# **EDISON**

# **Gulf Keystone Petroleum**

Updated CPR sees 2P reserves more than double

Gulf Keystone Petroleum (GKP) has released an updated CPR on its assets, with the resources of its Shaikan, Sheikh Adi and Ber Bahr assets all seeing revisions. Headlines of a more than doubling of the 2P reserves base demonstrate increased confidence in the quality of the Shaikan asset following strong operational performance. Importantly, the reservoir mechanism is now believed to be gas cap driven (rather than through global aquifer support), which will mean revisions to the development plan. It could also mean that ultimate plateau production may not be as high as we had modelled, although it does continue for longer. As a result, we have remodelled the company, moving our discount year to 2016, resulting in an adjusted core development NAV of 56p/share.

Year end	Revenue (\$m)	PBT* (\$m)	Operating cash flow (\$m)	Capex (\$m)	Net (debt)/ cash (\$m)
12/13	6.7	(31.8)	(25.1)	(190.9)	(214.8)
12/14	38.6	(246.1)	(0.8)	(197.4)	(439.5)
12/15e	72.6	(104.6)	30.3	(44.0)	(473.3)
12/16e	171.6	(57.1)	75.4	(175.3)	(625.9)

Note: \*PBT is as reported, including intangible amortisation, exceptional items and sharebased payments.

## 1P/2P/3P reserves increase

The updated CPR sees the gross reserves increase. 1P reserves increase by 58% to 306mmbbls, while 2P reserves have more than doubled (from 299mmboe to 639mmbbls) as a result of reclassification of some of the 2C resources. 2P+2C resources fall from 1,001mmbbls to 878mmbbls, although 142mmbbls are classified outside the PSC time (now held in a new category). Contingent resource estimates at Sheikh Adi have fallen to 112mmbbls, although the CPR also includes a new prospect (estimated gross prospective resources of 169mmbbls).

# Reservoir drive better understood

After 15mmboe of production, GKP's understanding of the Shaikan reservoir has increased markedly. In particular, the reservoir is now believed to be gas-driven, rather than through aquifer support. This means a change in the development plan for the reservoir. The previous plan of numerous relatively shallow, vertical wells has given way to fewer, deeper wells that will be deviated/horizontal.

# Valuation: Core NAV moves slightly to 56p

We have adjusted our modelling to take account of the new production profile, lower well count and capex. As before, we continue to use the 2P+2C reserves as the basis of our modelling. While the 2P reserves have doubled, 2P+2C reserves have fallen and we had previously modelled a higher plateau. However, the lower-for-longer production profile is offset by the reduced capex burden. Our new core development NAV is 56p, largely unchanged from our <u>previous note</u>. Focus for the valuation of the company in the short term remains on the payments situation, which we hope will continue to improve, but the CPR underlines the significance of the Shaikan reservoir and the relatively early stage of its full exploitation.

Reserve update

Oil & gas

#### 7 October 2015

Price	32.50p
Market cap	£318m
	£0.64/US\$
Net debt (\$m) at 9 July 2015	503
Shares in issue	978m
Free float	98%
Code	GKP
Primary exchange	LSE
Secondary exchange	ADR OS

#### Share price performance



#### **Business description**

Gulf Keystone Petroleum (GKP) is a Kurdistanfocused exploration and production company. It has interests in four blocks in Kurdistan, including the Shaikan field, which has more than 639mmbbls of 2P reserves.

#### Next events

October payment from KRG	October 2015
October coupon payment	October 2015
Analysts	
Will Forbes	+44 (0)20 3077 5749
Elaine Reynolds	+44 (0)20 3077 5713

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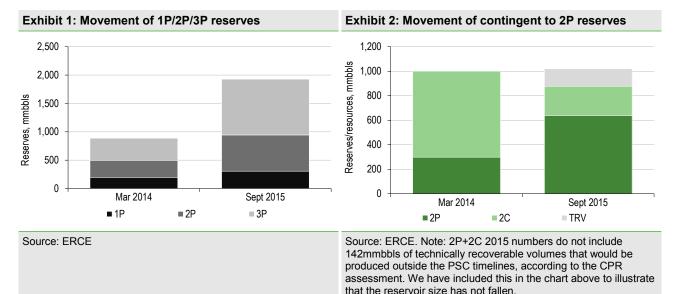
oilandgas@edisongroup.com

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Ian McLelland

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#### Summary of reserve increases

## Reservoir drive is better understood

The production of Shaikan has given a wealth of data on which the company (and ERCE) has been able to base an updated view of the reservoir drive; the previous CPR was based on cumulative production of 1.6mmbbls, whereas this report is based on the production of 15mmbbls, providing a vastly bigger dataset. The associated observational data have been fed back into updated seismic interpretation, fracture modelling and matrix modelling. As a result, the CPR asserts that it "now appears more likely that the primary drive mechanism will be gas cap expansion and gravity drainage".

## **Production profiles**

The new understanding of the reservoir drive means that GKP will shift its development planning. Where former plans called for relatively shallow, vertical wells to extract the oil, the gas cap means that deeper, highly deviated wells can be drilled much higher in the structure. This means that water ingress into the wells is less likely, although the water-strawing effect will still need to be monitored lower in the structure to ensure that oil drawdown is not too swift, especially once ESPs are installed (as gas pressure falls). Shaikan's aquifer has a similar density to the Jurassic oil, but is around 20 times more mobile, meaning that water could move up the reservoir preferentially over time. However, if the drawdown is low enough, and with careful management, this risk can be minimised. The height of the oil column (c 1km) also means that the deviated production wells at the top will be far from the OWC for some time. Overall, the production profiles modelled in the CPR are lower plateaus than we had previously modelled, although these levels are maintained for longer to extract the resources. There is scope for upward revision of the plateau levels with further phases across the whole asset.

We note that the production profiles below do not stop at 2043, although this is the end of the PSC life, after which the contractors will need to have the field back to the KRG under the current contract (although this could be extended in time). The company's contingent resources (mostly in Jurassic) given in the CPR are therefore curtailed by its ability to produce within this time frame. Should the current estimates of plateau levels of c 110mbbls/d prove too conservative, we would expect the 2P+2C resources (on which we value the company) to increase.



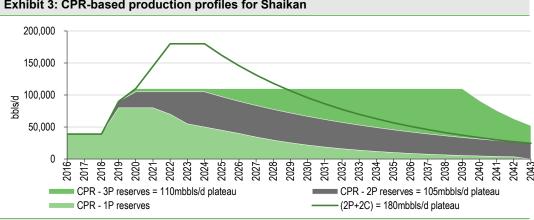
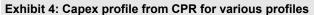


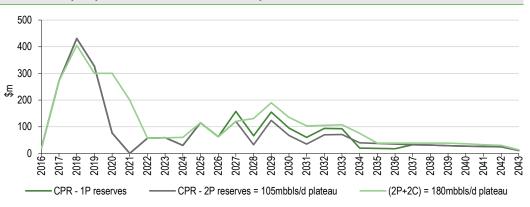
Exhibit 3: CPR-based production profiles for Shaikan

Source: ERCE, GKP. Note: The company's 2P+2C production profile implies that the 3P production profile in the CPR could be accelerated.

### Lower capex profile

The new development concept calls for significantly fewer wells to be drilled. The PSC structure means the effect of this is muted (as capex is paid back through the PSC), but is positive. Importantly, for a company like GKP where cash is currently constrained, it means lower near-term capex commitment. On a gross basis, the capex required peaks at just over \$400m in 2018.





Source: ERCE for 1P/2P, Edison Investment Research estimates for 2P+2C resources

The amount that GKP will need to contribute is dependent on its WI at the point of investment. At the moment, we assume it will be diluted to 54.4% after KRG and third party back-in before this capex is required, although this is not certain. Looking at the 2P case, this would call for \$234m (on a 54.4% basis), which is less than the combined back costs/revenues currently owed to GKP by the KRG and third parties and would be affordable under that scenario should these back costs be paid.

### New prospect at Sheikh Adi

The CPR also gives new estimates for Sheikh Adi and Ber Bahr, resulting in reduced contingent resources. Notably, however, a further prospect of 169mmbbls has been identified at Sheikh Adi. With an 80% working interest in this licence, any exploration success here would be highly valuable for the company.



# **Effect on valuation**

We have adjusted our model to account for the changes to production profiles and capex/opex requirements from the CPR. We retain our focus on 2P+2C resources, given the early stage of reservoir development. We have also made adjustments to financials, given recent disclosures, while we also move our discount year to 2016. This results in a largely unchanged core development NAV of 56p/share.

#### Exhibit 5: NAV summary

Asset			Recoverable	reserves	NPV	Net risked	
	Diluted WI	CoS	Gross	Net		val	ue
	%	%		mmboe	\$/boe	\$m	p/share
Shaikan - 1P reserves	54.4%	90%	306	167	3.7	554	36
Shaikan - 2P reserves	54.4%	90%	332	181	1.9	305	20
(2P+2C) = 180mbbls/d plateau	54.4%	75%	239	130	2.0	195	13
Sheikh Adi - 2C resources	80.0%	75%	112	90	2.5	169	11
Ber Bahr - 2C resources	40.0%	75%	12	5	5.7	21	1
Net (debt)/cash at Dec 2015e						(494)	(32)
SG&A - 4yr NPV10						(139)	(9)
Shaikan - government back-in past costs (assumed received in 2	2017) @ 84% of undisc	counted val	lue			64	4
Shaikan – third-party back-in past costs (assumed received in 2017) @ 84% of undiscounted value					76	5	
Recovery of historic revenues (assumed received in 2017) @ 84	1% of undiscounted val	ue				99	6
Core development NAV						849	56

Source: Edison Investment Research

At this stage, we do not include upside from 3P reserves beyond the core development NAV. We will update the valuation as we read through and interpret the CPR over time. Inclusion of other prospects, such as the Sheikh Adi structure identified, will be included in a RENAV once the company has a plan and funding to drill. We note that the Sheikh Adi FDP will be submitted later in 2015. Once approved, this will lead to 2C resources moving to 2P, according to the company.

We also note that our current 2016 Brent oil assumption of \$72.5 is well above the consensus and forward curves. For an idea of sensitivities, the NAV would fall to 53p/share if the oil price averages to \$60/bbl in 2016 (leaving all other years unchanged).

## **Financials**

The company held \$64m in cash as of 25 August 2015 (and \$73m in mid-September after the recent \$15m payment).

The main consideration for investors remains the payments situation. The company received \$15m (\$12m net to GKP) from the KRG in September and we hope that this is the start of a regular payments cycle that will eventually see GKP refunded for its back costs and enable further investment.



#### Exhibit 6: Financial summary

\$'000s	2012	2013	2014	2015e	2016e
Dec	IFRS	IFRS	IFRS	IFRS	IFRS
PROFIT & LOSS					
Revenue	32,190	6,696	38,560	72,625	171,622
Cost of Sales	(559)	(2,981)	(43,455)	(15,000)	(52,216)
Gross Profit	31,631	3,715	(4,895)	57,625	119,406
EBITDA	(82,137)	(21,097)	(43,929)	14,095	75,406
Operating Profit (before amort. and except.)	(82,137)	(21,097)	(82,319)	(51,313)	(4,310)
Intangible Amortisation	0	0	0	0	0
Exceptionals	0	0	(144,119)	(3,610)	0
Other	5,210	(1,186)	73	2,473	0
Operating Profit	(76,927)	(22,283)	(226,365)	(52,450)	(4,310)
Net Interest	(3,257)	(9,564)	(19,709)	(52,193)	(52,789)
Profit Before Tax (norm)	(85,394)	(30,661)	(102,028)	(103,506)	(57,100)
Profit Before Tax (FRS 3)	(80,184)	(31,847)	(246,074)	(104,643)	(57,100)
Tax	(1,638)	(118)	(2,129)	(669)	0
Profit After Tax (norm)	(81,822)	(31,965)	(104,084)	(101,702)	(57,100)
Profit After Tax (FRS 3)	(81,822)	(31,965)	(248,203)	(105,312)	(57,100)
	(0.,022)	(2.,000)	(2:0,200)	(100,012)	(01,100)
Average Number of Shares Outstanding (m)	851.5	865.5	875.2	933.5	978.1
EPS - normalised (c)	(9.6)	(3.7)	(11.9)	(10.9)	(5.8)
EPS - normalised and fully diluted (c)	(9.6)	(3.7)	(11.9)	(10.9)	(5.8)
EPS - (IFRS) (c)	(9.6)	(3.7)	(28.4)	(10.3)	(5.8)
Dividend per share (p)	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0
Gross Margin (%)	98.3	55.5	-12.7	79.3	69.6
EBITDA Margin (%)	-255.2	-315.1	-113.9	19.4	43.9
Operating Margin ( <i>before GW and except.</i> ) (%)	-255.2	-315.1	-213.5	-70.7	-2.5
	-200.2	-010.1	-215.5	-70.7	-2.5
BALANCE SHEET					
Fixed Assets	555,310	741,080	870,626	880,915	976,477
Intangible Assets	546,229	220,963	276,290	275,113	215,802
Tangible Assets	2,285	516,437	593,604	605,092	759,965
Investments	6,796	3,680	732	710	710
Current Assets	370,589	239,735	135,656	93,970	31,666
Stocks	19,783	20,654	22,854	21,108	21,108
Debtors	23,674	34,023	16,380	10,558	10,558
Cash	253,713	81,972	87,835	62,304	0,558
				02,304	0
Other Other	73,419	103,086	8,587		-
Current Liabilities	(95,669)	(106,358)	(119,769)	(131,600)	(131,600)
Creditors	(95,669)	(106,358)	(119,769)	(131,600)	(131,600)
Short term borrowings	0	0	0	0	0
Long Term Liabilities	(252,539)	(312,090)	(546,908)	(563,994)	(654,352)
Long term borrowings	(243,495)	(296,725)	(527,349)	(535,587)	(625,945)
Other long term liabilities	(9,044)	(15,365)	(19,559)	(28,407)	(28,407)
Net Assets	577,691	562,367	339,605	279,291	222,192
CASU FLOW					
CASH FLOW	(59.074)	(25.072)	(760)	20.062	75 406
Operating Cash Flow	(58,974)	(25,072)	(760)	30,263	75,406
Net Interest	1,199	(16,360)	(36,460)	(53,069)	(52,789)
Tax	(1,667)	(675)	(210)	443	0
Capex	(193,232)	(190,852)	(197,432)	(44,037)	(175,278)
Acquisitions/disposals	20,928	8,600	0	0	0
Financing	26,741	4,748	0	39,379	0
Dividende	0	0	0	0	0
		(a			
Net Cash Flow	(205,005)	(219,611)	(234,862)	(27,021)	(152,662)
Net Cash Flow Opening net debt/(cash)	(205,005) (208,103)	(10,218)	214,753	439,514	(152,662) 473,283
Dividends Net Cash Flow Opening net debt/(cash) HP finance leases initiated	(205,005)	(10,218) (1,319)	214,753 624	439,514 1,490	473,283 0
Net Cash Flow Opening net debt/(cash) HP finance leases initiated Other	(205,005) (208,103) 7,120 0	(10,218) (1,319) (4,041)	214,753 624 9,477	439,514 1,490 (8,238)	473,283 0 0
Net Cash Flow Opening net debt/(cash) HP finance leases initiated	(205,005) (208,103) 7,120	(10,218) (1,319)	214,753 624	439,514 1,490	473,283 0

Source: Company accounts, Edison Investment Research. Note: Net debt here uses the company's NPV of debt. For our NAV calculations, we are using gross debt from the convertible and high-yield bonds.



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