Day Break

Tuesday, 28 August 2018



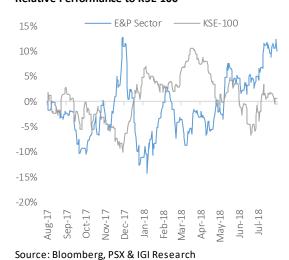
Sector Update

E&P Reserves Data as at Jun-18

Oil Reserves as at Jun-18									
mnbbls	Jun-18	Jun-17	YoY	Jun-16					
OGDC	149.4	158.7	-6%	171.0					
PPL	56.8	64.1	-11%	65.5					
POL	47.9	20.5	134%	20.6					
MARI	1.0	1.3	-25%	1.8					
Total	347.9	332.2	5%	350.6					

Gas Reserves as at Jun-18										
bcf	Jun-18	Jun-17	YoY	Jun-16						
OGDC	6,021	6,351	-5%	6,706						
PPL	2,862	3,541	-19%	3,340						
POL	419	230	82%	237						
MARI	4,956	5,209	-5%	3,251						
Total	19,542	20,794	-6%	22,422						

Relative Performance to KSE 100



Analyst

Abdullah Farhan abdullah.farhan@igi.com.pk Tel: (+92-21) 111-234-234 Ext.: 912

Oil & Gas Exploration Companies

Pakistan Oil reserves up by +5% while gas reserves drop by 6% during FY18; Only POL stands out with positive RRR

- As per latest data published by Pakistan Petroleum Information Service (PPIS), Pakistan's total oil gas reserves are up by +5% to 348mnbbls as at Jun-18 compared to 332mnbbls at Jun-17. Gas reserves are down by 6% to 19.54tcf as at Jun-18 compared to 20.79tcf at Jun-17.
- Joyamair and Pindori field oil reserves have been revised upwards by +221x and +2.7x to 13.3mn bbls and 2.1mn bbls respectively as at Jun-18. Sui Deep gas reserves to the tune of 500bcf have been removed from which production was yet to be commenced since inception leading to a 30% drop in reserve base to 1.28bcf as at Jun-18.
- Adhi field oil reserves have been revised down by 30% to 18.7mn bbls as at Jun-18 which comes at a draw-down of 7.98mn bbls. Jhandial field reserves currently stand at 23.9mnbbls while gas reserves are reported at 0.29tcf. The aforementioned field accounts for nearly 7% and 1% of Pakistan's oil and gas reserves, respectively.
- Mardankhel oil and gas reserves have been revised down substantially by 60% and 61% to 6.2mnbbls and 132bcf at Jun-18 compared to 15.6mnbbls and 338mmcfd at Jun-17.
- PPL and MARI remain our top picks among IGI E&P Universe with our Dec-18 target prices of PKR 2,291/share and PKR 260/share offering 44.7% and 22.7% upside respectively, from last close. PPL and MARI are trading at FY19F P/E of 6.6x and 6.8x respectively.

Pakistan Oil reserves up by +5% while gas reserves drop by 6% as at Jun-18

As per latest data published by Pakistan Petroleum Information Service (PPIS), Pakistan's total oil gas reserves are up by +5% to 348mnbbls as at Jun-18 compared to 332mnbbls at Jun-17. Gas reserves are down by 6% to 19.54tcf as at Jun-18 compared to 20.79tcf at Jun-17.

Major revision in reserves during FY18 included:

- Joyamair and Pindori oil reserves revised upwards by +221x and +2.7x: Joyamair and Pindori field oil reserves have been revised upwards by +221x and +2.7x to 13.3mn bbls and 2.1mn bbls respectively as at Jun-18. Pakistan Oilfields Limited (POL) hold 100% stake in Joyamair while POL and Oil & Gas Development Company Limited (OGDC) hold 35% and 50% stake respectively in Pindori. We await further clarity from the management on how these reserves will be developed. Based on reserve life of 14yrs, if the production levels stand at 2,000-2,500bopd, we estimate annualized earnings impact of PKR 10-12/share on POL's earnings.
- Sui Deep gas field reserves to the tune of 500bcf removed from 2P: Sui Deep gas reserves to the tune of 500bcf have been removed from which production was yet to be commenced since inception leading to a 30% drop in reserve base to 1.28bcf as at Jun-18. We believe the reason behind removal of reserves is that these reserves no more fall under 2P and have been reclassified as 3P reserves due to no production from the well. However, in our view this may not impact the current production levels from Sui field. As a result Sui gas field reserve life has come down to 9.1yrs from 12.4yrs previously.
- Adhi oil reserves revised down by 30% to 18.7mn bbls: Adhi field oil reserves have been
 revised down by 30% to 18.7mn bbls as at Jun-18 which comes at a draw-down of
 7.98mn bbls and at FY18 production of 2.82mn bbls the excess revision in reserves
 stands at 5.16mn bbls. OGDC, Pakistan Petroleum Limited (PPL) and POL hold 50%,

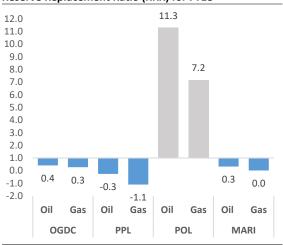




39% and 11% stake in the field. As a result Adhi field's oil reserve life has come down to 5.5yrs compared to 9.5yrs previously.

- Jhandial reserve addition of 24mnbbls of oil and 0.29tcf of gas: Jhandial field reserves currently stand at 23.9mnbbls while gas reserves are reported at 0.29tcf. The aforementioned field accounts for nearly 7% and 1% of Pakistan's oil and gas reserves, respectively. Jhandial field lies in Ikhlas block which is operated by Pakistan Oilfields Limited (POL) with a working interest of 80%. Jhandial field was discovered in Oct-17 with expected flows between the range of 1,630-2,520bopd and 16.5-21mmcfd of gas, however post commencement of production flows were reported at 1,800bopd which since then, have dropped significantly to 459bopd in week ending 14th Aug-18.
- Mardankhel reserves revised down by 60%/61% for oil/gas: Mardankhel oil and gas reserves have been revised down substantially by 60% and 61% to 6.2mnbbls and 132bcf at Jun-18 compared to 15.6mnbbls and 338mmcfd at Jun-17. Mardankhel's current oil and gas production stands at 3,287bopd of oil and 38mmcfd of gas which translates in to 4.5yrs and 8.3yrs of reserve life compared to 13.0yrs and 24.3yrs previously at current production levels. This further adds concern of uncertainty and low reserve life of Tal block. POL, PPL and OGDC holds 21.05%, 27.76% and 27.76% working interest in Tal block and accounts for 81%, 19% and 14% of total revenues, respectively.

Exhibit: Reserve Replacement Ratio (RRR) for FY18



Source: PPIS, IGI Research

POL oil and gas reserves up by +2.3x and +82% as at Jun-18

POL's oil and gas reserves are reported at 47.9mnbbls and 0.42tcf, up by +2.3x and +82% as at Jun-18 respectively, compared to 20.49mnbbls and 0.24tcf at Jun-17. The increase in reserves is primarily attributable to addition of Jhandial reserves of 24mnbbls of oil and 0.29tcf of gas and revised oil reserves of Joyamair and Pindori to the tune of 13.2mn bbls and 2.1mn bbls respectively. This has increased POL's Reserve Replacement Ratio (RRR) to net addition at the rate of +11.3x for oil and +7.2x for gas. Although POL stands out with positive RRR, however development of Joyamair reserves and true potential Jhandial reserves remains a concern.

OGDC oil and gas reserves down by 6% and 5% as at Jun-18

OGDC's oil and gas reserves are down by 6% and 5% as at Jun-18 to 149.4mnbbls and 6.02tcf respectively compared to 154.7mnbbls and 6.12tcf at Jun-17. The decline in oil reserves is primarily attributable to 5% and 30% drop in Nashpa and Adhi reserves which accounts for 48% and 6% of total oil reserves for OGDC. Gas reserves are down by 5% on the back of 7% and 9% natural depletion in Uch and Qadirpur reserves which contribute nearly 32% and 14% to total gas reserves. This brings OGDC's Reserve Replacement Ratio (RRR) to net depletion at the rate of ± 0.4 x (or ± 0.4 x) for oil and ± 0.3 x (or ± 0.4 x) for gas.

PPL oil and gas reserves down by 11% and 19% as at Jun-18

PPL's oil and gas reserves are reported at 56.8mnbbls and 2.86tcf, down by 11% and 19% as at Jun-18 respectively, compared to 64.1mnbbls and 3.54tcf at Jun-17. The decline in oil reserves is primarily attributable to 5% and 30% drop in Nashpa and Adhi reserves which accounts for 62% and 13% of total oil reserves for PPL. Gas reserves are down by 19% on the back of 30% drop in Sui reserves which contribute nearly 45% to total gas reserves. This brings PPL's Reserve Replacement Ratio (RRR) to net depletion at the rate of 0.3x (or 26%) for oil and 2.0x (or 103%) for gas.

MARI oil and gas reserves down by 25% and 5% as at Jun-18

Mari Petroleum Company Limited (MARI) oil and gas reserves are reported at 1.0mnbbls and 4.89tcf, down by 25% and 5% as at Jun-18 respectively, compared to 1.34mnbbls and 5.20tcf at Jun-17. The decline in oil reserves is primarily attributable to 20% and 26% drop in Adam/Adam West and Halini reserves. Gas reserves are down by 5% on the back of 5% decline in Mari field reserve which contribute nearly 99% to total gas reserves. This brings MARI's Reserve Replacement Ratio (RRR) to net depletion at the rate of 0.3x (or 32%) for oil and 0.0x (or 1%) for gas.





Recommendation

PPL and MARI remain our top picks among IGI E&P Universe with our Dec-18 target prices of PKR 2,291/share and PKR 260/share offering +44.7% and +22.7% upside respectively, from last close. PPL and MARI are trading at FY19F P/E of 6.6x and 6.8x respectively.

Exhibit:

Oil & Gas 2P Reserves as at Jun-18

	Jun-18	Dec-17	% change	Jun-17	YoY	Jun-16	Jun-15
Oil Reserves - mnbbls							
OGDC	149.4	154.7	-3%	158.7	-6%	171.0	192.5
PPL	56.8	59.2	-4%	64.1	-11%	65.5	70.1
POL	47.9	35.0	37%	20.5	134%	20.6	23.3
MARI	1.0	1.2	-17%	1.3	-25%	1.8	2.1
Total	347.9	345.0	1%	332.2	5%	350.6	384.4
Gas Reserves - bcf							
OGDC	6,021	6,123	-2%	6,351	-5%	6,706	7,089
DDI	2 062	2 227	1.40/	2 5/1	10%	2 240	2 6 1 6

Gas Reserves - bcf							
OGDC	6,021	6,123	-2%	6,351	-5%	6,706	7,089
PPL	2,862	3,337	-14%	3,541	-19%	3,340	3,646
POL	419	417	1%	230	82%	237	273
MARI	4,956	5,087	-3%	5,209	-5%	3,251	3,482
Total	19,542	20,455	-4%	20,794	-6%	22,422	24,360

										Stake	70	
Field Wise Oil Reserves - mnbbls	weights %								OGDC	PPL	POL	MARI
Nashpa	36%	126.6	129.9	-3%	133.5	-5%	141.0	148.0	57%	28%	0%	0%
Adhi	5%	18.7	25.5	-26%	26.7	-30%	29.0	32.0	50%	39%	11%	0%
Jhandial	7%	23.8	23.9	-1%	-	n/a	-	-	0%	0%	80%	0%
Joyamair	4%	13.3	0.1	221x	0.1	221x	-	0.0	0%	0%	100%	0%
Pindori	1%	2.1	0.7	189%	8.0	174%	8.0	0.9	50%	0%	35%	0%
Manzalai	0%	0.4	0.4	0%	0.5	-20%	1.0	1.0	28%	28%	21%	0%
Mamikhel	0%	0.2	0.2	0%	-	n/a	-	1.0	28%	28%	21%	0%
Mardan Khel	2%	6.2	5.4	15%	15.6	-60%	-	-	28%	28%	21%	0%
Maramzai	2%	5.7	3.9	46%	3.2	78%	4.0	6.0	28%	28%	21%	0%
Makori	0%	-	-	n/a	-	n/a	7.0	7.0	28%	28%	21%	0%
Makori Deep	0%	0.9	8.0	13%	1.2	-25%	-	-	28%	28%	21%	0%
Makori East	5%	17.8	19.9	-11%	22.1	-19%	27.0	33.0	28%	28%	21%	0%
Tolanj	0%	0.0	0.1	-90%	0.1	-90%	-	-	28%	28%	21%	0%
Tolanj West	0%	0.0	0.1	-74%	0.1	-74%	-	-	28%	28%	21%	0%

Field Wise Gas Reserves - bcf	weights %								OGDC	PPL	POL	MARI
Mari	25%	4,885	5,009	-2%	5,129	-5%	3,205	3,427	0%	0%	0%	100%
Uch	10%	1,901	1,975	-4%	2,045	-7%	2,189	2,323	100%	0%	0%	0%
Kandhkot	3%	651	649	0%	687	-5%	493	546	0%	100%	0%	0%
Sui	7%	1,277	1,758	-27%	1,835	-30%	1,997	2,158	0%	100%	0%	0%
Qadirpur	6%	1,109	1,161	-5%	1,219	-9%	1,342	1,476	75%	7%	0%	0%
Jhandial	1%	290	291	0%	-	n/a	-	-	0%	0%	80%	0%
Manzalai	0%	38	43	-11%	48	-21%	62	79	28%	28%	21%	0%
Mamikhel	0%	9	9	-2%	8	20%	10	21	28%	28%	21%	0%
Mardan Khel	1%	132	116	14%	338	-61%	-	-	28%	28%	21%	0%
Maramzai	1%	202	156	30%	180	12%	209	256	28%	28%	21%	0%
Makori	0%	1	0	233%	1	100%	168	169	28%	28%	21%	0%
Makori Deep	0%	3	2	30%	3	-12%	-	-	28%	28%	21%	0%
Makori East	1%	147	161	-9%	176	-16%	207	235	28%	28%	21%	0%
Tolanj	0%	2	9	-78%	9	-79%	-	-	28%	28%	21%	0%
Tolanj West	0%	17	62	-73%	63	-73%	-	-	28%	28%	21%	0%

Source: IGI Research, PPIS



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Time Horizon: Dec - 2018

Valuation Methodology: The analyst(s) has used following valuation methodology to arrive at the target price of the said

security (ies):

(Reserve Based DCF Valuation)

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IGI Finex Securities Limited

Research Analyst(s)

Research Identity Number: BRP009 © Copyright 2018 IGI Finex Securities Limited







Contact Details

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Rese	arc	h T	ea	m

Head of Research Tel: (+92-21) 111-234-234 Ext: 810 Saad Khan saad.khan@igi.com.pk abdullah.farhan@igi.com.pk Abdullah Farhan Senior Analyst Tel: (+92-21) 111-234-234 Ext: 912 Suleman Ashraf Research Analyst Tel: (+92-21) 111-234-234 Ext: 957 suleman.ashraf@igi.com.pk Muhammad Saad Research Analyst Tel: (+92-21) 111-234-234 Ext: 816 muhammad.saad@igi.com.pk Umesh Solanki umesh.solanki@igi.com.pk Database Manager Tel: (+92-21) 111-234-234 Ext: 974

Equity Sales

Faisal Jawed Khan Head of Equities Tel: (+92-21) 35301779 faisal.jawed@igi.com.pk Zaeem Haider Khan Regional Head (North) Tel: (+92-42) 35777863-70 zaeem.haider@igi.com.pk Muhammad Naveed Regional Manager (Islamabad & Upper North) Tel: (+92-51) 2604861-62 muhammad.naveed@igi.com.pk Irfan Ali Regional Manager (Faisalabad) Tel: (+92-41) 2540843-45 irfan.ali@igi.com.pk Asif Saleem Branch Manager (RY Khan) Tel: (+92-68) 5871652-56 asif.saleem@igi.com.pk Mehtab Ali Branch Manager (Multan) Tel: (+92-61) 4512003 mahtab.ali@igi.com.pk Zeeshan Kavani Branch Manager (Abbottabad) Tel: (+92-992) 408243-44 zeeshan.kayani@igi.com.pk Ihsan Mohammad ihsan.mohammad@igi.com.pk Branch Manager (Peshawar) Tel: (92-91) 5253035

IGI Finex Securities Limited

Trading Rights Entitlement Certificate (TREC) Holder of Pakistan Stock Exchange Limited | Corporate member of Pakistan Mercantile Exchange Limited

Head Office

Suite No 701-713, 7th Floor, The Forum, G-20,
Khayaban-e-Jami Block-09, Clifton, Karachi-75600
UAN: (+92-21) 111-444-001 | (+92-21) 111-234-234
Fax: (+92-21) 35309169, 35301780
Website: www.igisecurities.com.pk

Stock Exchange Office

Room # 719, 7th Floor, PSX Building, Stock Exchange Road, Karachi. Tel: (+92-21) 32429613-4, 32462651-2 Fax: (+92-21) 32429607

Lahore Office

5-F.C.C. Ground Floor, Syed Maratib Ali Road, Gulberg II Tel: (+92-42) 35777863-70, 35876075-76 Fax: (+92-42) 35763542

Faisalabad Office

Room #: 515-516, 5th Floor, State Life Building, 2- Liaqat Road Tel: (+92-41) 2540843-45 Fax: (+92-41) 2540815

Multan Office

Mezzanine Floor, Abdali Tower, Abdali Road Tel: (92-992) 408243 - 44

Peshawar Office

2nd Floor, The Mall Tower, 35 The Mall Peshawar Cantt. Tel: (92-91) 5253035, 5278448

Islamabad Office

Mezzanine Floor, Office 5, 6 & 7, Kashmir Plaza, Block- B, Jinnah Avenue, Blue Area Tel: (+92-51) 2604861-2, 2604864, 2273439 Fax: (+92-51) 2273861

Rahim Yar Khan Office

Plot # 12, Basement of Khalid Market, Model Town, Town Hall Road Tel: (+92-68) 5871653-6, 5871652 Fax: (+92-68) 5871651

Abbottabad Office

Ground Floor, Al Fatah Shopping Center,
Opp. Radio Station, Mansehra Road
Tel: (+92-99) 2408243 - 44

Sialkot Office

Suite No. 10 & 11, 1st Floor, Soni Square, Mubarik Pura Tel: (+92-52) 3258437, 3258762

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