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November 3, 2008

Industry View

## Asia Energy

### Energy & Chemical Express

#### Key Calls for the Week

Reliance Industries Limited (Overweight, PT Rs1,619)

CNOOC (Overweight; PT HK\$10.20)

SK Energy (Overweight-V; PT W80,300)

Oil Search (Overweight; PT A\$10)

Australia Worldwide Exploration (Overweight-V; PT A\$5)

GAIL (INDIA) Ltd.: (Overweight; PT Rs347)

#### Reports from Morgan Stanley's Research Desk

Aban Ltd.: "Consolidated" Results Showing the Growth BPCL and HPCL: Higher Subsidy; Lower GRMs Lead to Record Losses

Caltex Ltd: QC: 2008 Earnings Guidance

Cairn India Ltd.: 3Q08 Results: On Track for First Oil

Esso Thailand Plc: Yield Support in the Near Term, 2009 Could Be at Risk

IOC: Lower GRMs and FX Losses Lead to Record Losses

Kogas: Too Many Uncertainties: Initiating at UW

Nippon Oil: 1H Results: Sustainability of Planned 2H Oil OP Recovery Is Key to F2010 Earnings

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ONGC: Disappointing F2Q09 Results

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SK Energy: Promising E&P Biz: On Track

Sinopec: New Concerns Emerging

Queensland Gas Corporation: BG Bids A\$5.75 per Share

*Slow but sure moves the might of gods – Euripides*

Performance of Major Crude Oil Benchmarks (US\$/bbl)					
	Close	-1w	-1m	-3m	-12m
Dated Brent	64.4	6.2%	-32%	-49%	-28%
WTI Cushing	67.8	7.4%	-31%	-47%	-27%
Dubai Fateh	55.1	0.1%	-42%	-54%	-36%

Singapore Gross Refining Margins (US\$/bbl)					
	Close	-1w	-1m	-3m	-12m
Brent Cracking	-12.5	-224%	-97%	-23%	-2617%
Singapore Simple	-1.02	-132%	23%	-204%	-111%
Singapore Complex	3.09	-56%	46%	-18%	-77%

Key Petrochemical Feed-stock (US\$/ton)					
	Close	-1w	-1m	-3m	-12m
Naphtha	289	-14.8%	-62%	-71%	-63%
Ethylene	440	-19.3%	-58%	-71%	-61%
E-N Spread	151	-26.7%	-49%	-70%	-59%
Benzene-Naphtha	73	-43.9%	-78%	-73%	-74%

Best Asian Performers of the Week						
	Rating	Price	-1w	-1m	-3m	-12m
SK Energy	O -V	72600.00	45%	-18%	NA	NA
RIL	O	1370.75	35%	-30%	-40%	-49%
Oil Search	O	4.50	30%	-20%	-19%	0%
CNOOC	O	6.30	29%	-29%	-46%	-62%

Worst Asian Performers of the Week						
	Rating	Price	-1w	-1m	-3m	-12m
ESSO Thai	O -V	4.76	-13%	-31%	-30%	NA
IOCL	NA	338.45	-1%	-16%	-19%	-30%
Janzon	U	0.46	0%	-43%	-59%	-75%
JAPEX	E -V	3720.00	0%	-31%	-42%	-58%

\* Change in Percent (%). Source: Bloomberg, Reuters, FactSet, Morgan Stanley Research. Note: Past performance is no guarantee of future results. Results shown do not include transaction costs.

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## Key Calls for the Week

### **Reliance Industries (RELI.BO, Overweight, PT Rs1,619)**

Reliance is investing aggressively for growth; it has capex of US\$26 billion over the next four years. With cash flow from operations equal to US\$33 billion and a current, conservative net debt-to-equity ratio of 0.45x, the company has the ability to invest further in new businesses such as Special Economic Zones (SEZ) and Retail. We estimate that RELI's consolidated net profits and asset base will double in the next four years, implying compound annual growth of 23% in each.

RELI had two new discoveries in C3Q08, and it now has 43 discoveries; its proven reserves stand at 1.5 billion barrels, up 33% in 12 months; its proven and possible reserves are 5 billion barrels, and, based on media reports in *The Economic Times*, *The Indian Express*, and *Mint*, the potential is five times as much. At its AGM, management reiterated its aim to have 100 discoveries and gross 2P reserves of 10 billion barrels of oil equivalent. It also advanced the peak production of gas within the first year of production, which led us to raise our estimates for the E&P business for F2010. In the past, the company has unlocked shareholder value by listing its subsidiary, RPL, which has one of the world's most complex refineries of 29 mtpa, due for completion by C4Q08.

### **CNOOC (0883.HK, Overweight, PT HK\$10.20)**

We are Overweight on CNOOC with a price target of HK\$10.20, given its strong operational competitiveness and its status as the largest beneficiary of the continued strength in oil prices. In our view, of the three Chinese oils, CNOOC is the least exposed to policy risks, as it has no downstream operations. With forecast production growth of 14% this year and further strong 22% growth in 2009E, CNOOC provides strong earnings visibility in the medium term, we believe. We see a steady flow of new projects coming on stream, and are forecasting production CAGR of 11% in 2006-10. CNOOC's premium valuations against its Chinese peers are undemanding, given its strong earnings momentum and relatively lower policy risks.

### **SK Energy (096770.KS, Overweight-V, PT W80,300)**

Our Overweight-V rating and price target of W80,300 are based on upside potential from the E&P business, a potential increase in earnings and asset value from the new RFCC plant. We believe SK's RFCC plant, which is now fully operational, should offset our declining Asia GRM assumption in 2008. Higher crude oil prices should benefit SKE's E&P

business, as its daily production is set to rise. Further delays in worldwide capacity expansions in the refining and petrochem industries should prolong the current favorable cycle.

### **Oil Search (OSH.AX, Overweight, PT A\$10)**

Our Overweight rating and price target of A\$10 are based on Oil Search's extensive gas and gas liquids reserves, which are 10 times its current production. OSH's ability to commercialize this resource by delivering an LNG project with Exxon is central to our investment thesis.

OSH is significantly leveraged to oil prices, representing 90% of current production, although we expect this to moderate over time. Our view is that longer-term oil prices will remain high and not revert to the mean, resulting in a positive impact on OSH's earnings, given its unhedged exposure to the commodity. In addition, large gas resources provide leverage to gas prices and projects.

### **Australia Worldwide Exploration (AWE.AX, Overweight-V, PT A\$5)**

AWE has significant leverage to higher oil prices and with strong production profile; it has a favorable upside scenario, in our view. The company has strong free cash flow that can be redeployed to underpin growth. Cash flow has been enhanced following the merger of ARC Energy. Oil prices and exchange rates are key variables that will likely affect the valuation over time. Also, we believe the appraisal success on the Gentoo, Rockhopper, and Trefoil prospects in the bass basin is a key value driver for the stock. AWE share of this resource is about 42 mboe, which is significant in context of current 2P.

### **GAIL (India) (GAIL.BO, Overweight, PT Rs347)**

We are Overweight on GAIL with a view that it is a must-own stock in today's environment – it has high-quality assets that in our view are not replicable, giving it a virtual monopoly. It has the largest gas pipeline infrastructure in India and with GAS supplies likely to triple in four years; we believe GAIL is best positioned to take advantage. Key catalysts for the stock are: 1) execution of expansion plans to build additional 5000km of pipeline across the country; 2) reduction in subsidy burden; and 3) stable pipeline pricing policy.

## Summary of Reports from Morgan Stanley's Research Desk

### **Aban Offshore Ltd: "Consolidated" Results Showing the Growth; October 31, 2008; Mayank Maheshwari, Vinay Jaising**

Aban reported consolidated quarterly results, incorporating the financials of Aban Singapore Pte Ltd (ASPL). For F2Q09, Aban reported QoQ growth in revenue, EBITDA, and profit of 10%, 15%, and 113%, respectively, primarily due to higher rig rates and new assets coming on stream. It currently has revenue-committed contracts of US\$2.8 billion over August 2008-July 2011. Aban is trading at 3.0x F2010e EV/EBITDA, a 25%+ discount to global peers, and 1.5x our F2010 EPS estimate; against global oil driller peers at 4.5x, making valuations attractive, in our view.

### **Bharat Petroleum Corp.: Higher Subsidy; Lower GRMs Lead to Record Losses; October 30, 2008; Vinay Jaising, Mayank Maheshwari**

BPCL reported its standalone F2Q09 results, registering record losses of Rs21.4billion at the operating level and Rs26.3 billion at the PAT level. The company reported a loss despite receiving Rs48 billion of oil bonds for the quarter due to higher net subsidy burden, lower GRMs, and inventory and forex losses. GRMs for the refining division plunged 85% QoQ and 66% YoY to US\$1.90/bbl. We continue to believe that uncertainty hangs over future profitability and we maintain our Underweight rating.

### **Caltex Australia Ltd: Quick Comment: 2008 Earnings Guidance; November 3, 2008; Stuart Baker, Philip Bare**

Caltex released its 2008 earnings outlook showing a significant decline in earnings compared to the pcg outlook. This largely reflects an expected realized FX loss due to the large AUD depreciations since July. With two months of the year remaining and the clear sensitivity of earnings to fluctuations in the exchange rate, oil price, and GRM's, nailing down an earnings figure is complex. We have an Equal-Weight rating on the stock.

### **Cairn India Ltd.: 3Q08 Results: On Track for First Oil; October 29, 2008; Vinay Jaising, Mayank Maheshwari**

Cairn reported EBITDA at Rs2.3 billion, a 22% increase YoY but down 16% QoQ, due to lower oil and gas production from Cambay and Ravva fields. The company is confident that it will be able to deliver first oil from Mangala by 2H09 within the previously estimated capex of US\$1.8 billion. The company expects the opex for Rajasthan fields to be US\$5.00/bbl as against our estimate of US\$6.00/bbl. The company believes

that it is fully funded to deliver first oil from Rajasthan's Mangala field.

### **China Petroleum & Chemical Corp.: Quick Comment: New Concerns Emerging; October 30, 2008; Wee-Kiat Tan, Sara Chan**

Sinopec reported 3Q08 net profit of Rmb8.2 billion, within our expectations with key driver being E&P division, helped by lower refining losses but reported higher losses in the chemical division. In the near term, we expect significant earnings recovery in its refining operation (crude breakeven = US\$93/bbl). However, we see two key negatives: 1) potential product price cuts; and 2) drag on earnings from the petrochemical division. Longer term, we remain concerned by the lack of growth options and maintain our Equal-weight rating.

### **Esso (Thailand) plc.: Yield Support in the Near Term, 2009 Could Be at Risk; October 30, 2008; Wee-Kiat Tan, Sara Chan**

ETL has outperformed its peers in recent past helped by its attractive dividend yield. Despite a difficult operating environment going forward, we believe ETL's cash flow position is still strong enough to maintain its strong dividend payout of Bt1/share for 2008. We have reduced our achieved margins for ETL to about US\$4.00/bbl, thereby cutting ETL's earnings by 10-11% over the next two years. The lack of earnings visibility could put pressure on the 2009 dividend, and potentially take away the key investment theme on the stock. We therefore downgrade ETL to Equal-weight-V.

### **Hindustan Petroleum: Lower GRMs and Subsidy Lead to Record Losses; October 31, 2008; Vinay Jaising, Mayank Maheshwari**

HPCL reported its standalone F2Q09 results, registering record losses of Rs25.4billion at the operating level and Rs32.2 billion at the PAT level. The company reported a loss despite receiving Rs42 billion in oil bonds for the quarter due to higher YoY net subsidy burden, lower GRMs due to inventory losses, and higher interest expense. We believe uncertainty hangs over the future and risk to marketing margins persists for HPCL.

### **Indian Oil Corp: Lower GRMs and FX Losses Lead to Record Losses; October 31, 2008; Vinay Jaising, Mayank Maheshwari**

IOCL reported its standalone F2Q09 results, registering record losses of Rs59 billion at the operating level and

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Rs70 billion at the PAT level. The company posted a loss despite receiving Rs116 billion of oil bonds for the quarter due to YoY increases in net subsidy burden, lower GRMs, and inventory and forex losses. We believe uncertainty hangs over the future and risk to marketing margins persists for IOCL.

**Kogas: Too Many Uncertainties: Initiating at Underweight; October 28, 2008; Harrison Hwang, Shawn Park, Simon Lee**

We would avoid the shares of defensive, gas wholesaler Kogas, which we rate Underweight. With timing of further tariff hikes uncertain, and the company producing negative free cash flow on a highly leveraged balance sheet, we believe the company is testing its limits. Continuous negative cash flow should lead to higher total debt and greater interest expense, especially given the unstable financial market conditions. To cover the higher interest expense, Kogas would need to raise gas tariffs, but doing so would not be easy unless the macroeconomic situation improves.

**Nippon Oil: 1H Results: Sustainability of Planned 2H Oil OP Recovery Is Key to F2010 Earnings; October 29, 2008; Lalita Gupta**

The earlier F2009 consolidated OP guidance of ¥197 billion was cut to a loss of ¥12 billion, but mainly due to inventory losses. As upstream/petrochemicals earnings fall or stagnate, F2010 earnings are becoming more dependent on the degree of earnings improvement for domestic petroleum business. The company has begun a review of its mid-term plan, and with extensive additional restructuring involving shutdown or closure of refineries now looking more likely, we think there should be some improvement.

**Oil & Gas: Turning Bearish on Asian Refining Margins; October 26, 2008; Vinay Jaising, Stuart Baker, Wee-Kiat Tan, Harrison Hwang, Lalita Gupta**

We are turning more bearish on Asian GRMs, which we forecast to plateau at US\$7/bbl in 2008 and fall to US\$4.50/bbl in 2009. Key takeaways: 1) global and Asian slowdown should reduce demand projections for 2009/10; 2) estimated 2.5mnbpd in incremental capacity over the next 24 months makes Asia petroleum products surplus by 2009; and 3) the US dollar's recent gains against every Asian currency except China's and Japan's should mitigate the longer-term negative impact of falling GRM estimates. Reliance Petroleum is our top pick given its highest complexity and attractive valuations.

**Oil & Natural Gas Corp.: Disappointing F2Q09 Results; October 30, 2008; Vinay Jaising, Mayank Maheshwari**

ONGC reported disappointing F2Q09 results with EBITDA and net profit lower than our expectations, due to higher

subsidy burden. Gross crude oil sales realization for the company was US\$119/bbl but net of subsidy at US\$46.7/bbl, due to increased subsidy share from 20.2% in F1Q09 to 28% in F2Q09. ONGC Is the cheapest E&P stock in our Asian Universe and we maintain our Overweight rating on the stock; however, we believe that the stock would underperform the market in the short term due to the uncertainty about the subsidy.

**Oil Search Ltd.: Quick Comment: AGL Sells PNG Interests for US\$800mn; October 30, 2008; Stuart Baker**

AGL announced it has executed a sale and purchase agreement (SPA) for US\$800 million for its exploration and production interests in PNG. These assets include a 3.6% interest in the PNG LNG project in which OSH has a 34% stake. For OSH, the upside is clearly evident, and is another example of corporates willing to take a long-term view on the value of assets, despite the depressed market.

**Oil Search Ltd.: Impact of AGL Divestment: Take 2; October 30, 2008; Stuart Baker, Philip Bare**

AGL has announced the sale of its 3.6% share of the PNG gas project for US\$800 million. This has important see-through ramifications for Oil Search, which has a 34% share of the same project. We estimate a simple "look-through" valuation would equate to between A\$7.91 and A\$10.80 per share. Our DCF valuation is A\$10.10. Our price target is A\$10.00. The share price continues to trade at a materially lower number. There is an obvious disconnect between equity and trade values at the moment. Our recommendation remains Overweight with an R-R bias to the upside.

**Petrochina: Quick Comment: Stable Earnings Profile vs. Peers; October 30, 2008; Wee-Kiat Tan, Sara Chan**

We believe PetroChina will benefit from the turnaround of its refining division (crude breakeven = US\$85/bbl). While lower oil prices would affect 4Q08 and 2009 earnings, we expect this to be offset by its refining & marketing, which has returned to profitability. Overall, we believe its earnings profile is more stable vs. its peers. Longer term, PetroChina's balance sheet puts it in a position to acquire assets for future growth. We maintain our Overweight rating on PetroChina with a price target of HK\$9.30.

**Reliance Industries: Growth Coming Cheap; October 27, 2008; Vinay Jaising, Mayank Maheshwari**

We reiterate our Overweight rating on Reliance but lower our target price to Rs1,619 and reduce our F2009e and F2010e consolidated earnings based on: 1) delayed assumptions of commercial production of RPL to April 2009; 2) delay in peak production from KGD6; 3) lower GRM estimates and net

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backs on global GDP cuts; and 4) a stronger dollar forecast. For F2011 and F2012, we have actually raised our earnings estimates. The stock trades at 5.4x F2010e earnings, a 33% discount to the market multiple, making valuation attractive on an absolute and relative basis, compared to global comps.

**Reliance Petroleum Limited: Best of the Asian Refiners; October 27, 2008; Vinay Jaising, Mayank Maheshwari**

We retain our Overweight recommendation on RPL but lower our target price, factoring in largely lower target multiples based on prevailing market conditions. We have made three major changes to our financials: 1) shifted commercial completion to April 2009; 2) lowered refining margin estimates; and 3) revised our view on the INR/USD exchange rate. RPL trades 30% cheaper than the average for the global peers, making valuations attractive.

**S. Korea Oil & Gas: Revising Down Asia GRM; October 27, 2008; Harrison Hwang; Shawn Park; Vinay Jaising**

We are revising down our Asian GRM outlook, as we expect a global and Asian economic slowdown and incremental capacity to come on stream. Despite lower GRM, we expect the US dollar's recent gains against the Korean currency to mitigate the longer-term negative impact of falling GRM estimates. We are cutting our price targets and EPS estimates for all the refiners in our coverage, while lowering our rating on GS Holdings to EW.

**SK Energy: Promising E&P Biz: On Track; November 3, 2008; Harrison Hwang, Shawn Park, Vinay Jaising**

We maintain our OW-V rating on SK Energy and raise our price target to W80,300. SK Energy started E&P production from a couple of new oil wells recently, and Brazil BMC-8 seems to be showing a sharp production increase. This brings positives to SK Energy's profitability and also supports our belief that E&P biz is SK Energy's earnings catalyst. SK energy remains our top pick in S. Korea oil & gas universe.

**Queensland Gas Corporation: BG Bids A\$5.75 per Share; October 28, 2008; Stuart Baker**

BG Group has made a formal takeover offer for QGC at A\$5.75 per share. BG already had a 10% shareholding and a LNG development JV with QGC, so we see the bid as logical at some point, particularly following the failed offer for Origin Energy. At the offer price, the deal values QGC's 3P resource at 75c/GJ, according to our numbers, which include the Sunshine gas reserves. This transaction continues the CSG consolidation theme, and we urge investors to remain exposed to the industry.

## Key Highlights of the Week

### **Sinopec Aims to Issue Up to Rmb30 Billion Bills**

Sinopec said on Thursday [October 30] that it planned to issue up to Rmb30 billion (US\$4.4 billion) mid-term corporate bills to supplement working capital and pay back bank loans. Sinopec, Asia's top oil refiner, planned to issue the domestic debt in one batch or in several batches in 4Q08 or during next year, according to a statement published in the official *Shanghai Securities News*. (Source: Reuters, 29 October 2008)

### **Sinopec Asks Government for Oil Imports Tax Holiday**

Sinopec has asked the government to suspend taxes levied on the imports of crude oil and fuel to help boost profits. If the exemptions were approved by the government, the changes will be reflected in the next-quarter report, according to the CFO of the company. The company was paid state subsidies of Rmb45.1 billion (US\$6.59 billion) for selling fuel at below crude-oil costs for the first nine months. (Source: Bloomberg, 30 October 2008)

### **China Buys Algerian LNG Cargo at Record Price to Boost Supplies**

China bought individual liquefied natural gas cargo from Algeria last month at a record price to supplement contractual supplies from Australia. China paid US\$20.43 per million British thermal units for the cargo, the second from the North African country this year, according to Bloomberg calculations based on customs figures released in Beijing. That exceeds the previous record of US\$15.46 China paid Nigeria in July and compares with US\$3.15 for LNG bought from Australia under long-term contract. (Source: Bloomberg; 27 October 2008)

### **Iran Approves ONGC Videsh Gas Commerciality Report of Farsi Block**

The gas commerciality report of ONGC Videsh Ltd (OVL) and its consortium partners on the discovery made in Iran's Farsi offshore block has got the nod of the National Iranian Oil Corporation (NIOC). With this, Indian companies can now work toward the development of the gas field. According to estimates, the block holds recoverable gas reserves of about 12.5 trillion cubic feet and hold in place reserves of more than 1 billion barrels of oil. The Indian companies plan to invest close to US\$3 billion to develop the gas field, with US\$90 million already invested so far in the field. (Source: Business Line, 3 November 2008)

### **Origin and ConocoPhillips close LNG deal**

Origin Energy and ConocoPhillips today completed a deal to form Australia Pacific Liquefied Natural after Origin received an upfront payment of US\$5 billion. Origin will become the largest coalbed methane (CBM) to LNG producer in Australia, according to the company. Australia Pacific LNG intends to develop Australia's largest CBM reserves base into a 14 million ton per annum CBM to LNG project. Final investment decision for train one is expected at the end of 2010 and Australia Pacific LNG is targeting first LNG production in 2014. (Source: Upstream Online, 30 October 2008)

### **Nippon Oil to Cut Crude Processing on Weaker Demand**

Nippon Oil Co. will process less crude oil for a fifth consecutive month in November because of weaker petroleum demand. The refiner will process 4.12 million kiloliters (25.9 million barrels) of oil during the month, down 15% from a year earlier. Nippon Oil joins other refiners such as Idemitsu Kosan Co. in making production cuts. Showa Shell Sekiyu K.K. said it will cut its rate by 4.4% from September through December. Japan's consumption of refined products is set to fall by 2.9% annually in the five years to March 2013, according to the trade ministry. (Source: Bloomberg, 27 October 2008)

### **Japan Calls Off G-8 Meet on Energy**

Japan has decided to call off a proposed meeting on energy by the Group of Eight nations, according to a government official. The meeting, initially slated for 16 November, was canceled mostly because of scheduling difficulties amid the global economic crisis. A deterioration in the relationship between the US and Russia may have also been a factor, the news wire said, citing unnamed sources. Japan, this year's G-8 host country, has no plans to reschedule the meeting, first proposed in July, according to the vice minister of the Trade Ministry. (Source: Bloomberg, 30 October 2008)

### **OPEC Agrees to Cut Production Quotas as Price Slumps**

The Organization of Petroleum Exporting Countries cut oil production targets for the first time in almost two years as the group battles to slow a collapse in prices. OPEC decided to lower supply by 1.5 million barrels a day from November. The reduction will be from the existing quota for 11 members of 28.8 million barrels a day. (Source: Bloomberg, 24 October 2008)

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Exhibit 1

## Asian Oil & Gas Companies: Valuations as of October 31, 2008

Company Name	Rating	Mcap USD in m	Current Price	Price to Earning Ratio (P/E)				EV/EBITDA				EV/BOE (US\$/boe)				Return On Equity (ROE)			
				2007A	2008E	2009E	2010E	2007A	2008E	2009E	2010E	2007A	2008E	2009E	2010E	2007A	2008E	2009E	2010E
CNOOC	O	36,310	6.3	17.6	4.7	5.2	5.3	10.6	2.6	2.8	2.7	23.5	9.66	9.63	9.7	29.0	39.0	28.2	23.3
Woodside Petroleum	E	19,301	41.9	29.0	11.0	12.4	13.7	14.4	6.7	7.1	8.7	25.5	17.9	19.0	20.7	28.0	52.5	35.5	26.2
INPEX	O -V	13,333	556000.0	13.8	5.9	5.0	5.4	2.5	0.5	0.3	0.2	11.4	2.8	1.2	0.9	18.4	19.2	19.5	15.5
SK Energy	O -V	5,200	72600.0	47.8	6.4	6.2	5.5	19.9	3.5	3.7	3.8	NA	NA	NA	NA	4.3	16.2	14.7	14.8
<b>Asia Average - Large Cap E&amp;P Cos</b>				<b>27.0</b>	<b>7.0</b>	<b>7.2</b>	<b>7.5</b>	<b>11.8</b>	<b>3.3</b>	<b>3.5</b>	<b>3.9</b>	<b>20.1</b>	<b>10.1</b>	<b>9.9</b>	<b>10.4</b>	<b>19.9</b>	<b>31.7</b>	<b>24.5</b>	<b>19.9</b>
Santos	O	5,201	13.5	18.4	11.8	19.5	29.7	7.1	4.9	7.4	8.7	19.5	11.5	12.1	11.8	15.5	24.1	14.2	8.8
Cairn India Ltd.	O	4,950	129.2	NM	39.3	11.0	3.6	NM	22.5	8.4	2.4	6.7	6.5	4.9	3.6	1.0	2.1	6.9	19.7
Oil Search Ltd.	O	3,326	4.5	33.8	19.0	20.7	23.2	9.8	6.5	6.9	7.6	47.3	31.2	29.2	27.2	9.1	17.4	14.5	12.1
JAPEX	E -V	2,162	3720.0	16.6	10.4	10.1	NA	0.2	-7.7	-7.6	NA	0.3	-8.0	-7.8	NA	5.6	4.7	4.7	NA
AWE Ltd.	O -V	859	2.5	15.7	3.3	7.1	8.0	5.9	1.4	1.8	1.5	25.1	26.4	12.1	9.5	19.4	64.2	13.9	10.8
Beach Petroleum Ltd	O -V	662	1.0	31.8	10.4	23.5	23.6	7.3	4.0	5.8	5.8	14.1	8.3	5.5	5.1	5.6	12.3	4.2	4.1
<b>Asia Average - Mid &amp; Small Cap E&amp;P Cos</b>				<b>23.2</b>	<b>15.7</b>	<b>15.3</b>	<b>17.6</b>	<b>6.0</b>	<b>5.2</b>	<b>3.8</b>	<b>5.2</b>	<b>18.8</b>	<b>12.7</b>	<b>9.3</b>	<b>11.5</b>	<b>9.3</b>	<b>20.8</b>	<b>9.7</b>	<b>11.1</b>
Reliance Petroleum Limited	O	7,849	86.3	NM	NM	4.8	4.4	NM	NM	4.8	4.0	NA	NA	NA	NA	NA	NA	59.5	43.4
Indian Oil Corp	NA	8,161	338.5	9.6	7.1	7.2	NA	6.2	4.5	4.3	NA	NA	NA	NA	14.3	13.9	12.4	NA	
S-Oil	E	5,634	64600.0	11.3	8.5	14.3	12.8	5.5	3.6	4.8	4.9	NA	NA	NA	NA	31.9	21.7	13.1	14.9
GS Holdings	E	1,821	25300.0	14.2	5.6	5.9	5.2	15.2	6.3	6.5	5.6	NA	NA	NA	NA	14.2	15.4	13.2	13.5
Showa Shell Sekiyu	E	2,989	780.0	8.2	10.3	11.7	11.2	7.6	9.8	10.7	10.1	NA	NA	NA	NA	18.2	8.6	7.2	7.3
Caltex Australia Ltd	E	1,673	9.4	11.8	7.8	8.4	7.8	6.9	4.4	4.7	4.6	NA	NA	NA	NA	18.1	12.3	11.0	11.2
Bharat Petroleum Corp.	U	2,092	286.2	7.0	6.0	4.3	NA	5.3	4.1	2.5	NA	NA	NA	NA	18.7	13.5	17.1	NA	
Hindustan Petroleum	U	1,307	190.9	6.9	5.1	3.9	NA	4.2	2.2	0.7	NA	NA	NA	NA	13.0	12.2	14.9	NA	
Esso (Thailand) Plc.	E -V	470	4.8	1.6	3.3	4.6	5.4	3.5	3.6	4.6	5.7	NA	NA	NA	NA	NA	20.6	10.9	9.2
<b>Asia Average</b>				<b>10.3</b>	<b>7.5</b>	<b>8.1</b>	<b>8.3</b>	<b>7.8</b>	<b>5.5</b>	<b>5.5</b>	<b>5.9</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>19.3</b>	<b>14.2</b>	<b>19.1</b>	<b>18.0</b>
PetroChina	O	15,517	5.7	15.7	7.6	7.0	6.9	8.5	4.2	4.2	4.3	15.0	6.8	7.1	7.5	24.8	16.0	16.1	15.1
Sinopec	E	10,890	5.0	16.9	16.0	13.8	12.8	9.0	64.1	6.4	6.1	21.3	12.2	13.1	NA	21.4	7.8	8.5	8.7
Origin Energy Ltd.	E	9,151	15.7	20.7	25.2	19.3	16.1	9.7	9.7	10.7	8.5	18.2	41.5	22.3	24.5	10.7	12.2	7.3	9.2
Reliance Industries	O	43,625	1370.8	22.5	12.6	7.3	5.8	16.5	9.0	5.7	4.5	NA	NA	NA	NA	23.8	21.0	26.2	27.0
Oil & Natural Gas Corp.	O	28,971	669.8	10.9	5.6	5.4	5.1	4.6	3.7	3.4	3.1	6.0	5.1	4.7	4.5	28.9	32.4	28.5	25.9
Nippon Oil	O	5,837	392.0	5.5	5.5	5.8	NA	5.0	5.6	5.8	NA	NA	NA	NA	13.6	7.6	6.8	NA	
Idemitsu Kosan	U	2,274	5590.0	23.5	14.2	15.4	24.9	7.0	6.3	5.3	5.7	NA	NA	NA	NA	2.5	3.2	2.9	1.8
<b>Asia Average -Integrated Oil Cos</b>				<b>16.5</b>	<b>12.4</b>	<b>10.6</b>	<b>11.9</b>	<b>8.6</b>	<b>14.7</b>	<b>5.9</b>	<b>5.4</b>	<b>15.1</b>	<b>16.4</b>	<b>11.8</b>	<b>NA</b>	<b>18.0</b>	<b>14.3</b>	<b>13.8</b>	<b>14.6</b>
Aban Offshore Ltd	O	607	795.6	NM	2.3	1.7	1.6	18.9	4.6	3.1	2.6	NA	NA	NA	NA	22.4	257.2	101.5	55.5
Honghua Group Ltd.	O -V	491	1.2	14.0	4.4	4.0	3.1	12.4	2.3	2.5	2.6	NA	NA	NA	NA	192.1	60.1	17.9	19.9
<b>Asia Average -Offshore Drillers and Equipment Cos.</b>				<b>14.0</b>	<b>3.4</b>	<b>2.8</b>	<b>2.4</b>	<b>15.6</b>	<b>3.4</b>	<b>2.8</b>	<b>2.6</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>107.2</b>	<b>158.7</b>	<b>59.7</b>	<b>37.7</b>
GAIL (India)	O	5,473	213.4	11.5	8.3	7.5	6.9	7.9	4.1	3.6	3.3	NA	NA	NA	NA	22.9	25.0	24.3	0.2
<b>Average Asia (Excl. Refining)</b>				<b>20.8</b>	<b>10.0</b>	<b>9.9</b>	<b>9.8</b>	<b>9.9</b>	<b>10.0</b>	<b>5.2</b>	<b>4.6</b>	<b>17.2</b>	<b>14.0</b>	<b>10.6</b>	<b>10.3</b>	<b>18.8</b>	<b>25.6</b>	<b>18.3</b>	<b>17.1</b>
<b>Refining</b>				<b>10.3</b>	<b>7.5</b>	<b>8.1</b>	<b>8.3</b>	<b>7.8</b>	<b>5.5</b>	<b>5.5</b>	<b>5.9</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>19.3</b>	<b>14.2</b>	<b>19.1</b>	<b>18.0</b>

Source: Company data, Morgan Stanley Research; E = Morgan Stanley Research estimates. Ratings: O = Overweight, E = Equal-weight, U = Underweight, V = More Volatile  
 NA = Stock rating, price target and/or estimates are not available or have been removed due to applicable law and/or Morgan Stanley policy.  
 Source: Company data, Morgan Stanley Research

November 3, 2008

Asia Energy

Exhibit 2

## European Oil & Gas Companies: Valuations as of October 31, 2008

Company Name	Rating	Mcap USD in m	Current Price	Price to Earning Ratio (P/E)				EV/EBITDA				EV/BOE (US\$/boe)				Return On Equity (ROE)			
				2007A	2008E	2009E	2010E	2007A	2008E	2009E	2010E	2007A	2008E	2009E	2010E	2007A	2008E	2009E	2010E
Gazprom	O	114,580	4.8	10.0	3.2	3.1	3.3	10.8	2.8	2.7	2.8	2.4	2.9	1.3	0.2	21.2	22.6	19.4	15.4
Rosneft	O	49,282	4.7	6.4	4.8	6.2	4.6	8.5	3.7	4.2	3.2	5.1	3.4	3.3	3.2	58.8	32.4	19.4	22.8
LUKOIL	E	31,471	37.0	7.1	3.3	4.2	3.7	4.9	2.3	2.7	2.4	3.6	1.8	1.8	1.8	28.9	22.7	14.8	15.3
Novatek (RU)	E	9,716	3.2	23.1	11.4	9.4	5.9	20.6	8.0	6.5	4.0	NA	NA	NA	NA	28.2	30.9	30.9	40.9
Tullow Oil	O	6,137	5.2	34.6	17.0	21.6	29.1	24.6	13.2	18.2	23.7	NA	NA	NA	NA	10.5	25.5	13.3	9.0
Cairn Energy	O	3,398	16.0	NM	NM	11.8	4.1	NM	NM	6.1	1.4	29.3	13.2	14.5	11.0	(2.9)	1.5	14.9	40.3
Addax Petroleum Corp	E	2,317	18.0	9.9	2.1	2.3	2.0	3.3	0.9	0.9	0.7	31.4	13.2	12.4	10.4	41.3	54.2	32.6	30.0
Dana Petroleum	O	1,401	10.0	12.9	6.0	7.0	7.5	6.4	2.4	2.8	2.8	10.2	5.5	5.6	5.6	21.0	30.1	19.6	15.0
SOCO International	O -V	1,729	14.3	71.4	30.4	17.6	11.2	NM	20.7	10.4	6.9	14.1	6.5	6.9	6.9	10.9	13.8	13.1	16.8
Premier Oil	O	949	7.4	19.7	7.6	9.4	6.3	9.5	2.4	3.7	2.7	8.1	3.3	3.6	3.8	17.4	23.7	18.5	23.4
<b>Europe Average -E&amp;P Cos</b>				<b>22.7</b>	<b>9.0</b>	<b>8.7</b>	<b>7.2</b>	<b>11.1</b>	<b>6.3</b>	<b>5.8</b>	<b>5.0</b>	<b>13.0</b>	<b>6.2</b>	<b>6.2</b>	<b>5.3</b>	<b>23.5</b>	<b>25.7</b>	<b>19.7</b>	<b>22.9</b>
Neste Oil	O	4,019	12.4	14.3	4.8	4.5	4.4	8.7	3.9	3.5	3.4	NA	NA	NA	NA	20.1	23.3	22.8	20.4
PKN Orlen	E	4,314	28.0	11.6	6.5	7.0	5.9	6.5	4.2	4.1	3.7	NA	NA	NA	NA	NA	10.2	8.7	9.7
ERG	E	1,982	10.4	52.1	6.6	5.4	5.0	9.4	4.8	4.1	3.9	NA	NA	NA	NA	4.2	15.4	17.1	16.4
Saras	E	3,316	2.8	13.2	6.6	6.2	6.4	6.3	3.5	3.1	3.1	NA	NA	NA	NA	20.6	23.3	22.2	19.8
Galp Energia	O	7,026	7.2	38.1	10.8	9.0	8.5	18.0	8.2	7.0	6.7	NA	NA	NA	NA	21.0	18.8	22.2	21.1
Petroplus	O	1,804	30.7	21.6	3.2	2.7	2.6	13.6	3.4	2.6	2.3	NA	NA	NA	NA	15.8	23.3	23.0	19.8
<b>Europe Average</b>				<b>26.0</b>	<b>5.9</b>	<b>5.6</b>	<b>5.1</b>	<b>8.2</b>	<b>4.3</b>	<b>3.9</b>	<b>3.7</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>12.1</b>	<b>16.3</b>	<b>16.2</b>	<b>15.5</b>
Royal Dutch Shell	O	72,270	16.6	6.7	5.6	6.4	6.5	4.6	2.4	2.4	2.2	20.5	14.9	15.3	15.0	29.6	26.4	17.4	15.7
BP plc	O	153,481	5.1	9.3	5.4	7.1	7.6	5.9	2.8	3.6	3.6	10.0	9.5	10.0	9.9	16.7	24.5	13.8	12.5
TOTAL	O	128,693	42.8	10.6	5.7	6.3	5.9	5.0	3.1	3.6	3.5	17.7	12.7	12.7	12.7	32.6	35.2	24.5	23.2
Eni SpA	E	94,114	18.5	9.7	5.5	6.4	6.3	5.7	3.6	4.0	3.8	24.2	19.7	19.7	19.7	25.7	28.6	20.9	19.6
StatoilHydro	O	61,952	130.8	12.4	7.1	8.0	7.6	4.3	2.0	2.6	2.6	16.0	13.2	13.2	13.2	25.8	33.2	22.8	22.2
BG Group	O	49,476	9.1	7.1	7.1	7.1	7.1	9.8	4.7	4.9	4.6	30.1	30.1	30.1	30.1	27.6	0.4	0.3	0.2
Repsol-YPF	O	22,974	14.8	11.2	5.7	5.8	4.9	2.3	1.1	1.2	1.2	21.7	16.3	15.7	16.0	16.2	16.3	14.9	16.3
<b>Europe Average - Integrated Oil Cos</b>				<b>9.6</b>	<b>6.0</b>	<b>6.7</b>	<b>6.5</b>	<b>5.4</b>	<b>2.8</b>	<b>3.2</b>	<b>3.1</b>	<b>20.0</b>	<b>16.6</b>	<b>16.7</b>	<b>16.7</b>	<b>24.9</b>	<b>23.5</b>	<b>16.4</b>	<b>15.7</b>

E = Morgan Stanley Research estimates. Ratings: O = Overweight, E = Equal-weight, U = Underweight, V = More Volatile  
 NA = Stock rating, price target and/or estimates are not available or have been removed due to applicable law and/or Morgan Stanley policy.  
 Source: Company data, Morgan Stanley Research



November 3, 2008

Asia Energy

Exhibit 3

## US Oil and Gas Companies: Valuations as of October 31, 2008

Company Name	Rating	Mcap USD in m	Current Price	Price to Earning Ratio (P/E)				EV/EBITDA				EV/BOE (US\$/boe)				Return On Equity (ROE)			
				2007A	2008E	2009E	2010E	2007A	2008E	2009E	2010E	2007A	2008E	2009E	2010E	2007A	2008E	2009E	2010E
EnCana Corporation	E	38173	50.9	10.2	7.6	8.1	9.1	5.3	3.7	3.5	3.5	17.2	14.7	14.0	12.9	20.2	24.0	17.3	14.8
Devon Energy	O	35983	80.9	12.8	7.5	8.1	7.7	5.7	3.4	3.4	2.8	17.8	14.2	14.2	13.1	18.4	19.6	15.2	14.5
Apache Corp.	O	27553	82.3	9.7	6.4	7.1	6.4	4.3	2.9	2.9	2.7	16.1	13.5	13.4	11.9	19.8	25.4	17.3	15.7
Canadian Natural Res Ltd.	E	27324	50.5	13.6	10.4	11.6	7.6	6.8	5.3	4.9	3.0	25.6	19.1	17.7	16.4	21.7	22.4	21.0	20.9
EOG Resources	O	20196	80.9	18.6	8.8	9.5	9.2	7.1	4.0	4.0	3.8	17.5	16.1	16.3	17.0	17.3	24.8	23.5	20.4
XTO Energy Inc.	O -V	19889	36.0	10.0	9.0	8.1	7.6	5.7	5.0	4.0	3.9	14.7	15.6	16.3	16.6	24.5	18.2	19.5	16.6
Anadarko Petroleum Corp.	E	16537	35.3	8.8	6.1	7.1	7.6	3.7	2.5	2.7	2.9	21.9	12.1	12.4	10.0	24.2	13.3	10.6	10.5
Chesapeake Energy	E -V	12724	22.0	6.9	5.8	5.6	5.5	4.7	4.7	3.7	3.3	16.1	13.4	13.1	13.4	12.0	16.2	15.9	15.9
Talisman Energy Inc	E	10269	10.1	12.3	5.2	6.4	6.8	3.2	2.1	2.4	2.3	NA	NA	NA	NA	13.7	27.5	20.0	17.4
Nexen Inc.	E	8330	16.0	7.7	4.2	5.8	4.4	3.4	2.0	2.1	1.8	31.8	16.9	16.5	15.8	21.2	31.1	25.8	19.1
Noble Energy	E	8952	51.8	9.1	6.3	6.4	6.9	4.0	3.0	2.7	2.9	17.4	10.5	10.4	9.9	21.2	19.2	20.2	15.9
Newfield Exploration	E	3039	23.0	7.2	6.6	5.1	4.6	3.0	3.5	2.7	2.6	19.2	14.8	16.4	12.0	13.5	14.7	14.8	13.2
Plains Exploration & Produc	E -V	3034	28.2	16.2	4.6	5.0	5.8	8.9	2.8	2.6	3.2	10.9	9.2	9.4	9.3	7.1	19.0	13.4	11.5
Pioneer Natural Resources	E	3330	27.8	11.0	5.6	3.9	5.5	9.2	6.2	4.6	3.1	7.5	7.5	7.9	5.9	12.4	16.1	18.1	18.0
Forest Oil	E	2624	29.2	9.9	5.9	6.2	7.8	4.9	3.4	3.3	4.2	15.9	18.1	18.5	14.7	8.8	15.5	9.7	9.1
Bill Barrett Corporation	E -V	919	20.4	35.7	7.3	5.4	7.4	4.8	3.0	2.6	2.7	21.7	16.2	17.5	12.3	3.5	12.8	17.7	13.8
<b>US Average - E &amp; P Cos</b>				<b>12.5</b>	<b>6.7</b>	<b>6.8</b>	<b>6.9</b>	<b>5.3</b>	<b>3.6</b>	<b>3.2</b>	<b>3.0</b>	<b>18.1</b>	<b>14.1</b>	<b>14.3</b>	<b>12.8</b>	<b>16.2</b>	<b>20.0</b>	<b>17.5</b>	<b>15.5</b>
Valero	NA	10767	20.6	8.2	4.6	5.2	4.6	4.3	2.7	3.4	3.1	NA	NA	NA	NA	28.2	11.3	7.1	7.8
Sunoco Inc.	NA	3564	30.5	8.6	10.5	9.1	7.0	5.1	5.3	4.9	3.7	NA	NA	NA	NA	38.7	6.2	15.3	23.7
Frontier Oil	NA	1372	13.2	8.7	7.2	4.9	3.6	6.2	3.2	2.7	1.8	NA	NA	NA	NA	55.0	20.5	10.0	NA
Holly Corporation	NA	974	19.6	8.6	10.8	6.0	3.4	6.3	5.9	4.4	2.5	NA	NA	NA	NA	63.0	16.0	19.0	NA
<b>US Average</b>				<b>8.5</b>	<b>8.3</b>	<b>6.3</b>	<b>4.7</b>	<b>5.5</b>	<b>4.3</b>	<b>3.8</b>	<b>2.8</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>46.2</b>	<b>13.5</b>	<b>12.8</b>	<b>15.7</b>
Exxon Mobil Corporation	NA	377048	74.1	13.6	8.4	9.4	8.4	6.6	3.7	4.2	3.8	21.5	16.0	16.4	16.4	34.5	36.1	28.7	30.5
Chevron Corporation	NA	153264	74.6	11.4	6.6	7.6	6.9	5.4	2.8	3.0	2.7	18.0	14.1	14.1	14.2	25.6	27.9	23.2	19.6
ConocoPhillips	NA	77537	52.0	13.6	4.5	5.8	5.5	5.2	2.3	3.0	2.7	16.1	9.5	9.6	9.8	13.9	19.1	13.1	13.4
Occidental Petroleum	NA	44993	55.5	14.3	5.8	7.7	7.0	6.8	2.8	3.6	3.0	24.1	15.8	15.2	15.1	25.7	29.8	15.9	17.9
Suncor	O	22363	23.9	17.6	8.4	9.4	6.2	12.4	5.1	5.8	3.6	21.0	10.9	11.7	11.8	27.5	23.3	21.4	20.1
Hess Corporation	NA	19588	60.2	19.1	6.7	9.2	8.7	6.8	3.0	3.5	3.1	26.9	17.2	17.2	17.0	20.5	25.2	18.4	16.0
Marathon Oil Corporation	NA	20532	29.1	9.7	4.6	5.2	4.7	4.4	2.5	3.0	2.6	36.5	21.5	22.9	22.3	23.4	19.8	13.3	15.3
Petro-Canada	NA	12092	25.0	9.5	3.3	4.5	4.7	4.0	1.5	2.6	2.3	33.9	16.6	17.9	18.9	24.5	25.3	14.7	11.0
<b>US Average - Integrated Oil Cos</b>				<b>13.6</b>	<b>6.0</b>	<b>7.3</b>	<b>6.5</b>	<b>6.4</b>	<b>3.0</b>	<b>3.6</b>	<b>3.0</b>	<b>24.7</b>	<b>15.2</b>	<b>15.6</b>	<b>15.7</b>	<b>24.4</b>	<b>25.8</b>	<b>18.6</b>	<b>18.0</b>

E = Morgan Stanley Research estimates for rated companies, FactSet or I/B/E/S consensus estimates otherwise. Ratings: O = Overweight, E = Equal-weight, U = Underweight, V = More Volatile  
 NA = Stock rating, price target and/or estimates are not available or have been removed due to applicable law and/or Morgan Stanley policy.  
 Source: FactSet, Company data, Morgan Stanley Research

November 3, 2008

Asia Energy

Exhibit 4

## Chemical Companies: Valuations as of October 31, 2008

Company Name	Rating	Mcap USD in m	Current Price	Price to Earning Ratio (P/E)				EV/EBITDA				Return On Equity (ROE)			
				2007A	2008E	2009E	2010E	2007A	2008E	2009E	2010E	2007A	2008E	2009E	2010E
<b>ASIAN CHEMICAL Cos</b>															
LG Chem	E	4,488	77000.0	8.4	4.7	5.4	5.5	5.5	3.1	3.2	3.0	26.2	31.8	21.8	18.1
Cheil Industries Inc	O	1,603	41400.0	16.5	12.3	11.7	10.5	10.0	7.0	6.2	5.4	11.0	10.2	10.2	10.5
Honam Petrochemical	U	1,283	52000.0	6.8	5.3	5.4	5.8	4.4	3.0	3.3	4.0	19.0	10.6	9.6	8.3
Hanwha Chemical	U	496	3380.0	7.5	3.8	4.6	4.5	6.3	3.2	3.4	3.3	12.1	10.4	8.4	8.0
<b>Asia Average - Chemical Cos</b>				<b>9.8</b>	<b>6.5</b>	<b>6.8</b>	<b>6.6</b>	<b>6.5</b>	<b>4.1</b>	<b>4.0</b>	<b>4.0</b>	<b>17.1</b>	<b>15.7</b>	<b>12.5</b>	<b>11.2</b>
<b>GLOBAL CHEMICAL Cos</b>															
Bayer AG	O	41,832	43.2	22.0	18.5	14.8	11.9	11.1	7.4	6.6	5.6	18.0	11.5	13.6	14.2
Yara ASA	E	6,031	139.3	12.6	2.8	3.0	3.1	9.6	1.9	1.6	1.2	40.1	71.9	45.2	36.0
Linde	E	13,911	65.1	24.0	12.5	10.3	9.2	8.8	6.4	5.9	5.5	7.6	9.6	11.0	11.6
DSM	E	4,995	21.7	11.9	8.1	7.7	7.1	5.1	2.5	2.4	2.2	9.6	9.7	9.7	9.9
Wacker Chemie	O	5,666	85.7	23.7	9.4	8.5	6.3	10.9	5.0	4.7	3.6	22.0	21.0	20.4	23.9
Johnson Matthey	O	3,202	932.0	22.6	9.2	8.2	7.3	12.7	5.6	5.1	4.3	17.1	17.9	18.1	18.5
Lonza	E	4,146	96.0	25.7	13.6	11.4	8.1	13.5	8.5	7.2	6.1	16.5	19.4	20.4	25.0
LANXESS	O	1,260	11.9	7.6	3.5	3.4	3.2	4.7	2.7	2.4	2.3	26.3	19.2	18.0	17.1
Ciba Specialty Chemicals	E	2,850	48.2	10.4	12.9	11.8	10.0	5.6	5.4	5.1	4.5	20.1	11.3	11.6	12.9
Croda	O	1,106	511.0	18.2	10.5	9.6	8.4	10.6	7.5	6.8	6.1	23.9	23.8	23.4	23.7
Kemira	U	1,112	7.0	18.6	9.1	9.3	9.0	7.7	4.9	4.8	4.7	8.2	8.0	7.7	7.8
Yule Catto	O	199	85.0	11.6	4.7	4.5	4.1	8.0	5.3	5.2	4.8	28.9	29.4	27.1	27.4
BASF	O	30,517	26.1	11.3	6.9	7.8	6.8	5.4	3.2	3.8	3.4	24.2	18.5	16.0	18.0
<b>Global Avg- Chemical Cos</b>				<b>17.4</b>	<b>9.6</b>	<b>8.5</b>	<b>7.3</b>	<b>9.0</b>	<b>5.2</b>	<b>4.8</b>	<b>4.2</b>	<b>19.9</b>	<b>21.1</b>	<b>18.9</b>	<b>19.0</b>

E = Morgan Stanley Research estimates. Ratings: O = Overweight, E = Equal-weight, U = Underweight, V = More Volatile  
 NA = Stock rating, price target and/or estimates are not available or have been removed due to applicable law and/or Morgan Stanley policy.  
 Source: Company data, Morgan Stanley Research

November 3, 2008

Asia Energy

Exhibit 5

## Chemical Companies: Price Performance as of October 31, 2008

Company	Rating	Last close (Local Cncy)	52 Wk High	52 Wk Low	% below 52 Wk High	% above 52 Wk Low	-1w	-1m	-3m	-6m	-12m	Relative Performance with Benchmark Indicies					
												1wk	1m	3m	6m	12m	
<b>Global Chemicals</b>																	
LG Chem	E	77000.00	138000.0	55100.0	-44%	40%	31%	-16%	-28%	-24%	-33%	10%	9%	4%	25%	24%	
Honam Petrochemical	U	52000.00	139500.0	36000.0	-63%	44%	25%	-23%	-29%	-41%	-58%	5%	0%	2%	-4%	-23%	
Hanwha Chemical	U	5510.00	24625.1	3880.0	-78%	42%	6%	-49%	-56%	-59%	-76%	-11%	-34%	-38%	-32%	-55%	
Cheil Industries Inc	O	41400.00	68400.0	31650.0	-39%	31%	17%	-20%	-22%	-25%	-29%	-2%	4%	11%	23%	32%	
BASF	O	26.07	52.9	17.9	-51%	46%	16%	-23%	-35%	-43%	-44%	5%	-2%	2%	2%	11%	
Bayer AG	O	43.16	66.5	33.1	-35%	31%	4%	-17%	-21%	-21%	-23%	-6%	6%	23%	40%	54%	
Ciba Specialty Chemicals	E	48.20	58.0	24.0	-17%	101%	4%	1%	75%	41%	-15%	-7%	29%	174%	150%	69%	
DSM	E	21.71	41.4	20.5	-48%	6%	-15%	-35%	-44%	-38%	-44%	-24%	-17%	-13%	10%	12%	
Kemira	U	7.01	16.6	5.6	-58%	25%	12%	-16%	-4%	-25%	-56%	1%	7%	50%	33%	-12%	
LANXESS	O	11.94	34.5	10.5	-65%	13%	1%	-38%	-52%	-56%	-64%	-10%	-22%	-25%	-21%	-29%	
Linde	E	65.11	97.9	46.5	-33%	40%	13%	-14%	-27%	-32%	-25%	2%	10%	14%	21%	50%	
Lonza	E	96.00	158.4	80.0	-39%	20%	-16%	-31%	-37%	-31%	-28%	-25%	-13%	-2%	23%	42%	
Wacker Chemie	O	85.67	200.0	61.0	-57%	40%	24%	-15%	-33%	-47%	-50%	12%	9%	5%	-6%	-2%	
Yara ASA	E	139.25	473.5	99.4	-71%	40%	28%	-31%	-62%	-63%	-30%	15%	-13%	-40%	-33%	39%	

Ratings: O = Overweight, E = Equal-weight, U = Underweight, V = More Volatile, NA = Stock rating, price target and/or estimates are not available or have been removed due to applicable law and/or Morgan Stanley policy.  
Source: FactSet, Morgan Stanley Research Note: Past performance is no guarantee of future results. Results shown do not include transaction costs.

November 3, 2008

Asia Energy

Exhibit 6

## Asian Oil and Gas Companies: Price Performance as of October 31, 2008

Company	Rating	Current Price (Local)	52 Wk High	52 Wk Low	% below 52 Wk High	% above 52 Wk Low	-1w	-1m	-3m	-6m	-12m	Relative Performance with Benchmark Indices					
												1Wk	1Mth	3Mth	6Mth	12Mth	
<b>Asia/Pacific Oil &amp; Gas Cos</b>																	
Australian Worldwide Exploration Ltd	O -V	2.50	4.7	1.8	-47%	43%	13%	-2%	-24%	-35%	-21%	8%	14%	-4%	-8%	35%	
Beach Petroleum Ltd	O -V	0.97	1.7	0.7	-43%	38%	11%	7%	-16%	-20%	-37%	7%	25%	7%	14%	7%	
Cairn India Ltd.	O	129.20	342.5	88.2	-62%	47%	7%	-39%	-46%	-49%	NA	-5%	-20%	-21%	-9%	20%	
CNOOC	O	6.30	17.0	3.8	-63%	64%	29%	-29%	-46%	-53%	-62%	17%	-8%	-12%	-13%	-14%	
GAIL (India)	O	213.35	366.7	165.0	-42%	29%	8%	-22%	-18%	-28%	-21%	-4%	3%	21%	26%	59%	
Indian Oil Corp	NA	338.45	809.9	299.0	-58%	13%	-1%	-16%	-19%	-30%	-30%	-12%	10%	19%	24%	42%	
INPEX	O -V	556000.00	1440000.0	424000.0	-61%	31%	7%	-38%	-45%	-51%	-55%	-4%	-19%	-15%	-21%	-12%	
Japan Petroleum Exploration	E -V	3720.00	8990.0	3220.0	-59%	16%	0%	-31%	-42%	-48%	-58%	-11%	-9%	-10%	-15%	-18%	
Oil Search Ltd.	O	4.50	6.9	3.0	-35%	53%	30%	-20%	-19%	-10%	0%	25%	-7%	3%	28%	70%	
Origin Energy Ltd.	E	15.70	20.0	7.7	-21%	105%	1%	-3%	-2%	13%	69%	-3%	13%	24%	60%	188%	
Santos	O	13.49	22.3	10.1	-40%	34%	17%	-29%	-23%	-24%	-2%	12%	-18%	-2%	8%	67%	
SK Energy	O -V	72600.00	216000.0	43950.0	-66%	65%	45%	-18%	NA	NA	NA	NA	NA	NA	NA	NA	
Woodside Petroleum	E	41.88	70.5	35.4	-41%	18%	7%	-18%	-21%	-27%	-20%	3%	-5%	1%	4%	36%	
PetroChina	O	5.70	20.3	4.1	-72%	41%	14%	-29%	-46%	-53%	-71%	3%	-8%	-12%	-13%	-36%	
Reliance Industries	O	1370.75	3252.1	930.0	-58%	47%	35%	-30%	-40%	-49%	-49%	20%	-7%	-13%	-9%	4%	
Oil & Natural Gas Corp.	O	669.80	1386.9	538.1	-52%	24%	2%	-35%	-33%	-36%	-50%	-10%	-15%	-1%	14%	2%	
Nippon Oil	O	392.00	1062.0	344.0	-63%	14%	2%	-25%	-40%	-45%	-63%	-9%	-2%	-6%	-12%	-27%	
Idemitsu Kosan	U	5590.00	13640.0	4590.0	-59%	22%	1%	-34%	-39%	-36%	-58%	-10%	-13%	-5%	3%	-18%	
China Petroleum & Chemical Corp.	E	5.03	12.9	3.5	-61%	44%	12%	-17%	-39%	-42%	-61%	1%	8%	-1%	7%	-12%	
GS Holdings	E	25300.00	70600.0	19750.0	-64%	28%	16%	-16%	-33%	-38%	-62%	-3%	9%	-4%	1%	-30%	
Bharat Petroleum Corp.	U	286.20	560.0	206.0	-49%	39%	2%	-21%	-15%	-30%	-17%	-10%	4%	25%	24%	69%	
Caltex Australia Ltd	E	9.39	23.1	8.2	-59%	15%	6%	-24%	-21%	-25%	-56%	2%	-12%	1%	6%	-25%	
Hindustan Petroleum	U	190.85	405.9	164.1	-53%	16%	0%	-21%	-15%	-28%	-19%	-11%	3%	25%	28%	65%	
Reliance Petroleum Limited	O	86.25	295.0	70.1	-71%	23%	12%	-40%	-49%	-57%	-67%	-1%	-21%	-25%	-25%	-33%	
Showa Shell Sekiyu	E	780.00	1363.0	664.0	-43%	17%	10%	-23%	-35%	-28%	-43%	-2%	1%	1%	16%	12%	
Esso (Thailand) Plc.	E	4.76	11.0	4.6	-57%	3%	-13%	-31%	NA	NA	NA	-23%	-8%	NA	NA	NA	
S-Oil	E	64600.00	88000.0	49000.0	-27%	32%	23%	-6%	-4%	-6%	-22%	4%	23%	38%	55%	45%	
Honghua Group Ltd.	O	1.16	3.7	1.0	-69%	20%	-2%	-22%	-60%	-63%	NA	-11%	1%	-34%	-31%	NA	
Aban Offshore Ltd	O	795.60	5555.0	610.0	-86%	30%	5%	-61%	-68%	-77%	-83%	-7%	-49%	-54%	-60%	-66%	

Ratings: O = Overweight, E = Equal-weight, U = Underweight, V = More Volatile; NA = Stock rating, price target and/or estimates are not available or have been removed due to applicable law and/or Morgan Stanley policy.

Note: Past performance is no guarantee of future results. Results shown do not include transaction costs.

Source: FactSet, Morgan Stanley Research

November 3, 2008

Asia Energy

Exhibit 7

## European and US Oil and Gas Companies: Price Performance as of October 31, 2008

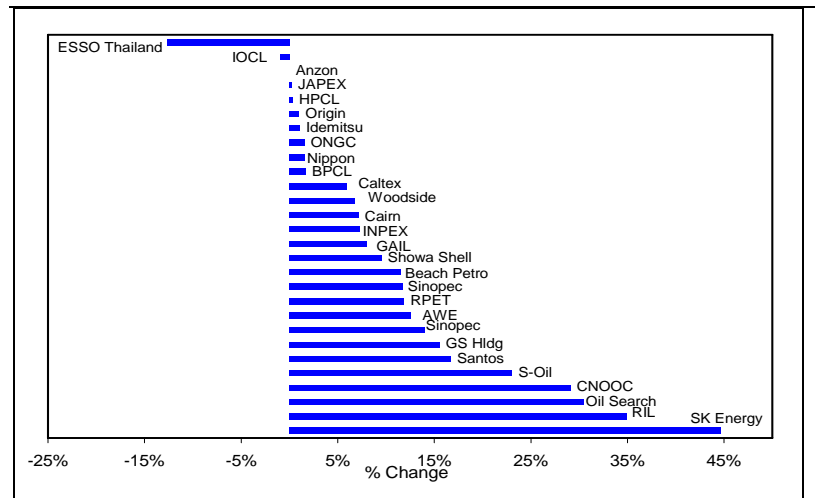
Company	Rating	Current Price (Local)	52 Wk High	52 Wk Low	%below 52 Wk High	%above 52 Wk Low	-1w	-1mth	-3mth	-6mth	12mths	Relative Performance with Benchmark Indices					
												1Wk	1Mth	3Mth	6Mth	12Mth	
<b>Europe Oil &amp; Gas Cos</b>																	
TOTAL	O	42.82	59.5	31.5	-28%	36%	19%	1%	-12%	-21%	-21%	7%	28%	37%	40%	57%	
Mol	NA	10995.00	26940.0	8160.0	-59%	35%	15%	-29%	-45%	-52%	-59%	3%	-10%	-14%	-15%	-18%	
Eni SpA	E	18.53	27.4	13.2	-32%	41%	20%	0%	-13%	-26%	-25%	8%	27%	36%	31%	48%	
PKN Orlen	E	28.00	58.2	21.0	-52%	33%	25%	-19%	-22%	-33%	-51%	12%	3%	23%	19%	-4%	
Rosneft	O	4.65	12.2	2.7	-62%	72%	72%	-28%	-54%	--	--	55%	-9%	-29%	--	--	
LUKOIL	E	37.00	113.2	24.9	-67%	49%	49%	-37%	-55%	-59%	-59%	33%	-20%	-30%	-27%	-19%	
Surgutneftegaz	E -V	0.63	1.3	0.3	-52%	94%	31%	19%	-28%	-35%	-51%	18%	51%	12%	16%	-3%	
Repsol-YPF	O	14.84	27.9	12.6	-47%	18%	7%	-29%	-29%	-44%	-45%	-4%	-10%	12%	-1%	8%	
BG Group	O	913.00	1415.0	637.5	-35%	43%	27%	-10%	-18%	-28%	4%	14%	15%	29%	29%	106%	
Cain Energy	O	1604.00	3733.0	1125.0	-57%	43%	28%	-23%	-41%	-48%	-33%	15%	-2%	-7%	-7%	33%	
<b>North America Oil &amp; Gas Cos</b>																	
EnCana Corporation	E	50.91	99.4	34.5	-49%	47%	19%	-23%	-30%	-35%	-28%	8%	-7%	-8%	-8%	15%	
Petro-Canada	NA	24.96	62.8	18.6	-60%	35%	19%	-25%	-47%	-50%	-56%	8%	-10%	-31%	-29%	-29%	
Devon Energy	O	80.86	127.4	54.4	-37%	49%	16%	-11%	-15%	-28%	-11%	5%	7%	11%	3%	42%	
Anadarko Petroleum Corp.	E	35.30	81.4	24.6	-57%	44%	20%	-27%	-40%	-47%	-38%	9%	-12%	-21%	-25%	-1%	
Apache Corp.	O	82.33	149.2	58.0	-45%	42%	18%	-21%	-28%	-36%	-17%	7%	-5%	-5%	-9%	33%	
EOG Resources	O	80.92	145.0	54.4	-44%	49%	23%	-10%	-19%	-37%	-7%	11%	9%	5%	-9%	49%	
Chesapeake Energy	E -V	21.97	74.0	12.0	-70%	83%	8%	-39%	-55%	-58%	-44%	-3%	-26%	-42%	-40%	-11%	
Hess Corp.	NA	60.21	137.0	41.6	-56%	45%	21%	-27%	-40%	-43%	-14%	9%	-12%	-22%	-19%	38%	
Noble Energy	E	51.82	105.1	30.9	-51%	68%	23%	-7%	-30%	-40%	-31%	12%	12%	-9%	-15%	10%	
Newfield Exploration	E	22.98	69.8	17.3	-67%	33%	14%	-28%	-52%	-62%	-57%	3%	-14%	-38%	-45%	-31%	
Pioneer Natural Resources	E	27.83	82.2	20.6	-66%	35%	14%	-47%	-54%	-53%	-45%	3%	-36%	-39%	-32%	-11%	
Forest Oil	E	29.21	83.1	20.3	-65%	44%	27%	-41%	-49%	-51%	-39%	15%	-29%	-33%	-30%	-2%	
Valero Energy Corp.	NA	20.58	73.0	14.6	-72%	41%	29%	-32%	-38%	-58%	-70%	17%	-18%	-18%	-40%	-52%	
Sunoco Inc.	NA	30.50	75.4	21.3	-60%	43%	26%	-14%	-25%	-34%	-57%	14%	3%	-1%	-6%	-31%	
Frontier Oil Corp.	NA	13.21	49.1	8.4	-73%	57%	31%	-28%	-28%	-49%	-70%	18%	-14%	-6%	-27%	-52%	
Holly Corp.	NA	19.63	65.5	13.9	-70%	41%	21%	-32%	-32%	-53%	-69%	10%	-18%	-11%	-33%	-50%	
Exxon Mobil Corp.	NA	74.12	96.1	56.5	-23%	31%	7%	-5%	-7%	-17%	-16%	-3%	15%	22%	18%	34%	
Chevron Corp.	NA	74.60	104.6	55.5	-29%	34%	17%	-10%	-12%	-22%	-16%	6%	9%	16%	12%	34%	
ConocoPhillips	NA	52.01	96.0	45.0	-46%	16%	7%	-29%	-36%	-40%	-37%	-3%	-15%	-16%	-14%	0%	
Occidental Petroleum Corp.	NA	55.54	100.0	39.9	-44%	39%	22%	-21%	-30%	-34%	-17%	10%	-5%	-8%	-5%	33%	
Marathon Oil Corp.	NA	29.10	63.2	21.5	-54%	35%	24%	-27%	-39%	-43%	-50%	12%	-12%	-20%	-18%	-19%	

Ratings: O = Overweight, E = Equal-weight, U = Underweight, V = More Volatile; NA = Target and/or estimates are not available or have been removed due to applicable law and/or Morgan Stanley policy. Note: Past performance is no guarantee of future results. Results shown do not include transaction costs.

Source: FactSet, Morgan Stanley Research

Exhibit 8

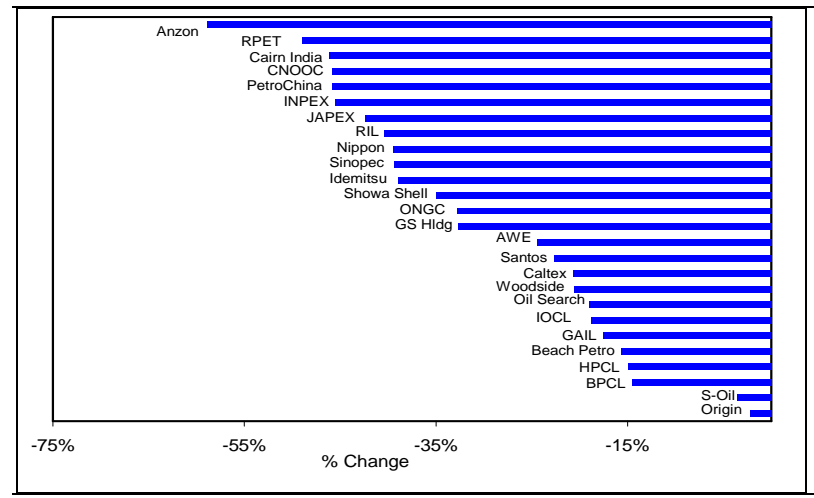
Asian Oil Stock Performance – Last Week



Source: FactSet, Morgan Stanley Research

Exhibit 10

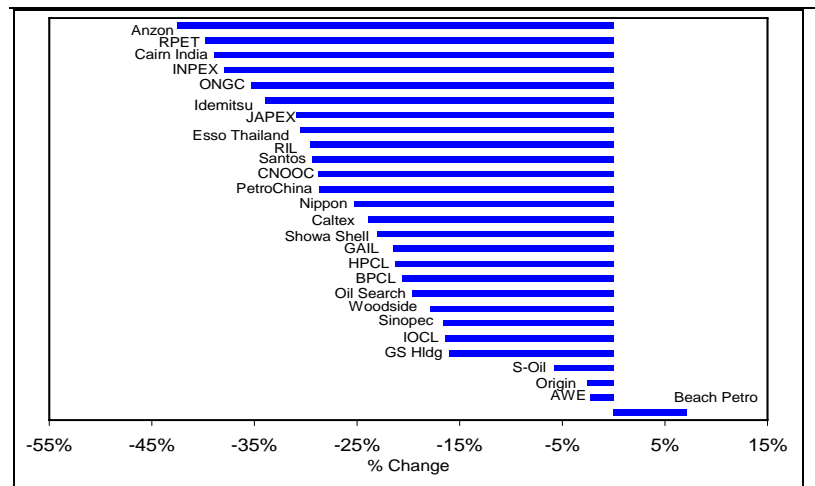
Asian Oil Stock Performance – Last Three Months



Source: FactSet, Morgan Stanley Research

Exhibit 9

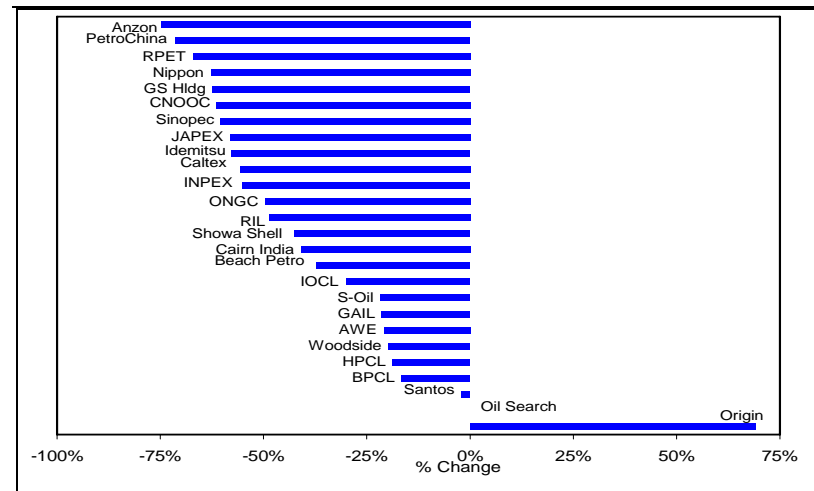
Asian Oil Stock Performance – Last Month



Source: FactSet, Morgan Stanley Research

Exhibit 11

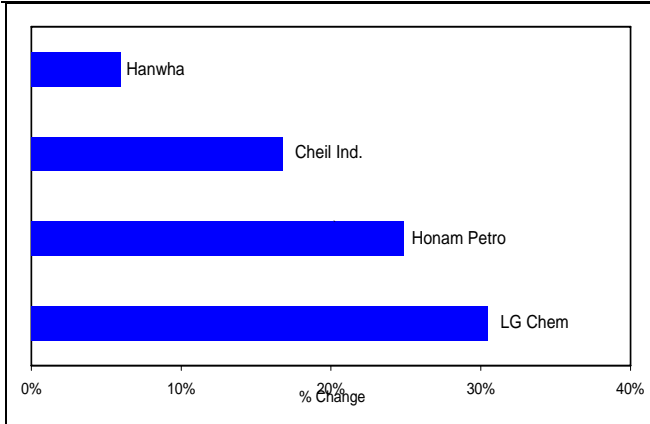
Asian Oil Stock Performance – Last Year



Source: FactSet, Morgan Stanley Research

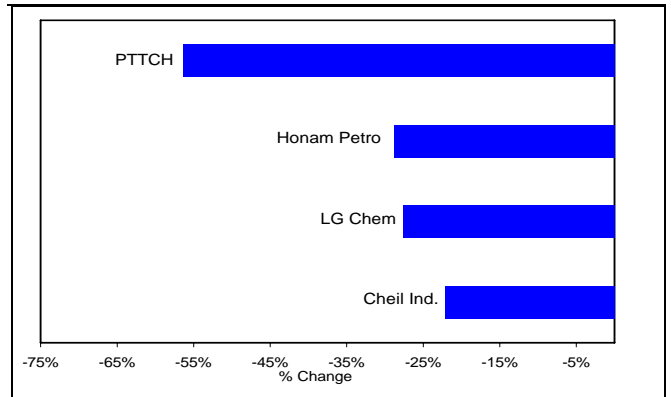
November 3, 2008  
Asia Energy

Exhibit 12  
**Asian Chemical Stock Performance – Last Week**



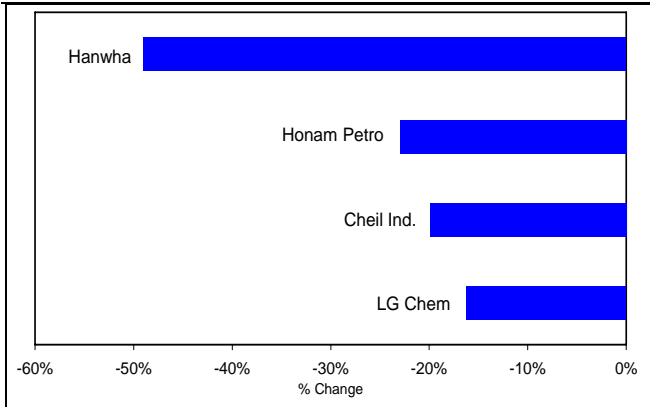
Source: FactSet, Morgan Stanley Research

Exhibit 14  
**Asian Chemical Stock Performance – Last Three Months**



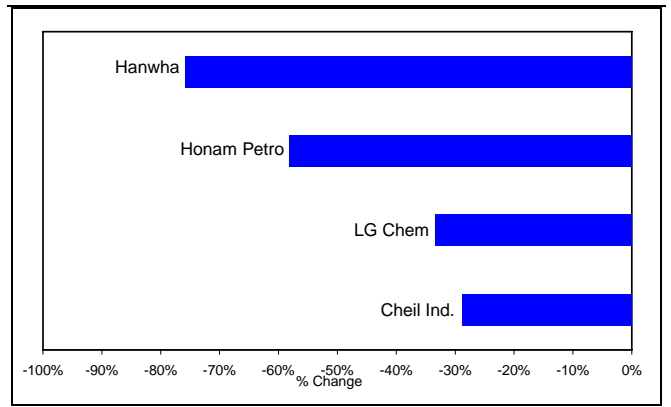
Source: FactSet, Morgan Stanley Research

Exhibit 13  
**Asian Chemical Stock Performance – Last Month**



Source: FactSet, Morgan Stanley Research

Exhibit 15  
**Asian Chemical Stock Performance – Last Year**

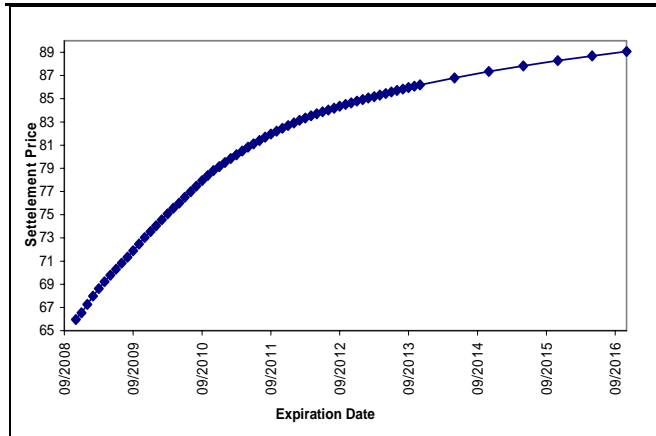


Source: FactSet, Morgan Stanley Research

November 3, 2008  
Asia Energy

Exhibit 16

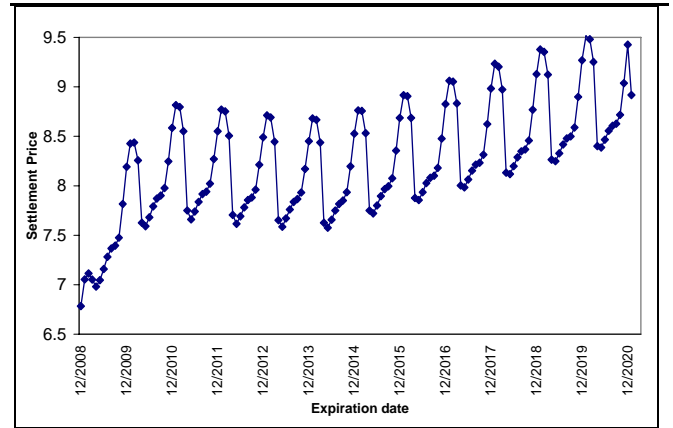
### Forward Oil Curve- In a Steep Contango



Source: FactSet, Morgan Stanley Research

Exhibit 19

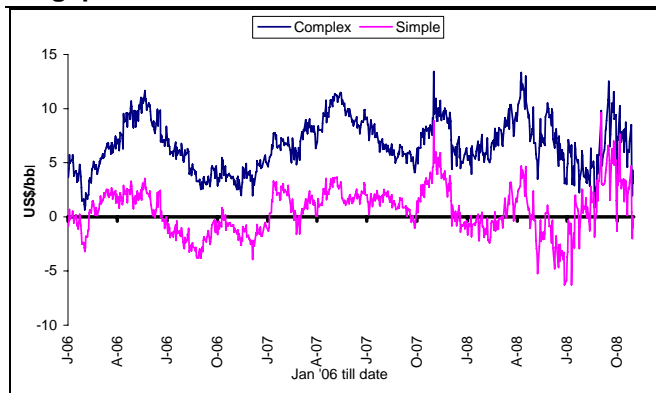
### Forward NatGas – Above US\$7.5/MMbtu in LT



Source: Bloomberg, Morgan Stanley Research, Henry Hub Gas Forward Curve

Exhibit 17

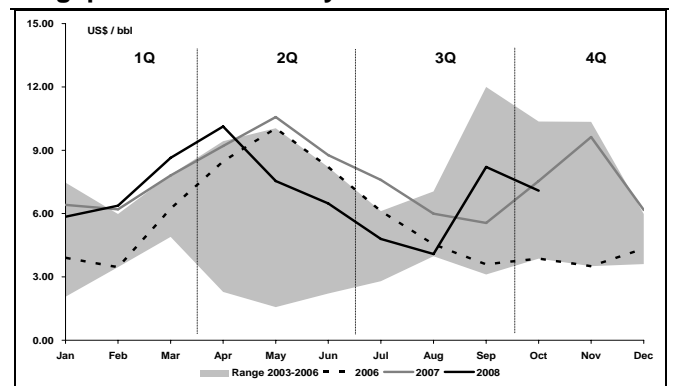
### Singapore GRMs



Source: Reuters, Morgan Stanley Research

Exhibit 20

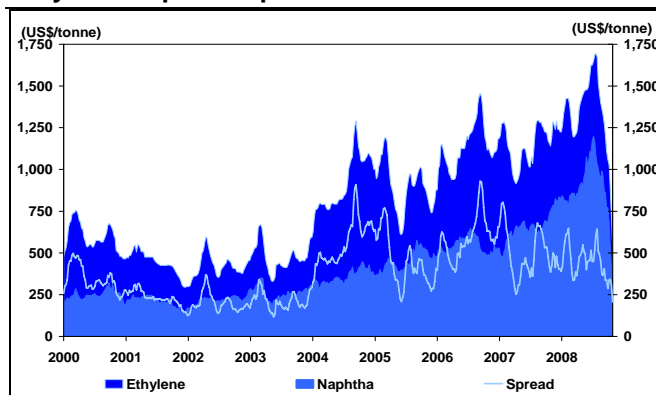
### Singapore GRMs Monthly Trend



Source: Reuters, Morgan Stanley Research

Exhibit 18

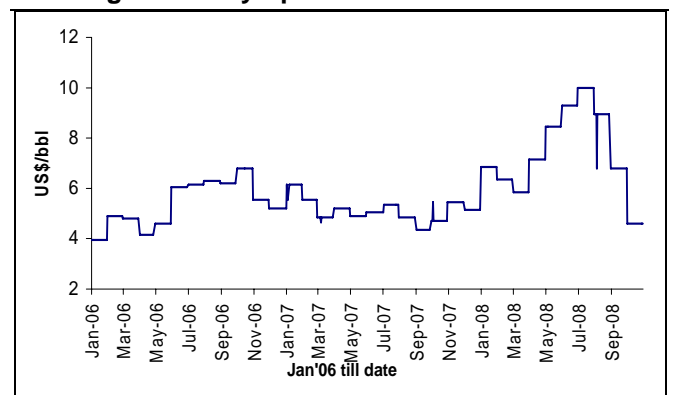
### Ethylene Naphtha Spread



Source: DataStream, Morgan Stanley Research

Exhibit 21

### Arab Light – Heavy Spread



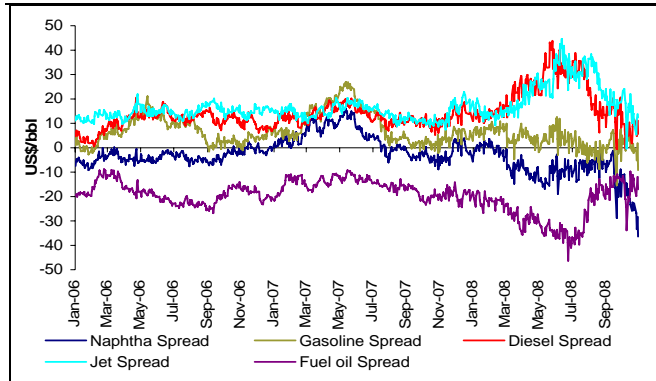
Source: Bloomberg, Morgan Stanley Research



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Exhibit 22

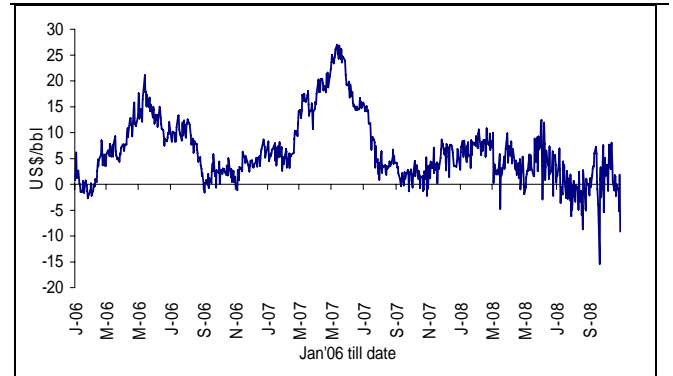
## Refined Product Spreads against WTI



Source: Bloomberg, Morgan Stanley Research

Exhibit 25

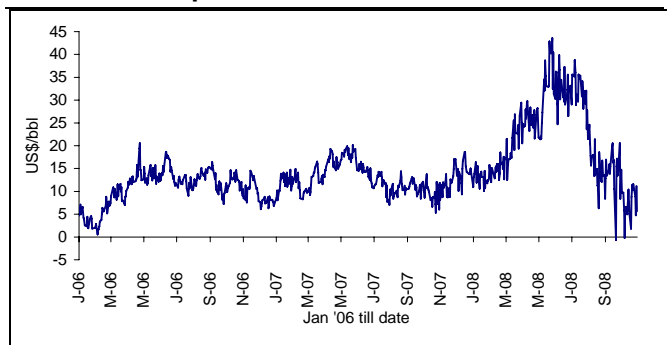
## Gasoline – WTI Spread



Source: Bloomberg, Morgan Stanley Research

Exhibit 23

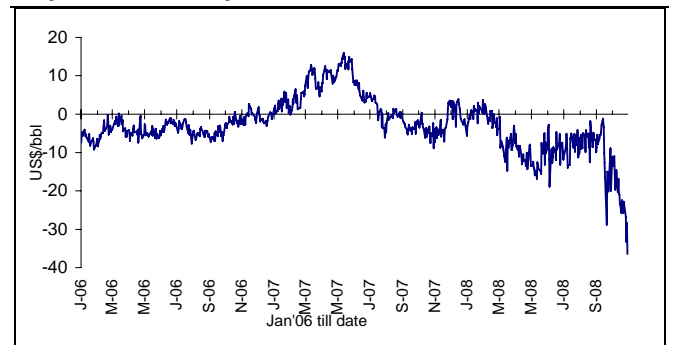
## Diesel – WTI Spread



Source: Bloomberg, Morgan Stanley Research

Exhibit 26

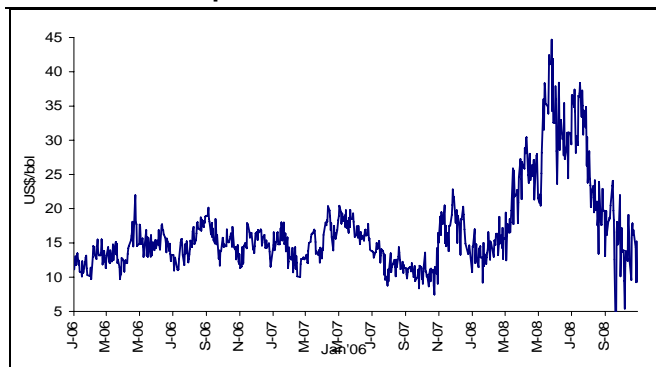
## Naphtha – WTI Spread



Source: Bloomberg, Morgan Stanley Research

Exhibit 24

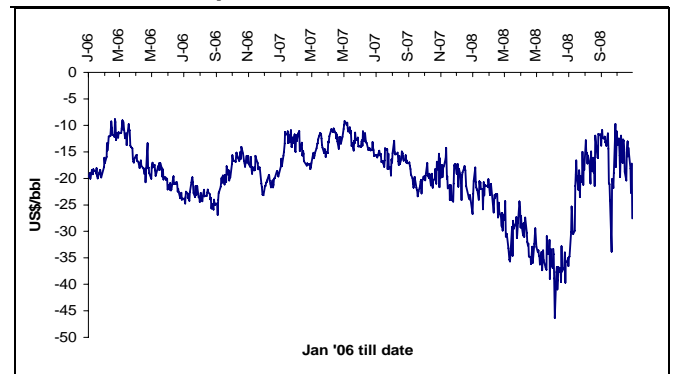
## JetKero – WTI Spread



Source: Bloomberg, Morgan Stanley Research

Exhibit 27

## Fuel Oil – WTI Spread



Source: Bloomberg, Morgan Stanley Research

## Valuation Methodology and Risks for Key Calls

### CNOOC

Our price target of HK\$10.20 is based on a fundamental discounted cash flow (DCF) value. In our model, we assume WACC of 11.1%. At current levels, CNOOC trades at a 2008E P/E of 4.7x versus its historical range and its peak of 24x. On an implied oil price basis, CNOOC trades at US\$53/bbl. This is significantly lower than the current oil price.

Key risks to our price target for CNOOC include: 1) oil prices staying higher for longer than expected; and 2) policy changes by the government on resource tax could also have a significant impact on the share price.

### Reliance Industries

Our Rs1,619 price target for the company is based on a sum-of-the-parts valuation. 1) The R&M business is based on an average one-year forward EV/EBITDA multiple of 3.7x for the US and Asia R&M (ex-India). 2) The Petrochemical business is based on an average one-year forward EV/EBITDA multiple of 3.7x for global comps. 3) RELI's 70.4% stake in Reliance Petroleum Industries (RPL) is valued at our base-case target price of Rs116 per share. 4) We use a P/E target multiple-based valuation for RELI's E&P business, an average P/E of 6x F2010E earnings.

Key risks to our price target: 1) The overhang of Reliance stock held by the company's subsidiaries. 2) A sharp decline in global economic growth compressing petrochemical and refining margins. 3) Policy risk with respect to subsidy sharing. 4) A reduction in import tariffs and appreciation of the rupee versus the US dollar. 5) Potential delays in the execution of the company's business plan. 6) The stock's historical correlation with the market.

### SK Energy

We derive our price target of W80,300 from a sum-of-the-parts valuation, in which we value the company's operation via a residual income analysis. We value the investments assets at book value provided by the company. In addition, we value E&P based on US\$10/boe to its oil reserve of 500 million boe.

The key downside risk to our price target is lower-than-expected refining and petrochemical margins arising from a weaker-than-expected global economy.

### Oil Search

Our price target of A\$10 is based on a DCF valuation that values the stock at A\$9.19, to which we add a premium of 10%, consistent with the average share price premium. The oil price

deck is marked to market for the balance of 2008, at US\$85/bbl for 2009, US\$87/bbl for 2010, US\$90/bbl for 2012, and US\$85/bbl normalized thereafter.

Key risks are macro oil prices and, to lesser extent, the AUD/USD exchange rate. OSH reports all financial data in USD. At the company level, risks arise from field production, operating, and capital stocks. We also believe the development of PNG gas is long dated, technically difficult, capital intensive, and subject to availability of gas markets. All of these factors affect project likelihood and market valuations for the gas.

### Australia Worldwide Exploration

Our price target of A\$5 is based on a DCF valuation that values the stock to A\$4.71, to which we add a premium of 6%. Our key assumptions include 2P reserves of 67 mboe and WACC of 10.3%. The oil price deck is US\$131 for the balance of 2008, at US\$82.5/bbl for 2009, US\$85/bbl for 2010, US\$90/bbl for 2012, and US\$85/bbl normalized thereafter.

Key risks to our price target are oil prices and exchange rates. AWE's reported income is particularly sensitive to oil prices during the years of peak production, which we expect to be 2008 and 2009.

### GAIL (India) Ltd.

Our price target of Rs347 is based on average EV/EBITDA multiples of the comparable European and US gas pipeline companies and the Asian petrochemical companies. This is added to GAIL's cash and cash equivalents and equity investments taken at a 15% discount to the current market price.

Key risks to the price target are: 1) sharing of LPG, kerosene subsidy losses; 2) execution risk to build the new pipelines; and 3) lower transportation tariffs.

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Exhibit 28

## Morgan Stanley Estimates for Crude Oil

(\$/bbl)	Bear	Base	Bull
3Q08e	\$117	\$131	\$146
4Q08e	\$109	\$131	\$154
1Q09e	\$104	\$131	\$159
2Q09e	\$100	\$131	\$162
3Q09e	\$97	\$130	\$164
4Q09e	\$95	\$130	\$165
1Q10e	\$95	\$129	\$165
2Q10e	\$94	\$129	\$165
3Q10e	\$93	\$129	\$165
4Q10e	\$92	\$129	\$166
2011e	\$90	\$128	\$167
2012e	\$88	\$128	\$169

E = Morgan Stanley Research estimates

Source: Morgan Stanley Research

Exhibit 29

## Morgan Stanley Asia Refining Margins

US\$/bbl	Q1	Q2	Q3	Q4	Annual
2006	4.62	8.93	4.74	3.91	5.55
2007	6.87	9.00	8.13	8.00	7.61
2008E	6.96	8.10	5.80	6.15	6.75
<b>2009E</b>	<b>4.71</b>	<b>5.85</b>	<b>3.55</b>	<b>3.90</b>	<b>4.50</b>
2010E	5.21	6.35	4.05	4.40	5.00
2011E	5.71	6.85	4.55	4.90	5.50
2012E	6.21	7.35	5.05	5.40	6.00
Mid-Cycle	6.21	7.35	5.05	5.40	6.00

Source: Morgan Stanley Research estimates

Exhibit 30

## Morgan Stanley Estimates for Petrochemical Prices

US\$/MT	2005	2006	2007	2008E	2009E	2010E
Naphtha	487	583	696	979	1,018	1,018
Ethylene	898	1,136	1,153	1,372	1,378	1,338
Propylene	944	1,100	1,093	1,343	1,283	1,278
Benzene	843	885	1,039	1,194	1,298	1,278
Toluene	696	846	870	1,088	1,160	1,150
Xylene	701	883	899	1,089	1,178	1,167
LDPE	1,108	1,227	1,429	1,680	1,564	1,503
HDPE	1,032	1,233	1,349	1,594	1,541	1,500
PP	1,059	1,229	1,322	1,543	1,492	1,486
PVC	811	821	933	1,063	1,003	1,014
SM	1,034	1,217	1,300	1,510	1,575	1,537
PS	1,170	1,248	1,435	1,629	1,725	1,692
ABS	1,408	1,528	1,700	1,915	1,986	1,981
EG	966	902	1,038	1,294	1,124	1,130

E = Morgan Stanley Research estimates

Source: Morgan Stanley Research

Exhibit 31

## Petrochemical Spreads Forecasts

Spreads	2005	2006	2007	2008E	2009E	2010E
Ethylene	411	553	456	393	360	320
Propylene	458	517	397	364	265	260
Benzene	356	303	343	215	280	260
Toluene	209	264	174	109	142	132
Xylene	215	300	202	110	160	149
LDPE	621	644	733	701	546	485
HDPE	545	650	653	615	523	482
PP	573	646	625	564	473	468

E = Morgan Stanley Research estimates Source: Morgan Stanley Research

Exhibit 32

## Industry Views

Industry	Industry View
Australia Oil & Gas	Attractive
China Oil & Gas	Attractive
India Oil & Gas	Attractive
Japan Oil & Coal Products	In-Line
S. Korea Chemicals	Cautious
S. Korea Oil & Gas	In-Line

Source: Morgan Stanley Research

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	Count	% of Total	Count	Total IBC	% of % of Rating Category
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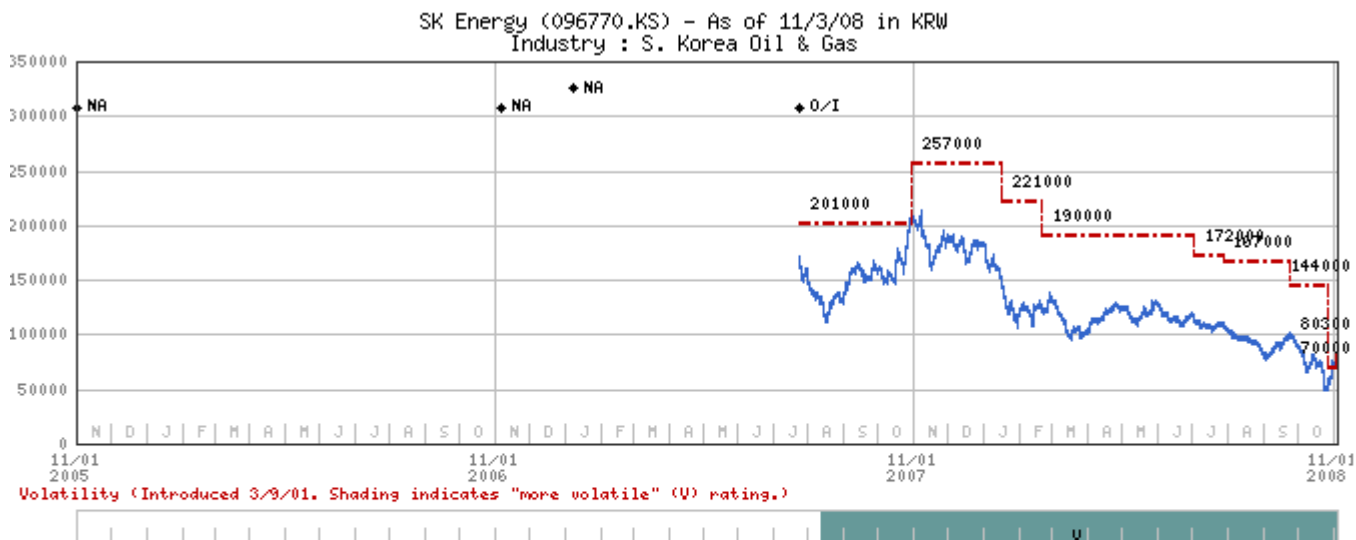
**Attractive (A)**: The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

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Stock Rating History: 11/1/05 : NA; 11/6/06 : NA; 1/8/07 : NA; 7/25/07 : O/I

Price Target History: 7/25/07 : 201000; 10/31/07 : 257000; 1/17/08 : 221000; 2/21/08 : 190000; 7/3/08 : 172000; 7/28/08 : 167000; 9/24/08 : 144000; 10/28/08 : 70000; 11/3/08 : 80300

Source: Morgan Stanley Research      Date Format : MM/DD/YY      Price Target --      No Price Target Assigned (NA)  
 Stock Price (Not Covered by Current Analyst) — Stock Price (Covered by Current Analyst) ■  
 Stock Ratings abbreviated as below (Effective 3/18/02, ratings appear as Stock Ratings/Industry View) ♦  
 Stock Ratings as of 3/18/02: Overweight (O) Equal-weight (E) Underweight (U) More Volatile (V) No Rating Available (NAU)  
 Stock Ratings prior to 3/18/02: Strong Buy (SB) Outperform (OP) Neutral (N) Underperform (UP) No Rating Available (NAU)  
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**Industry Coverage: India Oil & Gas**

Company (Ticker)	Rating (as of)	Price (11/03/2008)
<b>Vinay Jaising</b>		
Bharat Petroleum Corp. (BPCL.BO)	U (12/03/2007)	Rs303.05
Cairn India Ltd. (CAIL.BO)	O (09/06/2007)	Rs138.8
GAIL (India) (GAIL.BO)	O (04/05/2007)	Rs222.55
Hindustan Petroleum (HPCL.BO)	U (07/07/2005)	Rs205.6
Indian Oil Corp (IOC.BO)	NA (07/29/2004)	Rs351.3
Oil & Natural Gas Corp. (ONGC.BO)	O (05/31/2004)	Rs710.7
Reliance Industries (RELI.BO)	O (06/15/2006)	Rs1,437.05
Reliance Petroleum Limited (RPET.BO)	O (01/23/2008)	Rs91.25
<b>Mayank Maheshwari</b>		
Aban Offshore Ltd (ABAN.BO)	O (06/11/2008)	Rs882.6

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