

Rockhopper Exploration

CPR released

CPR confirms size of Sea Lion

The release of the independent audit of Rockhopper's (RKH's) assets confirms that contingent 2C resources at Sea Lion exceed 500mmboe. This should give further comfort to investors on the value of the project, which should continue to benefit from the deflating cost environment. Elsewhere, due to issues during the redrilling of Isobel, the data available to the company and auditors were only enough to substantiate 2C volumes of 20mmboe at this time. However, the company remains very confident (with appraisal) that the complex could hold 400-500mmbls (which is closer to the current auditors' 3C estimate). Investors will have to wait until further appraisal is undertaken, probably in Sea Lion development drilling, for further confirmation. We have made some adjustments to the modelling following the CPR, increasing our core NAV to 93p/share.

Year end	Revenue (\$m)	PBT* (\$m)	Operating cash flow (\$m)	Net (debt)/cash (\$m)	Capex (\$m)
12/14	1.9	(7.6)	(11.2)	199.7	(10.6)
12/15	4.0	(44.7)	(6.9)	110.4	(80.3)
12/16e	11.7	(12.9)	(2.5)	68.2	(29.7)
12/17e	14.8	(16.5)	0.3	53.8	(14.7)

Note: *PBT is normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments. We assume 2016 Brent price of \$40/bbl, lower than the company assumption of \$50/bbl (leading to lower revenue than the \$12m guidance).

CPR confirms Sea Lion size

Discoveries of more than 500mmboe are rare in recent times and it is a credit to Rockhopper that it holds a very material interest in the development, with a significant carry and financing arrangement confirmed. We await the results of FEED over the next year to see how much further cost estimates can be reduced, but we understand the JV is targeting a 10% project IRR at \$45/bbl.

Confirmation of Isobel/Elaine size will have to wait

Despite two data points on the Isobel/Elaine complex, one well only tagged the top of the reservoir and its re-drill (4.5km and 350m downdip of the original location) did not complete its full logging suite due to operational rig difficulties (an insurance claim is ongoing). This means that the auditors have been unable to perform the full review as may have been hoped. We believe that the resulting 2C resources given (20mmbls) are not representative of the full potential, which RKH still confidently asserts could be 400-500mmbls. Further information will only come from further drilling, which is not scheduled for some time.

Valuation: 93p/share core NAV

After the CPR, we have adjusted our modelling on the split of volumes between PL32 and PL04, resulting in a higher core NAV of 93p/share (previously 90p), representing material upside to the current share price for long-term investors. This upside would rise further once the Egyptian acquisition closes (expected in H216) and as and when Isobel/Elaine resources are confirmed beyond the current 2C audit size.

Oil & gas

25 May 2016

Price **36.5p**
Market cap **£167m**

US\$/£0.7

Net cash (\$m) at end 2015 110.4

Shares in issue 456.5m

Free float 99%

Code RKH

Primary exchange AIM

Secondary exchange N/A

Share price performance



% 1m 3m 12m

Abs 15.9 43.1 (41.6)

Rel (local) 17.0 35.0 (34.8)

52-week high/low 79.5p 24.2p

Business description

Rockhopper is a London-listed E&P with fully funded development of Sea Lion, a 500mmbl+ field in the Falklands. The Isobel Deep/Elaine complex could add a further 500mmbl (or more). It also holds assets in the Mediterranean and has an Egyptian asset deal pending.

Next events

Egyptian acquisition close H216

FEED 2016

Analysts

Will Forbes +44 (0)20 3077 5749

Elaine Reynolds +44 (0)20 3077 5713

oilandgas@edisongroup.com
[Edison profile page](#)

**Rockhopper Exploration is a
research client of Edison
Investment Research Limited**

CPR confirms size of Sea Lion

The release of the CPR into RKH's Falkland Island assets confirms management guidance that Sea Lion could produce more than 500mmboe (across multiple phases). This should give further comfort to investors as FEED progresses and decisions are made on farm-downs and FID.

Exhibit 1: Summary of CPR estimates for Sea Lion and Isobel/Elaine

		Recoverable (mmboe)				STOIIP (mmboe)				Recovery factor implied		Implied % of recoverable boe in blocks	
		Gross		Net		Gross		Net		2C	3C	PL32	PL04
		2C	3C	2C	3C	Best	High	Best	High				
Sea Lion complex	Contingent (oil)	517	900	258	452	1,667	2,592	834	1,315	31%	35%	59%	41%
	Contingent (gas)	160	271	89	160	174	280	99	172	92%	97%	35%	65%
	Prospective	207	547	105	280	755	1,825	383	927	27%	30%	55%	45%
	Total	885	1,718	453	891	2,596	4,696	1,316	2,414	34%	37%	53%	47%
Elaine/Isobel complex	Contingent (oil)	20	72	13	46								
	Management resources (oil)	49	198	31	127	277	832	177	532	25%	32%		100%
	Prospective (oil)	70	350	45	224	282	999	180	639	25%	35%		100%
	Total	139	619	89	396	559	1,831	358	1,172	25%	34%		100%

Source: Rockhopper, ERCE, Edison Investment Research

Isobel/Elaine: 500mmbbl potential, more info required

The recent drilling operations on the Isobel/Elaine complex opened up a new play in the southern part of the PL04 licence and established a total oil column likely to be in excess of 480m.

However, during the drilling of 14/20-1 and its redrill (14/20-2), the acquisition of a full suite of data was compromised due to operational issues (the rig was forced to move off site prematurely). As a result, ERCE had a limited data set on which to work for Isobel/Elaine and could only attribute contingent resources to the F3H Isobel Deep fan encountered in 14/20-1, as this formation demonstrated the ability to flow when reservoir fluids were recovered at surface as part of well control operations. Recoverable volumes could not be assessed for the oil-bearing fans encountered in 14/20-2, F3D Emily, F3G Isobel and F3J Isobel Deep, so ERCE has reported discovered STOIIP figures for these fans.

Prospective resources have also been estimated as part of the audit and include figures for the Irene and Elaine South fans which, although technically discovered with oil shows in 14/20-2, cannot be included under discovered STOIIP as the reservoir quality encountered at this location was not sufficient to meet the net pay criteria.

Under these constraints, ERCE has allocated 2C recoverable resources of 20mmstb for Isobel Deep, with management estimating an additional 49mmstb 2C resources for the 14/20-2 sands by applying a recovery factor of 25% to the audited discovered STOIIP.

The evaluation of the complex is still at a very early stage and management remains confident that, with further appraisal, Isobel/Elaine has the potential to contain 400-500mmbbls. This would place Isobel/Elaine much closer to the current 3C estimate, including prospective resources. However, in our view, this could be achievable given that management believes the 2C recovery factor of 25% is conservative and that the majority of prospective resources are contained in the Irene and Elaine South fans. This can only be confirmed with further drilling, which will be carried out once a rig returns to the area for development drilling on Sea Lion.

Valuation

Phase 1a: the CPR confirms the resources we had modelled for Sea Lion (Phases 1 and 2) and we therefore leave volumes for Phase 1a unchanged. We have made slight adjustments to capex (for example net FEED costs of \$20m in 2016 and a tweak to the guarantee payments).

Phase 2: using the CPR, we can back-calculate the percentage of resources in Sea Lion in PL32/PL04 (see Exhibit 1). This indicates that 59% of the 2C contingent resource is in PL32 (where RKH holds a 40% WI). This is quite different from our previous estimate (where we had assumed that Phase 1 was entirely in PL32 and 50% of Phase 2 was in PL32). We have therefore adjusted the modelled splits so that Phase 1 remains within PL32, but alter Phase 2 volumes so that the entire development sees 59% of volumes in PL32. At this stage we are comfortable keeping to this split, but expect to update it in time as the development plan is finalised. For example, we note that if we include all possible resources (including prospective volumes), this falls to a more even split of 53:47. These changes increase the value of Sea Lion by 4% over previous estimates. We note that any move of Phase 1a volumes into PL04 would likely increase NAV net to RKH further.

Isobel/Elaine complex: following our research principles, we prefer to use independent resource estimates where available. As a result, the incomplete data set on Isobel/Elaine means we are unable to keep it in our RENAV. This is because a standalone development of 139mmboe, as defined by the CPR 2C resource, is not likely (and we do not believe that 139mmboe is actually the extent of the resource). Instead, we choose to show the value of the development of a larger resource base (500mmboe), split by what can currently be accounted for by the CPR and the remainder. It is unfortunate that the amount of data on Isobel/Elaine is not enough to give greater certainty at this stage, but management remains confident that the size of the discovery (so far proving an oil column of 480m and not yet finding an OWC) is far larger.

Other changes: we have made slight adjustments to the model to reflect the company guidance in the AGM presentation, which leads to a movement in the 2016 year-end cash estimate. We expect this to be affected by the Egyptian acquisition and will review again when the deal closes and we know whether RKH will hold 22% or 17%.

The result of the above factors increases the core NAV to 93p/share. Until the Egyptian acquisition closes (expected in H216), we keep the value outside the core NAV.

Exhibit 2: NAV summary

Asset	FX GBPUSD = 1.4				Recoverable Reserves		NPV \$/boe	Net risk value		10%	15%	20%
	Shares: 457m	WI	CoS		Gross	Net		\$m	/share			
	Country	%			mmboe							
Net (Debt) Cash - December 2015								110	17	17	17	17
G&A (NPV10 of three years G&A)								(28)	(4)	(4)	(4)	(4)
2016 Exploration								(3)	(0)	(0)	(0)	(0)
Production												
Guendalina	Italy	20%	100%		3.2	0.6	17.0	11	1.7	1.7	1.7	1.7
Civita	Italy	100%	100%		0.2	0.2	12.3	3	0.4	0.4	0.4	0.4
Development												
SeaLion 1a	Falkland Islands	40%	45%		220	88	6.4	254	39	48	28	17
SeaLion Phase 2 in PL32	Falkland Islands	40%	45%		87	35	3.4	53	8	12	5	2
SeaLion Phase 2 in PL04	Falkland Islands	64%	45%		213	136	3.4	209	32	46	18	6
Core NAV								609	93	119	65	38
Isobel Deep	Falkland Islands	64%	23%		500	320	1.2	90	14	27	2	0
Abu Sennan	Egypt	17%	100%		20	3.5	4.0	14	2.1	2.5	1.7	1.2
Note: CPR 2C of Isobel Deep	Falkland Islands	64%	23%		140	90	1.2	136	3.8	7.6	0.6	0.0

Source: Edison Investment Research. Note: G&A includes share based payments. The Egyptian acquisition will be included in core NAV after closing. We give no credit for the exploration assets in the Egyptian portfolio

We continue to note that PMO would prefer to farm down an interest in Sea Lion and RKH management has indicated that it may reduce its holding as part of a deal to facilitate development. Given that the company is essentially fully funded (including the PMO financing arrangement) for the development, it is not clear how much value would be gained/lost in such a transaction, but we do note that RKH is in a strong position, holding 50% of the contingent Sea Lion 2C volumes and 64% of volumes at Isobel/Elaine.

Sensitivities

As can be seen in Exhibit 2, RKH's value is quite sensitive to the discount rate. This is not surprising given the long period of time before positive cash flows are expected from Sea Lion. The analysis indicates that the current share price implies a discount rate of 20%.

The market continues to see downward pressure on services, and it is very possible that the current estimate of pre-first oil capex of \$1.8bn may fall. Reductions in costs would boost returns for the project and reduce the break-even oil price required. Currently, we model that Phase 1a reaches break-even on an NPV₁₀ basis at a long-term price of slightly above \$45/bbl. A reduction in capex to \$1.5bn (pre-first oil), would see the NPV₁₀ break-even fall by around \$5/bbl – not insignificant.

Exhibit 3: Sensitivity of project returns

		Oil price, \$/bbl					Capex to first oil, \$bn
		40	50	60	70	80	
Capex sensitivity	(30%)	10%	24%	34%	43%	50%	1.3
	(15%)	6%	19%	28%	36%	43%	1.6
	0%	2%	15%	24%	31%	38%	1.9
	15%	0%	12%	20%	27%	34%	2.2
	30%	(3%)	9%	17%	24%	30%	2.5

Source: Edison Investment Research

Financials

Rockhopper remains financially robust (with \$110m of cash at end December 2015) and the company estimates end-2016 cash of \$60-70m (we model \$68m). It benefits from the \$337m development carry on Phase 1, a further \$337m on Phase 2 and a backstop financing arrangement with PMO to provide required capital at a 15% interest rate if required.

In these times of low oil prices and uncertain sentiment, we believe that management will seek to conserve cash. As oil prices rise and Sea Lion moves from FEED to FID, investors should have more confidence in the value in the development and the company can look to use its resources more freely.

Exhibit 4: Financial summary

	\$'000s	2012	2013	2014	2015	2016e	2017e
Dec		IFRS	IFRS	IFRS	IFRS	IFRS	IFRS
PROFIT & LOSS							
Revenue		0	0	1,910	3,966	11,679	14,758
Cost of Sales		0	0	(3,970)	(11,049)	(9,291)	(16,463)
Gross Profit		0	0	(2,060)	(7,083)	2,388	(1,705)
EBITDA		(12,924)	(16,948)	(7,796)	(40,627)	(12,722)	(16,092)
Operating Profit (before amort. and except.)		(13,191)	(17,230)	(8,031)	(40,922)	(13,122)	(16,492)
Intangible Amortisation		0	0	0	0	0	0
Exceptionals		58,668	0	0	0	0	0
Other		0	0	0	0	0	0
Operating Profit		45,477	(17,230)	(8,031)	(40,922)	(13,122)	(16,492)
Net Interest		1,640	1,499	448	(3,775)	214	20
Profit Before Tax (norm)		(11,551)	(15,731)	(7,583)	(44,697)	(12,908)	(16,471)
Profit Before Tax (FRS 3)		47,117	(15,731)	(7,583)	(44,697)	(12,908)	(16,471)
Tax		(122,359)	(62,542)	(5)	55,395	1,537	1,646
Profit After Tax (norm)		(133,910)	(78,273)	(7,588)	10,698	(11,371)	(14,825)
Profit After Tax (FRS 3)		(75,242)	(78,273)	(7,588)	10,698	(11,371)	(14,825)
Average Number of Shares Outstanding (m)		284.2	284.3	292.6	293.4	456.5	456.5
EPS - normalised (p)		(47.1)	(27.5)	(2.6)	3.6	(2.5)	(3.2)
EPS - normalised and fully diluted (p)		(47.1)	(27.5)	(2.6)	3.6	(2.5)	(3.2)
EPS - (IFRS) (p)		(26.5)	(27.5)	(2.6)	3.6	(2.5)	(3.2)
Dividend per share (p)		0.0	0.0	0.0	0.0	0.0	0.0
Gross Margin (%)		N/A	N/A	N/A	N/A	N/A	N/A
EBITDA Margin (%)		N/A	N/A	N/A	N/A	N/A	N/A
Operating Margin (before GW and except.) (%)		N/A	N/A	N/A	N/A	N/A	N/A
BALANCE SHEET							
Fixed Assets		152,540	154,009	227,816	279,098	312,027	313,795
Intangible Assets		151,957	153,656	204,164	256,658	284,858	286,626
Tangible Assets		583	353	12,146	12,637	17,366	17,366
Investments		0	0	11,506	9,803	9,803	9,803
Current Assets		299,582	249,723	207,979	120,495	78,304	70,061
Stocks		0	0	2,188	1,670	1,670	1,670
Debtors		1,559	1,932	4,681	6,199	6,199	6,199
Cash		297,741	247,482	199,726	110,434	68,243	60,000
Other		282	309	1,384	2,192	2,192	2,192
Current Liabilities		(34,921)	(110,140)	(119,797)	(30,466)	(30,466)	(30,466)
Creditors		(34,921)	(110,140)	(119,797)	(30,466)	(30,466)	(30,466)
Short term borrowings		0	0	0	0	0	0
Long Term Liabilities		(85,304)	(39,137)	(60,960)	(106,893)	(106,893)	(113,080)
Long term borrowings		0	0	0	0	0	(6,187)
Other long term liabilities		(85,304)	(39,137)	(60,960)	(106,893)	(106,893)	(106,893)
Net Assets		331,897	254,455	255,038	262,234	252,973	240,310
CASH FLOW							
Operating Cash Flow		(14,029)	(12,834)	(11,237)	(6,856)	(2,506)	299
Net Interest		0	0	0	0	0	0
Tax		0	0	0	0	0	0
Capex		208,792	(41,312)	(10,588)	(80,302)	(29,684)	(14,730)
Acquisitions/disposals		0	0	(24,037)	0	(10,000)	0
Equity financing / buybacks		(3,383)	3,887	(1,894)	(2,134)	0	0
Dividends		0	0	0	0	0	0
Net Cash Flow		191,380	(50,259)	(47,756)	(89,292)	(42,191)	(14,431)
Opening net debt/(cash)		(103,263)	(297,741)	(247,482)	(199,726)	(110,434)	(68,243)
HP finance leases initiated		0	0	0	0	0	0
Other		3,098	0	0	0	0	0
Closing net debt/(cash)		(297,741)	(247,482)	(199,726)	(110,434)	(68,243)	(53,813)

Source: Edison Investment Research, company accounts. Note: We assume here the Egyptian acquisition completes and that RKH holds 17% post-closing.

Edison, the investment intelligence firm, is the future of investor interaction with corporates. Our team of over 100 analysts and investment professionals work with leading companies, fund managers and investment banks worldwide to support their capital markets activity. We provide services to more than 400 retained corporate and investor clients from our offices in London, New York, Frankfurt, Sydney and Wellington. Edison is authorised and regulated by the [Financial Conduct Authority](#). Edison Investment Research (NZ) Limited (Edison NZ) is the New Zealand subsidiary of Edison. Edison NZ is registered on the New Zealand Financial Service Providers Register (FSP number 247505) and is registered to provide wholesale and/or generic financial adviser services only. Edison Investment Research Inc (Edison US) is the US subsidiary of Edison and is regulated by the Securities and Exchange Commission. Edison Investment Research Limited (Edison Aus) [46085869] is the Australian subsidiary of Edison and is not regulated by the Australian Securities and Investment Commission. Edison Germany is a branch entity of Edison Investment Research Limited [4794244]. www.edisongroup.com

DISCLAIMER

Copyright 2016 Edison Investment Research Limited. All rights reserved. This report has been commissioned by Rockhopper Exploration and prepared and issued by Edison for publication globally. All information used in the publication of this report has been compiled from publicly available sources that are believed to be reliable, however we do not guarantee the accuracy or completeness of this report. Opinions contained in this report represent those of the research department of Edison at the time of publication. The securities described in the Investment Research may not be eligible for sale in all jurisdictions or to certain categories of investors. This research is issued in Australia by Edison Aus and any access to it, is intended only for "wholesale clients" within the meaning of the Australian Corporations Act. The Investment Research is distributed in the United States by Edison US to major US institutional investors only. Edison US is registered as an investment adviser with the Securities and Exchange Commission. Edison US relies upon the "publishers' exclusion" from the definition of investment adviser under Section 202(a)(11) of the Investment Advisers Act of 1940 and corresponding state securities laws. As such, Edison does not offer or provide personalised advice. We publish information about companies in which we believe our readers may be interested and this information reflects our sincere opinions. The information that we provide or that is derived from our website is not intended to be, and should not be construed in any manner whatsoever as, personalised advice. Also, our website and the information provided by us should not be construed by any subscriber or prospective subscriber as Edison's solicitation to effect, or attempt to effect, any transaction in a security. The research in this document is intended for New Zealand resident professional financial advisers or brokers (for use in their roles as financial advisers or brokers) and habitual investors who are "wholesale clients" for the purpose of the Financial Advisers Act 2008 (FAA) (as described in sections 5(c) (1)(a), (b) and (c) of the FAA). This is not a solicitation or inducement to buy, sell, subscribe, or underwrite any securities mentioned or in the topic of this document. This document is provided for information purposes only and should not be construed as an offer or solicitation for investment in any securities mentioned or in the topic of this document. A marketing communication under FCA Rules, this document has not been prepared in accordance with the legal requirements designed to promote the independence of investment research and is not subject to any prohibition on dealing ahead of the dissemination of investment research. Edison has a restrictive policy relating to personal dealing. Edison Group does not conduct any investment business and, accordingly, does not itself hold any positions in the securities mentioned in this report. However, the respective directors, officers, employees and contractors of Edison may have a position in any or related securities mentioned in this report. Edison or its affiliates may perform services or solicit business from any of the companies mentioned in this report. The value of securities mentioned in this report can fall as well as rise and are subject to large and sudden swings. In addition it may be difficult or not possible to buy, sell or obtain accurate information about the value of securities mentioned in this report. Past performance is not necessarily a guide to future performance. Forward-looking information or statements in this report contain information that is based on assumptions, forecasts of future results, estimates of amounts not yet determinable, and therefore involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of their subject matter to be materially different from current expectations. For the purpose of the FAA, the content of this report is of a general nature, is intended as a source of general information only and is not intended to constitute a recommendation or opinion in relation to acquiring or disposing (including refraining from acquiring or disposing) of securities. The distribution of this document is not a "personalised service" and, to the extent that it contains any financial advice, is intended only as a "class service" provided by Edison within the meaning of the FAA (ie without taking into account the particular financial situation or goals of any person). As such, it should not be relied upon in making an investment decision. To the maximum extent permitted by law, Edison, its affiliates and contractors, and their respective directors, officers and employees will not be liable for any loss or damage arising as a result of reliance being placed on any of the information contained in this report and do not guarantee the returns on investments in the products discussed in this publication. FTSE International Limited ("FTSE") © FTSE 2016. "FTSE®" is a trade mark of the London Stock Exchange Group companies and is used by FTSE International Limited under license. All rights in the FTSE indices and/or FTSE ratings vest in FTSE and/or its licensors. Neither FTSE nor its licensors accept any liability for any errors or omissions in the FTSE indices and/or FTSE ratings or underlying data. No further distribution of FTSE Data is permitted without FTSE's express written consent.