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ARDEN PARTNERS

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Oil & Gas Producers (AIM) **IOG.L**

Independent Oil and Gas[#]

CPR and project funding update

Buy

Current 24p Target 55p (from 60p)

IOG recently released a new CPR for its Southern North Sea development project, and struck a number of important cost deferral agreements with services companies. Development funding is increasingly the focus, and we expect further cost deferrals to be announced. Beyond this, we see a string of catalysts as the project is developed and brought on to production to provide impetus for the shares.

- **CPR updates.** The CPR allocates 2P reserves across IOG's five field development of 300bcf. It also takes a view on onstream timing (over June 2019-March 2020), peak rate (>200mmcf/d) and total CAPEX (£449m).
- **Updated model.** We have updated our model based on the CPR and company guidance, using the 300bcf 2P reserves (we had used 389bcf of 2P/2C), a CAPEX number of £418m (assuming some savings versus the CPR, we had used £296m), and the same onstream timings/production assumptions. We also update our UK gas price to 42p/therm. Total risked NAV moves from 62.2p to 57.3p, unrisked NAV from 138.6p to 99.7p.
- **LOIs show funding progress, more to come.** IOG has been making important progress on funding, announcing LOIs with Schlumberger, Heerema and ODE that we expect to lead to cost deferrals until after first gas of 50% or above. We expect further agreements for the SURF and drilling parts of the project.
- **Developments not yet fully funded.** IOG's plan is for cash flows from the fields that come onstream earlier (Blythe, Elgood, Southwark) to help fund the later fields (Nailsworth, Elland). Our analysis shows that if existing and additional cost deferrals plus phase 1 cash flows fully fund phase 2, additional external funding of £94m is still likely to be required. This could come from offtake prepay, other debt, or equity.
- **Forward plans drive catalysts.** Over the coming months, in addition to progressing its technical work, IOG will be looking to complete funding for its projects, targeting FID at the end of Q1 2018. We then expect periodic development updates, followed by first gas in June 2019 and ramp up thereafter. There is also the potential for production acquisitions.
- **Buy recommendation.** Attribution of reserves in the CPR is an important step, with the confidence around these and the other project parameters making up for lower overall gas volumes and higher CAPEX versus our previous assumptions. The project is increasingly taking shape, funding is progressing well, and we can see a string of potential catalysts over the next two years. Buy, 55p price target (from 60p).

Key Data	
Market Capitalisation	£25.8m
Shares in Issue	110m
Free Float	77.1%
Average Daily Volume	858,936
12-Months Trading Range	12.5p to 25.6p

Financial Forecasts			
Yr to 31 December	2016A	2017E	2018E
Sales	£0.0m	£0.0m	£0.0m
Operating Profit	(£1.0m)	(£2.7m)	(£2.8m)
Adjusted PBT	(£1.9m)	(£3.6m)	(£4.9m)
Adjusted EPS	(2.0p)	(3.3p)	(4.5p)
EPS Growth	-	-	-
P/E	-	-	-
EV/EBITDA	-	-	-
Dividend	-	-	-
Yield	-	-	-
Dividend Cover	-	-	-
Net Cash/(Debt)	(£14.3m)	(£20.5m)	(£24.1m)
Interest Cover	-	-	-

Price Performance	
1 Month	+54.6%
3 Months	+55.8%
12 Months	+35.8%

Price Performance (p)

Source: Bloomberg.

[*]Arden Partners acts as corporate broker to this company. [#]This company is a research client of Arden Partners.

CPR and model updates

The recent CPR for the Blythe/Elgood and Vulcan Satellites hubs contained three key updates: the graduation of contingent resources into reserves, a view on onstream timing and production assumptions, and a view on CAPEX.

Upgrade of contingent resources into reserves

There was significant graduation of resources into reserves, with a concurrent reduction in overall volumes. The Blythe field has already been allocated reserves, and these were revised down in the CPR. IOG's other development assets, Elgood and the Vulcan Satellites, all had reserves allocated, alongside the removal of their entire contingent resource allocation. The upgrade from contingent resources to reserves is significant, as it shows the confidence added by the extensive seismic interpretation, geological and reservoir modelling work IOG has now carried out on the assets, as well as demonstrating third party verification from ERC Equipoise. This should all help contribute to the achievement of FID, which is planned for the end of Q1 2018.

IOG CPR Reserves and Resources Updates

Asset	Previous Assumed Position	2P Reserves from CPR
Blythe	42bcf 2P reserves	33bcf
Elgood	27bcf 2C resources	21bcf
Nailsworth	131bcf 2C resources	98bcf
Elland	77bcf 2C resources	54bcf
Southwark	112bcf 2C resources	93bcf

Source: ERCE, TRACS, IOG.

IOG has also released a CPR on its Harvey structure, confirming P50 prospective resources of 114bcf (we had assumed 113bcf previously), of which 90bcf are on currently licensed IOG acreage. The company has now committed to the OGA to drill a well on the structure within two years (planned for 2019), and on success we would expect the company to request the whole structure is licensed to IOG.

Expected peak production rate of >200mmcf/d

The production forecast assumptions used in the CPR across IOG's five development assets aggregate to a peak production rate in excess of 200mmcf/d, above the 160mmcf/d that we had been assuming. While this rate swiftly declines (more so now given the lower total gas number), it nevertheless brings expected cash flows forward, increasing the value of these for IOG.

CPR CAPEX estimate of £449m

The CPR also includes ERC Equipoise's estimate of the total CAPEX for IOG's Blythe/Elgood and Vulcan Satellites projects, which aggregates to £449m. For comparison, we had been assuming a total CAPEX bill of £296m, and are now moving this to £418m.

IOG's current plan is to execute the project in two phases – Blythe, Elgood and Southwark as phase 1, followed by Elland and Nailsworth as phase 2. This is in line with the scheduling in the CPR. The total CAPEX bill would be split broadly evenly across these, with initial cash flows from phase 1 helping cover the CAPEX for phase 2. We discuss this further below.

Model updates

We have updated our IOG model based on the CPRs and IOG guidance. We have replaced the 389bcf of 2P reserves/2C resources we had been using across Blythe/Elgood and the Vulcan Satellites with the 300bcf of 2P reserves in the CPR. We have updated our £296m overall CAPEX estimate for the project to £418m, updated our OPEX assumptions, and also our CAPEX distribution and onstream timing assumptions based on the CPR. We have also increased our risking factors on the five fields to 70%.

Onstream Timing Assumptions

Field	Onstream Timing
Blythe	June 2019
Elgood	September 2019
Nailsworth	December 2019
Elland	March 2020
Southwark	June 2019

Source: Arden Partners Research.

In addition, we have upgraded our long-term UK NBP gas price deck from 40p/therm to 42p/therm based on the move in the forward curve over the last few months.

UK NBP Gas Prices and Forward Curve

Source: Bloomberg.

These changes have the combined effect of reducing our total risked NAV from 62.2p/share to 57.3p/share, and total unrisked NAV from 138.6p/share to 99.7p/share. The reduced overall bcf gas number and higher CAPEX are counteracted by the higher risking factors and increased gas price.

Our NAV uses a fully diluted number of shares of 260m, which assumes the £10m LOG debt converts at 8p/share. Were this to happen, along with other dilutive instruments, it could give LOG over 50% of plc equity. We discuss this further, and provide a fuller analysis of the company and its strategy, in our Initiating Coverage note of 26 May 2017.

Net Asset Valuation – 42p/therm																	
Field	**Class**	**Gross Liquids mmbbl**	**Gross Gas bcf**	**Gross Pet'm mmboe**	**WI**	**Net Liquids mmbbl**	**Net Gas bcf**	**Net Pet'm mmboe**	**Unrisked Value US$/boe**	**Unrisked Value US$m**	**Unrisked Value £m**	**Unrisked Value p/sh**	**Risk**	**Risked Value US$m**	**Risked Value £m**	**Risked Value p/sh**
Net Cash/(Debt)														(18.6)	(14.3)	(5.5)
Admin Costs														(7.0)	(5.4)	(2.1)
CORE NAV														**(25.6)**	**(19.7)**	**(7.6)**
Development																
Blythe	2P	0.3	33	6	100%	0.3	33	6	4.1	24.2	18.6	7.2	70%	16.9	13.0	5.0
Elgood	2P	0.2	21	4	100%	0.2	21	4	4.2	15.9	12.2	4.7	70%	11.1	8.5	3.3
Nailsworth	2P	1.0	98	17	100%	1.0	98	17	6.4	110.1	84.7	32.6	70%	77.1	59.3	22.8
Elland	2P	0.0	54	9	100%	0.0	54	9	3.3	29.5	22.7	8.7	70%	20.7	15.9	6.1
Southwark	2P	0.1	93	16	100%	0.1	93	16	6.2	96.7	74.4	28.6	70%	67.7	52.1	20.0
Total Development		**2**	**300**	**52**		**2**	**300**	**52**		**276.4**	**212.6**	**81.9**		**193.4**	**148.8**	**57.3**
Appraisal																
Skipper	2C	26	--	26	100%	26	--	26	0.1	1.4	1.1	0.4	10%	0.1	0.1	0.0
Harvey	PR	--	114	19	100%	--	114	19	4.5	84.6	65.1	25.0	30%	25.4	19.5	7.5
Total Appraisal		**26**	**114**	**45**		**26**	**114**	**45**		**86.0**	**66.1**	**25.5**		**25.5**	**19.6**	**7.6**
TOTAL NAV										**336.7**	**259.0**	**99.7**		**193.3**	**148.7**	**57.3**

Source: Arden Partners' Research.

Valuation scenarios

We have used our model to run a number of scenarios, based on changes to project timing, CAPEX quantum, and gas prices.

IOG Valuation Scenarios					
Scenario	**Long-Term Gas Price**	**Onstream Timing**	**CAPEX**	**Risked NAV**	**Unrisked NAV**
Base Case	42p/therm	As above	£418m	57.3p	99.7p
Downside Case	35p/therm	6 month delay all fields	+20%	13.6p	32.3p
Upside Case	50p/therm	As above	-10%	92.5p	156.1p

Source: Arden Partners' Research.

Funding progress – LOIs with oil services contractors

IOG is progressing its development programmes holding 100% of its projects. The company is looking for funding from a range of sources, and has made a number of announcements in this regard in recent weeks. These have concerned the signing of letters of intent (LOI) with several oil services contractors aimed at deferring a substantial portion of project CAPEX until after cash flows from the fields actually come through. Depending on exact terms (which have not been announced), this is effectively a form of debt funding.

So far IOG has signed three LOIs. The first was with Schlumberger, and included a Consultancy Master Services Agreement for the developments, though no details of any actual funding deferral have been given. We assume the services piece that Schlumberger would likely be responsible for would likely be around 18% of total project CAPEX.

The second was with platform fabricator Heerema for the FEED and EPCI work for up to four platforms, with 100% of FEED costs and 50% of EPCI costs to be deferred until first gas. We expect these costs to comprise around 27% of total project CAPEX.

The third was with Offshore Design Engineering (ODE) for technical and operational support in the development phase and operations and maintenance services in the production phase, with 100% of related pre-FID costs to be deferred until first gas, and 50% of post-FID (and pre-first gas) costs. We expect these costs to make up around 1% of total project CAPEX.

The cost deferrals already agreed apply to total project CAPEX, with deferred costs beginning to be paid down on first gas from phase 1, but with new deferrals for phase 2 costs helping to offset this.

Forward funding strategy

IOG has already had good success in agreeing its LOIs, and we expect that more of these could come through, principally for the SURF (around 25% of total) and drilling (around 29% of total) pieces.

We expect that IOG would then essentially split its development of the five fields into two phases, with five development wells in each phase. Blythe, Elgood and Southwark will form the first phase, coming onstream over June to September 2019. Cash flows from these are then planned to be recycled to help finance the second phase, which will consist of Nailsworth and Elland, and these two fields are planned onstream over December 2019 to March 2020. These dates are in-line with the CPR.

This plan should help reduce the amount of external funding required, but it does create risk to funding phase 2 of the project if the cash flows from phase 1 are not as expected.

IOG Development Funding Position

CAPEX Item	% of Total	Contractor	Phase 1 CAPEX (£m)	Phase 2 CAPEX (£m)	Assumed % Deferred	Cost Deferred Assumption	Quantum Deferred Phase 1	Quantum Deferred Phase 2
Services	18%	Schlumberger	39	36	85%	Arden/LOI	£33m	£31m
Platforms	27%	Heerema	59	54	50%	LOI	£29m	£27m
Technical/Operational Support	1%	ODE	2	2	50%	LOI	£2m	£2m
SURF	25%	TBC	54	50	50%	Arden	£27m	£25m
Drilling	29%	TBC	63	58	50%	Arden	£31m	£29m

	Phase 1	Phase 2
Total Existing Deferral (including Schlumberger)	£65m	£60m
Total Assumed Deferral	**£123m**	**£114m**
Total CAPEX	£217m	£202m
CAPEX Gap Post Existing Deferral	**£152m**	**£141m**
CAPEX Gap Post Assumed Total Deferral	**£94m**	**£87m**

Source: Arden Partners' Estimates.

Notes: Assumes pre-FID costs are minimal relative to the total CAPEX bill.

The table above calculates that post all assumed cost deferrals, the company is likely to need further external development funding in the region of £94m for phase 1. The current plan is then for a combination of cost deferrals and phase 1 cash flows to fully fund phase 2 (in our table this would mean phase 1 cash flows funding the £87m phase 2 CAPEX gap).

To help meet this phase 1 requirement, IOG is looking at securing funding via offtake prepay: selling its gas production forward to a trader in return for cash upfront that can then be used to fund project CAPEX – again essentially a form of debt funding. This would also be likely to begin being paid off on first gas from phase 1. We could see news on an offtake prepay agreement in the coming months.

To complete its development funding requirements, we also expect that IOG may require some conventional project debt (possibly in place of the offtake prepay) and/or equity, depending on the exact magnitude of phase 1 CAPEX and cost deferrals.

Short-term funding position

IOG has no existing revenues, and held £0.2m of cash at the end of June 2017. Overheads are running at £1.5m per year. Remaining headroom on debt facilities was an implied £4.2m at the end of June, providing ongoing liquidity to support the company's development programmes. The deferral of pre-FID costs under the various LOIs with oil services contractors is also likely to help here.

Total debt at the end of June was £15.3m, of which £6.6m was debt and contractor payables relating to the 2016 Skipper well which are due at the end of 2017. We expect that IOG is likely to be seeking a rescheduling and part conversion into IOG plc equity of its Skipper contractor payables. The intelligent pigging operations to confirm integrity of the Thames pipeline are also coming up in Q1 2018, and are expected to cost £4.3m (£1.7m for site surveys, and £2.6m for the actual pigging operation – some or all of these could potentially also be up for deferral). As such, IOG may need a measure of additional short-term liquidity, alongside its long-term funding arrangements.

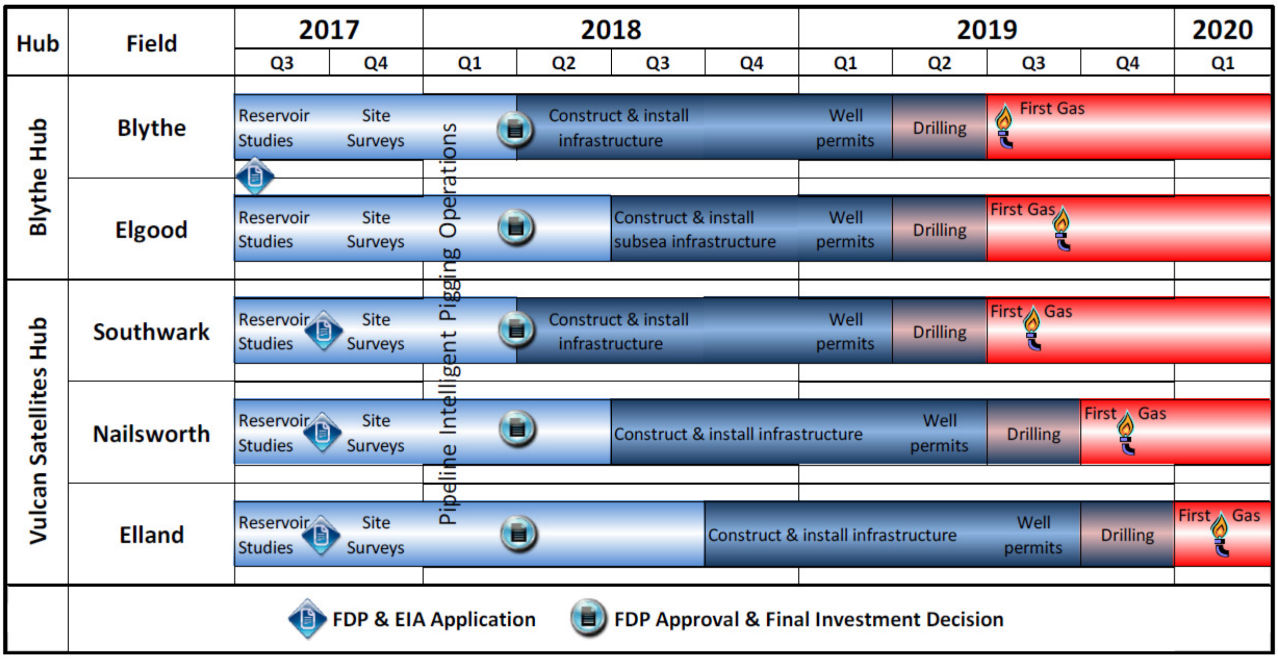
Forward work programme and upcoming catalysts

IOG's current work plan is targeting first gas towards the end of Q2 2019, with all five fields onstream by Q1 2020. Between now and then there is a string of potential catalysts, with FID for the entire project targeted for the end of Q1 2018, prior to which we would expect to see the key catalyst of the securing of full funding for the developments. There will also be the results of the intelligent pigging of the Thames pipeline, likely to be a formality but nevertheless very important to confirm the integrity of this offtake route for the project.

Post FID there would then be periodic updates on development, which we would expect to provide steady share price progress, with further, steeper upside on first gas at the end of Q2 2019. During this period there is also the potential for the addition of further resources via appraisal drilling of the 114bcf Harvey structure (resources for which were confirmed in another recent CPR). We could also potentially see production acquisitions.

In this way, IOG has an identified route to becoming a significant producing E&P company, but also a full newsflow schedule to support positive share price performance while it pursues this. In our view, securing full funding remains the key to unlocking the potential of the company's asset position.

IOG Planned Work Programme



Source: IOG.

Project summary

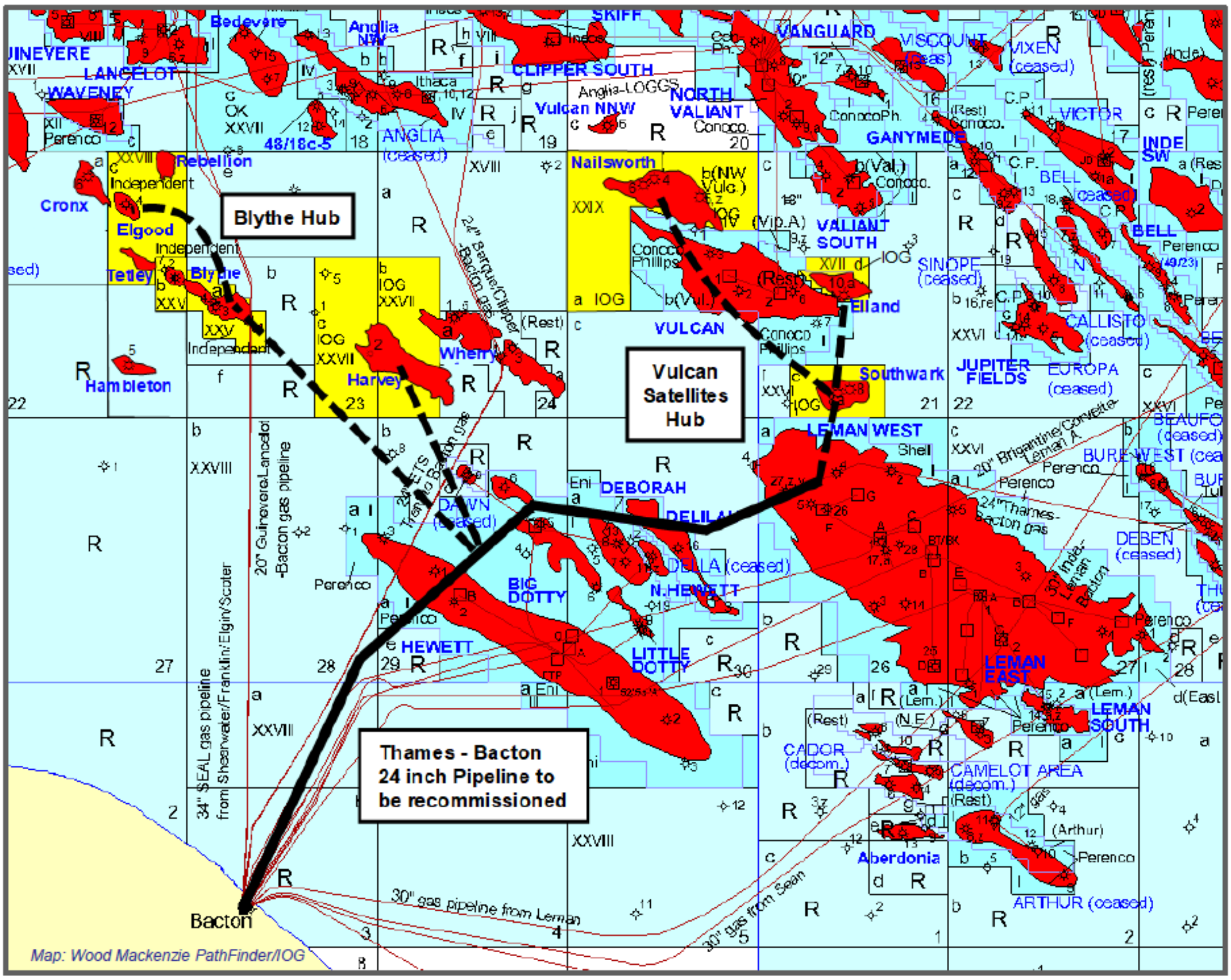
IOG's upcoming project consists of development of five gas fields in the UK southern North Sea, via two newbuild hubs. The Blythe hub is planned to develop the Blythe and Elgood fields (with the potential to tie-in the Harvey prospect once this is appraised), and the Vulcan Satellites hub to develop the Nailsworth, Elland and Southwark fields.

These are all then planned to be tied-in to the 24 inch Thames pipeline, which IOG is in the process of acquiring from Perenco. The Thames pipeline was shut down in 2015 due to decline of the fields connected to it (as opposed to reaching the end of its life). IOG expects that the pipeline will be able to last for the life of its developments, and that it will have capacity well in excess of the company's peak production rate. Intelligent pigging operations are planned to confirm all of this.

The pipeline will take the gas to the Bacton terminal on the Norfolk coast, which has total capacity of 1,900mmcf/d, of which 270mmcf/d was utilised in 2016 according to Woodmac. Since then the 660bcf Cygnus development has come onstream, but IOG remains confident there will be enough capacity at Bacton for its projects (particularly given that these quickly peak to 200mmcf/d before declining).

IOG also holds 100% in the 114bcf Harvey structure. This requires appraisal (a well is planned for 2019), but on success it could also be tied in and commercialised via the Thames pipeline. Harvey hence represents a source of upside beyond current development plans.

IOG Asset Map



Source: IOG.

Financial forecasts

Our financial forecasts are unchanged.

Profit and Loss						
Year		**2014A**	**2015A**	**2016A**	**2017E**	**2018E**
Net Oil Production	mbbl/d	--	--	--	--	--
Net Gas Production	mmcf/d	--	--	--	--	--
Total Net Production	**mboe/d**	**--**	**--**	**--**	**--**	**--**
Brent Oil Price	US$/bbl	99	60	44	50	55
UK NBP Average Spot Price	p/therm	50	43	35	40	42
Sales	**£m**	**--**	**--**	**--**	**--**	**--**
OPEX	£m	--	--	--	--	--
Depreciation	£m	--	--	--	--	--
Gross Profit	**£m**	**--**	**--**	**--**	**--**	**--**
Administrative Costs	£m	(0.7)	(0.5)	0.1	(1.5)	(1.5)
Share Based Payments	£m	(1.3)	(0.3)	(0.4)	(1.2)	(1.3)
Exploration Expense	£m	(0.6)	(0.0)	(0.7)	--	--
Operating Profit	**£m**	**(2.7)**	**(0.8)**	**(1.0)**	**(2.7)**	**(2.8)**
Finance Costs	£m	(1.1)	0.1	(0.9)	(0.9)	(2.0)
Finance Income	£m	--	--	--	--	--
Adjusted PBT	**£m**	**(3.8)**	**(0.8)**	**(1.9)**	**(3.6)**	**(4.9)**
FX Loss/(Gain)	£m	(0.1)	(0.1)	(0.3)	--	--
Impairment	£m	(8.3)	6.2	(19.7)	--	--
Exceptionals	£m	--	--	0.5	--	--
Reported PBT	**£m**	**(12.1)**	**5.3**	**(21.4)**	**(3.6)**	**(4.9)**
Tax	£m	--	--	--	--	--
Adjusted PAT	**£m**	**(3.8)**	**(0.8)**	**(1.9)**	**(3.6)**	**(4.9)**
Reported PAT	**£m**	**(12.1)**	**5.3**	**(21.4)**	**(3.6)**	**(4.9)**
Basic Adjusted EPS	p	(6.0)	(1.1)	(2.0)	(3.3)	(4.5)
Basic Reported EPS	p	(19.2)	7.44	(23.2)	(3.3)	(4.5)
Adjusted EPS	**p**	**(6.0)**	**(1.1)**	**(2.0)**	**(3.3)**	**(4.5)**
Diluted Reported EPS	p	(19.2)	6.5	(23.2)	(3.3)	(4.5)
Average Number of Shares	m	63.3	71.5	92.5	109.3	109.3
Average Dilutive Shares	m	13.1	10.1	41.9	49.5	49.5

Source: Arden Partners' Research.

Balance Sheet						
Year		**2014A**	**2015A**	**2016A**	**2017E**	**2018E**
Non-Current Assets						
Exploration and Evaluation Assets	£m	7.5	14.8	5.8	7.1	7.1
Development/Producing Assets	£m	--	--	7.5	10.0	10.0
Total Non-current Assets	**£m**	**7.5**	**14.8**	**13.4**	**17.1**	**17.1**
Current Assets						
Receivables	£m	0.0	1.5	0.3	0.3	0.3
Derivative Financial Asset	£m	0.3	--	--	--	--
Cash and Cash Equivalents	£m	0.4	0.0	0.2	--	--
Total Current Assets	**£m**	**0.7**	**1.5**	**0.5**	**0.3**	**0.3**
TOTAL ASSETS	**£m**	**8.2**	**16.3**	**13.9**	**17.4**	**17.4**
Non-current Liabilities						
Loans	£m	--	--	(4.1)	(4.1)	(4.1)
Trade and Other Payables	£m	(1.6)	(0.3)	(5.8)	--	--
Total Non-current Liabilities	**£m**	**(1.6)**	**(0.3)**	**(9.9)**	**(4.1)**	**(4.1)**
Current Liabilities						
Loan Notes	£m	(0.5)	--	(4.7)	(16.4)	(20.0)
Trade and Other Payables	£m	(0.2)	(2.6)	--	--	--
Provision	£m	--	--	(3.6)	(3.6)	(3.6)
Total Current Liabilities	**£m**	**(0.7)**	**(2.6)**	**(8.3)**	**(20.0)**	**(23.6)**
TOTAL LIABILITIES	**£m**	**(2.2)**	**(2.9)**	**(18.2)**	**(24.1)**	**(27.6)**
Equity						
Called Up Equity Share Capital	£m	0.7	0.8	1.1	1.1	1.1
Share Premium Account	£m	17.2	17.6	20.6	20.6	20.6
Convertible Debt Option Reserve	£m	--	--	--	--	--
Share-based Payment Reserve	£m	1.8	3.3	2.9	4.1	5.4
Retained (Deficit)/Earnings	£m	(13.6)	(8.3)	(28.9)	(32.5)	(37.3)
Total Shareholders' Equity	**£m**	**6.0**	**13.5**	**(4.3)**	**(6.7)**	**(10.3)**
TOTAL LIABILITIES AND EQUITY	**£m**	**8.2**	**16.3**	**13.9**	**17.4**	**17.4**

Source: Arden Partners' Research.

Cash Flow						
Year		**2014A**	**2015A**	**2016A**	**2017E**	**2018E**
Operating Cash Flow						
Reported PAT	**£m**	**(12.1)**	**5.3**	**(21.4)**	**(3.6)**	**(4.9)**
Adjustments	£m	(0.1)	(0.0)	0.0	--	--
Share-based Payments	£m	1.3	0.3	0.4	1.2	1.3
Impairment/Write-offs	£m	8.3	(6.2)	19.7	--	--
Exceptionals	£m	--	--	(0.5)	--	--
FX	£m	0.1	0.1	0.3	--	--
Net Interest	£m	1.1	(0.1)	0.9	0.9	2.0
EBITDA	**£m**	**(1.5)**	**(0.5)**	**(0.6)**	**(1.5)**	**(1.5)**
Change in Receivables	£m	0.1	(0.1)	1.2	--	--
Change in Payables	£m	0.1	0.2	4.7	(5.8)	--
Operating Cash Flow	**£m**	**(1.2)**	**(0.5)**	**5.3**	**(7.3)**	**(1.5)**
Investing Cash Flow						
Exploration/Appraisal CAPEX	£m	(0.5)	(0.5)	(10.6)	--	--
Development CAPEX	£m	--	--	(0.8)	(2.5)	--
Acquisitions (Net)	£m	--	--	(3.6)	(1.3)	--
Investing Cash Flow	**£m**	**(0.5)**	**(0.5)**	**(15.0)**	**(3.8)**	**--**
Financing Cash Flow						
Net Equity Issue	£m	0.5	(0.4)	2.4	--	--
Loan Note Issue	£m	0.5	(0.2)	7.5	10.8	1.5
Derivatives	£m	0.1	0.5	--	--	--
Net Cash Interest	£m	--	--	--	--	--
Financing Cash Flow	**£m**	**1.0**	**(0.1)**	**10.0**	**10.8**	**1.5**
Net Change in Cash	**£m**	**(0.7)**	**(1.1)**	**0.2**	**(0.2)**	**--**

Source: Arden Partners' Research.

Net Debt						
Year		**2014A**	**2015A**	**2016A**	**2017E**	**2018E**
Cash and Cash Equivalents	£m	0.4	0.0	0.2	--	--
Non-current Trade Payables	£m	(1.6)	(0.3)	(5.8)	--	--
Current Trade Payables	£m	(0.2)	(2.6)	--	--	--
Non-current Loans	£m	--	--	(4.1)	(4.1)	(4.1)
Current Loans	£m	(0.5)	--	(4.7)	(16.4)	(20.0)
Net Cash/(Debt)	**£m**	**(1.8)**	**(2.8)**	**(14.3)**	**(20.5)**	**(24.1)**

Source: Arden Partners' Research.

General disclosure

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