60)
SPP 2150 psi
FLOW 250 gpm

99 / 1

98 / 2

CG: 2 Units
98 / 2

CG: 3 Units
98 / 2 / Tr

CG: 2 Units
98 / 2 / Tr

98 / 2 / Tr

CG: 3 Units
97 / 3 / Tr

CG: 14 Units
95 / 5 / Tr

CG: 15 Units
95 / 5 / Tr

95 / 5 / Tr

CG: 24 Units
95 / 5 / Tr

CG: 25 Units
94 / 5 / 1

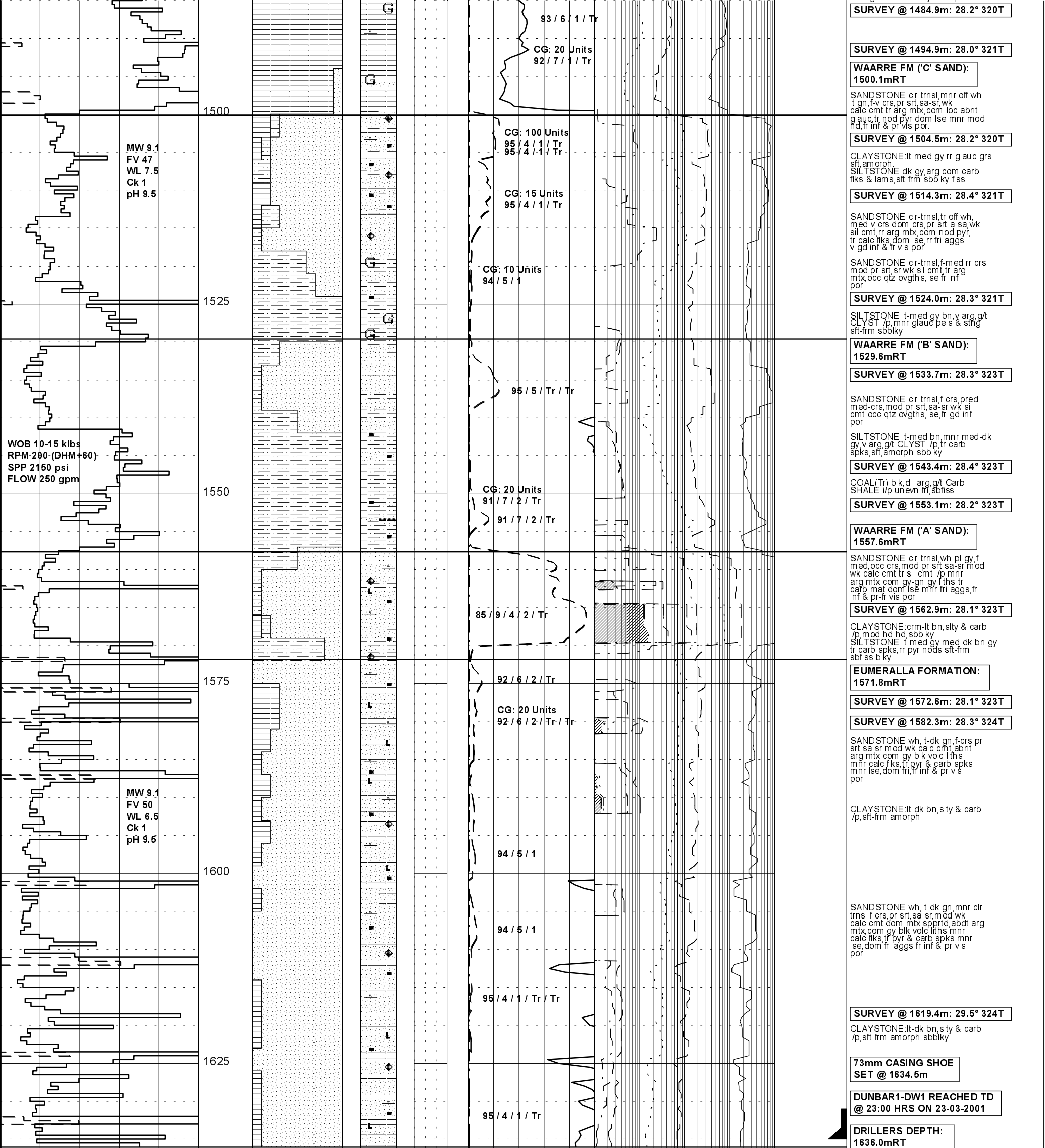
CG: 10 Units
94 / 5 / 1

94 / 5 / 1

CG: 25 Units
94 / 5 / 1 / Tr

CG: 30 Units
93 / 6 / 1 / Tr

CG: 40 Units
92 / 6 / 2 / Tr



MW 9.1
FV 47
WL 7.5
Ck 1
pH 9.5

WOB 10-15 klbs
RPM-200 (DHM+60)
SPP 2150 psi
FLOW 250 gpm

MW 9.1
FV 50
WL 6.5
Ck 1
pH 9.5

93 / 6 / 1 / Tr
CG: 20 Units
92 / 7 / 1 / Tr

CG: 100 Units
95 / 4 / 1 / Tr
95 / 4 / 1 / Tr

CG: 15 Units
95 / 4 / 1 / Tr

CG: 10 Units
94 / 5 / 1

95 / 5 / Tr / Tr

CG: 20 Units
91 / 7 / 2 / Tr
91 / 7 / 2 / Tr

85 / 9 / 4 / 2 / Tr

92 / 6 / 2 / Tr

CG: 20 Units
92 / 6 / 2 / Tr / Tr

94 / 5 / 1

94 / 5 / 1

95 / 4 / 1 / Tr / Tr

95 / 4 / 1 / Tr

SURVEY @ 1484.9m: 28.2° 320T

SURVEY @ 1494.9m: 28.0° 321T

**WAARRE FM ('C' SAND):
1500.1mRT**

SANDSTONE: cir-trnsl, mnr off wh-
lt gn, f-v crs, pr srt, sa-sr, wk
calc cmt, tr arg, mtz, com, loc, abnt
glauc, tr nod, pyr, dom lse, mnr mod
hd, fr inf & pr vis por.

SURVEY @ 1504.5m: 28.2° 320T

CLAYSTONE: lt-med gy, rr glauc grs
sft, amorph
SILTSTONE: dk gy, arg, com carb
fiks & lams, sft-frn, sbbiky-fiss

SURVEY @ 1514.3m: 28.4° 321T

SANDSTONE: cir-trnsl, tr off wh,
med-v crs, dom crs, pr srt, a-sa, wk
sil cmt, rr arg, mtz, com, nod, pyr,
tr calc fiks, dom lse, rr fri aggs
v gd inf & fr vis por.

SANDSTONE: cir-trnsl, f-med, rr crs
mod pr srt, sr wk, sil cmt, tr arg
mtz, occ qtz ovghs, lse, fr inf
por.

SURVEY @ 1524.0m: 28.3° 321T

SILTSTONE: lt-med gy, bn, v arg, g/t
CLYST i/p, mnr glauc pels & stng,
sft-frn, sbbiky.

**WAARRE FM ('B' SAND):
1529.6mRT**

SURVEY @ 1533.7m: 28.3° 323T

SANDSTONE: cir-trnsl, f-crs, pred
med-crs, mod pr srt, sa-sr, wk sil
cmt, occ qtz ovghs, lse, fr-gd inf
por.

SILTSTONE: lt-med bn, mnr med-dk
gy, v arg, g/t CLYST i/p, tr carb
spks, sft, amorph-sbbiky.

SURVEY @ 1543.4m: 28.4° 323T

COAL(Tr): blk, dll, arg, g/t Carb
SHALE i/p, unevn, fr, sbfiss.

SURVEY @ 1553.1m: 28.2° 323T

**WAARRE FM ('A' SAND):
1557.6mRT**

SANDSTONE: cir-trnsl, wh-pl, gy, f-
med, occ crs, mod pr srt, sa-sr, mod
wk calc cmt, tr sil cmt, i/p, mnr
arg mtz, com gy, gn, gy liths, tr
carb mat, dom lse, mnr fri aggs, fr
inf & pr vis por.

SURVEY @ 1562.9m: 28.1° 323T

CLAYSTONE: crm-lt bn, slty & carb
i/p, mod hd-hd, sbbiky.
SILTSTONE: lt-med gy, med-dk bn gy
tr carb spks, rr pyr nods, sft-frn
sbfiss-biky.

**EUMERALLA FORMATION:
1571.8mRT**

SURVEY @ 1572.6m: 28.1° 323T

SURVEY @ 1582.3m: 28.3° 324T

SANDSTONE: wh, lt-dk gn, f-crs, pr
srt, sa-sr, mod wk calc cmt, abnt
arg mtz, com gy, blk volc liths, mnr
calc fiks, tr pyr & carb spks
mnr lse, dom fri, fr inf & pr vis
por.

CLAYSTONE: lt-dk bn, slty & carb
i/p, sft-frn, amorph.

SANDSTONE: wh, lt-dk gn, mnr cir-
trnsl, f-crs, pr srt, sa-sr, mod wk
calc cmt, dom mtz spptd, abnt arg
mtz, com gy, blk volc liths, mnr
calc fiks, tr pyr & carb spks, mnr
lse, dom fri aggs, fr inf & pr vis
por.

SURVEY @ 1619.4m: 29.5° 324T

CLAYSTONE: lt-dk bn, slty & carb
i/p, sft-frn, amorph-sbbiky.

**73mm CASING SHOE
SET @ 1634.5m**

**DUNBAR1-DW1 REACHED TD
@ 23:00 HRS ON 23-03-2001**

**DRILLERS DEPTH:
1636.0mRT
LOGGERS DEPTH:
1633.7mRT (+2m fill)**

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1650

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WIRELINE LOGS RUN @ TD:
RUN #1:
DLS-MLL-GR-CAL
RUN #2:
PDS-CNL-GR-CAL