

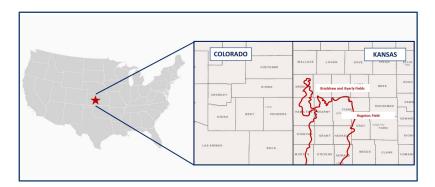
# Overview

- Well-capitalized helium exploration and storage solutions company with an experienced team of industry professionals, consultants and major industry partners
  - USD \$10 MM funds raised for major exploration project

TOTAL HELIUM

- Team of experienced board of directors, management, industry professionals and consultants with prior experience in energy and helium industry
- Partnership with a prominent multinational industrial gas company
  - USD \$1.9 MM cash flow generated as pre-payment for future deliveries of helium
  - USD \$360,000 consulting contract for establishing underground helium storage solutions
- First project well Boltz 35B completed with first helium and methane sales started
  - Gas composition is 0.72% helium, 54.70% methane and 2.67 gallons per Mcf of natural gas liquids
- Second production well Miller 9D completed with first helium and methane sales started
  - Gas composition is 0.58% helium, 61.01% methane and 3.09 gallons per Mcf of natural gas liquids
- Extension of the largest continuous conventional natural gas and helium field in North America, the Hugoton Gas field, with modern production and completion techniques
  - Hugoton Field has been the historical center of helium production with over 300 Bcf of helium produced
  - Modern production techniques and helium prices make the extension of the field attractive
  - 1.65 million-acre total field extension potential with over 70 Bcf of potential helium reserves
- 115,000 acres of leases in hand, first mover advantage
- Advantageous pricing
  - Produced helium and methane are currently being sold at advantageous prices, \$212+/Mcf for helium and current spot prices of \$6.00+/Mcf for methane and \$1.30+/gallon for propane.

#### **Project Area**



### First Production Well Boltz 35B Gas Composition

Helium	0.72%
Nitrogen	35.03%
Methane	54.70%
Ethane	4.52%
Propane	3.00%
isoButane	0.36%
n-Butane	0.94%
isoPentane	0.18%
n-Pentane	0.20%
Hexanes Plus	0.20%

Total Helium is systematically unlocking the massive potential of left-behind methane and helium reserves in the Hugoton.



# **Helium Market**

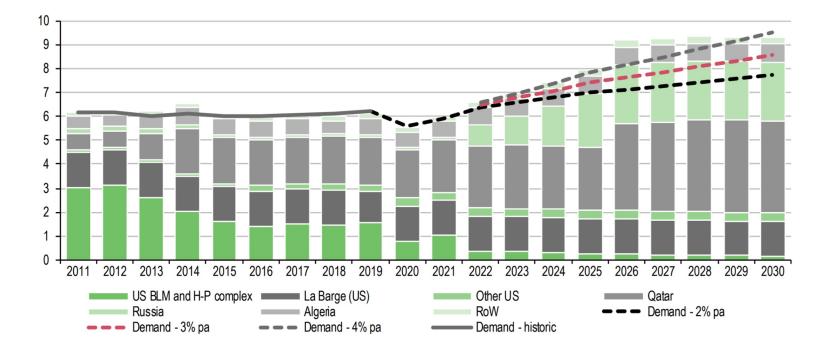
### **Need for Domestic Supply and Storage Solutions**

- Global helium shortage which started in 2016, briefly softened by the pandemic, could repeat in the future
  - U.S. Federal Helium Reserve's last auctions were concluded in 2018 and the reserve system was scheduled to be auctioned off to private investors in by the end of 2021 with no clear domestic supply replacements in place
  - The auction process is still in the works with uncertainty over future owners and reported problems around continued operational efficiency of the remaining system and reserves
  - Future sources of helium are to come from geopolitically risky locations such as Russia and Qatar
  - War in Ukraine has made almost everything coming out of Russia untouchable
  - In 2017, Saudi Arabia and the UAE announced an embargo of Qatar, which led to temporary shutdown of Qatar's helium production
  - Qatar shutdown took ~30% of the global helium supply off the market for several weeks disrupting logistics, highlighting the importance of secure supply
  - January fires at Gazprom's Amur plant highlight the importance of domestic supply
  - Latest official figures showing a little over 2 Bcf of private helium left in the U.S. Federal Helium Reserve
  - Federal Helium Reserve produces intermittently due to regulatory issues
  - US is placing major emphasis on domestic production of key components like semiconductors. Private industry is responding, with major global chip manufacturers, including Intel, Samsung, and TSMC, committing hundreds of billions of dollars in US manufacturing facilities. This will inevitably lead to increased demand for domestic helium supply.



# **Helium Market**

### Supply-Demand Forecast (Bcf)





### **Competitive Advantages**

- Extension of the Hugoton Gas field, which has been the historical epicenter of helium production with over 300 Bcf of helium produced
- Critical helium infrastructure nearby with extensive access to plants and pipelines
- · Formations tested and shown to produce helium with low-cost shallow wells
- Supply contract with major industrial gas company with over \$2MM USD received to date
- Helium storage facility to generate non-depleting cash flow
- Well capitalized with favorable corporate structure

### **Corporate Structure**

Outstanding Shares	65,583,806
Investor Warrants	12,500,000
Employee Incentive Stock Plan	4,895,000
Other Stock Options	750,000
Fully Diluted	83,728,806



#### USD \$150 billion multinational industrial gas company

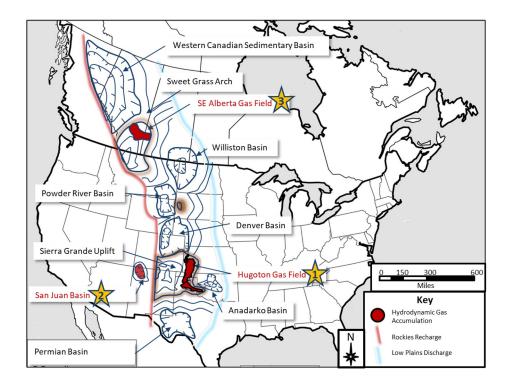
- A global multinational industrial gas and chemical company
- It serves customers in the healthcare, petroleum refining, manufacturing, food, beverage carbonation, fiber-optics, steel making, aerospace, chemicals, electronics and water treatment industries. The company's primary business is the manufacturing and distribution of atmospheric gases.
- Cash generation through partnership totaling USD \$2,260,000 and generating monthly revenue from sales of helium, methane, and liquids
- Helium Purchase Agreement established a price ceiling for the first 10,000 Mcf/month production at USD \$212/Mcf, adjusted for CPI going forward
  - Additional production volumes could be auctioned off to other parties at higher prices
  - Spot prices in 2022 exceeded \$500/Mcf on the open market with liquid helium prices exceeding \$1,300/Mcf
- Total Helium team is also collaborating with the industrial gas company for establishing an underground helium storage facility
  - USD \$360,000 consulting contract for identifying and establishing underground salt cavern helium storage facility
  - 50-50% ownership arrangement upon the successful operations of helium storage facility



## **Geological Overview**

### Hydrodynamically Influenced Natural Gas Accumulations

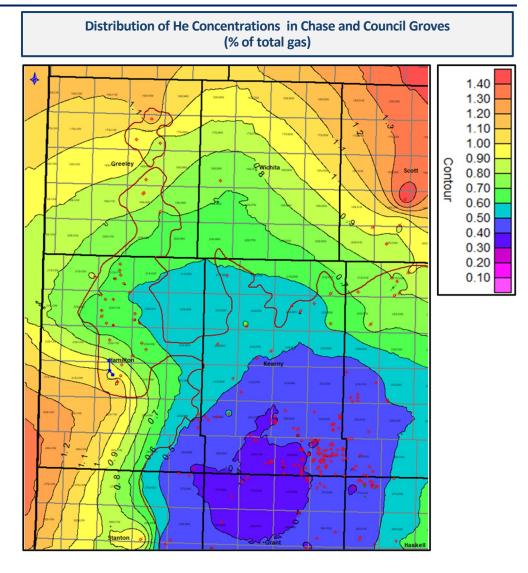
- Development to the north and northwest of the main body of the Hugoton Field presented operators with two major challenges
  - The carbonate reservoirs of the main body of the field were thinning and becoming less permeable requiring increased stimulation to maintain productive volumes
  - Coincident with the diminishing quality of the carbonate reservoirs comes an increase in the more porous and permeable sandstone equivalents and the potential for higher water saturations in this REGIONAL transition zone reservoir
- Stimulations were minimized to avoid water
- These transitional geologic conditions dictated development practices throughout the area but ultimately resulted in the majority of methane and helium reserves being left in the ground



The Panhandle/Hugoton Field is the largest "continuous" conventional natural gas and helium field in North America

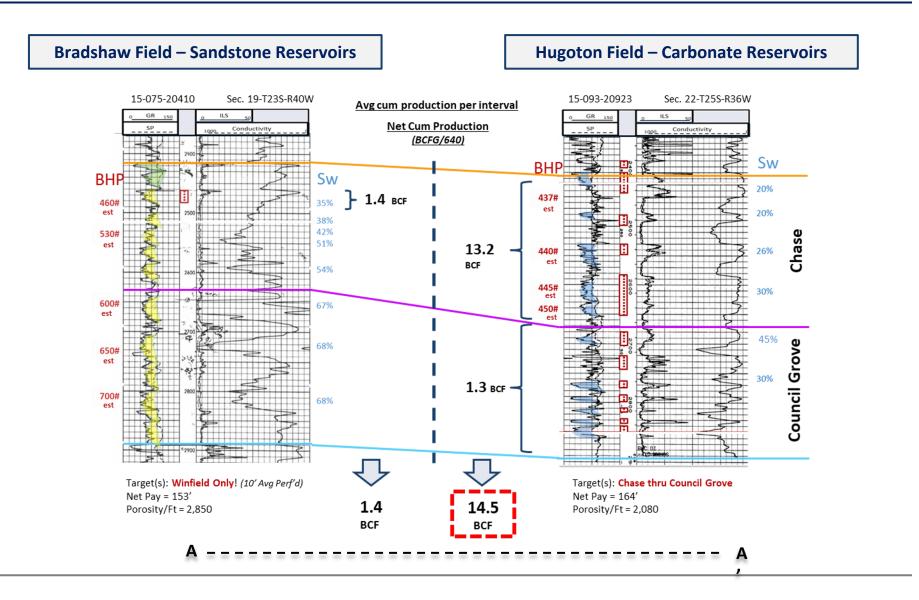


## **Proven Helium Concentrations**



- Contoured He concentrations from BLM gas analyses
  - Only Chase data points plotted
- When compared to the main Hugoton Field, Bradshaw and Byerly show elevated He concentrations
- He concentrations correlates to lithology
  - with increasing He in sandstones







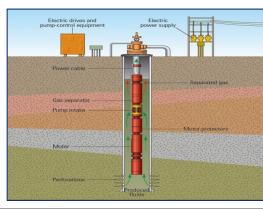
## **First Production Well: Boltz 35B**

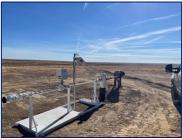
#### Status

- First project well at the southern edge of our project area
  - Spudded on November 14
  - Total drilling depth of 2,700 feet
  - 7-inch production casing
  - 150,000 lbs proppant utilized for Wymore
  - 80,000 lbs proppant utilized for Winfield and Towanda C
- Stimulated in 2 separate jobs
  - Higher risk, higher water saturation (70%) Wymore formation stimulated first
  - Lower risk, less water saturation upper formations Winfield and Towanda C stimulated later
- Dewatering operations ongoing
- Current production rate has increased from 20 Mcfpd and ranges up to 180 Mcfpd. Rate could increase with the dewatering process.
- Encouraging Water-Gas-Ratio (WGR) decrease
- Current studies of horizontal drilling for optimal development
  - RPS Energy will help design horizontal well for maximizing project NPV
- Sales pipeline connected
  - Sales pipeline connected for helium, methane and natural gas liquids
  - The gas sample show concentrations of 0.72% helium, 54.70% methane and 2.67 gallons per Mcf of natural gas liquids

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Nitrogen	35.03%
Methane	54.70%
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Hexanes Plus	0.20%











#### Well Location



## Miller 9D and Miller 9C

### Second Production Well: Miller 9D

- Second project well 20 miles northeast of the Boltz 35B well
  - Spudded on January 18
  - Total drilling depth of 3,200 feet
  - 5.5-inch production casing
  - 80,000 lbs proppant
- First stimulation performed on Miller 9D compared to Boltz 35B
  - The smaller stimulation and limited entry perforations were performed
  - 150,000 lb. stimulation on the Boltz 35B led to experimenting with a smaller stimulation on the Miller 9D well.
  - Future stimulations will be designed with more limited entry perforations and larger staged stimulation
- Second stimulation added 4 additional zones in early May
  - 80,000 lbs of proppant
- Dewatering operations ongoing
  - Current production rate has increased from 20 Mcfpd and ranges up to 300 Mcfpd. Rate could increase with the dewatering process.
  - Initial production figures coming from only a portion of total productive formations
  - Results from second stimulation ongoing and expected to increase production.
- Sales pipeline connected
  - Sales pipeline connected for helium, methane and natural gas liquids
  - The gas sample show concentrations of 0.58% helium, 61.01% methane and 3.09 gallons per Mcf of natural gas liquids

#### Miller 9C: Summary

- Total Helium's 1<sup>st</sup> produced water disposal well
  - Spudded on January 6
  - Very close proximity to Miller 9D allowing for efficiencies and cost savings in drilling
  - Total depth of 6,200 feet
- Proven disposal zone

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- High disposal capacity
- 5,000 bbls of water per day with 250 psig injection pressure with current permitting
- Well potential could be higher
- Significant cost savings for disposal operations over long periods of time
- Connected to Miller 9D for dewatering operations
  - Currently taking 450 bbls of water per day on a vacuum





Helium	0.58%
Nitrogen	26.28%
Methane	61.01%
Ethane	5.25%
Propane	3.34%
isoButane	0.38%
n-Butane	1.04%
isoPentane	0.21%
Nnpentane	0.25%
Hexanes Plus	0.34%



- Helium is a unique element with remarkable chemical and physical characteristics which make it irreplaceable for numerous industrial and technological applications such as semiconductor manufacturing, MRI machines, cryogenic research and pressurizing rockets
- Any likely future sources of helium are expected to come from geopolitically risky locations such as Russia and Qatar
- The recent Saudi-led blockade of Qatar and most recent fires at Russian Gazprom's Amur plant during the month of January highlight the importance of secure supply and storage
- Recent Ukraine-Russia war highlights the importance of domestic supply and storage
- US is placing major emphasis on domestic production of key components like semiconductors. Private industry is
  responding, with major global chip manufacturers, including Intel, Samsung, and TSMC, committing hundreds of
  billions of dollars in US manufacturing facilities. These companies require that their industrial gas suppliers have
  on-demand supply of helium through helium storage facilities.
- Total Helium has identified the location of a future underground cavern storage facility with geological analysis completed and permitting process ongoing
- Total Helium's storage project will make the U.S. more independent from foreign helium supplies
- Unlike oil and gas production, which is a depleting stream of revenue, helium storage revenue will be nondepleting, steady, and last for many decades to come.