

M/5



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. TRANSPPOSED VSP/
ACOUSTIC IMPEDANCE LOG/
SYNTHETIC SEISMOGRAM

POLARITY 2
TIME SCALE : 1S = 10CM
DEPTH SCALE : 10 TRACES PER INCH
DATE PROCESSED : MARCH 1984

FIELD ACQUISITION

DATE SHOT : 21-2-84
SOURCE : SINGLE BOLT AIRGUN (80 CU. IN.)
SOURCE DEPTH : 10M BELOW MSL
GUN PRESSURE : 2000 PSI
SOURCE MONITOR : NEAR FIELD HYDROPHONE
WELL GEOPHONE DEPTH : 13M BELOW MSL
RECORDING EQUIPMENT : GCH 100 HT
SAMPLE RATE : 2 MS
SURFACE ELEVATION : 97M
WATER DEPTH : MSL
VSP DATUM : KB AT 23M ABOVE MSL
DEPTH REFERENCE : KB AT 23M ABOVE MSL

PROCESSING SEQUENCE

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

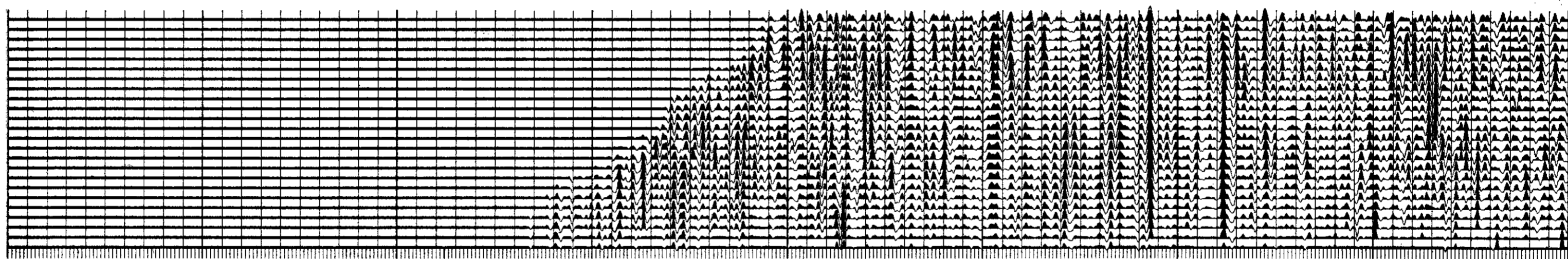
- (A) SYNTHETIC SEISMOGRAM
PRIMARIES WITHOUT TRANSMISSION LOSS TRACE
TIME VARIANT FILTER (AS BELOW)
24 TRACE REPEAT
- (B) ACOUSTIC IMPEDANCE LOG
DISPLAYED ALONGSIDE AT TWO-WAY TRAVEL TIME
- (C) TRANSPPOSED VSP

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 (750MS 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 TRANSPPOSED WITH THE TIME DEPTH CURVE SHIFTED TO
LEFT EDGE OF DISPLAY
POST MEDIAN FILTER (3-70HZ 18/24DB PER OCT.)
TRACE EQUALISATION (500MS WINDOW, 250MS OVERLAP)
24 TRACE DISPLAY

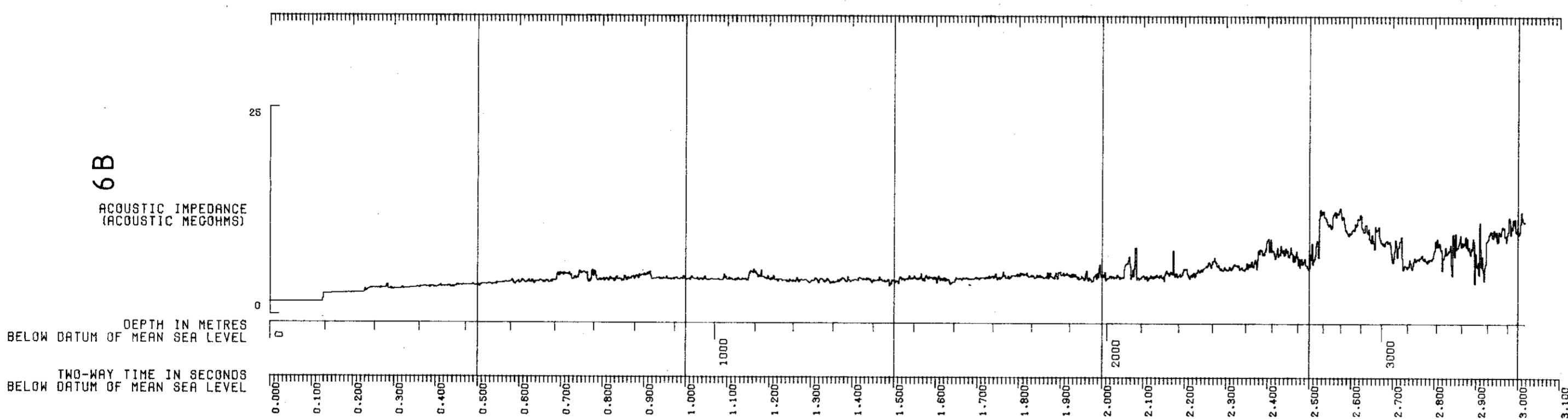
POLARITY 2
AN UPGOING COMPRESSION WAVE IS REPRESENTED BY A BLACK PEAK
A DOWNGOING FIRST ARRIVAL COMPRESSION WAVE IS A WHITE TROUGH

DIP LITHO

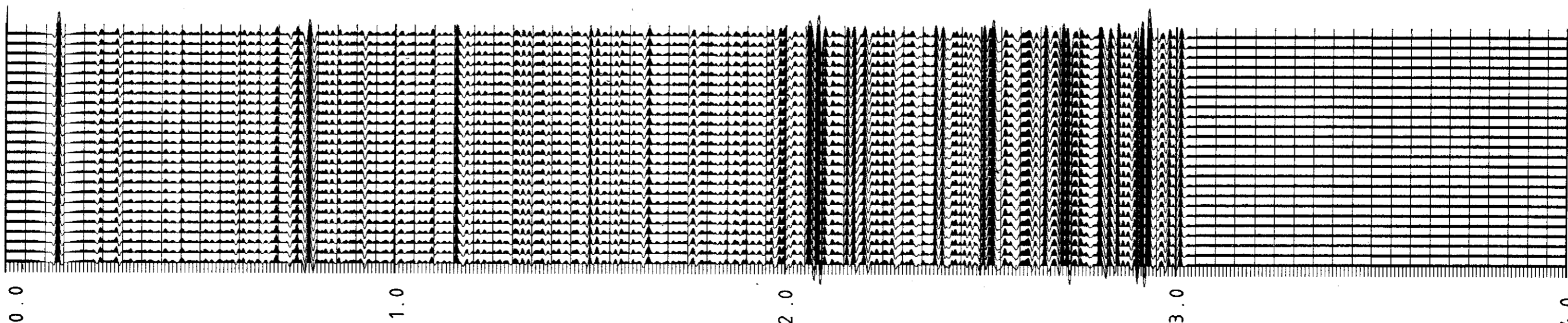
6C



6B



6A



TIME IN SECONDS