EXLOG

COMPANY STATOIL

WELL 31/3-1

FIELD TROLL

REGION NORWEGIAN NORTH SEA

COORDINATES 60° 46' 48.00"N

03° 44' 02.80"E

API WELL INDEX NO.

SPUD DATE 17 JULY 1983

ELEVATION RKB-MSL : 23M

RKB-SEA BED : 357.5M

TOTAL DEPTH 2374M

CONTRACTOR ODFJELL DRILLING

RIG / TYPE DEEPSEA BERGEN / SEMI

LOG INTERVAL

DEPTH FROM 421M TO 2374M

DATE FROM 20/07 TO 03/09/83

SCALE 1 : 500 UNIT 251

LOG PREPARED BY M.HOLT G.WHEATLEY P.CROOK P.THICTHENER E.APPLETON

HOLE SIZE

36"	TO	422M	12¼"	TO	1833M
26"	TO	865M	8½"	TO	2374M
17½"	TO	1300M		TO	

CASING RECORD

30"	AT	420M	9⅝"	AT	1819M
20"	AT	849M		AT	
13⅜"	AT	1285M		AT	

MUD TYPES

SPUD MUD	TO	865M
KCL POLYMER	TO	1300M
GEL/LIGNOSULPHONATE	TO	1833M
LIGNOSULPHONATE/LIGNITE	TO	2374M

LITHOLOGY SYMBOLS

LIMESTONE, DOLOMITE, ANHYDRITE AND GYPSUM, HALITE, COAL AND LIGNITE, CLAY, SHALE, SILT AND SILTSTONE, SILTY SANDSTONE, SAND AND SANDSTONE, CONGLOMERATE, CHERT, IGNEOUS UNDIFFERENTIATED, MARL

EXLOG SUITE

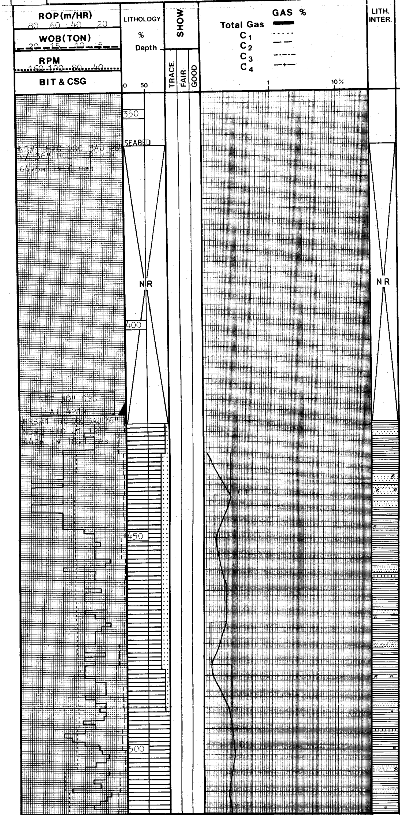
FORMATION EVALUATION LOG	☒	WIRELINE DATA PRESSURE LOG	☐
PRESSURE EVALUATION LOG	☒	TEMPERATURE DATA LOG	☒
DRILLING DATA PRESSURE LOG	☐	GEMDAS COMPUTER LOGS	☒
	☐		☐

ABBREVIATIONS

NB	NEW BIT	SVG	SURVEY GAS
RRB	RERUN BIT	C	CARBIDE TEST
CB	CORE BIT	W	MUD DENSITY G/CC
WOB	WEIGHT ON BIT	V	FUNNEL VISCOSITY
RPM	REVS PER MINUTE	F	FILTRATE – API
FLC	FLOW CHECK	FC	FILTER CAKE
CR	CIRCULATE RETURNS	PV	PLASTIC VISCOSITY
PR	POOR RETURNS	YP	YIELD POINT
NR	NO RETURNS	SOL	SOLIDS – %
LAT	LOGGED AFTER TRIP	SD	SAND – %
BG	BACKGROUND GAS	S	SALINITY – PPM Cl
TG	TRIP GAS	RM	MUD RESISTIVITY
STG	SHORT TRIP GAS	RMF	FILTRATE RESISTIVITY
CG	CONNECTION GAS		
SWG	SWAB GAS		
◢	CASING SEAT	⚡	WIRELINE LOG RUN
[	CORED INTERVAL	▮	TEST INTERVAL
	NO RECOVERY	+	WIRELINE TEST
▶	SIDEWALL CORE		

GAS – 100 Total gas units is equivalent to 2% methane-in-air.

OIL – Based on live oil in unwashed cuttings and percentage staining of washed cuttings.



LITH. DESCRIP.

RETURNS TO SEABED

CLY; LT-M GRY, SFT, STKY, AMOR, MOD CALC, W/ABDT FOSS FRAGS

SD; CLR-TRNSL QTZ, PRED MED, OCC F-C, MOD W SRTD, ANG-SUBRNDD, PRED LSE, OCC MOD W CMTD W/ CALC

LIG; BRN-BLK, FRM-HD, BLKY, ETHY

LS; WH-LT CRM, FRM, BRIT, MICR W/F MTX SUPTD SD GRNS

SD; CLR-TRNSL QTZ, F-C, SUBANG-SUBRNDD, LSE

LS; TR, WH-OFF WH, SFT, AMOR, SL SLTY W/OCC MTX SUPTD SD GRNS

CLY; LT-M GRY, SFT, STKY, AMOR, V SOLB, MOD-V CALC W/FOSS FRAGS

MUD PROP.

W	1.07
V	51
pH	10.3
SD	–
SOL	–
CL⁻	–

REMARKS DATES

STATOIL 31/3-1
SPUDDED 14:30HRS
17TH JULY 1983

ALL DEPTHS IN METRES FROM RKB

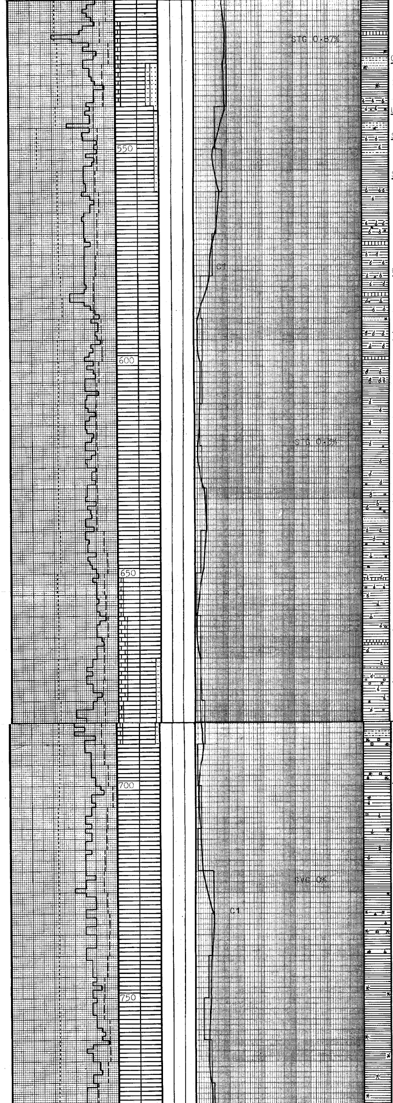
ALL DATES TAKEN AT 00.00 HRS

RKB-SEALEVEL 23M
RKB-SEABED 357M

18-20/7

21/7

23/7



DEV AT 520M
1.5° S40°E

CLY; LT-MED GRY, OCC LT GRY GREEN, SFT STKY, AMOR, SOLB, MOD CALC, w/ OCC FOSS FRAGS

LS; WH-OFF WH, FRN, BLKY, SL SLTY

SD; TRNSP-TRNSL, OCC LT BRN GRY, QTZ, F-C, SUBANG-SUBRNDD, LSE

SLT; MED BRN GRY, SFT, AMOR-LMPY, SL CALC

W 1.07
V 70
F 35
FC 2
PH 9.7
SD TR

CLY; MED-DK BRN, OCC GRY GREEN, SFT, STKY, AMOR, SOLB, HYDTD, SL CALC, W/ FOSS FRAGS, GRDG TO SLT

TR LS; WH-OFF WH, SFT-FRM, BLKY, SL SLTY

DEV AT 616M
1.5° S40°E

CLY; MED-DK BRN, OCC GRY GREEN, SFT, STKY, AMOR, SL CALC, GRDG TO SLT

CLY; PRED DK BRN GRY, OCC MED GREEN GRY, SFT STKY, SL CALC, OCC SL SLTY

LS; WH-CRM, SFT-FRM, BLKY MICR

TR SH; DK BRN, SFT-FRM, FISS, NON CALC, SLTY

LS; WH-OFF WH, FRM-HD, BLKY, MICR, OCC SL SLTY

CLY; LT GRY GREEN, OCC DK BRN, OCC DK GREEN, LMPY, STKY, NON CALC, OCC SPKS GLAUC, OCC SL SLTY

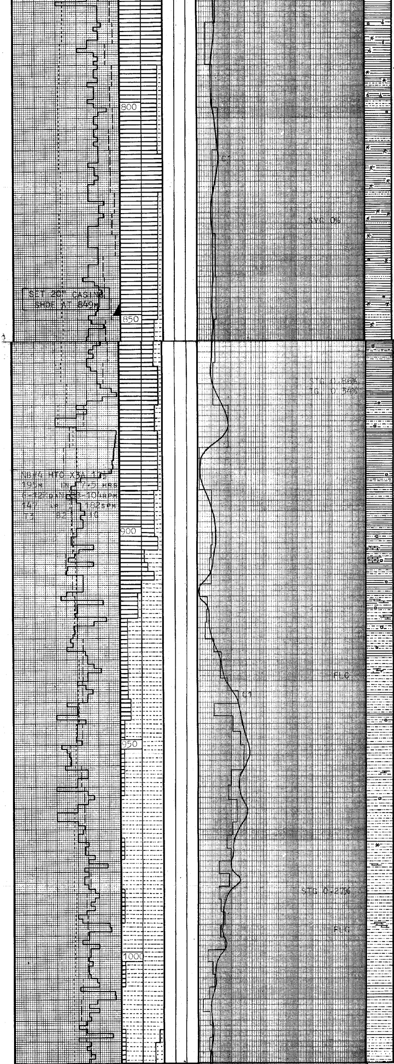
10% CAVINGS TO 15MM

W 1.08
V 53
F 35
FC 2
PH 9.2
SD ¼

DEV AT 723M
1.25° S77E

CLY; LT GRY GREEN, SFT, STKY, AMOR-LMPY, NON CALC, TR GLAUC

W 1.09
V 52
F 35
FC 2
PH 8.9
SD ¼



CLY; LT GRY GREEN, SFT, AMOR-LMPY, NON CALC, OCC TR GLAUC, OCC GRDG TO SLTST

SLTST; LT GRY GREEN, SFT SUBFISS-FISS, GRDG TO SH, ARG, GRDG TO CLYST

CLY; PRED LT GRY GREEN, SFT, LMPY, MMIC, NON CALC, SL SLTY, GRDG TO SLTST

SLTST; MED-DK BRN, SFT, LMPY-FLKY, MMIC

CLY; LT GREEN, GRY GREEN, OLV GREEN, SFT-MOD FRM, AMOR-BLKY, SL MICA, GRDG SLTST

SLTST; OLV GREEN, GREEN BRN, BRN, SFT, OCC FRM, AMOR-BLKY, SL MICA

SLTST; LT GRY BLU, LT GRY BRN, SFT-FRM, BLKY OCC AMOR

CLYST; MED-DK BRN, OCC LT GRY BLU, SFT, OCC FRM, BLKY, OCC AMOR

TR LS; MOT LT-MED BRN, OCC DK BRN, FRM-HD, BRIT, BLKY, MICXLN

SLTST; MED-DK GRY, DK GRY BRN, OCC LT GREEN BLU, SFT-MOD FRM, AMOR -BLKY, RR SL CALC

CLYST; MED-DK GRY, DK GRY BRN, SFT-MOD FRM AMOR-BLKY

SLTST; SPCKLD DK GRY, PINK, SFT-FRM, BLKY, ARG MTX, TUFFACEOUS

SST; SPCKLD DK GRY, PINK, GEN FRM, BLKY, VF -F, PRLY SRTD, SL CALC ARG MTX, TUFFACEOUS

W 1·08
V 53
F –
FC –
pH 9·2
SD –

W 1·11
V 38
F –
FC ½
pH 10
SD –

W 1·15
V 39
F 4·5
FC ½
pH 9·5
SD ⅔
CL⁻ 68000

DEV AT 827M
1·0° E

24/7

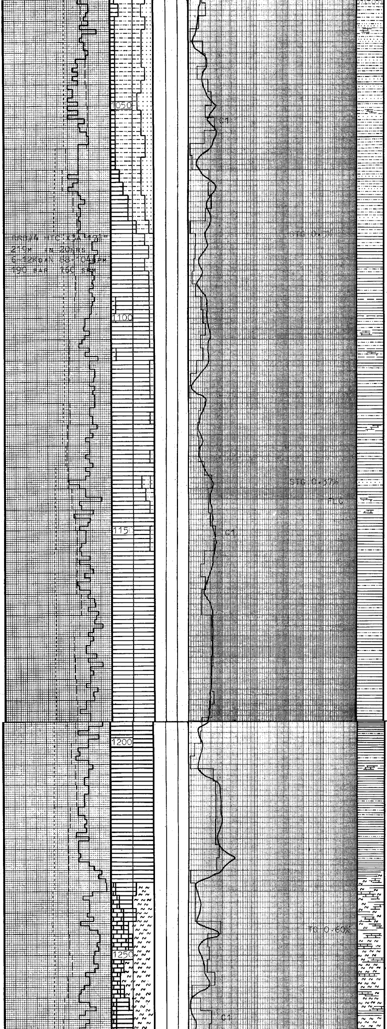
RUN E-LOGS
DIFL/BHC-ACCUSTIC
-GR-SP-CAL

DEV AT 860M
0·75° N63°E

25/7-4/8

5/8

DEV AT 979M
0·75° S71°E



TR LS;OFF WH,MOT LT-DK BRN,SFT,HD,BRIT,BLKY,MICXLN

CLYST;MED GRY,GRY BRN SFT-MOD FRM,AMOR-BLKY,LOC CALC,GRDG SLTST

SST;DK GRY,DK GRY BRN OCC PINK,SFT-FRM,VF,PRLY SRTD,ARG MTX,LOC CALC,TUFFACEOUS

SLTST;MED-DK GRY,GRY BRN,SFT-FRM,BLKY,OCC AMOR,ARG MTX,SL-MOD CALC

CLYST;LT GRY GREEN,PA BLU,OCC DK GRY,OCC LT GREEN,SFT,OCC FRM AMOR,OCC PLTY

CLYST;PA BL GRY,OCC LT GREENISH BL,OCC CRM FRM-SFT,OCC V SFT,AMOR,TR QTZ,TR CHLOR

CLYST;MED-DK GRY,OCC LT GRY,DK GRY BRN,GRY GREEN,SFT-MOD FRM,AMOR-BLKY,OCC SPL,LOC SLTY

CLYST;MED GRY,OCC DK GRY BL GREEN,SFT-FRM BLKY,OCC AMOR, SLTY IN PT,NON CALC

MRL;LT GRY,LT BRN GRY LT BRN,SFT,OCC FRM,AMOR-BLKY,LOC SLTY

LST;WH,OFF WH CRM,OCC PA BL WH,FRM,OCC SFT OCC MOD HD,MICROXLN,BLKY,CHKY

MRL;PREDOM LT GRY,OCC DK BL GRY,SFT,SUB BLKY-AMOR,LOC SLTY

W 1.25
V 46
F 4.2
FC 1
PH 8.9
SD ½
CL-68000

W 1.28

DEV AT 1075M
0.25° S48°W

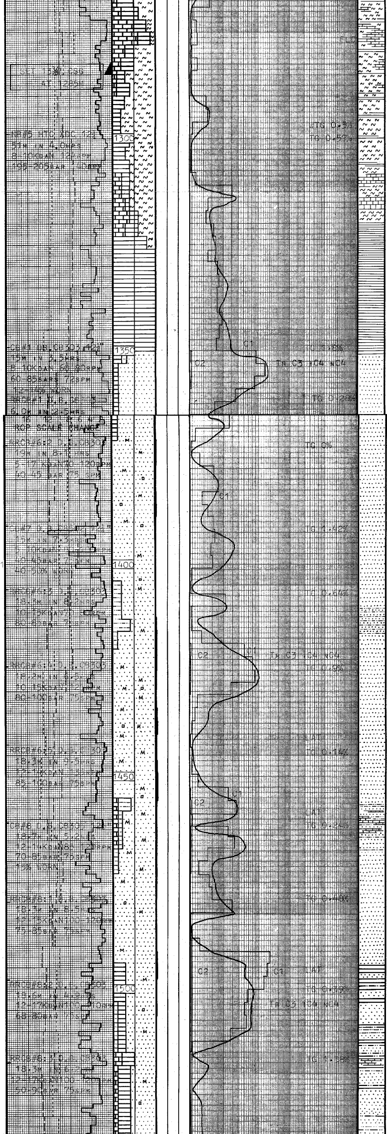
WEIGHT UP MUD TO 1.35 AT 1081M, LOSE RETURNS, DECR MUD WT AND SPOT LCM PILL

6-7/8

DEV AT 1131M
0.5° S58°W

DEV AT 1237M
1° N61°E

8/8



LST;WH, OCC CRM, FRM, OCC SFT, BLKY-SUB BLKY MICROXLN, OCC BLK INCL

MRL;LT GRY-M GRY, SFT OCC FRM, BLKY-SUB BLKY SLTY IN PT

LST;WH, OCC CRM, OCC PL GN, SFT-FRM, BLKY, OCC SUB FISS, MICROXLN

CLYST;MED-DK GRY, GRY BRN, SFT-FRM, BLKY-SUB BLKY, LOC SLTY, SL-MOD CALC, TR GN NON CALC CLYST

SST;TRANSP, OCC AMB, M OCC F, PRLY CMT-LS, SUB ANG-SUB RNDD, MOD WELL SRTD, NO FLUOR

SST;TRNSP, COLSS, PRED M, OCC ,F, ANG-SUBANG MOD-WELL SRTD, VIT LSTR, LSE, TR MIC, TR PYR, TR DULL YELL FLUOR, NO CUT

SST;TRNSP, COLSS, M, ANG-SUBANG, WELL SRTD LSE, MOD MICA, OCC F-VF, W/PYR CMT, SL SLTY OCC WH CALC CMT, MOD POR, DULL YEL FLUOR, SLOW DULL YEL CUT FLUOR

SLTST;M-DK GRY, OCC BLK, SFT-FRM, AMOR

SST;TRNSP, COLSS, M, OCC F, ANG-SUBRND, MOD-WELL SRTD, FR-GD VIS POR, ABT MICA, TR PYR, PRED LSE, OCC DULL-PALE YEL FLUOR, NO CUT

SST;TRNSP, COLSS, F-M, ANG-SUBRND, MOD-WELL SRTD, PRED LSE, OCC W/ CALC CMT, BRN STNG, BRI YEL-WH FUOR, NO CUT, MOD POR, ABT MICA

LST;WH-CRM, FRM, BLKY, MICROXLN

SLTST;DK GRY-BLK, OCC RED-BRN, SFT-FRM, BLKY

SST;TRNSP, COLSS, F-M, ANG-SUBANG, MOD-WELL SRTD, LSE, TR FLUOR, NO CUT

CLY;LT-MED GRY, SFT, AMOR, LMPY, OCC SL CALC

SST;TRNSP, OCC AMBER, F-M, ANG-SUBRND, MOD SRTD, VIT LSTR, ABT MICA, NO FLUOR, NO CUT

SLTST;LT GRY, CRM, LT BRN, SFT, LMPY, OCC BLKY, MOD CALC

V 22
pH 9.4
SD TR
SOL 11
CL 66000

W 1.30
V 54
pH 10.3
SD TR
SOL 13
CL 45000

W 1.30
V 54
pH 10.3
SD TR
SOL 12
CL 39000

9-11/8

RUN E-LOGS
DIFL/BHC-ACCUSTIC
-CDL-GR-CAL
SWC-GR-CAL

DEV AT 1347M
¼° N63 E

12/8

CORE #1
1351.0-1366.0
76% RECOVERY

CORE #2
1360.0-1372.0
96% RECOVERY

13/8

CORE #3
1372.0-1391.0
100% RECOVERY

CORE #4
1391.0-1406.0
96% RECOVERY

14/8

CORE #5
1406.0-1424.3
100% RECOVERY

15/8

CORE #6
1424.3-1442.5
100% RECOVERY

CORE #7
1442.5-1460.8
100% RECOVERY

16/8

CORE #8
1460.8-1479.5
100% RECOVERY

DEV AT [illegible]
¾° S42E

17/8

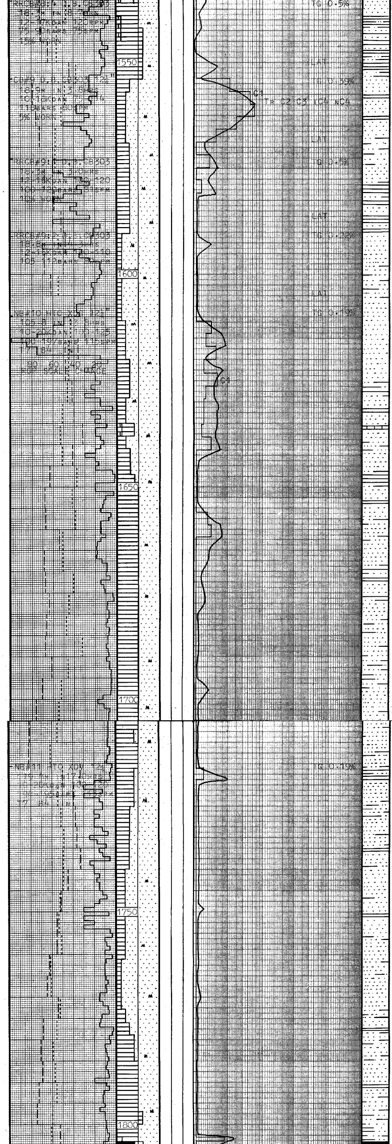
18/8

CORE #9
1479.5-1497.8
99% RECOVERY

CORE #10
1497.8-1517.2
100% RECOVERY

19/8

CORE #11
1517.2-1535.5
100% RECOVERY



SST; TRNSP, COLSS, OCC LT GRY, M-C, OCC F, PR-MOD SRTD, PRED, OCC W/ WH-CRM CALC CMT, FREQ MICAC

CLYST; CRM, LT BRN, SFT FRI, AMOR, OCC LMPY, OCC MOD CALC, GRDG TO MARL, OCC MOD GRY FRM, SUBFISS, LOC SLTY, MMICAC

SD; TRNSP, COLSS, M-C, ANG-SUBANG, MOD-WELL SRTD, VIT LSTR, LSE, ABT MIC

CLYST; DK GRY, FRM-MOD HD, BLKY, OCC SUBFISS LOC SLTY, NON-SL CALC

SD; TRNSP, COLSS, M-F, SUBANG-SUBRND, WELL SRTD, LSE, NO MTX, NO CMT, TR PYR, NO FLUOR

TR SST; TRNSLU, F, WELL SRTD, W/ YEL-BRN CALC CMT, DULL-MOD ORNG FLUOR

CLYST; LT GRY, SFT, STKY, AMOR, HYDTD, NON CALC

SST; TRNSLU, WH-OFF WH PRED F, SUBANG-SUBRND FRI, W/ WH XLN CALC CMT, NO VIS POR, MICAC

SD; TRNSP, OCC LT YEL-BRN, M BCMG C, WELL SRTD

CLYST; LT GRY, V SFT, AMOR, HYDTD, NON CALC ALSO OFF WH, SFT, W/ F QTZ SD GRNS FLTG IN MTX, MICAC, SL CALC

TR LST; WH-CRM, FRM, BLKY, MICR, FREQ W/ F SD GRNS FLTG IN MTX

SD; TRNSP-OPQ, COLSS, C, SUBRND, LOC SUBANG, MOD WELL SRTD, LOC W/ WH CALC CMT, FREQ PYR ABT MIC

CLYST; LT GRY, SFT, AMOR HYDTD, STKY, OCC SDY

SD; TRNSP, WH-LT GRY, C, SUBRND-RND, MOD WELL SRTD, FREQ PYR

W 1.3
V 57
pH 10.4
SD TR
SOL 12
CL 33000

W 1.3
V 60
pH 10.3
SD TR
SOL 12
CL 32000

W 1.3
V 60
pH 10.1
SD TR
SOL 14
CL 31000

CORE #12
1535.5-1553.8
99% RECOVERY

20/8

CORE #13
1553.8-1572.7
100% RECOVERY

CORE #14
1572.7-1591.0
98% RECOVERY

21/8

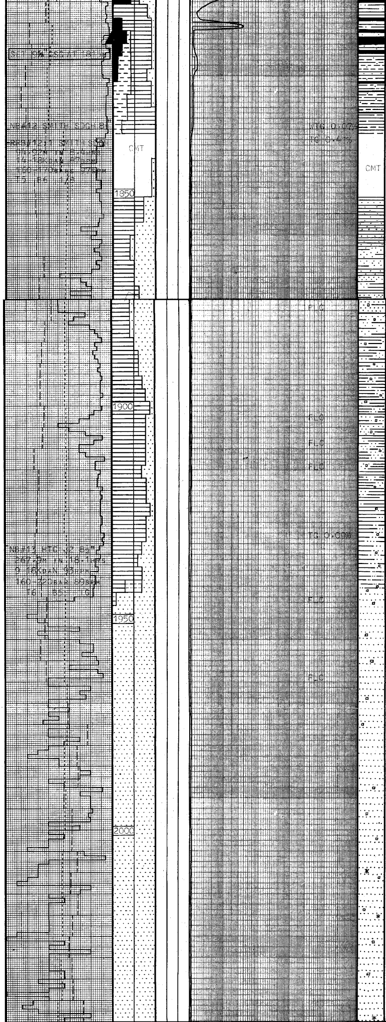
CORE #15
1591.0-1609.8
97% RECOVERY

DEV AT 1606M
¾° S30E

22/8

DEV AT 1711M
¼° S48W

23/8



COAL;BLK-V DK BRNBLK, HD, ANG, BLKY, OCC FLKY LOC SUBFISS, OCC CONCH FRAC, DULL-VIT LSTR

CLYST;LT GRY-BRN, SFT, LMPY, MOD-DK GRY, DK BRN, MOD BRN, BLKY, FREQ SUBFISS, GRDG TO SH

HIGH CEMENT CONTAMINATION

CLYST;LT BRN/GRY, V SFT AMORPH, V HYDTD, SLI STKY, NON-CALC

SD;CLR, TRANSL-OPQ, M-C, MOD SRTD, SUBANG-SUBRND, LOC V C, AMBER

SST;WH-LT GRY, F, LOC M SUBANG-SUBRND, MOD SRTD, FRI CALC CMT, OCC PYR CMT, ALSO LOOSE, CLR, TRANSL-OPQ, F-M, OCC C-V C, MOD SRTD,

CLYST;LT-MED GRY, LOC MED BRN-DK BRN/GRY, SFT, OCC FRM, AMOR-BLKY, HYDTD, SL CALC

SD;WH-GRY, LOC CLR, OPQ TRANSL, M, SUBANG-SUBRND, SPH, WELL SRTD,

SST;WH-OFF WH-LT GRY, F, SUBANG-SUBRND, LOC RND, CALC CMT

CLYST;LT-MED GRY, GRY BRN, BRN, SFT-FRM, AMOR-SUBFISS, SLTY, OCC MICROMICA, OCC CARB, RR CALC

SD;CLR, WH, GRY, TRANS, PRED MED-CRS, OCC V CRS, SUBANG-SUBRNDD, PR-MOD SRTD, MICA, NO SHOWS

SST;LT-MED GRY, FRM, FR V FN-MED, PRED FN, SUBANG-SUBRNDD, MOD SRTD CALC CMT, LOC ARG, OCC PYR MINERALISATION, NO VIS POR, NO SHOWS

SD;CLR, WH, GRY, FN-CRS, PRED MED, SUBANG-SUBRNDD, MOD SRTD, MICROMICA, NO SHOWS

SD;WH, GRY, CLR, PRED CRS, OCC V CRS, SUBANG-SUBRNDD, PRLY SRTD, V MACROMICA

W	1.12
V	53
F	4.6
PH	9.5
SD	TR
SOL	6
CL-	13000

DEV AT 1831M
½° S63W

24-28/8

29/8

RUN E-LOGS
TO 1835.5M
DIFL/BHC ACOUSTIC-GR-SP-CAL;CDL/CNL-GR-CAL;DLL/MLL-GR;
SPECTRALOG;HRDIP;
COREGUN;FMT;ACBL

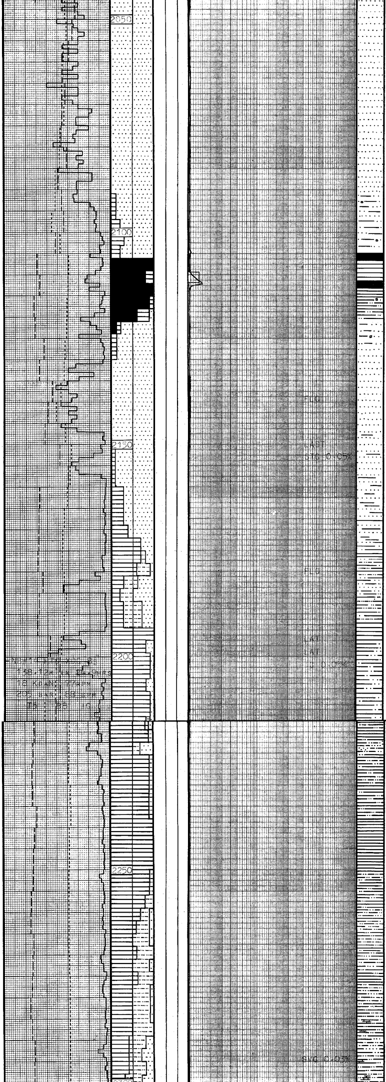
DEC MUD WT
TO 1.10

30/8

DEV AT 1929M
2¼° S23°W

31/8

DEV AT 2037M
1¼° S40°W



SST;WH, GRY, FRM, FRI, V F TO MED, SUBANG-SUBRND, MOD SRTD, CALC CMT, RR PYR,

SD;CLR, TRANSL-OPQ, C, OCC V C, SUBRND-SUBANG LOC RND,

TR;MICA;CLR, TRANSP, FLKY, 1MM DIAMETER

SD;CLR, TRANSL, C, SUBRND SUBANG, LOC VC, WH, OPQ, SUBRND-RND

W 1.12
V 55
PH 9.5
SD TR
SOL 6½
CL 13000

CLYST;LT GRY, V SFT, SOL AMOR, SL STKY

COAL;BLK, V HD, BRIT, CONCH FRAC, ANG. ALSO V DK BRN/BLK, MOD HD-HD, SUBBLKY-BLKY, OCC ANG, LOC SUBFISS, PYR LAM

CLYST;LT GRY, V SFT, AMOR, SOL, SL STKY, NON-CALC

SD;CLR-WH, TRANSL-OPQ, C, LOC M, RND, LOC SUBRND TO SUBANG

SST;LT BLU/GREEN, BRIT, F, SUBRND, NON CALC

CLYST;LT BRN, V SFT, SOL, AMOR, STKY, LOC RED/BRN MOD HD-HD, SUBBLKY-BLKY, NON CALC

DEV AT 2149M
1° S63°W

W 1.12 – 1/9
V 53
PH 10.4
SD ¼
SOL 7½
CL 13200

CLYST;LT GRY, LT GREEN, PURP, BRICK RED, GREEN/BRN, FRM-MOD HD, OCC SFT SPL, BLKY, OCC SUBFISS, OCC SLTY, NON CALC

SST;LT GRY, WH, FRM, OCC FRI, V F-F, OCC MED, SUBANG-SUBRND, PR SRTD ARG-SIL CMT, LOC GLAU TR PYR

CLYST;DK RED/BRN, V PL GREEN, HD-BRIT, SUBBLKY SUBFLKY, LOC SUBFISS, NON CALC, OCC SANDY GRDG SST W/CLAY MTX

SD;CLR-TRNSL, OCC PNK, PA YEL QTZ, VF-M, SUBANG-SUBRNDD, LSE

CLYST;DK RD BRN, LT BL GREEN, OCC PURP, LT GRY FRM-MOD HD, AMOR-BLKY, OCC FLKY, NON-CALC

SLTST;DK RD-BRN, OCC PA BL GREEN, BLKY, FRI, W/ CLY MTX, NON-CALC, TR GLAUC

SST;TRNSL, WH-LT GRY QTZ F-M, SUBANG-SUBRNDD, V PRLY CMTD, SL CALC CMT

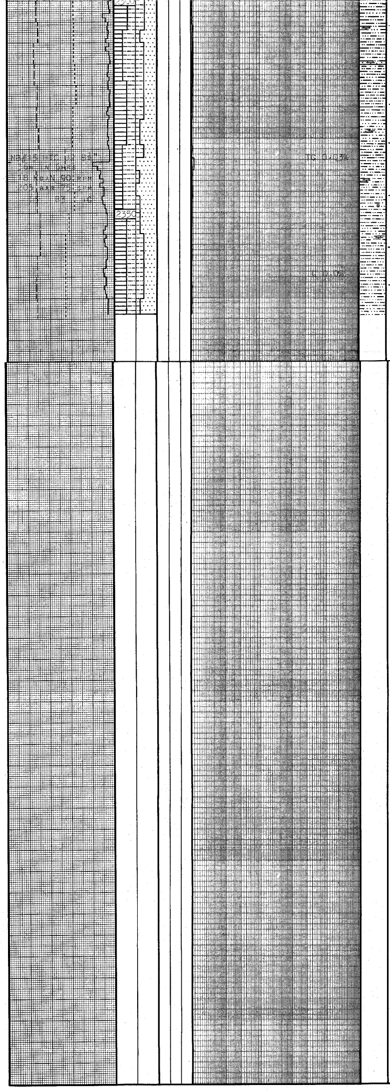
– 2/9

W 1.12
V 55
F 4.3
FC 1.5
PH 10.2
SD TR
SOL 6
CL 14000

CLYST;BRN, BRICK RD, OCC LT GREEN, LT GRY, SFT, OCC FRM, AMOR-BLKY, OCC SPLNTY, SL SLTY, OCC CALC

SLTST;BRN, BRICK RD, LT GREEN, OCC BRN-GREEN, PURP, SFT-FRM, OCC MOD HD, BLKY, SUBFISS, OCC SPLNTY, OCC CALC, V ARG

DEV AT 2296M
½°, S15°E.



GRDG VF SST

Sd;CLR-TRNSL, MILKY WH, PNK, RD-BRN, QTZ, VF-C, SUBANG-SUBRNDD, PRED LSE, OCC MOD W CMTD, SL CALC CMT, GRDG RD-BRN SLTST

Lst;TR, WH-OFF WH, OCC LT GRY, SFT, AMOR, SL SLTY, OCC CALC XLS

Sltst;BRICK RD, RD-BRN, OCC GRY-GREEN, SFT-FRM AMOR-BLKY, OCC V SL CALC, GRDG VF SST

Sd;CLR-TRNSL OCC LT GRY, GRY-GREEN QTZ, VF-M, SUBANG-RNDD, PRED LSE

Cly;ORNG-BRN, RD-BRN, RR GRY-GREEN, SFT, AMOR, SOL, OCC SL CALC

Sd;CLR-TRNSL, LT GRY, RD BRN QTZ, VF-M, OCC C, SUBANG-RNDD, PRED LSE w/CLY MTX, OCC PRLY-MOD W CMTD, OCC SL CALC CMT

W 1.12
V 53
F 4.2
Fc 1
pH 9.8
Sd Tr
Sol 6.5
Cl⁻ 14200

DEV AT 2328M
¾°, S27°W.

3/9

DEV AT 2364M
¾°, S27°E.

DRILLERS DEPTH
2374M

LOGGERS DEPTH
2374.5M

RUN E-LOGS
TO T.D.,
DIFL/BHC ACOUSTIC-GR-SP-CAL/BHC-CBL;
CDL/CNL-GR-CAL/
SPECTRALOG;HDIP;
VELOCITY;CST.