1 August 2014

Parkmead

Initiating Coverage

BUY

Current Share Price	217p
Target Price	262p
Market Capitalisation	£190m
Shares In Issue	88m
RIC/BLBG	PMG.L/PMG LN
Avg. Daily Volume (3M)	116,116

Current share price(s) timed at 12:00PM on 31/07/14

Share Price (p)

Performance (%)	1M	3M	12M
Absolute	-5	-0	14
Relative	-5	1	12

Source: Datastream (relative to UK-DS Market index)

Maximising shareholder value and UKCS oil recovery

We view Parkmead as a company with two key assets: 1) the ex-Dana Petroleum management team, led by Tom Cross, with a track record of delivering shareholder returns. This team delivered an estimated 1449% ROE (source Parkmead) since the foundation of Dana to its sale to KNOC; and 2) the Perth field development which makes up close to half of our RENAV and provides investors with unique access to the exploitation of stranded sour crude resource in the UK North Sea.
We see Parkmead as a play on the next phase of UKCS exploitation, and in-line with recommendations made in the 'Wood Review', is well placed to collaborate with partners and use novel development schemes in order to maximise hydrocarbon recovery and shareholder value. We initiate coverage on Parkmead with a Buy recommendation and 262p/share target price, 21% above the current share price.

- **A strong track record of shareholder value creation:** Executive Chairman, Tom Cross, has a track record of E&P value creation, creating a business that grew 2P reserves by CAGR 22.3% and production by CAGR 30.6% over the five years prior to Dana's sale. Parkmead has had an impressive start with 53 blocks under license, production over 2.2kboed, and 27mmboe of 2P reserves all from a standing start in 2011. Value creation has been largely inorganically driven with Parkmead buying development and production assets at attractive prices. Parkmead's ability to create shareholder value will now lie in the hands of the company's development team and its ability to de-risk the assets such as Perth prior to monetisation.

- **Perth - a conventional but challenging development:** Perth 2P reserves and 2C resource combined make up close to 50% of our company valuation and given the asset's relative importance, it is the focus of our initiation note. Perth was discovered in 1983 and subsequently appraised by three further wells and two sidetracks. The challenge comes in the form of resource uncertainty outside the core area of the field (Core Perth) and due to sour associated gas produced in conjunction with the field's sour crude. Handling this sour gas requires careful control of facility metallurgy, development safety case and disposal options in order to underpin project returns and receive DECC approval. We believe that Perth phase 1 has potential to generate a 26% IRR at 100$/bbl oil based on current project cost estimates.

- **UKCS asset monetisation:** Parkmead remains a net acquirer of UKCS assets and has been able to take advantage of oversupply (DEO, Lochard, EWE) by snapping up assets at discount prices. Parkmead has the ability to make a strong economic return on investment in 2015 when the company looks to monetise at least some of its equity in a sanctioned Perth development. Additional fiscal stimulus in order to incentivise the development of marginal/challenging fields, oil price strength, and instability in more frontier oil-prolific basins could increase industry appetite. Our target price of 262p/share at 0.75 times RENAV of 349p/share reflects the fact that Parkmead will have to leave some value 'on the table' in order to monetise pre-development assets such as Perth. The mid-cap E&P sector currently trades at 0.77 times RENAV.

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Maximising shareholder value and UKCS oil recovery

We view Parkmead as a company with two key assets: 1) the Perth field development which makes up close to half of our RENAV and provides investors with unique access to the exploitation of stranded sour crude in the UK North Sea; and 2) the ex-Dana Petroleum management team, led by Tom Cross, with a track record of delivering shareholder returns. A team that delivered an estimated 1449% ROE (source Parkmead) since the foundation of Dana to its sale. We initiate coverage on Parkmead with a Buy recommendation and 262p/share target price.

Sour crude – the next phase of UKCS exploitation

The UKCS is one of the most mature basins in the world. To enhance basin recovery, we expect an increase in partner collaboration and technology deployment

The UKCS is widely seen as one of the most mature basins in the world, with new discoveries getting smaller and more expensive to exploit. Oil veteran, Sir Ian Wood, presented the findings of a detailed review of UK offshore oil and gas recovery and regulation in February 2014 (the 'Wood Review') recommending a number of sector strategies in order to ensure UKCS recovery is maximised. Recommendations included greater infrastructure collaboration between companies and the use of new technology in order to maximise extraction. We believe that Parkmead is one of a few small/mid-caps at the forefront of this next phase of UKCS exploitation. The Perth development is an example of independent E&Ps sharing access to infrastructure in order to promote the development of otherwise marginal fields, maximising oil recovery and guaranteeing government receipts, whilst creating value for shareholders. Perth is a conventional but challenging field development due to the high H_2S and CO_2 content of the associated gas. However, robust engineering and HSE control should ensure a commercial development that can recover over 70mmbbls of 40deg API crude from conventional reservoirs. Parkmead holds a 52% interest in Perth and is operator.

Conventional but challenging – a changing macro backdrop should ensure Perth reaches first oil

We view the Perth development as conventional but challenging. Conventional in the sense that the field comprises of Upper Jurassic Claymore sandstones located by five appraisal wells; amongst these the 1992 Core Perth discovery well flowed at 5.8kbod. Perth is challenging in the sense that the field is highly fractured to the north, faulting is difficult to image and the associated gas produced alongside Perth crude contains c.40% mol CO_2 and 6,000ppmv H_2S. Parkmead has focused its initial efforts around developing the fully-appraised Core Perth field areas, which drive phase 1 development. In our view, the technical issues associated with processing of sour gas are manageable at a cost (e.g. through the use of exotic metallurgy) and H_2S flaring/venting HSE impact can be addressed by risk assessment. The FDP for Perth phase 1 has been agreed in principle by DECC and we believe a wider sour crude development is in a strong position to receive formal approval on submission. DECC will have to take a view on the cost/benefit of approving the development of sour crude given incremental emissions, but data shows that current UKCS emissions are close to a multi-decade low, largely to production declines, and Perth emissions are relatively small in a wider UK context. In our view, alongside the small field, West of Shetlands, HPHT and heavy oil allowances, and in line with recommendations made by the Wood review, there is more that the government can do to incentivise the development of remaining resource in the UKCS. We believe that operator incentives to develop the multi-billion barrel UKCS sour crude opportunity make economic sense, and if structured correctly could minimise incremental emissions. We expect Parkmead to be a key beneficiary of this.

Access to alternative means for funding hub developments such as Perth/Lowlander/Dolphin are also emerging. We see Petrofac's agreement with First Reserve as a sign of OFS and PE interest in investing in upstream infrastructure, reducing the capital requirements of underfunded E&Ps.

Management team with track record of delivering shareholder returns

The Parkmead management team have a strong track record of delivering shareholder returns

CEO, Tom Cross, and the ex-Dana team now at Parkmead have a track record of shareholder value creation, and with Tom owning 21% of the company, he remains highly incentivised to replicate Dana's success. Tom is supported by a number of key personnel that helped Dana Petroleum deliver 22% CAGR reserves growth and 30.6% CAGR production growth over the five years prior to Dana's sale to KNOC for $2.9bn. The Parkmead team remains small and nimble, enabling the company to take advantage of opportunistic acquisition opportunities (eg, Lochard and DEO). Although hard to quantify, Parkmead shareholders appear to be buying into management's ability to create shareholder value through asset acquisitions and subsequent monetisation. We expect Parkmead to make a material gain on the purchase of both Lochard and DEO. The size of this gain will be contingent upon the successful monetisation of a DECC-approved Perth development. We believe a price significantly in excess of the acquisition price is achievable here and this is reflected in our asset valuation. In terms of broader strategy, we expect Parkmead to focus on low risk production, exploitation and asset monetisation with a measured approach to capital exposed to exploration risk.

A focus on developing a self-funding diversified business model

We see Parkmead developing a diversified business model with production from the company's core asset base funding group overheads, early-stage development commitments and an exploration programme. The Parkmead balance sheet remains cash-rich (over £50m and debt free). Management retain the optionality of funding projects such as Perth through debt or monetising ahead of development capex expenditure. We believe that management is most likely to monetise Perth after completion of FEED and once DECC approval received i.e. once de-risked.

Valuation: Upside to come through de-risking of further phases of Perth and exploitation of sour crude analogues

Our Parkmead RENAV stands at 349p/share 61% above the current share price and we initiate with a Buy recommendation.

Our Parkmead RENAV stands at 349p/share and our target price at 262p/share, 21% above the current share price. We initiate coverage with a Buy recommendation. We include Perth phase 1 as a key component of our Core 2P NAV, which stands at 209p/share and we see further upside coming from 1) the de-risking of Perth phase 2 through FEED and DECC approval, 2) collaboration with partners such as Faroe Petroleum in order to expand the company's sour crude footprint and expose shareholders to additional resource through pursuing the joint development of Perth/Lowlander/Dolphin, and 3) successful exploration at Davaar (36p/ risked, 240p unrisked) and Skerryvore (31p/ risked, 123p unrisked) in 2015.

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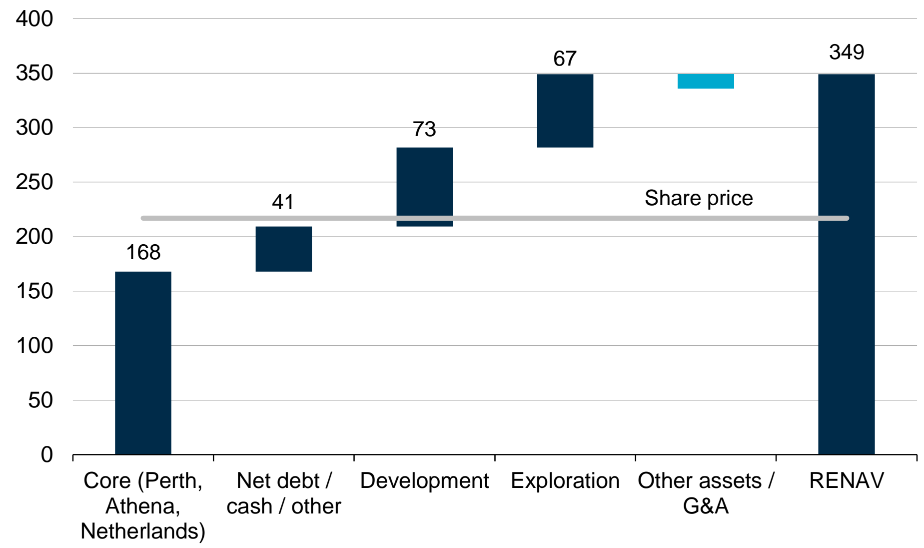
Figure 1: Numis valuation waterfall (p/share)

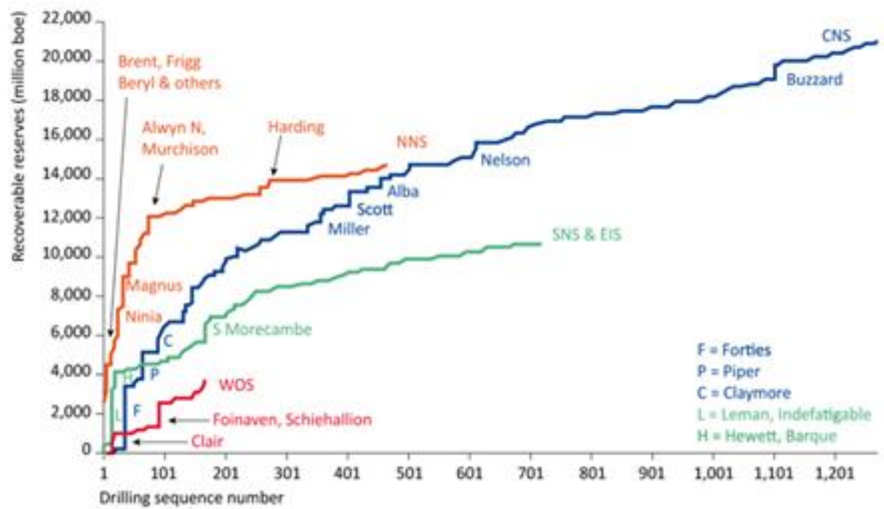


Source: Numis Securities Research

UKCS - a mature basin. Sour crude in context

The UKCS is widely viewed as one of the most mature in the world. In recent years, discoveries have generally been smaller and more expensive to exploit, whilst older infrastructure has suffered from a sharp drop in production efficiency. We believe that an increased focus by DECC and HM Treasury on maximising UKCS recovery will be a positive for the North Sea independents. We see Parkmead as an emerging play on North Sea exploitation; a company that is nimble and incentivised to collaborate with partners and government bodies in order to economically recover untapped resource.

Figure 2: UKCS creaming curve showing Basin maturity

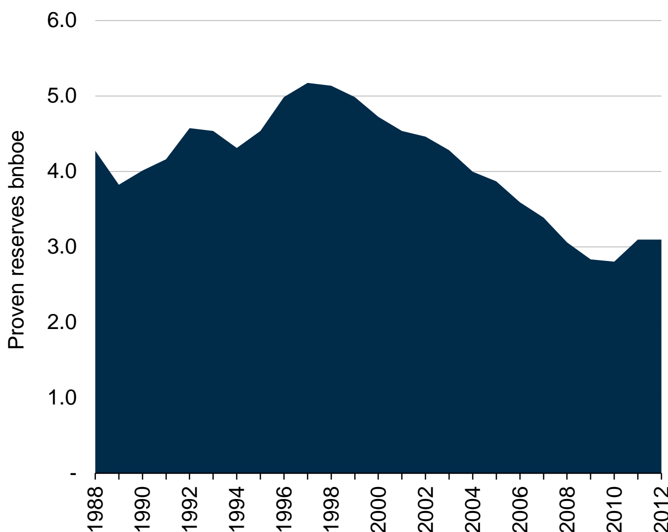


Source: DECC

We expect to see further fiscal incentives to stimulate UKCS oil recovery and marginal field development.

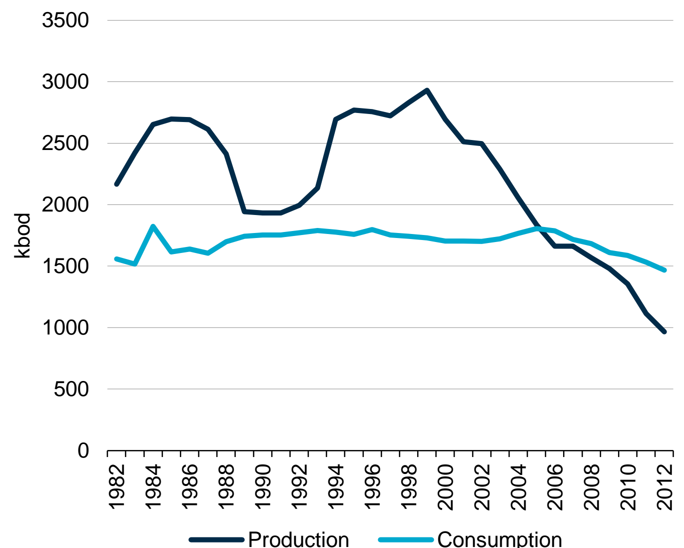
UKCS proven reserves have fallen by over 1bnbbls over the last decade, and oil production is now substantially below domestic consumption. The impact of this supply deficit is twofold: firstly, a reduction in security of UK energy supply (increasingly significant in the face of recent conflict in Iraq and Ukraine); and secondly high oil prices combined with an increasing supply deficit have a material net negative impact on government finances.

Figure 3: UKCS Proven oil reserves bnboe



Source: BP Statistical review

Figure 4: UKCS crude oil production / consumption



Source: BP Statistical review

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The 'Wood Review', published in February 2014, highlights several issues that need to be addressed in order to maximise recovery from the UKCS, secure jobs (currently 450k people employed on the UKCS alone) and over £6.5bn of annual tax receipts. The Wood Review highlights six key issues that need to be addressed in order to secure continued investment in the UKCS:

- The need for operators to maximise economic recovery for the UK as well as their own individual company commercial objectives.
- The need for fiscal stability.
- The need for a greater resourced and proactive regulator.
- The need for improved asset stewardship.
- Greater collaboration between operators.
- The need for better implementation of industry strategies.

We see Parkmead as one of a few UKCS-focussed independents that addresses a number of these issues highlighted by Sir Ian Wood; a company that is collaborating with DECC and partners in order to maximise recovery and take advantage of technological innovation where practical. Parkmead's core asset, Perth, is an oil discovery made in the 1980's but due to low oil prices at the time, and technical challenges, the field is only coming into development now. We see the UKCS evolving such that alignment between operators, partners, the government and the use of modern technology should ensure developments of this nature can be sanctioned more readily.

Incentivising operators to maximise recovery

We believe fiscal incentives designed to promote the recovery of sour crude could enhance the economic value of Perth phase one and provide further justification for a wider unitised Perth/Dolphin/Lowlander (PDL) development.

After a 12% hike in supplementary charge announced in 2011, HMRC has added a package of field allowances in order to achieve a more competitive tax system and to maximise the economic production of hydrocarbon reserves. Field allowances range from those applicable to ‘small’ fields, deepwater developments, heavy oil, HPHT, West of Shetlands and the brown field allowance. Each of these allowances is intended to incentivise the development of otherwise marginal fields, and we see a rationale to extend that to sour crude given its higher cost of extraction relative to sweet crude.

The base case development option selected for Perth phase one allows for associated sour gas to be incinerated in quantities that are not immaterial relative to current UKCS offshore oil/gas emissions. Fiscal incentives designed to reduce the emission footprint of sour crude, whilst also maximising oil recovery, could enhance the economic value of Perth phase one and help to justify a wider combined Perth/Dolphin/Lowlander (PDL) development.

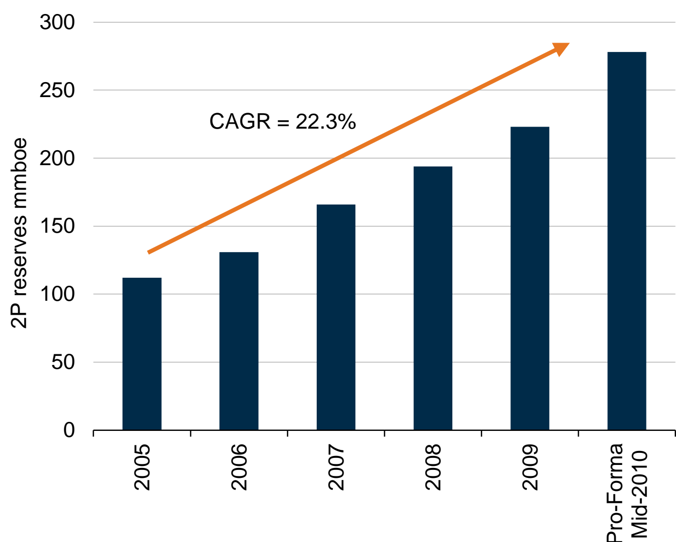
Sour crude overlooked despite being economic at current oil prices

In conclusion, we believe that whilst sour crude has been overlooked by operators and explorers in the past, it could make a significant contribution to UK tax receipts and employment, and we believe that at current oil prices the development of Perth makes economic sense.

Opportunities for small nimble North Sea E&Ps

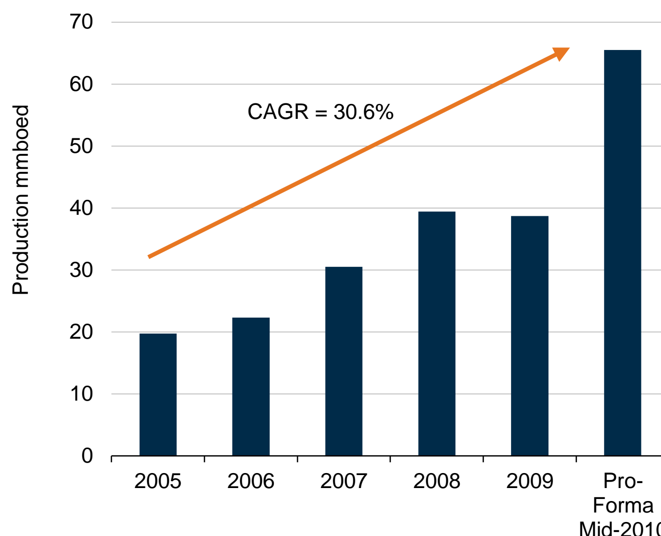
Former Dana Petroleum Chief Executive, Tom Cross, and his new vehicle, Parkmead, appears well placed to replicate this success, in our view. During the period 2005 to the acquisition of Dana by KNOC in 2010, Dana grew production by CAGR 30.6% and reserves by CAGR 22.3%. The bulk of this growth was driven by the company's North Sea asset base and Egypt.

Figure 5: Dana track record of reserves growth



Source: Dana Petroleum

Figure 6: Dana track record of production growth



Source: Dana Petroleum

The Dana team delivered a 1449% return on equity since foundation of the company to sale to KNOC at over $3bn

We believe Tom Cross and his team are suitably incentivised to ensure the success of Dana can be replicated, with founder, Tom Cross, holding over 21% of the company's shares. As discussed in our 2014 sector note *Value over Volume* (published December 2013), we believe there is a strong correlation between management ownership and shareholder value creation. Essentially, management teams with 'skin in the game' generate better shareholder returns than those remunerated by other means. Parkmead is by and large being managed by the same Dana Petroleum team that delivered a 1449% (source: Parkmead) return on equity since foundation of the company to its sale to KNOC at over $3bn. The same team has already shown an ability to create inorganic value through the successful acquisitions of EWE, Athena, Lochard and DEO.

Inorganic growth has been a key driver of the Parkmead success story to date, with the company purchasing assets at sensible prices based on headline 2P reserve multiples. Parkmead was able to purchase its stake in the Perth oilfield from DEO at less at $1/bbl 2P, in an all-share deal that we feel reflected DEO's desire to be part of a larger group with greater access to capital and increased ability to take the project forward.

Table 1: Parkmead transactions

Acquirer	Asset	Reserves 2P (net)	Price $m (headline)	Price $/boe 2P
Parkmead	EWE	1.6	11.2	6.9
Parkmead	Lochard	2.3	23.2	10.1
Parkmead	DEO Petroleum	21.5	20.32	0.9

Source: Numis Securities Research

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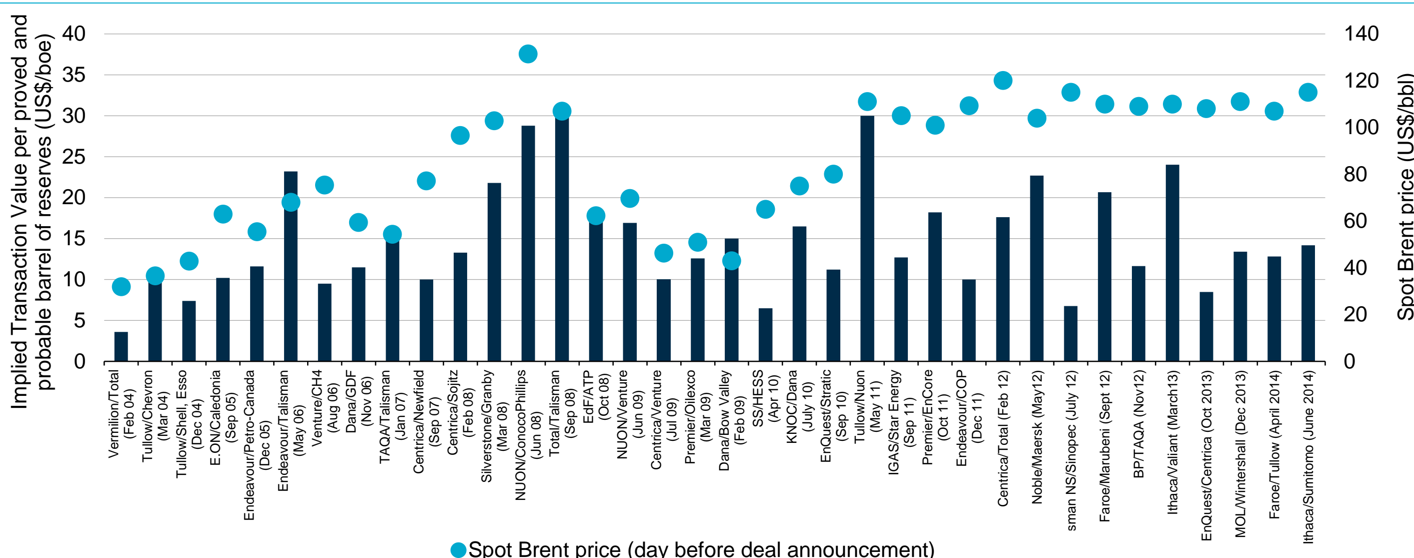
We believe Parkmead will remain opportunistic, building up its North Sea asset base by buying strategic assets at the right price. With the North Sea widely viewed as being a buyers market, further NAV-accretive deals remain on the cards, in our view. The flip-side to this argument is that Parkmead will eventually sell its non-core assets, and we would envisage that Parkmead will want to reduce its exposure to capital intensive development projects such as Perth. Market prices for development assets are disparate from 100$/bbl, 10% WACC NAVs, nevertheless, on de-risking Perth to the point of FID we believe that an exit price well above the acquisition price of 0.9$/bbl is achievable. Recent North Sea asset transactions suggest that headline EV/2P $/boe multiples remain in the 8-15$/boe range versus a Parkmead Perth acquisition price of closer to $1/bbl 2P.

UK A&D activity increased marginally in Q413 after a slow start to the year and ended the year at close to $1.1bn, the lowest since 2008 according to industry sources. On a more positive note, farm-in activity has been on the rise with over 30 deals of note recorded in 2013. If oil prices continue to strengthen, we could see increasing appetite for North Sea producing assets making it easier for Parkmead to monetise assets in its existing portfolio.

Figure 7: North Sea M&A headline $/boe 2P



Source: Numis Securities Research

Parkmead has made rapid progress, adding 27mmboe of 2P reserves, being awarded over 53 blocks in the UKCS, and adding 2.2kboed of net production since 2010

To date, inorganic growth has been a key driver of Parkmead value creation but there is good reason to believe that Tom Cross's can create value via organic means i.e. through license rounds and the drill-bit. An excellent example is the Western Isles development which began life by Dana Petroleum acquiring a relinquished licence in 2006, to discovering the Barra and Harris fields (Uist, Barra, Lewis and Harris) which make up the Western Isles Development Project - a $1.6bn DECC sanctioned project that is forecast to deliver first oil in 2015 at 40kbod, supporting over 200 permanent UK jobs.

Parkmead has made rapid progress adding 27mmboe of 2P reserves, awarded over 53 blocks in the UKCS and adding 2.2kboed of net production since 2010. Parkmead is pursuing a diversified business model providing investors access to cash-flow from producing operations, development exposure through assets such as Perth and exploration exposure through high impact catalysts such as Skerryvore and Davaar. The split of our RENAV is biased towards development, in particular Perth, which alone makes up close to 50% of our company RENAV.

Perth – a conventional but challenging development

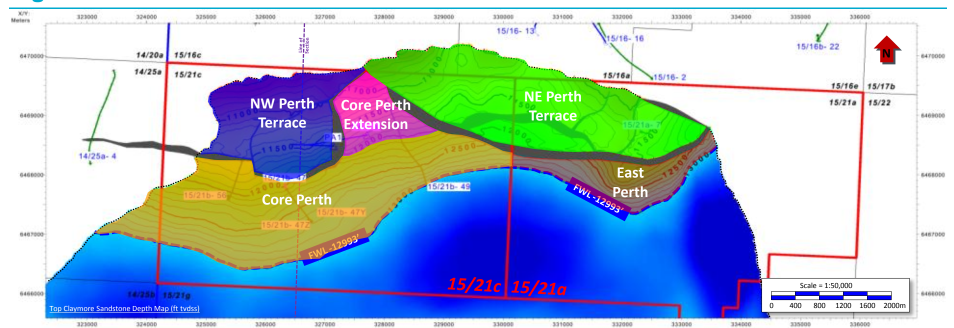
We view the Perth field development as conventional, but one with technical and HSE challenges. Our analysis suggests that the project should generate a strong post-tax IRR at current oil prices (c.26%), assuming that current estimates of project capex costs (Numis $550m excluding FPSO) and life of field opex can be maintained. We recognise that there remains uncertainty over project costs until a DECC-approved project development scheme is fully designed and costed. Perth is currently the cornerstone asset within the Parkmead portfolio making up over 60% of our RENAV, and this note focuses on the economic and technical aspects of the project.

Technical considerations

A conventional field

The Perth field was discovered in 1983 by the 15/21a-7 discovery well and subsequently appraised by three further wells and two sidetracks. The wells were production tested at rates varying from 1,000 to 6,000bopd with associated sour gas. It was found that the Perth reservoir is divided into five main areas, which combined are estimated to hold P50 STOIIP of 326mmbbls; it is therefore a sizeable discovery in a UKCS context.

Figure 8: Perth reservoirs



Source: Parkmead

The Perth phase 1 development is based on 41.3mmbbls of gross recoverable oil (2P)

Table 2: Perth asset description

Name	Perth
Interest	52.03%
STOIIP P50 mmbbl	
Core Perth	**154 mmbbl**
NE Perth Terrace	**73 mmbbl**
NW Perth Terrace	**58 mmbbl**
Core Perth Extension	**30 mmbbl**
East Perth	**11 mmbbl**
Total	326 mmbbl
Reserves 2P	
Phase 1 Development (Core+Extension)	41.3 mmbbl
Phase 2 Development (NW, NE and East Perth)	27.8 mmbbl
Total	69.1 mmbbl
API	32 degrees
CO_2	25% (35%mol in assoc gas)
H_2S	2500-8500 ppmv
Gross reservoir thickness	100-900ft
Net to gross average	58%
Porosity average	13.30%
Partners	Faroe Petroleum (34.62%), Atlantic Petroleum (13.35%)

Source: Company data

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We believe volume uncertainty increases away from the Core Perth area (e.g. the prevalence of HPIs) and as such we only include Perth phase one volumes in our core '2P' valuation

A conventional compartmentalised reservoir system

The Upper Jurassic Claymore reservoir is thought to have been sourced from the Halibut Horst to the south-west. The sands are heterogeneous and of moderate quality with permeabilities ranging from 10mD up to 600mD in high permeability beds (HPIs). Nevertheless, the reservoir thickness in the core area is significant, measured at 326ft net, 420ft net, 136ft net and 299ft net at four well penetrations with porosities of 12-13%. The distribution of high-permeability beds is crucial to field production, and importantly HPIs are thought to be laterally extensive. Senergy believes that the Core Perth STOIIP (139mmbo) and Core Perth Extension STOIIP (30mmbo) are based on a realistic best estimate of the likely geology of the field based on well data and test results. We believe volume uncertainty increases away from the Core Perth area (e.g., the prevalence of HPIs) and as such we only include this base volume in our core '2P' valuation.

Well test results confirm that Perth oil is light, 30 to 32deg API and sour with a GOR of 750 to 900 scf/bbl, viscosity of 2cP (reservoir temp 245deg F) and with wax content of approximately 4%. Well deliverability is expected to be c.6,000bopd in line with appraisal well flow tests, and it is believed that high-angle deviated wells should assist with lateral connectivity across the field. Technical reports suggest that the reservoir temperature is high enough for wax not to pose a significant flow assurance issue, but data on this aspect of the field development is limited. We note that wax content at c.4% is significantly less than at other well-publicised ‘waxy’ fields such as Sea Lion.

Associated gas handling is critical

Perth crude is classified as medium (API 30.5 deg) and sour. The term sour relating to the relatively high content of both CO_2 and H_2S in the associated gas. We see handling of this sour associated gas (CO_2 content of 35-40%mol and H_2S content of 8500ppm) as the principle technical challenge, but one that can be addressed using existing technology.

Assuming that the gas can be safely handled from a metallurgical and safety perspective, the question then becomes how can it be disposed? The options available for disposing of sour associated gas at Perth are described in the table below; each have their pros and cons. The most obvious solution from a commercial stand-point is to incinerate the sour gas whilst using a 'sweetened' side stream to power the Perth facility. This is currently the base case for a Perth standalone development selected by the Perth partner group and the basis for our independent analysis.

Table 3: Associated gas options

	Sour gas processing	Sour gas evacuation	Sour gas disposal	Pros	Cons
Option 1	All gas vented/flared	None	To flare	Highest emission option	Processing requires diesel power
Option 2	Basic processing	Re-injected	Re-injected	Significant emissions reduction	High capex cost associated with NACE re-injection well. Sour gas compression has significant HSE implications
Option 3	Amine sweetening of sour gas	Sweet gas export to sales	Sweetened gas sold	Gas revenue	Significant cost associated with sour gas processing (opex and capex). High CO2 content may make this prohibitive. Tie-in costs.
Option 4	Amine sweetening and Claus unit to produce liquid sulphur	Sweet gas export to sales	Gas revenue		Significant cost associated with sour gas processing (opex and capex). Rare to see Claus unit offshore. High CO2 content may make this prohibitive. Tie-in costs.
Perth selected Base Case	Gas incinerated. Side stream sweetened to power facility	None	To flare	Reduces need for diesel to power facility. Likely use dual-fuel GTGs with diesel backup	No significant cons. But a high emissions case that will need DECC consent

Source: Numis Securities Research

The base case solution to sour gas disposal described in the table above is seen to be the most economic, but our initial concern was that DECC may have reservations given the quantity of CO_2/SO_2 planned to be sent to flare/vent. With pressure on DECC to maximise North Sea recovery whilst also complying with emission reduction targets, we believe that the oil recovery opportunity at Perth outweighs the 'cost' associated with project emissions - we understand that DECC has approved in principle the SO_2 emissions profile for Perth. We also believe that DECC could provide fiscal incentives to promote the recovery of sour crude whilst also minimising emissions – in this instance, a lower emission development scheme could be economically justified, in our view.

Assuming carbon credits can be purchased at 10-20 Euros per tonne we believe this net cost to the Perth field should not have a significant negative impact on Perth economics

Based on work carried out by Nexen, SO_2 emissions could peak at 8.4tonnes/day (3066 tonnes/year) based on peak Perth production of 15kbod and CO_2 at 267tonnes/day (97,455 tonnes/year). Emissions would obviously decline as field production declines. There are currently no limits on the concentration of CO_2 in the gas stream that can be emitted, but studies suggest that it can be assumed that Perth will have to purchase CO_2 credits in order to 'offset' these emissions. Assuming carbon credits can be purchased at 10-20 Euros per tonne, we believe the net cost to the Perth field should not have a significant negative impact on Perth economics.

Metallurgy remains a challenge and cost

We believe that it is prudent to assume that the cost associated with the development of Perth may be higher than current operator cost estimates and we include a capex cost sensitivity in our analvsis

Sour crude and associated gas can cause operators a whole range of metallurgical issues, an extreme example being the Kashagan field development. Kashagan is a field with over 13bnbbls of recoverable oil with a high level (15-18%) H_2S in the sour gas. Costs of the project have ballooned with latest estimates running at well over $50bn, and the project has had to be shut-down for at least two years after start-up due to corrosion concerns. Perth is clearly nowhere near as extreme with significantly lower H_2S content, but does have a high CO_2 component in the associated gas. Both CO_2 and SO_2 form corrosive acids in contact with produced water, and H_2S is known to cause stress corrosion cracking in carbon steels even at moderate temperatures. The use of NACE specification nickel/chromium based alloys is the industry-wide solution to this problem, but this comes at a cost. Exotic alloys can cost 10-15 times that of conventional carbon steel having a significant impact on the cost of production wells, front-end gas processing facilities and acid gas re-injection equipment. We believe that it is prudent to assume that the development of Perth may be higher than current operator cost estimates and we include a capex cost sensitivity in our analysis.

HSE considerations

Safety remains the most important factor when DECC assesses projects prior to formal development approval. H_2S is a poisonous gas even at low concentrations. We believe managing the safety case for the Perth development will be an important component of facilities design. DEO has implemented several design aspects in order to minimise the risk to personnel, eg positioning of flare stack at the opposite end of the FPSO to accommodation, and HVAC systems to minimise potential H_2S ingress. Parkmead mentions in company presentations that it believes there are no HSE ‘showstoppers’, and that the main concern is a Passengers on Board (POB) limit of 61. A limit possibly imposed to minimise the number of people on-board the FPSO exposed to hazardous gases under a blowdown scenario. We believe robust facilities design and risk assessment should ensure HSE-compliant development.

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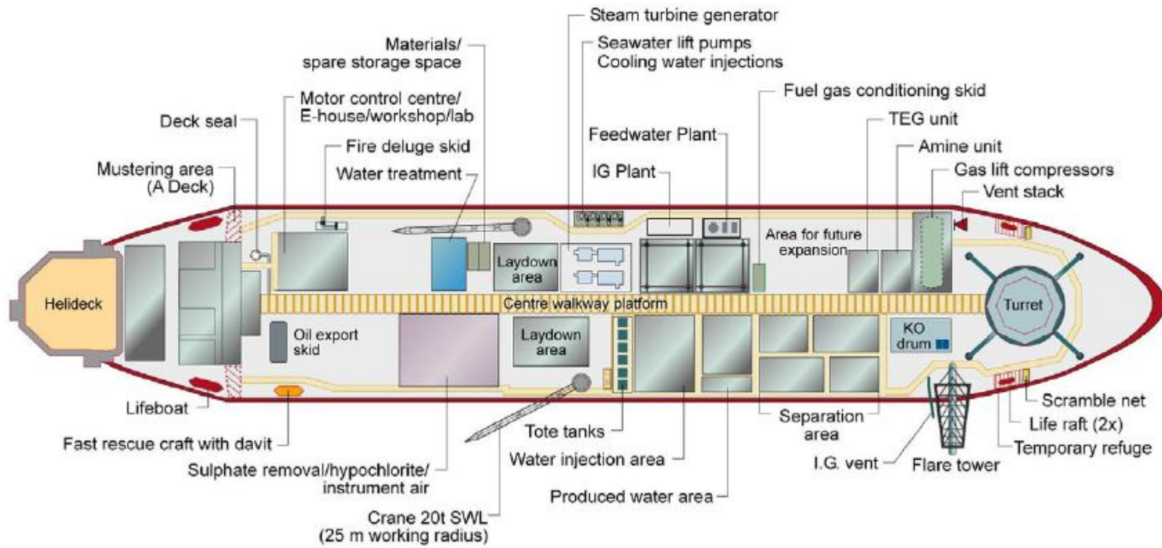
Figure 9: FPSO layout



Source: Parkmead

Table 4: Toxity of H2S

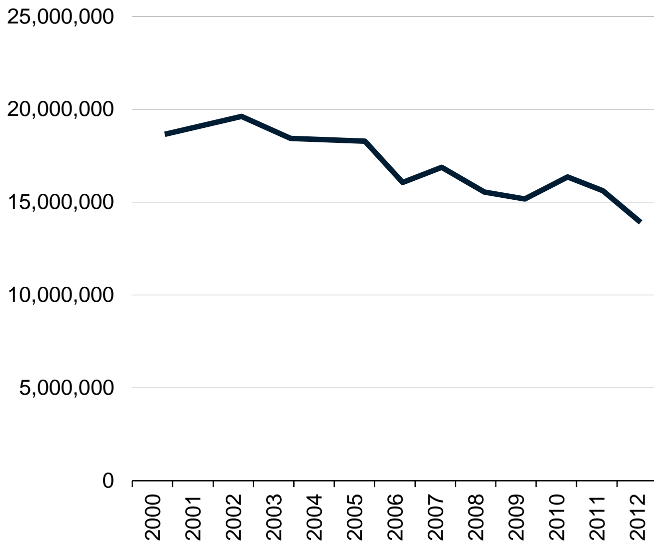
Hydrogen Sulphide Concentration (ppm)	Physiological Effect
1	Detectable by smell of rotten eggs
10	Allowable exposure 8h but cannot rely on sense of smell.
100	Kill sense of smell immediately
500	Causes loss of reasoning and balance
700	Causes unconsciousness and breathing stops
1000	Brief exposure may result in permanent brain damage

Source: Numis Securities Research

Perth: managing emissions

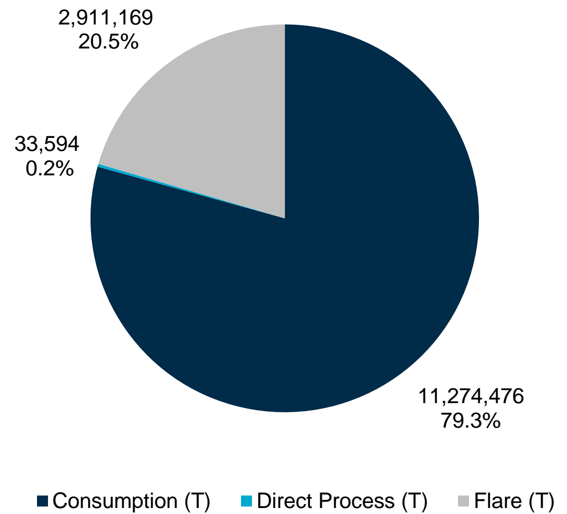
In 2012, 14.22 million tonnes of CO2 were emitted offshore the UKCS, following a general decline in CO2 emissions since 2000. This gradual fall in CO2 output is linked to a decline in UKCS production rather than a significant change in operating practices and as the UKCS matures, emission reduction is likely to become harder. Reservoir pressures decline and more energy, hence emissions, are required to be applied to the reservoir in order to maximise recovery. We believe the trade-off between maximising oil recovery and managing emissions is likely to become more apparent as the industry targets marginal and unconventional fields.

Figure 10: Offshore emissions of CO2 on the UKCS from 2000 to 2012 (tonnes)



Source: Oil and Gas UK

Figure 11: Sources of CO2 emission by activity on the UKCS



Source: Oil and Gas UK

Under the selected Perth development concept, the field will incinerate associated sour gas in steam boilers, some of which will be used for fuel. Our analysis of the Perth development environmental statement suggests that a Perth stand-alone development is likely to make a degree of contribution to UK oil and gas offshore emissions, but its CO2 and SO2 emissions are relatively small in a wider UK context. Based on the field's emission profile, approval in principle was received from DECC for a stand-alone Perth development, however, a wider Perth/Dolphin/Lowlander (PDL) development would further application. Taking a view on the benefits of the PDL project in terms of UK oil and gas security of supply, employment and UK tax receipts, we believe that DECC is likely to be supportive towards the development.

The CO2 and SO2 emissions expected from a Perth phase 1 development are shown in the graphs below. Based on our analysis, annual CO2 emissions are likely to be equivalent to c.1.6% of total UK offshore oil and gas output and therefore should not pose a significant concern.

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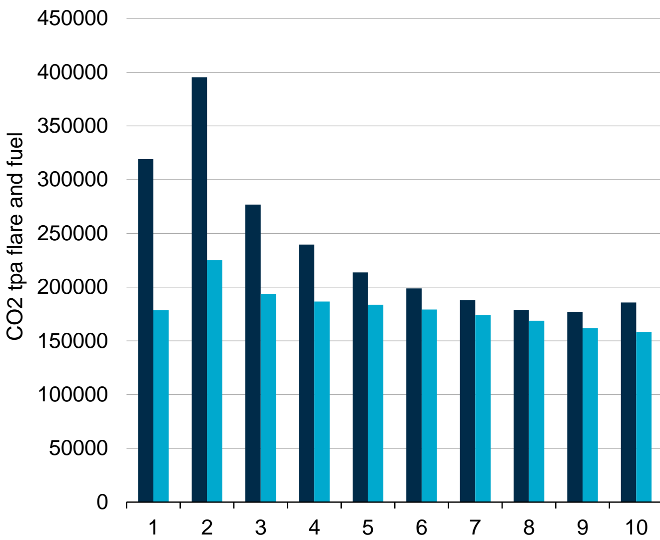
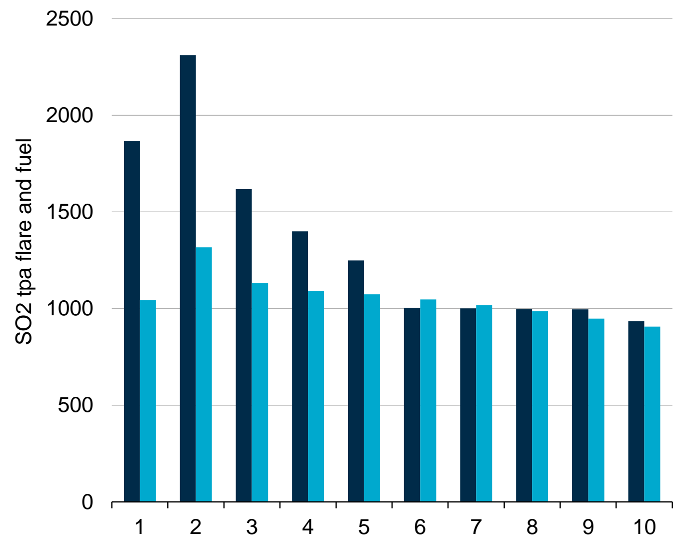
Figure 12: CO_2 emissions tpa (fuel and flare) High and Base case



Source: Parkmead, Numis Securities Research

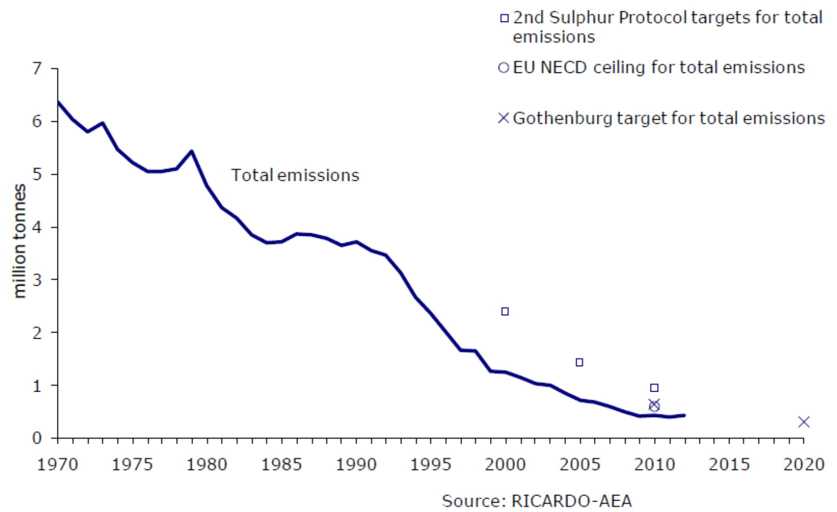
Figure 13: SO_2 emissions tpa (fuel and flare) High and base case



Source: Parkmead, Numis Securities Research

SO_2 emissions on the other hand equate to 40-50% of total UK offshore output. SO_2 emissions may be high in a UK offshore context, but our analysis suggests these are not material in a wider UK context with total output equating to just 0.2% of total UK emissions.

Figure 14: UK SO_2 emissions 1970-2012



Source: DEFRA

Our base case economic model assumes that the Perth field purchases CO_2 credits in order to offset emissions at market prices. It is difficult to take a strong view on the futures price of carbon credits, but at current prices the cost of credits is relatively small in comparison to field opex and maintenance capex.

Perth project economics

Based on current forecasts of capital cost (Numis $550m) and opex we estimate a project IRR of 26% at 100$/bbl oil.

In this section of the note, we look at Perth project economics based on a base case Perth phase 1 development. Based on current forecasts of capital cost (Numis $550m) and opex, we estimate a project IRR of 26% at 100$/bbl oil.

Table 5: Perth phase 1 economics

Perth phase 1 economics (gross)	
NPV10 $m (post tax)	161
Post tax IRR (%)	*26*
Breakeven oil price $/bbl	75

Source: Numis Securities Research

We recognise that there is some uncertainty over project cost until the completion of FEED, detailed design and costing. To give some sense of the materiality of this uncertainty we layout a NPV sensitivity to both oil price and project capex cost below.

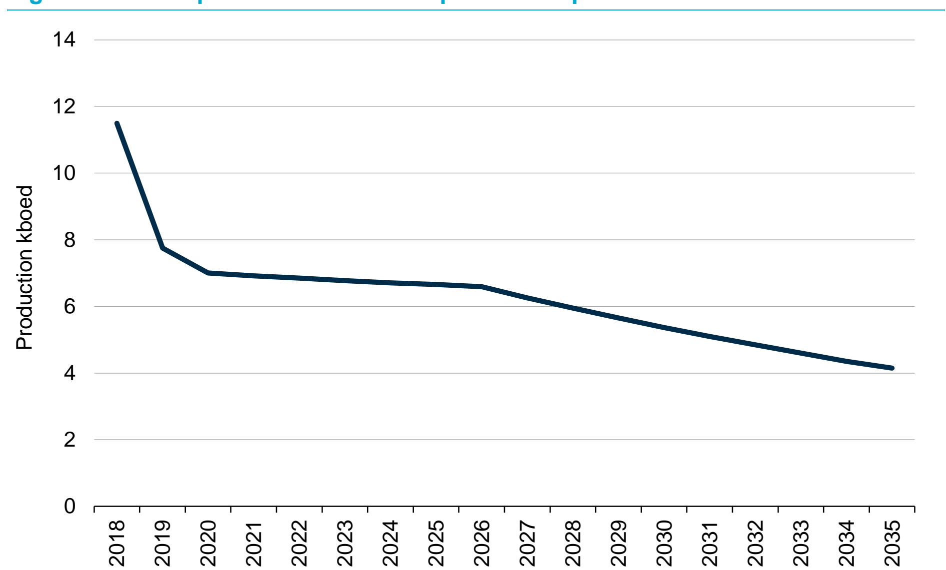
Table 6: Perth phase 1 key assumptions

Perth Phase 1 (gross)	
EUR (mmbo)	41.3
Capex cost $m (inc contingency ex FPSO)	550
Capex cost $/boe (inc contingency ex FPSO)	13.3
First Oil	2018
IP rate (kboed)	16
FPSO day rate ($k/day)	300
Other opex $/bbl	5
EU CTS $/tonne	21

Source: Numis Securities Research

In our base case, we assume first oil in 2018 and a production profile in line with company guidance as shown below. With the incorporation of Perth phase 2 IP rate rises to 16kbod.

Figure 15: Perth phase 1 2P assumed production profile



Source: Numis Securities Research

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Our RENAV sensitivity to oil price and project capex cost suggests that based on our current project cost estimate, Perth phase 1 is commercial down to an oil price of 70$/bbl and at a 100$/bbl oil price the project can absorb a maximum cost overrun of c.60% above our base case estimate of $550m gross (ex-FPSO) and $300k/day FPSO spread rate. With Parkmead trading at 217p/share the share price implies a long term oil price of just over 80$/bbl or Perth phase 1 capex cost significantly above current estimates.

Table 7: Parkmead RENAV valuation sensitivity to Perth cost and oil price (p/share)

LT oil price / Perth Gross capex ($m)	495	550	605	660	715
70$/bbl	145	105	65	23	(19)
80$/bbl	233	203	171	138	100
90$/bbl	306	282	255	226	196
100$/bbl	369	349	326	302	276
110$/bbl	424	407	389	369	347

**Base case valuation Source: Numis Securities Research*

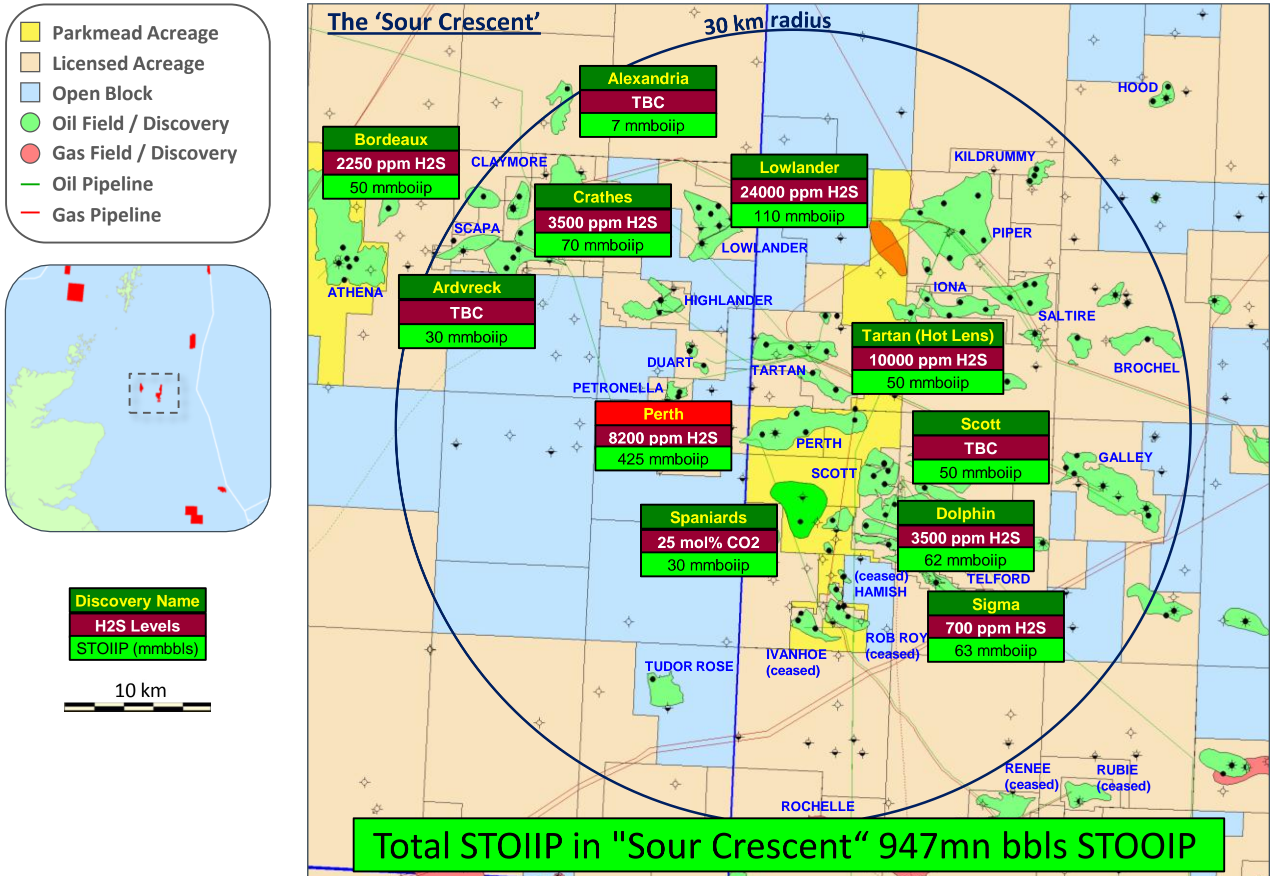
We include the Perth phase 1 development in our Core 2P NAV as the project is close to project sanction and full DECC approval; we expect this to occur in 2015. We include further phases of the Perth development in our contingent resource valuation and risk them appropriately. Risks to commerciality are driven by uncertainty over resources outside the Core Perth area and development costs.

Further 'Sour Crescent' upside

Perth is widely seen as an enabling asset; a field development that could unlock sour crude in neighbouring discoveries. Upside includes the Lowander field, which is 100% owned by Faroe Petroleum but also additional sour crude discoveries in close proximity totalling over 947mmbbls STOIIP within a 30km radius. Lowlander is the most obvious tie-back to Perth holding 22mmbo of contingent resource in the Piper Formation just 15km away. We believe that there are synergies to be gained through a joint development of Perth and Lowlander. Operational costs could be shared over a greater number of barrels, thus reducing net costs to Parkmead and Faroe. On the flip-side, the Perth FPSO will have to be designed to accept up to 24,000ppm H_2S in the associated gas stream - i.e. more expensive metallurgy (eg. separation upgraded from 25% Cr to 6 Mo) and the need for additional gas treatment and water injection capacity. Incremental H_2S/SO_2 emissions over and above the Perth stand-alone development case would require DECC approval when the larger project is put forward for sanction.

We could see Parkmead involved in some form of asset swap or unitisation agreement with Faroe Petroleum (a company in which Parkmead is a minority shareholder) in order to maximise area-wide sour crude recovery and value for shareholders. We currently do not include incremental value for a joint Perth/Lowlander development in our valuation, and see this as upside that could be realised as and when unitisation terms are formalised.

Figure 16: Perth area 'sour crescent'



Source: Parkmead

As we stand, a Joint Development Team is in place looking at the technical, environmental and economic feasibility of a Perth/Dolphin/Lowlander (PDL) development. The study is being managed under an agreement between both the Perth and Lowlander owners - work is being undertaken by third party consultants and contractors. The owners of Perth and Lowlander are expected have entered into pre-FEED under a cost sharing agreement with completion in Q414. The partner group seeks to look for FDP approval and project sanction in late 2015.

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Monetising a DECC-approved Perth development

Funding of Parkmead's net 52.3% equity in Perth through the development phase and to first oil would stretch the company's financial capacity, which includes a debt-funded reserve based debt scenario. We believe Parkmead intends to monetise its stake in the project post project unitisation, sanction and DECC approval. At this stage, the project is likely to be viewed as largely 'de-risked' with greater certainty over overall project cost and economics.

Given the current state of the UKCS asset market, we believe that it is unlikely that Parkmead will be able to monetise its stake in Perth at a full 100$/bbl NPV10, but we do believe that the project could be of strategic interest to larger North Sea independents, IOCs and NOCs alike. Perth/Dolphin/Lowlander (PDL) offers an operated area-wide hub development with potential tax and tariff synergies. An exploitation-biased company such as an EnQuest or Apache or resourced focussed NOC may be an obvious buyer or farm-in partner at the right price. However, there is asset value 'dilution' risk should Parkmead decide to sell all or part of its interest in Perth. We incorporate this in the 0.75 times multiple of RENAV applied to reach our target price (262p/share). This is consistent with the target price methodology we use across our E&P sector coverage.

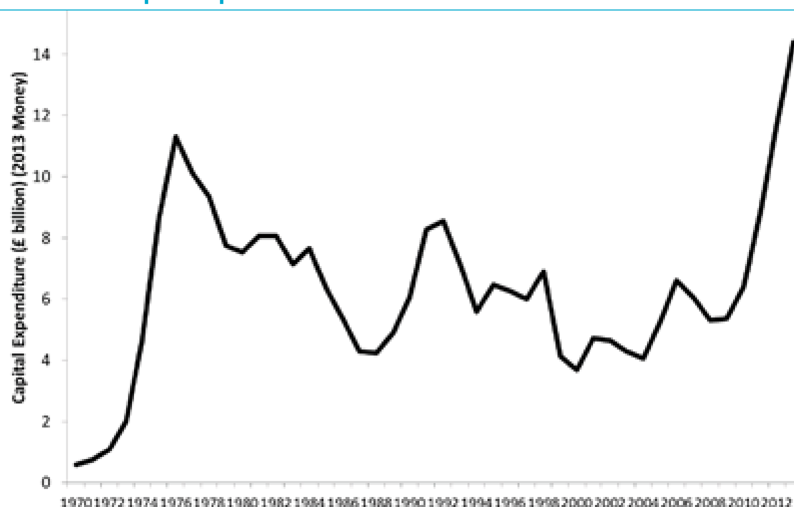
The UKCS is widely seen to be a buyers market

The UKCS is widely seen to be a buyers' market at the current time, with a number of large asset packages for sale. In the medium term, we see this dynamic changing, as oil prices stay stable and above 110$/bbl. We believe that a combination of several factors has started to entice cash-rich investors (NOCs, mid-cap E&Ps and private equity) back to the UKCS:

- Recent fiscal incentives for marginal field investment.
- Decommissioning letters of credit.
- Stable Brent crude prices well above 100$/bbl.
- Accumulated tax allowances.
- Increasing value of asset security in the face of events in Russia/Ukraine and the Middle East.
- New technology enabling exploitation of otherwise uneconomical barrels.

To some extent, this renewed interest in North Sea development is demonstrated by an uptick in UKCS capital expenditure, as shown in the graph below.

Figure 17: UKCS Capex expenditure £bn



Source: Wood Review

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Other Assets – UKCS and Netherlands

Parkmead has equity interests in several other assets that make up much smaller components of our RENAV than the core asset, Perth. The value ascribed to these assets is broken down in the valuation section of this note. The main assets within the company's asset base outside Perth, include a 30% stake in the producing asset, Athena, equity in a number of SNS gas discoveries, and gas production in the Netherlands.

Athena

Parkmead recently acquired an additional 20% equity in the Athena field from EWE, taking its equity to 30%.

Table 8: Athena asset description

Asset	Athena
Interest	30%
Partners	Ithaca (operator, 22.5%), Dyas (17.5%), Trap (15%), Spike (15%)
No. production wells	4
Production start date	May-2012
Remaining reserves end 2013	8.16mmbbl

Source: Numis Securities Research

Historically, production from Athena has fallen short of operator expectations due to electrical submersible pump (ESP) failures. As of end 2013, recoverable reserves stood at 8.16mmbbls and full recovery is likely to depend on the forward ESP and well-workover schedule. As we stand, the field has four producers A2, A3, A4 and A5 each with two ESPs in place. ESP uptime has been a key determinant of production performance, and currently four out of eight available ESPs remain out of service, two of which are located in well A2.

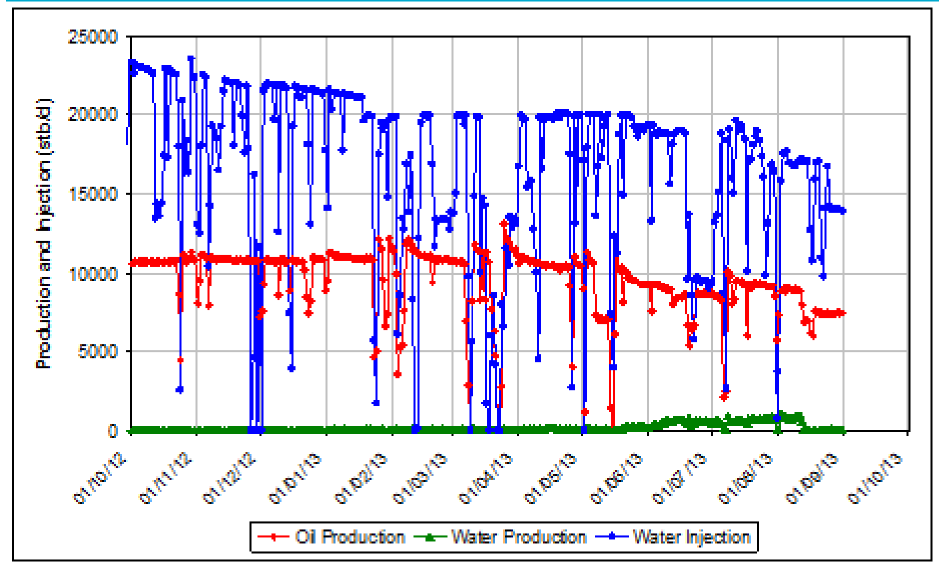
Table 9: Well operating status

DECC Allocated well name	Status	Remedial plans
A2	Both ESPs failed. Operating under freeflow since August 2013 at c.300bopd gross.	Dual ESP replacement expected in Aug 2014. Expected cost of pump replacement c.£17m gross. Incremental production c.2,000bopd
A3	1 ESP available. Limited pressure support from the A1 water injector has impacted production. Currently c.400bopd	
A4	2 ESPs available. Production c.5,000bopd and low water cut.	
A5	1 ESP available. Production c.1200bopd	

Source: Parkmead

The Athena partners have several options available to them in terms of field-wide remediation in order to increase production and EUR (Estimated Ultimate Recovery). Current work plans include the replacement of ESPs at the A2 (P4) well location with a rig expected on location in mid August 2014. There are currently no firm plans to drill additional producers, but Parkmead believes that a side-track at the A5 well location has the potential to add over 1.6mmbls of gross incremental reserves. Longer term Parkmead see potential to the extend the life of the field through increasing recovery factor from the well understood Claymore sands. Current recovery factor estimates at c.30% appear to be low compared to the achieved recovery from analogous fields.

Figure 18: Athena Production and injection in 2013



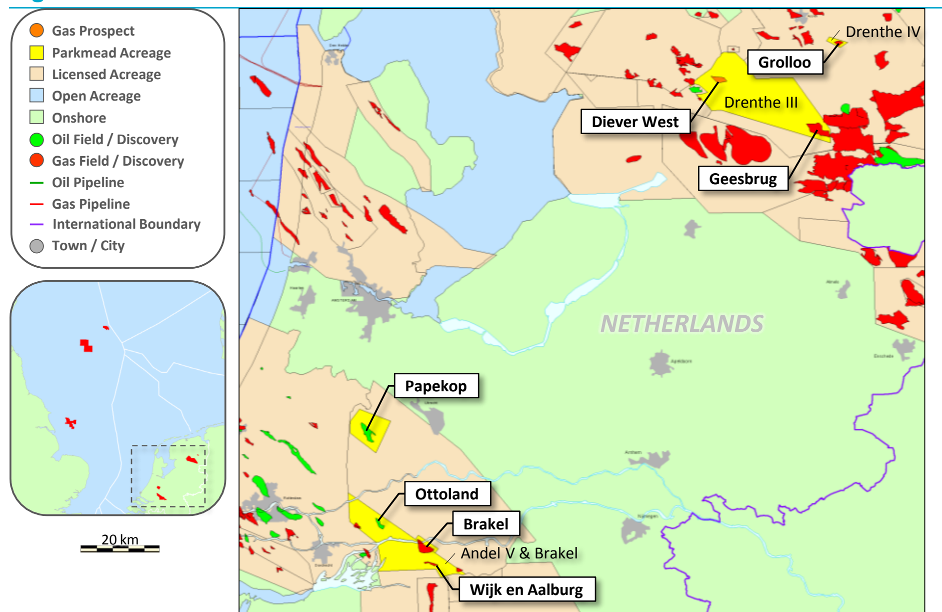
Source: Parkmead

Our base case valuation assumes a successful outcome from the A2 ESP replacements in 2H14, but excludes potential incremental reserves from the addition of future producers/side-tracks.

Netherlands

Parkmead has 15% equity in four producing fields onshore, all operated by Vermilion. Combined, the assets produce c.1mmscfd and 170boepd net to Parkmead. The producing fields are Grolloo, Geesburg, Brakel and Wijk en Aalburg and are described in further detail in the tables below. Whilst Netherlands is a relatively important component of current production, it is relatively small in relation to group NAV.

Figure 19: Parkmead Netherlands asset base



Source: Parkmead

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Table 10: Drenthe III licence description

Licence name	**Drenthe III**
Licence awarded	Production licence
Interests	Vermilion (operator, 45%), EBN (40%), Parkmead (15%)
Producing field	Geesburg
Remaining 2P reserves	33.37
Well	GSB-1
Exploration target	Diever West
Well expected	3Q 2014

Source: Company Data

Table 11: Drenthe IV licence description

Licence name	**Drenthe IV**
Licence awarded	Production licence
Interests	Vermilion (operator, 45%), EBN (40%), Parkmead (15%)
Producing field	Grolloo
Remaining 2P reserves	3.01
Well	GRL-1

Source: Company Data

Table 12: Andel V licence description

Licence name	**Andel V**
Licence awarded	Production licence
Interests	Vermilion (operator, 45%), EBN (40%), Parkmead (15%)
Producing field	**Wijk en Aalburg**
Remaining 2P reserves	0.07
Well	AND-6
Producing field	Brakel
Remaining 2P reserves	13.52
Gas rate (mmscf/d)	3.1
Well	BRK-1
Under development	Ottoland
STOIIP 2P (mmstb)	48.1
GIIP (Bscf)	2.4
2P reserves (mmstb)	9.7
2P reserves (Bscf)	6.2

Source: Company data

In addition to producing assets, Parkmead has a 15% interest in the Papekop oil and gas discovery. This Triassic Bunter Sandstone is located 20km to the north of the Andel V production licence. Development options are currently being reviewed with a view to first production at some point in 2015.

Table 13: Papekop licence description

Licence name	Papekop
Licence awarded	Production licence
Interests	Vermilion (operator, 45%), EBN (40%), Parkmead (15%)

Development	Papekop
Remaining 2P reserves (bcf)	16.6
Remaining 2P reserves (mmbbl)	2.35
Est. well spud	3Q 2015

Source: Company Data

Ottoland to the north west of the producing Brakel gas field is a 2007 discovery, which produced 200bopd under EWT. A new field model is under construction using PSDM seismic and development studies are underway with development concept selection to be completed in 2014.

Southern North Sea Gas

Parkmead has interests in the Platypus and Pharos gas discoveries as well as Possum and Blackadder exploration wells. The Parkmead team originally acquired interests in Platypus, Pharos and Blackadder while at Dana, and has a good understanding of their respective merits. We value Parmead's SNS asset base at 17p/share or 5% of our group RENAV.

The combined Platypus/Possum development is the furthest advanced with a combined mid-case recovery of over 200bcf.

Platypus & Possum

Table 14: Playpus & Possum asset description

Name	Platypus	Possum
Interest	15%	15%
Gas in place (bcf)	180	100
Reserves (bcf)	70-103-117	19-33-59
Recovery factor P50	57%	33%
First Gas (Est.)	4Q 2018	
Project capex	~£200m	
Partners	Dana (operator, 59%), Parkmead (15%), First Oil (11%), CalEnergy (15%)	

Source: Company Data

Platypus is 18km North West of the West Sole and 15km South West of the Babbage infrastructure. Possum is a gas prospect adjacent to Platypus, consisting of the same trap type and the same reservoir with potentially up to 100 bcf of gas in place. There is potential to develop Possum with Platypus from a single central location, which adds significant incremental value to Platypus. The initial development (case 1) would include three wells at Platypus which could provide 102.5 bscf of cumulative gas production, and with an additional Possum well could increase this number by 22.1 bscf.

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Pharos

The Pharos discovery made in 2013 targeted mid-case 236bcf recoverable gross in which Parkmead has a 20% equity interest. Pharos is seen as a potential joint development with Platypus/Possum and is within tie-in distance (c.15km).

Table 15: Pharos asset description

Name	Pharos
Interest	20%
Gas in place (bcf)	471
Reserves (bcf)	129-236-395
Recovery factor P50	50%
CoS	28%
Exploration well spud	3Q13
Well cost	c.£15m
Partners	Dana (operator, 50%), MPX (15%), Dyas (15%)

Source: Company Data

We expect Parkmead to test additional upside in the discovery area in the form of the Blackadder gas prospect (430bcf) on Block 47/10c which also contains the 47/10-8 ‘Bob’ Rotliegendes gas discovery. A decision has yet to be made on the drilling of the Blackadder prospect in 2015, but the next logical step for the partnership is to drill Blackadder, as Blackadder is thought to be a gas saddle lying between the Pharos and Bob discoveries.

Blackadder

Table 16: Blackadder asset description

Name	Blackadder
Interest	20%
Gas in place (bcf)	311
Reserves (bcf)	118-186-256
Recovery factor P50	60%
Planned exploration well	2015
Partners	Dana (operator, 50%), Dyas (30%)

Source: Company Data

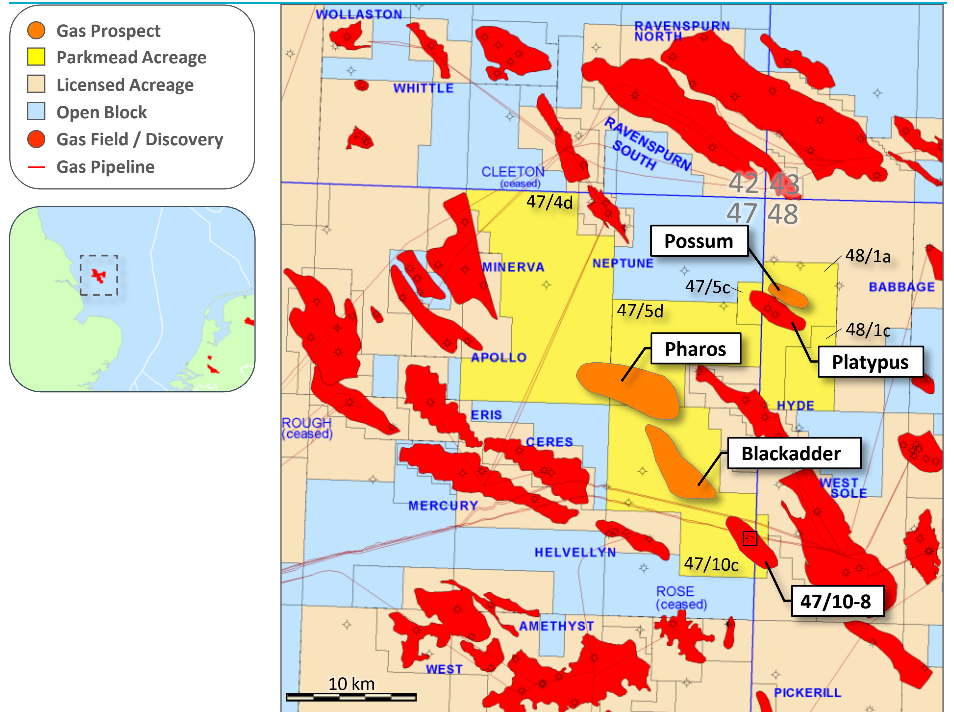
47/10-8

Table 17: 47/10-8 (‘Bob’) asset description

Name	48/10-8 ('Bob')
Interest	20%
Gas in place (bcf)	86
Reserves (bcf)	41-51-65
Recovery factor P50	59%
Partners	Dana (operator, 50%), Dyas (30%)

Source: Company Data

Figure 20: Southern North Sea Gas Assets



Source: Parkmead

Other UKCS: Skerryvore and Davaar

Two other significant components of the Numis and consensus NAV are risked prospective resource at Skerryvore and Davaar.

Skerryvore

Blocks 30/12c, 13c and 18b were awarded to Parkmead through the 27th licensing round and consists of three oil prospects and one lead. The two most significant prospects are stacked and can be tested by a single well (Skerryvore). Skerryvore is a Palaeocene prospect that is thought to be a southerly extension of the Talbot discovery and shows a similar seismic response to both Talbot and the neighbouring Cawdor discovery. Drilling is planned for 2015, and we include a risked valuation of 31p/share in our RENAV.

Table 18: Skerryvore asset description

	P50 oil recoverable resources (mmbbl)	P50 gas recoverable resources (bcf)	CoS (%)	Oil recovery (%)	Gas recovery (%)
Skerryvore Structural Palaeocene	5	11	32	30	
Skerryvore Stratigraphic Palaeocene	16	35	22	30	
Skerryvore Chalk	58	123.3	39	30	30
Skerryvore North	13	TBD	24		
Skerryvore BCU		TBD	10		

Source: Company Data

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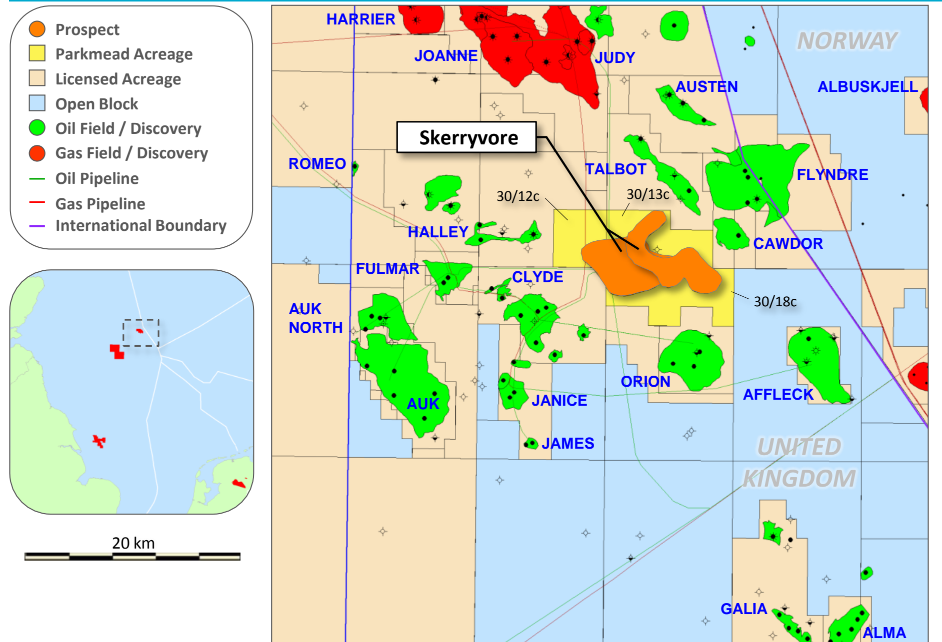
Figure 21: Skerryvore



Source: Parkmead

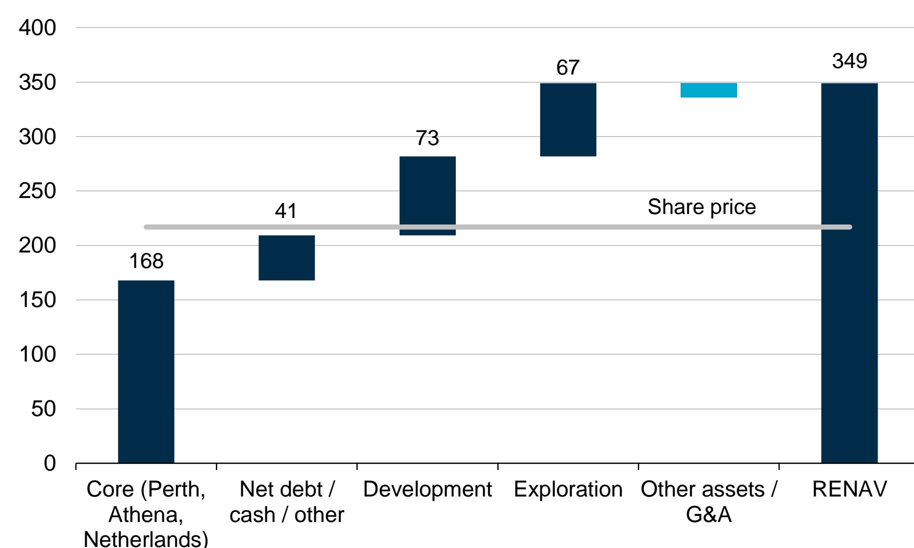
Davaar

Block 205/12 was awarded to Parkmead in the 27th round (Parkmead 30% and operator) and contains the Palaeocene oil prospect Davaar. Davaar lies between the Schiehallion oil field and Laggan-Tormore gas development, being at the same stratigraphic level as these adjacent discoveries and the project is de-risked by amplitude and AVO analysis. The current work programme includes further analysis of seismic and prospect definition before a potential decision to drill. On a P50 pre-drill basis, it is currently estimated that the Davaar prospect could contain up to 159mmbo gross (source: Atlantic Petroleum). The only well control on Block 205/12 is a well drilled by Total in 1995 which was drilled to the same stratigraphic level as the Davaar prospect but is thought to have been drilled up-dip of the Vaila sand target according to latest interpretations of the anomaly. Davaar is clearly a large target and hydrocarbon source is de-risked by neighbouring discoveries. Gross well costs could range from $40-60m, and given the size and risk we believe Davaar will have a strong positive NPV supporting a decision to drill. We include a risked valuation of 36p/share in our RENAV as detailed in the valuation section of this note.

Parkmead relative valuation

Our valuation of Parkmead is based around a risked NPV valuation of the company's asset base adjusted for net debt and other investments. A waterfall diagram showing our valuation split between core 2P assets, contingent resource, risked prospective resource and net debt is provided below. As can be seen in our detailed RENAV later in this section, the largest component of the group valuation is the company's interest in the Perth development project, which we split between Perth phase 1 (2P) and Perth phase 2 (2C).

Figure 22: Numis valuation waterfall



Source: Numis Securities Research

Our target price at 262p/share is based on a 0.75 times RENAV, to reflect potential asset value dilution through asset farm-downs and equity-based financing of capital intensive projects such as the Perth/Dolphin/Lowander (PDL) project. This reflects our view that Parkmead will 'leave something on the table' for a potential development partner in order for Perth to proceed to first oil. The 0.75 times RENAV multiple we apply is in-line with our wider E&P target price methodology.

The graphs below show where Parkmead trades relative to its UK-listed E&P peers on reserve based metrics. The vast majority of the company's 2P reserve base stands in the 2P undeveloped category, and we expect the market to ascribe increasing value to the asset base as it moves towards first oil and as development capex is sunk.

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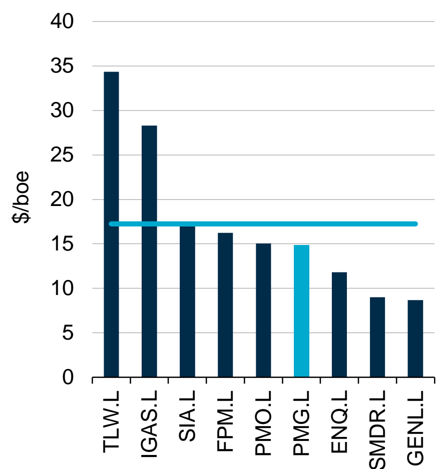
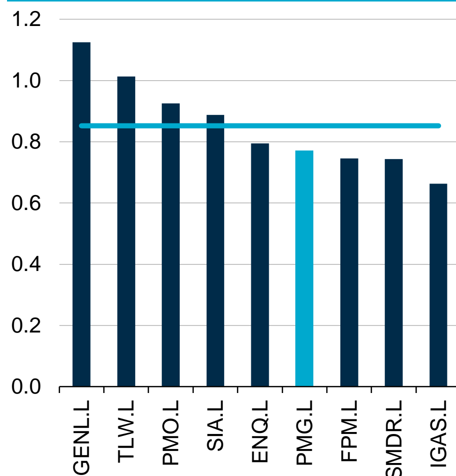
Figure 23: EV/boe 2P



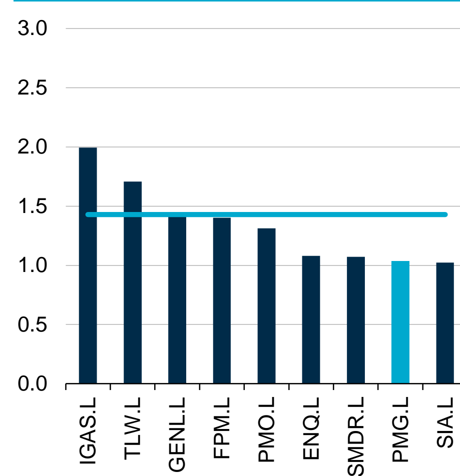
Source: Numis Securities Research

Figure 24: Price / (2P+2C NAV)



Source: Numis Securities Research

Figure 25: Price / 2P NAV

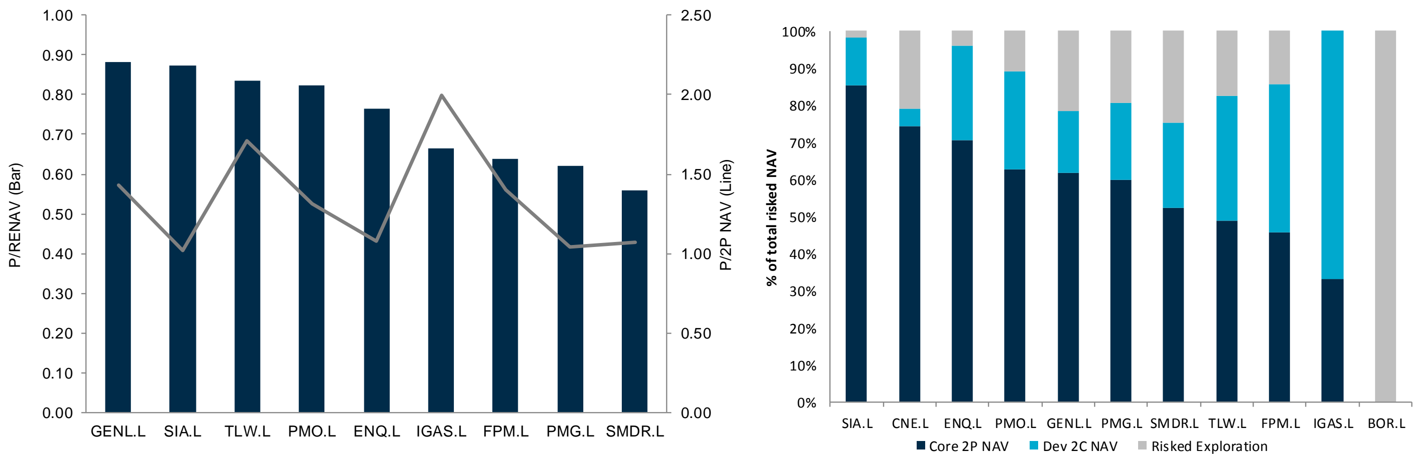


Source: Numis Securities Research

Figure 26: E&P sector comps including Parkmead

Company	Ticker	Price (p)	Mkt Cap (£mn)	EV (£mn)	Price Target	Return %	Rec	NAV p/share	Core 2P NAV	Dev 2C NAV	Risked Exploration	P/RENAV	P/Core NAV	P/(Core+ Dev) NAV
Tullow Oil	TLW.L	746	6787	7729	**840**	13%	**Hold**	892	437	299	156	0.84	1.71	1.01
Genel Energy	GENL.L	994	2786	2310	**1125**	13%	**Add**	1125	694	190	242	0.88	1.43	1.12
Cairn Energy	CNE.L	179	1030	207			**Under Review**							
Premier Oil	PMO.L	325	1693	2293	**351**	8%	**Hold**	395	247	104	43	0.82	1.31	0.93
Soco International	SIA.L	428	1421	1298	**491**	15%	**Add**	491	419	63	9	0.87	1.02	0.89
EnQuest	ENQ.L	135	1083	1353	**177**	31%	**Buy**	177	125	45	7	0.76	1.08	0.79
Faroe Petroleum	FPM.L	113	302	260	**142**	25%	**Buy**	177	81	71	25	0.64	1.40	0.75
Salamander Energy	SMDR.L	112	289	345	**150**	35%	**Hold**	199	104	46	49	0.56	1.07	0.74
IGas Energy	IGAS.L	114	234	316	**128**	13%	**Add**	171	57	114	0	0.66	1.99	0.66
Parkmead	PMG.L	217	190	236	**262**	21%	**Buy**	349	209	73	67	0.62	1.04	0.77
Borders & Southern	BOR.L	11	53	39	**76**	598%	**Buy**	152	0	0	152	0.07	na	na
Average Small Cap												*0.51*	*1.38*	*0.73*
Average Mid Cap ($1bn+)						*34%*						*0.77*	*1.19*	*0.89*

Company	EPS Currency	EPS FY13	EPS FY14E	EPS FY15E	P/E FY13	P/E FY14E	P/E FY15E	EV/EBIDAX FY13	EV/EBIDAX FY14E	EV/EBIDAX FY15E	Resource Base (mmboe) 2P	Resource Base (mmboe) 2C	EV/ boe ($) 2P	EV/ boe ($) 2P+2C
Tullow Oil	USc	18.5	-19.7	21.9	68.5	nm	57.9	8.3	9.5	9.5	382	1026	$34.36	$9.33
Genel Energy	USc	75.0	70.3	49.2	22.5	24.0	34.4	13.7	8.9	9.0	453	1088	$8.67	$2.55
Cairn Energy	USc													
Premier Oil	USc	43.2	50.2	46.2	12.8	11.0	11.9	3.8	3.2	3.0	259	794	$15.05	$3.70
Soco International	USc	31.6	66.4	72.8	23.0	11.0	10.0	10.1	8.5	7.5	130	40	$16.96	$12.97
EnQuest	USc	23.6	15.9	23.7	9.7	14.5	9.7	3.9	3.3	2.4	195	121	$11.80	$7.27
Faroe Petroleum	p	6.6	-7.2	-1.3	17.1	nm	nm	2.3	5.1	3.5	27	73	$16.24	$4.41
Salamander Energy	USc	-46.0	35.8	7.3	nm	5.3	25.9	1.6	1.6	2.7	65	121	$8.99	$3.15
IGas Energy	p	-11.1	-4.1	0.3	nm	nm	nm	13.9	13.8	11.6	19	317	$28.31	$1.60
Parkmead	p	-0.7	17.7	22.9	nm	12.2	9.5	nm	9.1	7.5	27		$14.86	
Average Small Cap					*17.1*	*8.8*	*17.7*	*5.9*	*7.4*	*6.3*			*17.1*	*3.1*
Average Mid Cap ($1bn+)					*27.3*	*15.1*	*24.8*	*7.9*	*6.7*	*6.3*			*16.4*	*6.9*



Key wells by Company	Prospect	Rig	Spud date	Est Result date	Detail / Numis Comment	Risked p/sh	Unrisked p/sh	Upside %	Downside %
Premier Oil	Kenya Block 2B Badada		Q414	Q414	Tertiary reservoir targets similar to Albertine and Lokichar Basins	4	26	6%	1%
Tullow Oil	Gabon - Arouwe Sputnik East (Q314)		Q314	Q314	Frontier exploration age similar to Brazil/Angola carbonate play	6	32	3%	1%
Genel	Angola - Dilolo		Jun-14	Q314	Multi-bnbbl pre-salt prospect close on trend with existing discoveries	17	166	13%	1%
	Sidi Moussa		Q314	Q414	60-90day well. Upper Jurassic carbonate reef play. Cap Juby analog	53	266	19%	5%
Faroe Petroleum									
Soco International	Litchendjili		Q314	Q314	Tagging the southern extent of the ENI 1.2bnbbl Lichendjili field	9	18	2%	2%
EnQuest	Crawford/Porter		1Q14	2Q14		4	4	1%	2%
Cairn Energy	Shelf prospect (Senegal)		H214	H214	Albian clastics and Aptian Carbonate	Under review			
	Deep North Fan (Senegal)		Q214	H214	Petroleum system confirmed by DHIs, pock marks and seeps and o	Under review			
Salamander Energy	North Kendang		3Q14	3Q14	Insurance funded well	22	88	33%	12%
	Yala (Abutment) EIA not yet		H214	H214	G4/50 exploration still waiting EIA approvals	9	37	14%	5%
Borders and Southern					Looking to contract a rig post farm-down				
IGas	Barton		Nov-13	Q114	Bowland Shale vertical well results, with core analysis to follow				
Parkmead	Skerryvore				Likely 2015. Palaeocene prospect similar seismic response to Talb	31	123	26%	9%
Ophir (n/c)	Tende (Tanzania)		Q314	Q314					
	Silenus East Gas & Oil (Equatorial Guine		Q314	Q414					
Afren (n/c)	Ethiopia - Block 8		1H14	2H14					
	Kurdistan - Ain Sifni		1H14	Q314					
	Nigeria - Ebok		Q414	Q414	Similar amplitube response to Ebok/Okwok				
	Tanzania - Tanga Block		Q214	Q314	74% WI. Coastal play with shallow marine sand, 4-way dip traps and Jurassic/Marine source				

Source: Numis Securities Research

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Figure 27: Summary financials

Parkmead	Ticker	PMG.L
Buy	Current Share Price	217p
262p	Implied Return	21%

Market Capitalisation	£194m	Financial Year End	June
Enterprise Value (EV)	£242m	Reporting Currency	£
Net Cash (Debt)	-£48m	Share in Issue	89m

Valuation		
Net Asset Value	**$m**	**p/sh**
Perth Phase 1 Pre-tax	315	220
Athena Pre-tax	76	53
Netherlands Production	4	3
UKCS Tax	-155	-108
Total		**168**
Development		
Perth Phase 2	70	49
Platypus	6	4
Pharos	17	12
Ottoland	4	2
Papekop	7	5
Total		**73**
Exploration		
UKCS	96	67
Netherlands	0	0
Total		**67**
Liabilities / Associates	(32)	(22)
Net debt	88	60
Other	5	3.5
Total risked NAV		**349p**
P/ Core NAV		1.05
P/ Core + Dev NAV		0.78
P / Total risked NAV		0.63
Target price multiple		0.75x
Target Price		**262p**

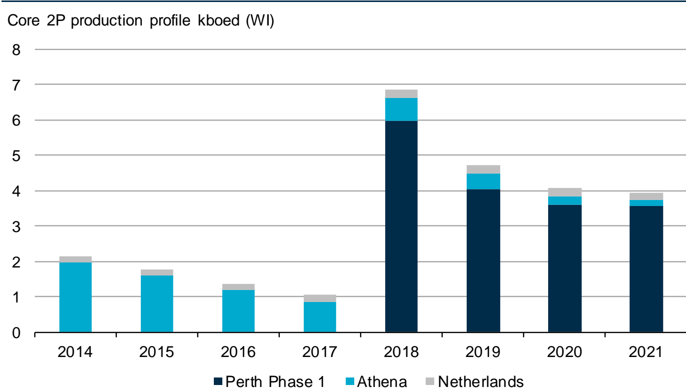
Sensitivity Analysis (OECD WACC / LT oil price)	90$/bbl	100$/bbl	110$/bbl
10%	283p	349p	407p
8%	291p	360p	420p

Near term exploration catalysts	Timing	risked p	upside p	upside %
Skerryvore		31	92	26.3%
Davaar		36	204	58.4%

Reserves & Resources	WI	EV/boe
2P Reserves (company reported)	25.4mmboe	15.7$/boe
2P Reserves (adj for acquisitions)	27.1mmboe	14.8$/boe

Production & Costs		2012	2013	2014E	2015E
Production WI	kboed			2.2	1.8
Production growth %					-18%

Core 2P production profile kboed (WI)



Assumptions (Real)		2012	2013	2014E	2015E
Brent Oil price	$/bbl	111	110	109	100
Exchange Rate	US$/£	1.60	1.54	1.68	1.68

Key Metrics	2011	2012	2013	2014E	2015E
Adj EPS (p/sh)	(0.6)	(0.8)	(0.7)	20.5	23.7
EPS Growth		nm	nm	nm	16%
P / E				10.6x	9.2x
EBIDAX (£mn)			(9.4)	29.5	32.4
EV/EBIDAX			nm	8.2x	7.5x
Cash and equivalents (£mn)	1.3	7.7	13.3	62.3	78.9
Capex ($mn) inc acquisitions	(0.1)	(3.3)	(8.4)	(12.3)	(14.4)
Dividend Per Share (p/sh)	0.0	0.0	0.0	0.0	0.0
Dividend Yield			nm	nm	nm
Net Debt/Equity (Gearing)			-23%	-53%	-57%
Shares Outstanding (m)				89.4	89.4

Income Statement £m	2011	2012	2013	2014E	2015E
Revenue	3.7	2.9	4.1	52.1	68.7
Cost of sales	(2.0)	(1.4)	(2.5)	(25.9)	(32.3)
G&A	(5.3)	(5.5)	(7.7)	(6.0)	(6.3)
Other					
Operating income	**(3.6)**	**(4.7)**	**(5.1)**	**25.1**	**30.0**
Net finance income (expense)	0.0	(0.2)	(0.1)	(0.9)	0.2
PBT	**(3.5)**	**(4.9)**	**(5.3)**	**24.2**	**30.3**
Non-Recurring Items/Other					
Tax	(0.1)	0.0	(0.3)	(6.8)	(9.1)
Net Profit (Loss)	(3.6)	(4.9)	(5.6)	17.5	21.2

Cashflow £m	2011	2012	2013	2014E	2015E
Cash Flow From Operations	**(1.2)**	**(2.3)**	**(4.7)**	**26.4**	**30.7**
Operating profit /loss			(5.1)	25.1	30.0
Tax/Non Recurring/Other			0.4	1.3	0.7
Cash Flow From Investing	**1.9**	**(2.9)**	**(7.6)**	**(11.1)**	**(14.0)**
Capital Expenditure	(0.1)	(3.3)	(8.4)	(12.3)	(14.4)
Divestments/adjustments	2.1	0.4	0.8	1.1	0.3
Cash Flow From Financing	**0.3**	**11.6**	**17.9**	**36.6**	**(0.1)**
Net proceeds from Borrowings	0.0	3.0	2.4	(1.9)	0.0
Proceeds from share issue	0.3	8.8	15.6	40.0	0.0
Other	(0.0)	(0.2)	(0.1)	(1.5)	(0.1)
Net Change in Cash	**1.0**	**6.4**	**5.6**	**51.9**	**16.6**

Balance Sheet £m	2011	2012	2013	2014E	2015E
Cash & Equivalents	1	8	13	62	79
Total Current Assets	2.9	10.9	17.2	75.5	90.5
PP&E	0.1	0.2	3.8	28.6	34.6
Exploration assets	0.0	3.1	25.8	33.4	39.4
Other	9.3	8.7	6.6	7.4	7.4
Total Assets	**12**	**23**	**53**	**145**	**172**
Short Term Debt	0.0	0.0	(2.0)	(1.7)	(1.7)
Current Liabilities	(1.1)	(4.2)	(11.1)	(14.8)	(11.7)
Long Term Debt	0.0	(0.0)	(0.3)	(0.3)	(0.3)
Other Long Term Liabilities	0.0	(3.0)	0.0	(5.9)	(5.9)
Total Liabilities	**(3.3)**	**(10.7)**	**(16.0)**	**(34.1)**	**(40.0)**
Shareholder Equity	9.0	12.3	37.3	110.7	131.9
Total Liab. & Equity	**12**	**23**	**53**	**145**	**172**

Source: Numis Securities Research

Figure 28: Detailed NAV

Parkmead	Ticker	PMG.L	Market Capitalisation	£194m	Financial Year End	June
Buy	Current Share Price	217p	Enterprise Value (EV	£242m	Reporting Currency	£
262p	Implied Return	21%	Net Cash (Debt)	-£48m	Share in Issue	89m

Asset	Location	WI	Fluid	CoS	Resource (mmboe)		Unrisked	Risked	Risked	% Total	Unrisked	Upside
		%		%	Gross	Net	$/boe	NPV $mn	NPV p/sh		p/sh	p/sh
Perth Phase 1 Pre-tax	UKCS	52%	Oil	100%	41	21.4	14.7	315	220		220	
Athena Pre-tax	UKCS	30%	Oil	100%	9.0	2.7	6.4	76	53		53	
Netherlands Production	Netherlands	15%	Gas	100%	8	1.3	2.9	4	3		3	
Liabilities (decomm - tax deductable) , G&A								(24)	(17)		(17)	
NPV of UK Tax payments post allowances								(155)	(108)		(108)	
Net debt (inc Jan 14 placing)								78	54		54	
Faroe Petroleum stake								10.2	6.1		6.1	
Acquisition of Athena stake								(8)	(5.6)		(5.6)	
Aupec								5	3.5		3.5	
Core NAV					**59**	**25**		**301**	**209**	**60%**	**209**	
Perth Phase 2	UKCS	52%	Oil	50%	28	14	9.7	70	49		99	49
Platypus	UKCS	15%	Gas	50%	17	3	4.3	6	4		8	4
Pharos	UKCS	20%	Gas	50%	39	8	4.3	17	12		24	12
Ottoland	Netherlands	15%	Gas	75%	11	2	2.9	4	2		3	1
Papekop	Netherlands	15%	Oil/Gas	75%	11	2	5.9	7	5		7	2
Development NAV (Contingent Resource)					**106**	**28**		**104**	**73**	**21%**	**140**	**66**
Possum	UKCS	15%	Gas	30%	4	1	4	1	1		2	1
Skerryvore	UKCS	31%	Oil	25%	80	24	7	44	31		123	92
Davaar	UKCS	30%	Oil	15%	159	48	7	51	36		240	204
Diever West	Netherlands	7.5%	Gas	30%	3	0	3	0.2	0.1		0.4	0.3
Exploration & Apprasial NAV (prospective resource)					**246**	**73**		**96**	**67**	**19%**	**364**	**297**
Total NAV					**410**	**126**		**501**	**349**		**714**	**363**

Material near term Catalysts		Spud	Est Result	Detail / Numis Comment	Risked	Unrisked	Upside
Prospect	Rig	date	date		p/sh	p/sh	%
Skerryvore	UKCS	2015			31	123	26%
Davaar	UKCS				36	240	58%

Source: Numis Securities Research

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Major shareholders

We note that management remain significant owners of Parkmead, with Tom Cross owning 21% of the company. Management is very much aligned with the interests of shareholders. Our sector note *Value over volume* (December 2013) found a strong correlation between management incentivisation and equity holding with shareholder total returns. Other stocks in the sector with comparable management/board ownership are SOCO, Genel, IGas and EnQuest.

Table 19: Major shareholders (02/07/14)

	(%)
Tom Cross	21.4
Fidelity Worldwide	6.7
Henderson Global Investors	3.4
D Rose	3.4
Legal & General Investment Management	3.2
Hargreave Hale	2.4
A G Kemp	2.3
N Doran	2.0
D Mills	2.0
Blackrock Investment Management	1.7

Source: Company Data

Management Bios

Tom Cross – Executive Chairman

Tom is a Chartered Director and petroleum engineer with extensive energy sector experience, spanning projects in more than 20 countries. Tom was the founder and Chief Executive of Dana Petroleum plc through until its sale to the Korea National Oil Corporation in 2010. Prior to Dana, he held senior positions with Conoco, Thomson North Sea, Louisiana Land and Exploration and was Director of Engineering at the UK Petroleum Science and Technology Institute. Tom is a former Chairman of BRINDEX, the Association of British Independent Oil Companies, a former adviser to the BBC on energy affairs, and a Fellow of the Institute of Directors.

Ryan Stroulger – Finance Director

Ryan served as Commercial Director of the Group before becoming Finance Director. He has been responsible for identifying and driving forward numerous asset and corporate opportunities, such as the acquisitions of DEO Petroleum plc and Lochard Energy Group PLC. Prior to this, he served as Group Finance Manager, responsible for all aspects of Parkmead's external financing, from strategic planning through to successful execution. He is a member of the UK's Institute of Directors (IoD) and was awarded the Corporate Finance Qualification by the Institute of Chartered Accountants in England and Wales (ICAEW).

Dr Colin Percival – Technical Director

Colin has more than 30 years of experience in the oil & gas industry. He began his career as a sedimentologist with BP in international operations and went on to lead a series of BP exploration teams evaluating various plays across the UKCS, which resulted in a number of significant discoveries. Colin was a member of the Dana Petroleum plc management team from 2003 to 2011, with responsibility for the technical work on all Dana operated assets and new ventures. He joined Parkmead in 2011, where he leads the Company's experienced exploration and technical group. Colin played a key role in Parkmead's success in the UKCS 27th Licensing Round.

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Risks

Oil and gas prices

The E&P sub-sector is one of the most levered to fluctuations in oil and gas prices. Commodity price sensitivity varies from company to company, and is dependent on a number of factors including fiscal terms, hedging, oil/gas ratio, hydrocarbon quality and the geography of company's resource base. The oil field service sector remains levered to upstream opex and capex spend, which tends to lag oil price movements.

Geopolitical / fiscal

The location of a company's assets determines its exposure to various geopolitical events and fiscal regimes. Amendments to taxation, export duty, subsidies and production sharing agreements can have a material impact on a company's value. Geopolitical events can range from wars and military unrest to acts of terrorism, and are notoriously hard to predict. We use a country risk premium in our WACC assumptions for all operations outside the OECD (+2%).

Cost inflation / Access to resource

Inflation has historically been an industry-wide issue rather than company-specific. Rising raw material prices, a tight oil field service market, a shortage of technical staff, and a trend towards the development of deeper and more complex resource bases have the potential to drive up operational, exploration and development costs. For the service players, commodity price inflation and wage inflation / lack of trained personnel can lead to margin destruction and project delays.

Access to capital

Access to capital is a key consideration given current credit markets. Whilst a number of mid/large cap E&Ps are funded through cash flow, some rely on the ability to raise capital or gain access to debt facilities in order to fund ongoing exploration and development. We believe that the majority of companies we have under coverage have sufficient reserve/resource bases to be able to gain access to both equity / debt markets. We apply an appropriate target price discount to allow for potential equity dilution and farm-downs.

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The company has seen a draft of the note and has made minor factual comments that have been incorporated.

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As from 14 February 2005, the formula is:	
Buy	> +20%
Add	> +10% to +19.99%
Hold	0% to +/-9.99%
Reduce	-10% to -19.99%
Sell	> -20%

With effect from 9 February 2010 upon the initial establishment of a recommendation and target price for a company, an additional 10 % deviation in the price from the default bands set out above is permitted before the recommendation has to be changed in subsequently published research documents.

Distribution of Ratings

	US Requirement 01/07/2013 - 30/06/2014		UK Requirement 01/04/2014 - 30/06/2014	
	All Securities	**Corporate Clients**	**All Securities**	**Corporate Clients**
Buy	36.5%	62.8%	39.8%	66.1%
Add	25.6%	25.6%	23.6%	25.9%
Hold	31.8%	11.6%	29.8%	10.9%
Reduce	3.9%	0.0%	2.7%	0.0%
Sell	2.2%	0.0%	4.1%	0.0%
Total	100%	100%	100%	100%
	The above table shows the split of recommendations based on the last recommendation for each research stock during the last four calendar quarters.		The above table shows the split of recommendations based on all recommendations during the last calendar quarter for all securities and within each category the proportion of issuers to which Numis supplied material banking services.	

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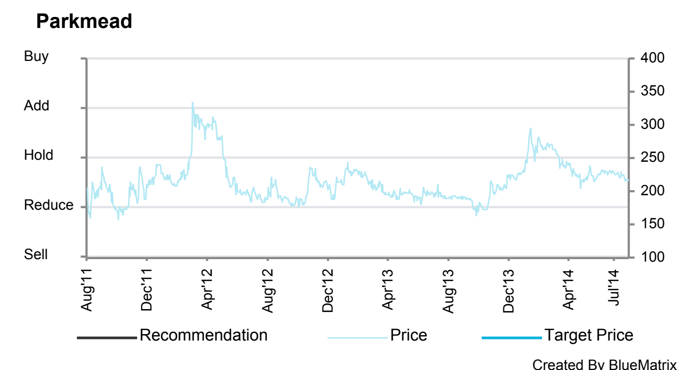
Three Year - Recommendation, Target Price, Share History



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