

nr-15



SEISMOGRAPH SERVICE (ENGLAND) LTD.

COMPANY : STATOIL

WELL : 15/9-18

LOCATION : 58° 21' 01.92" N

01 48 12.04 E

VERTICAL SEISMIC PROFILE  
DISPLAY 6. TRANPOSED VSP/  
ACOUSTIC IMPEDANCE LOG/  
SYNTHETIC SEISMOGRAM

POLARITY 1

TIME SCALE : 1S = 10CM  
DEPTH SCALE : 10 TRACES PER INCH  
DATE PROCESSED : MARCH 1984

FIELD ACQUISITION

DATE SHOT : 21-2-84  
SOURCE DEPTH : SINGLE BOLT AIRGUN (80 CU. IN.)  
GUN PRESSURE : 10M BELOW MSL  
SOURCE MONITOR : 2000 PSI  
MONITOR DEPTH : NEAR FIELD HYDROPHONE  
WELL GEOPHONE : 13M BELOW MSL  
RECORDING EQUIPMENT : GCM 100 HT  
SAMPLE RATE : DCA/DCR  
SURFACE ELEVATION : 2 MS  
WATER DEPTH : 92M  
VSP DATUM : MSL  
DEPTH REFERENCE : KB AT 23M ABOVE MSL

PROCESSING SEQUENCE

TRANPOSED VSP/ACOUSTIC IMPEDANCE LOG/  
SYNTHETIC SEISMOGRAM  
(DISPLAY 6)

(A) SYNTHETIC SEISMOGRAM

PRIMARIES WITHOUT TRANSMISSION LOSS TRACE  
TIME VARIANT FILTER (AS BELOW)

24 TRACE REPEAT

(B) ACOUSTIC IMPEDANCE LOG

DISPLAYED ALONGSIDE AT TWO-WAY TRAVEL TIME

(C) TRANPOSED VSP

EDIT

AUTOMATED TRACE ALIGNMENT

STACK OF CONSTANT DEPTH TRACES

SOURCE SIGNATURE DECONVOLUTION (350 MS WINDOW)

BANDPASS FILTER (5-80HZ, 18/24DB PER OCT.)

AMPLITUDE RECOVERY PROPORTIONAL TO T

DOWNGOING WAVE SUBTRACTION

FIRST ARRIVALS SHIFTED TO TWO-WAY TIME SUB DATUM

SPECIAL VSP DECONVOLUTION (750 MS DERIVATION WINDOW)

TIME VARIANT FILTER FROM SEISMIC SECTION (LINE ST8215-122)

(10-60HZ, 18/24DB PER OCT 0.0-3.0S

10-50HZ, 18/24DB PER OCT 3.05-END OF DATA)

9:1 MEDIAN PICK

DATA TRANPOSED WITH THE TIME DEPTH CURVE SHIFTED TO

POST MEDIAN FILTER (3-70HZ 18/24DB PER OCT.)

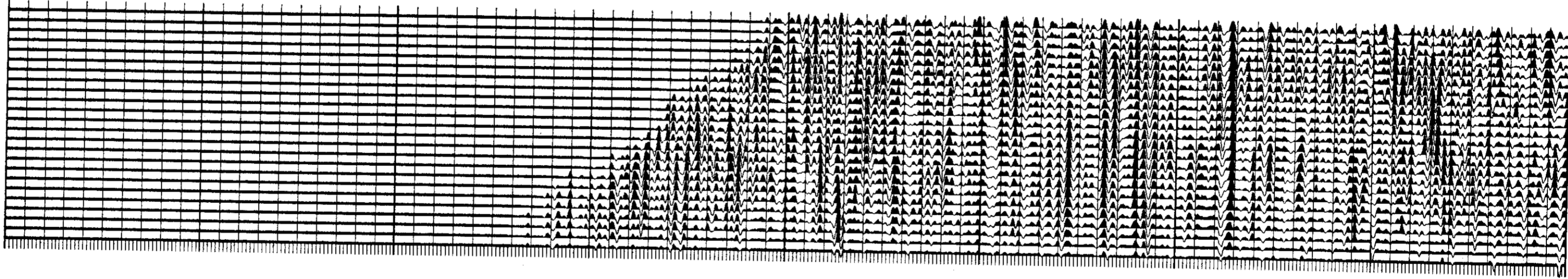
TRACE EQUALISATION (500MS WINDOW, 250MS OVERLAP)

24 TRACE DISPLAY

POLARITY 1  
AN UPGOING COMPRESSION WAVE IS REPRESENTED BY A WHITE TROUGH  
A DOWNGOING FIRST ARRIVAL COMPRESSION WAVE IS A BLACK PEAK

DIP LITHO

6C

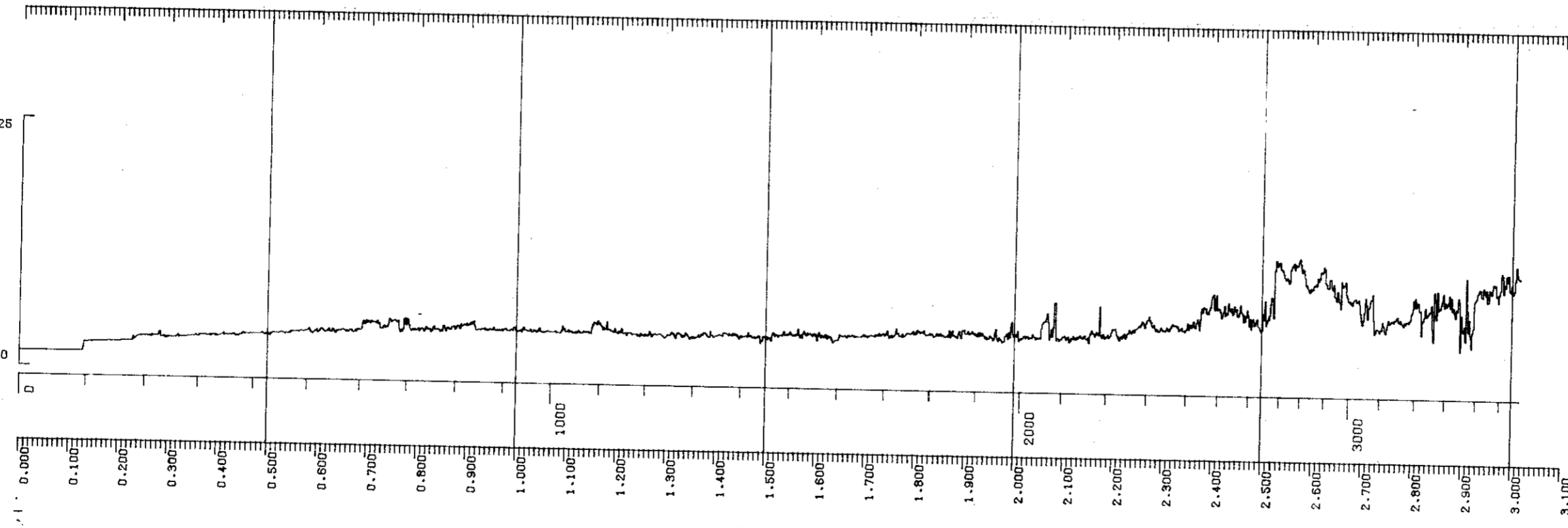


6B

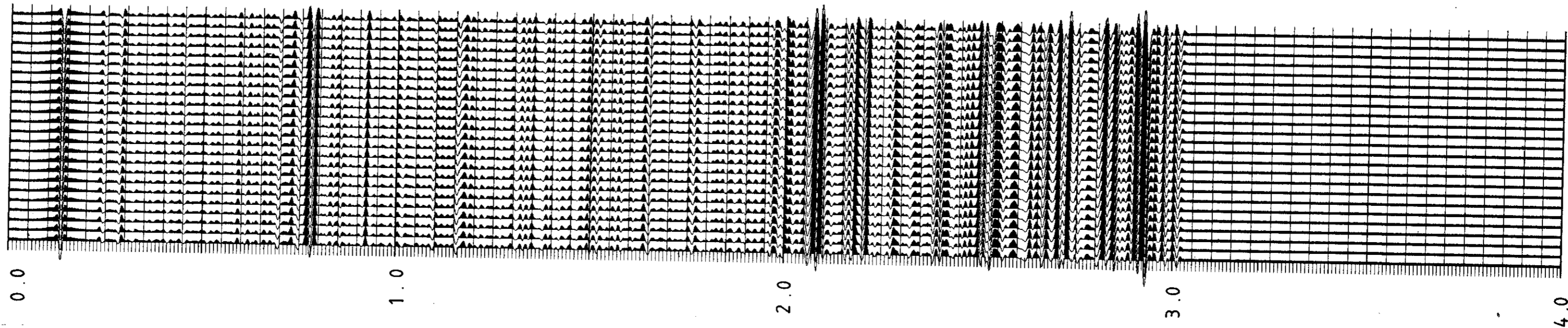
ACoustic IMPEDANCE  
(ACOUSTIC MEGOHMS)

DEPTH IN METRES  
BELOW DATUM OF MEAN SEA LEVEL

TWO-WAY TIME IN SECONDS  
BELOW DATUM OF MEAN SEA LEVEL



6A



TIME IN SECONDS