

# PD00 NON-EXCLUSIVE 2D SURVEY

#### **ACQUISITION PARAMETERS**

Acquisition Period: April - July 2000 Acquisition Date: Zephyr 1 **Vessel:** 20 456 km Survey Length: Syntrak Recording Instrument: Syntrak RDA Streamer Type: Tuned Bolt Array Source Type: 2800cu.in Source Volume: 7m Gun Depth: 37.5m Shotpoint Interval: 12.5m **Group Interval:** 480 **Recording Channels:** 6000m Streamer Length: 2ms Sample Interval: 80 Nominal Fold: SEG-D 3590 cartridges Recording format and media type: April - July 2000

### **PROCESSING SEQUENCE**

| Input                       | SEG-D to ProMAX internal format   |
|-----------------------------|---|
| Bandpass Filter             | 3Hz@6dB/oct-90Hz@72dB/oct   |
| Resample                    | From 2 to 4ms   |
| Static Correction           | -94ms system delay - Zephyr only  |
| Minimum Phase Conversion    | Using library far-field signature   |
| <b>Trace Decimation</b>     | k-notch filter at +/- 1/2 spatial nyquist prior to alternate channel drop - |
|                             | Zephyr only   |
| Marine Geometry Assignment  |   |
| Static Correction           | +10.81ms for gun/cable  |
| Automatic Spike Edit        |   |
| Velocity Analysis           | Velocities interactively picked every 3km                                   |
| Amplitude Recovery          | T**10-9s. Correct to zero offset and apply                                  |
|                             | 1/ TV**2+T**-10- 9s using average function for line                         |
| Forward NMO Correction      | Using 3km velocities  |
| Trace mix                   | Shot domain 0,7,1.0,0.7 trace weights                                       |
| Inverse NMO Correction      | Using 3km velocities  |
| Forward NMO Correction      | Constant velocity 1500m/s   |
| Demultiple                  | Parabolic Radon Transform Filter. Subtract modeled simple WB                |
|                             | multiples. 87 residual moveout 'p' values values modeled from -1000 -       |
|                             | +400ms. AGC Scaling wrap  |
| Inverse NMO Correction      | Constant velocity 1500m/s   |
| Forward NMO Correction      | Using 3km velocities  |
| Demultiple                  | Parabolic Radon Transform Filter. Subtract modeled multiples. 180           |
|                             | residual moveout 'p' values modelled from- 100ms - +2000ms. AGC             |
|                             | scaling wrap  |
| Threshold Amplitude Editing | Selective application below WB time x2                                      |
| f-k Filter                  | Windowed from WB time x2 to 12s. Accept picked polygon in shot              |
|                             | domain  |
| FX Deconvolution            | 4-point filter, 5 trace x 300ms prediction window150ms overlap 1%           |
|                             |   |



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|                                 | noise. Applied in offset domain  |
|---------------------------------|--|
| Dip Moveout Correction -        | f-k common offset DMO. 80 offset bins.                                   |
| Migration                       | Stolt f-k migration with smoothed 3km velocity field clipped @ 2000m/s   |
| <b>Inverse NMO Correction</b>   | Using 3km velocities   |
| Velocity Analysis Velocity      | Velocities interactively picked every 1,5km                              |
| QC Forward NMO                  | 'Multivel' stacks +/- 7.5% picked function                               |
| Correction                      | Using 1.5km velocities and Alchalabi 3 <sup>rd</sup> term NMO            |
| Scaling                         | 500ms AGC  |
| Final Stack Mute                | Applied relative to water bottom time                                    |
| Inside Trace Mute               | Applied relative to water bottom time x2                                 |
| CMP Stack                       | Square root recovery scaling   |
| Inverse Stolt migration         |  |
| <b>Predictive Deconvolution</b> | 2 x 120ms operators. 24,32ms gaps.                                       |
|                                 | gate 1: WB+250 - WB+2500ms   |
|                                 | gate 2: WB+2000 - WB+5000 ms   |
| FX Deconvolution                | 4-point filter, 5 trace x 150ms prediction window50ms overlap 1 % noise  |
| <b>Time-Variant Filter</b>      | Tied to WB time. Typical times & passbands:                              |
|                                 | 0 ms: 5-8-50-60 Hz   |
|                                 | 2000 ms: 5-8-45-55Hz   |
|                                 | 5000 ms: 3-5-15-20 Hz  |
|                                 | 12000 ms: 3-5-10-15 Hz   |
| Migration                       | Provisional kirchhoff migration. 50 degree dip limitVelocities scaled by |
|                                 | 95% smoothed scaling wrap  |
| Time-Variant Filter             | Tied to WB time. Typical times & passbands:                              |
|                                 | 0 ms:555-65Hz  |
|                                 | 2000 ms:5-8-50-60Hz  |
|                                 | 5000 ms: 3-5-20-25 Hz  |
|                                 | 12000 ms: 3-5-10-15 Hz   |
| Time-Variant Scaling            | Tied to water bottom time. Expanding gates overlapping 50% 0.9 scaling   |
|                                 | adjustment exponent  |

### **AVAILABLE DELIVERABLES**

- Final Migrated Stack ٠
- Angle Stacks •
- Navigation DataField Tapes
- Radon Gathers
- Migrated Gathers •