BLUELAKE ENERGY

Measurement of Value in Newly Merged E&P's
Tullow Oil Case Study

Prepared for

TULLOW OIL

CONTENTS

Executive Summary

Executive Summary

Best Metrics for Assessment of Mid Sized E&P Companies

- In this document we review the standard financial and technical metrics commonly used to analyse listed companies and find which are best suited to looking at upstream oil companies in the $1Bn-$3Bn Market Cap. range. We have used the Tullow Oil – Energy Africa takeover as the main 'theme'.

- A new Peer Group of companies was established for the purposes of analyzing how mid sized upstream independents set targets and communicate these targets to shareholders, some of the companies are shown above but the full list is: - Pogo Producing, Newfield Exploration, Cairn Energy, Noble Energy, Petrokazakhstan, Lundin Petroleum, Plains Exploration, Stone Energy, Vintage Petroleum, Premier Oil and Paladin Resources.

- From observations of this group, Hulf Hamilton has been able to construct a short list of metrics from which the newly merged business can be assessed. The analysis is complex and at times contradictory, so this list represents a *minimum,* based on what peer group companies report.

-Total Shareholder Return (TSR)	- Debt to Equity	- Oil and gas reserve details	- Production details
- Operating Cash Flow	- Net Debt	- Reserve Growth	- Production growth
- EBITDA and EBITDAX	- Earnings per share	- Capital expenditure details	
- Interest Cover	- Cash flow per share	- Net income per barrel	

  A number of 'Takeover' case studies were made including Petrocanada and Stone Energy (Acquirers) and this analysis supported these findings.

- By speaking to some funds and selecting from certain historic shareholder surveys[1] and other desk based research, Hulf Hamilton has established a short list of the most important measures to shareholders and they are:

- Earnings & Cash flow multiples	- Return on Capital employed
- Absolute earnings & cash flow	- Industry specific reserve & production based data

- In the final analysis Hulf Hamilton looked at a typical cross section of international funds that tend to hold interests in medium and large capitalized oil companies, and particularly the peer group, to establish a 'top-10' target list of potential new key shareholders in Tullow. Clearly more work needs to be done with Tullow's own Broker but a preliminary list suggested is:- ISIS Asset Management, Lazard, Deutsche Asset Management, HSBC, Henderson Global, State Street Global Resources, Putnam Investments, American Express and Citigroup.

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[1] 2002 Ernst & Young Oil & Gas Investor Survey

Assumptions

The following Assumptions are used throughout this document

Currency

All '$' are US unless stated

£-US$	1.79	USA
£-NKR	12.32	Norway
$-NKR	6.88	Norway
$-As$	1.43	Australia
$-Can$	1.37	Canada
$-Sek	7.61	Sweden

Technical

M	Thousand
MM	Million
1P	Proven Reserves
2P	Proven plus Probable
3P	Proven plus Probable plus Possible
1 MMcf	1/6 MMBOE

Financial

All Accounts as at year end as shown.

Capitalization most recent - YE2003 or Q1 2004.

Discounted cash flow data based on 10% unless otherwise indicated.

All Market Capitalizations and Enterprise Values calculated at 15.35 on 15 June 2004 for share price input.

Metrics Listing

Metric Listing – Cash & Revenue Generation

Financial Structure & Performance

Operating Performance

Metric	Formula	Commentary	Value[1]
Return on Assets	$= \frac{\text{Profit before interest and tax}}{\text{Total Assets}}$ (Can be by sector and/or geography)	Indication of how well management uses assets in the business to generate an operating surplus.	**2**
Return on Equity	$= \frac{\text{Profit after tax}}{\text{Shareholders funds}}$ (Can be by sector and/or geography)	Calculates the absolute return to shareholders, arguably the most important business metric.	**1**
Total Shareholder Return	$= \frac{\text{Year End Share Price + dividend}}{\text{Beginning Share Price}} - 1$	Measures the absolute market return to shareholders combining capital growth with dividend income.	**2**
Return on Average Capital employed	$= \frac{\text{Profit before interest and tax}}{\text{Total capital employed}}$	Indication of how well management is using the combined capital base to generate a return for the business.	**1**

Liquidity

Metric	Formula	Commentary	Value[1]
Current Ratio	$= \frac{\text{Current Assets}}{\text{Current Liabilities}}$	Simple indication of liquid cash availability against upcoming cash requirement. More useful over time than on one-off measures.	**3**
Quick Ratio	$= \frac{\text{Current Assets – Inventory}}{\text{Current Liabilities}}$	Shows how quickly a cash current asset could be converted into cash by excluding inventory.	**3**
Working Capital	= Current Assets - Current Liabilities	Amount of day to day operating liquidity available to the business.	**2**

Financial Strength

Metric	Formula	Commentary	Value[1]
Interest Cover	$= \frac{\text{Profit before interest and tax}}{\text{Interest}}$	Multiple indicating the amount of cash in profit is available to service interest.	**2**
Debt to Equity (method 1)	= Long and short term bearing interest loans[2] / Owners Funds[3]	Indication of the proportion of debt in the business compared to equity as an indication of ability to service debt.	**1**
Debt to Equity (method 2)	$= \frac{\text{Long and short term bearing interest loans}}{\text{Owners Funds + All short term liabilities + long term loans}}$	Same as above but in absolute measure form.	**2**
Net Debt	= Long and short term interest bearing loans – cash (as part of current assets)	Shorthand net debt calculation usually forms part of E&P NAV calculation.	**1**

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[1] Scale of 1-3 indicates relevance to E&P sector, 1 is high, 3 is low
[2] Some interpretations include all liabilities such as trade creditors and accruals
[3] Owners funds can be defined as shareholders funds + long term interest bearing debt

Metric Listing – Cash & Revenue Generation

Financial Structure & Performance

Cash Flow Metrics	Commentary	Value
▪ Discretionary Cash Flow 1 = {Net inc. + DD&A + def. tax + loss (gain) asset sale + decrease (increase) Work. Cap.} Discretionary Cash Flow = { A }	Internally generated cash flow available to pay dividends, exploration and development. Sometimes may include preference dividends as a non discretionary item.	2
▪ Discretionary Cash Flow 2 = { A } + exploration and dry hole expense		2
▪ Free Cash flow = Discretionary cash flow – Annual capital expenditures	Takes account of the need to replenish reserves in an E&P business.	1
▪ Operating Cash Flow = Net Income + DD&A + deferred taxes + Exploration expense + other non cash items	Net amount of cash flow from operating activities before work capital changes.	1
▪ EBITDA = Net income + dry hole cost + DD&A + Accretion + Interest + Foreign exchange + Taxes	Measure of earnings before non cash items.	1
▪ EBITDAX = Net income + **Exploration** + dry hole cost + DD&A + Accretion + Interest + Foreign exchange + Taxes	Adds back capitalized exploration expense from intangibles.	1
Corporate Valuation Metrics		
▪ Net Asset Value = DCF of Proved assets + \$/bbl risk value of exploration – Net Debt – 'in the money' options	Sum of E&P assets, frequently based on detailed DCF models of oil and gas fields.	1
▪ Nominal v Book v Market share values	Relative comparison of share values from par to book to current market.	3
▪ Market Capitalization = Number of shares[1] x share price	Market value of a company base on the value of quoted ordinary shares.	2
▪ Enterprise Value = Market Capitalisation + Net Debt	Adjusted value considering many assets of a company are purchased with debt.	1
▪ Earnings per share (EPS) = $\frac{\text{Profit after tax}^{2}}{\text{Number of shares}}$ ▪ EPS growth = Historic compound EPS growth	Absolute measure of profitability, far more useful on a growth basis to reflect the issue of new shares relative to profit	2
▪ Dividends per share (DPS) = $\frac{\text{Common dividend}}{\text{Number of shares}}$ ▪ Dividend Yield = $\frac{\text{Gross dividend per share}^{3}}{\text{Share Price}}$	More important as part of TSR (see below).	3
▪ Dividend Cover = $\frac{\text{EPS}}{\text{DPS}}$	Indication of ability to pay a dividends on a relative basis to net income	3
▪ Price Earnings Ratio (PE) = $\frac{\text{Share Price}}{\text{EPS}}$	Investor's relative expression of the price of 'buying' the earnings of a company.	3
▪ Market to Book Ratio = $\frac{\text{Market Capitalization}}{\text{Shareholders Funds}}$	Compares the market value to shareholders investment in a company.	3

[1] Usually shares in circulation, e.g. diluted number
[2] Profit attributable to equity shareholders
[3] Dividend after tax

Metric Listing – Exploration & Reserve Replacement

Exploration and Reserve Replacement

Asset Base & Investments Metrics

Metric	Commentary	Value
Oil and Gas Reserves [1] (MMboe) - Proved plus Probable (2P) - Proved developed v proved undeveloped	UK companies usually express 2P reserves whilst US, Canadian companies follow SEC guidelines with Proven only.	1
Gas Reserves (%) = YE Proved Gas Reserves (BOE) / Total YE Proved Reserves (BOE)	Frequently companies express total reserves as Barrels Oil Equivalent (BOE) and express the gas proportion alone.	2
Percentage of Reserves Developed (%) = Total YE Proved Developed Reserves (BOE) / Total YE Proved Reserves (BOE)	A measure used by US companies to show the proportion of near term potential cash flow from reserves.	1
Reserves to Production (R/P) = YE Remaining Reserves [2] (BOE) / Current Year Production (BOE)	Indication of how quickly a company will exhaust its reserve base	2
Capital expenditure ($MM) [3] = Total costs incurred (as reported)	Capital expenditures expressed usually for development projects.	1

Efficiency Metrics

Metric	Commentary	Value
Reserve Replacement Cost per BOE (RRC) = Exploration Cost + Development cost + All Reserve acquisition cost / Ext & discoveries + Improved recovery + Purchases + Revisions	Total cost of acquired reserves, expressed on a unit barrel basis, including acquired as well as drilled.	1
Finding & Development cost per BOE (F&D) = Exploration Cost + Development cost + Unproven acq. cost / Ext & discoveries + Improved recovery + Revisions	As above but excluding acquisition of proven producing assets.	1
F&D Reserve replacement rate (%) = Extensions & discoveries + Improved recovery + Revisions (BOE) / Current Year Production (BOE)	Organic indicator of ability to replace reserves with the drill bit.	1
Upstream Earnings per (BOE) = Current Year Upstream Net Earnings ($MM) / Production (BOE)	Expression of 'quality' of each barrel produced.	2
Net Income per (BOE) = Oil & gas rev. – lease costs – prod tax – transport costs – DD&A – ceiling test – inc. tax [4] / Annual production (BOE)	P&L re-expressed only for upstream operations to measure profitability of upstream operations only.	2
Recycle Ratio = Net Income per (BOE) / F&D costs ($MM/BOE) > 2 (Generally accepted as indication of value creation)	Measures the cost of adding reserves from all sources in relation to netback	2

[1] Includes gas reserves MMcf divided by 6
[2] Can be Proved or 2P or proved developed
[3] Frequently expressed as a single item, more usefully expressed by geography and category (exploration v development)
[4] Income tax portion allocated to upstream

Peer Group Analysis

Peer Group Selection

Method

- A universe of E&P companies was considered from the major markets of the world including
  - London FTSE and AIM — 34 Companies
  - New York — 98 Companies
  - Toronto — 30 Companies
  - Australia — 69 Companies
  - Sweden — 31 Companies
  - Norway — 9 Companies
  - France — 2 Companies
- A sub set from each market was extracted and each of the companies was ranked by
  - Market capitalization
  - Reserves
  - Production
- A Proforma Company called ‘New Tullow’ was considered on the above data and a range established for each metric for ±80% to establish a range.

New Tullow Data	-80%		80%
Market Capitalization ($MM)	250	1249	2249
Annual Revenues ($MM)	92	421	831
2P Reserves (Mmboe)	30	148	267
Annual Production (mboe/d)	11	55	100

- A ‘cut off at market cap less than $1000MM was made to only capture companies with potential shareholder profiles for New Tullow, with the exception of 2 companies included at the companies request – Premier Oil and Paladin Resources. First Calgary was also excluded as it was regarded as having few similarities with New Tullow.

Results

- The results of the selection process are shown on the following pages, including the ‘sub-set’ companies mentioned above.
- A final screening process was carried out by selecting companies with a geographical variability within the portfolio of non OECD assets.
- Finally a short list of companies was derived and a detailed analysis made of each company by:
  - strategy
  - shareholder communications
  - history
  - financial and operational data
  - M&A activities
  - Metrics used

Peer Group Selection

UK listed/domiciled companies – Sub list

	Share Price (15/6/04)	**No Shares (MM)**	**Market Cap (£MM)**	**Market Cap (US$MM)**
Cairn Energy	1164	149.42	1739	3113
Petrokazakhstan	1475	77.92	1149	2057
First Calgary	436	163.056	711	1273
Tullow Oil (New)	106.75	652.37	696	1247
Hardman Resources	68.25	632.64	432	773
Premier Oil	522	81.692	426	763
Tullow Oil (old)	106.75	377.841	403	722
Paladin Resources	120.75	321.963	389	696
Burren Energy	284	136.131	387	692
Regal Petroleum	381.5	100.541	384	687
Soco International	313.5	72.28	227	406
Dana Petroleum	298	73.98	220	395
Venture Production	188	107.767	203	363
Melrose Resources	255	68.85	176	314
JKX	92.5	132.34	122	219
Sterling Energy	12.5	822.712	103	184
Centurion Energy	120.5	74.356	90	160
Edinburgh Oil & Gas	161	42.138	68	121
Oilexco	88.5	59.275	52	94
Petroceltic	8	359.413	29	51
Faroe Petroleum	51	48.64	25	44
Petrel Resources	40.75	58.215	24	42
Desire Petroleum	19.25	112.5	22	39
Antrim Energy	50	31.386	16	28
Pan Andean Resources	15.75	97.321	15	27
Northern Petroleum	7	212.67	15	27
Aminex	11.75	90.899	11	19
Ramco Energy	36.5	26.202	10	17
Black Rock Oil	1.5	98.265	1	3

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Peer Group Selection

USA listed/domiciled companies – Sub list

		Share Price (15/6/04)	No Shares (MM)	Market Cap ($MM)
XTO	US	27.1	258.8	7013
EOG Resources	US	55.99	115.600	6472
Chesapeake	US	22.9	236.884	5425
Pioneer Natural Resources	US	32.87	118.719	3902
Newfield Exploration	US	52.68	56.385	2970
Pogo Producing	US	46.78	62.538	2926
Noble Energy	US	48.1	57.663	2774
Westport Resources	US	36.88	67.686	2496
Cabot Oil & Gas	US	37.41	61.738	2310
Patina Oil & Gas	US	27.55	70.533	1943
Evergreen Resources	US	38.83	43.100	1674
Plains Exploration	US	18.00	77.000	1386
Forest Oil	US	25.37	53.755	1364
Quicksilver Resources	US	54.06	24.850	1343
Stone Energy	US	46.87	26.640	1249
Spinnaker Exploration	US	36.27	33.711	1223
Cimarex	US	28.03	41.370	1160
Denbury Resources	US	19.56	54.673	1069
Vintage Petroleum	US	16.1	64.332	1036
Encore Acquisitions	US	27.37	30.449	833
Magnum Hunter	US	10.51	69.392	729
Swift Energy	US	21.07	27.713	584
Harvest Natural Resources	US	12.59	35.942	453

Peer Group Selection

Other companies – Sub list

		Share Price (15/06/2004)	No Shares (MM)	Market Cap (local currency)	Market Cap (US$MM)
DNO	NOR	27	55.7	NOK 1,504	$219
CanArgo	NOR	4.4	113.613	NOK 500	$73
PA Resources	NOR	21.3	9.92	NOK 211	$31
Lundin Petroleum	SWE	39.8	251	SEK 9,990	$1,313

		Share Price (15/6/04)	No Shares (MM)	Market Cap (local)	Market Cap ($MM)
Santos	AUS	6.93	584.7	4052	2834
Hardman Resources	AUS	68.25	632.64	432	773
Novus Petroleum	AUS	1.89	180.83	342	239

		Share Price (15/6/04)	No Shares (MM)	Market Cap (local)	Market Cap ($MM)
Nexen	CAN	50.11	128.2	6424	4694
Penn West	CAN	60.2	53.8	3239	2367

Peer Group Selection

First Draft Companies List

		Share Price (15/6/04)	No Shares (MM)	Market Cap ($MM)	Reserves (Mmboe) 2001	2002	2003	Production (mboe/d) 2001	2002	2003
Cairn Energy	UK	1164	149.42	3113	102	87	77	20.1	22.1	30.2
Newfield Exploration	US	52.68	56.385	2970	156	201	220	79.9	84.0	100.9
Pogo Producing	US	46.78	62.538	2926	256	264	283	71.3	98.3	115.7
Noble Energy	US	48.1	58.046	2792	463	468	457	84.2	85.9	92.1
Westport Resources	US	36.88	67.686	2496	155	263	297	40.3	59.3	75.8
Penn West	CAN	60.2	53.8	2367	289	305	358	97.0	99.5	101.5
Cabot Oil & Gas	US	37.41	61.783	2311	192	195	190	37.0	41.6	40.6
Petrokazakhstan	UK	1475	77.92	2057	323	334	490	100.9	135.8	151.3
Patina Oil & Gas	US	27.55	70.533	1943	120	184	253	71.3	86.8	125.1
Evergreen Resources	US	38.83	43.1	1674	175	206	249	14.1	17.8	21.1
Plains Exploration	US	18	77	1386	239	253	280	24.0	25.5	85.0
Forest Oil	US	25.37	53.755	1364	258	260	216	78.5	65.8	68.1
Quicksilver Resources	US	54.06	24.85	1343	107	133	119	18.4	17.9	18.4
Lundin Petroleum	SWE	39.8	251	1313	60	61.7	72	NA	14.6	16.1
First Calgary	UK	436	163.056	1273	27.5	56.1	73.5	0.0	0.0	0.0
Stone Energy	US	46.87	26.64	1249	129	125	136	42.1	47.7	44.2
Tullow Oil (Proforma)	UK	106.75	652.32	1246	133	137	148	33.0	42.6	55.3
Spinnaker Exploration	US	36.27	33.711	1223	54	54	55	8.83	8.57	8.16
Cimarex	US	28.03	41.37	1160	65	68	70	21.66	22.00	30.00
Denbury Resources	US	19.56	54.673	1069	110	131	128	31.2	35.6	34.7
Vintage Petroleum	US	16.1	64.332	1036	535	529	447	94.7	89.0	76.0
Encore Acquisitions	US	27.37	30.449	833	104	128	141	17.2	20.3	22.2
Premier Oil	UK	522	81.692	763	469	449	175	40.9	53.6	53.6
Magnum Hunter	US	10.51	69.392	729	63	140	140	15.2	32.3	34.0
Tullow Oil (Old)	UK	106.75	377.841	722	86	79	70	15.2	21.2	25.7
Paladin Resources	UK	120.75	321.963	696	63	108	133	18.3	29.1	42.0
Burren Energy	UK	284	136.131	692	108.9	125	119	2.62	4.923	8
Swift Energy	US	21.07	27.713	584	108	125	137	20.5	22.7	24.3
Harvest Natural Resources	US	12.59	35.942	453	190	153	147	26.8	26.6	20.1
Dana Petroleum	UK	298	73.98	395	105	116	124	5.8	8.2	17.3
Venture Production	UK	188	107.767	363	39	50	94	4.9	8.7	13.3
DNO	NOR	27	55.7	219	86	125	144	13.15	22.465	27.12

Peer Group Selection

Final Draft Companies List

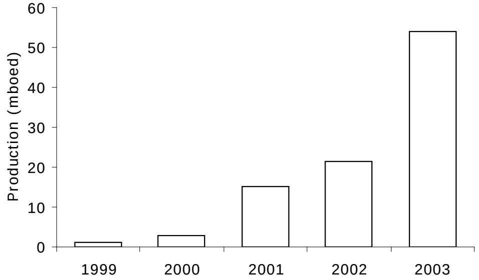
		Share Price (15/6/04)	No Shares (MM)	Market Cap ($MM)	Reserves (Mmboe)			Production (mboe/d)		
					2001	2002	2003	2001	2002	2003
Cairn Energy	UK	1164	149.42	3113	102	87	77	20.1	22.1	30.2
Newfield Exploration	US	52.68	56.385	2970	156	201	220	79.9	84.0	100.9
Pogo Producing	US	46.78	62.538	2926	256	264	283	71.3	98.3	115.7
Noble Energy	US	48.1	57.663	2774	463	468	457	84.2	85.9	92.1
Petrokazakhstan	UK	1475	77.92	2057	323	334	490	100.9	135.8	151.3
Plains Exploration	US	18	77	1386	239	253	280	24.0	25.5	85.0
Lundin Petroleum	SWE	39.8	251	1313	60	61.7	72	NA	14.6	16.1
Stone Energy	US	46.87	26.64	1249	129	125	136	42.1	47.7	44.2
Tullow Oil (Proforma)	UK	106.75	652.32	1246	133	137	148	33.0	42.6	55.3
Vintage Petroleum	US	16.1	64.332	1036	535	529	447	94.7	89.0	76.0
Premier Oil	UK	522	81.692	763	469	449	175	40.9	53.6	53.6
Paladin Resources	UK	120.75	321.963	696	63	108	133	18.3	29.1	42.0

New Tullow Oil

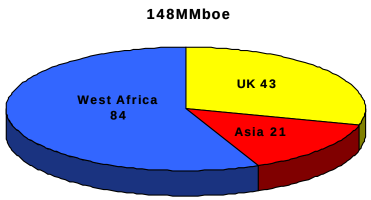
Company Summary

- Tullow Oil's $570MM bid for Energy Africa was declared unconditional on the 28 May 2004.
- The combination of companies represents a 'step change' for Tullow by more than doubling 2002 annual production and reserves.
- According to Hulf Hamilton calculations the assets of Energy Africa bring more profitable barrels with 2003 proforma P&L showing 1 100% increase in operating profit compared to a 78% increase in revenues.
- Markets will likely focus on such factors as cost savings wrought by the combination, management of debt following the combination and a more detailed scrutiny of free cash flow and the use thereof, e.g. dividends to shareholders v reinvestment.

Production



2P Reserves[1]



1. 148mmboe proforma Tullow/Energy Africa 2003 YE. Scott Pickford 2P : 177MMboe @1/1/2004

Financial Summary

Capitalization [1]

	($MM)	(%)
Debt	351	44%
Cash	164	20%
Net Debt	187	23%
Book Common equity	619	77%
Total Book Capitalization	807	100%

Historical Financials

	2003 [1]	2002 (US$MM)	2001
Revenue	422	169	110
Operating Costs	233	113	67
Net Income	59	19	13
EBITDA	226	104	69
EBIDAX	267	127	92
Market Cap	1246		
Enterprise Value	1433		

1. Proforma for $570MM Energy Africa Acquisition including EAGSA

Metrics Suggested

- Credit/Balance Sheet Management
  - monitoring of cost of acquisition
  - Coverage ratios such as EBITDA/Interest, Debt/EBITDA Debt/Equity
- Operations
  - Production & reserve growth, finding & development costs/bbl
  - Portfolio management including asset disposal measures
  - Overall reserve replacement costs
- Profitability & cash flow
  - Discretionary and free cash flow
  - gross & net profit margins
- Efficiency
  - Return on capital
  - Return on assets

Conclusion

- New Tullow will likely be a significant cash generator compared to Old Tullow so measures of quantity and quality of cash flow as shown below will become very much more relevant in shareholder communications.
  - Operating cash flow
  - EBITDA/EBITDAX

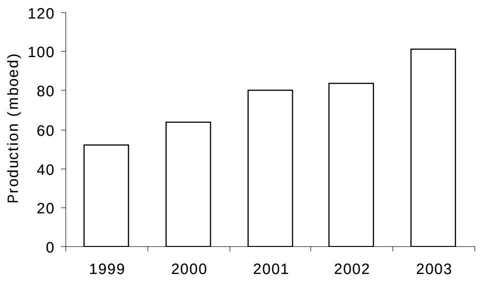
  Measures that reflect a disciplined measurement and recording of uses of free cash flow may reassure investors that management has a coherent strategy for creating value for shareholders.
- Clearly the magnitude of cash generation will go along way to servicing relatively low debt levels but once this task is accomplished there may be scope to return some cash to shareholders via an exceptional dividend before future cash is reinvested to a significant investment programme in Africa.

Newfield Exploration

Company Summary

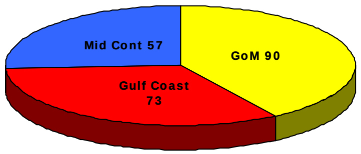
- New York Stock Exchange, symbol NFX.
- Newfield Exploration Company is an independent oil and (mostly) gas company headquartered in Houston.
- The Corporate Slogan is *'Balance, Focus, Control'*
- The company also stresses scale, repeatability, innovation and cost control as part of its slogan.
- The company targets low risk, underexploited, marginal resources and uses the expression 'gas mining' in this context.
- Newfield prefers to own majority interest in its assets and to act as operator.
- Exploration drilling in China, Brazil and UK SNS.
- Management is currently stressing 'expansion' and 'size'.
- The company has just bought EEX for $743MM, another US based E&P with similar Us interest – the basis of the acquisition.
- Newfield participated in 145 wells in 2003, 52 of those were exploration wells, overall 31 were uncommercial.

Production



1P Reserves

220MMboe



Financial Summary

Capitalization

	($MM)	(%)
Debt	648	32%
Cash	15	1%
Net Debt	633	32%
Book Common equity	1370	68%
Total Book Capitalization	2002	100%

Historical Financials

(US$MM)	2003	2002	2001
Revenue	1018	662	749
Operating Costs	126	112	103
Net Income	199	74	119
EBITDA[1]	761	443	487
EBITDAX	948	557	596
Market Cap	2970		
Enterprise Value	3603		

1. Excludes capitalized interest

Metrics Used

- Operations
  Production and reserve growth data recorded over 5 year period.
- Financial
  Return on Equity/assets/capital employed
  EBITDA
- Valuation
  PE, price/cash flow
- Hedging
  details on volumes and prices
- Balance sheet
  EBITDA/interest, Debt/EBITDA, Debt/capitalization
  Ratios – quick ratio, current ratio
  Credit ratings with S&P, Moody's

Conclusion

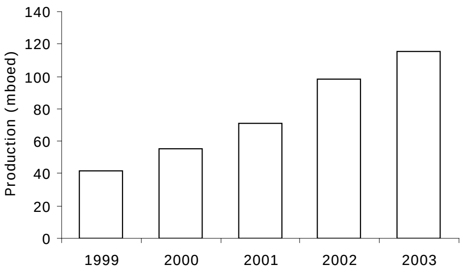
- Considering that the recent EEX acquisition included $348MM of assumed debt, Newfield is clearly using financial metrics that focus on the balance sheet and servicing of debt.
- The company also stresses the underlying source of cash flow, reserves and production growth, as a forward basis for covering debt.
- The company goes further in underlining the solid nature of domestic US production.
- The company is transparent about its hedging activities as further risk mitigation for protecting operational cash flow.
- Notably Newfield does not mention finding and development costs as the expense of reserve replacement.
- Reserve replacement costs for Newfield in 2003 were actually very high at $10.8/bbl
- Newfield is aware that the US reserve base is dwindling and uses exploration drilling as a mid term risk mitigation measure.

Pogo Producing Company

Company Summary

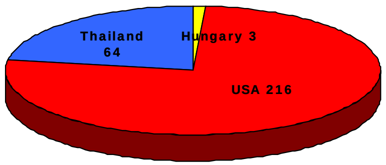
- New York Stock Exchange symbol PPP.
- Pogo Producing Company is engaged in oil and gas exploration, development, acquisition and production activities on its properties located offshore in the Gulf of Mexico; onshore in selected areas, including Texas, New Mexico, Wyoming and Louisiana, and internationally.
- The company is exploring in New Zealand as well as Hungary where it recently drilled a string of dry holes.
- Company slogan is *'Flare for Exploration'*.
- The company participated in 248 gross wells in 2003, 20 of which were exploration.
- Company strategy is production growth by:
  - acquisition of proven producing reserves.
  - drilling own leases for exploration.
- Pogo replaced 147% of 2003 production and 62% of the reserve replacement came through corporate acquisitions.
- Pogo bought North Central Oil in 2001 for $750MM, see case study on p35.

Production



1P Reserves

283MMboe



Financial Summary

Capitalization

	($MM)	(%)
Debt	487	28%
Cash	179	10%
Net Debt	309	18%
Book Common equity	1454	82%
Total Book Capitalization	1762	100%

Historical Financials

	2003	2002 (US$MM)	2001
Revenue	1162	755	610
Operating Costs	614	515	430
Net Income	291	107	88
EBITDA[1]	881	565	518
EBITDAX	956	616	586
Market Cap	2926		
Enterprise Value	3235		

1. Excludes capitalized interest

Metrics Used

- Operational
  - Average daily production
  - Proven reserve and reserve additions & growth
  - % production replaced
- Financial
  - Gross/ net profit margin
- Efficiency
  - Return on equity/assets/capital
- Liquidity
  - Current ratio, quick ratio, debt/equity and other leverage measures
- Valuation and Comparison to industry
  - PE
  - Price to book ratio
  - Price reserve

Conclusion

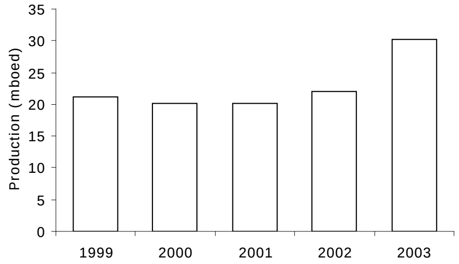
- Pogo pursues a strategy of solid reserve and production growth and replacement and as such makes reliance on operational and cash flow measures.
- The company appears to favor growth through the drill bit over high impact exploration through steady acquisition of proven undeveloped properties and the drilling of this inventory.
- The company does not stress F&D costs.
- 2003 F&D costs are actually high at $8.69/bbl but not as high as RRC costs at $10/bbl, the company is evidently better at drilling than buying.
- Pogo does relentlessly replace production but one has to ask 'at what cost?'.
- Pogo pays a dividend and has stressed an increase to the 2003 payment.

Cairn Energy

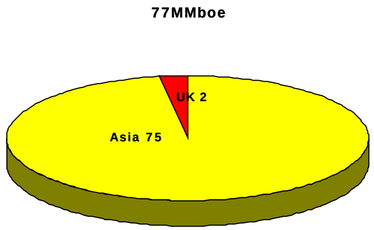
Company Summary

- Listed on the London Stock Exchange, CNE
- Cairn Strategy:
  - Create value through exploration
  - Secure high equity interests
  - Accelerate monetization of discoveries
  - Realize value at appropriate time and place
- Cairn Slogan – *'Our Edge'*
  Our edge is the ability to combine our commercial and technical expertise and experience to leverage value from material opportunities.
- In previous presentations Cairn has frequently referred to a 'Monetize and Harvest' strategy.
- Currently pursuing a high impact drilling campaign in Rajasthan, NE India.
- Market Capitalization currently reflecting potential upside from Rajasthan drilling and probably not underlying cash flow from other assets.
- 2003 capex was $147MM, forecast to be $192MM in 2004.

Production



2P Reserves



Financial Summary

Capitalization

	($MM)	(%)
Debt		NM
Cash	18	NM
Net Debt	(18)	NM
Book Common equity	342	NM
Total Book Capitalization	324	100%

Historical Financials

	2003	2002 (US$MM)	2001
Revenue	279	197	192
Operating Costs	126	96	110
Net Income	83	47	53
EBITDA	262	164	123
EBITDAX	362	200	261
Market Cap	3113		
Enterprise Value	3095		

Metrics Used

- Balance Sheet.
  - Debt free
  - Capital expenditure (historic and forecast).
  - Capex split by exploration/development/other.
  - Capex also split by geographical region.
- Operational
  - Drilling timetable.
  - Annual production (entitlement/equity) and geographic split.
  - realized oil and gas prices.
- Financial
  - Profit before/after tax (annual % increases)
  - Operating cash flow
  - Cost of sales (£/boe)
  - profitability
- Cash flow
  - Free cash flow ($/bbl) v cash costs

Conclusion

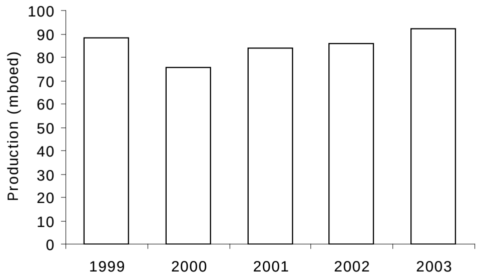
- Cairn Energy uses metrics that
  A - Stress the strength of underlying cash flow.
  B – Highlight profitability of cash flow.
  C – Indicate free cash flow available for exploration drilling.
- Cairn gives fairly detailed examples of its future exploration programme including reserve targets and ranges.
- Also gives details of the cost of exploration drilling going forward.
- Notably does not look at reserve replacement on a historic $/bbl basis (would likely be negative).

Noble Energy

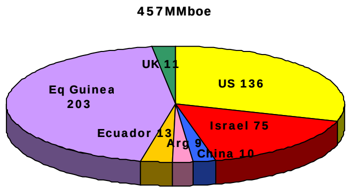
Company Summary

- Listed on the NYSE, symbol NBL.
- US E&P based in Houston. Some domestic production but significant cash flow from Equatorial Guinea and other international.
- Corporate slogan – '*Innovation to do more' and 'Transition'*
- Corporate strategy based on domestic US cash flow and international growth:
  - High grading assets.
  - focusing on exploration.
  - Expanding production.
  - Monetizing stranded gas.
  - Transitioning to a 'cash generator'.
- Short term targets are:
  - production growth.
  - Improving balance sheet.
  - Pursuing organic opportunities.
  - Lowering costs.
- Firm is actively managing its capital structure by reducing debt, increasing liquidity and repurchasing shares.

Production



1P Reserves



Financial Summary

Capitalization

	($MM)	(%)
Debt	776	43%
Cash	62	3%
Net Debt	714	40%
Book Common equity	1074	60%
Total Book Capitalization	1787	100%

Historical Financials

	2003	2002 (US$MM)	2001
Revenue	1011	703	790
Operating Costs	869	675	639
Net Income	78	18	134
EBITDA	500	338	486
EBITDAX	649	489	638
Market Cap	2774		
Enterprise Value	3488		

Metrics Used

- Long term measures
  - Total Shareholder Return (TSR)
  - Reserves growth/share, production growth/share
- Cost metrics
  - cash costs/bbl (2007 targets)
  - DD&A/bbl (2007 targets)
  - opex/bbl (2007 targets)
- Finance and Balance sheet
  - Discretionary cash flow
  - long term debt rating
  - Future capex (geography and discipline)
  - debt reduction targets
- Exploration targets & metrics
  - focus on results, not activity
  - Objective valuations as part of a peer review
  - priority on portfolio and focusing on areas of weak performance

Conclusion

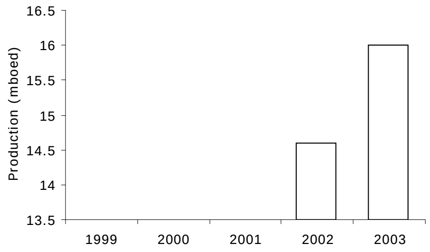
- Clearly Noble has performed poorly in the recent past and the slogan 'transition' indicates a movement to better times.
- The F&D costs of $10.74/bbl for 2000-2003 indicate a poor exploration track record.
- Debt has been high in the past ($1billion+) and is improving.
- The focus for Noble is on the fundamentals of making 'the most with less', e.g. trim the portfolio and grow from a better quality of core assets.
- Alignment to 'per share' metrics indicates a reconnection to the shareholder base.
- Exploration metrics call for rigid measures of success v failure and useful comparison to a peer group for reference.
- Focus for now seems to be on quality cash generation and cost reduction, rather than reserve growth.

Lundin Petroleum

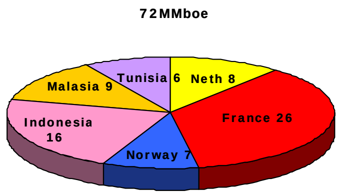
Company Summary

- Listed on the Stockholm stock exchange, symbol: LUPE.
- Relatively new offshoot of Lundin Oil, assets sold to Talisman in 2000 for $417MM and Lundin Petroleum created from the 'leftovers'.
- Major producing assets acquired from Coparex.
- Bought Coparex in 2002 for $160MM (55mmbl, assets in France Netherlands, Indonesia, Tunisia and Venezuela).
- Exploration in Iran and Albania.
- Recently acquired UK and Ireland production from DNO and this will add 70mmbbls to reserves (not shown on right).

Production



2P Reserves



Financial Summary

Capitalization

	($MM)	(%)
Debt	40	14%
Cash	0	0%
Net Debt	40	14%
Book Common equity	247	86%
Total Book Capitalization	286	100%

Historical Financials

(US$MM)	2003	2002	2001
Revenue	147	37	0
Operating Costs	81	27	0
Net Income	122	2	0
EBITDA	165	21	0
EBITDAX	183	27	0
Market Cap	1313		
Enterprise Value	1353		

Metrics Used

- Value Drivers mentioned
  - steady cash flow from diverse, low risk production
  - Strong assets with production growth from improved recovery
  - Exposure to growth from Iran, Indonesia, Norway, Faroese, France and Netherlands.
  - More acquisitions using a strong balance sheet, no debt and a track record of deals.
- Development & Exploration of existing assets + Exploration in basins with low risk + Acquisition of proven assets = GROWTH
- GROWTH = Shareholder value
- Operational cash flow (to measure impact of the UK acquisitions)

Conclusion

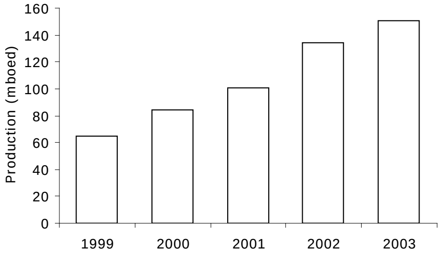
- Lundin has not been shy of a total makeover in the past
- The company is dominated by the Lundin family which owns more than 35% of the stock.
- What do they need to tell shareholders?
- The current strategy seems to involve an accumulation of low risk developed assets to provide cash flow for an international exploration programme in Iran, Europe and the Far East.
- Certain cash flow metrics feature in company presentations to measure the quality of the 'cash engine'.
- No exploration measures feature.
- But Lundin is known more for international asset and corporate deals.
- The best metrics in this situation would be examples of acquisition and disposal values on a $/bbl basis.
- This would demonstrate how the company adds value with 'the cheque book'.

Petrokazakhstan

Company Summary

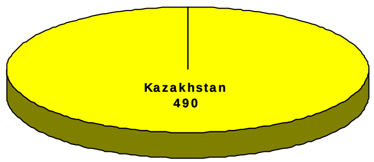
- Listed on NYSE, Toronto, Frankfurt and London exchanges, trading symbol PKZ.
- Engaged in the acquisition, exploration, development and production of oil and gas and the refining and sale of oil and refined products, exclusively in the Republic of Kazakhstan
- Production from major onshore Kazakh fields:
  - Akshabulak.
  - Kumcol fields.
  - Aryskum.
  - Kyzylkia.
- 460 wells in production.
- Company participated in 45 development wells and 5 exploration wells in 2003.
- The business is based on 'net back' per barrel.
  - 2003 net sales - $21.32/bbl.
  - net back $10.87/bbl.
  - transportation largest cost @ $7/bbl.
- Also owns the Shymkent refinery (340,000b/d) as part of a national 'control' strategy.
- 56% of reserve based is undeveloped.

Production



2P Reserves

490MMboe



Financial Summary

Capitalization

	($MM)	(%)
Debt	320	45%
Cash	185	26%
Net Debt	135	19%
Book Common equity	578	81%
Total Book Capitalization	713	100%

Historical Financials

	2003	2002 (US$MM)	2001
Revenue	1117	825	603
Operating Costs	642	553	358
Net Income	317	163	169
EBITDA	590	346	292
EBITDAX	616	359	302
Market Cap	2057		
Enterprise Value	2192		

Metrics Used

- Operational
  - production growth -realizations & crude discounts
- Costs
  - upstream cost reduction ($/bbl): (production costs + G&A).
  - downstream costs reduction ($/bbl): (Refining costs + G&A).
  - DD&A cost reduction ($/bbl).
- Cash flow
  - Cash flow/share
  - earnings/share
  - EBITDA
  - cash flow from operations
- Shareholder
  - ROACE growth
  - market capitalization growth (TSR)
  - PE comparables

Conclusion

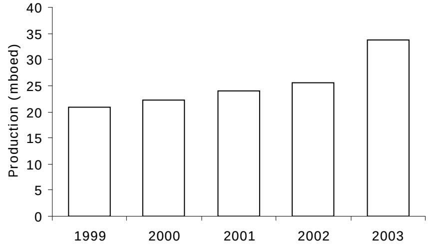
- Very much a cash flow story.
- Focus on profit margins from significant Kazakh production.
- Growth de-emphasized in favor of improved margins from cost cutting.
- Although F&D and RRC are world class ($1.25/bbl), these are not mentioned.
- Net income per barrel actually quite low.

Plains Exploration

Company Summary

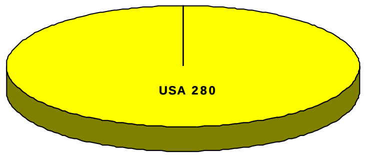
- Listed on NYSE, symbol PXP
- Company Slogan – '*Success in Plain sight*'.
- Houston based US domestic oil producer.
- Strategy based on assets in principal focus areas including mature properties with long-lived reserves and significant development and exploitation opportunities as well as newer properties with development, exploitation and exploration potential.
- Acquisitive strategy – acquired 3TEC Corporation for $313MM in 2003 and is just completing the acquisition of Nuevo Energy (will sell Congo assets of this company).
- US domestic focus in California, Texas and Eastern onshore.
- Participated in 164 wells in 2003, 10 of which were exploration.

Production



1P Reserves

280MMboe



Financial Summary

Capitalization	Plains only ($MM)	(%)
Debt	488	58%
Cash	1	0%
Net Debt	487	58%
Book Common equity	354	42%
Total Book Capitalization	841	100%

Historical Financials

(US$MM)	2003	2002	2001
Revenue	304	189	204
Operating Costs	200	124	98
Net Income	59	26	53
EBITDA	148	93	129
EBITDAX	157	173	129
Market Cap	1386		
Enterprise Value	1873		

Metrics Used

- Indicative well returns ;
  - well cost
  - production per well
  - reserve per well
  - post tax IRR per well
- Credit ratings
  - Debt/equity
  - Debt/EBITDAX
  - Debt/production

Conclusion

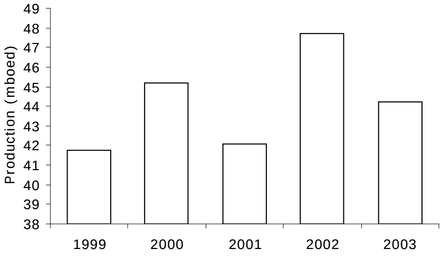
- Plains is a straightforward onshore US producer.
- The company appears to grow through acquisition of drilling inventory
- Metrics are straightforward – well indicators
- Borrowing was high following recent acquisitions but is improving.
- A focus on balance sheet metrics confirms this position.

Stone Energy

Company Summary

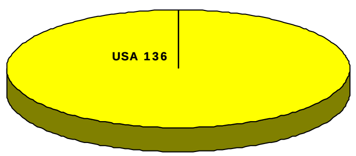
- Listed on NYSE, symbol SGY.
- Louisiana based Stone Energy is an independent oil and gas company engaged in the acquisition, exploration, exploitation, development and operation of oil and gas properties in the waters and onshore regions of the Gulf of Mexico and in several basins in the Rocky Mountains.
- Company slogan – *'Delivering Value'*
- Company strategy:
  - Primary area Gulf Coast Basin.
  - Mature properties.
  - Multiple productive sand type reservoirs.
  - Low producing assets with upside.
  - Need to control as operator.
- Balance Acquisitions v redevelopment v exploration.
- 'The Goal has no finish line!!!'
- Corporate culture of 'family values'.
- Participated in 44 wells in 2003, 24 exploration.
- Bought Basin Exploration in 2001 – see case study on p36.

Production



1P Reserves

136MMboe



Financial Summary

Capitalization

	($MM)	(%)
Debt	370	35%
Cash	17	2%
Net Debt	353	33%
Book Common equity	710	67%
Total Book Capitalization	1063	100%

Historical Financials

	2003	2002 (US$MM)	2001
Revenue	508	377	395
Operating Costs	282	272	476
Net Income	134	55	(71)
EBITDA	399	269	56
EBITDAX	575	355	233
Market Cap	1249		
Enterprise Value	1602		

Metrics Used

- Specific targets: reserve Growth, Reduced F&D costs, Reduce debt.
- Operational
  - Reserves/share and reserve replacement
  - Production/share
  - F&D costs/bbl and acquisition costs/bbl
  - acquisition costs
- Financial
  - cash flow/share
  - cash flow multiples
- Acquisition Criteria
  - Significant production history
  - low current production
  - existing infrastructure
  - multiple producing horizons
  - controlling equity interest
- Commodity Environment
  - High Oil Price: Payback debt
    invest in tech.
    Sell assets
  - Low Oil Price: Acquire assets

Conclusion

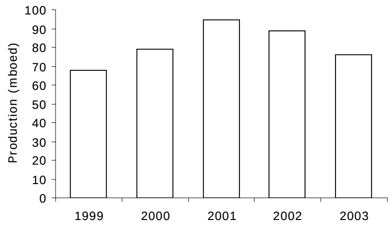
- 'Stodgy' US independent with 'steady as she goes' corporate philosophy.
- Likes to draw attention to acquisition criteria but has not made a significant acquisition since 2001.
- Stresses low current production of assets acquired but own production has not consistently increased from 1999 to present.
- Mentions balance of acquisition v appraisal but more than half wells drilled in 2003 were exploration.
- Useful points on strategy variation during periods of hi/lo oil price.
- Corporate presentations mention Stones' relatively low cash flow multiple – no surprise really.

Vintage Petroleum

Company Summary

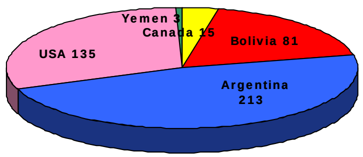
- Listed on the NYSE, symbol VPI.
- Operations primarily in the exploration and production, gas marketing and oil and gas gathering and processing segments.
- Company Slogan – *'Solid strategies, focused execution'*
- During 2001, the Company expanded its North American operations in Canada through the acquisition of 100% of Genesis Exploration Ltd.
- It has international core areas located in Argentina and Bolivia. In Argentina, it owns 21 oil concessions, 18 of which it operates.
- In Bolivia, it owns and operates three concessions in the Chaco Plains area of southern Bolivia, and the Naranjillos concession located in the Santa Cruz Province.
- The Company has exploration activities ongoing in Yemen, Italy and Bulgaria.
- Big stress on debt reduction, recently mentioned Canadian asset sale as part of this.
- Participated in 136 wells in 2003, 12 exploration

Production



1P Reserves

447MMboe



Financial Summary

Capitalization

	($MM)	(%)
Debt	700	66%
Cash	55	5%
Net Debt	645	60%
Book Common equity	422	40%
Total Book Capitalization	1068	100%

Historical Financials

	2003 [1]	2002 (US$MM)	2001
Revenue	756	664	885
Operating Costs	1,086	809	690
Net Income	(241)	(144)	134
EBITDA	(99)	74	433
EBITDAX	(24)	117	455
Market Cap	1036		
Enterprise Value	1681		

1. 2003 includes $370MM impairment charge

Metrics Used

- Exploration
  - Number of prospects.
  - Unrisked reserve potential.
- Financial Targets
  - Production 74kboed
  - Dev Capex - $225MM
  - EBITDAX - $385MM
  - Cash flow - $203MM
  - G&A and DD&A unit targets
- Operational
  - 3 year F&D
  - Proven Reserves
  - Annual Production
  - Production cost/bbl
- EBITDAX: (non GAAP measure) measures net income and cash from operations as the ability to fund internally, exploration and development activities and to service debt:

  EBITDAX=
  Net income+ tax + interest + DD&A + impairment + exploration cost + currency (loss)/gain + acquisition/disposal (loss)/gain + other non cash

Conclusion

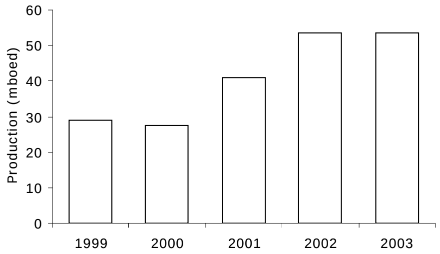
- Clearly the company is underperforming on reserve replacement, production growth and profitability.
- The company has set minimum financial targets to get back on track.
- The company shows its historic F&D costs as a metric as a basis for investors to see how the company may add future reserves at a relatively low cost, compared to peer companies.
- A key metric used in presentations by Vintage is EBITDAX but with so few exploration wells drilled it is difficult to see the benefit.

Premier Oil

Company Summary

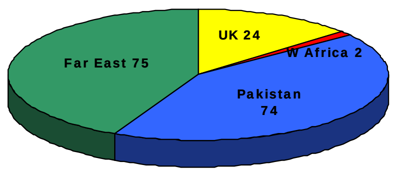
- Listed on the LSE, symbol PMO
- Recently 'reinvented' after the departure of joint major shareholders Petronas and Hess.
- Geographic focus in UK/West Africa/SE Asia.
- Most production from West Natuna, Wytch Farm and Quadirpur.
- Recent entry in to Africa through Farm-in deal with Fusion (now Sterling).
- New slogan *'Exploration led Commercially driven'* makes obvious the new strategy.
- Specific targets include:
  - Leveraging Premier's skills in exploration and commercial deal-making.
  - Maintain base production at between 30,000 - 50,000 boepd.
  - Realise early value and acceptable levels of debt by selling or reducing the Company's interest in projects.
- Africa and Asia are the current exploration focus
- Company looking for ways to return cash to shareholders (dividends, buybacks).

Production [1]



2P Reserves [1]

175MMboe



[1] Equity interest shown, entitlement is 155MMboe

Financial Summary

Capitalization

	($MM)	(%)
Debt	101	27%
Cash	109	29%
Net Debt	(8)	NM
Book Common equity	389	NM
Total Book Capitalization	381	100%

Historical Financials

	2003	2002 (US$MM)	2001
Revenue	328	356	299
Operating Costs	156	192	174
Net Income	73	40	36
EBITDA	258	277	239
EBITDAX	313	340	275
Market Cap	763		
Enterprise Value	755		

Metrics Used

- Solid & diverse Reserves + Manageable Develop Costs + Ungeared B/S = Sustainable Growth
- Profitability Metrics
  - Turnover
  - Operating profit and Net Profit
  - Operating cash flow
  - Operating cash flow covers exploration expenditure x4
  - Interest cover x 8.5
- Operating Metrics
  - Production by field (work int.)
  - Reserves by location.
  - Reserves by oil/gas split.
- Exploration
  - Extensive asset descriptions
  - detailed drilling schedule
- Balance Sheet Metrics
  - Zero debt from £417mm debt end 2002 (80% gearing)
  - Development capex v exploration capex
- Portfolio Metrics
  - Low reserves/production ratio
  - Managing Risk
  - realising Value

Conclusion

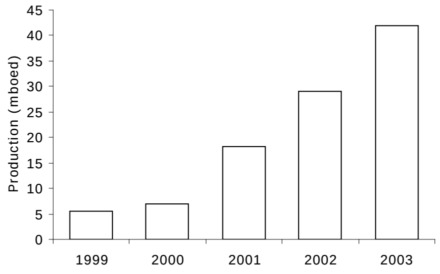
- Striking contrast to the Premier of 2 years ago with 100% gearing and multiple project delays.
- Today's Premier uses a suite of cash flow multiples with the sole purpose of demonstrating the ability to support an ambitious exploration programme.
- Company is explicit about maintaining an almost static production base as a basis for exploration & appraisal funding (similar to Cairn).
- Strategy also points to the 'cycling' of asset interest, once proven commercial.
- Production & reserve metrics point towards the future (in the past reserves & production were higher – pre restructuring)
- Targeting a lower R/P ratio in the portfolio must mean monetizing reserves held in the portfolio through production.
- Slightly cheeky use of working interest reserves and production throughout reporting in preference to entitlement interest may mid lead some investors.

Paladin Resources

Company Summary

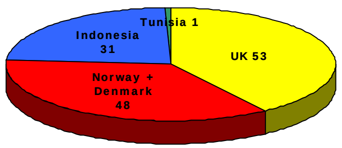
- Listed on the LSE, symbol PLR
- Previously known as Pittencrieff Resources plc but changed its name following the introduction of the ex-Clyde Petroleum management team into the company in September 1997.
- Uses the slogan '*International Scavenger*' by being the counter party of choice for oil majors selling immaterial assets.
- Started out with interest in Easy Summatra and the Bittern field in the North Sea.
- Grown through an acquisitive strategy.
- Now a production focused company with majority of reserves in the North Sea.
- Exploring in Tunisia and Denmark.
- Set LT targets to achieve 100,000boe/d and 250MMboe reserves by 2008.
- Current focus on relatively big capex programme with development of the 'Monarb' assets (£70MM 2003, £75MM plan for 2004)
- Acquired assets from BP in 2003 for £113MM
- Started paying dividends in 2002, 2003 dividend paid 1.575p/share.

Production



2P Reserves

133MMboe



Financial Summary

Capitalization

	($MM)	(%)
Debt	188	42%
Cash	2	1%
Net Debt	186	41%
Book Common equity	264	59%
Total Book Capitalization	450	100%

Historical Financials

	2003	2002 (US$MM)	2001
Revenue	480	305	187
Operating Costs	308	176	109
Net Income	51	36	19
EBITDA	270	182	114
EBITDAX	288	189	121
Market Cap	696		
Enterprise Value	882		

Metrics Used

- 'Post acquisition capex is the key driver for added value' (2003 Results)
- Profitability Metrics
  - Turnover and movement in turnover
  - Profit before tax
  - cash flow from operations
  - EPS + EPS growth
- Balance Sheet metrics
  - Movement in net debt
  - Capex breakdown – exploration v development
- Operational
  - oil and gas annual production and annual production growth
  - YE reserves, reserves by location and reserve growth
  - Reserves split by in production v in development
  - oil v gas mix in reserves
  - lifting costs per BOE

Conclusion

- Paladin is acknowledged as a tight knit management team focused on deal making at the asset level and this is how the company has successfully grown.
- The company has a good track record of deal making but there is little evidence of this in company communications.
- Most of the company communications are heavily biased towards asset information with surprisingly little data on financial metrics.
- It is easy to see from company data what the size of the resource base and how much it is producing but you have to look harder to see reserve replacement costs and profitability per barrel.
- The company is also quite highly geared but there is little 'packaged information' on gearing and debt.
- Instead, Paladin appears to want to draw attention to the volumes and production as a proxy for cash flow to provide interest cover.
- With the Monarb assets Paladin is an Operator for the first time and it will be interesting to see how the company copes with this and the relentless pursuit of its growth targets.

Peer Group Analysis - I

Summary Table of Peer Group Metrics Analysis

	Category	Metric	Newfield	Pogo	Cairn	Noble	Lundin	Petrokazakhstan	Plains	Stone	Vintage	Premier	Paladin	TOTALS
Financial Structure	Operating Performance	Return on Assets	●	●	●									3
		Return on Equity	●	●	●									3
		Total Shareholder Return			●	●		●						3
		Return on Capital employed	●	●	●			●						4
	Liquidity	Current Ratio	●	●	●									3
		Quick Ratio	●	●	●									3
	Financial Strength	Interest Cover	●	●	●							●	●	5
		Debt to Equity	●	●	●	●			●	●			●	7
		Net Debt			●	●				●	●	●	●	6
	Cash Flow	Discretionary cash flow				●								1
		Free cash flow			●									1
		Operating cash flow	●		●		●	●		●	●	●	●	8
		EBITDA	●	●	●		●	●		●		●		7
		EBITDAX		●		●			●		●			4
	Corporate Valuation	EPS/CFPS	●	●	●		●	●		●			●	7
		PE	●	●				●						3
		Price/CF	●											1
		Price/Book		●										1
		Price/Reserve		●										1
Exploration & Reserve	Asset Base	Oil and Gas Reserves	●	●		●	●	●	●	●	●	●	●	10
		Reserve growth	●	●		●		●	●	●	●	●	●	9
		Reserves to Production										●		1
		Reserve Replacement Rate		●						●	●			3
		Capital Expenditures	●		●	●					●	●	●	6
	Efficiency Metrics	RRC costs								●	●			2
		F&D costs								●	●			2
		Upstream Earnings												
		Net Income per BOE			●	●		●			●		●	5
		Recycle Rate												0
		Production measures	●	●	●	●	●	●	●		●	●	●	10
		Production Growth	●		●	●		●	●		●	●	●	8
		Hedging details	●						●	●	●			4
		Drilling timetables			●							●		2
		Crude Pricing						●		●				2

Main Observations

- The summary metrics on the preceding pages have been summarized in the table on the left.
- The metrics selected for inclusion in the table are those ranked as a 1 or 2 in the metric listing on page 7.
- It should be noted that the Metrics selected for each company are based on the following criteria.
  - Metric appears as main feature in company presentations and annual reports.
  - The list is not exclusive but shows the **primary** metrics favored by the companies.
- There are 12 Metrics used by more than half of the Peer Group companies:
  - Interest Cover
  - Debt to Equity
  - Net Debt
  - Operating cash flow
  - EBITDA
  - EPS/CPS
  - Oil & Gas reserves
  - Reserve growth
  - Capital expenditures
  - Net income per BOE
  - Production Measures
  - Production Growth
- This list of 12 should be considered as the starting point for the formulation of a short list of metrics to be applied to New Tullow, subject to further analysis.

Peer Group Analysis - II

Summary Table Showing Common Metrics

Commentary on Final Metrics

		Metrics	Commentary on Final Metrics
Financial Structure	**Operating Performance**	*Total Shareholder Return* *ROACE*	Added back as important measures of real market returns and to reflect the popularity of ROACE with shareholders.
	Liquidity		Short term liabilities are less of a concern to investors than the very much greater long term liabilities associated with capital expenditures, therefore no indicators required.
	Financial Strength	Interest Cover Debt to Equity Net Debt	Reflects the constant corporate vigilance required on borrowings backed by sufficient cash flow cover, which is in turn, a function of oil price and production volumes.
	Cash Flow	Operating cash flow EBITDA *EBITDAX*	Added back to the analysis as New Tullow is likely continue with a significant exploration programme, making EBITDAX a better reflection of cash flow available for debt obligations. Operating cash flow is included as a measure of the efficiency of upstream operations.
	Corporate Valuation	EPS/CFPS	One of the most widely used measure of corporate profitability. Also takes account of corporate takeover activity and therefore of particular interest to long term holders of Tullow Oil following the Energy Africa takeover.
Exploration & Reserve	**Asset Base**	Oil and Gas Reserves Reserve growth Capital Expenditures	Exploration & Reserve Metrics dominate in the peer group analysis. Reserve statements and reserve growth, together with the capital expenditure required to extract reserve are a vital part of oil company metrics.
	Efficiency Metrics	Net Income per BOE Production measures Production Growth	Net income per barrel and other 'per barrel' metrics such as DD&A, lifting costs, operating cost and production costs per barrel allow shareholders to make useful comparisons between regions and between companies. Production and production growth remain fundamental to Oil Company reporting as the most basic indicator of fundamental operational 'health'.

Peer Group Analysis - III

Application to New Tullow

	Sub Category	Metric	Relevance to New Tullow
Financial	**Operating Performance**	Total Shareholder Return & ROACE.	Absolute measures of return favored by larger funds.
	Financial Strength	Interest Cover	Particularly relevant to New Tullow in post merger environment of short term higher leverage.
		Debt to Equity	Universally used by investors as an indicator of financial strength. Relevant to new shareholders.
		Net Debt	Used by many analysts as part of NAV calculations.
	Cash Flow	Operating cash flow	Good indicator for Tullow of the quality of the operational base, particularly in the UK.
		EBITDA	Useful measure of cash flow reflecting large restructuring, capital expenditures or acquisition costs.
		EBITDAX	Adds exploration expense to the above, useful for Tullow in the next few years.
	Corporate Valuation	EPS/CFPS	Per share data always relevant to larger shareholders.
Operational	**Asset Base**	Oil and Gas Reserves	Best expressed as 'Entitlement' as opposed to 'Equity' otherwise cash flow from relatively larger reserve base will start to look inadequate.
		Reserve growth	Will truly reflect the rapid growth of Tullow since 1999, on an historic basis.
		Capital Expenditures	Best expressed in all forms - development, exploration and by geography.
	Efficiency Metrics	Net Income per BOE	Per barrel metrics from cost (cash and non cash) can be usefully expressed for global Tullow operations to show relative strengths and weaknesses.
		Production measures	Strong production from UK assets will demonstrate the underpinning of the rest of the portfolio.
		Production Growth	Anticipated growth from west Africa should be broken out here.

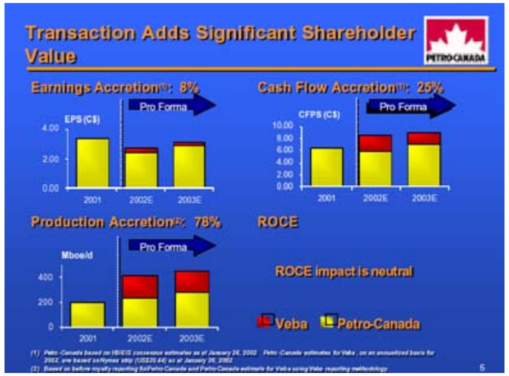
Case Studies

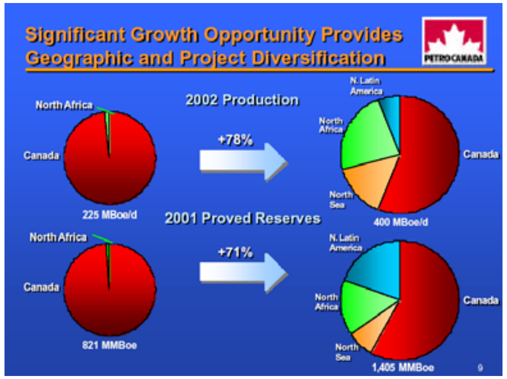
Case Study Methodology

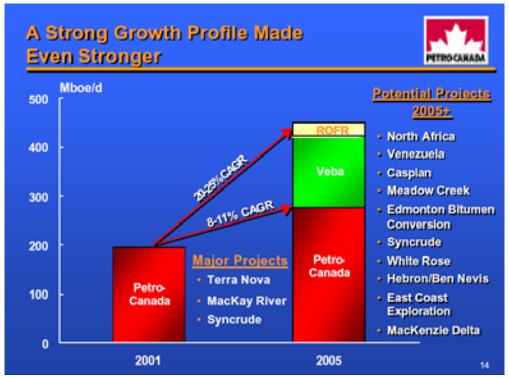
Introduction

- The purpose of this section is to look for upstream companies that have acquired or merged with other upstream companies within the last 5 years, to see if there are points to be gleaned from:
  - How the mergers were publicized to the wider market.
  - What, if any, were the metrics used by the companies as part of these communications.
  - How and why did the companies merge.
  - Learn from specific quotes made by management.
- Certain companies have been selected either because:
  - The resulting merged company was at least 50% bigger than before the merger.
  - The assets were acquired in diverse international locations.
  - Some of the assets may have been in West Africa.
- The companies considered are:
  A. Petrocanada – Veba
  B. Pogo – North Central
  C. Stone – Basin Exploration
  D. Amerada Hess – Triton (for specific example of the Equatorial Guineas asset treatment only)
- Pogo and Stone have been selected as they form part of the New Tullow Peer Group.

A. Petrocanada – Veba Acquisition







Source: Petrocanada

General Commentary on Merger

- In January 2002 Petrocanada acquired Veba from BP for a reported $2002MM, paying $3.44/boe for 583MMboe of reserves. The Companies Chief Executive commented:

  "We seized a rare opportunity to acquire a business of superb quality," said Petro-Canada President and Chief Executive Officer Ron Brenneman. "For some time now, we have been evaluating international prospects to complement and build on our strong position in every major oil and gas play in Canada. The challenge has been to find sizeable assets that are geographically concentrated, that fit well with Petro-Canada's strengths and expertise, and that have both current production and strong growth potential. This deal is an excellent fit for us - it positions Petro-Canada in some of the world's most prolific and high-potential petroleum basins, its size is significant but manageable, and it adds significant value for shareholders."

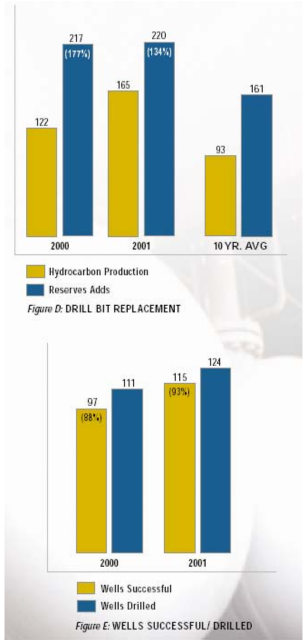
- The acquisition was funded by cash and an underwritten debt facility
- PetroCanada had been searching for International long term growth after reaching capacity in home Canadian markets.
- The screening criteria used for the acquisition were:
  - Must generate value for shareholders.
  - Contain a portfolio with significant assets in a few areas.
  - Assets should play to the company strengths.
  - Assets should have strong production with development upside.
  - Petrocanada should be confident in valuation and risk quantification.
- Petrocanada 'sold' the acquisition of Veba to its shareholders based on the following metrics:

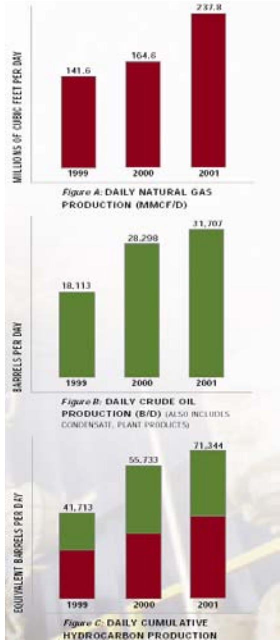
GROWTH
- Increase reserves by 71% and production by 78%
- Broken down on a near term and long term basis

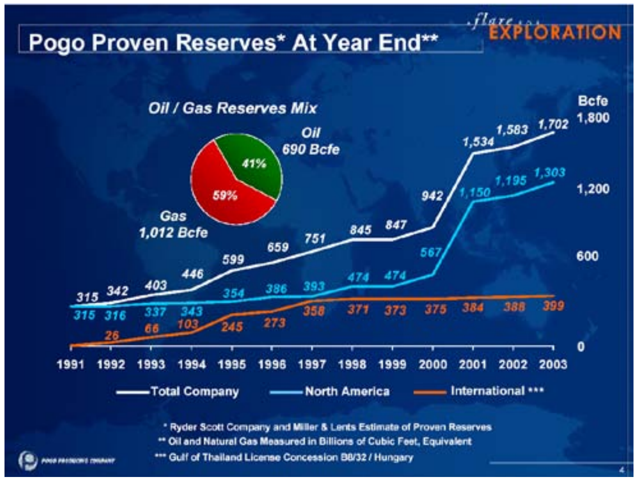
EXPERIENCE
- Identified depth of experience and local management knowledge and 'know how' in each geographical area.

METRICS
- Discussed inventory of exploration and appraisal potential in North Sea, Denmark, Faroes and Libya
- Proforma financial for operating earnings, EBITDA, cash from operations and Capex.
- Balance sheet proforma – cash, debt, shareholders equity, total capita, debt, debt/equity.
- Valuation metrics based on purchase price such as cash flow multiple, $/bbl reserve based multiples on proven and proven + probable reserves.
- Shareholder Value measures such as earnings, cash flow and production accretion (see top chart)

B. Pogo – North Central





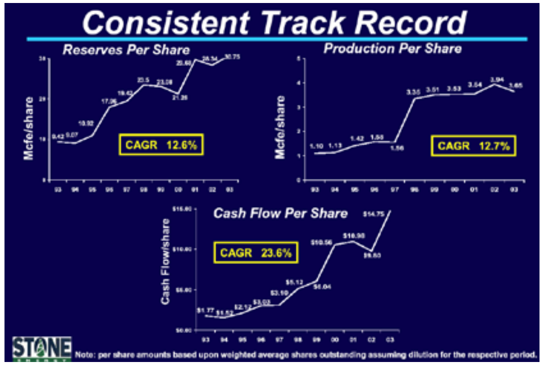


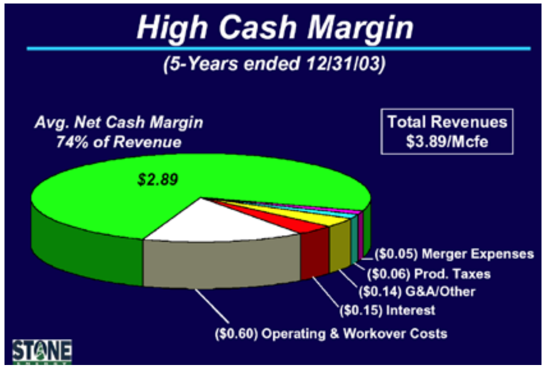
Source: Pogo Producing

General Commentary on Merger

- In 2001 Pogo acquired the North Central Oil Corporation for $750MM including debt of $120MM, paying $7.61/bbl for 88.7MMboe.
- The deal was made with 50/50 cash and shares.
- The Pogo Chairman said the transaction would enable a number of key objectives such as:
  - Enhancement of the Companies North American natural gas position.
  - North Centrals' assets in South Texas, Louisiana, the Gulf Coast and the Rockies would complement Pogos' North American assets well.
- Pogo forecast savings to G&A expenses of 40% as a result of the deal.
- The Pogo strategy at the time was to:
  - Increase production, earnings and cash flow
  - replace and expand reserves
  - Maintain appropriate debt and interest and control costs.
  - Expand exploration and production into new and promising areas.
- The blue chart on the bottom left shows how Pogo expressed year end reserve growth in a distinct graphical fashion. It also shows how poorly the international business has faired.
- In documents published at the time, Pogo stated its reasons for the merger as:
  - An excellent property fit with Pogo.
  - North Central had longer lived USA assets and a bias towards gas.
  - North Central was majority holder and operator in most of its assets.
  - Pogo shareholders would retain approximately 74%-78% of equity.
- Metrics and Measures discussed at the time of the merger included summary historical data
  - Income (EBITDAX) /cash flow/ balance sheet
  - EBITDAX was defined as the 'ability to service debt' as opposed to……… Operating income which was defined as 'efficiency of operations' and Operating cash flow which was defined as 'measure of liquidity'
  - Production & reserves
  - Standardized measure of discounted cash flow valuation.
- Risk Factors mentioned included:
  - The number of Pogo shares issued was not fixed.
  - Share price may have declined after the merger.
  - Pogo may have had difficulty in merging the acquired business.
  - Following the merger Pogo may have been overleveraged.
  - There may have been a high tax liability after the merger.
- Other Operational metrics used by Pogo after the merger are shown top left showing:
  - Production & reserve growth
  - Exploration success
  - Reserve replacement

C. Stone – Basin Exploration



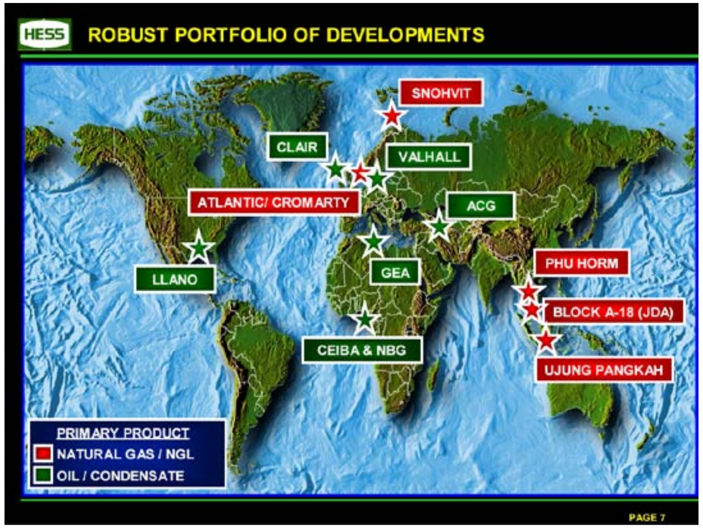


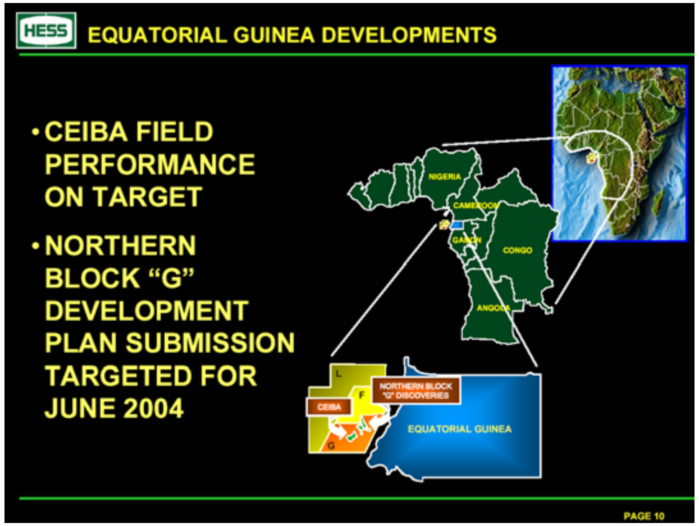
General Commentary on Merger

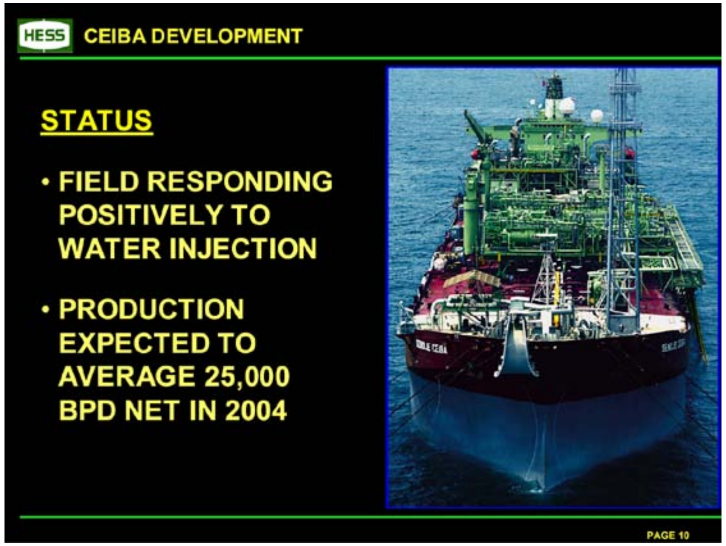
- In January 2000 Stone acquired Basin Exploration for $465MM including debt. Stone paid $12.29/boe for 35MMboe proved reserves, the high multiple implies there may have been more exploration.
- Stone CEO, Peter Canty, said at the time: *"Basin will provide Stone with identified reserves and significant, defined upside drilling potential. We are confident that our combined cash flow, along with the enhanced inventory of high quality drilling opportunities this combination creates, will yield impressive growth."*
- Stones strategy is summarized top left as a focused (USA) reserve growth through exploration & exploitation, funded by free cash flow.
- Stone sold the merger to shareholders with headline numbers such as
  - Increase reserves by 54% and production by 50%.
  - Expanded drilling inventory by 50%.
- Certain risk factors were spelt out to shareholders ahead of the merger:
  - Uncertainties in integrating the business.
  - Significant charges and expenses incurred as a result of the merger (broker fees etc).
  - Certain terms in Stones Certificate of Incorporation may have encumbered the merger.
  - Management of both companies may have had certain conflicts of interest.
- Stones reasons for the merger were listed as:
  - Increased financial strength, critical mass and scope.
  - Expanded prospect portfolio (implied by $12.29/boe above) and expanded 3-D seismic inventory.
  - enhanced reserve growth potential.
  - Predictable cash flows from hedging programme.
  - Increased geographical and risk diversity.
  - Leverages on existing expertise and infrastructure.
- Basin (the aquiree) described the merger as:
  - Creation of a larger, better capitalized company.
  - Larger market capitalization and liquidity.
  - Risk reduction and enhancement of diversification.
  - Complementary assets.
  - Stronger proforma financial profile.
  - Complementary assets.
  - Synergies created by the merger.
  - Combined technical expertise of the two firms greater combined than stand alone.
  - Tax neutral if accounted for as a 're-organization'.
- Metrics used to articulate the benefits of the merger included:
  - Projections on proforma reserves, production, cash flow, earnings and capex.
  - Reserves/production/cash flow per share growth (as shown middle left).
  - Profitability of cash flow shown by pie chart on the left in a 'net back' format.
  - Peer group analysis for financial information, ratio's and market multiples.
  - Comparable transactions and comparable multiples.
  - Proforma EPS, balance sheet, P&L and cash flows.

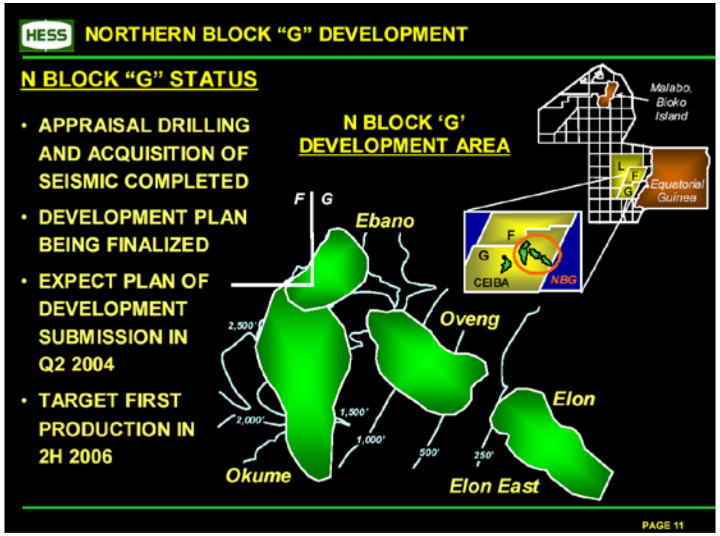
D. Amerada Hess Ceiba

Slides taken from recent (May 2004) Analysts Presentation









- These slides taken from a recent Amerada Hess presentation to Analysts show how Hess wants the Equatorial Guinea (EG) assets to be perceived by the markets.
- Clearly Hess wants the EG assets to be seen as a significant part of its global portfolio as shown by slide 1.
- Hess also wants to show that the project (and hence later cash flows) are on-time.
- They also discuss the remedial action on water injection as 'going to plan'.
- And are starting to hint of the further 'upside' offered by N Block G.

Case Study Conclusions

Main Points

- Unsurprisingly – The common reason for wanting to merge/takeover other upstream companies is to grow the reserve and production base.
- Some intentionally buy undeveloped reserves to apply own operations whilst other stress the gains in proved producing reserves to the production of existing portfolios.
- There is particular emphasis on the management of Capital structure and debt following an acquisition and an 'underlining' of the quality of the acquired cash flows as a source of servicing debt.
- There is a common theme on the acquisition of goodwill, in the form of acquired expertise and experience with the acquired staff and management teams.
- This appears to be particularly relevant when an international group of assets is acquired.
- The most popular metrics are those that offer pro-forma reserves and production.
- Risk mitigation through expansion of a portfolio is another common point made to shareholders.
- USA companies appear to be required by the SEC to outline 'what could go wrong' with the merger.
- The Common SEC requirements observed by Hulf Hamilton are summarized below:

  - Acquisition, Production & Drilling data
  - Productive well and acreage data
  - Drilling activity
  - Acquisition, Development and Exploration costs
  - Summary financials
  - Management discussion and analysis of financial conditions & results
  - Operations
    - production
    - realization & prices
    - DD&A and other unit costs
    - Revenues
    - Expenses
  - Liquidity and capital Resources
    - working capital
    - capital expenditures
    - Merger discussion
    - budgeted capex and long term financing
    - Hedging
    - Bank credit facilities
  - Regulatory and litigation
  - Full Accounts

Environmental Metrics Summary

Tullow Current Practice

- Based on the 2003 Annual Report, Tullow currently reports under the following headings:
  - 'Environmental Health & Safety' Commentary on the environmental and HSE aspects of operations.
  - 'Safety' Lost Time Incident record.
  - 'Health' Related to employee general health.
  - 'Environment' Report on no negative impact on environment and conformity statements to ISO4001 & Lloyds Quality Assurance.
  - 'Atmospherics' EU Emissions statement
  - 'Crisis & Emergency Management' Statement on reactive team set up.

Peer Group Practice

- Our brief examination of the websites and annual reports of Peer Group companies shows that these companies take a similar approach to Tullow in making summary statements about achievements and adherence to minimum standards.
- We also looked at larger E&P companies and found that it is not until a company is of the size of a 'Woodside, Talisman or CNRL' that specific policy statements are made. A few examples of the specific policies of these companies are shown below.

The Woodside Group of Companies

Environmental Policy

General Policy Objectives

Woodside is an oil and gas exploration and production company. Our vision is to provide for society's energy needs in ways that make us proud. While recognising that the world's hydrocarbon reserves are finite, we share the desire of the community to develop these resources in ways that meet the needs of the present, without compromising the environment for future generations.

At all stages of our business, we plan and perform activities so that adverse effects on the environment are avoided or kept as low as reasonably practicable.

Strategies

To implement this Policy we will:

- Delay or stop activities where effective environmental controls are not in place.
- Comply with all applicable laws and regulations while aspiring to higher standards.
- Apply responsible standards where laws and regulations do not exist.
- Apply and demonstrate a systematic approach to environmental management to ensure compliance and achieve continuous performance improvement.
- Set and regularly review environmental objectives and targets.
- Strive to prevent pollution, and seek improvement with respect to emissions, discharges, wastes, energy use, resource consumption and ecological footprint.
- Monitor the effects of our activities on the environment and take action to address effects where necessary.
- Openly communicate our environmental performance with our workforce, Government and the wider community.
- Foster a culture that empowers and rewards everyone to act in accordance with this Policy.

HSE Policy

TALISMAN ENERGY

HSE Policy and Objectives:

Excellence in occupational health, safety, and environmental standards is an essential part of achieving efficiency and profitability in the oil and gas business. Talisman Energy will therefore work at continuous improvement in these areas and will be guided by the following principles:

Provide Safe and Healthy Operations

Talisman Energy will strive to create a working environment where accidents will not occur and in which employees, contractors, and the public are not exposed to health hazards. Employees and contractors will be trained in workplace health and safety and encouraged to adopt a healthy lifestyle.

Continuous Improvement of the Company's Environmental Performance

Talisman Energy will protect the environment by working to minimize the impact of its activities. The Company will strive for continuous improvement in environmental performance through effective project planning and implementation, emission reduction and waste minimization, careful waste management, and energy conservation.

Respect the Interests of Neighbors and Other Stakeholders

Talisman Energy will communicate openly with those who live and work in the vicinity of its facilities to ensure their clear understanding of Company operations and the Company's understanding of their concerns. Talisman Energy will participate actively with governments and the public in resolving health, safety, and environmental issues associated with the Company's development plans and operations.

Talisman Energy will ensure that internal programs and planning processes fully support this Policy. Health, safety, and environmental performance will be monitored regularly and reported to the Board of Directors of the Company.

Occupational health, safety, and environmental protection are responsibilities shared by every Talisman employee.

Jim Buckee
President and CEO

CNR CANADIAN NATURAL RESOURCES LIMITED

CORPORATE STATEMENT ON ENVIRONMENTAL PROTECTION

June 2002

Environmental protection is a fundamental value of Canadian Natural Resources Limited (CNRL). The Corporation recognizes that every employee and contractor has a vital role to play in achieving environmental protection. The company's management will lead in the implementation of this policy. CNRL's management commitment will be incorporated into business activities through the following guiding principles:

- Ensure all employees and others engaged on CNRL's behalf are aware of the need and informed of the requirements to protect the environment;
- Determine, evaluate and mitigate the environmental impacts of CNRL's business during project planning, exploration, drilling, construction, operations and decommissioning;
- Communicate with members of the public regarding CNRL activities;
- Ensure that CNRL operations comply with government regulations, industry guidelines and company policies and procedures concerning the protection of the environment and public;
- Ensure appropriate waste and emission management programs are developed and implemented; and
- Use energy and other resources efficiently at CNRL operations.

CNRL's management will be responsible for developing specific operational procedures and standards that are consistent with this policy and are accountable for the maintenance, regular review, and interpretation of this policy. CNRL expects its suppliers, partners and business associates to have compatible environmental procedures and values.

Corporate status reports will be presented regularly to the Board of Directors.

Allan Markin
Chairman

John Langille
President

Shareholder Analysis

Shareholders Introduction

Purpose

- The purpose of this Section is to identify generic shareholder groups from the preceding analysis that could be potential shareholders in New Tullow.
- We will attempt to summarize the expectations of this group of shareholders in terms of peer group performance and preferred measurements of performance in relation to New Tullow.
- We will carry out a high level ‘Current State – Future State’ analysis of shareholder groups and draw conclusions from this.
- Some of our analysis and conclusions draw on a Global Survey of shareholder attitudes to the Oil & Gas sector published in 2002 by Ernst & Young – the work was carried out by Richard Hulf, then an employee of Ernst & Young, now a Director of Hulf Hamilton.

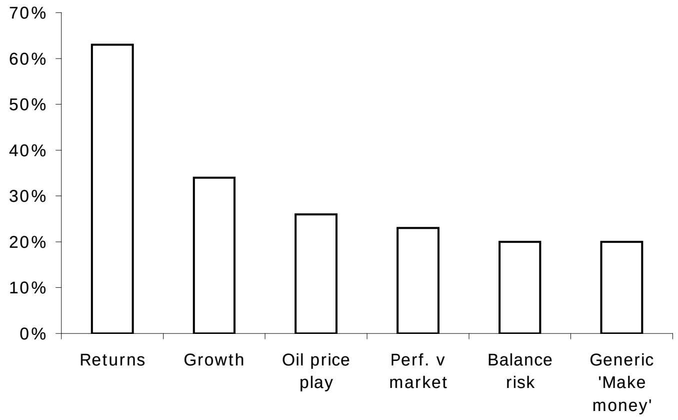
Methodology

- EXPECTATIONS – Based on discussions with small sample of UK investors and from Ernst & Young survey, for Global view points.
- CURRENT STATE – FUTURE STATE- Based on data from:
  - Morning Star (On line funds listing)
  - FT.com (UK financial journal)
  - Big dough (Fund Managers specialist web site for investor news)
  - Factiva.com (Reuters based news service)
  - SEC 13F documents
  - Hulf Hamilton databases of shareholders and contacts
- CONCLUSIONS – The ‘Future State’ analysis is based on those funds that appear more than once in each of the ‘Current State’ and ‘Inputs’ categories.

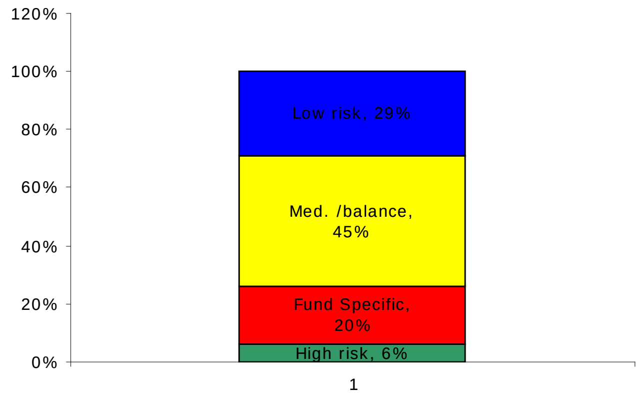
Shareholder Expectations

The Following Results are taken from '2002 Ernst & Young Oil & Gas Investor Survey'[1]

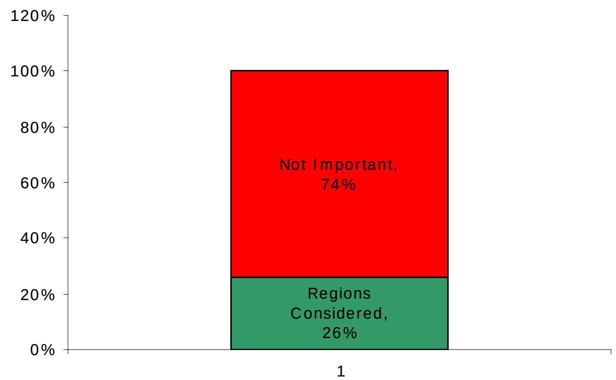
What are the key objectives you aim to achieve by investing in the oil and gas sector (note multiple responses)?



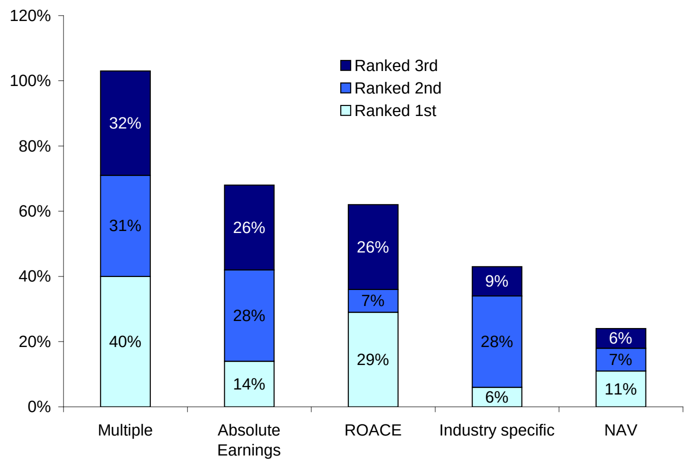
What is your attitude to risk in your fund?



What is the regional split of your fund?



What are the 3 key measures you use to assess oil & gas companies?



Source: Ernst & Young

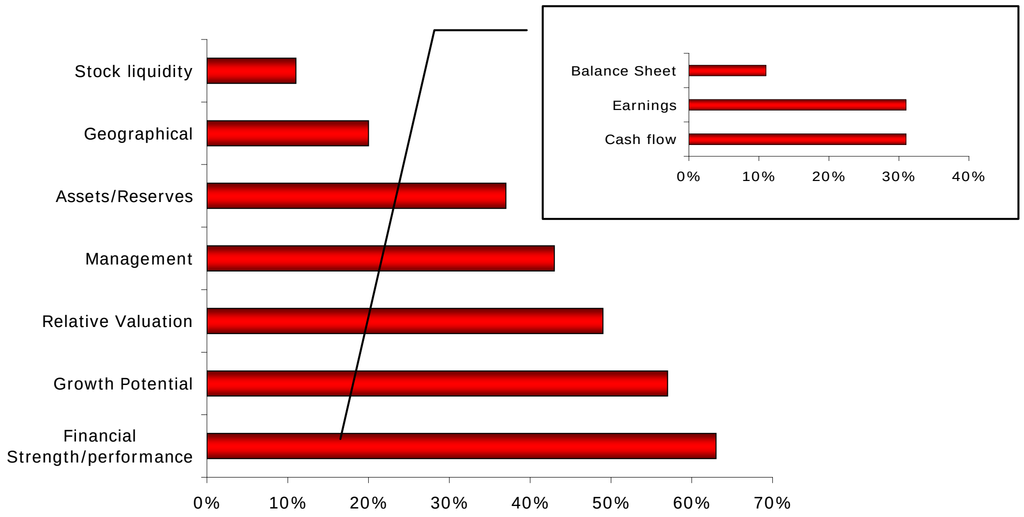
Observations

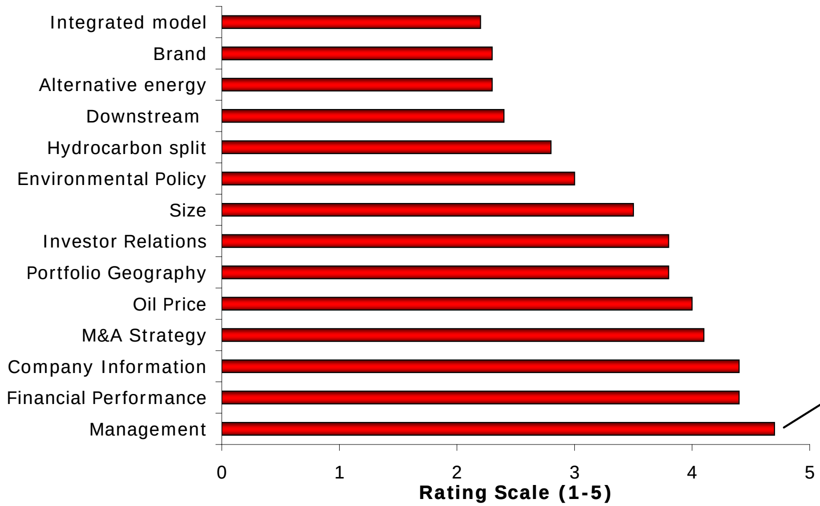
- Unprompted, investors in the oil and gas sector rank Financial Returns above all other investing criteria.
- Most funds investing in oil and gas are looking for companies with medium risk/reward profiles.
- The geographical split of a companies oil and gas portfolio is not as important as the returns that portfolio generates.
- The majority of Fund Managers ranked price 'multiples' (EV/ebitda, EPS/CFPS etc) above other company measures.
- Nearly a third of Fund Managers ranked ROACE as a major measure of company performance.
- Net asset values were the least favored company measures.
- Some industry specific measures like F&D costs were ranked as important 'second measures' along with absolutes earnings and cash flow data.

[1] Published by Ernst & Young in 2002, 35 respondents from Global Energy Funds in Europe and the US were interviewed with a set questionnaire.

Shareholder Expectations

Stock and Company Selection Criteria





Source: Ernst & Young

Stock Picking

- Unprompted, an evaluation of the Financial strength/performance is the top "stock picking" criteria.
- Within this criteria, cash flow and earnings are seen as more important than balance sheet measures.
- The geographical location of company assets and the liquidity of the stock are the least important stock selection criteria.
- Surprisingly, management was rated lower in this survey. The conclusion at the time was because it was harder for investors to evaluate objectively.

Company Selection

- When asked to rank on a scale of 1-5 (5 important, 1 unimportant), respondents made the following observations…
- Management and Financial performance are the most important factors when assessing oil companies.
- The quality and timing of information on the company was also ranked highly.
- Factors such as 'size' and 'integrated model' were seen as least important.

Qualities associated with good management include:
- Trustworthy, cash management skills, restructuring, maths, objectivity, ability to pursue organic growth, presentation skills, accepting payment with options.

Shareholder Current State – Future State

Current State

Current Tullow Shareholders
Merrill Lynch
M&G
Centrotrade
Fidelity
Wellington Management
Prudential Corporation
Schroder
Capital
Lansdowne Partners
Legal & General
Barclays Global
JP Morgan Fleming
Scottish Widows
Gartmore

Additional typical UK E&P sector shareholders
Aberdeen Smaller Companies
American Express
Aberforth Partners
Artemis
Caledonia Investments
ISIS Asset Management
Framlington
Lazard Smaller Companies
Deutsche Asset Management
Threadneedle Asset management
HSBC Asset Management
Jupiter Asset Management
Baillie Gifford & Co
Henderson Global
Invesco Asset Management
Morley Fund Management
NM Rothschild (Insight Investments)

Inputs

Global Energy Funds
Deutsche Asset Manag.
Fidelity
JP Morgan Fleming
Citigroup (USA)
Van Eck Global Assets (USA)
Ryder Energy Fund (USA)
Strong Energy Fund (USA)
State Street GR. (USA)
Merril Lynch Global Res.
Investec Global Energy
UBS Energy Fund (USA)
Saratoga Energy (USA)
Vanguard Energy (USA)
Millgate Capital (USA)
UMB Scout Energy (USA)
Joseph Reich & Co (USA)
Lawhill Capital Partners(US)
Invesco Energy (USA)
Dreyfus Prem. Nat. (USA)
Icon Energy (USA)
Ivy Global Nat. Res. (USA)
Jennison Nat Res. (USA)
Morgan Stanley Nat. Res(US)
Oppenheimer Asset Fund(US)
Rydex Energy (USA)
Munder Power Plus (USA)

Oil Major Shareholders
JP Morgan Fleming
Barclays Global
Legal & General
Henderson Global
ISIS Asset management
Newton Investment Managers (RBS)
Standard Life
University Superannuation Fund
Jupiter
Invesco Asset Manag.
Scottish Widows
Threadneedle
Prudential
HSBC Asset Manag.

Typical US Shareholders in Oil & Gas
Clay Finlay
Wellington Management
Cowan Investment Co
Croseus Capital
Cumberland Associates
Elliot Associates
First Chicago Capital Markets
Lazard Freres
Millgate Capital
Oechsle Int Adv
Putnam Investments
Scudder Stevens Clark
State Street Research
Stein Roe & Farnham
T Rowe Price Associates
The Northern Trust Co
Tiger Management Corp.
Wanger Asset Management
Neuberger Berman
American Express Fin. Adv.

Other International Oil & Gas Shareholders
Bankers Trust of Australia (AUS)
Enskilda (SWE)
Mackenzie Financial (CAN)

Future State

Top 10 Targets for New Tullow
ISIS Asset management
Lazard Freres (UK & USA)
Deutsche Asset Management (UK & USA)
HSBC Asset Management
Henderson Global
Invesco Asset Management
State Street Global Resources (USA)
Putnam Investments (USA)
American Express.
Citigroup (UK & USA)

This list is a potential target list of Fund Managers identified from the previous two columns that:-
1) Have an identified oil interest
2) Have invested in the 'Peer Group'
3) Tend to invest in larger companies
4) Have an international perspective

Shareholders Conclusion

- Fund managers speak in financial language so this should be the basis of communication with shareholders, backed up by oil industry measures.
- Within the financial language earnings and cash flow, relative to the market value of the stock, are the most popular investment criteria for ongoing measurement of the sector, followed by Return on Capital type measures.
- Although overall, industry specific measures are not the single most important measure, they feature as a popular second.
- When 'stock picking' for the first time, companies give more consideration to management and financial track record.
- Specific quotations pertinent to Management included[1]:

  " This is vital, ultimately you are investing in someone and trust is crucial"

  " Management has to understand maths and be unemotional when making buy or build decisions. They need always to chase highest discounted returns. I slightly prefer organic as it's more predictable."

  "They are betting they will replace reserves, not blow cash. I measure management by their patterns of stock ownership, their finding costs, whether their interests are aligned with us and I try to avoid those with ludicrous salaries. The trend towards expensing options is positive."

  "This is an important factor because it has a critical impact on the rating that the company can command"

- Specific quotations mentioned by investors in the Ernst & Young survey with regard to financial metrics included [1]:

  "EV to debt adjusted cash flow. This one is the O&G sector adaptation of the more usual EV to EBITDA, as it irons out the effects of varying tax regimes"

  " Price to earnings, price to cash flow and adjust them according to various values like financial health, growth rate, etc."

  "ROACE. This is specific to capital intensive businesses, not a generic method."

  " We like to see risk managed in a sensible financial framework. We like to see investments in companies and acreage that gives returns in excess of cost of capital. Also, within that framework, that a company can finance itself in the most efficient form."

- By considering the Current Tullow shareholders and comparing this to a group of international shareholders, known to have an interest in mid and large cap oil and gas investments, a target ' top 10' list of potential shareholders can be considered[2]

ISIS Asset management	Lazard Freres (UK & USA)
Deutsche Asset Management (UK & USA)	HSBC Asset Management
Henderson Global	Invesco Asset Management.
State Street Global Resources (USA)	Putnam Investments (USA)
Millgate Capital (USA)	Citigroup (UK & USA)

[1] 2002 Ernst & Young Oil & Gas Investor Survey
[2] Subject to further analysis by Tullow House Broker – ABN Amro