

SEISMIC DATA PROCESSING REPORT

for

WOODSIDE ENERGY LTD

<i>Survey</i>	SCHOMBERG 3D (2008) & MINERVA 3D (1994) (MERGED) 2008 PSTM PROCESSING
<i>Location</i>	OTWAY BASIN, VIC/P43 AUSTRALIA
<i>Date</i>	Oct 2008

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1 Introduction

The Schomberg 3D was recorded by PGS in February 2008. A total of 18829.125 sail line kms were acquired, comprising 64 live sequences. The Minerva 3D was recorded by BHP Petroleum in February 1994, comprising 71 live sequences and was merged with the Schomberg 3D survey. After binning this resulted in a total of 546.63 square kms. The surveys were located in permit VIC/P43, Otway Basin (See Figure 1).

The data was characterised by shallow water of approximately 80m. The S/N ratio was generally good down to 2 seconds. The target was the Top Waarre which ranged from 600 to 2000ms. The data also had a high degree of structure which showed varying S/N.

The key to the processing was to remove linear noise and predominant short period multiple energy caused by the water bottom and immediate shallow events. Amplitude preserving processing was also to be adhered to. Both surveys were to use identical processing, noting that the cable lengths of the Schomberg and Minerva 3D's were 3000m and 6000m respectively.

Processing commenced in March 2008 and the final stack and gather data were delivered in September/November 2008. All processing was undertaken at the Fugro Seismic Imaging office in Perth, Western Australia.

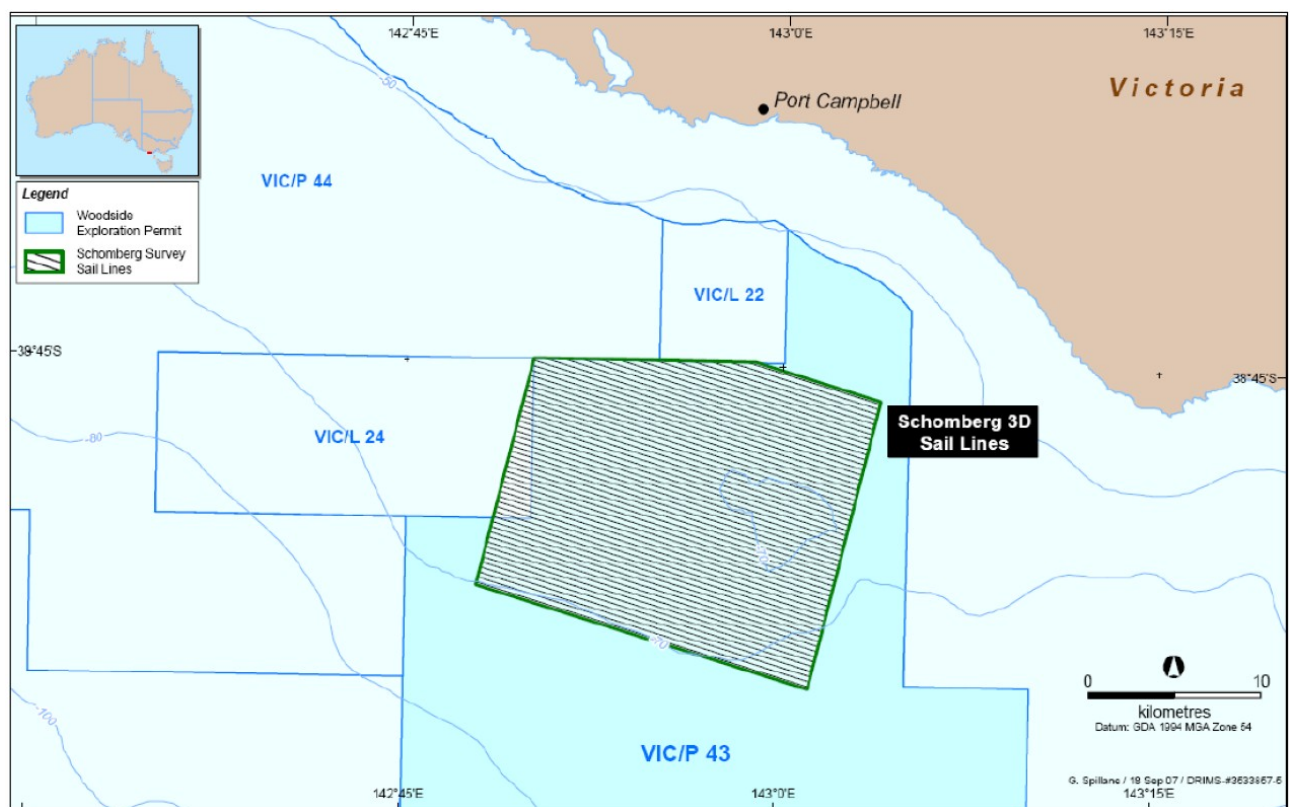


Figure 1. Schomberg 3D MSS Preplot Map

2 Personnel

Fugro Seismic Imaging Pty Ltd

Michael Riha Senior Geophysicist

Woodside Energy Ltd

Guy Taylor Processing Geophysicist

2.1 Line Listing

SCHOMBERG 3D (2008)			MINERVA 3D (1994)		
LINE	FSP	LSP	LINE	FSP	LSP
W08SCH1018P1	2073	841	OH94-1000	1655	906
W08SCH1186P1	1014	2245	OH94-1000I	1655	906
W08SCH1030P1	2074	842	OH94-1008A	1655	906
W08SCH1198P1	1015	2246	OH94-1016	1655	906
W08SCH1042P1	2075	843	OH94-1024	1655	906
W08SCH1210P1	1015	2247	OH94-1032A	1655	906
W08SCH1054P1	2076	844	OH94-1040	1655	906
W08SCH1222P1	1016	2248	OH94-1048	1655	906
W08SCH1066P1	2077	845	OH94-1056	1655	906
W08SCH1234P1	1017	2249	OH94-1064	1655	906
W08SCH1078P1	2077	846	OH94-1064I	1655	906
W08SCH1246P1	1018	2250	OH94-1072	1655	906
W08SCH1090P1	2078	847	OH94-1072I	1655	906
W08SCH1258P1	1019	2251	OH94-1080	1655	906
W08SCH1090I1	2078	1267	OH94-1080I	1655	906
W08SCH1090I2	1276	847	OH94-1088	1655	906
W08SCH1270P2	1020	2252	OH94-1096	1655	906
W08SCH1102P1	2079	878	OH94-1104	1669	906
W08SCH1282P1	1021	2252	OH94-1112	1655	906
W08SCH1114P1	2080	848	OH94-1120	1655	906
W08SCH1294P1	1022	2253	OH94-1128	1655	906
W08SCH1126P1	2081	849	OH94-1136	1655	906
W08SCH1306P1	1022	2254	OH94-1144	1655	906
W08SCH1138P1	2082	850	OH94-1152	1655	906
W08SCH1318P1	1023	2255	OH94-1152I	1655	906
W08SCH1150P1	2083	851	OH94-1160	1655	906
W08SCH1162P1	2084	852	OH94-1168	1655	906
W08SCH1162I1	2084	852	OH94-1176	1655	906
W08SCH1174P1	1013	2245	OH94-1184	1655	906
W08SCH1006P1	2072	841	OH94-1192	1655	906
W08SCH1318R1	1023	2255	OH94-1200	1655	906
W08SCH1522P1	2110	878	OH94-1208	1655	906
W08SCH1330P2	1024	2256	OH94-1216	1655	906
W08SCH1534P1	2111	879	OH94-1224	1655	906
W08SCH1342P1	1025	2257	OH94-1232	1655	906
W08SCH1546P1	2108	880	OH94-1240	1655	906
W08SCH1354P1	1026	2258	OH94-1240I	1655	906
W08SCH1558P1	2053	881	OH94-1248I	1015	1764
W08SCH1366P1	1027	2259	OH94-1256	1015	1764
W08SCH1570P1	1999	882	OH94-1264	1024	1764
W08SCH1378P1	1028	2259	OH94-1272	1035	1764
W08SCH1582P1	1945	883	OH94-1280	1046	1764

W08SCH1390P1	1029	2260	OH94-1280A	1185	1639
W08SCH1402P1	1030	2261	OH94-1288A	1056	1764
W08SCH1594P1	1890	884	OH94-1296	1067	1764
W08SCH1414P1	1030	2262	OH94-1304	1078	1764
W08SCH1606P1	1836	884	OH94-1312	1088	1764
W08SCH1426P1	1031	2263	OH94-1320	1099	1764
W08SCH1618P1	1781	885	OH94-1328	1110	1764
W08SCH1438P1	1032	2264	OH94-1328I	1110	1764
W08SCH1630P1	1727	886	OH94-1336	1107	1764
W08SCH1450P1	1033	2265	OH94-1344	1117	1769
W08SCH1642P1	1673	887	OH94-1352	1142	1764
W08SCH1462P1	1034	2266	OH94-1360	1153	1764
W08SCH1654P1	1618	888	OH94-1368	1163	1764
W08SCH1462I1	1034	2266	OH94-1376	1174	1764
W08SCH1666P1	1564	889	OH94-1384	1185	1764
W08SCH1474P1	1035	2266	OH94-1392	1196	1764
W08SCH1678P1	1510	890	OH94-1400	1206	1764
W08SCH1486P1	1036	2267	OH94-1408	1217	1764
W08SCH1510P1	2109	877	OH94-1416	1228	1764
W08SCH1498P1	1037	2268	OH94-1424	1238	1764
W08SCH1510I1	2109	877	OH94-1432	1249	1764
W08SCH1570I1	1130	1680	OH94-1440	1260	1764
			OH94-1448	1270	1764
			OH94-1456	1281	1764
			OH94-1456I	1281	1764
			OH94-1464A	1292	1764
			OH94-1472	1303	1764
			OH94-1480	1313	1764
			OH94-1248A	1015	1764

3 Acquisition Parameters

DESCRIPTION	DETAILS
<i>Survey Name:</i>	Schomberg 3D (2008)
<i>Data recorded by:</i>	PGS
<i>Date recorded:</i>	Feb 2008
<i>Vessel:</i>	Pacific Explorer
General:	
<i>Field CMP Interval</i>	6.25m
<i>Nominal Fold</i>	80
<i>Recording Format:</i>	SEGD 8036 (3592 media)
Seismic source:	
<i>Type</i>	Bolt LLXT Air gun Array
<i>Volume</i>	3090 cu.in.
<i>Pressure:</i>	2000 psi
<i>Depth:</i>	6m +/- 1m
<i>Shot interval:</i>	18.75 m flip flop
<i>Gun Separation</i>	50m
<i>Gun delay:</i>	0ms
Recording system:	
<i>Type:</i>	Syntrak
<i>Record length:</i>	6144 ms
<i>Sample interval:</i>	2 ms
<i>Number of Channels:</i>	6*480
<i>Near Channel:</i>	1
<i>Low Cut Filter:</i>	4.6 Hz @ 6 db/Octave
<i>High Cut Filter:</i>	206 Hz @ 215.2 dB/Octave
<i>Polarity:</i>	First break is negative
<i>Recording Delay:</i>	58 ms
Receivers:	
<i>Number of Streamers</i>	6
<i>Centre near group to centre far group:</i>	5987.5m
<i>Streamer depth:</i>	8 +/- 1m (also 7 & 9m)
<i>Number of groups:</i>	2880
<i>Group interval:</i>	12.5 m
<i>Streamer Separation:</i>	100m

DESCRIPTION	DETAILS
<i>Survey Name:</i>	Minerva 3D (1994)
<i>Data recorded by:</i>	Geco-Prakla
<i>Date recorded:</i>	Feb 1994
<i>Vessel:</i>	M/V Geco Emerald
General:	
<i>Field CMP Interval</i>	6.25m
<i>Nominal Fold</i>	40
<i>Recording Format:</i>	SEGD 8015 (3480 media)
Seismic source:	
<i>Type</i>	Air gun Array
<i>Volume</i>	2231 cu.in.
<i>Pressure:</i>	2000 psi
<i>Depth:</i>	6m +/- 1m
<i>Shot interval:</i>	18.75 m flip flop
<i>Gun Separation</i>	50m
<i>Gun delay:</i>	0ms
Recording system:	
<i>Type:</i>	NESSIE-3
<i>Record length:</i>	5120 ms
<i>Sample interval:</i>	2 ms
<i>Number of Channels:</i>	4*240
<i>Near Channel:</i>	1
<i>Low Cut Filter:</i>	3 Hz @ 18 db/Octave
<i>High Cut Filter:</i>	180 Hz @ 72 dB/Octave
<i>Polarity:</i>	First break is negative
<i>Recording Delay:</i>	0 ms
Receivers:	
<i>Number of Streamers</i>	6
<i>Centre near group to centre far group:</i>	2987.5m
<i>Streamer depth:</i>	8 +/- 1m
<i>Number of groups:</i>	960
<i>Group interval:</i>	12.5 m
<i>Streamer Separation:</i>	100m

4 Parameter Testing

Evaluation of the test results was overseen by Guy Taylor. Principle tests included:

Deswell

Anti-alias and low cut filter tests

Instrument dephase

Tau-P linear noise removal in shot and receiver domains

Tau-P deconvolution tests in shot and receiver domains

Fast vs Slow velocity trend tests

SRME

Radon Demultiple with/without shot interpolation tests

Radon Demultiple velocity cuts tests

PreSTM aperture tests

Residual Radon tests

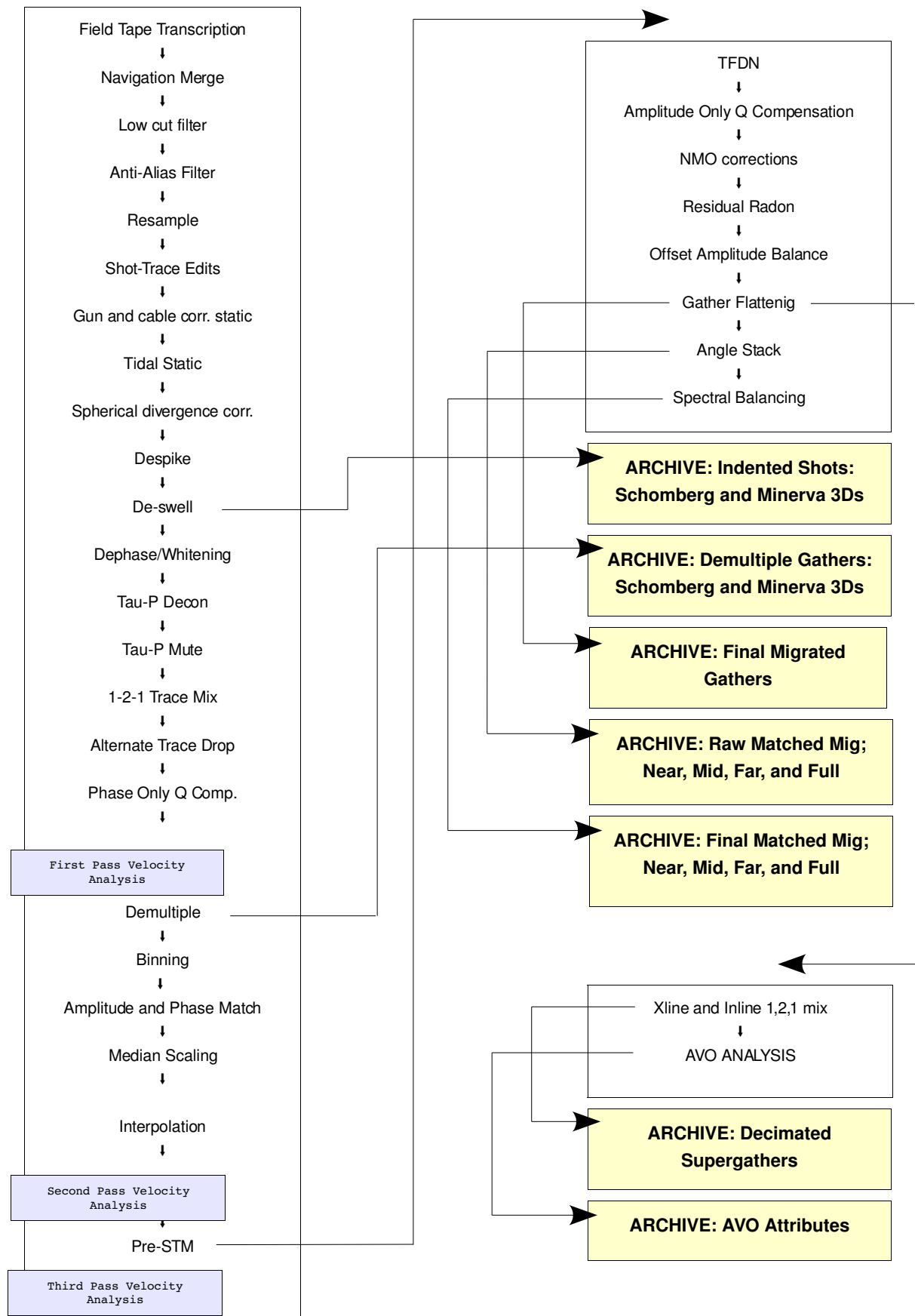
Gather flattening tests

Spectral Whitening tests

Q compensation tests

The testlines for the Schomberg 3D were W08SCH1510I and W08SCH1018P1 and the Minerva test line was OH94-1168. Tests were output as powerpoint format. See Appendix 11.3.

5 Processing Sequence Diagram



6 Processing Description

6.1 Transcription

The supplied field tapes were copied directly to disk, without transcription from SEG-D format. The practice of preserving a pristine field tape image ensures that the field tapes need only be read once in a processing project. The field tape images are later converted to Fugro Seismic Imaging internal format - trace sequential with samples in 32 bit IEEE floating point.

6.2 Seismic Navigation Merge.

The seismic trace headers were updated with easting and northing values from the supplied navigation files. The acquisition time in the navigation files and seismic headers were compared to ensure a correct match (with a tolerance of 3 seconds). The water depth (depth at sounder) was updated and the sea floor two way time calculated using a water velocity of 1500m/s. Trace offsets were calculated using the source and receiver coordinates.

<i>Navigation Parameters</i>		
<i>Spheroid:</i>	GDA94	International 6378137.000 298.2572221
<i>Projection type:</i>	002 UTM	
<i>Projection Zone:</i>	ZONE 54S SOUTHERN HEMISPHERE	
<i>Longitude of CM:</i>	141 degrees E	

6.3 Low Cut Filter

An operator was provided by Woodside used to attenuate some swell noise and any DC bias that existed in the data.

<i>Low Cut Filter Parameters</i>	
<i>Frequency limits:</i>	3 Hz at 18dB/Octave

6.4 Anti-Alias Filter Gain

An operator was provided by Woodside used to high cut filter the data prior to resample.

<i>High Cut Filter Parameters</i>	
<i>Frequency limits:</i>	94Hz at 132dB/Octave

6.5 Re-sample

<i>Resample Parameters</i>	
<i>Resample:</i>	2 to 4ms

6.6 Shot and Trace edits

Bad or noisy shots and traces listed in the Observers Logs were edited out.

6.7 Gun and Cable Static

A static compensation for gun and cable depths was applied. The static value applied was calculated using average gun and cable depths supplied in the observers reports, converted to a time shift using a water velocity of 1500 m/s.

Gun and Cable Static correction parameters	
<i>Minerva:</i>	9.3ms
<i>Schomberg (Cable depth=7m):</i>	8.6ms
<i>Schomberg (Cable depth =8m):</i>	9.3ms
<i>Schomberg (Cable depth =9m):</i>	10.0ms

6.8 Tidal Statics

Tidal statics were applied using tables of deviation from mean sea level supplied by Woodside. A water velocity of 1500m/s was used to calculate statics, which were applied to the data according to GMT acquisition time. 2 separate tide tables were provided and applied for the 2 separate 3D surveys.

6.9 Spherical Divergence Correction

An offset and velocity dependent spherical divergence approximation as described by Bjorn Ursin (GEOPHYSICS Vol.55 No.4, pp492-496 1990) was applied. The 1st pass velocities were used to apply the correction.

6.10 De Spike

Analysis for large amplitude random noise was performed on each ensemble using a multi-channel window operator. Any noise found above a pre-defined threshold was scaled back to the average within the window.

De Spike Parameters	
<i>Length of derivation window:</i>	200ms
<i>Length of averaging operator:</i>	15 traces
<i>Max permissible peak-to-medium ratio:</i>	30
<i>Max permissible derivation of mean from median:</i>	19 standard deviations
<i>Apply:</i>	from 1000ms @100m offset from 5000ms @6200m offset

6.11 De Swell (TFDN)

TFDN or Time Frequency Denoise works by transforming all traces in a short sliding time window to the frequency domain. There, it compares the frequency content of each trace to the frequency content of neighbouring traces in order to identify anomalies. The comparison is working on a single frequency at a time and the phase is not altered.

If any frequency component in a given trace is larger than a threshold defined as a fraction of a computed attribute (i.e. Median, Average, Lower Quartile) TFDN attenuates the anomalous amplitude at that frequency of the current trace under investigation to the level of the threshold attribute.

TFDN Parameters	
Apply:	0-8000ms
Frequency Processing:	0-12Hz
Application domain:	FFT of each tracee
No. of Neighbouring traces:	50
Time window:	500ms, 20ms move-up
Threshold:	3 * Median

6.12 Dephase/Whitening

Filter operators was supplied by Woodside designed to convert the modelled field signature(s) to their zero phase equivalent. The effect of applying this filter to the data is to remove the phase rotations caused by the recording instruments, and to collapse the effective source signature thus making the wavelet more symmetrical. Note that the de-phase output was zero phase. The dephase operators included corrections for the source ghost and included some mild low and high frequency boosting. A listing of the dephase operators is included in Appendix A of this report.

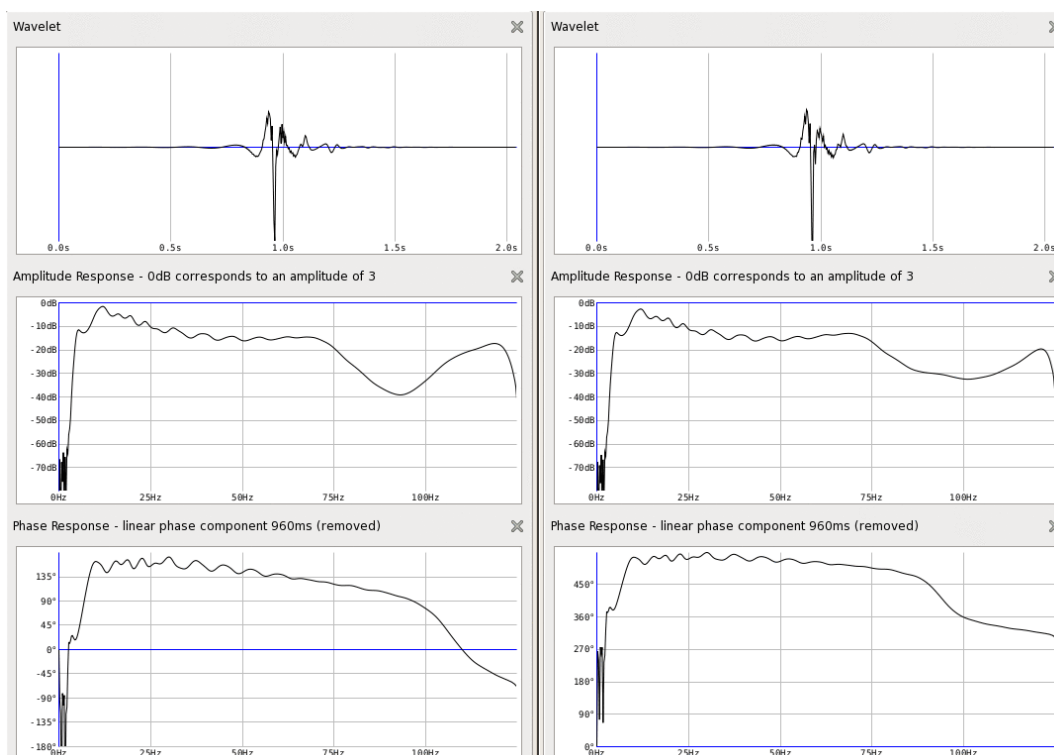


Figure 2. Dephase operators for Schomberg cable depth = 7m (left) and Schomberg cable depth = 8m (right). Note amplitude spectrum shows boosting of low frequencies (~10Hz) and high frequencies (~75Hz).

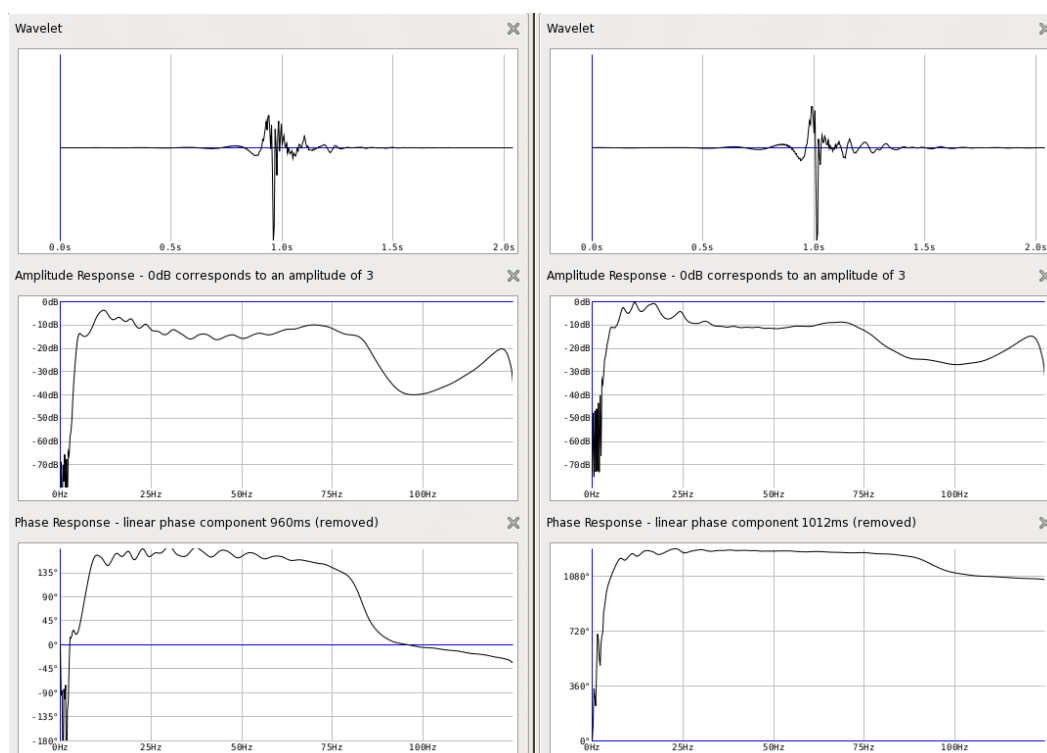


Figure 3. Dephase operators for Schomberg cable Depth = 9m (left) and Minerva cable depth = 8m (right).

6.13 Tau-P deconvolution

Deconvolution in the Tau-P domain proved superior to deconvolution applied in the TX domain.

<i>Tau-P Deconvolution Parameters</i>	
<i>Transform:</i>	-4000 to 4000 increment 8ms
<i>Reference offset:</i>	6300m
<i>Operator:</i>	240ms
<i>Gap:</i>	36ms
<i>Design Window:</i>	0-2000ms
<i>Apply window:</i>	0-5120ms

6.14 Tau-P linear noise removal

The data was transformed to the Tau-P domain using the linear transform. Strong linear noise trains with large dip can be differentiated from primary energy in the linear tau-p space, and these events are attenuated by muting in the Tau-P space - tapering from the primary to noise areas of the transform.

Tau-P linear noise attenuation in the receiver domain was also tested. The trace spacing in the receiver domain was 37.5m which generally requires interpolation to avoid spatial aliasing. This was problematic in two ways: 1. Trace interpolation in areas of low signal changed the data bandwidth and thus the effectiveness of Tau-P linear noise removal (TPLNR). 2 Receiver domain TPLNR without trace interpolation gave an acceptable result with relatively little spatial aliasing on the high frequencies. However the transform was unstable on selected receiver gathers which caused spikes in the data. Therefore shot domain TPLNR only was performed.

<i>Tau-P Mute Parameters</i>		
<i>Domain:</i>	Shot domain	
<i>Transform:</i>	-4000 to 4000 increment 8ms	
<i>Reference offset:</i>	6300m	
<i>Tau-P domain mute:</i>	<i>Time(ms)</i>	<i>Mute taper (full off,full on, full on, full off Delta-t)</i>
	0	-3633,-3133,3133,3633
	200	-3196,-2796,2796,3196
	300	-3029,-2629,2629,3029
	520	-2631,-2231,2231,2631
	800	-2212,-1812,1812,2212
	5120	-1922,-1522,1522,1922

6.15 1-2-1 trace mix

A 1-2-1 (weights) trace mix was performed with alignment along NMO curves. The first pass velocities were used for this process.

6.16 Alternate trace drop

Adjacent Trace Drop Parameters		
Survey:	Minerva	Schomberg
Input traces:	240	480
Input trace interval:	12.5m	
Output traces:	120	240
Output trace interval:	25m	

6.17 Phase only Q compensation

Two fundamental properties associated with wave propagation through subsurface materials are: energy dissipation of plane waves with high frequency, and velocity dispersion by which plane waves of high frequency travel faster than ones with low frequency. These effects may be represented mathematically as the earth Q-filter, defined in terms of a specified earth Q model.

In seismic data processing where the earth Q model is often assumed to be frequency independent, inverse Q-filtering attempts to compensate recorded seismic signals for these wave propagation effects.

Inverse Q Parameters	
Type:	Phase only Q compensation
Q value:	136
Reference Frequency:	625Hz
Apply:	Start from 2000m/s NMO curve @ wb

6.18 First pass velocity analysis

First pass velocities (1km interval) were determined using the Fugro Seismic Imaging Pty. Ltd. "MGIVA" interactive velocity analysis program. Each velocity analysis comprised a semblance display, a CDP stacked panel repeated 20 times with a suite of velocity functions, and a central CDP gather. The suite of functions were generated using 0%, +/-5 %, +/-10%, +/-15%, +/-20 %, +/-25%, +/-30%, +35% and +40% increments from a central velocity function.

The velocity analysis incorporated a map of all velocity locations, and the semblance display included functions from proximate lines. This enabled the velocities to be picked with knowledge of areal velocity trends. Velocity QC can be performed more effectively when discordant velocities are apparent on the map.

The first pass velocities were picked by Fugro and QC'ed by Woodside.

6.19 Demultiple

Attenuation of multiples was achieved by modelling and subtraction using a least squares, parabolic radon transform. Normal moveout corrections were performed using the first pass velocities, and the CDP gathers transformed into the parabolic Tau-P domain. The segment of the Tau-P domain corresponding to primary reflections is muted, leaving the multiple energy to be transformed back into the T-X domain and subtracted from the original CDP gather. The Hi-resolution radon option was invoked, where the resolution of the radon transform is improved by adding weighting terms to the least squares solution, thus minimising the residual error.

Radon Demultiple Parameters	
Input Data:	80 fold(Schomberg), no shot interpolation 40 fold(Minerva), no shot interpolation
Preconditioning:	AGC: 300ms Premute:650,0,900,300,1300,500,2400,1000,6200,2200 (offset(m),time(ms) pairs)
Reference offset:	6200m
Frequency range:	4-90 Hz
Minimum p:	-1000 (parabolic delta-t, at reference offset)
Maximum p:	+4000 (parabolic delta-t, at reference offset)
No. of p traces:	500
Delta-T cuts:	0000,-500,750 1000,-500,480 2000,-500,360 (time(ms),delta-t cuts -ve to +ve)
Radon Apply:	From 800ms (full off) taper to 1200ms- data end (full on)

6.20 Binning

The data was binned, output onto a 12.5m inline and 25m crossline grid. It was noted that the Minerva survey was supplied with AGD84 coordinate datum navigation and was converted to GDA94 by a straight addition of 122.3m (x) and 177.1m (y).

Binning Parameters	
Grid size:	12.5m inline 25m xline
Offset plane definition:	157.5m to 6082.5m inc. 75m (80 fold)
Origin:	679998.894334E ,5685716.89865N
Direction:	287.6 degrees
Line interval	25m
CDP interval:	12.5m
3D Line number at origin:	881 inc. -1 in direction 197.6 degrees
3D CDP number at origin:	2043 inc. 1 in direction 287.6 degrees
Coordinate Datum:	GDA94 PROJECTION ZONE:002 UTM ZONE NO. 54 S

6.21 Amplitude and phase matching

The Schomberg survey was considered the base survey and thus would remain unaltered. FSI's software FMATCH was used to derive the phase and static shift for the Minerva survey. This was done on selected crosslines from 200 inlines and averaged.

Amplitude and Phasematching parameters	
Minerva Scalar:	1.54 Derived from comparison of inlines 1480-1680 inc. 5. selection of 200 cdps centred on xline 3100.
Minerva Phase rotation:	-9 degress
Minerva Static Shift:	-1ms

6.22 Median Scaling

The amplitude of any trace is affected by various factors, including the shot strength, response and coupling of the receivers, trace offsets and the geology. Each trace was scaled to the median amplitude of the traces in the offset plane, within a 250m radius, centered at the trace's position.

6.23 Interpolation

No flex binning was performed. Missing bins from each offset plane were interpolated using a dip model derived from the full offset stack. Interpolated data was output at bin centre locations and the source and receiver locations were the average of S/R coordinates contributing to the output interpolated trace, using a radius of 125m.

<i>Interpolation Parameters</i>	
Apply:	80 offset cubes
Max search radius:	125m
Output:	interpolated offset cubes at bin centre

6.24 Pre-stack Time Migration

F.S.I's SHIMOGEN program performs Pre-stack 3D Kirchhoff Time migration by the direct 3D Kirchhoff summation method. It is applied to traces in common offset and azimuth order.

The velocity functions derived from analyses of data processed through PSTM are essentially independent of structure and are therefore well suited to direct utilisation in processes such as depth conversion and interpretative studies.

<i>Pre-STM Parameters</i>	
Migration Type:	Curved ray
Aperture:	5000 m
Anti Alias:	Gray's anti-alias pre filtering
Velocity slowing:	100% 2nd pass velocities
Velocity smoothing:	No smoothing
Frequency Limit:	0,125,2000,105,4000,80,6000,60 time(ms),freq(Hz) pairs

6.25 Second and Third pass velocities

Initially lines every 1km were migrated using 1st pass velocities.

2nd pass velocity analysis was then performed on these lines to produce a velocity field on a 1*1 km grid.

The 2nd pass grid was then used to migrate the entire data set and then final third pass velocities field was infill picked using a 0.5*0.5km grid. ETA correction were also picked in combination with the 3rd pass velocities. Initially they were picked on a 2km grid and then interpolated onto the 3rd pass velocity 500*500m grid and altered in combination with the 3rd pass velocities.

Analysis was performed using the Fugro Seismic Imaging Pty. Ltd. "MGIVA" interactive velocity analysis program. Each velocity analysis comprised a semblance display, a CDP stacked panel repeated 20 times with a suite of velocity functions, and a central CDP gather. The suite of functions were generated using 0%, +/-3%, +/-6%, +/-9%, +/-12%, +/-16%, +/-21% and +27% +35% increments from a central velocity function.

The central function for the 2nd pass analysis was the 1st pass velocities

The central function for the 3rd pass analysis was the 2nd pass velocities

6.26 TFDN

TFDN or Time Frequency De-noise was used in the frequency range 0-125Hz on the far offsets in order to attenuate residual linear noise below 3 seconds.

TFDN Parameters	
Apply:	3000-5210ms offsets 60 full off ramp to 80 full on
Frequency Processing:	0-120Hz
No. of Neighbouring traces:	50
Time window:	500ms, 20ms move-up
Threshold:	2 * Median

6.27 Amplitude only Q compensation

Following the amplitude only Q compensation applied (section 6.17), phase only Q compensation was applied in the same manor.

Inverse Q Parameters	
Type:	Amplitude only Q compensation
Q value:	136
Reference Frequency:	625Hz
Max. boost:	12 dB
Apply:	Start from 2000m/s NMO curve @ wb

6.28 NMO Correction

Dix fourth order NMO corrections and ETA corrections were applied using the final picked 0.5km velocity and ETA field.

6.29 Residual Radon

Attenuation of multiples was achieved by modelling and subtraction using a least squares, parabolic radon transform. Normal move out corrections were performed using the first pass velocities, and the CDP gathers transformed into the parabolic Tau-P domain. The segment of the Tau-P domain corresponding to primary reflections is muted, leaving the multiple energy to be transformed back into the T-X domain and subtracted from the original CDP gather. The Hi-resolution radon option was invoked, where the resolution of the radon transform is improved by adding weighting terms to the least squares solution, thus minimising the residual error.

Significant testing was performed to derive the residual radon cuts particularly between 1-2 seconds where the result was sensitive to small changes in radon cuts. In many cases there was little differential moveout between the primary and multiple energy. Also the large degree of structure caused non-hyperbolic moveout, resulting in some primary energy being attenuated.

Residual Radon Demultiple Parameters	
Input Data:	80 fold Pre-STM gathers
Preconditioning:	Interpolation: 160 fold cdp trace interpolation AGC: 300ms Premute:650,0,900,300,1300,500,2400,1000,6200,2200 (offset(m),time(ms)) pairs
Reference offset:	6150m
Frequency range:	4-90 Hz
Minimum p:	-1500 (<i>parabolic delta-t, at reference offset</i>)
Maximum p:	+3000 (<i>parabolic delta-t, at reference offset</i>)
No. of p traces:	450
Delta-T cuts:	0000,-300,1000 1000,-300,200 2000,-300,150 3000,-300,100 6000,-300,80 (time(ms),delta-t cuts -ve to +ve)
Radon Apply:	400 full off ramp to 600 full on
Linear Residual Radon (Shallow linear noise) Parameters	
Delta-T cuts:	0,-300,200 (time(ms),delta-t cuts -ve to +ve)
Linear Radon Apply:	0000ms full off (ramp) 0200ms full on 0700ms full on 1000ms-dataend full off

6.30 Offset Amplitude Balance

Inelastic amplitude decay with offset was corrected for by deriving scalars over a RMS analysis window of 1200-3200ms window.

Amplitude vs offset parameters	
Analysis:	All data greater than 40 fold Offset planes 1200ms-3200ms.
Average RMS Amplitudes (every 10th):	1,1.7405 10,1.6242 20,1.2254 30,1.0348 40,0.8458 50,0.6927 60,0.6498 70,0.5185 80,0.5347 (offset,amplitude pairs)

6.31 Gather flattening

Relative statics are derived for each trace in the gather, by correlating against the sum of a selected number of previous traces. A total static is then derived by summing the relative statics, and adding a constant such that the mean total static is zero within a specified near offset zone. Total statics are applied to the pilot traces before summation, and a predicted total static applied to the target trace before correlation (simply copying the previous total static) This technique constrains the static search to the maximum expected relative static between adjacent traces, while progressively unravelling large deviations across the gather - often hundreds of milliseconds.

Gather Flattening parameters	
Preconditioning:	F-K filter on gather for statics derivation only
Apply:	100-2500ms
Median filter:	5traces, 3 windows
Window:	300ms, 150ms moveup
Anchor:	Near offset, static = 0
Maximum static:	16ms

6.32 Angle stack

Angle gathers (gather which has been muted outside of the requested range of incident angle) are produced and stacked using 1/N fold compensation. Angle stack

Angle gathers (gather which has been muted outside of the requested range of incident angle) are produced and stacked using 1/N fold compensation.

Angle stacking parameters	
Velocities:	Smoothed 3 rd pass velocities.
Velocity smoothing	Radial 1Km@0ms ramped to 2km @ 6000m.
Method:	Ray traced at 100ms intervals.
Shallow retention:	Keep near 3 traces live above 400ms
Ranges:	3-40 degrees(full), 3-16(near), 15-28(mid), 27-40(far)

6.33 Spectral Balancing

Zero phase spectral whitening was applied to further boost the high frequencies.

Spectral Balancing parameters	
Averaging:	11 autocorrelations
White Noise:	0.1%
Butterworth Spectra:	8/18-55/72 window 1
	8/18-40/64 window 2
	8/18-30/62 window 3
Design:	0-1200ms window 1
	1000-2400ms window 2
	2200-3800ms window 3
Apply:	0ms window 1
	1000ms window 2
	2200ms window 3

7 EXAMPLE DISPLAYS

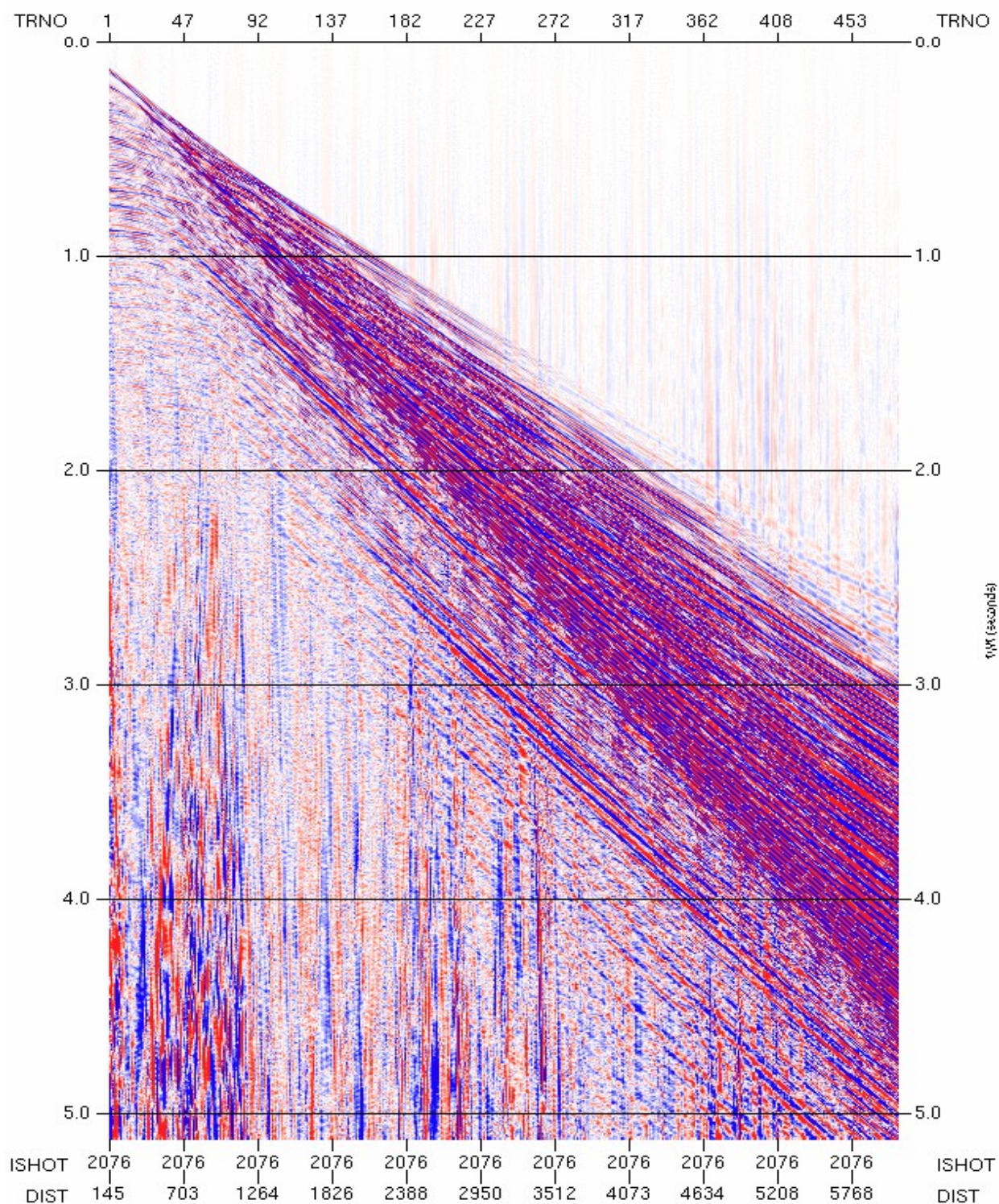


Figure 4. Example Schomberg 3D raw shot after low cut filter and scale. Data contains swell noise and strong linear noise.

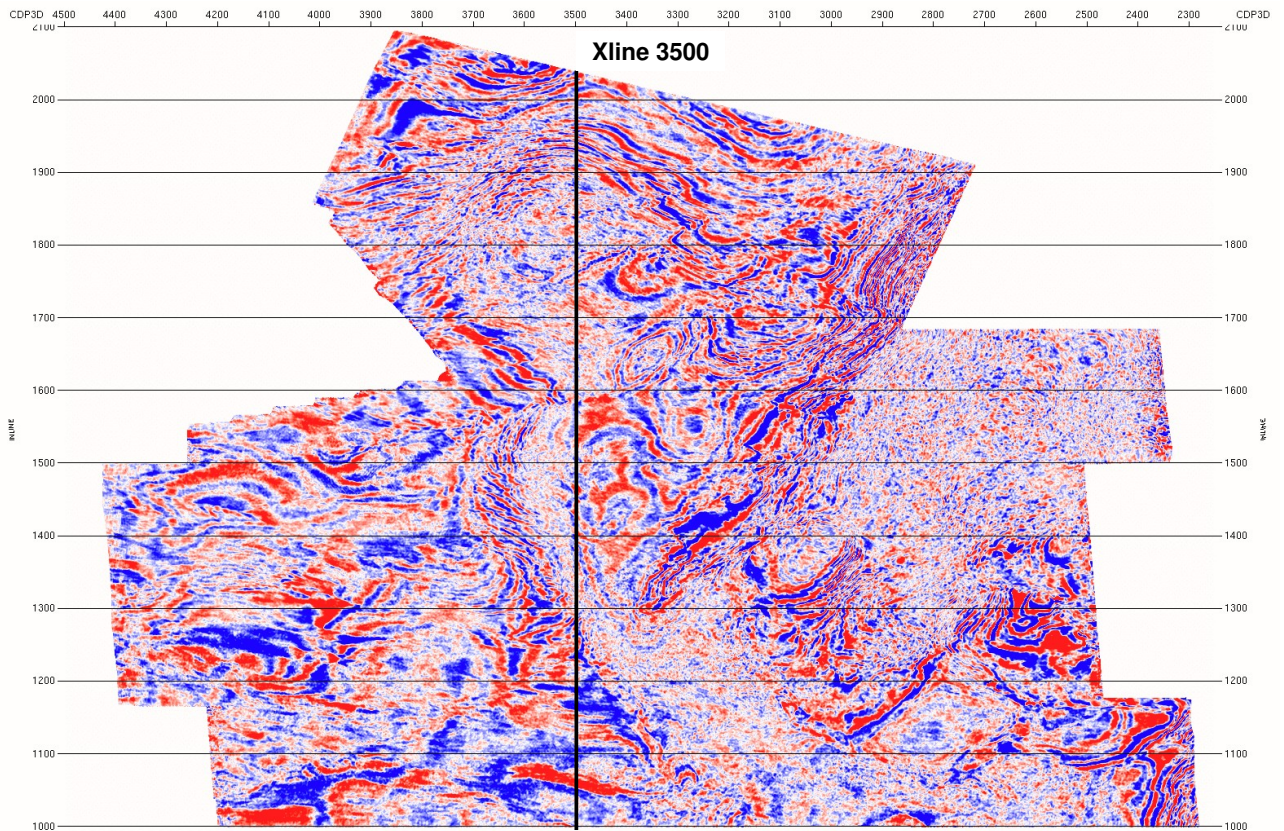


Figure 5. Timeslice 1200ms of final migrated stack full (3-40 degrees). Inlines 1000-2100, xlines 2300-4500. Minerva 3D survey (top) is merged with the Schomberg survey (bottom).

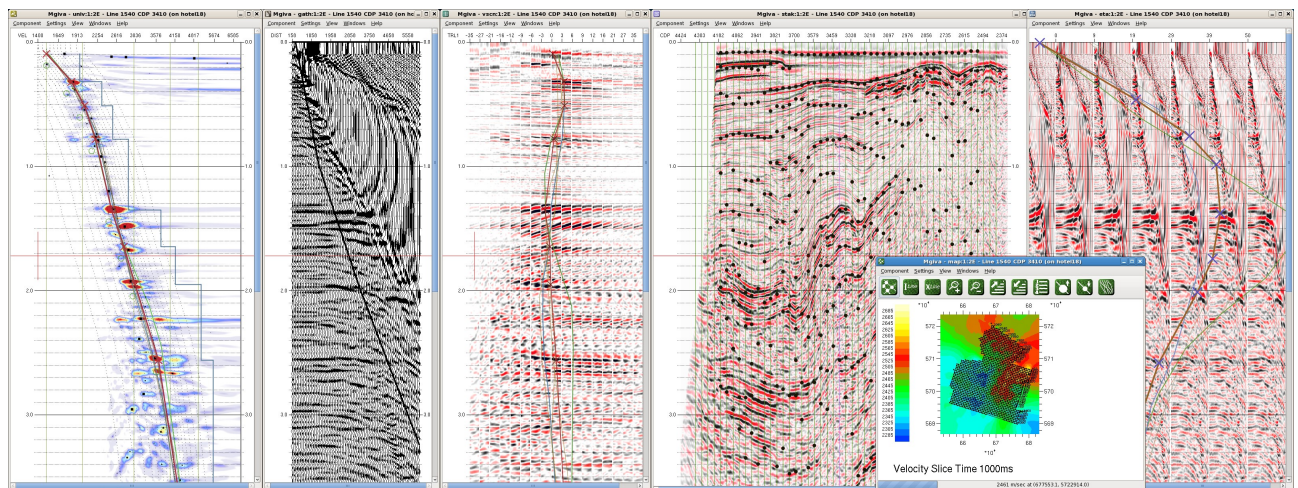


Figure 6. Example 3rd pass velocity analysis.

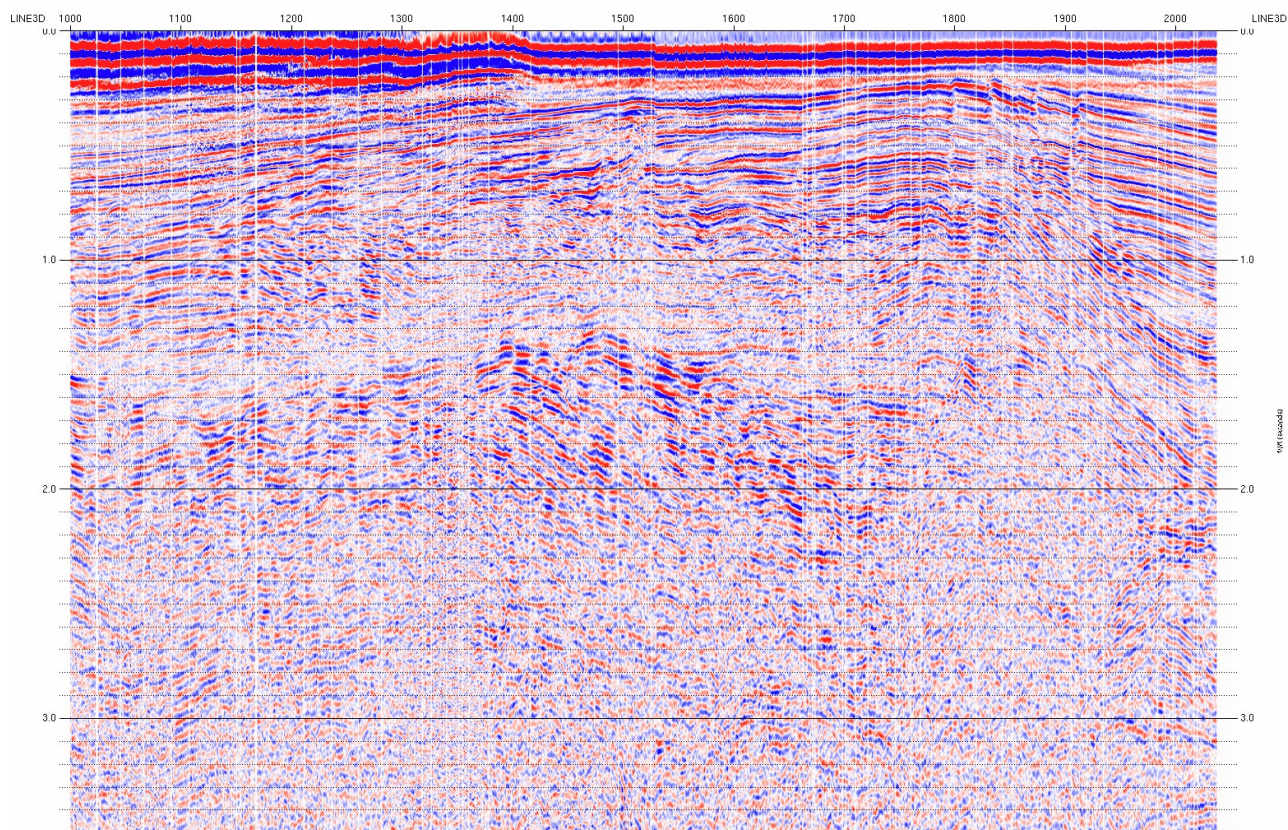


Figure 7. QC cube xline 3500 after deswell (section 6.11)

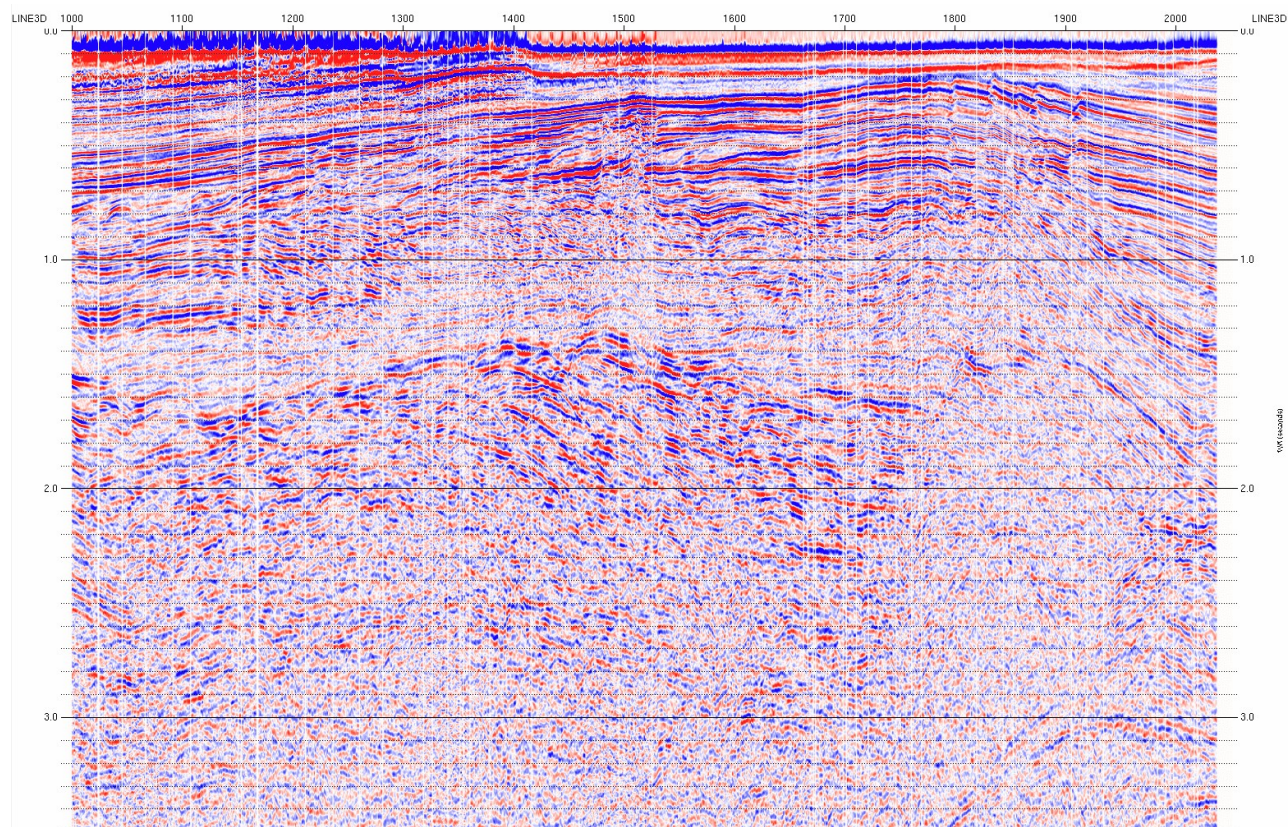


Figure 8. QC cube xline 3500 after Tau-P decon and LNR (section 6.14)

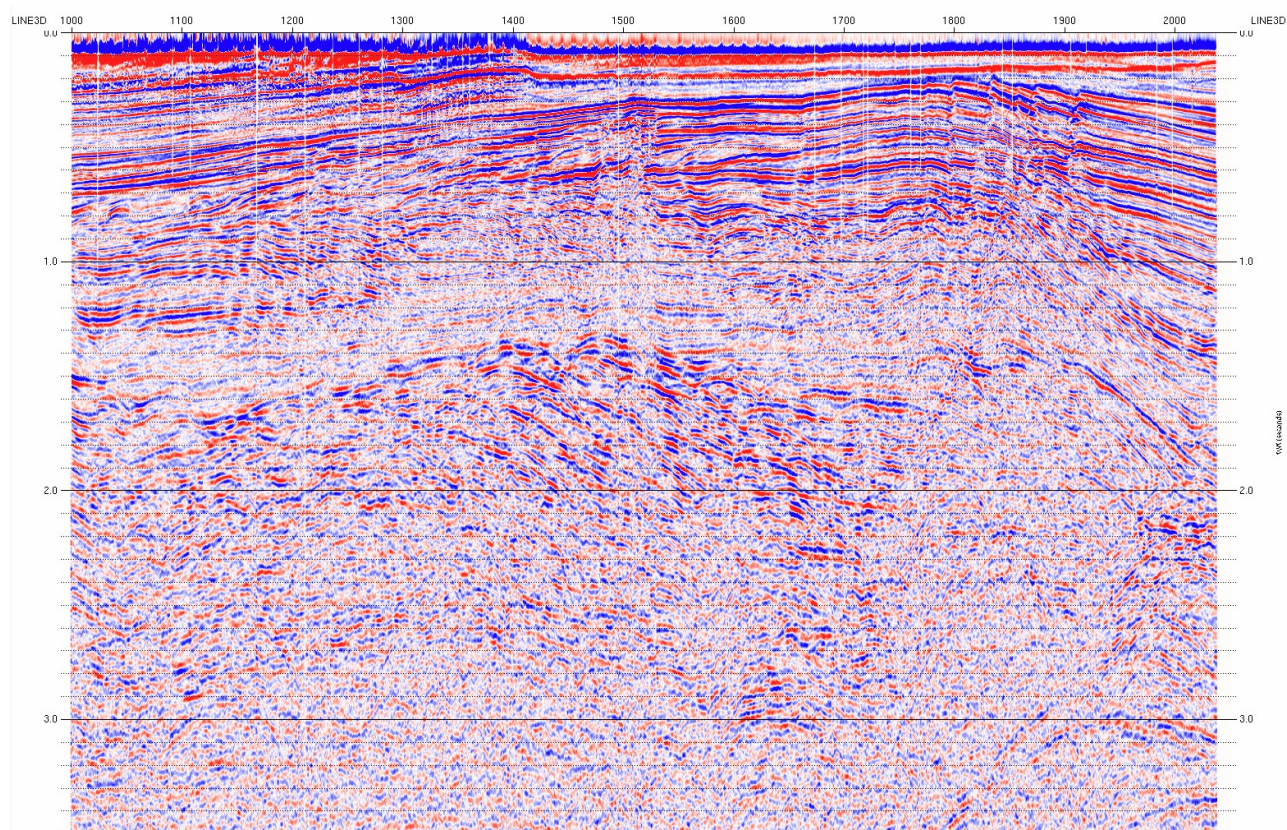


Figure 9. QC cube xline 3500 after demutiple and binning (section 6.20)

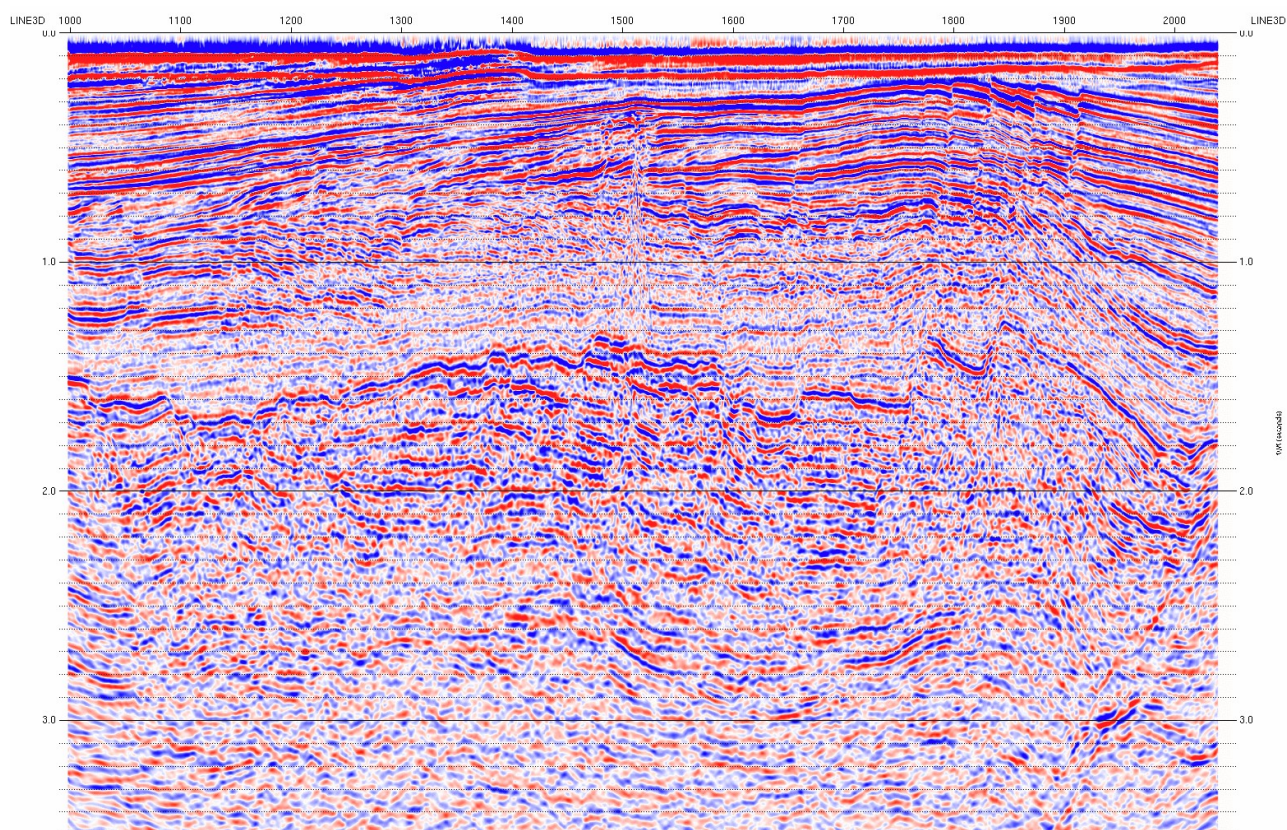


Figure 10. QC cube xline 3500 after Pre-STM (section 6.24)

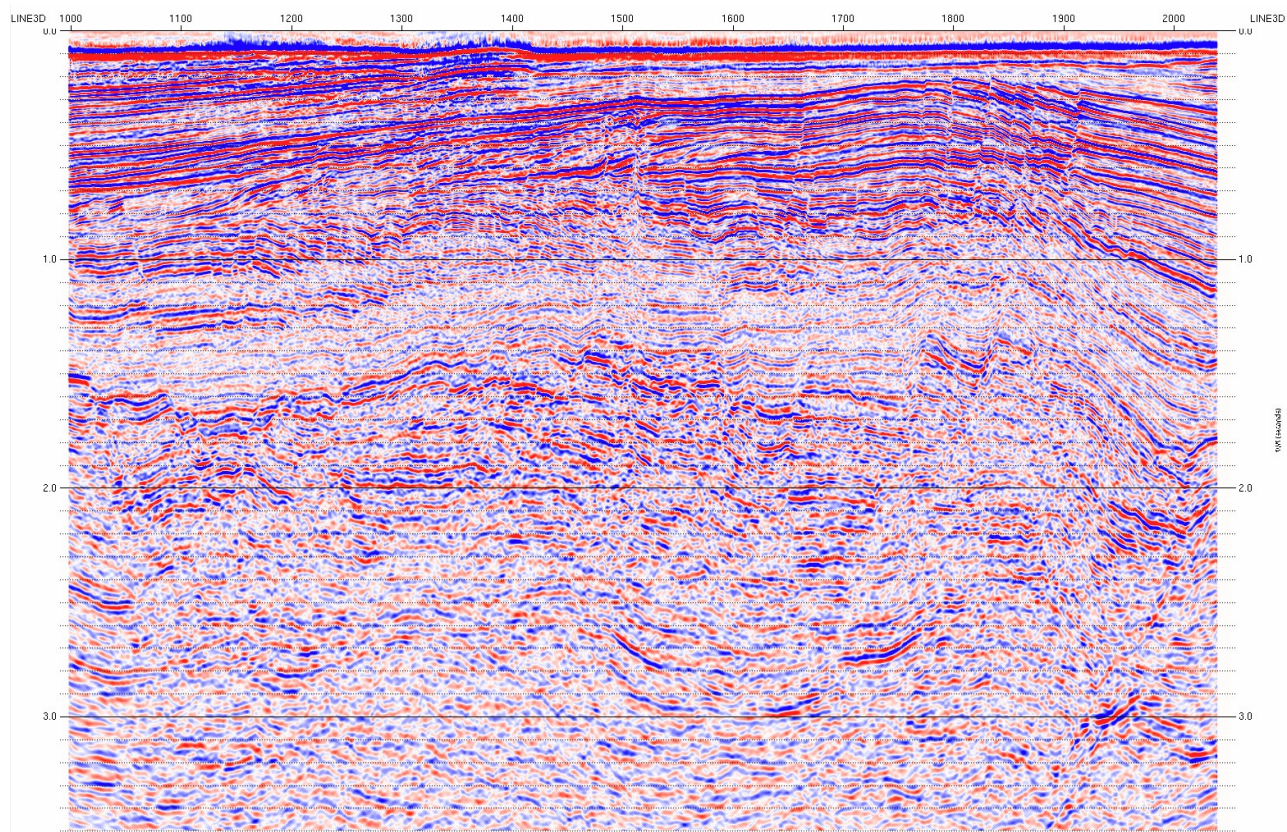


Figure 11. QC cube xline 3500 after res. radon and 3-40 degrees stack (section 6.32)

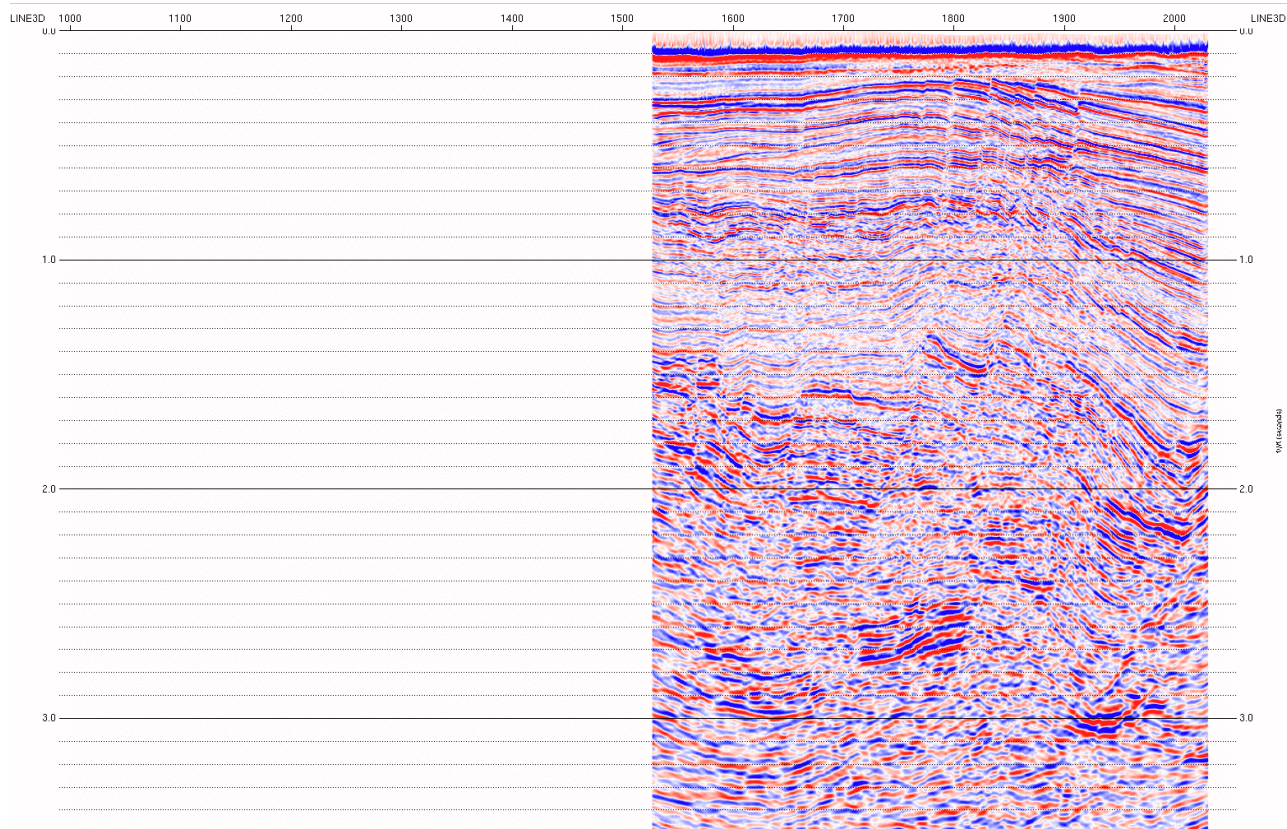


Figure 12. Cube xline 3500 Minerva previous processing.

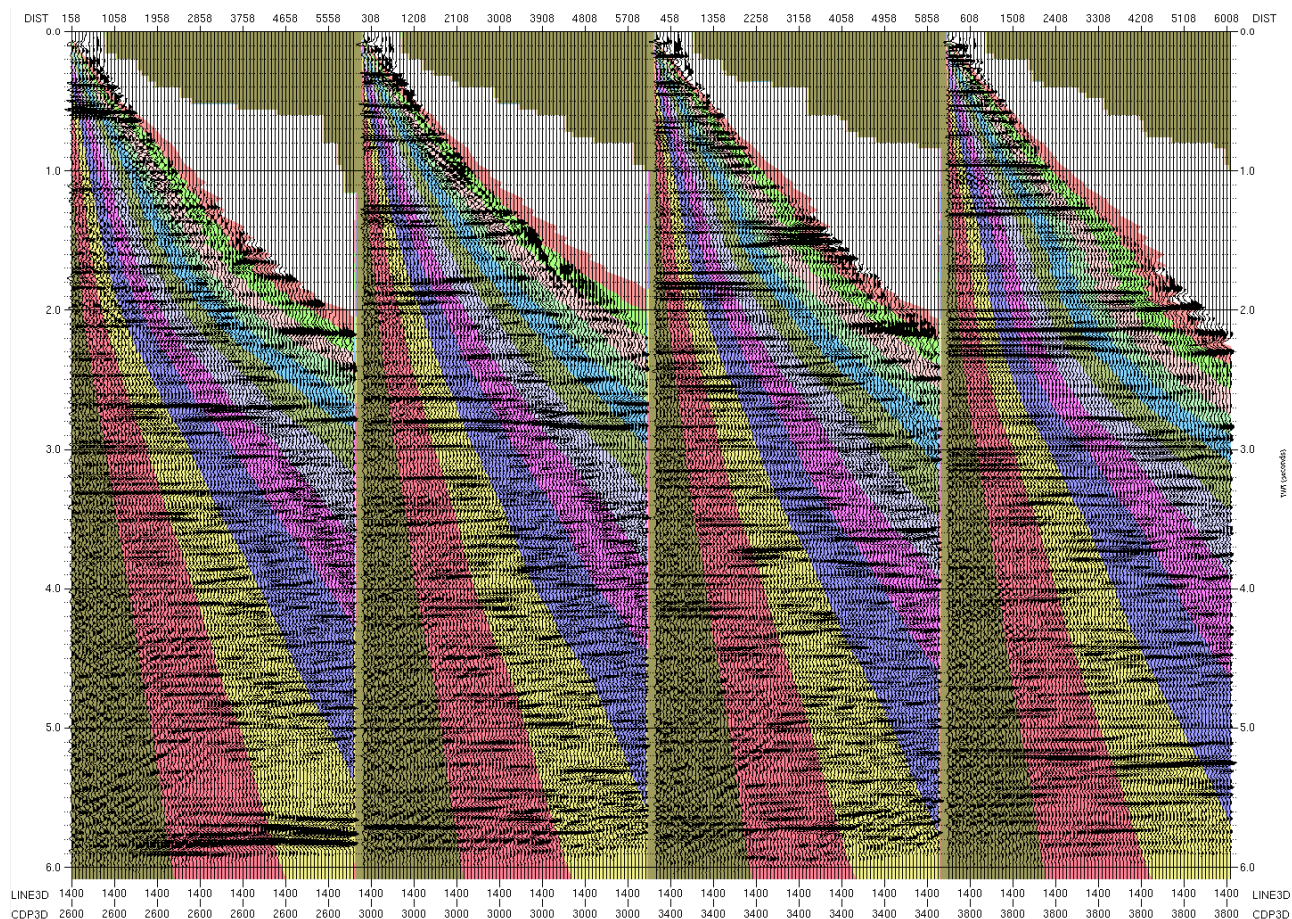


Figure 13. Inline 1400 angle of incidence gathers. Color bar in 5 degree increments. Data after gather flattening.

8 Polarity Statement

The final desired polarity was SEG normal (or SEG negative)*, where an increase in acoustic impedance is represented by a negative number on tape, and white trough on display.

An acoustic impedance increase is represented by a trough.

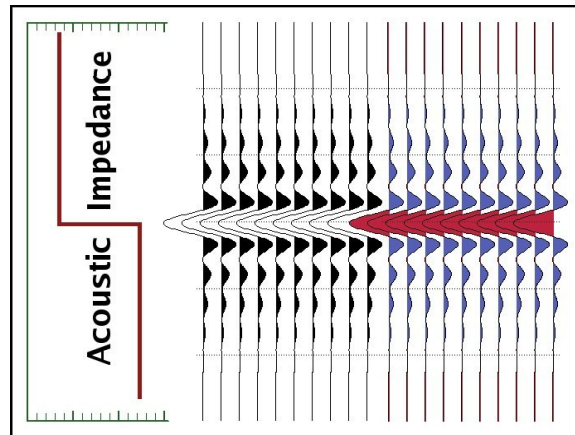


Figure 14. Desired polarity diagram

9 Data Disposition

3D-Stack Data			
Date	Project Name	Tape No	Data Type
18/11/2008	SCHOMBERG MINERVA 3D PSTM 2008	GR0011	Raw Matched Mig Near
18/11/2008	SCHOMBERG MINERVA 3D PSTM 2008	GR0011	Raw Matched Mig Mid
18/11/2008	SCHOMBERG MINERVA 3D PSTM 2008	GR0011	Raw Matched Mig Far
18/11/2008	SCHOMBERG MINERVA 3D PSTM 2008	GR0011	Raw Matched Mig Full
18/11/2008	SCHOMBERG MINERVA 3D PSTM 2008	GR0011	Final Matched Mig Near
18/11/2008	SCHOMBERG MINERVA 3D PSTM 2008	GR0011	Final Matched Mig Mid
18/11/2008	SCHOMBERG MINERVA 3D PSTM 2008	GR0011	Final Matched Mig Far
18/11/2008	SCHOMBERG MINERVA 3D PSTM 2008	GR0011	Final Matched Mig Full
18/11/2008	SCHOMBERG MINERVA 3D PSTM 2008	GR0011	AVO attribute: Intercept
18/11/2008	SCHOMBERG MINERVA 3D PSTM 2008	GR0011	AVO attribute: Gradient
18/11/2008	SCHOMBERG MINERVA 3D PSTM 2008	GR0011	AVO attribute: Goodness of fit
18/11/2008	SCHOMBERG MINERVA 3D PSTM 2008	GR0011	AVO attribute: EEI
3D-Binned Data			
Date	Project Name	Tape No	Data Type
22/10/2008	SCHOMBERG MINERVA 3D PSTM 2008	GR0012	Final Migrated Gathers
22/10/2008	SCHOMBERG MINERVA 3D PSTM 2008	GR0013	Final Migrated Gathers
13/11/2008	SCHOMBERG MINERVA 3D PSTM 2008	GR0020	Decimated Final Migrated Supergathers
ASCII Data			
Date	Project Name	Tape No	Data Type
10/12/08	SCHOMBERG MINERVA 3D PSTM 2008	GR0021	Demultiple (1st pass) Velocities
10/12/08	SCHOMBERG MINERVA 3D PSTM 2008	GR0021	Migration (2nd pass) Velocities
10/12/08	SCHOMBERG MINERVA 3D PSTM 2008	GR0021	Stacking (3rd pass) Velocities
10/12/08	SCHOMBERG MINERVA 3D PSTM 2008	GR0021	ETA Corrections
10/12/08	SCHOMBERG MINERVA 3D PSTM 2008	GR0021	XY Bin Centre file
Report			
23/12/08	SCHOMBERG MINERVA 3D PSTM 2008	GR0025	Report
3D-Sail Line Data			
Date	Project Name	Tape No	Data Type
31/10/08	SCHOMBERG MINERVA 3D PSTM 2008	GR0014	Demultiple Gathers Schomberg 3D
31/10/08	SCHOMBERG MINERVA 3D PSTM 2008	GR0015	Demultiple Gathers Minerva 3D
11/11/08	SCHOMBERG MINERVA 3D PSTM 2008	GR0016	Indented shots Schomberg 3D
11/11/08	SCHOMBERG MINERVA 3D PSTM 2008	GR0017	Indented shots Schomberg 3D
11/11/08	SCHOMBERG MINERVA 3D PSTM 2008	GR0018	Indented shots Schomberg 3D
11/11/08	SCHOMBERG MINERVA 3D PSTM 2008	GR0019	Indented shots Minerva 3D

10 Comments

10.1 Processing Comments

- The data was characterised by a good S/N ratio from 0-1second. The large degree of structure below 1 second was critically imaged by migration.
- Fold was consistent across both survey areas thus data interpolation was minimal.
- The main tools used to image the data were Tau-P mute and deconvolution and Pre-STM. Additional Tau-P muting in the receiver domain showed some improvement, however minor spatial aliasing and transform instability caused by the 37.5m trace interval was observed and thus it was omitted. Interpolation (to 12.5m trace interval) in the receiver domain proved problematic because of altering bandwidth between primary and interpolated traces.
- Non hyperbolic moveout was observed on the gathers after Pre-STM. This may be due to shallow raypath distortion due to the large degree of structure. Therefore the residual radon did in some cases reduce the amplitudes of the primary events in the process of removing residual multiple.

11 Appendix

11.1 SEG Y Trace Header Definition

Location of strategic values in the SEG Y trace header.

1-4	Trace Sequence Number within line	125-126	Correlated sweep: 1=no, 2=yes
5-8	Trace Sequence Number within file	127-128	Sweep start frequency [Hz]
9-12	Original Field Record Number (Shot)	129-130	Sweep end frequency [Hz]
13-16	Trace Number within Field Record	131-132	sweep length in ms
17-20	Energy Source Point number	133-134	sweep type 1=linear 2=parabolic etc
21-24	CMP Number	135-136	sweep trace taper length [ms] at start
25-28	Trace Number within ensemble	137-138	sweep trace taper length [ms] at end
29-30	Trace Identification Code	139-140	taper type 1=linear 2=cosine squared 3=other
31-32	Number of Vertically Stacked traces (field/pre-stack)	141-142	anti alias filter frequency, -3dB Point [Hz]
33-34	Number of Horizontally Stacked Traces (post-stack)	143-144	anti alias filter slope [db/Oct]
35-36	Data use 1=Production 2=Test	145-146	Notch filter freq [Hz] if applied
37-40	Shot to Receiver Distance, negative if opposite to line direction (land split spread)	147-148	Notch filter slope [dB/Oct]
41-44	Receiver Group Elevation	149-150	Low Cut filter Frequency, -3dB point [Hz]
45-48	Surface elevation at source	151-152	High Cut Freq [Hz]
49-52	Source Depth below surface	153-154	Low cut slope [dB/Oct]
53-56	Elevation at Receiver	155-156	High Cut slope [dB/Oct]
57-60	Elevation at Source	157-158	Year data recorded 4-Digit
61-64	Water depth at source	159-160	Julian day of Year
65-68	Water depth at receiver	161-162	24 Hour of day
69-70	Scalar for elev and depths: positive multiplier neg divisor	163-164	minute of hour
71-72	scalar for position data SEG Y bytes 73-88 and 181-188	165-166	second of minute
73-76	Source X - EBCDIC header to specify reference	167-168	time basis code 1=Local 2=GMT
77-80	Source Y	169-170	trace weighting factor
81-84	Receiver X	171-172	geophone group number of roll switch position one
85-88	Receiver Y	173-174	geophone group number of trace number one within orig fld rec
89-90	coordinate units 1=Length [m], [ft] - EBCDIC header to specify	175-176	geophone group number of last trc in orig fld rec
91-92	Weathering Velocity / Water Velocity	177-178	gap size (total number of groups dropped)
93-94	Subweathering velocity (replacement velocity)	179-180	over travel associated with taper at beginning or end If line 1=down 2=up
95-96	uphole time at Source	181-184	X coordinate of CMP
97-98	uphole time at Receiver	185-188	Y coordinate of CMP
99-100	Source Static Correction	189-192	In-line number for binned data
101-102	Receiver Static Correction	193-196	Cross-Line number binned data
103-104	Total static applied	197-200	Shot Point number 2D post-stack data
105-106	Lag time A	201-204	Sail Line number
107-108	Lag Time B = Gun Recorder Delay	205-208	Receiver Cable Number
109-110	Delay Rec time = Tmin	209-212	Source Depth Correction [micro sec]
111-112	Two way water bottom time	213-216	Receiver Depth Correction [micro sec]
113-114	Outer Mute end time	217-220	Floating Datum Static [micro sec]
115-116	Number of samples in trace	221-224	Tidal Statics [micro sec]
117-118	Sample interval in micro sec	225-228	Receiver Depth [m]
119-120	gain type of field instrument	229-232	Water Depth at CMP pos'n [m]
121-122	instrument gain const [dB]	233-236	Shot Amplitude Scalar x 1000
123-124	instrument init gain [dB]	237-240	Receiver Amplitude Scalar x 1000
125-126	Correlated sweep: 1=no, 2=yes		

11.2 Dephase operator coefficients

Number of samples: 512
Scaling factor to be applied: 0.0010
Time sample increment: 4.0000 msec

Time(msec)	Minerva(8m) Value	Schomberg(7m)	Schomberg(8m)	Schomberg(9m)
-1.0240e+03	7.6426e-01	-3.3302e-03	-1.4855e-02	-2.8653e-02
-1.0200e+03	7.0465e-01	2.6959e-03	1.3221e-02	2.6333e-02
-1.0160e+03	8.7392e-01	-1.7236e-02	-2.7448e-02	-4.0707e-02
-1.0120e+03	8.2184e-01	-1.8236e-02	-6.2911e-03	8.3428e-03
-1.0080e+03	9.8595e-01	-4.1871e-02	-4.9436e-02	-6.1015e-02
-1.0040e+03	9.2342e-01	-4.7787e-02	-3.2853e-02	-1.5563e-02
-1.0000e+03	1.0667e+00	-7.1000e-02	-7.4849e-02	-8.3724e-02
-9.9600e+02	9.8122e-01	-7.8017e-02	-5.9322e-02	-3.8881e-02
-9.9200e+02	1.0943e+00	-9.7299e-02	-9.7409e-02	-1.0357e-01
-9.8800e+02	9.7797e-01	-1.0263e-01	-8.0533e-02	-5.7247e-02
-9.8400e+02	1.0544e+00	-1.1611e-01	-1.1320e-01	-1.1710e-01
-9.8000e+02	9.0227e-01	-1.1842e-01	-9.3917e-02	-6.8541e-02
-9.7600e+02	9.4056e-01	-1.2641e-01	-1.2145e-01	-1.2393e-01
-9.7200e+02	7.5610e-01	-1.2583e-01	-1.0016e-01	-7.3681e-02
-9.6800e+02	7.6623e-01	-1.2968e-01	-1.2361e-01	-1.2547e-01
-9.6400e+02	5.6633e-01	-1.2699e-01	-1.0113e-01	-7.4220e-02
-9.6000e+02	5.7006e-01	-1.2799e-01	-1.2153e-01	-1.2344e-01
-9.5600e+02	3.7842e-01	-1.2321e-01	-9.7882e-02	-7.1066e-02
-9.5200e+02	3.9780e-01	-1.2197e-01	-1.1567e-01	-1.1799e-01
-9.4800e+02	2.3192e-01	-1.1439e-01	-9.0197e-02	-6.3963e-02
-9.4400e+02	2.7634e-01	-1.1047e-01	-1.0481e-01	-1.0794e-01
-9.4000e+02	1.3752e-01	-9.8591e-02	-7.6251e-02	-5.1059e-02
-9.3600e+02	2.0089e-01	-9.0514e-02	-8.6277e-02	-9.1020e-02
-9.3200e+02	7.7454e-02	-7.3004e-02	-5.3596e-02	-3.0024e-02
-9.2800e+02	1.4568e-01	-5.8965e-02	-5.7497e-02	-6.4821e-02
-9.2400e+02	2.2614e-02	-3.5813e-02	-2.0452e-02	3.7253e-04
-9.2000e+02	8.2802e-02	-1.5699e-02	-1.8710e-02	-2.9877e-02
-9.1600e+02	-5.1238e-02	1.0228e-02	2.0266e-02	3.7267e-02
-9.1200e+02	-8.1100e-03	3.3680e-02	2.4683e-02	8.6180e-03
-9.0800e+02	-1.6133e-01	5.7589e-02	6.1758e-02	7.4265e-02
-9.0400e+02	-1.4136e-01	8.0547e-02	6.5231e-02	4.4116e-02
-9.0000e+02	-3.2002e-01	9.9154e-02	9.7750e-02	1.0590e-01
-8.9600e+02	-3.2562e-01	1.1974e-01	9.8937e-02	7.3401e-02
-8.9200e+02	-5.3021e-01	1.3384e-01	1.2771e-01	1.3241e-01
-8.8800e+02	-5.5565e-01	1.5316e-01	1.2802e-01	9.8962e-02
-8.8400e+02	-7.7531e-01	1.6590e-01	1.5556e-01	1.5727e-01
-8.8000e+02	-8.0426e-01	1.8523e-01	1.5649e-01	1.2420e-01
-8.7600e+02	-1.0179e+00	1.9789e-01	1.8324e-01	1.8205e-01
-8.7200e+02	-1.0277e+00	2.1548e-01	1.8330e-01	1.4773e-01
-8.6800e+02	-1.2118e+00	2.2552e-01	2.0655e-01	2.0262e-01
-8.6400e+02	-1.1825e+00	2.3728e-01	2.0218e-01	1.6359e-01
-8.6000e+02	-1.3210e+00	2.4026e-01	2.1794e-01	2.1201e-01
-8.5600e+02	-1.2427e+00	2.4251e-01	2.0594e-01	1.6553e-01
-8.5200e+02	-1.3306e+00	2.3556e-01	2.1213e-01	2.0590e-01
-8.4800e+02	-1.2039e+00	2.2787e-01	1.9213e-01	1.5174e-01
-8.4400e+02	-1.2462e+00	2.1099e-01	1.8903e-01	1.8454e-01
-8.4000e+02	-1.0786e+00	1.9572e-01	1.6322e-01	1.2468e-01
-8.3600e+02	-1.0866e+00	1.7069e-01	1.5264e-01	1.5186e-01
-8.3200e+02	-8.9051e-01	1.5131e-01	1.2385e-01	8.8662e-02
-8.2800e+02	-8.7973e-01	1.1913e-01	1.0678e-01	1.1094e-01
-8.2400e+02	-6.7090e-01	9.7862e-02	7.6567e-02	4.5685e-02
-8.2000e+02	-6.5861e-01	5.7881e-02	5.2608e-02	6.2658e-02
-8.1600e+02	-4.5323e-01	3.5465e-02	2.1211e-02	-4.6070e-03
-8.1200e+02	-4.5430e-01	-1.3264e-02	-1.0150e-02	6.6618e-03
-8.0800e+02	-2.6390e-01	-3.6189e-02	-4.2433e-02	-6.2058e-02
-8.0400e+02	-2.8640e-01	-9.2724e-02	-8.0030e-02	-5.5681e-02
-8.0000e+02	-1.1420e-01	-1.1451e-01	-1.1155e-01	-1.2406e-01
-7.9600e+02	-1.5717e-01	-1.7529e-01	-1.5231e-01	-1.1987e-01
-7.9200e+02	7.1432e-04	-1.9292e-01	-1.7999e-01	-1.8488e-01
-7.8800e+02	-5.6002e-02	-2.5324e-01	-2.2028e-01	-1.7978e-01
-7.8400e+02	9.4076e-02	-2.6393e-01	-2.4125e-01	-2.3891e-01
-7.8000e+02	3.1241e-02	-3.1974e-01	-2.7802e-01	-2.3024e-01
-7.7600e+02	1.7799e-01	-3.2183e-01	-2.9063e-01	-2.8204e-01
-7.7200e+02	1.1453e-01	-3.7051e-01	-3.2184e-01	-2.6823e-01
-7.6800e+02	2.5925e-01	-3.6309e-01	-3.2531e-01	-3.1181e-01
-7.6400e+02	1.9773e-01	-4.0282e-01	-3.4932e-01	-2.9153e-01
-7.6000e+02	3.3990e-01	-3.8506e-01	-3.4279e-01	-3.2627e-01
-7.5600e+02	2.8063e-01	-4.1397e-01	-3.5817e-01	-2.9805e-01
-7.5200e+02	4.1893e-01	-3.8434e-01	-3.4022e-01	-3.2263e-01
-7.4800e+02	3.6001e-01	-4.0078e-01	-3.4539e-01	-2.8513e-01
-7.4400e+02	4.9194e-01	-3.5826e-01	-3.1541e-01	-2.9917e-01
-7.4000e+02	4.2975e-01	-3.6102e-01	-3.0915e-01	-2.5117e-01
-7.3600e+02	5.5150e-01	-3.0538e-01	-2.6709e-01	-2.5466e-01
-7.3200e+02	4.8191e-01	-2.9412e-01	-2.4917e-01	-1.9621e-01
-7.2800e+02	5.9054e-01	-2.2634e-01	-1.9592e-01	-1.9001e-01
-7.2400e+02	5.1086e-01	-2.0190e-01	-1.6720e-01	-1.2170e-01
-7.2000e+02	6.0693e-01	-1.2380e-01	-1.0428e-01	-1.0743e-01
-7.1600e+02	5.1816e-01	-8.8484e-02	-6.7039e-02	-3.1177e-02
-7.1200e+02	6.0603e-01	-2.3955e-03	3.4672e-03	-1.0945e-02
-7.0800e+02	5.1234e-01	4.0005e-02	4.6033e-02	7.0507e-02
-7.0400e+02	5.9810e-01	1.3133e-01	1.2131e-01	9.4023e-02
-7.0000e+02	5.0509e-01	1.7602e-01	1.6548e-01	1.7749e-01
-6.9600e+02	5.9461e-01	2.6961e-01	2.4241e-01	2.0131e-01

-6.9200e+02	5.0625e-01	3.1155e-01	2.8420e-01	2.8333e-01
-6.8800e+02	6.0397e-01	4.0392e-01	3.5929e-01	3.0441e-01
-6.8400e+02	5.2185e-01	4.3824e-01	3.9475e-01	3.8142e-01
-6.8000e+02	6.3009e-01	5.2564e-01	4.6456e-01	3.9663e-01
-6.7600e+02	5.5360e-01	5.4794e-01	4.8992e-01	4.6542e-01
-6.7200e+02	6.7245e-01	6.2588e-01	5.5048e-01	4.7122e-01
-6.6800e+02	5.9942e-01	6.3250e-01	5.6252e-01	5.2866e-01
-6.6400e+02	7.2598e-01	6.9625e-01	6.0985e-01	5.2182e-01
-6.6000e+02	6.5256e-01	6.8395e-01	6.0534e-01	5.6497e-01
-6.5600e+02	7.8188e-01	7.2874e-01	6.3576e-01	5.4212e-01
-6.5200e+02	7.0338e-01	6.9491e-01	6.1208e-01	5.6877e-01
-6.4800e+02	8.2968e-01	7.1723e-01	6.2298e-01	5.2774e-01
-6.4400e+02	7.4186e-01	6.6031e-01	5.7852e-01	5.3658e-01
-6.4000e+02	8.6081e-01	6.5866e-01	5.6889e-01	4.7640e-01
-6.3600e+02	7.6124e-01	5.7844e-01	5.0358e-01	4.6758e-01
-6.3200e+02	8.7023e-01	5.5324e-01	4.7379e-01	3.8862e-01
-6.2800e+02	7.5845e-01	4.5082e-01	3.8883e-01	3.6339e-01
-6.2400e+02	8.5673e-01	4.0428e-01	3.4076e-01	2.6738e-01
-6.2000e+02	7.3212e-01	2.8209e-01	2.3853e-01	2.2791e-01
-6.1600e+02	8.1946e-01	2.1742e-01	1.7487e-01	1.1713e-01
-6.1200e+02	6.8028e-01	7.8790e-02	5.8405e-02	6.6439e-02
-6.0800e+02	7.5559e-01	3.1479e-04	-1.7036e-02	-5.5740e-02
-6.0400e+02	5.9871e-01	-1.5001e-01	-1.4341e-01	-1.1374e-01
-6.0000e+02	6.5961e-01	-2.3685e-01	-2.2582e-01	-2.4301e-01
-5.9600e+02	4.8098e-01	-3.9265e-01	-3.5656e-01	-3.0322e-01
-5.9200e+02	5.2415e-01	-4.8073e-01	-4.3955e-01	-4.3392e-01
-5.8800e+02	3.1946e-01	-6.3482e-01	-5.6832e-01	-4.9048e-01
-5.8400e+02	3.4110e-01	-7.1556e-01	-6.4431e-01	-6.1598e-01
-5.8000e+02	1.0599e-01	-8.6029e-01	-7.6426e-01	-6.6263e-01
-5.7600e+02	1.0299e-01	-9.2460e-01	-8.2563e-01	-7.7631e-01
-5.7200e+02	-1.6550e-01	-1.0528e+00	-9.3016e-01	-8.0701e-01
-5.6800e+02	-1.9476e-01	-1.0919e+00	-9.6958e-01	-9.0250e-01
-5.6400e+02	-4.9686e-01	-1.1973e+00	-1.0528e+00	-9.1215e-01
-5.6000e+02	-5.5069e-01	-1.2036e+00	-1.0642e+00	-9.8402e-01
-5.5600e+02	-8.8279e-01	-1.2800e+00	-1.1204e+00	-9.6751e-01
-5.5200e+02	-9.5506e-01	-1.2480e+00	-1.0993e+00	-1.0120e+00
-5.4800e+02	-1.3090e+00	-1.2902e+00	-1.1240e+00	-9.6553e-01
-5.4400e+02	-1.3894e+00	-1.2163e+00	-1.0672e+00	-9.7944e-01
-5.4000e+02	-1.7528e+00	-1.2202e+00	-1.0570e+00	-9.0048e-01
-5.3600e+02	-1.8280e+00	-1.1030e+00	-9.6296e-01	-8.8273e-01
-5.3200e+02	-2.1853e+00	-1.0667e+00	-9.1701e-01	-7.7012e-01
-5.2800e+02	-2.2403e+00	-9.0690e-01	-7.8623e-01	-7.2160e-01
-5.2400e+02	-2.5741e+00	-8.3169e-01	-7.0583e-01	-5.7676e-01
-5.2000e+02	-2.5938e+00	-6.3264e-01	-5.4150e-01	-5.0035e-01
-5.1600e+02	-2.8865e+00	-5.2228e-01	-4.2990e-01	-3.2627e-01
-5.1200e+02	-2.8565e+00	-2.9025e-01	-2.3802e-01	-2.2768e-01
-5.0800e+02	-3.0922e+00	-1.5142e-01	-1.0105e-01	-2.9513e-02
-5.0400e+02	-2.9995e+00	1.0458e-01	1.1033e-01	8.3891e-02
-5.0000e+02	-3.1659e+00	2.6344e-01	2.6507e-01	2.9930e-01
-4.9600e+02	-2.9999e+00	5.3177e-01	4.8568e-01	4.1808e-01
-4.9200e+02	-3.0884e+00	6.9995e-01	6.4856e-01	6.4241e-01
-4.8800e+02	-2.8426e+00	9.6762e-01	8.6724e-01	7.5616e-01
-4.8400e+02	-2.8486e+00	1.1326e+00	1.0269e+00	9.7964e-01
-4.8000e+02	-2.5204e+00	1.3859e+00	1.2316e+00	1.0770e+00
-4.7600e+02	-2.4424e+00	1.5335e+00	1.3759e+00	1.2894e+00
-4.7200e+02	-2.0332e+00	1.7588e+00	1.5541e+00	1.3588e+00
-4.6800e+02	-1.8743e+00	1.8741e+00	1.6706e+00	1.5494e+00
-4.6400e+02	-1.3885e+00	2.0582e+00	1.8101e+00	1.5796e+00
-4.6000e+02	-1.1559e+00	2.1270e+00	1.8872e+00	1.7386e+00
-4.5600e+02	-6.0193e-01	2.2579e+00	1.9769e+00	1.7192e+00
-4.5200e+02	-3.0763e-01	2.2681e+00	2.0047e+00	1.8386e+00
-4.4800e+02	3.0232e-01	2.3352e+00	2.0347e+00	1.7605e+00
-4.4400e+02	6.4142e-01	2.2779e+00	2.0062e+00	1.8346e+00
-4.4000e+02	1.2900e+00	2.2725e+00	1.9689e+00	1.6907e+00
-4.3600e+02	1.6531e+00	2.1428e+00	1.8804e+00	1.7169e+00
-4.3200e+02	2.3186e+00	2.0599e+00	1.7713e+00	1.5029e+00
-4.2800e+02	2.6810e+00	1.8573e+00	1.6226e+00	1.4821e+00
-4.2400e+02	3.3375e+00	1.6961e+00	1.4410e+00	1.1969e+00
-4.2000e+02	3.6718e+00	1.4240e+00	1.2361e+00	1.1335e+00
-4.1600e+02	4.2901e+00	1.1891e+00	9.8549e-01	7.7957e-01
-4.1200e+02	4.5668e+00	8.5488e-01	7.3228e-01	6.8218e-01
-4.0800e+02	5.1166e+00	5.5625e-01	4.2019e-01	2.6508e-01
-4.0400e+02	5.3055e+00	1.7151e-01	1.3108e-01	1.4614e-01
-4.0000e+02	5.7576e+00	-1.7565e-01	-2.3120e-01	-3.2466e-01
-3.9600e+02	5.8295e+00	-5.9548e-01	-5.4003e-01	-4.4950e-01
-3.9200e+02	6.1584e+00	-9.7123e-01	-9.3736e-01	-9.6174e-01
-3.8800e+02	6.0869e+00	-1.4069e+00	-1.2459e+00	-1.0727e+00
-3.8400e+02	6.2724e+00	-1.7877e+00	-1.6605e+00	-1.6120e+00
-3.8000e+02	6.0364e+00	-2.2169e+00	-1.9457e+00	-1.6872e+00
-3.7600e+02	6.0657e+00	-2.5765e+00	-2.3581e+00	-2.2372e+00
-3.7200e+02	5.6510e+00	-2.9747e+00	-2.5948e+00	-2.2527e+00
-3.6800e+02	5.5191e+00	-3.2862e+00	-2.9850e+00	-2.7974e+00
-3.6400e+02	4.9206e+00	-3.6274e+00	-3.1465e+00	-2.7277e+00
-3.6000e+02	4.6315e+00	-3.8645e+00	-3.4955e+00	-3.2515e+00
-3.5600e+02	3.8531e+00	-4.1236e+00	-3.5560e+00	-3.0726e+00
-3.5200e+02	3.4210e+00	-4.2616e+00	-3.8461e+00	-3.5616e+00
-3.4800e+02	2.4765e+00	-4.4147e+00	-3.7806e+00	-3.2493e+00
-3.4400e+02	1.9253e+00	-4.4332e+00	-3.9988e+00	-3.6941e+00
-3.4000e+02	8.3829e-01	-4.4603e+00	-3.7858e+00	-3.2280e+00
-3.3600e+02	2.0178e-01	-4.3428e+00	-3.9219e+00	-3.6210e+00
-3.3200e+02	-9.9522e-01	-4.2283e+00	-3.5436e+00	-2.9840e+00
-3.2800e+02	-1.6738e+00	-3.9668e+00	-3.5962e+00	-3.3266e+00
-3.2400e+02	-2.9407e+00	-3.7002e+00	-3.0388e+00	-2.5046e+00
-3.2000e+02	-3.6101e+00	-3.2934e+00	-3.0114e+00	-2.8017e+00
-3.1600e+02	-4.9009e+00	-2.8731e+00	-2.2704e+00	-1.7907e+00
-3.1200e+02	-5.5019e+00	-2.3316e+00	-2.1770e+00	-2.0569e+00
-3.0800e+02	-6.7673e+00	-1.7592e+00	-1.2494e+00	-8.5137e-01
-3.0400e+02	-7.2368e+00	-1.1042e+00	-1.1137e+00	-1.1105e+00
-3.0000e+02	-8.4251e+00	-3.9558e-01	-1.1919e-02	2.7734e-01
-2.9600e+02	-8.6968e+00	3.4323e-01	1.3880e-01	7.1828e-04

-2.9200e+02	-9.7605e+00	1.1710e+00	1.4017e+00	1.5621e+00
-2.8800e+02	-9.7688e+00	1.9450e+00	1.5200e+00	1.2198e+00
-2.8400e+02	-1.0663e+01	2.8610e+00	2.9180e+00	2.9325e+00
-2.8000e+02	-1.0348e+01	3.6270e+00	2.9686e+00	2.4967e+00
-2.7600e+02	-1.1041e+01	4.5940e+00	4.4653e+00	4.3267e+00
-2.7200e+02	-1.0345e+01	5.2782e+00	4.3817e+00	3.7298e+00
-2.6800e+02	-1.0818e+01	6.2683e+00	5.9547e+00	5.6657e+00
-2.6400e+02	-9.7012e+00	6.8141e+00	5.6938e+00	4.8733e+00
-2.6000e+02	-9.9525e+00	7.7696e+00	7.2766e+00	6.8435e+00
-2.5600e+02	-8.3783e+00	8.0981e+00	6.7812e+00	5.8037e+00
-2.5200e+02	-8.4336e+00	9.0203e+00	8.3744e+00	7.8288e+00
-2.4800e+02	-6.3927e+00	9.0471e+00	7.5757e+00	6.4696e+00
-2.4400e+02	-6.2898e+00	9.8707e+00	9.0937e+00	8.4529e+00
-2.4000e+02	-3.7817e+00	9.5585e+00	8.0011e+00	6.8086e+00
-2.3600e+02	-3.6053e+00	1.0308e+01	9.4446e+00	8.7680e+00
-2.3200e+02	-6.5043e-01	9.5106e+00	7.9283e+00	6.6763e+00
-2.2800e+02	-4.7850e-01	1.0164e+01	9.2556e+00	8.5777e+00
-2.2400e+02	2.8702e+00	8.9193e+00	7.4251e+00	6.2001e+00
-2.2000e+02	2.8984e+00	9.4324e+00	8.5171e+00	7.8992e+00
-2.1600e+02	6.6159e+00	7.5163e+00	6.1901e+00	5.0009e+00
-2.1200e+02	6.3726e+00	8.0129e+00	7.1706e+00	6.7020e+00
-2.0800e+02	1.0348e+01	5.4535e+00	4.4422e+00	3.4154e+00
-2.0400e+02	9.6903e+00	5.6414e+00	4.8779e+00	4.5713e+00
-2.0000e+02	1.3923e+01	2.2893e+00	1.7341e+00	8.9725e-01
-1.9600e+02	1.2644e+01	2.5131e+00	1.9762e+00	2.0456e+00
-1.9200e+02	1.7011e+01	-1.9265e+00	-1.8936e+00	-2.4443e+00
-1.8800e+02	1.5062e+01	-2.2075e+00	-2.5209e+00	-2.1407e+00
-1.8400e+02	1.9547e+01	-7.3358e+00	-6.4126e+00	-6.4780e+00
-1.8000e+02	1.6620e+01	-7.7765e+00	-7.6881e+00	-6.6625e+00
-1.7600e+02	2.1230e+01	-1.4568e+01	-1.2724e+01	-1.2426e+01
-1.7200e+02	1.7408e+01	-1.5219e+01	-1.4607e+01	-1.2945e+01
-1.6800e+02	2.1935e+01	-2.2091e+01	-1.8837e+01	-1.7621e+01
-1.6400e+02	1.6887e+01	-2.3488e+01	-2.2387e+01	-1.9961e+01
-1.6000e+02	2.1661e+01	-3.1584e+01	-2.7066e+01	-2.5465e+01
-1.5600e+02	1.5357e+01	-3.1342e+01	-2.9304e+01	-2.5666e+01
-1.5200e+02	1.9721e+01	-3.8414e+01	-3.2364e+01	-2.9681e+01
-1.4800e+02	1.2211e+01	-3.9313e+01	-3.7122e+01	-3.3219e+01
-1.4400e+02	1.6764e+01	-4.3700e+01	-3.6266e+01	-3.3185e+01
-1.4000e+02	7.2081e+00	-3.9663e+01	-3.6654e+01	-3.1102e+01
-1.3600e+02	1.1074e+01	-4.2391e+01	-3.4786e+01	-3.1920e+01
-1.3200e+02	6.3129e-01	-3.8109e+01	-3.5969e+01	-3.1523e+01
-1.2800e+02	3.7843e+00	-2.9289e+01	-2.1017e+01	-1.7596e+01
-1.2400e+02	-9.7193e+00	-2.0471e+01	-1.9441e+01	-1.4502e+01
-1.2000e+02	-6.7442e+00	-1.2500e+01	-7.6645e+00	-8.2897e+00
-1.1600e+02	-2.0715e+01	2.6185e+00	1.8950e+00	4.7576e+00
-1.1200e+02	-2.0598e+01	3.2103e+01	3.5612e+01	3.6036e+01
-1.0800e+02	-3.6845e+01	3.8673e+01	3.2153e+01	3.0698e+01
-1.0400e+02	-3.4372e+01	6.8750e+01	6.4767e+01	5.6123e+01
-1.0000e+02	-5.1396e+01	9.3656e+01	8.6624e+01	8.6075e+01
-9.6000e+01	-5.3219e+01	1.3198e+02	1.2102e+02	1.1153e+02
-9.2000e+01	-6.5503e+01	1.0860e+02	9.0452e+01	7.5482e+01
-8.8000e+01	-6.1298e+01	1.6236e+02	1.4756e+02	1.3283e+02
-8.4000e+01	-7.5811e+01	1.5231e+02	1.3991e+02	1.3713e+02
-8.0000e+01	-7.0713e+01	1.2988e+02	1.0093e+02	7.6279e+01
-7.6000e+01	-6.4620e+01	3.1626e+01	1.6537e+01	-4.1858e+00
-7.2000e+01	-5.5952e+01	9.7373e+01	9.2776e+01	9.6945e+01
-6.8000e+01	-5.3129e+01	-1.1318e+02	-1.1414e+02	-1.0832e+02
-6.4000e+01	-2.3117e+01	-3.4106e+02	-3.6469e+02	-3.9597e+02
-6.0000e+01	1.2378e+01	-4.3066e+02	-3.6873e+02	-3.3761e+02
-5.6000e+01	1.9495e+01	-8.6724e+01	-1.9105e+01	7.9125e+01
-5.2000e+01	6.5380e+01	-1.4491e+01	8.2381e+00	1.4442e+01
-4.8000e+01	1.2151e+02	-3.4235e+01	-6.5364e+01	-1.1689e+02
-4.4000e+01	1.6075e+02	6.4053e+00	2.8042e+01	5.1043e+01
-4.0000e+01	1.3982e+02	5.1699e+01	6.4811e+01	1.1389e+02
-3.6000e+01	2.4413e+02	9.3025e+01	5.5423e+01	-1.5243e+01
-3.2000e+01	2.4360e+02	1.7217e+01	3.7785e+01	4.6476e+01
-2.8000e+01	1.7381e+02	1.0527e+02	7.3673e+01	1.0233e+02
-2.4000e+01	8.7566e+01	4.2323e+01	5.6100e+01	1.4854e+01
-2.0000e+01	2.1955e+02	7.2088e+01	4.4535e+01	3.4590e+01
-1.6000e+01	-1.8146e+02	2.0887e+01	2.3853e+01	5.1545e+01
-1.2000e+01	-5.5139e+02	4.9106e+01	4.3532e+01	8.7747e+00
-8.0000e+00	-5.0544e+02	8.2758e+00	6.2017e-01	4.1896e+00
-4.0000e+00	5.2820e+01	8.5224e+00	7.8995e+00	1.9061e+01
0.0000e+00	-4.7547e+01	-7.2038e+00	-7.5858e+00	-2.2875e+01
4.0000e+00	-1.0031e+02	-4.9229e+00	-4.3638e+00	-1.8889e+00
8.0000e+00	2.3575e+01	-2.3379e+01	-2.3777e+01	-1.1313e+01
1.2000e+01	7.3698e+01	-1.6823e+01	-1.2393e+01	-2.5208e+01
1.6000e+01	3.3035e+01	-2.9042e+01	-2.8165e+01	-2.0158e+01
2.0000e+01	3.1300e+01	-2.4976e+01	-2.0586e+01	-1.2801e+01
2.4000e+01	6.7555e+01	-4.0392e+01	-3.8106e+01	-4.4468e+01
2.8000e+01	5.1665e+01	-3.4532e+01	-2.8997e+01	-2.2854e+01
3.2000e+01	2.1845e+01	-4.5230e+01	-4.1286e+01	-3.1311e+01
3.6000e+01	1.7264e+01	-3.6798e+01	-3.0640e+01	-3.5026e+01
4.0000e+01	4.4584e+01	-3.1432e+01	-2.7586e+01	-2.0814e+01
4.4000e+01	-3.8587e+00	-1.6732e+01	-1.0249e+01	-1.6550e+00
4.8000e+01	1.4742e+01	-6.4663e+00	-7.4979e+00	-1.3040e+01
5.2000e+01	-4.8181e+00	7.4789e+00	1.2066e+01	1.4891e+01
5.6000e+01	7.1919e-01	1.3723e+01	9.7806e+00	1.3762e+01
6.0000e+01	-2.0007e+01	8.6141e+00	8.9134e+00	1.2694e+00
6.4000e+01	-1.0807e+00	4.4176e+00	6.4662e-01	-1.6082e-01
6.8000e+01	-7.1188e+00	1.4601e+01	1.6757e+01	2.1835e+01
7.2000e+01	1.8159e+01	3.8055e+01	3.5241e+01	2.9821e+01
7.6000e+01	-9.4708e-01	5.3165e+01	5.0765e+01	4.8942e+01
8.0000e+01	2.2086e+01	4.6264e+01	3.6772e+01	3.2792e+01
8.4000e+01	2.0713e+01	2.4998e+01	1.9938e+01	1.0892e+01
8.8000e+01	3.6735e+01	1.1091e+01	6.2544e+00	4.1756e+00
9.2000e+01	1.6542e+01	3.6375e+00	4.3137e+00	7.3843e+00
9.6000e+01	1.1822e+01	-3.1358e+00	-5.3631e+00	-9.8032e+00
1.0000e+02	-1.6472e+01	-1.0677e+01	-9.2836e+00	-8.5034e+00
1.0400e+02	-2.3972e+01	-1.2840e+01	-1.2368e+01	-9.2141e+00

1.0800e+02	-5.5726e+01	-1.2894e+01	-1.0191e+01	-1.0333e+01
1.1200e+02	-5.5393e+01	-1.2820e+01	-1.2186e+01	-1.1702e+01
1.1600e+02	-6.0496e+01	-1.1633e+01	-9.1941e+00	-5.5860e+00
1.2000e+02	-3.0476e+01	-9.7880e+00	-8.8814e+00	-9.6311e+00
1.2400e+02	-5.0306e+00	-7.7089e+00	-5.9311e+00	-4.5754e+00
1.2800e+02	2.7497e+01	-5.9144e+00	-5.4392e+00	-3.9006e+00
1.3200e+02	3.6354e+01	-3.1563e+00	-1.8581e+00	-1.8227e+00
1.3600e+02	5.1709e+01	-5.7207e-01	-5.9194e-01	-7.4247e-01
1.4000e+02	3.7992e+01	1.7198e+00	2.2579e+00	3.7361e+00
1.4400e+02	2.0112e+01	3.7574e+00	3.1230e+00	1.6483e+00
1.4800e+02	-5.6171e+00	6.0820e+00	6.0721e+00	6.1572e+00
1.5200e+02	-1.3741e+01	8.5234e+00	7.4463e+00	7.2848e+00
1.5600e+02	-2.9084e+01	1.1081e+01	1.0374e+01	9.2346e+00
1.6000e+02	-3.0277e+01	1.3267e+01	1.1662e+01	1.0273e+01
1.6400e+02	-3.0685e+01	1.5257e+01	1.3854e+01	1.3521e+01
1.6800e+02	-1.9749e+01	1.5676e+01	1.3594e+01	1.1237e+01
1.7200e+02	-1.5916e+01	1.3559e+01	1.1702e+01	1.0409e+01
1.7600e+02	-5.1993e+00	7.5440e+00	5.4912e+00	4.1260e+00
1.8000e+02	-9.9245e-03	-6.2692e-01	-1.6327e+00	-2.8039e+00
1.8400e+02	8.7309e+00	-1.0211e+01	-1.0427e+01	-1.0693e+01
1.8800e+02	1.2073e+01	-1.8855e+01	-1.7628e+01	-1.6185e+01
1.9200e+02	2.1123e+01	-2.4391e+01	-2.2203e+01	-2.1018e+01
1.9600e+02	2.5697e+01	-2.3203e+01	-1.9880e+01	-1.7029e+01
2.0000e+02	3.2311e+01	-1.7070e+01	-1.3931e+01	-1.1137e+01
2.0400e+02	3.2752e+01	-8.6018e+00	-6.2161e+00	-4.5263e+00
2.0800e+02	3.3219e+01	-7.7290e-01	3.3673e-01	1.0301e+00
2.1200e+02	2.7394e+01	6.8484e+00	7.1380e+00	7.7372e+00
2.1600e+02	2.1869e+01	1.1427e+01	1.0600e+01	9.6764e+00
2.2000e+02	1.1626e+01	1.1458e+01	9.9425e+00	8.7375e+00
2.2400e+02	2.0520e+00	6.9278e+00	5.1924e+00	3.8097e+00
2.2800e+02	-1.0187e+01	2.0238e+00	1.0994e+00	2.7625e-01
2.3200e+02	-1.9238e+01	-2.0702e+00	-2.3808e+00	-2.5884e+00
2.3600e+02	-2.7489e+01	-4.2609e+00	-3.9769e+00	-3.5801e+00
2.4000e+02	-2.9814e+01	-5.4799e+00	-4.9757e+00	-4.7807e+00
2.4400e+02	-2.9292e+01	-5.2471e+00	-4.4756e+00	-3.7443e+00
2.4800e+02	-2.3573e+01	-4.8880e+00	-4.2685e+00	-3.7250e+00
2.5200e+02	-1.7781e+01	-3.7517e+00	-3.0760e+00	-2.6751e+00
2.5600e+02	-1.1045e+01	-2.5094e+00	-2.0515e+00	-1.6415e+00
2.6000e+02	-8.6578e+00	-5.6511e-01	-1.6500e-01	2.4719e-01
2.6400e+02	-8.6817e+00	7.4987e-01	7.9928e-01	7.0694e-01
2.6800e+02	-1.1881e+01	1.9856e+00	1.9278e+00	1.9268e+00
2.7200e+02	-1.2165e+01	2.0943e+00	1.8025e+00	1.6170e+00
2.7600e+02	-9.6571e+00	2.0185e+00	1.7617e+00	1.4732e+00
2.8000e+02	-1.8959e+00	1.1213e+00	8.0485e-01	5.7254e-01
2.8400e+02	6.5026e+00	6.8017e-01	5.6423e-01	5.2144e-01
2.8800e+02	1.4869e+01	-4.0896e-02	-1.7129e-01	-3.2373e-01
2.9200e+02	1.9408e+01	5.9331e-02	1.0086e-01	1.4270e-01
2.9600e+02	2.3113e+01	8.3859e-02	5.6912e-02	8.9477e-02
3.0000e+02	2.4315e+01	7.9272e-01	8.3218e-01	8.1960e-01
3.0400e+02	2.3615e+01	1.0738e+00	9.4284e-01	8.5572e-01
3.0800e+02	1.7882e+01	1.6865e+00	1.5970e+00	1.5425e+00
3.1200e+02	1.1376e+01	1.7700e+00	1.5149e+00	1.3002e+00
3.1600e+02	4.8112e+00	2.1505e+00	1.9763e+00	1.8246e+00
3.2000e+02	6.3259e-01	2.1659e+00	1.8484e+00	1.6438e+00
3.2400e+02	-3.6500e+00	2.6503e+00	2.4392e+00	2.2304e+00
3.2800e+02	-5.8077e+00	2.7642e+00	2.3945e+00	2.1386e+00
3.3200e+02	-8.2575e+00	2.9600e+00	2.6599e+00	2.4189e+00
3.3600e+02	-9.4110e+00	2.4102e+00	1.9757e+00	1.6265e+00
3.4000e+02	-1.1267e+01	1.7582e+00	1.4857e+00	1.2517e+00
3.4400e+02	-1.1460e+01	3.1616e-01	1.8412e-02	-1.8115e-01
3.4800e+02	-1.1855e+01	-1.1648e+00	-1.1964e+00	-1.2736e+00
3.5200e+02	-1.0394e+01	-2.8134e+00	-2.7480e+00	-2.6777e+00
3.5600e+02	-9.0517e+00	-3.2984e+00	-2.8930e+00	-2.5772e+00
3.6000e+02	-5.8957e+00	-2.8988e+00	-2.4878e+00	-2.1335e+00
3.6400e+02	-3.1947e+00	-1.3824e+00	-9.2004e-01	-5.5990e-01
3.6800e+02	7.1744e-01	-2.5111e-02	1.3416e-01	2.8927e-01
3.7200e+02	3.1453e+00	1.2650e+00	1.3240e+00	1.3276e+00
3.7600e+02	5.3660e+00	1.7605e+00	1.5573e+00	1.4178e+00
3.8000e+02	5.4316e+00	2.0538e+00	1.8691e+00	1.7040e+00
3.8400e+02	5.4936e+00	1.6963e+00	1.3838e+00	1.1453e+00
3.8800e+02	3.8641e+00	1.3914e+00	1.2094e+00	1.0457e+00
3.9200e+02	2.5695e+00	7.0135e-01	4.7649e-01	3.2755e-01
3.9600e+02	6.2032e-01	2.4954e-01	1.9221e-01	1.1763e-01
4.0000e+02	1.0819e-01	-4.1955e-01	-4.9768e-01	-5.3773e-01
4.0400e+02	-1.7837e-01	-6.7050e-01	-5.8082e-01	-5.2417e-01
4.0800e+02	1.0875e+00	-9.8220e-01	-9.3310e-01	-8.7767e-01
4.1200e+02	1.9888e+00	-8.3438e-01	-6.6677e-01	-5.5250e-01
4.1600e+02	3.3166e+00	-8.1552e-01	-7.4055e-01	-6.5641e-01
4.2000e+02	3.2734e+00	-5.1780e-01	-3.7282e-01	-2.8312e-01
4.2400e+02	3.1063e+00	-5.8224e-01	-5.5341e-01	-5.1227e-01
4.2800e+02	1.6661e+00	-5.9645e-01	-4.9385e-01	-4.3409e-01
4.3200e+02	6.0303e-01	-1.0866e+00	-1.0595e+00	-1.0267e+00
4.3600e+02	-8.9758e-01	-1.4788e+00	-1.3220e+00	-1.2221e+00
4.4000e+02	-1.1621e+00	-2.1183e+00	-1.9792e+00	-1.8511e+00
4.4400e+02	-1.2886e+00	-2.3179e+00	-2.0229e+00	-1.8126e+00
4.4800e+02	-1.4101e-01	-2.3917e+00	-2.1284e+00	-1.8993e+00
4.5200e+02	7.5027e-01	-1.7660e+00	-1.4152e+00	-1.1511e+00
4.5600e+02	2.2786e+00	-9.8043e-01	-7.6723e-01	-5.7669e-01
4.6000e+02	2.8428e+00	2.5021e-01	4.3042e-01	5.5782e-01
4.6400e+02	3.3646e+00	1.1889e+00	1.1429e+00	1.1274e+00
4.6800e+02	2.6150e+00	2.0481e+00	1.9378e+00	1.8290e+00
4.7200e+02	1.9712e+00	2.1795e+00	1.8838e+00	1.6654e+00
4.7600e+02	4.5345e-01	2.0170e+00	1.7565e+00	1.5276e+00
4.8000e+02	-5.7409e-01	1.2493e+00	9.4273e-01	7.1324e-01
4.8400e+02	-2.1257e+00	5.8122e-01	4.3741e-01	3.0586e-01
4.8800e+02	-2.9490e+00	-2.2327e-01	-3.3680e-01	-4.0506e-01
4.9200e+02	-4.1655e+00	-5.9251e-01	-5.3789e-01	-5.1058e-01
4.9600e+02	-4.6261e+00	-9.3631e-01	-8.9059e-01	-8.3411e-01
5.0000e+02	-5.4454e+00	-8.2027e-01	-6.6798e-01	-5.6223e-01
5.0400e+02	-5.4701e+00	-7.3638e-01	-6.5518e-01	-5.7256e-01

5.0800e+02	-5.7581e+00	-3.2208e-01	-1.9300e-01	-1.0696e-01
5.1200e+02	-5.1101e+00	-9.8575e-02	-8.0816e-02	-4.9359e-02
5.1600e+02	-4.5459e+00	2.9760e-01	3.4211e-01	3.5954e-01
5.2000e+02	-2.9357e+00	3.9296e-01	3.2837e-01	2.9323e-01
5.2400e+02	-1.4051e+00	5.9728e-01	5.7508e-01	5.4073e-01
5.2800e+02	9.6682e-01	4.9374e-01	3.8831e-01	3.2031e-01
5.3200e+02	2.8495e+00	5.2182e-01	4.8423e-01	4.3828e-01
5.3600e+02	5.0074e+00	2.9996e-01	2.0354e-01	1.4338e-01
5.4000e+02	6.1095e+00	2.7888e-01	2.6598e-01	2.4022e-01
5.4400e+02	7.0101e+00	8.6368e-02	2.3378e-02	-1.0024e-02
5.4800e+02	6.6198e+00	1.5097e-01	1.6742e-01	1.6652e-01
5.5200e+02	6.0821e+00	7.1000e-02	2.7765e-02	9.3631e-03
5.5600e+02	4.5858e+00	2.3093e-01	2.5016e-01	2.5199e-01
5.6000e+02	3.4035e+00	2.0358e-01	1.5114e-01	1.2445e-01
5.6400e+02	1.7282e+00	3.6254e-01	3.6306e-01	3.4980e-01
5.6800e+02	6.9733e-01	2.9861e-01	2.2881e-01	1.8711e-01
5.7200e+02	-6.4504e-01	4.0054e-01	3.8725e-01	3.6401e-01
5.7600e+02	-1.3095e+00	2.8493e-01	2.1005e-01	1.6336e-01
5.8000e+02	-2.3210e+00	3.3648e-01	3.2433e-01	3.0262e-01
5.8400e+02	-2.7449e+00	1.7659e-01	1.0924e-01	6.8348e-02
5.8800e+02	-3.5874e+00	1.6289e-01	1.6310e-01	1.5093e-01
5.9200e+02	-3.8602e+00	-6.9630e-02	-1.1743e-01	-1.4396e-01
5.9600e+02	-4.4543e+00	-1.6636e-01	-1.3686e-01	-1.2608e-01
6.0000e+02	-4.3109e+00	-4.4391e-01	-4.5159e-01	-4.4698e-01
6.0400e+02	-4.3141e+00	-5.3184e-01	-4.5410e-01	-4.0489e-01
6.0800e+02	-3.5126e+00	-7.0516e-01	-6.6375e-01	-6.1951e-01
6.1200e+02	-2.9239e+00	-6.1502e-01	-4.9939e-01	-4.1891e-01
6.1600e+02	-1.7154e+00	-5.6359e-01	-5.0624e-01	-4.4873e-01
6.2000e+02	-9.3838e-01	-2.7877e-01	-1.7802e-01	-1.0859e-01
6.2400e+02	-2.3873e-01	-1.0884e-01	-9.2729e-02	-6.9080e-02
6.2800e+02	8.1670e-01	1.7947e-01	2.2005e-01	2.4148e-01
6.3200e+02	1.6734e+00	2.4773e-01	2.0281e-01	1.7671e-01
6.3600e+02	1.8990e+00	3.5355e-01	3.4331e-01	3.2426e-01
6.4000e+02	2.4121e+00	2.1783e-01	1.4727e-01	9.9885e-02
6.4400e+02	2.3504e+00	1.5331e-01	1.4365e-01	1.2590e-01
6.4800e+02	2.6033e+00	-6.9372e-02	-1.1379e-01	-1.4012e-01
6.5200e+02	2.3063e+00	-1.3231e-01	-1.0431e-01	-9.0585e-02
6.5600e+02	2.2966e+00	-2.7831e-01	-2.8316e-01	-2.7790e-01
6.6000e+02	1.7255e+00	-2.3185e-01	-1.7521e-01	-1.3823e-01
6.6400e+02	1.4281e+00	-2.6269e-01	-2.5266e-01	-2.3600e-01
6.6800e+02	6.2433e-01	-1.2876e-01	-7.3357e-02	-3.7406e-02
6.7200e+02	1.7879e-01	-1.0537e-01	-1.0792e-01	-1.0185e-01
6.7600e+02	-6.2542e-01	3.5904e-02	7.0494e-02	8.9875e-02
6.8000e+02	-9.2368e-01	2.9499e-02	5.1148e-03	-6.6099e-03
6.8400e+02	-1.4230e+00	1.0575e-01	1.2113e-01	1.2512e-01
6.8800e+02	-1.3208e+00	2.4153e-02	-1.0450e-02	-3.0693e-02
6.9200e+02	-1.3821e+00	3.2146e-02	4.6565e-02	5.0231e-02
6.9600e+02	-9.0968e-01	-8.2479e-02	-1.0740e-01	-1.2000e-01
7.0000e+02	-7.2207e-01	-6.4165e-02	-3.5601e-02	-1.9937e-02
7.0400e+02	-1.6689e-01	-1.2174e-01	-1.3193e-01	-1.3256e-01
7.0800e+02	-3.3417e-02	-2.1274e-02	1.4127e-02	3.5895e-02
7.1200e+02	3.5631e-01	5.6514e-03	-7.7030e-03	-1.0883e-02
7.1600e+02	2.8788e-01	1.5964e-01	1.7922e-01	1.8869e-01
7.2000e+02	4.7861e-01	1.9409e-01	1.5753e-01	1.3527e-01
7.2400e+02	2.7096e-01	3.0029e-01	2.9392e-01	2.8242e-01
7.2800e+02	3.8146e-01	2.4920e-01	1.9270e-01	1.5402e-01
7.3200e+02	1.5876e-01	2.5285e-01	2.3699e-01	2.1783e-01
7.3600e+02	2.7878e-01	1.1570e-01	6.4162e-02	2.9300e-02
7.4000e+02	7.6615e-02	6.9906e-02	7.0362e-02	6.4655e-02
7.4400e+02	1.9625e-01	-6.7204e-02	-9.4203e-02	-1.0946e-01
7.4800e+02	-1.3981e-02	-7.0642e-02	-4.5923e-02	-3.1671e-02
7.5200e+02	9.2085e-02	-1.3821e-01	-1.4506e-01	-1.4452e-01
7.5600e+02	-1.0307e-01	-6.8126e-02	-3.3504e-02	-1.1014e-02
7.6000e+02	5.2379e-02	-7.6684e-02	-8.2612e-02	-8.1941e-02
7.6400e+02	-4.3924e-02	2.4419e-02	5.0802e-02	6.6742e-02
7.6800e+02	2.3590e-01	1.8956e-02	1.1225e-03	-8.2282e-03
7.7200e+02	2.7616e-01	1.0018e-01	1.1329e-01	1.1889e-01
7.7600e+02	6.6420e-01	6.4311e-02	3.6504e-02	1.8928e-02
7.8000e+02	7.6884e-01	1.1054e-01	1.1704e-01	1.1773e-01
7.8400e+02	1.1519e+00	4.4180e-02	1.4900e-02	-4.1872e-03
7.8800e+02	1.1891e+00	6.4905e-02	7.3392e-02	7.6039e-02
7.9200e+02	1.4483e+00	-1.4916e-02	-3.8265e-02	-5.2963e-02
7.9600e+02	1.3342e+00	1.8030e-03	1.7697e-02	2.6566e-02
8.0000e+02	1.4339e+00	-6.8104e-02	-8.2980e-02	-9.1148e-02
8.0400e+02	1.1762e+00	-3.5902e-02	-1.2959e-02	1.8668e-03
8.0800e+02	1.1526e+00	-8.3937e-02	-9.3498e-02	-9.7834e-02
8.1200e+02	7.9638e-01	-3.4815e-02	-9.7456e-03	7.1055e-03
8.1600e+02	6.8865e-01	-6.7848e-02	-7.7449e-02	-8.2052e-02
8.2000e+02	2.5927e-01	-1.4356e-02	8.5768e-03	2.3904e-02
8.2400e+02	8.3796e-02	-4.5525e-02	-5.7810e-02	-6.4946e-02
8.2800e+02	-3.9916e-01	1.2264e-03	2.1179e-02	3.4374e-02
8.3200e+02	-6.0433e-01	-3.5224e-02	-4.9655e-02	-5.8748e-02
8.3600e+02	-1.0741e+00	1.1455e-03	1.9596e-02	3.1841e-02
8.4000e+02	-1.2136e+00	-4.2447e-02	-5.6974e-02	-6.6366e-02
8.4400e+02	-1.5566e+00	-1.6639e-02	2.4529e-03	1.5383e-02
8.4800e+02	-1.5192e+00	-6.6503e-02	-7.8748e-02	-8.6677e-02
8.5200e+02	-1.6493e+00	-4.6872e-02	-2.5075e-02	-9.6653e-03
8.5600e+02	-1.3949e+00	-9.4815e-02	-1.0293e-01	-1.0795e-01
8.6000e+02	-1.3263e+00	-6.8322e-02	-4.3029e-02	-2.4388e-02
8.6400e+02	-9.2149e-01	-9.8977e-02	-1.0366e-01	-1.0619e-01
8.6800e+02	-7.5954e-01	-5.2081e-02	-2.6052e-02	-6.3041e-03
8.7200e+02	-3.2967e-01	-5.8781e-02	-6.4805e-02	-6.8716e-02
8.7600e+02	-1.9588e-01	3.7979e-03	2.4881e-02	4.1034e-02
8.8000e+02	1.5847e-01	4.8801e-03	-8.0932e-03	-1.7822e-02
8.8400e+02	1.9458e-01	5.7837e-02	7.0436e-02	7.9965e-02
8.8800e+02	4.3411e-01	3.9987e-02	1.9588e-02	3.6415e-03
8.9200e+02	3.5607e-01	6.2637e-02	7.0101e-02	7.5679e-02
8.9600e+02	4.7783e-01	1.8256e-02	-3.2941e-03	-2.0384e-02
9.0000e+02	2.8817e-01	1.8296e-02	2.8271e-02	3.6057e-02
9.0400e+02	2.9894e-01	-3.1957e-02	-4.7875e-02	-6.0404e-02

9.0800e+02	1.1018e-02	-2.6649e-02	-9.8991e-03	3.4475e-03
9.1200e+02	-6.4242e-02	-5.7293e-02	-6.6837e-02	-7.4381e-02
9.1600e+02	-4.0996e-01	-2.8653e-02	-8.2925e-03	8.1062e-03
9.2000e+02	-5.1450e-01	-3.4772e-02	-4.3374e-02	-5.0284e-02
9.2400e+02	-8.4791e-01	1.1429e-02	2.8770e-02	4.3064e-02
9.2800e+02	-9.0667e-01	1.3843e-02	6.0350e-04	-1.0341e-02
9.3200e+02	-1.1578e+00	5.8256e-02	6.8732e-02	7.7847e-02
9.3600e+02	-1.1170e+00	5.0098e-02	3.1196e-02	1.5199e-02
9.4000e+02	-1.2552e+00	7.9460e-02	8.4504e-02	8.9638e-02
9.4400e+02	-1.1095e+00	5.4836e-02	3.3498e-02	1.5274e-02
9.4800e+02	-1.1499e+00	7.2071e-02	7.5907e-02	8.0442e-02
9.5200e+02	-9.2891e-01	4.0192e-02	2.0362e-02	3.0100e-03
9.5600e+02	-9.0714e-01	5.8703e-02	6.3978e-02	7.0233e-02
9.6000e+02	-6.4434e-01	3.2634e-02	1.5318e-02	-2.9802e-04
9.6400e+02	-5.8972e-01	6.1974e-02	6.7919e-02	7.5161e-02
9.6800e+02	-3.0809e-01	4.5300e-02	2.8489e-02	1.2558e-02
9.7200e+02	-2.4169e-01	8.1118e-02	8.4977e-02	9.1327e-02
9.7600e+02	3.8069e-02	6.5599e-02	4.6659e-02	2.8428e-02
9.8000e+02	9.0711e-02	9.4210e-02	9.5178e-02	9.9622e-02
9.8400e+02	3.4027e-01	6.9834e-02	4.8853e-02	2.8491e-02
9.8800e+02	3.4959e-01	8.3152e-02	8.3750e-02	8.8113e-02
9.9200e+02	5.4492e-01	5.0519e-02	3.0171e-02	1.0254e-02
9.9600e+02	4.9623e-01	5.3957e-02	5.7679e-02	6.4284e-02
1.0000e+03	6.3839e-01	2.2873e-02	5.6624e-03	-1.1532e-02
1.0040e+03	5.4653e-01	2.7396e-02	3.5264e-02	4.5152e-02
1.0080e+03	6.6445e-01	5.4510e-03	-8.4611e-03	-2.3128e-02
1.0120e+03	5.6377e-01	1.5583e-02	2.5786e-02	3.7887e-02
1.0160e+03	6.9228e-01	6.7754e-04	-1.1504e-02	-2.5313e-02
1.0200e+03	6.1008e-01	1.1946e-02	2.2499e-02	3.5184e-02

11.3 List of Test Powerpoint format files.

11-04-2008	a_TauPmute_shot.ppt	23-05-2008	v_W08SCH1162P1_demulcuts_gath.ppt
11-04-2008	a_TauPmute_stak.ppt	23-05-2008	v_W08SCH1282P1_demulcuts_gath.ppt
11-04-2008	a_TaupDecon.ppt	23-05-2008	v_W08SCH1510I1_demulcuts_gath.ppt
11-04-2008	a_DeconDomain.ppt	23-05-2008	v_W08SCH1030P1_demulcuts_gath.ppt
15-04-2008	b_DeconDomain.ppt	23-05-2008	v_W08SCH1306P1_demulcuts_gath.ppt
15-04-2008	b_TaupDecon.ppt	23-05-2008	v_W08SCH1090I1_demulcuts_gath.ppt
17-04-2008	c_OH94-1168_stak.ppt	23-05-2008	v_W08SCH1054P1_demulcuts_gath.ppt
17-04-2008	c_OH94-1168_mig.ppt	26-05-2008	w_timeslice_Taupdecon.ppt
17-04-2008	c_OH94-1168_shot.ppt	26-05-2008	w_W08SCH1078P1_shots.ppt
18-04-2008	c_W08SCH1510I1_mig.ppt	27-05-2008	w_W08SCH1078P1_taupinterp_shot.ppt
18-04-2008	c_W08SCH1018P1_shot.ppt	27-05-2008	w_W08SCH1078P1_taupinterp_stak.ppt
18-04-2008	c_W08SCH1510I1_shot.ppt	27-05-2008	s_Qcomp_W08SCH1510I1_qcomp_mig.ppt
18-04-2008	c_W08SCH1018P1_mig.ppt	27-05-2008	t_OH94-1168_vs_synthetic_stak.ppt
18-04-2008	c_W08SCH1510I1_stak.ppt	27-05-2008	t_OH94-1168_vs_synthetic_mig.ppt
18-04-2008	c_W08SCH1018P1_stak.ppt	05-06-2008	u_qcomp_dmnl_bin_xline.ppt
21-04-2008	d_W08SCH1018P1_dephase.ppt	05-06-2008	u_qcomp_dmnl_bin_ts.ppt
21-04-2008	d_OH94-1168_dephase.ppt	13-06-2008	v_pstm_bincenre_il.ppt
21-04-2008	e_W08SCH1018P1_dephase.ppt	13-06-2008	v_pstm_bincenre_xl.ppt
22-04-2008	e_W08SCH1510I1_dephase_9m.ppt	23-06-2008	w_xl3200_pstm.ppt
22-04-2008	e_OH94-1168_dephase_8m.ppt	23-06-2008	w_il1360_pstm.ppt
22-04-2008	e_W08SCH1282P1_dephase_7m.ppt	26-06-2008	x_xl3200_pstm_vel.ppt
23-04-2008	f_W08SCH1018P1_decondomain_stak.ppt	26-06-2008	x_il1360_pstm_vel.ppt
23-04-2008	f_W08SCH1018P1_decondomain_shot.ppt	02-07-2008	y_4th_vs_anisvel.ppt
24-04-2008	f_OH94-1168_decondomain_stak.ppt	03-07-2008	y_4th_vs_anisvel_gaths.ppt
24-04-2008	f_OH94-1168_decondomain_shot.ppt	07-07-2008	y_1880_2ndeta_vs_4th_stack.ppt
24-04-2008	g_dephase_brutecube.ppt	07-07-2008	y_1160_2ndeta_vs_4th_stack.ppt
28-04-2008	f_W08SCH1510I1_decondomain_stak.ppt	07-07-2008	y_1160_2ndeta_vs_4th_gath.ppt
28-04-2008	f_W08SCH1510I1_decondomain_shot.ppt	07-07-2008	y_1880_2ndeta_vs_4th_gath.ppt
01-05-2008	h_W08SCH1018P1_decondomain_stak.ppt	16-07-2008	aa_il1400_linstak.ppt
01-05-2008	h_W08SCH1018P1_decondomain_shot.ppt	16-07-2008	aa_il1400_lingath.ppt
01-05-2008	h_W08SCH1510I1_decondomain_stak.ppt	16-07-2008	aa_il1400_radstak.ppt
01-05-2008	h_OH94-1168_decondomain_stak.ppt	16-07-2008	aa_il1400_radgath.ppt
01-05-2008	h_OH94-1168_decondomain_shot.ppt	18-07-2008	z_1400_qcomp_stak.ppt
01-05-2008	h_W08SCH1510I1_decondomain_shot.ppt	18-07-2008	bb_il1400_radgath.ppt
06-05-2008	i_W08SCH1018P1_decondomain_stak.ppt	18-07-2008	bb_il1400_radstak.ppt
06-05-2008	i_W08SCH1018P1_decon_n_demul_stak.ppt	18-07-2008	bb_PreSTM_gc.ppt
06-05-2008	i_W08SCH1018P1_decon_n_demul_mig.ppt	22-07-2008	cc_il1400_lingath.ppt
06-05-2008	i_W08SCH1018P1_decondomain_shot.ppt	22-07-2008	cc_il1400_linstak.ppt
06-05-2008	i_W08SCH1018P1_decon_n_demul_shot.ppt	22-07-2008	cc_il1400_radgath.ppt
06-05-2008	i_W08SCH1510I1_decon_n_demul_mig.ppt	22-07-2008	cc_il1400_radstak.ppt
06-05-2008	i_OH94-1168_decon_n_demul_mig.ppt	22-07-2008	cc_Qcomp_gath.ppt
07-05-2008	j_OH94-1168_mig.ppt	22-07-2008	dd_Qcomp_zoom.ppt
07-05-2008	j_W08SCH1510I1_mig.ppt	23-07-2008	dd_flow_postpstm.ppt
07-05-2008	j_W08SCH1018P_mig.ppt	23-07-2008	dd_resrad_deltatmodel_gath.ppt
07-05-2008	k_W08SCH1018P_mig.ppt	23-07-2008	dd_resrad_negcut_gath.ppt
07-05-2008	k_W08SCH1510I1_mig.ppt	23-07-2008	dd_prestk_scale.ppt
07-05-2008	k_OH94-1168_mig.ppt	23-07-2008	dd_startrad.ppt
08-05-2008	l_W08SCH1510I1_srimestak.ppt	24-07-2008	ee_flow_postpstm_stak.ppt
08-05-2008	l_OH94-1168_srimestak.ppt	24-07-2008	ee_flow_postpstm_gath.ppt
08-05-2008	l_W08SCH1018P1_srimestak.ppt	24-07-2008	ee_flow_postpstm_6s_stak.ppt
09-05-2008	m_W08SCH1018P1_aliasprob.ppt	24-07-2008	ee_flow_postpstm_6s_stak_raw.ppt
09-05-2008	m_OH94-1168_srmediff.ppt	24-07-2008	ee_negmod_gath.ppt
09-05-2008	m_W08SCH1018P1_srmediff.ppt	28-07-2008	ff_1400_resrad_tighter_gath.ppt
09-05-2008	m_W08SCH1510I1_srmediff.ppt	28-07-2008	ff_1400_resrad_tighter_stak.ppt
09-05-2008	m_OH94-1168_srmemig.ppt	28-07-2008	ff_1160_resrad_tighter_gath.ppt
09-05-2008	m_W08SCH1018P1_srmemig.ppt	28-07-2008	ff_1860_resrad_tighter_gath.ppt
09-05-2008	m_W08SCH1510I1_srmemig.ppt	28-07-2008	ff_1160_resrad_tighter_stak.ppt
09-05-2008	m_OH94-1168_srmeshot.ppt	28-07-2008	ff_1860_resrad_tighter_stak.ppt
09-05-2008	m_W08SCH1018P1_srmeshot.ppt	29-07-2008	gg_1860_tight2_stak.ppt
09-05-2008	m_W08SCH1510I1_srmeshot.ppt	29-07-2008	gg_1400_tight2_stak.ppt
12-05-2008	n_W08SCH1018P1_rcvrnew.ppt	29-07-2008	gg_1160_tight2_stak.ppt
13-05-2008	n_W08SCH1018P1_rcvrnewshot.ppt	29-07-2008	gg_1400_tight2_gath.ppt
13-05-2008	n_W08SCH1018P1_rcvrnewstak.ppt	29-07-2008	gg_1860_tight2_gath.ppt
14-05-2008	o_W08SCH1018P1_dmshot.ppt	29-07-2008	gg_1160_tight2_gath.ppt
14-05-2008	o_W08SCH1018P1_dmshotstak.ppt	30-07-2008	hh_1400_gflat_gath.ppt
14-05-2008	n_W08SCH1018P1_tauplineinterpshot.ppt	30-07-2008	hh_1400_gflat_stak.ppt
15-05-2008	p_W08SCH1510I1_srmererevisited.ppt	30-07-2008	hh_tfdn_qcomp_procfow.ppt
15-05-2008	p_W08SCH1510I1_srmererevisited_shot.ppt	30-07-2008	hh_amp_500_700_pstm.ppt
15-05-2008	q_W08SCH1510I1_qcomp_shot.ppt	31-07-2008	qd_hardcopy.ppt
19-05-2008	r_W08SCH1018P1_srmemig.ppt	31-07-2008	ii_ampvsoff.ppt
19-05-2008	r_W08SCH1510I1_srmemig.ppt	01-08-2008	jj_resrad_gc.ppt
19-05-2008	r_OH94-1168_srmemig.ppt	01-08-2008	jj_ang_gath.ppt
20-05-2008	s_Qcomp_W08SCH1510I1_qcomp_stak.ppt	04-08-2008	kk_3rdpassvel_revise.ppt
20-05-2008	s_Qcomp_W08SCH1510I1_qcomp_ampspec.ppt	05-08-2008	ll_1160_angstack.ppt
20-05-2008	t_OH94-1168_demul_stak.ppt	05-08-2008	ll_1400_angstack.ppt
20-05-2008	t_OH94-1168_demul_gath.ppt	05-08-2008	ll_1400_anggath.ppt
21-05-2008	t_W08SCH1018P1_demul_gath.ppt	05-08-2008	ll_1860_angstack.ppt
21-05-2008	t_W08SCH1018P1_demul_stak.ppt	05-08-2008	ll_specbal.ppt
21-05-2008	t_W08SCH1510I1_demul_stak.ppt	06-08-2008	mm_specbal_rev1.ppt
21-05-2008	t_W08SCH1510I1_demul_gath.ppt	08-08-2008	oo_specbal_rev2_5sec.ppt
21-05-2008	u_ALL_demul_fx_stak.ppt	08-08-2008	oo_specbal_rev4_3sec.ppt
21-05-2008	u_ALL_demul_fx_gath.ppt	08-08-2008	oo_specbal_rev4_5sec.ppt
21-05-2008	u_ALL_demul_agc_gath.ppt	18-11-2008	ii_gflat_at_Minerva.ppt
21-05-2008	u_ALL_demul_agc_stak.ppt	18-11-2008	jj_AVO_revision.ppt
21-05-2008	u_KFILT_TMIx.ppt	18-11-2008	ii_supergather.ppt
22-05-2008	u_W08SCH1510I1_KFILT_TMIx_stak.ppt		
23-05-2008	v_W08SCH1510I1_demulcuts_stak.ppt		
23-05-2008	v_W08SCH1162P1_demulcuts_stak.ppt		
23-05-2008	v_W08SCH1306P1_demulcuts_stak.ppt		
23-05-2008	v_W08SCH1282P1_demulcuts_stak.ppt		
23-05-2008	v_W08SCH1030P1_demulcuts_stak.ppt		
23-05-2008	v_W08SCH1054P1_demulcuts_stak.ppt		
23-05-2008	v_W08SCH1078P1_demulcuts_stak.ppt		
23-05-2008	v_W08SCH1090I1_demulcuts_stak.ppt		
23-05-2008	v_W08SCH1078P1_demulcuts_gath.ppt		

11.4 Archive EBCDIC Headers

FINAL MIGRATION FULL:

C01 CLIENT :WOODSIDE ENERGY LTD SURVEY : SCHOMBERG MINERVA 3D PSTM 2008
C02 INLINES :998 : 2282 - 4426
C03 AREA : VIC/P43 OTWAY BASIN, AUSTRALIA ORIGINAL CLIENT :WOODSIDE
C04 DATA-SET :FINAL MIG FULL
C05 WEL SEGY VERSION : VERSION M.11
C06 TAPE NO.: GR0011 SERIAL NO. GR0011 NO FILE ON TAPE: 1
C07 ACQ PREFIX : W08SCH AND OH94 PROCESSED DATE : MAR-AUG 2008
C08 SHOT/RCV INTERVAL :18.75/12.5 NO. GUNS/CABLES :2/4 OR 2/6
C09 CABLE LENGTH :3 AND 6KM RCVS PER CABLE :240 AND 480
C10 GUN SEPARATION :50.00 CABLE SEPARATION :100.00
C11 FAR PORT SOURCE NO. :1 FAR STARBOARD SOURCE NO. :2
C12 FAR PORT CABLE NO. :1 FAR STARBOARD CABLE NO. :4 OR 6
C13 MIN OFFSET :115 MAX OFFSET :6074
C14 SPHEROID OF REF :GDA94 UTM ZONE :GDA94 ZONE 54S
C15 COORDINATE UNITS :METRES PROCESSED DATUM :MSL
C16 BINNING ORIGIN (E,N) : (679998.894334,5685716.89865)
C17 BINNING ORIGIN (XLINE,INLINE) : (2043/881)
C18 NO. XLINES/INLINES :2145/1097 XLINE/INLINE INT : 12.5/25
C19 GRID MIN/MAX XLINE :2282/4426 GRID MIN/MAX INLINE : 998/2094
C20 ROTATION ANGLE :287.6 (DEGR) (CLOCKWISE = POSITIVE)
C21 SAMPLE RATE (US) :4000 MAX TIME (MS) :6088
C22
C23 PROCESSING HISTORY
C24 REFORMAT / BANDPASS FILTER / ANTI-ALIAS FILTER / RESAMPLE / TRACE EDITS .
C25 GUN AND CABLE STATIC CORRECTION / TIDAL STATIC / SPHERICAL DIVERGENCE COR
C26 DESPIKE / DESWELL / DEPHASE&WHITENING / TAU-P DECON / TAU-P MUTE
C27 1-2-1 TRACE MIX / ALTERNATE TRACE DROP / PHASE ONLY Q COMP. / DEMULTIPLE
C28 BINNING / AMPLITUDE AND PHASE MATCHING / DATA REGULARIZATION
C29 INTERPOLATION / PRE-STM / TFDN / AMPLITUDE ONLY Q COMP.
C30 RESIDUAL RADON / OFFSET AMPLITUDE BALANCE / GATHER FLATTENING
C31 ANGLE STACK 3-40 DEGREES (1/N STACK COMPENSATION)
C32 SPECTRAL BALANCE
C33 TRANSCRIBE TO SEGY
C34
C35
C36
C37
C38
C39
C40 END OF EBCDIC HEADER

FINAL MIGRATION NEAR:

C01 CLIENT :WOODSIDE ENERGY LTD SURVEY : SCHOMBERG MINERVA 3D PSTM 2008
C02 INLINES :998 : 2282 - 4426
C03 AREA : VIC/P43 OTWAY BASIN, AUSTRALIA ORIGINAL CLIENT :WOODSIDE
C04 DATA-SET :FINAL MIG NEAR
C05 WEL SEGY VERSION : VERSION M.11
C06 TAPE NO.: GR0011 SERIAL NO. GR0011 NO FILE ON TAPE: 1
C07 ACQ PREFIX : W08SCH AND OH94 PROCESSED DATE : MAR-AUG 2008
C08 SHOT/RCV INTERVAL :18.75/12.5 NO. GUNS/CABLES :2/4 OR 2/6
C09 CABLE LENGTH :3 AND 6KM RCVS PER CABLE :240 AND 480
C10 GUN SEPARATION :50.00 CABLE SEPARATION :100.00
C11 FAR PORT SOURCE NO. :1 FAR STARBOARD SOURCE NO. :2
C12 FAR PORT CABLE NO. :1 FAR STARBOARD CABLE NO. :4 OR 6
C13 MIN OFFSET :115 MAX OFFSET :6074
C14 SPHEROID OF REF :GDA94 UTM ZONE :GDA94 ZONE 54S
C15 COORDINATE UNITS :METRES PROCESSED DATUM :MSL
C16 BINNING ORIGIN (E,N) : (679998.894334,5685716.89865)
C17 BINNING ORIGIN (XLINE,INLINE) : (2043/881)
C18 NO. XLINES/INLINES :2145/1097 XLINE/INLINE INT : 12.5/25
C19 GRID MIN/MAX XLINE :2282/4426 GRID MIN/MAX INLINE : 998/2094
C20 ROTATION ANGLE :287.6 (DEGR) (CLOCKWISE = POSITIVE)
C21 SAMPLE RATE (US) :4000 MAX TIME (MS) :6088
C22
C23 PROCESSING HISTORY
C24 REFORMAT / BANDPASS FILTER / ANTI-ALIAS FILTER / RESAMPLE / TRACE EDITS .
C25 GUN AND CABLE STATIC CORRECTION / TIDAL STATIC / SPHERICAL DIVERGENCE COR
C26 DESPIKE / DESWELL / DEPHASE&WHITENING / TAU-P DECON / TAU-P MUTE
C27 1-2-1 TRACE MIX / ALTERNATE TRACE DROP / PHASE ONLY Q COMP. / DEMULTIPLE
C28 BINNING / AMPLITUDE AND PHASE MATCHING / DATA REGULARIZATION
C29 INTERPOLATION / PRE-STM / TFDN / AMPLITUDE ONLY Q COMP.
C30 RESIDUAL RADON / OFFSET AMPLITUDE BALANCE / GATHER FLATTENING
C31 ANGLE STACK 3-16 DEGREES (1/N STACK COMPENSATION)
C32 SPECTRAL BALANCE
C33 TRANSCRIBE TO SEGY
C34
C35
C36
C37
C38
C39
C40 END OF EBCDIC HEADER

RAW MIGRATION FULL:

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C01 CLIENT      :WOODSIDE ENERGY LTD SURVEY : SCHOMBERG MINERVA 3D PSTM 2008
C02 INLINES     :998                      : 2282 - 4426
C03 AREA : VIC/P43 OTWAY BASIN, AUSTRALIA ORIGINAL CLIENT :WOODSIDE
C04 DATA-SET :RAW MIG FULL
C05 WEL SEGY VERSION : VERSION M.11
C06 TAPE NO.: GR0011 SERIAL NO. GR0011 NO FILE ON TAPE: 1
C07 ACQ PREFIX : W08SCH AND OH94 PROCESSED DATE : MAR-AUG 2008
C08 SHOT/RCV INTERVAL :18.75/12.5 NO. GUNS/CABLES :2/4 OR 2/6
C09 CABLE LENGTH :3 AND 6KM RCVS PER CABLE :240 AND 480
C10 GUN SEPARATION :50.00 CABLE SEPARATION :100.00
C11 FAR PORT SOURCE NO. :1 FAR STARBOARD SOURCE NO. :2
C12 FAR PORT CABLE NO. :1 FAR STARBOARD CABLE NO. :4 OR 6
C13 MIN OFFSET :115 MAX OFFSET :6074
C14 SPHEROID OF REF :GDA94 UTM ZONE :GDA94 ZONE 54S
C15 COORDINATE UNITS :METRES PROCESSED DATUM :MSL
C16 BINNING ORIGIN (E,N) : (679998.894334,5685716.89865)
C17 BINNING ORIGIN (XLINE,INLINE) : (2043/881)
C18 NO. XLINES/INLINES :2145/1097 XLINE/INLINE INT : 12.5/25
C19 GRID MIN/MAX XLINE :2282/4426 GRID MIN/MAX INLINE : 998/2094
C20 ROTATION ANGLE :287.6 (DEGR) (CLOCKWISE = POSITIVE)
C21 SAMPLE RATE (US) :4000 MAX TIME (MS) :6088
C22
C23 PROCESSING HISTORY
C24 REFORMAT / BANDPASS FILTER / ANTI-ALIAS FILTER / RESAMPLE / TRACE EDITS .
C25 GUN AND CABLE STATIC CORRECTION / TIDAL STATIC / SPHERICAL DIVERGENCE COR
C26 DESPIKE / DESWELL / DEPHASE&WHITENING / TAU-P DECON / TAU-P MUTE
C27 1-2-1 TRACE MIX / ALTERNATE TRACE DROP / PHASE ONLY Q COMP. / DEMULTIPLE
C28 BINNING / AMPLITUDE AND PHASE MATCHING / DATA REGULARIZATION
C29 INTERPOLATION / PRE-STM / TFDN / AMPLITUDE ONLY Q COMP.
C30 RESIDUAL RADON / OFFSET AMPLITUDE BALANCE / GATHER FLATTENING
C31 ANGLE STACK 3-40 DEGREES ( 1/N STACK COMPENSATION)
C32 TRANSCRIBE TO SEGY
C33
C34
C35
C36
C37
C38
C39
C40 END OF EBCDIC HEADER

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RAW MIGRATION NEAR:

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C01 CLIENT      :WOODSIDE ENERGY LTD SURVEY : SCHOMBERG MINERVA 3D PSTM 2008
C02 INLINES     :998                      : 2282 - 4426
C03 AREA : VIC/P43 OTWAY BASIN, AUSTRALIA ORIGINAL CLIENT :WOODSIDE
C04 DATA-SET :RAW MIG NEAR
C05 WEL SEGY VERSION : VERSION M.11
C06 TAPE NO.: GR0011 SERIAL NO. GR0011 NO FILE ON TAPE: 1
C07 ACQ PREFIX : W08SCH AND OH94 PROCESSED DATE : MAR-AUG 2008
C08 SHOT/RCV INTERVAL :18.75/12.5 NO. GUNS/CABLES :2/4 OR 2/6
C09 CABLE LENGTH :3 AND 6KM RCVS PER CABLE :240 AND 480
C10 GUN SEPARATION :50.00 CABLE SEPARATION :100.00
C11 FAR PORT SOURCE NO. :1 FAR STARBOARD SOURCE NO. :2
C12 FAR PORT CABLE NO. :1 FAR STARBOARD CABLE NO. :4 OR 6
C13 MIN OFFSET :115 MAX OFFSET :6074
C14 SPHEROID OF REF :GDA94 UTM ZONE :GDA94 ZONE 54S
C15 COORDINATE UNITS :METRES PROCESSED DATUM :MSL
C16 BINNING ORIGIN (E,N) : (679998.894334,5685716.89865)
C17 BINNING ORIGIN (XLINE,INLINE) : (2043/881)
C18 NO. XLINES/INLINES :2145/1097 XLINE/INLINE INT : 12.5/25
C19 GRID MIN/MAX XLINE :2282/4426 GRID MIN/MAX INLINE : 998/2094
C20 ROTATION ANGLE :287.6 (DEGR) (CLOCKWISE = POSITIVE)
C21 SAMPLE RATE (US) :4000 MAX TIME (MS) :6088
C22
C23 PROCESSING HISTORY
C24 REFORMAT / BANDPASS FILTER / ANTI-ALIAS FILTER / RESAMPLE / TRACE EDITS .
C25 GUN AND CABLE STATIC CORRECTION / TIDAL STATIC / SPHERICAL DIVERGENCE COR
C26 DESPIKE / DESWELL / DEPHASE&WHITENING / TAU-P DECON / TAU-P MUTE
C27 1-2-1 TRACE MIX / ALTERNATE TRACE DROP / PHASE ONLY Q COMP. / DEMULTIPLE
C28 BINNING / AMPLITUDE AND PHASE MATCHING / DATA REGULARIZATION
C29 INTERPOLATION / PRE-STM / TFDN / AMPLITUDE ONLY Q COMP.
C30 RESIDUAL RADON / OFFSET AMPLITUDE BALANCE / GATHER FLATTENING
C31 ANGLE STACK 3-16 DEGREES ( 1/N STACK COMPENSATION)
C32 TRANSCRIBE TO SEGY
C33
C34
C35
C36
C37
C38
C39
C40 END OF EBCDIC HEADER

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AVO ATTRIBUTE: INTERCEPT:

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C01 CLIENT      :WOODSIDE ENERGY LTD SURVEY : SCHOMBERG MINERVA 3D PSTM 2008
C02 INLINES     :998                      : 2282 - 4426
C03 AREA : VIC/P43 OTWAY BASIN, AUSTRALIA ORIGINAL CLIENT :WOODSIDE
C04 DATA-SET   :AVO ATTRIBUTE: INTERCEPT
C05 WEL SEG Y VERSION : VERSION M.11
C06 TAPE NO.: GR0011 SERIAL NO. GR0011 NO FILE ON TAPE: 1
C07 ACQ PREFIX : W08SCH AND OH94 PROCESSED DATE : MAR-AUG 2008
C08 SHOT/RCV INTERVAL :18.75/12.5 NO. GUNS/CABLES :2/4 OR 2/6
C09 CABLE LENGTH :3 AND 6KM RCVS PER CABLE :240 AND 480
C10 GUN SEPARATION :50.00 CABLE SEPARATION :100.00
C11 FAR PORT SOURCE NO. :1 FAR STARBOARD SOURCE NO. :2
C12 FAR PORT CABLE NO. :1 FAR STARBOARD CABLE NO. :4 OR 6
C13 MIN OFFSET :115 MAX OFFSET :6074
C14 SPHEROID OF REF :GDA94 UTM ZONE :GDA94 ZONE 54S
C15 COORDINATE UNITS :METRES PROCESSED DATUM :MSL
C16 BINNING ORIGIN (E,N) : (679998.894334,5685716.89865)
C17 BINNING ORIGIN (XLINE,INLINE) : (2043/881)
C18 NO. XLINES/INLINES :2145/1097 XLINE/INLINE INT : 12.5/25
C19 GRID MIN/MAX XLINE :2282/4426 GRID MIN/MAX INLINE : 998/2094
C20 ROTATION ANGLE :287.6 (DEGR) (CLOCKWISE = POSITIVE)
C21 SAMPLE RATE (US) :4000 MAX TIME (MS) :6088
C22
C23 PROCESSING HISTORY
C24 REFORMAT / BANDPASS FILTER / ANTI-ALIAS FILTER / RESAMPLE / TRACE EDITS
C25 GUN AND CABLE STATIC CORRECTION / TIDAL STATIC / SPHERICAL DIVERGENCE COR
C26 DESPIKE / DESWELL / DEPHASE&WHITENING / TAU-P DECON / TAU-P MUTE
C27 1-2-1 TRACE MIX / ALTERNATE TRACE DROP / PHASE ONLY Q COMP. / DEMULTIPLE
C28 BINNING / AMPLITUDE AND PHASE MATCHING / DATA REGULARIZATION
C29 INTERPOLATION / PRE-STM / TFDN / AMPLITUDE ONLY Q COMP.
C30 RESIDUAL RADON / OFFSET AMPLITUDE BALANCE / GATHER FLATTENING
C31 1-1-1 MIX IN XLINE AND INLINE DIRECTION
C32 180 DEGREE PHASE ROTATION, POLARITY SEG +VE
C33 3-40 DEGREE ANGLE OF INCIDENCE GATHER
C34 AVO ATTRIBUTE: INTERCEPT
C35 TRANSCRIBE TO SEG Y
C36
C37
C38
C39
C40 END OF EBCDIC HEADERC

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FINAL MIGRATED GATHERS:

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01 CLIENT      :WOODSIDE ENERGY LTD SURVEY : SCHOMBERG MINERVA 3D PSTM 2008
02 INLINE      : i1 1000 X-LINES : 2282 - 4426
03 AREA : VIC/P43 OTWAY BASIN, AUSTRALIA ORIGINAL CLIENT :WOODSIDE
04 DATA-SET   :FINAL MIGRATED GATHERS
05 WEL SEG Y VERSION : VERSION M.11
06 TAPE NO.: GR0012 SERIAL NO. GR0012 NO FILE ON TAPE: 1
07 ACQ PREFIX : W08SCH AND OH94 PROCESSED DATE : MAR-AUG 2008
08 SHOT/RCV INTERVAL :18.75/12.5 NO. GUNS/CABLES :2/4 OR 2/6
09 CABLE LENGTH :3 AND 6KM RCVS PER CABLE :240 AND 480
10 GUN SEPARATION :50.00 CABLE SEPARATION :100.00
11 FAR PORT SOURCE NO. :1 FAR STARBOARD SOURCE NO. :2
12 FAR PORT CABLE NO. :1 FAR STARBOARD CABLE NO. :4 OR 6
13 MIN OFFSET :115 MAX OFFSET :6074
14 SPHEROID OF REF :GDA94 UTM ZONE :GDA94 ZONE 54S
15 COORDINATE UNITS :METRES PROCESSED DATUM :MSL
16 BINNING ORIGIN (E,N) : (679998.894334,5685716.89865)
17 BINNING ORIGIN (XLINE,INLINE) : (2043/881)
18 NO. XLINES/INLINES :2145/1097 XLINE/INLINE INT : 12.5/25
19 GRID MIN/MAX XLINE :2282/4426 GRID MIN/MAX INLINE : 998/2094
20 ROTATION ANGLE :287.6 (DEGR) (CLOCKWISE = POSITIVE)
21 SAMPLE RATE (US) :4000 MAX TIME (MS) :6088
22
23 PROCESSING HISTORY
24 REFORMAT / BANDPASS FILTER / ANTI-ALIAS FILTER / RESAMPLE / TRACE EDITS
25 GUN AND CABLE STATIC CORRECTION / TIDAL STATIC / SPHERICAL DIVERGENCE COR
26 DESPIKE / DESWELL / DEPHASE&WHITENING / TAU-P DECON / TAU-P MUTE
27 1-2-1 TRACE MIX / ALTERNATE TRACE DROP / PHASE ONLY Q COMP. / VEL1
28 DEMULTIPLE / BINNING / AMPLITUDE AND PHASE MATCHING / DATA REGULARIZATION
29 INTERPOLATION / VEL2 / PRE-STM / TFDN / AMPLITUDE ONLY Q COMP /VEL3
30 RESIDUAL RADON / OFFSET AMPLITUDE BALANCE / GATHER FLATTENING
31 TRANSCRIBE TO SEG Y
32
33
34
35
36
37
38
39
C40 END OF EBCDIC HEADER

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DECIMATED FINAL MIGRATED SUPERGATHERS

C01 CLIENT :WOODSIDE ENERGY LTD SURVEY : SCHOMBERG MINERVA 3D PSTM 2008
C02 INLINE : 998 X-LINES : 2282 - 4426
C03 AREA : VIC/P43 OTWAY BASIN, AUSTRALIA ORIGINAL CLIENT :WOODSIDE
C04 DATA-SET :DECIMATED FINAL MIGRATED SUPERGATHERS
C05 WEL SEG Y VERSION : VERSION M.11
C06 TAPE NO.: GR0020 SERIAL NO. GR0020 NO FILE ON TAPE: 1
C07 ACQ PREFIX : W08SCH AND OH94 PROCESSED DATE : MAR-AUG 2008
C08 SHOT/RCV INTERVAL :18.75/12.5 NO. GUNS/CABLES :2/4 OR 2/6
C09 CABLE LENGTH :3 AND 6KM RCVS PER CABLE :240 AND 480
C10 GUN SEPARATION :50.00 CABLE SEPARATION :100.00
C11 FAR PORT SOURCE NO. :1 FAR STARBOARD SOURCE NO. :2
C12 FAR PORT CABLE NO. :1 FAR STARBOARD CABLE NO. :4 OR 6
C13 MIN OFFSET :115 MAX OFFSET :6074
C14 SPHEROID OF REF :GDA94 UTM ZONE :GDA94 ZONE 54S
C15 COORDINATE UNITS :METRES PROCESSED DATUM :MSL
C16 BINNING ORIGIN (E,N) : (679998.894334,5685716.89865)
C17 BINNING ORIGIN (XLINE,INLINE) : (2043/881)
C18 NO. XLINES/INLINES :2145/1097 XLINE/INLINE INT : 12.5/25
C19 GRID MIN/MAX XLINE :2282/4426 GRID MIN/MAX INLINE : 998/2094
C20 ROTATION ANGLE :287.6 (DEGR) (CLOCKWISE = POSITIVE)
C21 SAMPLE RATE (US) :4000 MAX TIME (MS) :6088
C22
C23 PROCESSING HISTORY
C24 REFORMAT / BANDPASS FILTER / ANTI-ALIAS FILTER / RESAMPLE / TRACE EDITS
C25 GUN AND CABLE STATIC CORRECTION / TIDAL STATIC / SPHERICAL DIVERGENCE COR
C26 DESPIKE / DESWELL / DEPHASE&WHITENING SEG-VE / TAU-P DECON / TAU-P MUTE
C27 1-2-1 TRACE MIX / ALTERNATE TRACE DROP / PHASE ONLY Q COMP. / VEL1
C28 DEMULTIPLE / BINNING / AMPLITUDE AND PHASE MATCHING / DATA REGULARIZATION
C29 INTERPOLATION / VEL2 / PRE-STM / TFDN / AMPLITUDE ONLY Q COMP /VEL3
C30 RESIDUAL RADON / OFFSET AMPLITUDE BALANCE / GATHER FLATTENING
C31 1-1-1 MIX IN XLINE AND INLINE DIRECTION
C32 SELECT EVERY 2ND LINE AND EVERY 4TH CDP (50*50M)
C33 3-40 DEGREE ANGLE OF INCIDENCE GATHER
C34 TRANSCRIBE TO SEG Y
C35
C36
C37
C38
C39
C40 END OF EBCDIC HEADER

DEMULATE GATHERS

C01 CLIENT :WOODSIDE ENERGY LTD SURVEY : SCHOMBERG MINERVA 3D PSTM 2008
C02 LINE : OH94-1000 SEQUENCE:006 GUN: 1 CABLE: 1
C03 AREA : VIC/P43 OTWAY BASIN, AUSTRALIA ORIGINAL CLIENT :WOODSIDE
C04 DATA-SET : DEMULATE GATHERS
C05 WEL SEG Y VERSION : VERSION M.11
C06 TAPE NO.: GR0015 SERIAL NO. GR0015 NO FILE ON TAPE: 1
C07 ACQ PREFIX : OH94 PROCESSED DATE : MAR-AUG 2008
C08 SHOT/RCV INTERVAL :18.75/12.5 NO. GUNS/CABLES : 2/4
C09 CABLE LENGTH :3KM RCVS PER CABLE :240
C10 GUN SEPARATION :50.00 CABLE SEPARATION :100.00
C11 FAR PORT SOURCE NO. :2 FAR STARBOARD SOURCE NO. :1
C12 FAR PORT CABLE NO. :4 FAR STARBOARD CABLE NO. :1
C13 MIN OFFSET :144 MAX OFFSET :3110
C14 SPHEROID OF REF :GDA94 UTM ZONE :GDA94 ZONE 54S
C15 COORDINATE UNITS :METRES PROCESSED DATUM :MSL
C16 BINNING ORIGIN (E,N) : (679998.894334,5685716.89865)
C17 BINNING ORIGIN (XLINE,INLINE) : (2043/881)
C18 NO. XLINES/INLINES :2145/1097 XLINE/INLINE INT : 12.5/25
C19 GRID MIN/MAX XLINE :2282/4426 GRID MIN/MAX INLINE : 998/2094
C20 ROTATION ANGLE :287.6 (DEGR) (CLOCKWISE = POSITIVE)
C21 SAMPLE RATE (US) :4000 MAX TIME (MS) :5120
C22
C23 PROCESSING HISTORY
C24 REFORMAT / BANDPASS FILTER / ANTI-ALIAS FILTER / RESAMPLE / TRACE EDITS
C25 GUN AND CABLE STATIC CORRECTION / TIDAL STATIC / SPHERICAL DIVERGENCE COR
C26 DESPIKE / DESWELL / DEPHASE&WHITENING / TAU-P DECON / TAU-P MUTE
C27 1-2-1 TRACE MIX / ALTERNATE TRACE DROP / PHASE ONLY Q COMP. / VEL1
C28 DEMULTIPLE / PHASE AND AMPLITUDE MATCH TO SCHOMBERG 3D SURVEY
C29
C30 SEG Y TRACE HEADER DEFINITION: WOODSIDE WEL SEG Y M11
C31
C32 IN ADDITION:
C33 DESC BYTE LOCATION FORMAT
C34 GUN CODE 169-170 16 BIT INTEGER
C35 RECEIVER CABLE NUMBER 205-208 32 BIT INTEGER
C36 2D CDP NUMBER 21-24 32 BIT INTEGER
C37
C38
C39
C40 END OF EBCDIC HEADER

IDENTED SHOTS:

C01 CLIENT :WOODSIDE ENERGY LTD SURVEY : SCHOMBERG MINERVA 3D PSTM 2008
 C02 LINE : OH94-1016 SEQUENCE:013 GUN: 2 CABLE: 1
 C03 AREA : VIC/P43 OTWAY BASIN, AUSTRALIA ORIGINAL CLIENT :WOODSIDE
 C04 DATA-SET : IDENTED SHOTS SHOTS : 1654 - 906
 C05 WEL SEG Y VERSION : VERSION M.11
 C06 TAPE NO.: GR0019 SERIAL NO. GR0019 NO FILE ON TAPE: 1
 C07 ACQ PREFIX : OH94 PROCESSED DATE : MAR-AUG 2008
 C08 SHOT/RCV INTERVAL :18.75/12.5 NO. GUNS/CABLES : 2/4
 C09 CABLE LENGTH :3KM RCVS PER CABLE :240
 C10 GUN SEPARATION :50.00 CABLE SEPARATION :100.00
 C11 FAR PORT SOURCE NO. :2 FAR STARBOARD SOURCE NO. :1
 C12 FAR PORT CABLE NO. :4 FAR STARBOARD CABLE NO. :1
 C13 MIN OFFSET :144 MAX OFFSET :3110
 C14 SPHEROID OF REF :GDA94 UTM ZONE :GDA94 ZONE 54S
 C15 COORDINATE UNITS :METRES PROCESSED DATUM :MSL
 C16 BINNING ORIGIN (E,N) : (679998.894334,5685716.89865)
 C17 BINNING ORIGIN (XLINE,INLINE) : (2043/881)
 C18 NO. XLINES/INLINES :2145/1097 XLINE/INLINE INT : 12.5/25
 C19 GRID MIN/MAX XLINE :2282/4426 GRID MIN/MAX INLINE : 998/2094
 C20 ROTATION ANGLE :287.6 (DEGR) (CLOCKWISE = POSITIVE)
 C21 SAMPLE RATE (US) :4000 MAX TIME (MS) :5120
 C22
 C23 PROCESSING HISTORY
 C24 REFORMAT / BANDPASS FILTER / ANTI-ALIAS FILTER / RESAMPLE / TRACE EDITS
 C25 GUN AND CABLE STATIC CORRECTION / TIDAL STATIC / SPHERICAL DIVERGENCE COR
 C26 DESPIKE / DESWELL
 C27
 C28
 C29
 C30 SEG Y TRACE HEADER DEFINITION: WOODSIDE WEL SEG Y M11
 C31
 C32 IN ADDITION:
 C33 DESC BYTE LOCATION FORMAT
 C34 GUN CODE 169-170 16 BIT INTEGER
 C35 RECEIVER CABLE NUMBER 205-208 32 BIT INTEGER
 C36
 C37
 C38
 C39
 C40 END OF EBCDIC HEADER