



May Upstream Report 2023

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About Us

WaterHouse is a data analytics company that offers innovative and cutting-edge analytics services to businesses, with a primary focus on the African market.

Our Vision

At WaterHouse, our vision is to transform businesses and organizations with the untapped power of data science and analytics, to offer solutions which help them stay ahead of the competition.

Our Mission

At WaterHouse we are established to help businesses – large and small – recognize and utilize the power of data science and analytics.



Executive Summary

The analysis of the production volumes of crude oil and condensate at various terminals or streams in Nigeria for the month of May 2023 shows that there was a modest recovery in production, following the decline in April.

The total production for the month was 44.26 million barrels, with Forcados being the highest-producing terminal/stream. The month-to-month growth rate for May 2023 was 14.4%, and the price of Bonnylight declined from \$78.33 per barrel in April 2023 to \$76.91 per barrel in May 2023.

Based on the available data, there is cautious anticipation of a potential increase in production for June.

The report covers the performance of the Nigerian upstream sector with specific emphasis on crude production from all fields and export terminals focusing on the month of May 2023. It also analyses Nigeria's performance in comparison to other members of OPEC. The report is based on data available from key government organisations such as Nigerian Upstream Petroleum Regulatory Commission (NUPRC), Central Bank of Nigeria (NBN), and the National Bureau Statistics. Overall, the data show a modest recovery in production in May 2023, following the decline in April with a marginal decline in price.

Introduction



Navigating the Waves: Insights into the Upstream Journey

Welcome to our monthly report on upstream activities in the oil and gas sector. This report provides a concise yet comprehensive overview of the latest developments, key findings, and critical discussions within the upstream industry.

In these pages, you will find an executive summary that highlights the most significant aspects covered in this report, background information shedding light on the contextual factors influencing the sector and setting the stage for the subsequent sections, news highlights, limitations.

Moving forward, we will present the results of our research, highlighting key findings derived from data analysis and market research, and a discussion section delving into the implications of the findings and their potential impact on the upstream sector.

We aim to equip you with valuable insights that will help you navigate the ever-changing landscape of the oil and gas industry. Together, let us embark on this informative journey and gain a deeper understanding of the upstream world.

Please note that all data are referenced and findings, and insights presented in this report are according to the data collected.

Background



As of May 2023, Nigeria regained its position as Africa's largest crude oil producer (OPEC) with 1.184 million barrels per day (bpd) of crude production. This represents an increase of 5% compared to the average daily production of 999,000 (bpd) recorded in April.

In terms of terminals and streams Nigeria has several major oil onshore terminals and export facilities, including Bonny Terminal, located in Rivers state, Forcados Terminal (SPDC) situated in Delta State, Qua Iboe Terminal (ExxonMobil) located in Akwa Ibom State, Escravos Terminal (Chevron) situated in Delta State. Other offshore terminals include Agbami, Bonga, Erha, and Akpo.

Nigerian Upstream Petroleum Regulatory Commission (NUPRC), monitors the oil and gas industry to ensure compliance with relevant regulations and laws. It also oversees the safety and other regulations that relate to the exportation and importation of the products into the country. As part of its activities, the department manages the upstream and downstream sectors of Nigeria's petroleum industry.

Nigeria is the ninth largest oil exporter in the world in terms of volume. For the country, this means that about 90 percent of export value is generated by mineral fuels, oils, and distillation products. The main destination areas of crude oil from Nigeria are Europe and Asia.

The export volume used in this analysis is based on the report published by the NUPRC. Waterhouse Analytics does not responsible for any errors potentially contained in the report.



Purpose



Analysis

This report aims to provide a comprehensive analysis of the production volumes of crude oil and condensate at various terminals or streams in Nigeria specifically for the month of May 2023.



Dynamics and Trends

By examining the production data during this period, the report aims to offer a detailed understanding of the production dynamics and trends within the Nigerian oil and gas industry.

News in the Sector

Global



World Oil Demand:

World oil demand is forecast to rise by 2.2 mb/d year-on-year in 2023 to an average 102 mb/d, 200 kb/d above last month's Report. China's demand recovery continues to surpass expectations, with the country setting an all-time record in March at 16 mb/d.

Global Oil Supply Declines in April, Further Disruptions Expected in May Due to Wildfires and OPEC+ Cuts:

Significant outages in Iraq, Nigeria and Brazil were only partly offset by increases elsewhere, with global oil supply down by 230 kb/d to 101.1 mb/d in April. Steeper losses are in store for May as wildfires shut in Canadian barrels and extra cuts from some OPEC+ producers take effect.

Global Crude Throughputs Reach Record High in 2023, but Weaker Margins Impact Forecast for 2H23:

Global crude throughputs reach an estimated 82.3 mb/d in 2023 as record 1Q23 runs in Asia led to a 300 kb/d upward adjustment versus last month's Report. However, weak margins mean the 2H23 runs forecast has been downgraded, most notably for Europe and the US.

Russian Crude and Refined Oil Exports Reach Post-Invasion High in April, with Crude Shipments Offsetting Decline in Product Exports

Russian exports of crude and refined oil products edged up in April to a post-invasion high of 8.3 mb/d. Shipments of crude oil increased by 250 kb/d, offsetting a decline in product exports of 200 kb/d.

Global Oil Inventories Decrease in March, Driven by Significant OECD Stock Decline:

Global observed oil inventories declined by 7.9 mb in March as a surge in oil on water and a slight increase in non-OECD stocks failed to offset a hefty 56 mb decline in the OECD.

National

NNPC Limited has commenced Drilling in Chad Basin:



Nigeria's state oil company has commenced drilling a crucial appraisal well in the Chad basin, targeting a potential 1 billion barrels of oil resource, marking a significant focus on the country's overlooked inland sedimentary plays.

Potential \$50 billion Investment:

Nigeria's oil and gas sector is expected to receive over \$50 billion in investments over the next five years, Approximately \$10 billion of the total investment is earmarked for two deep-water projects operated by Shell.

Industrial unrest at ExxonMobil assets:

An industrial dispute between ExxonMobil and striking workers in Nigeria over work rotas and pay changes has ended, which had temporarily halted oil production of 300,000 barrels per day from the company's facilities.

FOCUS ON OPEC



- According to a report by OPEC, for 2023, non-OPEC liquids production is forecasted to grow by 1.4 million bbl/day, averaging 67.2 million bbl/day, with minor revisions in some regions.
- US crude oil and condensate production, in March 2023, reached its highest level since March 2020.
- Production in the North Sea (one of the world's most significant offshore oil and gas-producing regions) remains stable.
- However, OPEC-13 (the 13-member nations within OPEC) crude oil production decreased by 464 trillion bbl/day in May 2023, averaging 28.06 million bbl/day according to secondary sources.
- According to OPEC reports, the latest assessment reveals a month-on-month decline of 1.0 million bbl/day in global oil supply for May 2023, averaging at 100.2 million bbl/day.
- Furthermore, compared to the same period last year, there was an encouraging year-on-year increase of 1.7 million bbl/day.
- These figures, based on OPEC's analysis, highlight the observed changes in global oil supply during the specified timeframe.

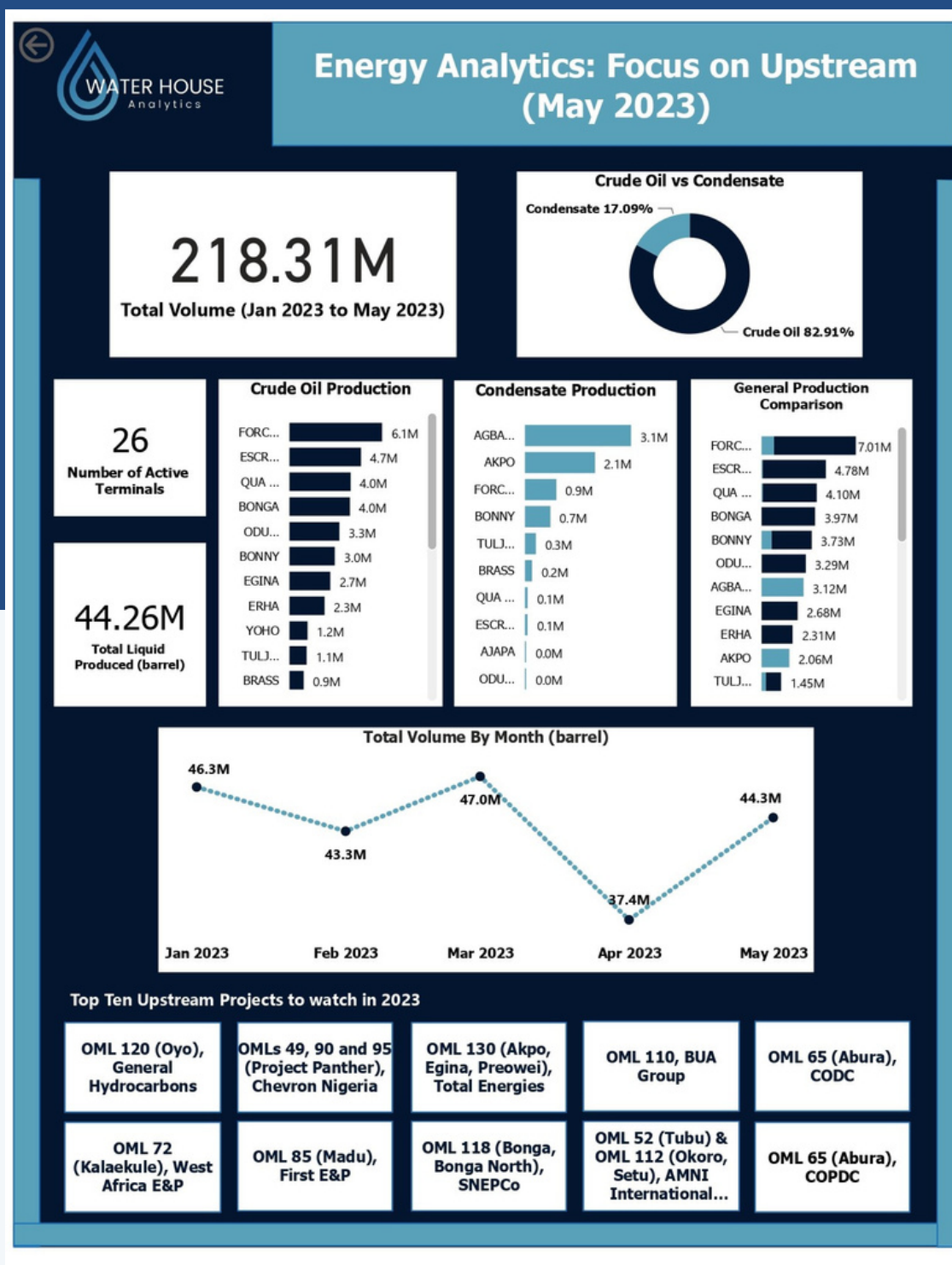




Limitations

- The analysis is based on historical data. This means that it is not possible to say with certainty what will happen in the future. The analysis can only provide an estimate of what might happen based on what has happened in the past.
- The analysis does not take into account all of the factors that could affect production. There are many factors that could affect production, such as the global economy, and political events. The analysis does not take all of these factors into account, so it is possible that the actual production could be different from what is estimated.

Nigerian Upstream Performance



Above is the analysis on the data about crude oil production

Data Source: NUPRC



Key Findings

44.26

A total of 44.26 million barrels produced in all 26 terminals by month of May

6.1

Highest Crude oil Production Terminal was Forcados with 6.1 million barrels in May

3.1

Highest Condensate Production Terminal was Agbami with 3.1 million barrels in May

7.01

Highest Liquid Production Terminal was Forcados with 7.01 million barrels in May

47

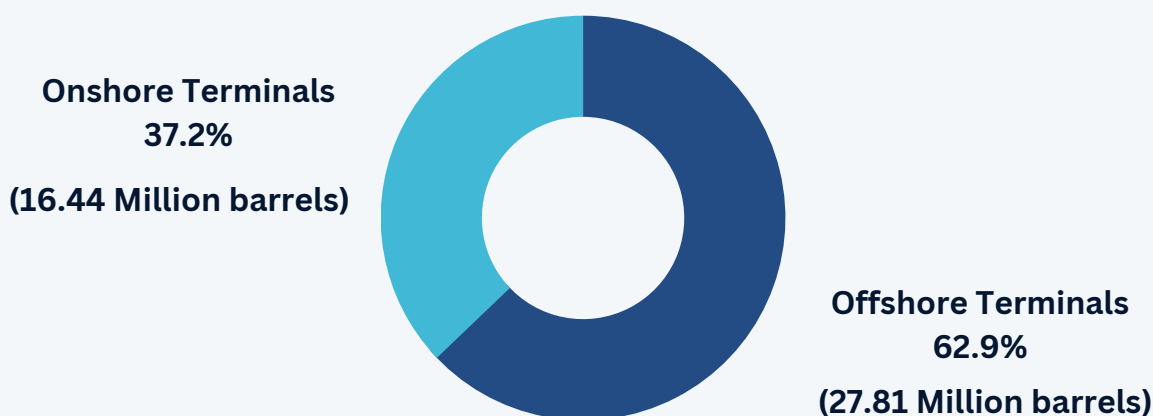
March was the month with the highest production of 47 million barrels.

Discussion

Key insights on Production

- In May 2023, 36.69 million barrels of crude oil was exported by 21 terminals.
- Six onshore fields were examined - Bonny, Brass, Qua Iboe, Forcados, Pennington and Ugo Ocha (Jones Creek). And twenty offshore terminals were examined: Escravos (Oil Terminal), Bonga, Erha, Usan, Egina, ABO, Sea Eagle (EA), Anyala Madu (CJ Blend), Agbami, Akpo, Ajapa, Odudu (Amenam Blend), Tulja-Okwuibome, Okoro (Ex Ima Terminal), Otakpipo (Ex Ima Terminal), Antan, Okono, Yoho, Ebok and Okwori.
- Out of the 44.26 million barrels of total liquid (crude + condensate) exported, 62.85% of the total export came from the offshore terminals, and the other 37.15% was from the onshore.
- Total liquid export from onshore and swamp stood at 16.44 million barrels.
- Total liquid export from offshore terminals stood at 27.81 million barrels.

Crude + Condensate Exported



Key insights on Production

- The terminal/stream with the highest Crude Oil export based on production volume reported for the month of May 2023 was Forcados with a total production of 6.1 million bbl, which is a 24.48% increase in comparison to April 2023.
- The terminal/stream with the highest Condensate production volume for the month of May 2023 is Agbami with a total production of 3.1 million bbl, which is a 24.48% increase in their oil production volume compared to April 2023.
- Generally, Forcados was the highest-producing terminal/stream, producing a total liquid (crude + condensate) volume of 7.01 million bbl, which is a 21.15% increase in their total liquid production volume compared to April 2023.
- Okwori is the terminal with the least crude oil production volume in the month of May, with a volume of 26,065 bbl, which is a 72.71% decline in their production in comparison to April 2023.
- In May 2023, there was no export reported for the following terminals: Terminals like Abo and Ugo Ocha (Jones Creek). In comparison with April, Abo and Ugo Ocha reported production/export were 77,798 bbl and 48,760 bbl respectively.
- Bonga terminal with 4.0 million barrels reported the highest volume exported in May amongst offshore terminals.

Highest Crude Oil



Forcados
24.48% in
May

Highest Condensate



Agbami
24.48% in
May

Highest Crude + Condensate



Forcados
21.15% in
May

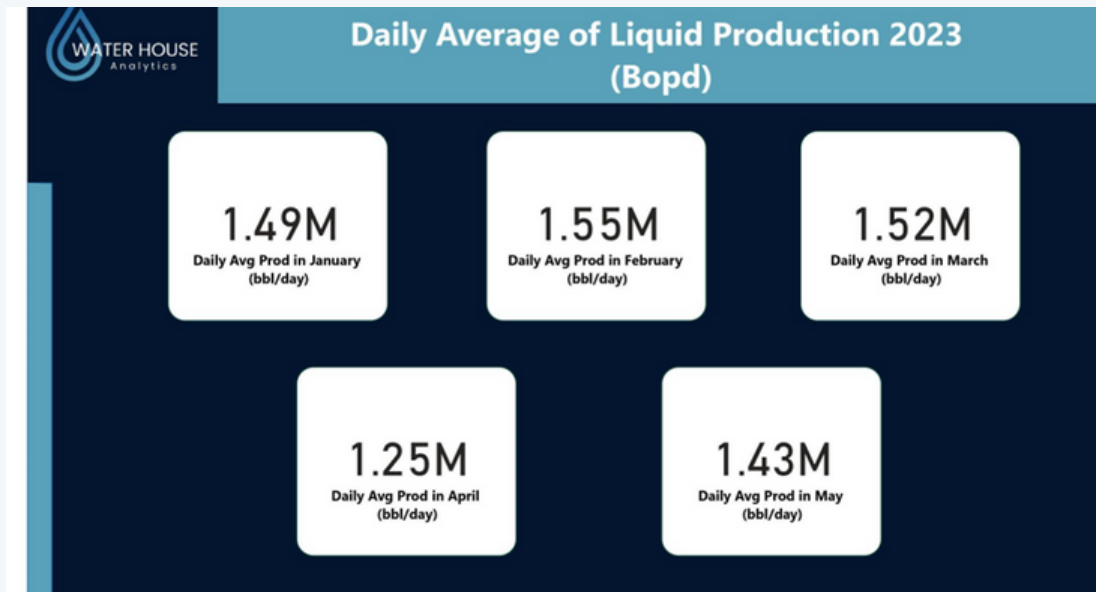
Least Crude oil



Okwori
72.71% in
May

Key insights on Production

From January 2023 to May 2023, the daily average production volumes of liquid exhibited some variations.



Data Source: NUPRC

- In January, the average daily production reached 1.49 million bbl/day, indicating a solid start to the year.
- February witnessed a slight increase, with production averaging at 1.55 million bbl/day.
- In March, production maintained stability, averaging 1.52 million bbl/day.
- However, April witnessed a decline to 1.25 million bbl/day, reflecting a temporary decrease in production.
- By May 2023, the average daily liquid production volume rose to 1.43 million bbl/day (a 14.4% increase), demonstrating a modest recovery.

Trends on Production

Based on the historical month-to-month growth rates, we can observe varying trends in the production volumes.

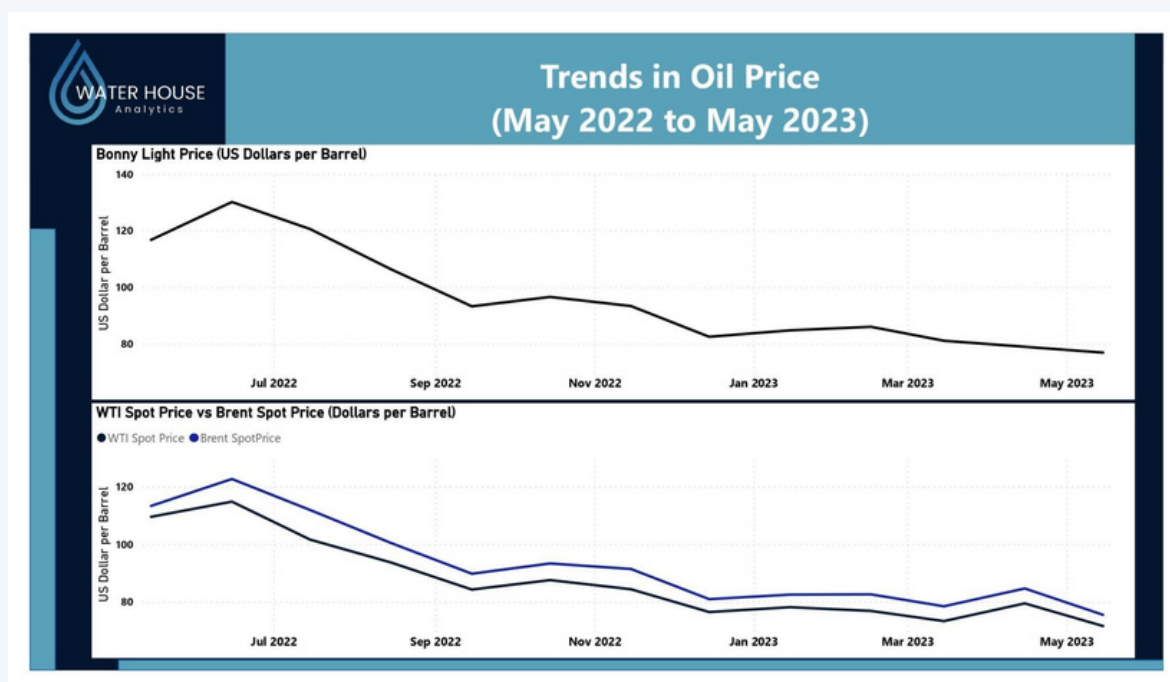


Data Source: NUPRC

- In February, there was a decrease of 6.45% compared to the previous month. However, in March, the production rebounded with a growth rate of 8.55%.
- April experienced a significant decline of 20.60%, but May saw a substantial recovery with a growth rate of 18.49% compared to April.

Trends in Oil Price

Oil prices have been on a turbulent journey over the past year, with prices reaching record highs in May 2022 following the Russian invasion of Ukraine. However, prices have since fallen back in May 2023 as recession fears have mounted.



Data Source: Central Bank of Nigeria (CBN); Thomson Reuters

In May 2023, the price of Bonnylight was slightly higher than that of WTI and Brent by \$1.44/bbl and \$5.33/bbl respectively. Overall, the high price of Bonnylight is due to a combination of factors, including its high quality, limited supply, and high demand. This is likely to continue in the future, as the demand for Bonnylight is expected to grow in the coming years.

The price of Bonnylight experienced a decline from \$78.33 per barrel in April 2023 to \$76.91 per barrel in May 2023, marking a decrease of \$1.42 per barrel or approximately 1.8%.

Trends in Oil Price

Several factors could explain this price decrease. Firstly, there has been some easing of tensions in the war-stricken region of Ukraine, which has led to a reduction in the demand for oil. Additionally, the United States took the strategic step of releasing oil from its reserves, contributing to an increase in the overall oil supply. Also, the global economy has shown signs of slowing down, resulting in a decrease in the demand for oil.

These factors intertwine to explain the observed decline in Bonnylight's price during May 2023. It is essential to consider these dynamics while assessing the broader oil market landscape and its potential impact on pricing trends.

Globally, oil price experienced a precipitous decline between April 2023, and May 2023, falling by \$16/bbl to \$73/bbl and \$69/bbl, respectively. This decline could be attributed to a number of factors, including recessionary concerns, OPEC production increases, and the strengthening of the US dollar. The US dollar has been strengthening in recent weeks, which makes oil more expensive for buyers using other currencies. It is difficult to say whether the recent decline in oil prices will be sustained. However, the factors driving the decline are likely to remain in place for the near term, which suggests that prices could remain lower than they were in April 2023.

Looking ahead, it is difficult to say what the future holds for oil prices. Overall, the price of oil has been on a wild ride over the past year. However, it is likely that prices will remain volatile in the near term, as the global economy faces a number of challenges.

June Outlook

Considering these trends, it is important to note that historical growth rates may not necessarily indicate future performance. However, based on the available data, we can cautiously anticipate a potential increase in production for June.

It is recommended to closely monitor market conditions, external factors, and any specific events that may influence production levels during that period.

This insight is an estimation based on historical data. However, actual production volumes in June may be influenced by various factors and circumstances beyond the scope of this analysis.



Conclusion

This report provides valuable insights into the performance of crude oil and condensate production over the analyzed period. By examining the production volumes, growth rates, and trends, we can gain a better understanding of the dynamics within the industry.

It is important to note that this report offers an estimation based on historical data. It is essential to continually assess the market conditions and adapt strategies accordingly to ensure optimal production outcomes.

References

- Central Bank of Nigeria. (2023). *Crude Oil Price (US\$/Barrel), Production (mbd) and Export (mbd)*. Retrieved June 10, 2023 from: <https://www.cbn.gov.ng/rates/crudeoil.asp?year=2020>
- Oil Production Status Report, NUPRC. (2023). *National Liquid Hydrocarbon Production Report*. Retrieved June 17, 2023. from: <https://www.nuprc.gov.ng/oil-production-status-report/>
- Organization of the Petroleum Exporting Countries (2023). *Monthly Oil Market Report - July 2023*. Retrieved June 17, 2023 from: <https://momr.opec.org/pdf-download/>

Glossary

- **Barrels:** A unit of measurement used to quantify the volume of crude oil and petroleum products. It represents approximately 159 liters or 42 gallons.
- **Condensate:** A light hydrocarbon liquid that is produced along with natural gas during upstream operations. It can be separated from the gas and processed further to obtain valuable products.
- **Crude Oil:** Unrefined petroleum, typically found underground, consisting of a mixture of hydrocarbons. It is the primary raw material for the production of various petroleum products.
- **KTPA:** Thousand Tons Per Annum. It is a unit of measurement used to express production capacity or annual throughput for petrochemicals and other industries.
- **NLNG:** Nigerian Liquefied Natural Gas. It refers to the Nigerian company that operates the Bonny Liquefied Natural Gas (LNG) plant, which is a major player in the LNG industry.
- **OPEC:** Organization of the Petroleum Exporting Countries. It is an intergovernmental organization consisting of several oil-producing nations. OPEC aims to coordinate and unify the petroleum policies of its member countries to stabilize oil markets.
- **OPEC-13:** Refers to the group of 13 member countries within the Organization of the Petroleum Exporting Countries. These countries collaborate on decisions related to oil production, prices, and market stability.
- **SPDC:** Shell Petroleum Development Company. It is a major oil and gas company operating in Nigeria, engaged in exploration, production, and development activities in the country's upstream sector.
- **Upstream:** The initial phase of the oil and gas industry that involves activities such as exploration, drilling, and production, focusing on locating and extracting natural resources.

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