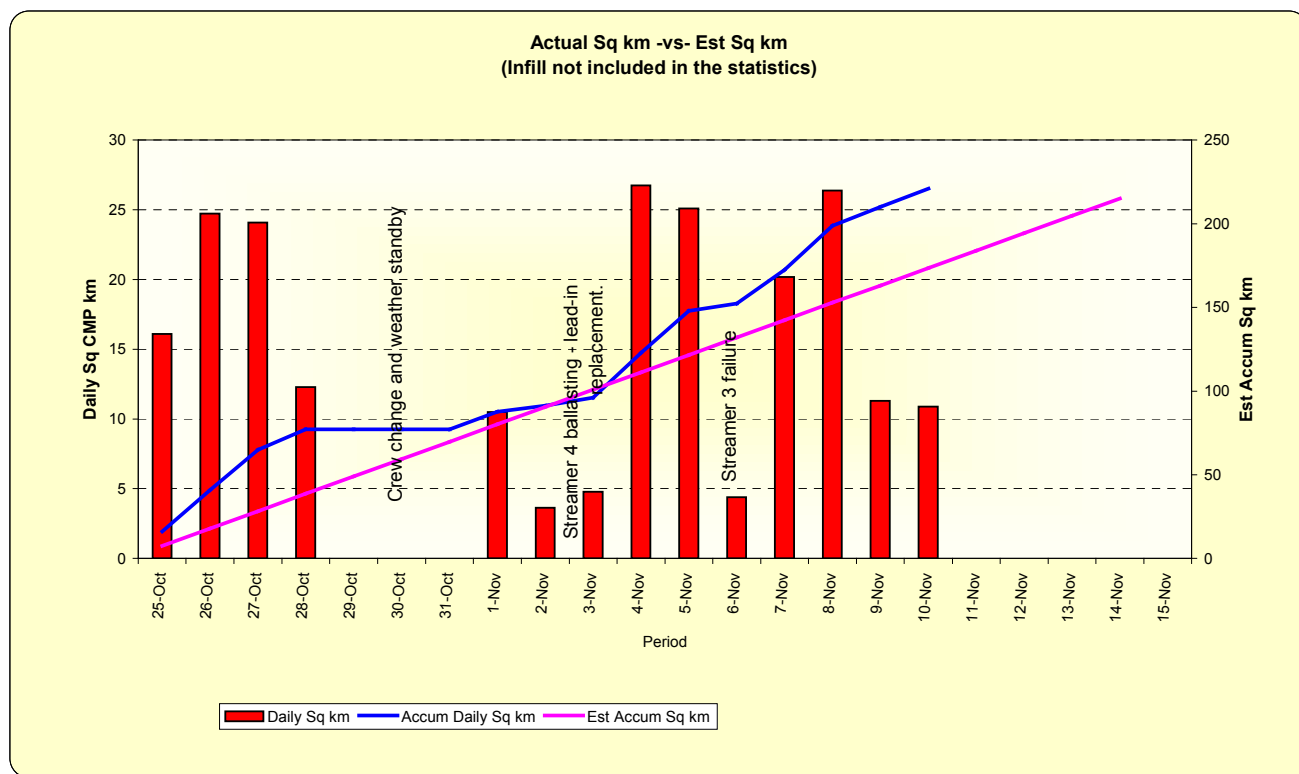


# ANTARES 3D MARINE SEISMIC SURVEY

**Vessel:** Orient Explorer  
**Party Chief:** E. Jettestad  
**Date:** Monday 10<sup>th</sup> Nov 2003



November 10th, 2003

Seq	Line Name	Hdg	Line Type	Line Status	FcSP	LcSP	Ch Sailed
040	WO3ANT-1180P2	305.0	N/C Reshoot	Completed	0	0	0.00000
041	WO3ANT-1196P2	305.0	N/C Reshoot	Completed	0	0	0.00000
042	WO3ANT-1244P1	305.0	Prime	Completed	2319	893	26.75625
043	WO3ANT-1116P3	305.0	Prime	Completed	1001	1781	14.64375
044	WO3ANT-1212P2	305.0	N/C Reshoot	Completed	0	0	0.00000
045	WO3ANT-1252P1	305.0	Prime	End of Day	2265	1569	13.06875
Total 11/10/2003 :							54.46875

## 2. STATISTICAL ANALYSIS (DECIMAL HOURS)

<b>Line Type Analysis</b>				
	<b>Period</b>	<b>(%)</b>	<b>Survey</b>	<b>(%)</b>
Prime	54.46875	100	1,105.23750	89
Infill	0.00000	0	139.66875	11
Infill (% of Prime)	0	-	13	-
Total :	54.46875	100	1,244.90625	100

<b>Line Charge Analysis</b>				
<u>Sailed Kms</u>	<b>Period</b>	<b>(%)</b>	<b>Survey</b>	<b>(%)</b>
Prime	54.46875	85	1,112.90625	88
Infill	0.00000	0	141.41250	11
Infill (% of Prime)	0	-	13	-
N/C Reshoot	9.52500	15	12.35625	1
Total :	63.99375	100	1,266.67500	100

<u>Charged Sailed Kms</u>	<b>Period</b>	<b>(%)</b>	<b>Survey</b>	<b>(%)</b>
Prime	54.46875	100	1,105.23750	89
Infill	0.00000	0	139.66875	11
Infill (% of Prime)	0	-	13	-
Total :	54.46875	100	1,244.90625	100

<u>CMP Kms</u>	<b>Period</b>	<b>(%)</b>	<b>Survey</b>	<b>(%)</b>
Prime	435.75000	100	8,841.90000	89
Infill	0.00000	0	1,117.35000	11
Infill (% of Prime)	0	-	13	-
Total :	435.75000	100	9,959.25000	100

<u>Square Kms</u>	<b>Period</b>	<b>(%)</b>	<b>Survey</b>	<b>(%)</b>
Prime	10.89375	100	221.04750	89
Infill	0.00000	0	27.93375	11
Infill (% of Prime)	0	-	13	-
Total :	10.89375	100	248.98125	100

<u>Fullfold Sailed Kms</u>	<b>Period</b>	<b>(%)</b>	<b>Survey</b>	<b>(%)</b>
Prime	52.44375	100	1,040.43750	89
Infill	0.00000	0	131.56875	11
Infill (% of Prime)	0	-	13	-
Total :	52.44375	100	1,172.00625	100

<u>Fullfold CMP Kms</u>	<b>Period</b>	<b>(%)</b>	<b>Survey</b>	<b>(%)</b>
Prime	419.55000	100	8,323.50000	89
Infill	0.00000	0	1,053.15000	11
Infill (% of Prime)	0	-	13	-
Total :	419.55000	100	9,376.65000	100

<u>Fullfold Square Kms</u>	<b>Period</b>	<b>(%)</b>	<b>Survey</b>	<b>(%)</b>
Prime	10.48875	100	208.08750	89
Infill	0.00000	0	26.32875	11
Infill (% of Prime)	0	-	13	-
Total :	10.48875	100	234.41625	100

### Time Activity Analysis

	<b>Period</b>	<b>(%)</b>	<b>Survey</b>	<b>(%)</b>
Recording	6.833	28	143.383	24
Line Change	1.900	8	66.133	11
Extended L/C	0.000	0	1.900	0
Weather	0.000	0	65.733	11
Instrument	9.083	38	12.900	2
Source	2.750	11	7.950	1
Streamer	1.117	5	48.983	8
Ship	0.000	0	0.500	0
Travel t/f Port	0.000	0	4.250	1
Port/Crew Change	0.000	0	71.917	12
Contractor	0.000	0	3.000	1
Mobilisation	0.000	0	136.000	23
Infill L/C	2.317	10	8.533	1
Infill	0.000	0	17.817	3
Total :	24.000	100	589.000	100

### Time Cause/Reason Analysis

	<b>Period</b>	<b>(%)</b>	<b>Survey</b>	<b>(%)</b>
Production	8.733	36	209.517	36
Infill	2.317	10	26.350	4
Weather	0.000	0	65.733	11
Equip.Fail	12.950	54	70.333	12
MOB/DeMOB	0.000	0	140.250	24
Wside.Reg	0.000	0	35.950	6
Crew Change	0.000	0	35.967	6
PGS	0.000	0	3.000	1
Survey Shape	0.000	0	1.900	0
Total :	24.000	100	589.000	100

### Time Charge Analysis

	<b>Period</b>	<b>(%)</b>	<b>Survey</b>	<b>(%)</b>
Prime	6.833	28	143.383	24
Operations	1.900	8	66.133	11
Standby	0.000	0	103.583	18
Contractor	12.950	54	109.300	19
Mob/Demob	0.000	0	140.250	24
Infill/Stby	2.317	10	26.350	4
Total :	24.000	100	589.000	100

### 3. TIME SUMMARY

November 10th, 2003

<b>Start</b>	<b>End</b>	<b>Hours</b>	<b>Description / Comments</b>	<b>Charge</b>
00:00	02:19	2.317	Infill (Infill L/C) Chargeable line change after infill acquisition.	Infill/Stby
02:19	02:40	0.350	Equip.Fail (Streamer) Non-chargeable reshoot of SP 2588-2415 missed on an earlier line sequence due to telemetry and a Syntrak lock-up. Original sequence was 023 recorded on 5th November. Line now complete.	Contractor
02:40	03:26	0.767	Equip.Fail (Streamer) Line change to next line after reshoot due to Syntrak problems - PGS charge.	Contractor
03:26	03:46	0.333	Equip.Fail (Instrument) Non-chargeable reshoot of data missed on a earlier sequence due to Syntrak lock-up and tape errors. (original sequence was 025 was recorded on 5-6 Nov) Line now complete	Contractor
03:46	07:52	4.100	Equip.Fail (Instrument) Line Change after reshoot due to Syntrak lock-up on earlier line.	Contractor
07:52	11:12	3.333	Seq 042 : Line WO3ANT-1244P1	Prime
11:12	13:06	1.900	Production (Line Change)	Operations
13:06	15:03	1.950	Seq 043 : Line WO3ANT-1116P3 Reshoot of ofirst portion of sequence 2 abandoned due to Syntrak lockup at SOL followed by an air-leak on array 1. This portion was not charged during the first attempt.	Prime
15:03	17:48	2.750	Equip.Fail (Source) Line change to next reshoot - previous was a non-chargeable reshoot due to an air-leak on array one, making this line change a PGS charge.	Contractor
17:48	18:10	0.367	Equip.Fail (Instrument) Reshoot of line portion , on sequence 032 editerd due to a Syntrak lockup on line.	Contractor
18:10	22:27	4.283	Equip.Fail (Instrument) Line change after reshoot caused by Syntrak lockup during sequence 032.	Contractor
22:27	24:00	1.550	Seq 045 : Line WO3ANT-1252P1	Prime
	Total :	24.000		

#### Chase/Supply Vessel Status:

Southern Salvor and Perfect Lady on site.

Perfect Lady released from Woodside contract at 18:00 as per agreement to travel to Portland and prepare for a shallow water bathymetric survey for SANTOS. The fuel consumption figures for November have been requested.

#### Comments/Problems:

Reduced swell – good data quality. Acquiring prime and infill passes to close swath boundaries.

Continue with final prime passes in area C and infill acquisition in area B. Closing the area and completing a number of reshoots due to Syntrak and array problems during earlier line attempts in the survey.

#### Fishing Activity

As it is full moon a number of shark fishing vessels are circling the area, but to date most have remained co-operative and been the cause of no interference. They do seem to be well aware of our presence and operation in the area.

The “Formor” is again causing a problem and at 05:00 on Tuesday morning 11<sup>th</sup> had layed his nets adjacent to our last infill line. Hopefully he will be gone by the time we get to that line. He was contacted and again quite rude and un-cooperative and refused to move till 08:00 hours on the morning of the 11<sup>th</sup>. We shall watch him closely.

#### Semac-1

Still moving out of Port Campbell en route slowly to the Minerva well site locations. They will not be the cause of any lost time or obstruction in the remaining programme.

#### Cetacean Report:

No sightings reported.

#### Weather Comments:

Swell has eased slightly though the night and early morning. Conditions were acceptable throughout the period. Slight to moderate side sea and swell.

#### Close of the day and local time updates.

In production on line 1252, the last full prime line to be acquired. Completed since midnight local time.

SEQ	COMMENTS
<b>Seq 040 Dir 305°</b>	<b>W03ANT1180 P2 SP 2588 – 2415 Now Complete</b> Data Tape Nos 35764 - 35764 Weather: Winds 5-9 knots , Sea and Swell: 2 to 2.25metres at times. Noise at SOL: 2-4µB, EOL: 2-5µB (6Hz lo-cut filter applied) Water Depth: SOL: 41.3m, EOL: 42.6m Feather at SOL: -4.4°, EOL : -3.4°, Max: -4.4 ° Streamer Depth: 8 metres - acceptable. Gun Volume SOL: 2500 , EOL: 2500. Timing errors above 1.5ms and Spread Errors: SP 2473 No Data Records: 2475, 2474, 2467 (to be checked and confirmed)
<b>Seq 041 Dir 125°</b>	<b>W03ANT 1196 P2 SP 2106 – 1949 Now Complete</b> Data Tape Nos 35765 – 35765 Weather: Winds 5-10 knots , Sea and Swell: 2.0 to 2.5 metres at times. Noise at SOL: 4-5µB, EOL: 4-5µB (6Hz lo-cut filter applied) Water Depth: SOL: 41.4m, EOL: 44.2 m Feather at SOL: -1.4°, EOL : -2.4°, Max: -2.4 ° Streamer Depth: 8 metres - acceptable. Noisy Channel: 300, 123, 299, 312 Gun Volume SOL: 2500 , EOL: 2500. Timing errors above 1.5ms/Misfires/Delta Spread Errors above 2.1ms: NIL No data records: 2080-2281 displayed on data logger but incorrect (confirmed by OBP QC)
<b>Seq 042 305°</b>	<b>W03ANT P1 SP 1001 - 2948 Complete</b> Data Tape Nos 35766 – 35768 Weather: Winds 6-12 knots , Sea and Swell: 1.5 to 2.5 metres at times. Noise at SOL: 4-5µB, EOL: 4-5µB (6Hz lo-cut filter applied) Water Depth: SOL: 42.7m, EOL: 40.7 m Feather at SOL: -0.5°, EOL : 1.1°, Max: 1.1 ° Streamer Depth: 8 metres - acceptable. Gun Volume SOL: 2500 , EOL: 2500. Sp 2457-2456 guns firing out of sequence Sp 1513 array volume change Extraction Errors Streamer 4: SP 2054 Timing errors above 1.5ms and Spread Errors: SP 2237, 1644, 1615, 1584, Bad Data Records: 1129, 1330-1436, 1780-1906, 2374 (checked and confirmed acceptable)
<b>Seq 043 125°</b>	<b>W03ANT1116 P3 SP 1001 - 1791 Complete</b> Data Tape Nos 35769 – 35770 Weather: Winds 12 knots , Sea and Swell: 1.5 metres at times. Noise at SOL: 4-5µB, EOL: 4-5µB (6Hz lo-cut filter applied) Water Depth: SOL: 37m, EOL: 35.7 m Feather at SOL: -1.6°, EOL : 1.1°, Max: 1.6 ° Streamer Depth: 8 metres - acceptable. Gun Volume SOL: 2500 , EOL: 2500.
<b>Seq 044 305°</b>	<b>W03ANT1212 P2 SP 1938 - 1763 Non- chargeable reshoot -Complete</b> Data Tape Nos 35771 – 35771 Weather: Winds 6-10 knots , Sea and Swell: 1.5 to 2.0 metres at times. Noise at SOL: 4-5µB, EOL: 4-5µB (6Hz lo-cut filter applied) Water Depth: SOL: 46.9m, EOL: 44.1 m Feather at SOL: -0.1°, EOL : 0.1°, Max: 0.1 ° Streamer Depth: 8 metres - acceptable. Gun Volume SOL: 2500 , EOL: 2500. Timing errors above 1.5ms and Spread Errors: NIL Bad Data Records: 1830 streamer 4. ( to be checked and confirmed acceptable)
<b>Seq 045 305°</b>	<b>W03ANT1252 P2 SP 2265 - 893 Non- chargeable reshoot -Complete</b> Data Tape Nos 35772 – 35774 Weather: Winds 8 knots , Sea and Swell: 1.5 to 2.0 metres at times. Noise at SOL: 4-5µB, EOL: 4-5µB (6Hz lo-cut filter applied) Water Depth: SOL: 45.2m, EOL: 41.0 m Feather at SOL: 0.0°, EOL : -0.9°, Max: -3.0 ° Streamer Depth: 8 metres - acceptable. Noisy Channel: 300, 123, 299, 312 Gun Volume SOL: 2500 , EOL: 2500. Timing errors above 1.5ms and Spread Errors: SP 2253 Bad Data Records: 2240 ( to be checked and confirmed acceptable)

#### HSE Daily Statistics - 10/11/2003

#### Comments:

No accidents or lost time incidents reported. No spillage of oil or loss of containment overboard. Whale watches have been maintained - no sighting

### HSE Items:

10:20 - 10:35      Toolbox Meeting/Debrief [TB]  
                          Toolbox Meeting prior to TS Dip and boat launch.  
 10:43 - 11:11      Work Boat [WB] - 4 occupants  
                          TS Dip and collect package from the Perfect Lady

Description	Day	Month	Survey
<b>Incidents</b>			
Near Miss Incident (NMI)	0	0	0
First Aid Case (FAC)	0	0	0
Medical Treatment Case (MTC)	0	0	0
Restricted Work Case (RWC)	0	0	0
Fatality (FT)	0	0	0
Lost time Injury (LTI)	0	0	0
Oil Spill (OS)	0	0	0
Illness/Ailment (IA)	0	0	0
Environmental Incident (EI)	0	0	0
Hazard Report (HR)	0	24	25
Positive Observation (PO)	0	0	0
Equipment Loss/Damage (ELD)	0	0	0
Non work related illness (NWR)	0	0	1
<b>Events</b>			
Stop Cards Issued ( )	0	28	35
Small Boat Launches ( )	1	7	9
Helicopter Landing/Takeoff (HL)	0	0	0
MOB Drill (MD)	0	0	0
Fire Drill (FD)	0	2	2
Emergency Boat /Towing Drill (EBD)	0	1	8
Safety Meeting (SM)	0	1	3
HSE Induction-Inspection (IT)	0	1	4
Safety Committee Meeting (SCM)	0	1	1
Audit/Inspection/Training/Safety . (HSE)	0	6	11
Toolbox Meeting/Debrief (TB)	1	10	21
Cetacean Sighting (CS)	0	0	0
Bunker and Resupply (BR)	0	0	0
Oil Spill Drill (OR)	0	0	0
Personnel transfer at sea (PT)	0	0	0
<b>Totals</b>			
No. Marine Crew	35	350	871
No. Seismic Crew	22	220	538
No. Contractors	3	30	75
No. Lost Time Injuries	0	0	0
Exposure Hours *	720	7200	17808
Small Boat Hours (Decimal hours)	0.47	6.67	11.15
Small Boat Exposure Hours (Dec. hours)	1.87	26.67	44.60
Fuel Usage (Cubic Metres)	18.03	130.08	285.08
* Exposure hours calculated at 12hrs per day per person.			

**Navigation report submitted by Stephen Burt**

Shot a number of passes during the day due to infill and reshoot requirements and navigation processing has been able to keep up with the lines. Sea conditions have been good that has enabled the lines to be processed without problems. Confirmed the horizontal positioning has not been unduly affected by using height aiding solutions in an email today with attached plot of the comparisons between the height aided and non-height aided systems.

A final TSP was made in the prospect the new VP is 1506.028m/s prior to Sequence 043 and has been used online and in processing from this sequence onwards.

**Progress:**

Shot to Sequence Number 44 Processed to Sequence Number 044 QC'd to Sequence Number 044

**NTBP Sequences:**

001 and 027

**Dead/Bad Units:**

RGPS: - Operational

Acoustics – Operational

Compasses: Operational

Regards,

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