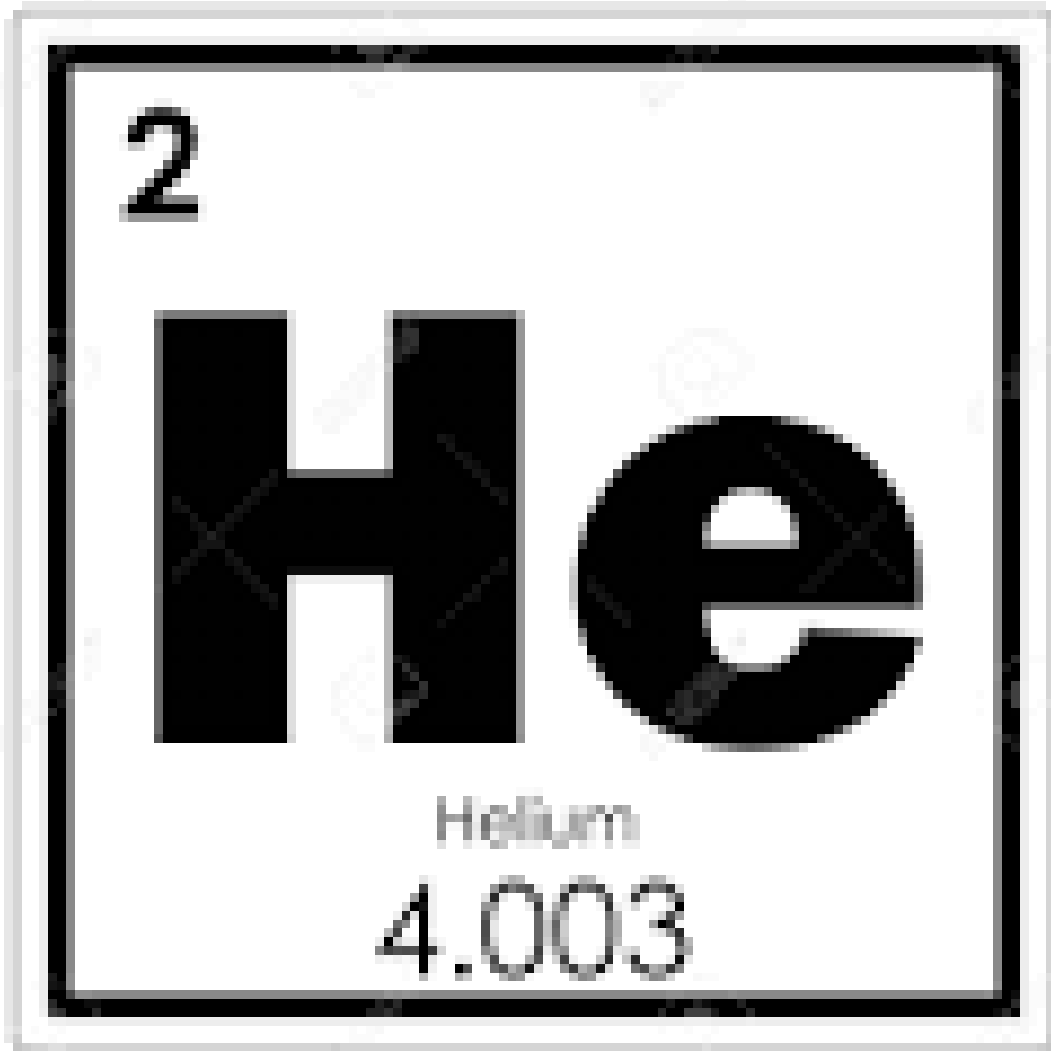


SW USA HELIUM OPPORTUNITY



SW USA HELIUM OPPORTUNITY

The Opportunity is:

- **Grass Roots**
- **Conceptual**
- **Underpinned by sound geological reasoning**
- **In an A-grade jurisdiction**
(location, infrastructure, legal and cost)
- **With a potential 'first mover' advantage**

And

- **Testing can be sized to fit budgets**

William Feyerabend CPG
billfeyerabend@yahoo.com

WHO I AM

William (Bill) Feyerabend

- Arizona based CPG
- First exposure to helium during a self-initiated regional study for lithium which led to a 2017 SW Utah drill program.
- Author of over 35 Technical Reports including lithium experience in NV, CA, UT and Argentina
- Arizona Oil and Gas Commissioner
- Career covers 12 countries

Website – wfprogeo.com

Facebook – William Feyerabend CPG

William Feyerabend CPG
billfeyerabend@yahoo.com

THE POINTS COVERED IN THIS PRESENTATION ARE:

HELIUM IS IN A DYNAMIC MARKET STAGE NOW

THE FORMATION OF ELEMENTAL HELIUM IS UNDERSTOOD

THE CONDITIONS FAVORING MOVEMENT OF HELIUM FROM ORIGIN TO RESERVOIR ENTRAPMENT ARE UNDERSTOOD

SPECIFICALLY A FOUR CORNERS GEOLOGIC MODEL IS USED

APPLYING THE MODEL LEADS TO A TARGET IN A FAVORABLE JURISDICTION WITH A MIX OF FEDERAL, STATE AND PRIVATE LAND AVAILABLE AS OF THIS WRITING

TIMING NOW JUST BEATS THE STATE'S EFFORT TO PROMOTE ITS HELIUM POTENTIAL

William Feyerabend CPG
billfeyerabend@yahoo.com

HELIUM PRODUCTION

World production in 2018 shows the political aspect of relying on other countries for a technically critical commodity. Qatar production has been affected by the Saudi embargo. Algeria is in a sensitive part of the world. Russia needs no comment. Rumors of a large deposit in Tanzania are based on good geologic reasoning and projecting a geochemical anomaly unsullied by drill testing plus Tanzanian politics have not been factored in. The 26 MCM released from the US reserve is obviously a market factor which will be discontinued.

2018 WORLD HELIUM PRODUCTION

Millions of Cubic Meters - Total ~160

64	US from natural gas
45	Qatar
26	US from reserve
14	Algeria
4	Australia
>5	Russia, Poland, Canada. Etc.

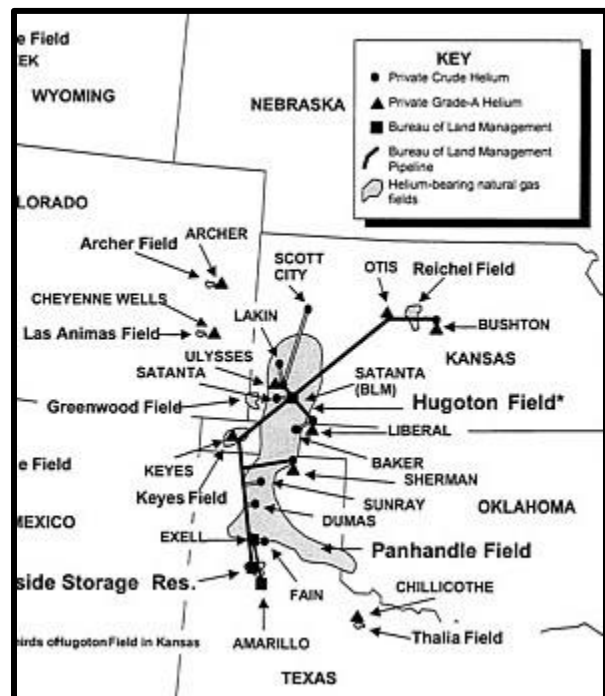
Source: <https://www.statista.com/statistics/925214/helium-production-worldwide-by-country/>

William Feyerabend CPG
billfeyerabend@yahoo.com

FEDERAL HELIUM RESERVE

The Federal Helium Reserve was created in 1925 to ensure that helium was available for anti-submarine airships. A pipeline was built in the 1960s to connect helium-enriched gas fields to a storage field near Amarillo, TX. That reserve has since been drawn down by market sales and **by law will cease in 2021.**

That removes a significant supply of helium from the market.



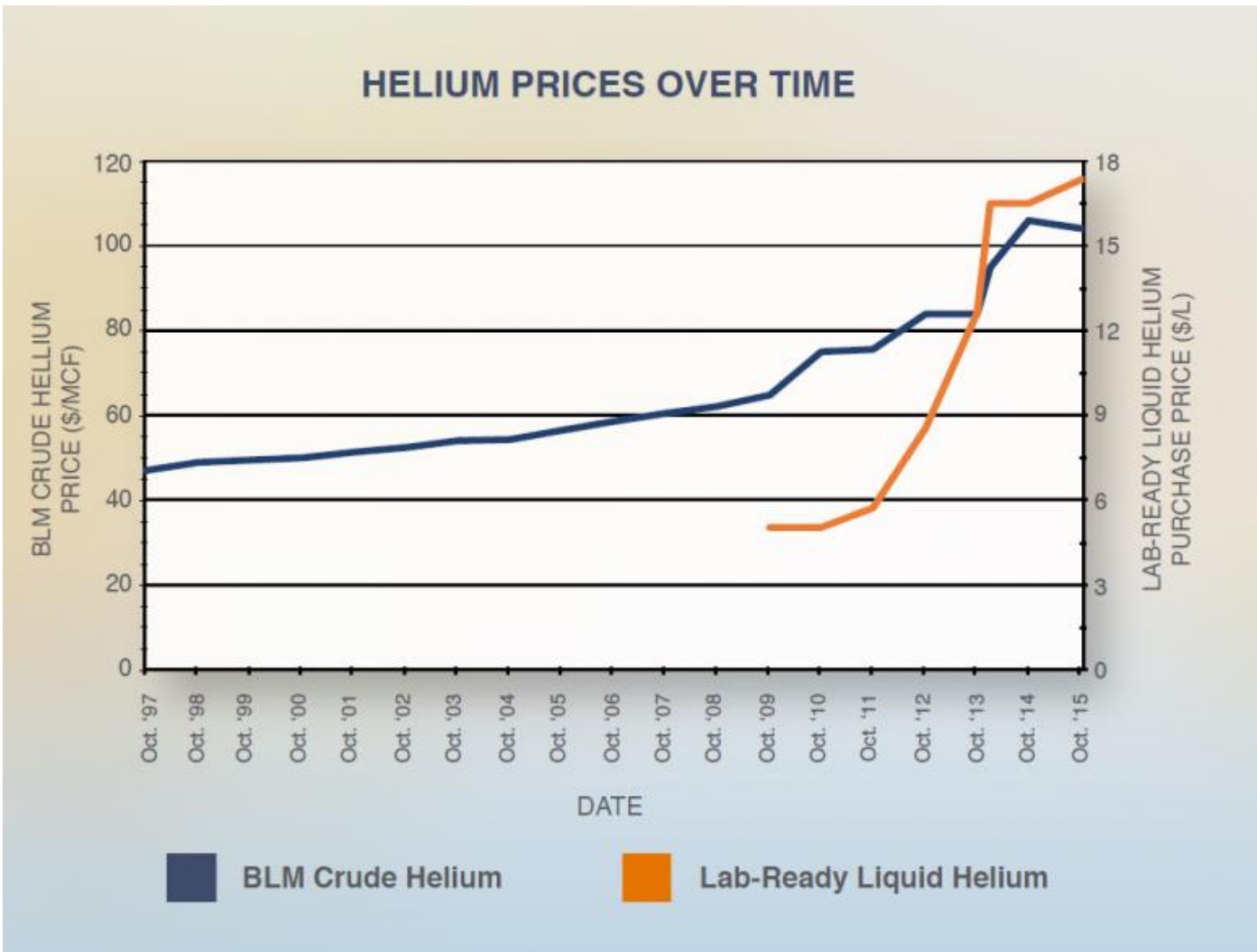
Source:

http://academic.emporia.edu/aberjame/airphoto/blimp/helium_usa.jpg

William Feyerabend CPG
Billfeyerabend@yahoo.com

HELIUM PRICE

Helium prices have responded to the pending cessation of US reserve helium sales and market jolts like Qatar.



Source: <https://www.aip.org/fyi/2016/scientific-societies-issue-action-plan-response-liquid-helium-supply-crisis>

William Feyerabend CPG
billfeyerabend@yahoo.com

HELIUM FORMATION

There is general agreement now that helium is formed by the slow decay of heavy uranium and thorium isotopes in the earth's crust.

The helium dissolves in crustal pore water along with carrier nitrogen and (carbon dioxide if close to volcanic rocks).

They move upward along faults into the overlying sedimentary platform where they are trapped in reservoirs.

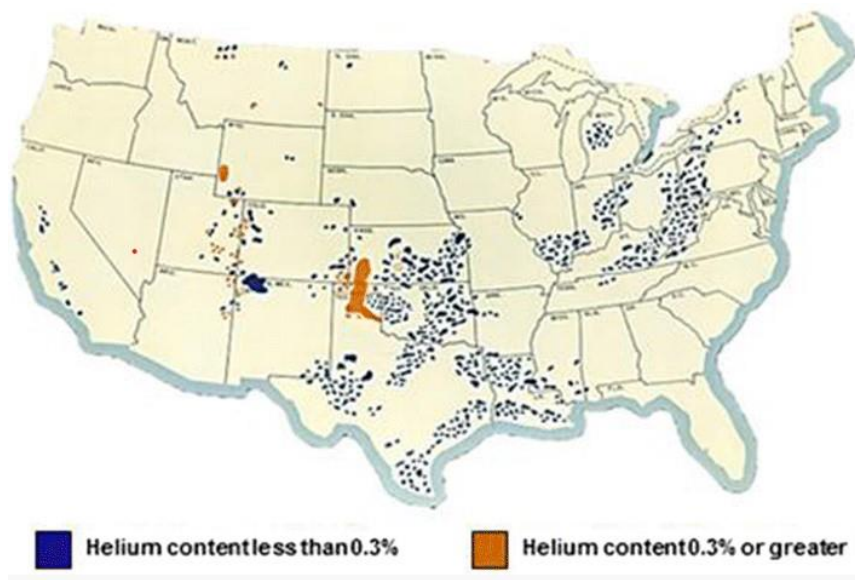
This is different from natural gas formed in sedimentary basins from organic-rich source beds and then migrates up to be trapped in a reservoir.

Source:: https://www.gasliquids.com/pdfs/2016_HeliumInNaturalGas.pdf

William Feyerabend CPG
billfeyerabend@yahoo.com'

HELIUM DISTRIBUTION

As could be expected from helium being formed by geologic processes everywhere and all the time, helium in natural gas is widespread.



Source: Bureau of Land Management

Note that the deposits are color coded by lower or higher helium content. There is a subset of higher helium content (>2%) which is associated with nitrogen and carbon dioxide, not natural gas.

William Feyerabend CPG
billfeyerabend@yahoo.com

HELIUM TARGET

**That subset of higher grade –
actually 4% to 7% helium –
is the target.**

All the clues lead to a:

- Large target area**
- In a western pro-business state**
- Mix of Federal, state and private land**
- Favorable geologic setting**
- Favorable stratigraphy**
- Evidence of anomalous helium**

William Feyeraabend CPG
billfeyerabend@yahoo.com

SW USA HELIUM OPPORTUNITY

Contact:

William (Bill) Feyerabend

billfeyerabend@yahoo.com

928-830-0721