

Day Break

Thursday, September 21, 2023



Oil & Gas Exploration Companies

Pakistan oil and gas reserves down by 17% and 6% as at Jun-23 end; RRR still below par

	Jun/23	Dec/22	%	Jun/22	y/y
Oil Reserves - mnbbbls					
OGDC	86.23	77.12	12%	81.63	6%
PPL	26.77	28.43	-6%	30.49	-12%
POL	13.28	31.44	-58%	32.28	-59%
MARI	5.00	20.08	-75%	21.67	-77%
Total	192.91	224.20	-14%	232.51	-17%
Gas Reserves – bcf					
OGDC	6,457	6,384	1%	6,515	-1%
PPL	2,522	2,508	1%	2,633	-4%
POL	174	389	-55%	398	-56%
MARI	4,358	4,783	-9%	4,917	-11%
Total	18,339	19,042	-4%	19,513	-6%

- As per data published by Pakistan Petroleum Information Service (PPIS), Pakistan's total oil reserves are down by 17% to 192.91mnbbbls as at Jun-23 compared to 232.51mnbbbls at Jun-22. Gas reserves are down by 6% to 18.34tcf as at Jun-23 compared to 19.51tcf at Jun-22.
- Major revision in reserves during FY23 included Addition of Bettani oil reserves by 13mnbbbls as at Jun-23, addition of Bettani gas reserves by 218mnbbbls as at Jun-23, Mari gas reserves down by 11%/y/y to 4,307bcf as at Jun-23, Kandhkot gas reserves up by 13%/y/y to 501bcf as at Jun-23, Makori East gas reserves up by +57%/y/y to 236bcf as at Jun-23 and Tolanj West gas reserves are up by +2xy/y to 30bcf as at Jun-23.
- Reserve Replacement Ration (RRR) for OGDC, PPL, POL and MARI remained below par during FY23. For oil and gas RRR was 1.39 and 0.83 for OGDC, 0.16 and 0.58 for PPL, (9.28) and (8.43) for POL and (42.02) and (1.03) for MARI. Only OGDC reported oil RRR of more than 100% due to addition of Bettani oil reserves.

Pakistan Oil reserves and gas reserves down by 17% and 6% as at Jun-23

As per data published by Pakistan Petroleum Information Service (PPIS), Pakistan's total oil reserves are down by 17% to 192.91mnbbbls as at Jun-23 compared to 232.51mnbbbls at Jun-22. Gas reserves are down by 6% to 18.34tcf as at Jun-23 compared to 19.51tcf at Jun-22.

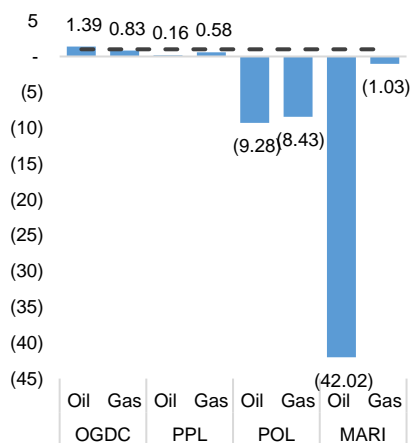
Compared to Jun-22, oil reserves are down due to downward revision in Mari and Jhandial field reserves (contributing nearly 51mnbbbls) despite addition of Bettani reserves (13mnbbbls). Compared to Jun-22, oil reserves dropped by 39.6mnbbbls as at Jun-23 compared to FY23 production of 25.4mnbbbls. Gas reserves are down 6% or 1,174bcf as at Jun-23 which is in line with FY23 production of 1,190bcf mainly due to addition of Bettani (218bcf) and upward revision of Kandhkot and Makori East gas reserves (Cumulative 141bcf) offset by downward revision in Mari reserves (535bcf).

Compared to Dec-22, oil and gas reserves are down by 14%/y/y and 4%/y/y respectively, mainly due to downward revision of Mari and Jhandial oil reserves and gas reserves were down due to downward revision in Mari compensated by addition of Bettani and upward revision in Makori East and Kandhkot. As a result both oil and gas reserves declined more than 1HFY23 production between Dec-22 and Jun-23.

Analyst

Abdullah Farhan
Abdullah.farhan@igi.com.pk

Exhibit: Reserve Replacement Ratio (RRR) as at Jun-23 – OGDC leads with more than 100% RRR for oil reserves while gas RRR close to 100%



Major Oil & Gas field reserve life			
Oil fields	mnbbls	FY23 Prod.	Reserve Life
Nashpa	23.7	4.1	5.7
Mela	4.7	0.4	13.5
Jhandial	0.1	0.1	1.5
Mari	1.3	0.0	34.1
Adhi	14.9	2.3	6.4
Joyamair	0.4	0.0	17.1
Pasakhi/Pas. NE	4.9	1.8	2.7
Makori East	12.6	3.3	3.8
Mardan Khel	3.7	0.8	4.8
Shahdadpur	5.6	0.4	14.5
Maramzai	3.6	1.1	3.2
Gas fields	bcf	FY23 Prod.	Reserve Life
Mari	4,307	248.8	17.3
Uch	2,711	135.8	20.0
Kandhkot	501	60.6	8.3
Sui	954	112.8	8.5
Qadirpur	811	63.0	12.9
Mardan Khel	77	13.1	5.9
Maramzai	172	37.8	4.6
Makori East	236	26.8	8.8

Major revision in reserves during FY23 included

- Addition of Bettani oil reserves by 13mnbbls as at Jun-23.
- Addition of Bettani gas reserves by 218mnbbls as at Jun-23
- Mari gas reserves down by 11%/y to 4,307bcf as at Jun-23.
- Kandhkot gas reserves up by 13%/y to 501bcf as at Jun-23.
- Makori East gas reserves up by +57%/y to 236bcf as at Jun-23.
- Tolanj West gas reserves are up by +2xy/y to 30bcf as at Jun-23

POL: Oil and gas reserves down by 59% and 56% respectively as at Jun-23

POL's oil reserves registered a massive decline of 59%/y to stand at 13.28mnbbls while gas reserves reported at decline of 56% to 0.17tcf, as at Jun-23, compared to 32.28mnbbls and 0.40tcf as at Jun-22. Oil reserves dropped due to downward revision in Jhandial Reserves by 23.06mnbbls compared to total production of 1.83mnbbls while gas reserves declined due to downward revision in Jhandial gas reserves (by 282bcf) compared to production of 23.7bcf during FY23. This brings POL's estimated reserves life to 6.89yrs for oil and 7.27yrs for gas (total reserve life of 7.27yrs).

OGDC: Oil reserves up by +6% while gas reserves down by 1% as at Jun-23

OGDC's oil reserves are reported at 86.23mnbbls up by +6% while gas reserves are recorded at 6.46tcf, down by 1% as at Jun-23, compared to 81.63mnbbls and 6.52tcf at Jun-22. The jump in oil reserves was mainly due to addition of Bettani (13mnbbls) compared to total FY23 production of 11.9mnbbls. Decline in gas reserves (down by 58bcf) was below FY23 production of 346bcf mainly due to addition of Bettani (218bcf). This brings OGDC's estimated reserves life to 7.32yrs for oil and 18.67yrs for gas with total reserve life of 16.79yrs.

PPL: Oil and gas reserves down by 12% and 4% at Jun-23

PPL's oil reserves are reported at 26.8mnbbls down by 12% while gas reserves are recorded at 2.52tcf, down by 4% as at Jun-23, compared to 30.49mnbbls and 2.63tcf at Jun-22. The decline in oil reserves (down by 3.7mnbbls) was below FY23 production of 4.45mnbbls due to upward revision in Makori East, Maramzai and Nashpa reserves while decline in gas reserves of 111bcf was below FY23 production of 262bcf owing to upward revision in Kandhkot Reserves (56bcf) and Makori East (24bcf stake adjusted). This brings PPL's estimated reserves life to 5.96yrs for oil and 9.02yrs for gas with total reserve life of 8.76yrs.

MARI: Oil and gas reserves down by 77% and 11% as at Jun-23

MARI oil reserves are reported at 5.0mnbbbls down by 77%/y/y whereas gas reserves are down by 11%/y/y to 4.36tcf as at Jun-23 respectively, compared to 21.67mnbbbls and 4.92tcf at Jun-22. The decline in oil reserves is primarily attributable to downward revision of 17mnbbbls from Mari oil reserves. Gas reserves declined by 560bcf as at Jun-23, which was above FY23 production of 275bcf mainly due to downward revision in Tipu reserves (839bcf) despite upward revision in Mari HRL reserves (290bcf). This brings MARI's estimated reserves life to 12.84yrs for oil and 14.87yrs for gas with total reserve life of 14.85yrs.

Reserve Replacement Ratio (RRR) remains key concern

Reserve Replacement Ratio (RRR) for OGDC, PPL, POL and MARI remained below par during FY23. For oil and gas RRR was 1.39 and 0.83 for OGDC, 0.16 and 0.58 for PPL, (9.28) and (8.43) for POL and (42.02) and (1.03) for MARI. Only OGDC reported oil RRR of more than 100% due to addition of Bettani oil reserves.

Exhibit: Oil & Gas 2P Reserves as at Jun-23

	Jun-23	Dec-22	%Change	Jun-22	y/y	Jun-21	Jun-20	Jun-19	Jun-18	Jun-17	Reserve Life		Total RL	
Oil Reserves - mnbbls											Jun-22	Jun-23	Jun-22	Jun-23
OGDC	86.23	77.12	12%	81.63	6%	99.17	108.79	118.97	152.76	159.86	6.28	7.32	15.58	16.79
PPL	26.77	28.43	-6%	30.49	-12%	41.38	42.40	44.42	56.89	63.53	6.76	5.96	9.18	8.76
POL	13.28	31.44	-58%	32.28	-59%	32.29	45.67	47.61	47.94	20.49	15.58	6.89	15.26	7.27
MARI	5.00	20.08	-75%	21.67	-77%	2.87	0.96	1.11	1.06	1.35	47.09	12.84	17.74	14.85
Total	192.91	224.20	-14%	232.51	-17%	249.05	540.08	568.45	347.90	332.20				

Gas Reserves - bcf	Jun-22	Jun-23
OGDC	6,457	6,384
PPL	2,522	2,508
POL	174	389
MARI	4,358	4,783
Total	18,339	19,042

Oil Reserves - mnbbls	weights													Stake %			
		OGDC	PPL	POL	MARI	OGDC	PPL	POL	MARI	OGDC	PPL	POL	MARI	OGDC	PPL	POL	MARI
Nashpa	12%	24	25	-6%	27	-13%	44	49	54	127	134	57%	28%	0%	0%		
Adhi	8%	15	16	-7%	17	-13%	20	23	-	19	27	50%	39%	11%	0%		
Makori East	7%	13	12	3%	13	-4%	11	9	10	18	22	28%	28%	21%	0%		
Bettani	7%	13	-	-	-	-	-	-	-	-	-	100%	0%	0%	0%		
Dhurnal	5%	10	10	0%	10	0%	10	10	10	10	10	20%	0%	5%	0%		
Shahdadpur	3%	6	6	-3%	6	-6%	7	7	3	4	3	0%	65%	0%	0%		
Chanda	3%	5	5	-8%	6	-15%	2	3	4	2	3	72%	0%	0%	0%		
Pasakhi/Pasakhi NE	3%	5	6	-15%	7	-27%	9	10	12	5	6	100%	0%	0%	0%		
Mela	2%	5	5	-3%	5	-6%	20	20	21	4	4	57%	28%	0%	0%		
Mardan Khel	2%	4	6	-34%	6	-38%	7	8	9	6	16	28%	28%	21%	0%		
Maramzai	2%	4	3	9%	4	-8%	5	6	7	6	3	28%	28%	21%	0%		
Pindori	2%	3	1	308%	1	275%	1	2	2	2	1	50%	0%	35%	0%		
Mari	1%	1	19	-93%	29	-96%	1	-	-	-	-	0%	0%	0%	100%		
Kunar	0%	1	1	-33%	0	146%	5	6	7	11	6	100%	0%	0%	0%		
Jhandial	0%	0	23	-100%	23	-100%	23	23	24	24	-	0%	0%	80%	0%		
Joyamair	0%	0	0	-2%	0	-5%	0	13	13	13	0	0%	0%	100%	0%		
Manzalai	0%	0	0	0%	0	-33%	0	1	1	0	1	28%	28%	21%	0%		
Makori Deep	0%	0	0	-50%	0	-67%	1	1	3	1	1	28%	28%	21%	0%		
Ayesha	0%	0	0	-17%	0	-38%	0	59	67	-	-	0%	0%	0%	0%		
Ayesha North	0%	0	0	-14%	0	-28%	0	68	69	-	-	0%	0%	0%	0%		
Aminah	0%	0	0	-81%	0	-81%	0	33	36	-	-	0%	0%	0%	0%		
Zainab	0%	0	0	0%	0	0%	0	110	110	-	-	0%	0%	0%	0%		

Gas Reserves - bcf	weights	OGDC	PPL	POL	MARI										
Mari	23%	4,307	4,711	-9%	4,842	-11%	5,100	4,700	4,942	4,885	5,129	0%	0%	0%	100%
Uch	15%	2,711	2,782	-3%	2,850	-5%	3,002	3,139	3,274	1,901	2,045	100%	0%	0%	0%
Kandra	10%	1,858	1,858	0%	1,858	0%	1,858	1,858	1,858	1,858	1,858	0%	0%	0%	0%
Zin	6%	1,132	1,132	0%	1,132	0%	1,132	1,132	1,132	1,132	1,132	83%	0%	0%	0%
Sui	5%	954	1,006	-5%	1,062	-10%	1,185	1,002	1,137	1,277	1,835	0%	100%	0%	0%
Qadirpur	4%	811	841	-4%	873	-7%	1,011	1,084	1,167	1,109	1,219	75%	7%	0%	0%
Kandhkot	3%	501	414	21%	445	13%	482	524	576	651	687	0%	100%	0%	0%
Nashpa	2%	314	329	-5%	346	-9%	375	408	438	399	429	57%	28%	0%	0%
Kunar West Deep	2%	417	428	-3%	441	-5%	510	541	576	381	381	100%	0%	0%	0%
Adhi	1%	236	243	-3%	251	-6%	269	290	255	289	297	50%	39%	11%	0%
Makori East	1%	236	153	54%	151	57%	159	188	221	147	176	28%	28%	21%	0%
Maramzai	1%	172	190	-9%	209	-18%	250	232	277	202	180	28%	28%	21%	0%
Pasakhi Deep	1%	145	148	-2%	151	-4%	354	366	378	216	226	100%	0%	0%	0%
Mardan Khel	0%	77	89	-13%	95	-19%	110	126	143	132	338	28%	28%	21%	0%
Tolanj West	0%	26	29	-11%	30	-16%	15	17	21	17	63	28%	28%	21%	0%
Manzalai	0%	20	23	-13%	26	-24%	33	33	46	38	48	28%	28%	21%	0%
Mamikhel	0%	3	3	-19%	5	-48%	6	7	12	9	8	28%	28%	21%	0%
Makori Deep	0%	2	2	0%	3	-31%	4	7	7	3	3	28%	28%	21%	0%
Jhandial	0%	1	284	-99%	284	-99%	285	286	288	290	-	0%	0%	80%	0%

Tolanj	0%	0	0	-67%	1	-83%	0	1	2	2	9	28%	28%	21%	0%
--------	----	---	---	------	---	------	---	---	---	---	---	-----	-----	-----	----

Source: PPIS, IGI Research

Important Disclaimer and Disclosures

Research Analyst(s) Certification: The Research Analyst(s) hereby certify that the views about the company/companies and the security/ securities discussed in this report accurately reflect his or her or their personal views and that he/she has not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report. The analyst(s) is principally responsible for the preparation of this research report and that he/she or his/her close family/relative does not own 1% or more of a class of common equity securities of the following company/companies covered in this report.

Disclaimer: The information and opinions contained herein are prepared by IGI Finex Securities Limited and is for information purposes only. Whilst every effort has been made to ensure that all the information (including any recommendations or opinions expressed) contained in this document (the information) is not misleading or unreliable, IGI Finex Securities Limited makes no representation as to the accuracy or completeness of the information. Neither, IGI Finex Securities Limited nor any director, officer or employee of IGI Finex Securities Limited shall in any manner be liable or responsible for any loss that may be occasioned as consequence of a party relying on the information. This document takes no account of the investment objectives, financial situation and particular needs of investors, who shall seek further professional advice before making any investment decision. The subject Company (ies) is a client of the IGI Finex Securities Limited and IGI Finex Securities offers brokerage services to Subject Company (ies) on a regular basis, in line with industry practice. This document and the information may not be reproduced, distributed or published by any recipient for any purpose. This report is not directed or intended for distribution to, or use by any person or entity not a client of IGI Finex Securities Limited, else directed for distribution.

Rating system: IGI Finex Securities employs three tier ratings system, depending upon expected total return (return is defined as capital gain exclusive of tax) of the security in stated time period, as follows:

Recommendation Rating System

Buy if target price on aforementioned security (ies) is more than 10%, from its last closing price(s)

Hold if target price on aforementioned security (ies) is in between -10% and 10%, from its last closing price(s)

Sell if target price on aforementioned security (ies) is less than -10%, from its last closing price(s)

Risk: Investment in securities are subject to economic risk, market risk, interest rate risks, currency risks, and credit risks, political and geopolitical risks. The performance of company (ies) covered herein might unfavorably be affected by multiple factors including, business, economic, and political conditions. Hence, there is no assurance or guarantee that estimates, recommendation, opinion, etc. given about the security (ies)/company (ies) in the report will be achieved.

Basic Definitions and Terminologies used: **Target Price:** A price target is the projected price level of a financial security stated by an investment analyst or advisor. It represents a security's price that, if achieved, results in a trader recognizing the best possible outcome for his investment, **Last Closing:** Latest closing price, **Market Cap.:** Market capitalization is calculated by multiplying a company's shares outstanding by current trading price. **EPS:** Earnings per Share. **DPS:** Dividend per Share. **ROE:** Return on equity is the amount of net income returned as a percentage of shareholders' equity. **P/E:** Price to Earnings ratio of a company's share price to its per-share earnings. **P/B:** Price to Book ratio used to compare a stock's market value to its book value. **DY:** The dividend yield is dividend per share, divided by the price per share.

IGI Finex Securities Limited

Research Analyst(s)

Research Identity Number: BRP009

© Copyright 2023 IGI Finex Securities Limited

Contact Details

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) 38303559-68	zaeem.haider@igi.com.pk
Muhammad Naveed	Regional Manager (Islamabad & Upper North)	Tel: (+92-51) 2604861-62	muhammad.naveed@igi.com.pk
Syeda Mahrukh Hameed	Branch Manager (Lahore)	Tel: (+92-42) 38303564	mahrukh.hameed@igi.com.pk
Shakeel Ahmad	Branch Manager (Faisalabad)	Tel: (+92-41) 2540843-45	shakeel.ahmad1@igi.com.pk
Asif Saleem	Equity Sales (RY Khan)	Tel: (+92-68) 5871652-56	asif.saleem@igi.com.pk
Mehtab Ali	Equity Sales (Multan)	Tel: (+92-61) 4512003	mahtab.ali@igi.com.pk

Research Team

Abdullah Farhan	Deputy Head of Research	Tel: (+92-21) 111-234-234 Ext: 912	abdullah.farhan@igi.com.pk
Aariz Raza	Analyst	Tel: (+92-21) 111-234-234 Ext: 810	Aariz.raza@igi.com.pk

IGI Finex Securities Limited

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

Corporate member of Pakistan Mercantile Exchange Limited

Website: www.igisecurities.com.pk

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

Stock Exchange Office

Room # 134, 3rd Floor, Stock Exchange Building,
 Stock Exchange Road, Karachi.
 Tel: (+92-21) 32429613-4, 32462651-2
 Fax: (+92-21) 32429607

Lahore Office

Shop # G-009, Ground Floor,
 Packages Mall
 Tel: (+92-42) 38303560-69
 Fax: (+92-42) 38303559

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

Faisalabad Office

Office No. 2, 5 & 8, Ground Floor, The
 Regency International 949, The Mall
 Faisalabad
 Tel: (+92-41) 2540843-45

Rahim Yar Khan Office

Plot # 12, Basement of Khalid Market,
 Model Town, Town Hall Road
 Tel: (+92-68) 5871652-3
 Fax: (+92-68) 5871651

Multan Office

Mezzanine Floor, Abdali Tower,
 Abdali Road
 Tel: (92-61) 4512003, 4571183

IGI Finex Securities Limited

Research Analyst(s)

Research Identity Number: BRP009

© Copyright 2023 IGI Finex Securities Limited