

# Day Break

Thursday, 22 February 2018

## Sector Update

### E&P Reserves Data as at Dec-17

#### Oil Reserves as at Dec-17

mnbbls	Dec-17	Jun-17	YoY	Jun-16
OGDC	161.9	166.7	-3%	183.2
PPL	59.8	63.5	-6%	65.4
POL	35.0	20.5	71%	20.6
MARI	1.2	1.3	-9%	1.8
Total	345.0	332.2	4%	350.6

#### Gas Reserves as at Dec-17

bcf	Dec-17	Jun-17	YoY	Jun-16
OGDC	5,753	5,906	-3%	6,260
PPL	3,290	3,467	-5%	3,340
POL	426	239	78%	246
MARI	5,087	5,202	-2%	3,251
Total	20,455	20,794	-2%	22,422

## Oil & Gas Exploration Companies

### Pakistan Oil reserves up by +4% while gas reserves drop by 2% as at Dec-17

- As per latest data published by Pakistan Petroleum Information Service (PPIS), Pakistan's total oil gas reserves are up by +4% to 345mnbbls as at Dec-17 compared to 332mnbbls at Jun-17.
- 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 65% and 66% to 5.4mnbbls and 116bcf at Dec-17.
- POL's oil and gas reserves are reported at 34.97mnbbls and 0.43tcf, up by +71% and +78% as at Dec-17, OGDC's oil and gas reserves are down by 3% each to 161.89mnbbls and 5.75tcf, PPL's oil and gas reserves are reported at 59.77mnbbls and 3.29tcf, down by 6% and 5% and Mari Petroleum Company Limited (MARI) oil and gas reserves are reported at 1.21mnbbls and 5.09tcf, down by 9% and 2%
- PPL and MARI remain our top picks among IGI E&P Universe with our Dec-18 target prices of PKR 2,382/share and PKR 237/share offering 54.5% and 19.5% upside respectively, from last close

#### Pakistan Oil reserves up by +4% while gas reserves drop by 2% as at Dec-17

As per latest data published by Pakistan Petroleum Information Service (PPIS), Pakistan's total oil gas reserves are up by +4% to 345mnbbls as at Dec-17 compared to 332mnbbls at Jun-17. Gas reserves are down by 2% to 20.46tcf as at Dec-17 compared to 20.79tcf at Jun-17.

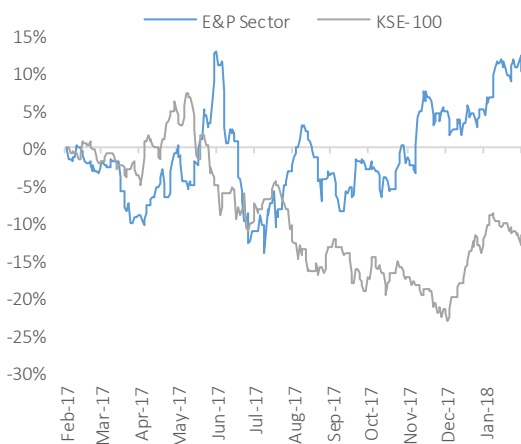
#### Jhandial reserve addition of 24mnbbls of oil and 0.29tcf of gas

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 16.5-21mmcf of gas, however post commencement of production flows were reported at 1,800bopd which since then, have dropped significantly to 978bopd in week ending 13<sup>th</sup> Feb-18.

#### Mardankhel reserves revised down by 65%/66% for oil/gas

Mardankhel oil and gas reserves have been revised down substantially by 65% and 66% to 5.4mnbbls and 116bcf at Dec-17 compared to 15.6mnbbls and 338mmcf at Jun-17. Mardankhel's current oil and gas production stands at 3,287bopd of oil and 38mmcf 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, Pakistan Petroleum Limited (PPL) and Oil & Gas Development Company Limited (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.

### Relative Performance to KSE 100



Source: Bloomberg, PSX 100 & IGI Research

### Analyst

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Exhibit:

**Oil & Gas 2P Reserves as at Dec-17**

	Dec-17	Jun-17	% Change	Jun-16	Jun-15
<b>Oil Reserves - mnbbls</b>					
OGDC	161.89	166.69	-3%	183.23	192.45
PPL	59.77	63.49	-6%	65.44	70.05
POL	34.97	20.49	71%	20.60	23.25
MARI	1.21	1.34	-9%	1.83	2.13
<b>Total</b>	<b>344.97</b>	<b>332.17</b>	<b>4%</b>	<b>350.63</b>	<b>384.41</b>

<b>Gas Reserves - bcf</b>					
OGDC	5,753	5,906	-3%	6,260	6,609
PPL	3,290	3,467	-5%	3,340	3,646
POL	426	239	78%	246	273
MARI	5,087	5,202	-2%	3,251	3,482
<b>Total</b>	<b>20,455</b>	<b>20,794</b>	<b>-2%</b>	<b>22,422</b>	<b>24,360</b>

Field Wise Oil Reserves - mnbbls	weights %							Stake %			
		OGDC	PPL	POL	MARI	OGDC	PPL	POL	MARI		
Nashpa	38%	130	134	-3%	141	148	57%	28%	0%	0%	
Adhi	7%	25	27	-5%	29	32	50%	39%	11%	0%	
Jhandial	7%	24	-	n/a	-	-	0%	0%	80%	0%	
Manzalai	0%	0	1	-20%	1	1	28%	28%	21%	0%	
Mamikhel	0%	0	-	n/a	-	1	28%	28%	21%	0%	
Mardan Khel	2%	5	16	-65%	-	-	28%	28%	21%	0%	
Maramzai	1%	4	3	22%	4	6	28%	28%	21%	0%	
Makori	0%	-	-	n/a	7	7	28%	28%	21%	0%	
Makori Deep	0%	1	1	-33%	-	-	28%	28%	21%	0%	
Makori East	6%	20	22	-10%	27	33	28%	28%	21%	0%	
Tolanj	0%	0	0	0%	-	-	28%	28%	21%	0%	
Tolanj West	0%	0	0	0%	-	-	28%	28%	21%	0%	

Field Wise Gas Reserves - bcf	weights %							Stake %			
		OGDC	PPL	POL	MARI	OGDC	PPL	POL	MARI		
Mari	24%	5,009	5,129	-2%	3,205	3,427	0%	0%	0%	100%	
Uch	10%	1,975	2,045	-3%	2,189	2,323	100%	0%	0%	0%	
Kandhkot	3%	649	687	-6%	493	546	0%	100%	0%	0%	
Sui	9%	1,758	1,835	-4%	1,997	2,158	0%	100%	0%	0%	
Qadirpur	6%	1,161	1,219	-5%	1,342	1,476	75%	7%	0%	0%	
Jhandial	1%	291	-	n/a	-	-	0%	0%	80%	0%	
Manzalai	0%	43	48	-12%	62	79	28%	28%	21%	0%	
Mamikhel	0%	9	8	23%	10	21	28%	28%	21%	0%	
Mardan Khel	1%	116	338	-66%	-	-	28%	28%	21%	0%	
Maramzai	1%	156	180	-13%	209	256	28%	28%	21%	0%	
Makori	0%	0	1	-40%	168	169	28%	28%	21%	0%	
Makori Deep	0%	2	3	-32%	-	-	28%	28%	21%	0%	
Makori East	1%	161	176	-8%	207	235	28%	28%	21%	0%	
Tolanj	0%	9	9	-2%	-	-	28%	28%	21%	0%	
Tolanj West	0%	62	-	n/a	-	-	28%	28%	21%	0%	

Source: IGI Research, PPIS

**POL oil and gas reserves up by +71% and +78% as at Dec-17**

POL's oil and gas reserves are reported at 34.97mnbbls and 0.43tcf, up by +71% and +78% as at Dec-17 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. This has increased POL's Reserve Replacement Ratio (RRR) to net addition at the rate of +22.2x for oil and +23.8x for gas.

**OGDC oil and gas reserves down by 3% each as at Dec-17**

OGDC's oil and gas reserves are down by 3% each as at Dec-17 to 161.89mnbbls and 5.75tcf respectively compared to 166.69mnbbls and 5.91tcf at June-17. The decline in oil reserves is primarily attributable to 3% and 5% drop in Nashpa and Adhi reserves which accounts for 46% and 8% of total oil reserves for OGDC. Gas reserves are down by 3% on the back of 3% and 5% decline in Uch and Qadirpur reserves which contribute nearly 34% and 15% to total gas reserves. This brings OGDC's Reserve Replacement Ratio (RRR) to net addition at the rate of +0.4x (or 37%) for oil and +0.2x (or 18%) for gas.

**PPL oil and gas reserves down by 6% and 5% as at Dec-17**

PPL's oil and gas reserves are reported at 59.77mnbbls and 3.29tcf, down by 6% and 5% as at Dec-17 respectively, compared to 63.49mnbbls and 3.47tcf at Jun-17. The decline in oil reserves is primarily attributable to 3% and 5% drop in Nashpa and Adhi reserves which accounts for 60% and 17% of total oil reserves for PPL. Gas reserves are down by 5% on the back of 6% and 4% decline in Kandhkot and Sui reserve which contribute nearly 20% and 53% to total gas reserves. This brings PPL's Reserve Replacement Ratio (RRR) to net depletion at the rate of 1.7x (or 174%) for oil and 1.2x (or 119%) for gas.

**MARI oil and gas reserves down by 9% and 2% as at Dec-17**

Mari Petroleum Company Limited (MARI) oil and gas reserves are reported at 1.21mnbbls and 5.09tcf, down by 9% and 2% as at Dec-17 respectively, compared to 1.34mnbbls and 5.20tcf at Jun-17. The decline in oil reserves is primarily attributable to 14% drop in Halini reserves which accounts for 91% of total oil reserves for MARI. Gas reserves are down by 2% on the back of 2% decline in Mari field reserve which contribute nearly 98% to total gas reserves. This brings MARI's Reserve Replacement Ratio (RRR) to net depletion at the rate of 0.04x (or 4%) for oil and 0.9x (or 87%) for gas.

**Recommendation**

PPL and MARI remain our top picks among IGI E&P Universe with our Dec-18 target prices of PKR 2,382/share and PKR 237/share offering 54.5% and 19.5% upside respectively, from last close.

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Buy	If target price on aforementioned security(ies) is more than 10%, from its last closing price(s)
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**Time Horizon:** Dec – 2018

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(Reserve Based DCF Valuation)

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