VSfusion
A Baker Hughes - CGG Company

SANTOS & PARTNERS

WELL NAME: MARTHA-1
ZERO OFFSET VSP SURVEY

ENCLOSURE 7

COMPOSITE L-PLOT DISPLAY

SHOT BY: BAKER ATLAS — 01 NOVEMBER, 2004
PROCESSED BY: VSFUSION — NOVEMBER, 2004
VSFUSION PROJECT CODE: SN703

ACQUISITION INFORMATION

-CABLE-

ROTARY TABLE (RT) ELEVATION	21.5 M ABOVE MSL
WATER DEPTH	54.46 M BELOW MSL
MINIMUM DEPTH (RT)	75.0 M
MAXIMUM DEPTH (RT)	1795.0 M

-SOURCE-

ENERGY SOURCE	SLEEVE GUN ARRAY
NUMBER OF GUN	2 X 150 CU IN
TOTAL GUN VOLUME	300 CU IN
GUN DEPTH	9.0 M BELOW MSL
SOURCE OFFSET DISTANCE FROM WELLHEAD	0.0 M
SOURCE AZIMUTH FROM WELLHEAD	328.0 DEG. N

-INSTRUMENTS-

RECORDING SYSTEM	SAZI
DOWNHOLE RECEIVERS	3C
RECORD LENGTH	4.0 SECONDS
DOWNHOLE RECEIVER TYPE	AMS 1300 GM
ELECTRIC LOGGING COMPANY	BAKER ATLAS

VSP PROCESSING SEQUENCE

1. CONVERT FROM SEG-Y FORMAT TO SEISLINK-X FORMAT
1. CONVERT FROM SEG-Y FORMAT TO SEISLINK-X FORMAT
2. ED1/TS/SUM/PICK ARRIVALS
3. GEOMETRY SURVEY APPLIED
4. VELOCITY ANALYSIS
5. FK-ANALYSIS TO DETERMINE FREQUENCY CONTENTS
6. SPHERICAL DIVERGENCE+GEOMETRY SPREADING CORRECT(2N) T**1.5
7. TUBEWAVE SUBTRACTION WITH D/P MEDIAN FILTER
8. ESTIMATION OF DOWNGOING P-WAVES FROM VERTICAL COMPONENT
   FIRST BREAK ALIGNED AT 200 MSEC.
9. EXTRACTION OF DOWNGOING P-WAVES WITH 7-POINT MEDIAN FILTER
10. SUBTRACTION OF DOWNGOING P-WAVES FROM DATA
11. SHIFT UPGOING WAVES TO TWO-WAY VERTICAL TIME BELOW DATUM
12. VSP DECONVOLUTION OF UPGOING WAVES
    DESIGN GATE 100 TO 1000 MSEC, 800 MSEC OF DOWNWAVES
    TO SHAPE WAVETRAIN TO A SPIKE
13. ZERO BANDPASS FILTER 5/10 - 40/60 HZ
14. ENHANCEMENT OF DECONVOLVED UPWAVES WITH 7-POINT MEDIAN FILTER
15. CORRIDOR WINDOW MUTE
16. TRACE BALANCE
17. ZERO PHASE BANDPASS FILTER AS ON DISPLAY
18. SPLICE CORRIDOR STACK INTO SEISMIC (L7416).

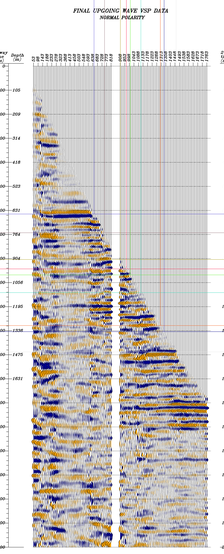
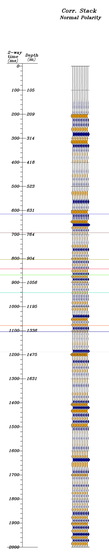
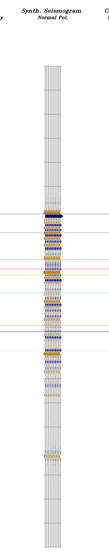
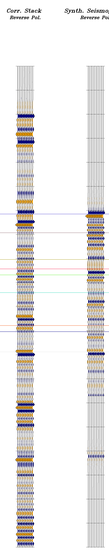
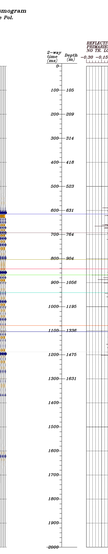
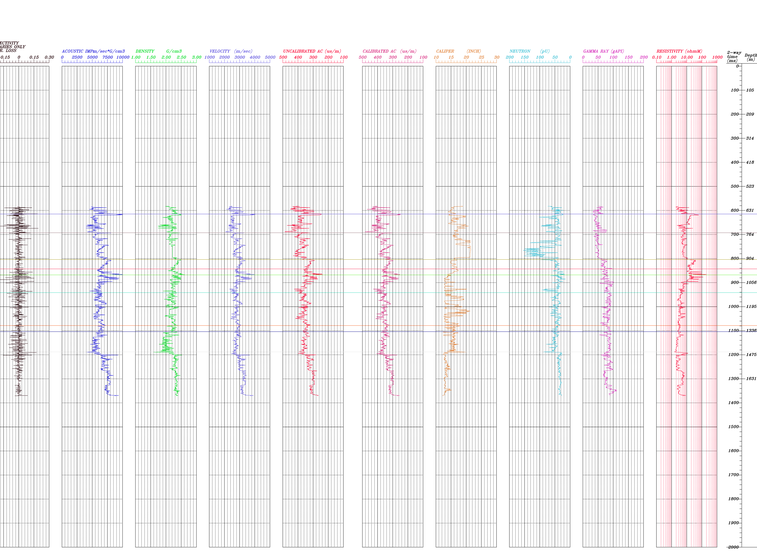
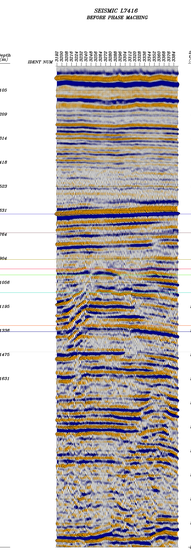
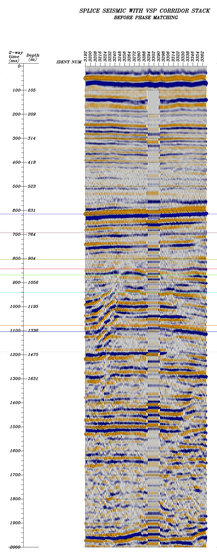
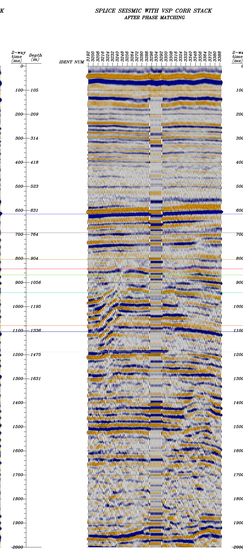
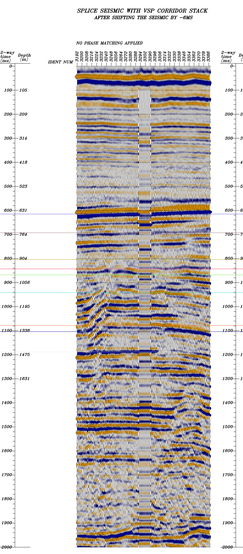
SYNTHETIC SEISMOGRAM PROCESSING

1. CALIBRATED ACOUSTIC LOG
2. FROM THE CALIBRATED ACOUSTIC LOG THE FOLLOWING WERE CREATED:
   2.1. VELOCITY LOG
   2.2. REFLECTIVITY LOG
   2.3. PRIMARY REFLECTIVITY SERIES
3. PRIMARY REFLECTIVITY SERIES CONVOLVED WITH TRAPEZOIDAL BANDPASS FILTER 5/10 - 40/60 HZ

COMMENTS

SEISMIC REFERENCE DATUM IS MEAN SEA LEVEL (MSL)
VELOCITY DATUM IS 75.0 M RT (54.46 M BELOW MSL)
TWO-WAY VERTICAL TIMES ARE REFERENCED TO SEISMIC DATUM OF MSL
TWO-WAY VERTICAL TIME SCALE IS 20 CM/SEC

DISPLAY CONVENTION

NORMAL POLARITY

AN INCREASE IN ACOUSTIC IMPEDANCE IS DISPLAYED AS A TROUGH