Covid-19: Will helium markets 'thread the needle'?

Phil Kornbluth Kornbluth Helium Consulting, LLC



ovid-19 has dominated the headlines since it first entered the picture in January 2020 and the World Health Organization declared a pandemic on March 11. All of our day to day lives have been affected and almost every business and industry has been impacted in some way.

Not surprisingly, the global helium business has been affected significantly by Covid-19 and those impacts are continuing to evolve as I write this article, creating considerable uncertainty for helium producers, suppliers and end users. This article will look at how helium markets have been impacted by Covid-19 thus far and consider likely scenarios for the coming year.

During the early stages of the pandemic, when Covid-19 was largely a Chinese problem, helium demand from

"The reduced demand for helium was much greater than the reduction of supply" China (especially) and neighboring Asian countries was reduced. While there was a significant reduction of Chinese demand, there was also quite a bit of disruption to helium logistics. Helium shipments to/from China were delayed as port activity was disrupted and many sailings of cargo vessels were cancelled. The difficulty of transporting full 11,000 gallon helium containers to customers and returning empty 11,000 gallon containers for refilling resulted in a challenging environment for major helium distributors.

As the pandemic quickly spread around the world, demand for helium dropped off dramatically. While I do not have access to accurate data, my estimate is that worldwide demand for

helium dropped off by at least 20-25% during March and April from pre-pandemic levels. Helium Shortage 3.0, which had been entrenched since February 2018, quickly came to an end during the February/ March 2020 period and the industry was actually experiencing over-supply conditions by the end of the first quarter (Q1).

Helium demand probably hit its trough in April 2020 and, since then, it has been recovering in lock-step with the global economy. While helium demand has picked up considerably since its April low, it remains below pre-pandemic levels and helium supply remains plentiful as of October.

Reduced demand is not the only way

that Covid-19 has impacted the helium business. Approximately, 95% of the world's helium supply is produced as a by-product of natural gas processing and nearly half of that volume is produced as a by-product of liquefied natural gas (LNG) production in Qatar, Algeria and Australia. Demand for LNG, in particular, fell off as a result of Covid-19, with a number of cargoes being cancelled. Reduced production of LNG resulted in decreased production of helium. Nonetheless, the reduced demand for helium was much greater than the reduction of supply.

While helium demand has bounced back nicely since May, most economists seem to think that the easy part of the economic recovery has already taken

> place, with a full recovery of the economy (and demand for commodities such as helium) likely to play out over the next six to 12 months. The recovery of the economy and helium demand is highly dependent on the uncertain timing of the

availability of effective vaccines.

The big question on many people's minds is: will helium shortages return as helium demand recovers from Covid-19, or will new supply enter the market soon enough to prevent the return of shortages?

It seems clear that as helium demand gradually recovers, the current modest surplus will diminish. If new supply does not enter the market, tight market conditions would likely return.

95% Approximately 95%

Approximately 95% of global helium is a by-product However, new supply from the Helium 3 project in Qatar (aka Qatar 3) and Gazprom's Amur Project is visible on the horizon and will hopefully enter the market soon enough to prevent renewed shortages. Not surprisingly, Covid-19 has probably affected the timing of both of these projects and introduced significant uncertainty into the supply versus demand outlook for 2021 and beyond.

Qatar 3, which had previously been expected to start-up in 2020, is believed to be mechanically complete. However, the plant start-up has apparently been delayed due to the inability of foreign technical experts to travel to Qatar to commission the plant. My current expectation is that Qatar 3 will start up in Q1 or Q2 of 2021, with a gradual ramp of production to its expected capacity of approximately 425 million cubic feet (MMCF) per year.

Gazprom, which planned to start-up the first of three 700 MMCF per year

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tranches of the Amur Project by mid-2021, is still advising its customers that production from the first tranche is on schedule. My speculation is that Russia has been heavily impacted by Covid-19 and it is likely that the Amur Project will experience modest delays of at least three to six months.

How does this all come together?

Helium markets are currently experiencing a modest surplus, but the surplus should gradually diminish as helium demand recovers from Covid-19. New supply could enter the market as early as Q1 of 2021 and, as long as the new supply is not subject to lengthy delays, helium markets should be able to avoid a return of shortages. This is my 'Thread The Needle' scenario which I view as more likely. However, if the supply from new sources is delayed considerably, helium shortages could return.

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ABOUT THE AUTHOR

Phil Kornbluth is the President of Kornbluth Helium Consulting, LLC and is a member of gasworld's US Editorial Advisory Board. He has worked in the helium business for the last 37 years, including stints running the global businesses of both BOC Gases and the MATHESON subsidiary of Taiyo Nippon Sanso Corporation.

Phil can be reached at Phil@ KornbluthHeliumConsulting.com or +1 (908) 745-9779.

