



# GAS REPORT YEAR END 2011

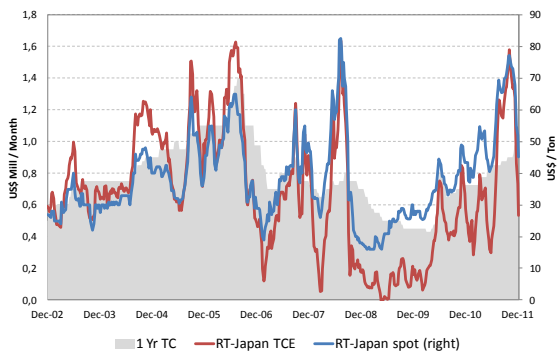
*The bad news is times flies.  
The good news is you're the pilot!  
Happy New Year!*

January 16th, 2011

## VLGC

2011 saw a substantial recovery in freight rates and time charter equivalent earnings, driven by a strong expansion in Middle East Gulf LPG exports. LPG volumes increased on the back of new LNG production and increasing OPEC crude production illustrating the supply driven nature of LPG production. The Baltic VLGC Index averaged US\$ 55.2 pmt, up from US\$ 35.1 in 2010. Time charter equivalent earnings increased from US\$ 414,000/month in 2010 to US\$ 820,000/month in 2011. 12 month time charter rates firmed to US\$ 925,000/month, up US\$ 200,000 from end 2010. The VLGC spot market continued to show substantial fluctuations in freight rates as seen in the graph below.

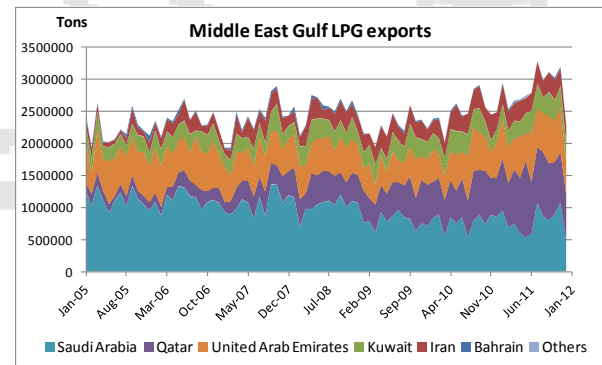
VLGC Spot rate, TCE earnings and 12-month TC



Preliminary trade data indicate an increase in world LPG trade to about 59 million tons according to Waterborne LPG, an increase in excess of 3 million tons from 2010.

Export from the Middle East Gulf increased strongly. Qatari exports rose to about 10.5 million tons up by more than 3 million tons from 2010 and the Emirate overtook Saudi Arabia as the largest exporter. Saudi exports came in just under 9 million tons for the first time in since 1980. Shipments were still higher than expected, reflecting delayed start-up of Kayan Petrochemical Company incl. an ethylene cracker and derivative plants and higher crude production. The Kingdom saw a strong increase in associated LPG production as crude production approached close to 10 million barrels in the fourth quarter, the highest level in 30 years. Exports from Abu Dhabi totalled 7.6 million

tons, up 1.4 million tons from 2010. Iranian exports were largely unchanged at about 3.4 million tons, while Kuwaiti shipments registered a gain of 0.25 million tons.



West of Suez exports were mixed. North African exports recovered slightly to 5.9 million tons up 0.2 million tons from 2010, but still over 1 million tons below 2009 levels. West African shipments fell by 0.7 million tons to 3.2 million tons. North Sea shipments were 6.3 million tons as in 2010 following the sharp decline in 2009. US exports totalled 3.4 million tons, up from 3.1 million tons in 2010.

The pricing of LPG continued to be an issue with sudden spikes and declines in crude and naphtha prices. LPG prices in importing regions often moved out of sync with the monthly Saudi CP set in advance for the next month. This created frequent "stop go" effects in the shipping market with high volatility in shipped volumes and freight rates.

The build up in Middle East Gulf shipments found outlets in Asia in the first half of the year, with only sporadic cargoes shipped West of Suez where markets were generally well supplied by Atlantic production. However, moving into the third quarter Asian markets became saturated and as prices weakened producers started to send high volumes West of Suez where LPG prices were stronger. Saudi Aramco sold a substantial number of spot cargoes for the first time since first half 2008. Moving into the fourth quarter, half a dozen additional VLGCs were discharging cargoes with East of Suez origin in the Atlantic. The rush in activity caused congestion and a sharp rise in turnaround times in discharge ports both in the West

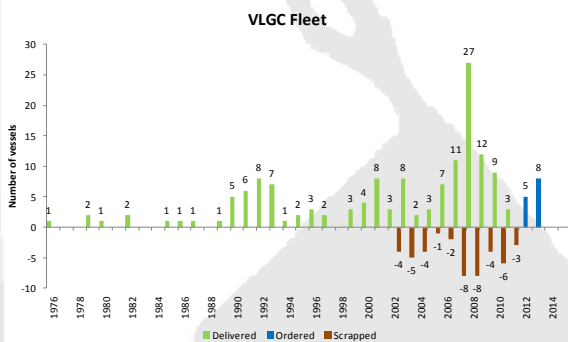


and in Asia. With a higher number of VLGCs positioned in the West or tied up in ports in India and elsewhere in Asia, the number of ships available for Middle East Gulf loading was substantially reduced while monthly shipments remained in excess of 3 million tons. Moving into November VLGC availability in the Middle East Gulf increased with ships coming back from the West and from short term storage in Asia. The build up of tonnage coincided with a substantial drop in December shipments. The mild winter in the Northern Hemisphere was a contributing factor as importers storage levels remained high. Weak naphtha prices relative to crude and LPG towards the end of the year deterred demand from the petchem sector. The low chartering activity level towards year end sent spot rates sharply lower.

2011 saw the delivery of 3 new VLGCs. 2 of the new ships, the Derby (80,200cbm) and the Dorset (80,000) are owned by Zodiac and will be operated commercially by Maersk. The last vessel, G. Symphony (83,000cbm) is owned by Yuyo S.S. will also be commercially operated by Maersk.

3 newbuildings were contracted in 2011 at prices in the in the high US\$ 75-80 million range, all for 2013 delivery.

The fleet at the end of 2011 consisted of 144 VLGCs, equalling a total capacity of 11.5 million cbm. The average age of the fleet was just over 10 years. This reflects the large number of deliveries over the period 2005-2010, which amounts to 49% of the total fleet capacity.



The orderbook at the end of 2011 totaled 13 ships, 5 for delivery in 2012 and 8 for delivery in 2013.

**2011 VLGC Orderbook**

Vessel	Cbm	Built	Owner
Gas Power	78 000	2012	KSS
Motivator	82 000	2012	Petredec
Sanko Wind (Sakaide 1679)	82 000	2012	Sanko
Manifesto	82 000	2013	Petredec
Morston	82 000	2013	Petredec
Astomos Earth	83 000	2012	Indemitsu Tanker Co.
Sakura Gas	83 000	2012	Iino
Sanko Wain (Sasebo 785)	84 000	2013	Sanko
SK Shipping TBN (Ulsan 2496)	82 000	2013	SK Shipping
SK Shipping TBN (Ulsan 2515)	82 000	2013	SK Shipping
Solvang TBN (Ulsan 2516)	84 000	2013	Solvang
Nagasaki 2288	83 000	2013	Yuyo
N/B Kawasaki S.B. Sakaide	82 000	2013	Kumiai Sempaku

3 VLGCs were sold for demolition in 2011, all in the first four months of the year when market conditions were weaker than later in the year.

**2011 VLGC demolitions**

Vessel	Size	Built	Owner
Gaz Suez	79 963	1977	Naftomar
Bene Niki	75 680	1978	Benelux
Berge Frost	85 660	1983	BW Gas

Sales transactions totaled 8 ships. BW Gas purchased Dynamic Vision (2001) and Dynamic Energy (2002) from Chevron. They also acquired the Flanders Liberty (2007) and Flanders Loyalty (2008) in a swap with Exmar that included 4 MGCs and cash. MC shipping sold the Chelsea Bridge (1987) and Tower Bridge (1991) to Clearwater Marine. KSS Line sold the Gas Miracle (1991) to Varun at a reported price of US\$ 23 million. Finally, in December BW Gas sold the BW Captain (1991) to an Asian storage project.

**LGC**

The LGCs experienced a substantial improvement in freight rates during 2011. The segment was positively impacted for three main reasons: less competition from VLGCs in Atlantic LPG trading, more activity in the long haul Black Sea- US ammonia trade and a constant fleet.

Total LPG shipments originating in the Atlantic basin declined in 2011, mainly due to a reduction in exports from West Africa. Total shipments lifted on LGCs nevertheless increased by about 15% relative to 2010, reflecting less VLGC competition in the Atlantic following repositioning to ships to East of Suez.

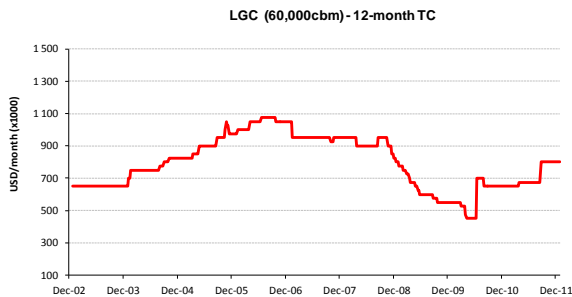
Ammonia shipments increased by about 0.6 million tons or 3% from 2010. The year saw a healthy improvement in ammonia demand from the agricultural sector, which consumes about 80% of all demand. Global ammonia demand increased by about 3.5%, well in excess of the 2% historical growth rate. Production was constrained for much of the year.



Political unrest limited production from Libya. Feed gas problems reduced output from Trinidad. There were also production problems and plant maintenance elsewhere including in Europe. The shortfall in aggregate production led to a run-up in ammonia prices in the second half of 2011. New export supply in Qatar and Saudi Arabia ramping up helped to supply the strong demand. The high international prices also induced Russian and Ukrainian producer to reopen capacity closed in 2009-2010, despite of high gas supply costs.

Ammonia prices came under pressure late in the fourth quarter, mainly due to reduced industrial demand. Black Sea producers saw FOB prices dropping below the cost of production and initiated cutbacks.

The LGC time charter market improved by US\$ 150,000/month to US\$ 800,000/month. Spot rates peaked in November at well over US\$ 1,000,000/month, but rates came under pressure again towards the end of the year with a weakening VLGC market and a reduction in ammonia shipments out of the Black sea.

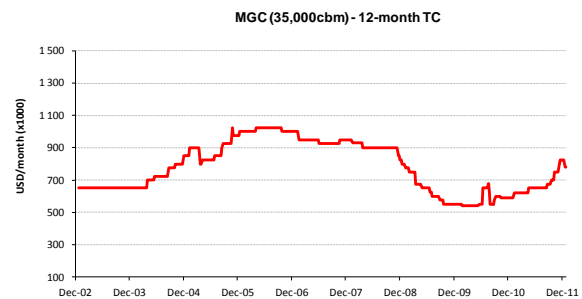


The LGC fleet numbers 20 ships. There were no deliveries or orders placed in 2011. Only 1 ship was scrapped, the Solvang owned Clipper Posh (1983), which was sold for demolition early in the year. There were no sales transaction recorded this segment in 2011.

### MGC

The MGC segment saw continued freight rate improvements for most of 2011. The volume of LPG shipped on MGCs was similar to the previous year with a cargo distribution of about 67% in the West and 33% in the East. Hence, most of the rate improvement can be attributed increased ammonia trade as well as a firmer market for petrochemical gases that limited competition from the Handy size segment. The MGC segment benefitted from the substantial recovery in Black Sea shipments and a ramp up from new ammonia plants in the Middle East Gulf.

Ammonia prices reacted to firm demand both from the agricultural and the industrial sector for much of the year. Prices FOB Yuzhny started the year at about US\$ 460 per ton, increasing steadily enabling idled plants to resume production even at feed gas costs similar to Europe gas prices. US natural gas prices were very low throughout the year, which made US production highly profitable. Potash Corp announced that its Geismar ammonia plant with annual capacity of 0.4 million tons will be reopened in Q3 2012. The plant was idled in 2003 as natural gas prices reached US\$ 12 mmBtu. Ammonia price FOB Yuzhny peaked in September-October at US\$ 650 per ton reacting to strong demand and production shortfalls in Algeria, Libya, Trinidad and Europe. Markets in Europe, America and Asia were priced even higher opening up for imports from the Black Sea. Industrial ammonia demand weakened late in the year on the back of the slow state of the world economy.



We estimate that about 54% of the fleet has been trading in ammonia in 2011. Although the ammonia market provided the best returns most of the years, owners have been reluctant to switch from LPG to ammonia as most charterers are reluctant to accept last cargo ammonia.

The MGC segment benefitted from a stable LGC and VLGC fleet development, which reduced competition from the larger segments in LPG trading. Competition from the Handy segment was also reduced. A large share of the MGC was employed with program cargoes both in ammonia and in LPG. This contributed to maintain earnings at a more stable level compared to the larger segments as owners controlled more of fleet capacity.

The MGC (23,000-50,000cbm) fleet totalled 67 vessels at year end, following the delivery of 2 newbuildings in 2011.

### 2011 MGC deliveries

Vessel	Size	Built	Owner
Gas Cobia	35 000	2011	Prime
Gas Manta	35 000	2011	Prime



There were no sales for demolition recorded. Firm market conditions and a decline in yard prices created contracting interest by some owners. In the fourth quarter both KSS and Geogas placed an order for a 35,000cbm vessel. There is a chance that more MGCs will be ordered in the near future.

The table below shows the orderbook at the end of 2011. The MGC fleet look set to expand by the two ships the orderbook for 2012 delivery. Only 3 MGCs will be 30 years or older this year, which combined with a firm market is expected to limit scrapping activity.

#### 2011 MGC orderbook

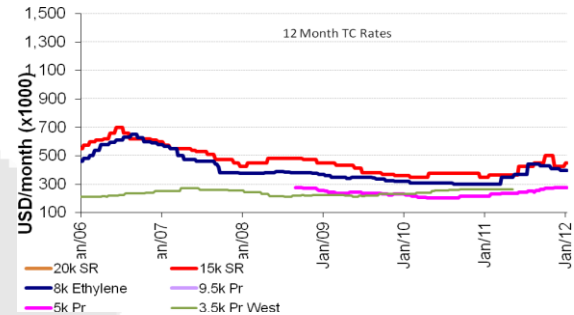
Vessel	Cbm	Built	Owner
Hyundai Mipo 8072	35 000	2012	Eletson Shipping
Hyundai Mipo TBN	35 000	2012	Geogas
Hyundai Mipo TBN	35 000	2013	KSS

Sales transactions included the sale of Maersk Houston from MC Shipping to Clearwater Marine and Viken Shipping. The Rene 35,000cbm (2002) was sold from Geogas to Anthony Veder for US\$ 38.5 million with time charter attached through an arrangement with a Norwegian K/S company. However, the largest transaction involving MGCs was the "en bloc" swap between BW Gas and Exmar, whereby BW Gas swapped the BW Hugin 35,000cbm (2002), BW Helga 35,000cbm (1994), BW Hedda 35,000cbm (1993) and BW Sombeke 38,000cbm (2006) with Exmar against the two 84,000cbm VLGCs Flanders Liberty (2007) and Flanders Loyalty (2008) plus a US\$ 35 million cash settlement to Exmar.

### Sub 25'000

One cannot speak of a significant shift in the market demographics for this segment, stability is a more apt description. Whereas VLGC owners saw rates fluctuate, the larger handy's started 2011 on a high. The long-haul petchem trade provided the backbone of the spot market, largely contributing to a generally healthy employment level for the fleet throughout the year.

Fleet growth has been moderate at the best, with a total of 8 x 20-25'000 cbm vessels added over the course of the year and no reported demolitions. 12 month time charter rates have hovered around the US\$ 700'000 per month mark, reflecting a healthy demand for the segment. Few ships changed hands over the course of the year, and no contracting has been reported. Navigator took delivery of the two ex-Latvian ships, the Navigator Leo and the Navigator Libra and AP Moller-Maersk swelled the fleet by 4 new 22'000 cbm fully-refs. Othello will manage the Sloman newbuild, the Sloman Ariadne, which is fixed for a 12 month time charter to a Venezuelan charterer.



The smaller segments can also look back at a reasonably successful 2011. Disregarding normal fluctuations in the spot market, every segment has seen healthy employment levels on contracts and time charters. The larger semi-refs and ethylene carriers trading spot found good employment carrying smaller lots of petrochemicals over long distances, piggybacking off the larger handy's increased tonne-miles and healthy arbitration levels for traders.

In Europe, the traditionally ebullient coaster spot market remains under pressure by increased contract coverage and oil major and trader relets are playing an ever more significant role. Time charter rates have stabilized at about US\$ 265'000 for a 3'500 pressurized and about US\$ 310'000 for a 5'000 pressurized for 12 months, slowly reducing the premium that similar sized semi-refs have traditionally commanded. A demolition rate of about 50'000 cbm over the year and deliveries of about 110'000 cbm worldwide in the segment up to 12'000 cbm, a rate that looks set to continue for 2012, coupled with healthy demand points towards positive growth prospects for the segment.

### LNG

The LNG market was clearly the best performing of all shipping markets in 2011. Spot rates for modern LNG carriers (140,000cbm) doubled from about US\$ 70,000/day early in the year to US\$ 140,000/day in December. Several factors contributed to send the LNG spot market to record levels.

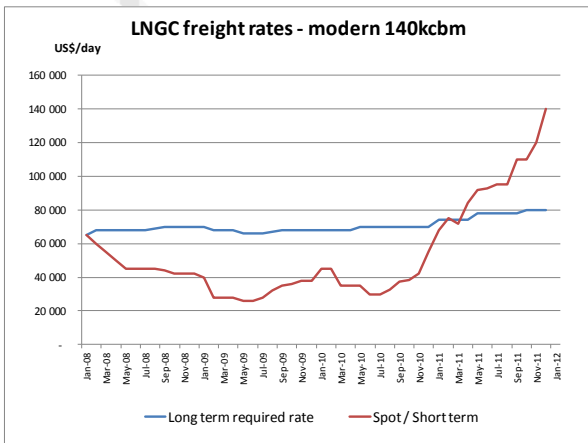
There was strong growth in LNG production in the Middle East Gulf. Most of the increase came from Qatar with the start-up of the Qatargas train 7 in addition to the positive effects from the ramp up in production from Qatargas train 6 and Rasgas train 7 that started production in 2010. Production from other producers including Peru and Yemen also increased in 2011 due to ramp ups, debottlenecking and less downtime compared to the previous year. Total LNG trade is expected to have grown by 23 million tons (11%) to about 240 million tons.

The natural gas markets showed large disparities across the globe. The US natural gas market was saturated due to rapid growth in production from shale and weak



domestic demand resulting from the slow state of the economy and limited short term switching ability. Natural gas was trading in the 20-25% range of the crude price based on calorific value. European spot prices were 40-50% of crude while spot prices in Asia traded in the interval of 60-100% of crude. The large price disparities served as weighty incentives for market players to deviate cargoes meant for US and European markets to Asian where prices were markedly higher.

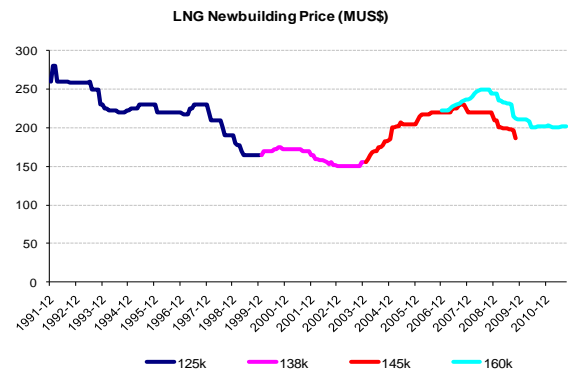
Spot trade and cargo deviations totalled about 20% of total LNG trade in 2011. Cargo deviations to Asia had already started in late 2010 due to firm prices and high demand from India, South Korea and China. However, it was the March 11<sup>th</sup> tsunami and related nuclear disaster in Japan and resulting massive closure of nuclear power generating capacity that drove LNG spot rates past the USD 80,000/day mark. Japanese LNG imports totalled about 78 million tons in 2011, up from 70 million tons in 2010. At the end of 2011 only 10 out of 54 reactors were operating. 80% of the country's nuclear power output was shut down. It is still unclear when the reactors that are closed for periodic inspection will restart.



Given the dismal level of US LNG imports, many of the purpose built Qatari +200,000cbm LNG ships purpose built to supply the US have been able to find continuous employment. Based on ship tracking data, a dozen of the largest vessels were inactive for most of

2011 as these ships are too large to enter most ports in Asia and continental Europe. LNG market players with equity tons have been chartering in most of the ships available for short term hire in order to cover their shipping requirements and benefit from the very attractive arbitrage opportunities.

Only 11 large LNG carriers were delivered in 2011, while 2 ships were sold for demolition. At year end the total LNG fleet numbered 370 ships including FSRUs. 51 LNG carriers were contracted, taking the orderbook to 58 ships at year end. Most of the contracts were concluded at around US\$ 200,000 for standard ship (160,000cbm).



Several new LNG liquefaction projects received final investment decision in 2011, all in Australasia. These were Gladstone LNG, Australia Pacific LNG, Wheatstone LNG and Donggi Senoro in Indonesia. The three Australia projects are all coal bed methane projects. These projects are planned to start production in 2014-2016.



Fixtures Week 2 2012

SPOT							
Vessel	CBM	MT	CARGO	LOAD/DISCH	LAYCAN	RATE US\$	CHARTERER
<b>VLGC</b>							
BW Broker	80'	44'	LPG	Ras Laffan/ WCI	11-12 Jan	RNR	IOC
BW Tokyo	83'	46'	LPG	MEG/ Opts	14-15 Jan	RNR	Vilma
Karoline N	74'	43'	LPG	Houston/ Opts	15-16 Jan	RNR	Geogas
M G Vergina	82'	44'	LPG	Bethuia/ Opts	18 Jan	42	Total
Hellas Serenity	82'	44'	LPG	MEG/ East	22-23 Jan	High 30s	Petredec
Clipper Sirius	75'	43'	LPG	Sanah/ Opts	24-26 Jan	RNR	Chevron
M G Knossos	82'	44'	LPG	MEG/ East	Ely Feb	41	E1
<b>LGC</b>							
BW Nice	58'	33'	LPG	Kaarstoe/Opts	13-15 Jan	RNR	Statoil
<b>Sub 25'000</b>							
Gas Legacy	3'5	1'6	LPG	Gdansk/Malta	12-14 Jan	RNR	SHV
Maingas	3'5	1'6	PRO	Port Jerome/Opts	14-16 Jan	RNR	ExxonMobil
Jag Viraj	22'5	FC	NH3	MEG/F. East	Mid Jan	76 PMT	Sabic
Daviken	3'3	1'65	RGP	Sines/Huelva	20-22 Jan	RNR	Sacor
Patagoniagas	15'	FC	C4s	ARA/USG	2H Jan	1.5M LS	Vinmar
Anafi	35'	FC	LPG	USG/C. MED	Ely Feb	RNR	Geogas
TIME CHARTER							
VESSEL	CBM	BUILT	TRADE	DELIVERY	PERIOD	HIRE US\$	CHARTERER
Luke	3'3	2006	NH3	Caribs	6+6 Months	Rep. 280 pcm	Curoil
SALE & PURCHASE/NEW BUILDING/DEMOLITION							
VESSEL	CBM	BUILT	DETAILS	PRICE	DELIVERY	OWNER	BUYER
Gas Tiny	1'3	1991	SR	Rep US\$ 2mill+	Black Sea	Stealth	BNR

Product and Prices Week 2 2012

	Propane usd/pmt	Change from last week	Butane usd/pmt	Change from last week
<b>NWE</b>				
FOB Seagoing Small	855,00	-1,75 %	972,50	2,83 %
CIF Seagoing Small	905,00	-1,10 %	965,00	1,97 %
<b>US Mt Belvieu</b>				
Non-LDH	646,78	-8,67 %	911,18	-1,24 %
<b>NWE Propane Swaps</b>				
Q1 forward	816,00	1,35 %		
Q2 forward	818,00	1,71 %		
<b>MEG</b>				
Contract Price	850,00	0,00 %	910,00	0,00 %
Japan CFR	921,50	0,76 %	966,50	0,21 %
<b>NG and Crude</b>				
NG, NYMEX	2,71	-10,85 %	usd/mmbtu	
WTI, Crude - Spot	97,80	-3,61 %	usd/bbl	
				Various Sources (average values)



## Rates Week 2 2012

<b>The Baltic Exchange LPG index</b>				
<b>44'LPG Ras Tanura/Chiba</b>		<b>Last Week</b>	<b>This Week</b>	<b>Trend</b>
<b>Weekly Baltic average</b>	(US\$/pmt)	42,09	40,79	Softening
<b>Baltic TC Equivalent</b>	(US\$/pcm)	267 404	232 822	Softening
	(US\$/pd)	8 790	7 654	Softening

<b>12 months Time Charter - Indicators</b>				
	<b>Last Week</b>	<b>This Week</b>	<b>This Week</b>	<b>Trend</b>
	(US\$/pd)	(US\$/pd)	(US\$/pcm)	
<b>3.200 cbm S/R</b>	9 040	9 040	<b>275 000</b>	Steady
<b>3.500 cbm P/R - East</b>	7 890	7 890	<b>240 000</b>	Steady
<b>3.500 cbm P/R - West</b>	8 711	8 711	<b>265 000</b>	Steady
<b>5.000 cbm P/R</b>	10 191	10 191	<b>310 000</b>	Steady
<b>6.500 cbm S/R</b>	14 793	14 793	<b>450 000</b>	Steady
<b>10.000 cbm ETH</b>	19 724	19 724	<b>600 000</b>	Steady
<b>20.000 cbm S/R</b>	23 833	23 833	<b>725 000</b>	Steady
<b>35.000 cbm</b>	25 641	25 641	<b>780 000</b>	Steady
<b>60.000 cbm</b>	26 298	26 298	<b>800 000</b>	Steady
<b>82.000 cbm</b>	30 408	30 408	<b>925 000</b>	Steady

Best Regards,  
Lorentzen & Stemoco  
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