



# Sale of Federal Helium System at Cliffside

The Edelgas Group  
General Services Administration (GSA)

August 2023

---

This overview was produced by Edelgas Group for GSA



- **Conservation** – Helium had been injected into the Cliffside Field for storage since January 1963. Cliffside field is approximately 15 miles northwest of Amarillo, Texas
- **Bush Dome** – Discovered in June 1924 (Producers & Refiners Corp's Bivens A-#1) and developed, originally, to supply helium-bearing gas to the Amarillo Helium Plant
- **Storage** – Feasibility of helium storage was validated between the years 1945 to 1959 with pure helium injection
- **Helium Act 1960** – Established long-term (22-year) contracts to purchase (take-or-pay) helium from private companies that would install processing equipment to capture helium that was previously vented into the atmosphere. These contracts were terminated in 1973 due to Government financial losses
- **Pipeline** – A 423-mile pipeline to Cliffside was contracted in September 1961, and functional by July 1962
- **Dolomite** – Main gas-producing formation and crude helium storage reservoir is the Permian-age Brown dolomite at a depth of approximately 3,300 ft. (~1,006 m). Thickness of dolomite varies from 250-300 ft (76 - 91 m). Weighted average porosity of ~ 11% with 10md of permeability



- **Opportunity 1 — Federally Owned Crude Helium Gas Only**
  - Approximately 1 Bcf of crude helium
- **Opportunity 2 — Federal Helium System and 800 Million Cubic Feet of Crude Helium**
  - 24,700 +/- sq. ft. Cliffside Gas Field Facility
  - 38,314 +/- acres of gas interests
  - 23 natural gas wells
  - 423 miles of pipeline that distributes helium from Texas to Kansas
  - 10.46-acre Kansas Satanta Maintenance Station
  - 800 MMcf of crude helium
  - Remaining native helium and natural gas
  - 13,760 acres of gas storage rights for the Bush Dome (for injection)

*Does not include the CRLP compression and refining equipment. GSA, following its disposal process, will complete marketing, asset valuation, and dispose of all assets on or before September 30<sup>th</sup>, 2023*

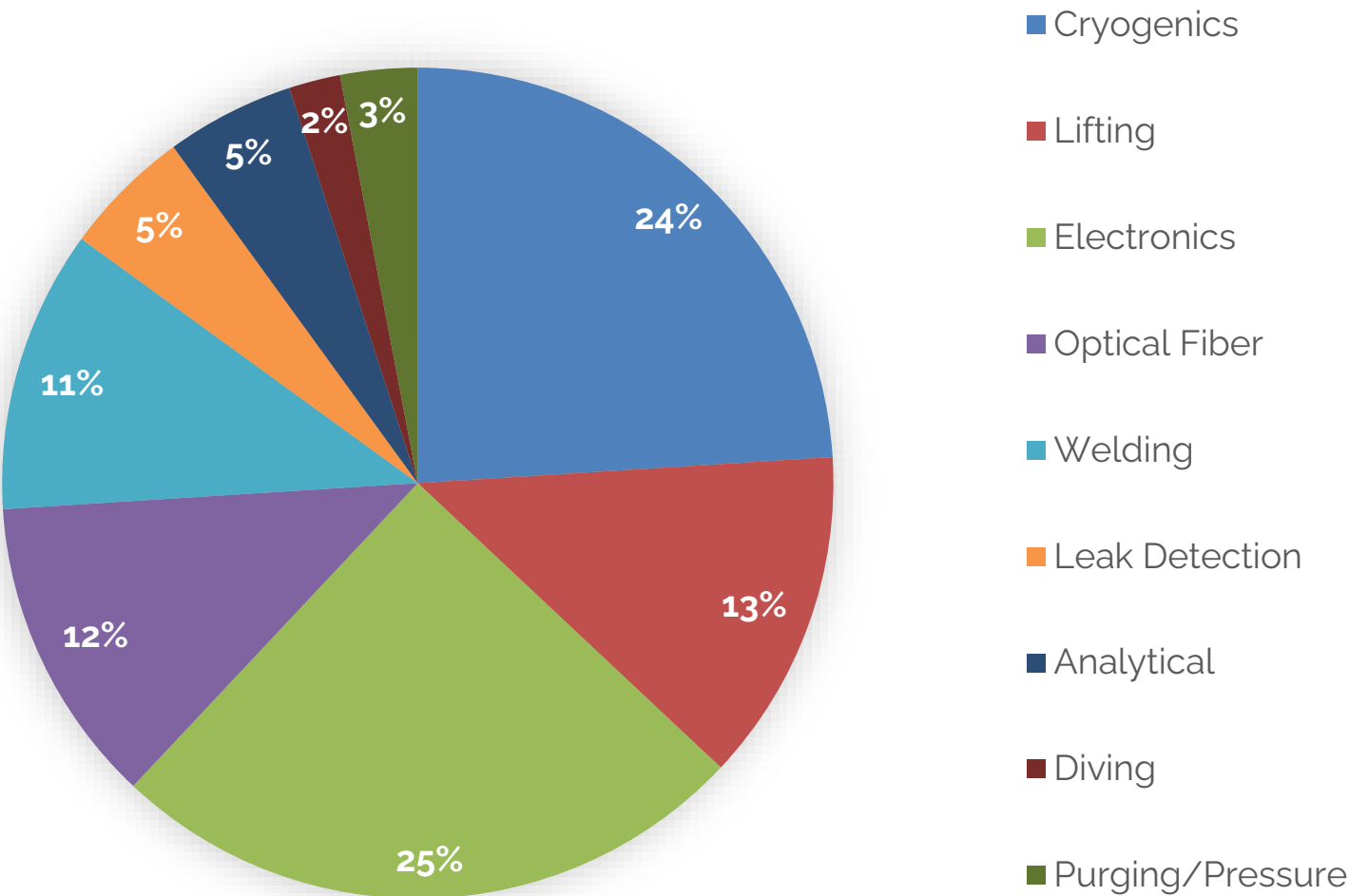


- Helium is a vital resource, essential in modern technologies with critical uses throughout the science, medicine and manufacturing industries. In many cases it cannot be synthesised or substituted.
- The geological risks of finding helium are similar in many regards to finding natural gas
- The global helium market size is around 6bcf/yr. Based on an upstream price assumption of US\$500/mcf it is worth approximately US\$3bn per annum to the producers but based on end user pricing, it is likely a 2-3x bigger market
- Given the inability to substitute helium in many applications (e.g. semiconductors, MRI machines and aerospace), demand is relatively price inelastic
- As there is a finite amount of helium production, there has been a supply shortage and there is not any significant commercial storage to draw on, it is hard to quantify the unmet or latent demand for helium.
- The market is susceptible to disruption as global supply is very concentrated, and there is little spare storage or ability to ramp production, which has led to price spikes in the past
- There are numerous players involved in the helium market but just a handful control most of the supply and distribution

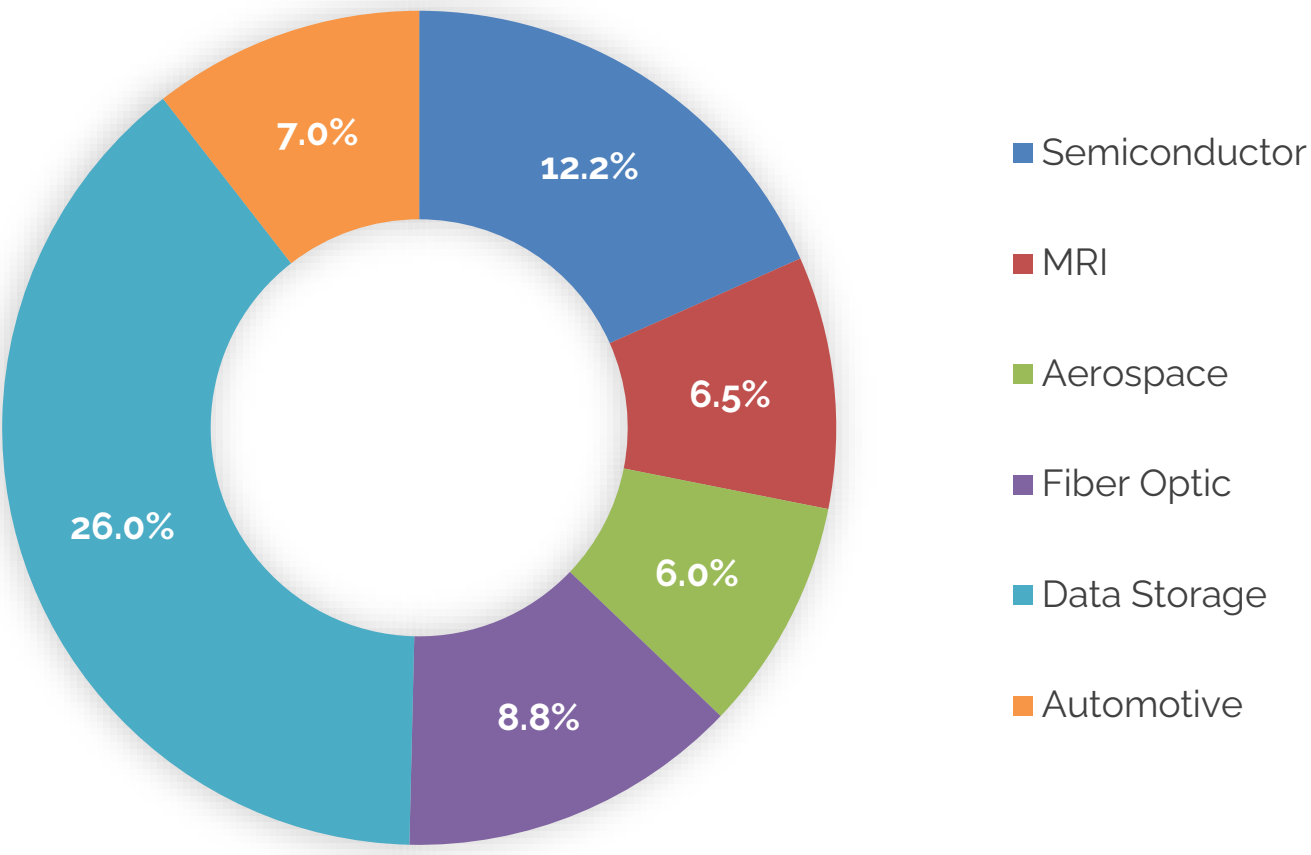


# Helium Demand

Global Helium Demand



Critical Path Markets (Industry Annual Growth Rate)



Source: Edelgas Group data

- CPM (Critical Path Markets) – Markets where helium is critical to their sustainability and growth
- Global Helium Demand is currently estimated to be at 6bcf (billion cubic feet) and helium demand projections are tied to the Industry’s estimated Annual Growth Rates of the CPMs
- Helium shortages continue to restrict the growth potential of the CPMs



Some of the attractive characteristics to the assets on offer include:

- Unique opportunity to own a helium storage site, particularly as helium is notoriously difficult to store and there is only one other major storage site in the US
- Storage could be crucial given highly concentrated supply, which may be subject to disruptions and downtime, meaning potentially significant value
- Opportunity to use the site for trading / hedging helium longer-term
- Stored helium could provide a safeguard for an end-user buyer to ensure against supply disruptions
- Access to the remaining volumes in the field mean that there is potential upside if the volumes have been under-estimated
- Helium in native gas of >2bcf may also be possible to access
- Opportunity to streamline operations and cut the operational running costs
- Possibility to store other gases such as hydrogen and carbon dioxide



# History of Cliffside and Sale Process

---

- The Site was cattle grazing land prior to its first developed usage.
- The Site was first developed as Cliffside Gas Field Camp as indicated on the 1953 topographic map.
- The Helium Privatization Act of 1996 required the Secretary to offer for sale a portion of the Conservation Helium stored underground at the Cliffside Field north of Amarillo, Texas.
- The Helium Stewardship Act of 2013 (HSA), Public Law 113-40, provided for continued operation of the Helium program while facilitating a gradual exit from the helium market.
- Since 2018, BLM is no longer selling crude helium. The Federal In-Kind program also ended in September 2022.
- BLM reported all assets as excess to the General Services Administration (GSA) at the end of FY 2021 for disposition.
- BLM anticipates sale of the Cliffside Helium Plant between September 2023 and December 2024



# Federal Helium Program

The **physical components** of the Federal Helium Program include:

- the Federal helium reserve; and
- the Cliffside gas field; and
- the Crude Helium Enrichment Unit (*not included in the sale*); and
- the Federal helium pipeline; and
- other infrastructure owned, leased, or managed under contract by the Secretary of the Interior for the storage, transportation, withdrawal, enrichment, purification, or management of helium.

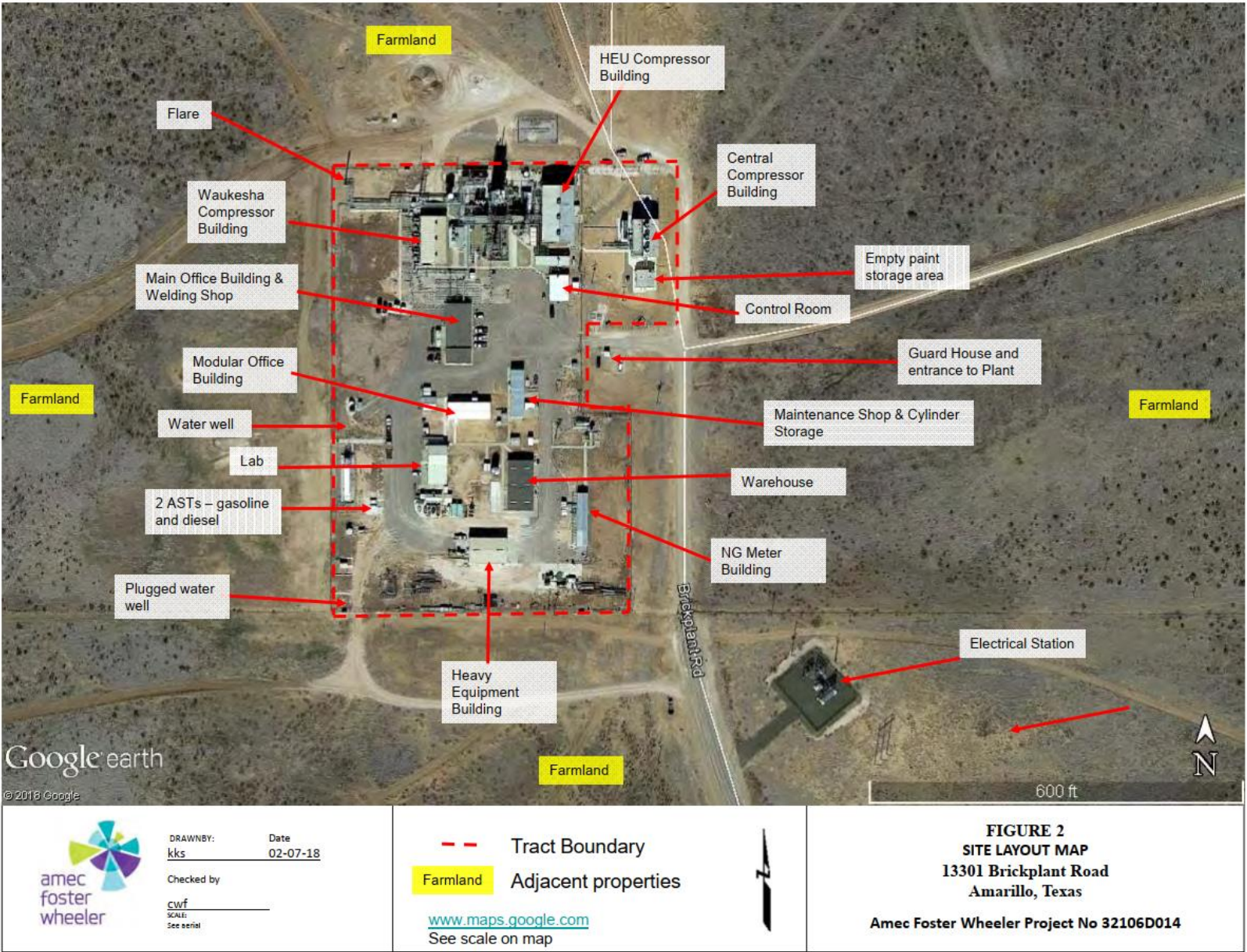
The **operational components** of the Helium program include:

- managing the helium storage system to ensure that excess helium produced from natural gas processing plants connected to the pipeline network is conserved for future use; and
- Federally owned natural gas containing marketable helium reserves is identified and contracted for sale or royalty to enhance conservation of crude helium already in storage.

The BLM also administers the helium fee and royalty contracts for helium extracted from gas produced on Federal lands. Finally, the BLM is responsible for evaluating the Nation's helium-bearing gas fields and providing responsible access to Federal land for managed recovery and disposal of helium.

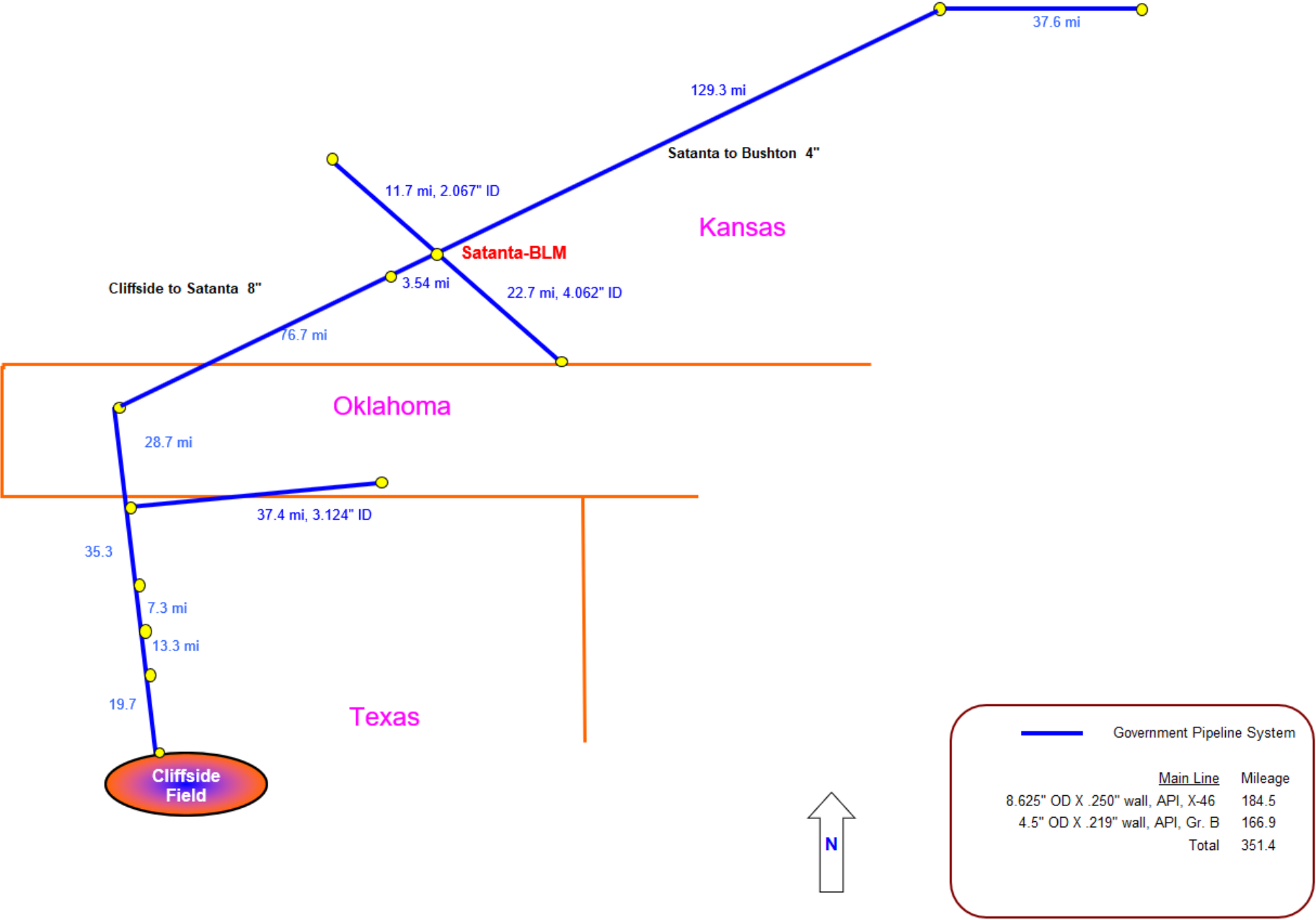


# Map of Cliffside Facilities



Bureau of Land Management (BLM)  
Crude Helium Pipeline  
Diameters and Mileage

Date: 6/21/2023





# Helium Plant (CHEU)

---

The Crude Helium Enrichment Unit (CHEU) is owned by the Cliffside Refiners Limited Partnership (CRLP) but operated and leased by the BLM – *it is not included in the sale*. The CRLP is composed of four companies: Air Products, Linde, Messer and Kinder Morgan

The CHEU utilizes a unique industrial process, enriching helium from natural gas, using pressures to 1,550 psi and temperatures to -300°F. The plant can process up to 40mmcf/day of gas, using electric engine driven high-pressure gas compressors, chemical treating equipment for conditioning gas for processing, and auxiliary and related equipment

Components needed for the extraction and delivery of helium, such as compressors, chillers, and various air and moisture filter systems, are owned by the CRLP



# Simplified process description

- The primary operations at the Cliffside Helium Facility are to produce an enriched helium gas stream for delivery by pipeline to users and helium refiners
- Gas from the Cliffside Gas Field is received by the plant via pipeline and used as the feedstock
- The feedstock is compressed and carbon dioxide is removed by a diglycolamine® adsorption system
- Following carbon dioxide removal, the feed stream is dehydrated by a temperature swing adsorption system before it is sent to the cold box for cryogenic nitrogen rejection and helium recovery
- In the cold box, methane and heavier hydrocarbons are separated from the gas mixture by liquefaction
- The gas stream is further cooled to permit most of the nitrogen to condense, leaving a gas stream that is enriched in helium

Source: AMEC Foster Wheeler Report (available in data room)



- Cliffside field is high in structural geology on the south edge of the Amarillo – Wichita Uplift
- Vertical closure of roughly 550 ft (168 m) and areal extent of ~11,000 acres
- Main gas producing formation and helium storage formation is the Permian-age Brown Dolomite
- Brown dolomite is about 3,300 ft (1,005 m) deep, has average 11% porosity, and 10md of permeability (from core analysis)
- Brown dolomite consists of shale, anhydrite, and sandstone stringers. Varies in thickness from 250 to 300 ft (76 – 91 m)
- Immediately above Brown dolomite is the Panhandle lime formation which is the caprock for the helium storage reservoir. Panhandle lime is mostly impermeable anhydrite with a thickness of approximately 400 ft (122 m)
- First porous formation above the Brown dolomite is the Red Cave formation (~400 ft, 122m thick). The Red Cave was a productive reservoir
- Discovery well was the Producers & Refiners Corp's Bivens A-#1 well in June 1924
- Trials of using Cliffside as a storage reservoir occurred between the years 1945-1953
- Post the helium storage act 1960, great care was taken to ensure no leakage from wells
- Crude helium entered Cliffside through an 8 inch, high pressure pipeline



# Cliffside field reservoir analysis

There have been several reservoir studies carried out by NITEC in 2018 and EDGE in 2020 and 2022

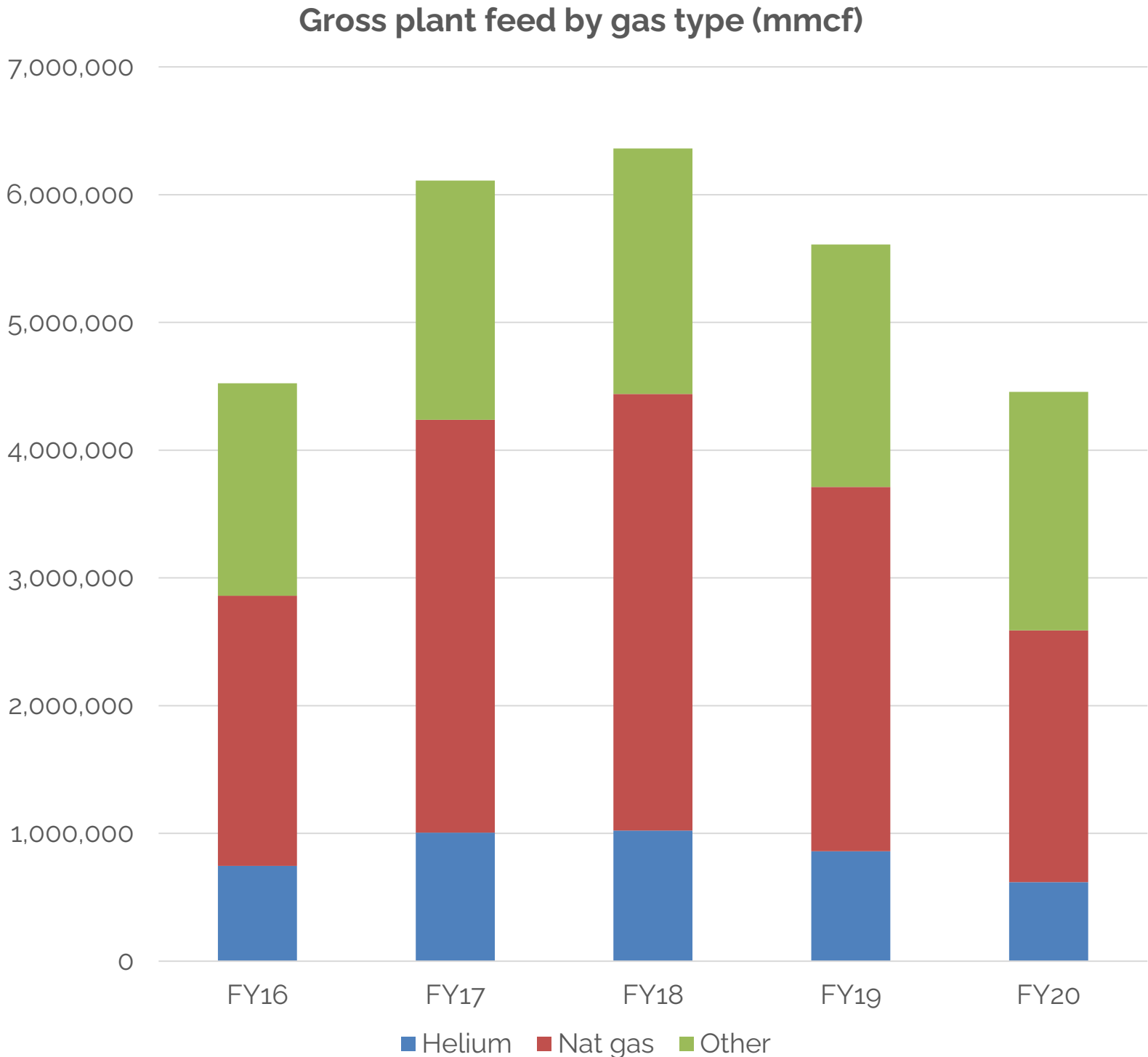
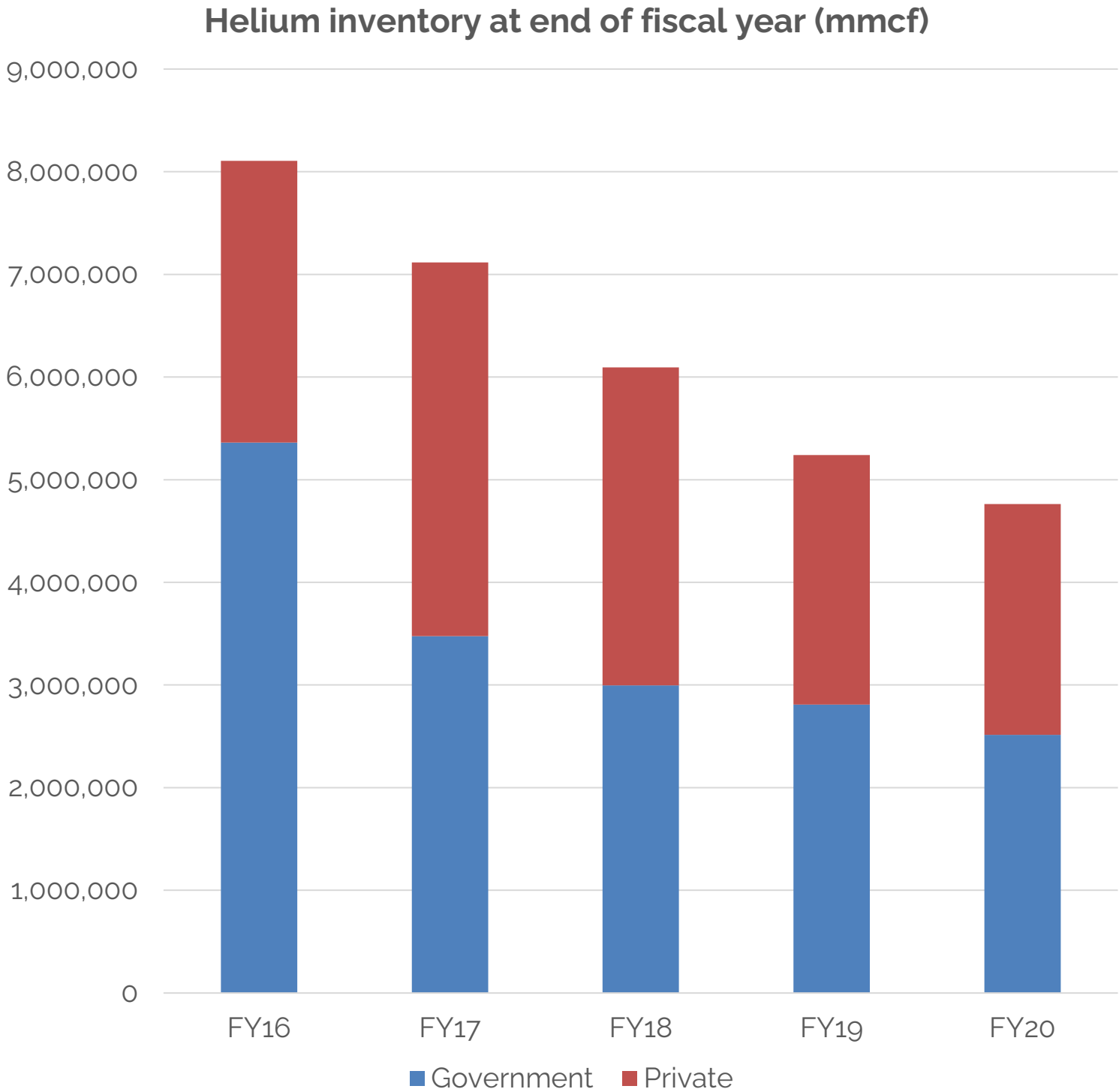
Well completion summary

Formation	Interprete d Geological	Bi-A1	Bi-A2	<u>Bi-A3</u> <u>Inj</u>	<u>Bi-A4</u> <u>Inj</u>	Bi-A5	<u>Bi-A6</u> <u>Inj</u>	Bi-A7	Bi-A9	Bi-A11	<u>Bi-A13</u> <u>Inj</u>	<u>Bi-A14</u> <u>Inj</u>	Bi-A15	Bi-B1	Bi-B2	Bu-A1	<u>Bu-A2</u> <u>Inj</u>	Bu-A3	Bu-A4	Bu-A5	Bu-A8	Bu-A9	Bu-A11	Bu-B1	Fu-A1	Fu-A2	Fu-A3
Panhandle	P-1																										
	P-2																										
	P-3																										
	P-4																										
	P-5			OH	OH	OH	OH									OH		OH	OH						OH		
	P-6		OH	OH	OH	OH	OH									OH		OH	OH	OH				OH	OH		
	P-7		OH	OH	OH	OH	OH									OH		OH	OH	OH				OH	OH		
FS BROWN DOLOMITE										FS BROWN DOLOMITE					FS BROWN					FS BROWN DOLOMITE							
Bronw Dolomite	L-1		OH	OH	OH	OH <sub>1</sub> /CH <sub>2</sub>	OH									OH	CH	OH	OH	OH <sub>1</sub> /CH <sub>2</sub>				OH/CH	OH/CH		CH
	L-2	OH	OH <sub>1</sub> /CH <sub>2</sub>	OH <sub>1</sub> /CH <sub>2</sub>	OH	OH <sub>1</sub> /CH <sub>2</sub>	OH	OH			CH					OH	CH	OH	OH	OH <sub>1</sub> /CH <sub>2</sub>				OH/CH	OH/CH		CH
	L-3	OH	OH <sub>1</sub> /CH <sub>2</sub>	OH	OH	OH/CH	OH/CH	OH			CH		CH			OH	CH	OH	OH/CH	OH <sub>1</sub> /CH <sub>2</sub>			CH	OH/CH	OH/CH		
	L-4	OH	OH <sub>1</sub> /CH <sub>2</sub>	OH <sub>1</sub> /CH <sub>2</sub>	OH/CH	OH/CH	OH/CH	OH/CH	OH	CH	CH		CH	CH		OH	CH	OH	OH/CH	OH/CH	CH		CH	OH/CH	OH/CH	CH	CH
	L-5		OH <sub>1</sub> /CH <sub>2</sub>	OH/CH	OH/CH	OH/CH	OH/CH	OH/CH	OH	CH	CH	CH	CH	CH	CH	OH	CH	OH	OH/CH	OH/CH	CH	OH	CH	OH/CH	OH	CH	CH
	L-6		OH <sub>1</sub> /CH <sub>2</sub>	OH/CH	OH/CH	OH/CH	OH/CH	OH/CH	OH	CH	CH	CH	CH	CH	CH	OH	CH	OH	OH/CH	OH/CH	CH	OH	CH	OH	OH	CH	CH
	L-7		OH <sub>1</sub> /CH <sub>2</sub>	OH/CH	OH/CH	OH	OH/CH	OH/CH		CH	CH	CH	CH	CH	CH	OH	CH	OH	OH	OH		OH	CH	OH	OH		CH
	L-8			OH/CH	OH/CH		CH	OH		CH	CH	CH	CH			OH	CH		OH						OH		
	L-9										CH																

LEGEND			
	Open in first period (before 1963)		
	Open in second period (after 1963)		
	Open in both periods (before and after injection)		
OH	Open Hole	OH <sub>1</sub>	Open Hole first period
CH	Cased Hole	CH <sub>2</sub>	Cased Hole second period



# Historical Reserves and Plant Feed





- **Pipeline easements** – All pipeline easements have been verified by GSA. A GIS map was procured by BLM and most of the pipeline easement documents are available there. The GIS Map contractor did not load all the documents. All the real property rights are available in the DataRoom and Invitation for Bids.
- **Prior OSHA violations** – The previous OSHA violations have been resolved. On March 6, 2023, OSHA submitted a letter to BLM to acknowledge abatement completion of the stated citations.
- **Regulatory compliance** - BLM reached out to the Texas Railroad Commission about the matter. TRC advised that since helium is an inert gas, there are no regulatory compliance rules as the wells continue to be used as helium wells. Over the years, BLM acquired 4 oil wells. TRC requires these wells be registered under the name of the new Buyer.



# Storage Contract

The storage contracts provide for the collections of contract fees, pipeline connection fees, and reservoir management fees based on stored volumes and the storage/delivery activity conducted by the contract holder. The transportation and storage of private company helium serves as a method of providing an adequate supply of crude helium to the private helium purification plants.

Storage Program	(see sample storage contract for more details)	
Storage Contract Fee -	\$18,000.00	per Year
Acceptance/Redelivery Point Assessment Charge	\$20,000.00	per Year
Monthly Activity Charge	See storage contract	
Storage Fee (ST)	\$1.28 per Mcf	
Transportation Fee (TR)	\$1.16 Per Mcf	
Reservoir Management Fee (RMF)	\$.3853 per Mcf	
Low Purity Charge	\$2.3800 per Mcf	
Transfer Charge	\$200.00	per Transfer
Low Sample Pressure Charge	\$500.00	per sample cylinder
Compression Facilities	see storage contract	
Reservoir Management Fee	\$0.3853	per Mcf
Overdrawn fee	\$1000 plus 2 times the current crude helium price per day	

1.22 "Primary Private Helium" - The term means the total of all privately owned helium stored by Person in the Federal Reserve prior to October 1, 2022. Primary Private helium will be managed by the storage Contract terms and will be delivered before and after the Conveyance according to the Contract terms, which will continue through FY 2027. Person may enter a new contract with Purchaser in order to arrange for delivery of Primary Private helium after the expiration of the six-year Contract if Primary Private Helium has not been delivered during six-year Contract term. Person retains ownership of its Primary Private Helium even if a new contract is not entered with Purchaser and Person holds title to its Primary Private Helium until Person has received delivery.

1.24 "Purchaser's New Helium" - The Term means all helium Purchaser gains through the Purchase of the Federal Helium System. Purchaser's New Helium is not Primary Private Helium or Allocable Gas. Purchaser's New Helium is not included in the allocation calculation. In times of shortage, Purchaser has the right to withdraw 20 percent of the total crude helium production per day of Purchaser's New Helium prior to allocating withdrawals of crude helium production to the Storage Contract Holders. Purchaser may transfer this 20 percent of the total crude helium production per day right to other Storage Contract Holders. For any day the Helium System is shut down. Purchaser does not receive priority for 20 percent of the total crude helium production for that day and Purchaser's New Helium priority does not apply and does not carry over.



# Resource Management fee

$$\frac{.8 \times EA \times HP}{S(P)} = RM (\$/Mcf)$$

$$0.75 \times \frac{HV}{HV+NV} = HP$$

- If Person takes delivery of crude Primary Private Helium from the Helium System Person will pay the Real Property Purchaser a Resource Management Fee (RM) for each Mcf of Primary Private helium that Person has in storage in the Helium System on the first day of the corresponding Contract Year.
- **EA:** Annual enrichment charge: full cost associated with the operation and repairs and infrastructure improvement of its helium extraction equipment.
- **HV:** The total volume of crude helium produced by Real Property Purchaser's helium extraction equipment and transported through the Helium Pipeline for delivery to storage contract holders and not to Real Property Purchaser, which is calculated using a new report prepared by Real Property Purchaser after the Conveyance.
- **NV:** The total volume of natural gas produced by Real Property Purchaser's helium extraction equipment and transported through the natural gas pipeline, which is calculated using a new report prepared by Real Property Purchaser after Conveyance.
- **HP:** percentage of Real Property Purchaser's helium extraction costs associated with the processing of helium for storage contract holders, which is calculated by dividing the sum of total volume of the Primary Private crude helium produced by Real Property Purchaser's helium extraction equipment by the sum of the total volume of Primary Private crude helium produced by Real Property Purchaser's helium extraction equipment and the total volume of the natural gas produced by Real Property Purchaser's helium extraction equipment and multiplied by .75
- **S(P)** is total volume, in Mcf, of Primary Private Helium in storage in the Helium System owned by private owners connected to the Helium Pipeline at the beginning of the Fiscal Year.
- **RM:** Resource Management Fee in dollars per Mcf.



# Transport and Storage fee

$$TR (\$/\text{Mcf}) = \frac{.8(B)}{(sf \times S) + A + D}$$
$$ST (\$/\text{Mcf}) = sf \times TR$$

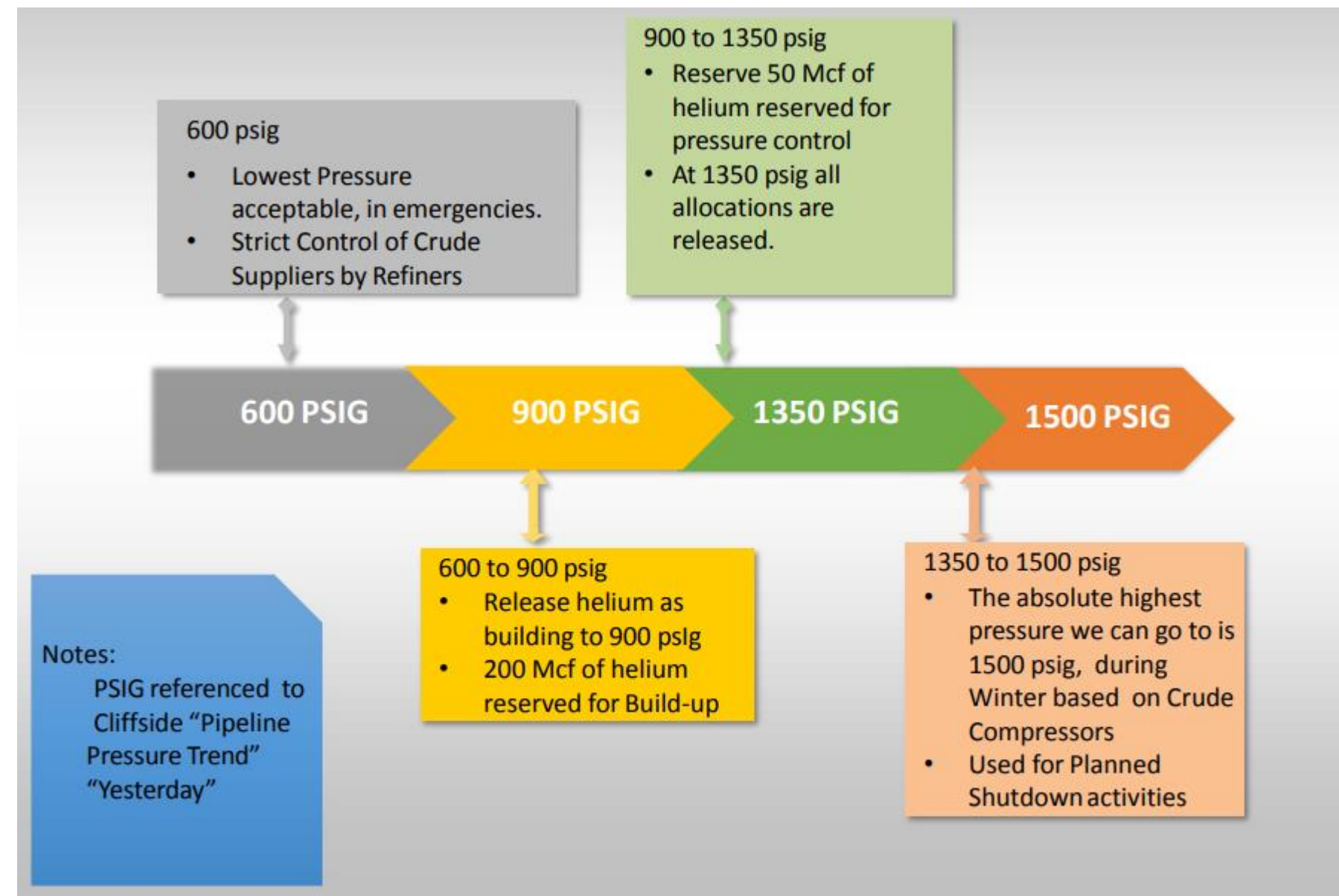
- **B:** the annual budget amount (operating cost, overhead costs, new infrastructure costs including costs to make a helium extraction unit operable and spread over the lifetime of the infrastructure), and maintenance costs for the Helium System and its supporting services for each succeeding fiscal year.
- **TR:** Transportation Fee in \$/Mcf to be charged for Primary Private helium delivered to Person or helium accepted from Person during the month.
- **S:** Total volume, in Mcf, of Primary Private Helium in storage in the Helium System, owned by all private owners at the beginning of the Fiscal Year.
- **A:** Total volume (Mcf) of Primary Private Helium, prior to the Conveyance, that all storage Contract holders delivered for acceptance into the Federal Helium Pipeline.
- **D:** Total volume( Mcf) of Primary Private Helium that all storage Contract holders delivered, prior to the Conveyance, through the Federal Helium Pipeline, during the previous Fiscal Year.
- **ST:** Storage Fee in \$ per Mcf to be charged prior to the Conveyance for its Primary Private Helium in storage at the beginning of the Fiscal Year.
- **sf:** The Primary and Secondary Private Helium storage factor. The sf is initially set at 1.0 on October 1, 2015. The sf will increase whenever the total privately-owned storage volume at the beginning of the Fiscal Year is more than at the beginning of the previous Fiscal Year. The sf will increase by the same percentage as the total storage volume increased over the previous Fiscal Year. The sf will decrease whenever the total privately-owned storage volume is less than the beginning of the previous Fiscal Year. The sf will decrease by the same percentage. The value for sf will never be less than 1.0.



# Allocation policy

Allocations are used to ensure that BLM produced crude helium delivery is proportional to private helium ownership interests during times of shortage while maintaining the optimum pipeline pressure.

**Federal Helium Pipeline Pressure Graph**



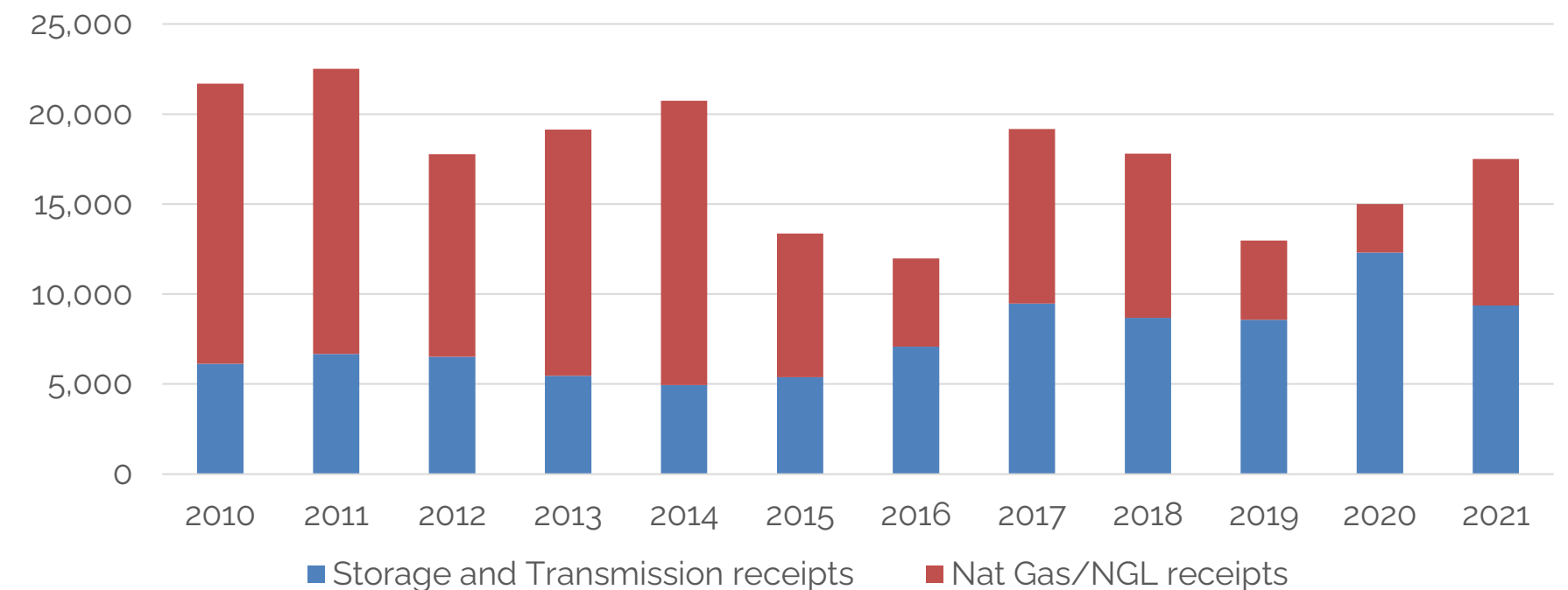


# Financial drivers

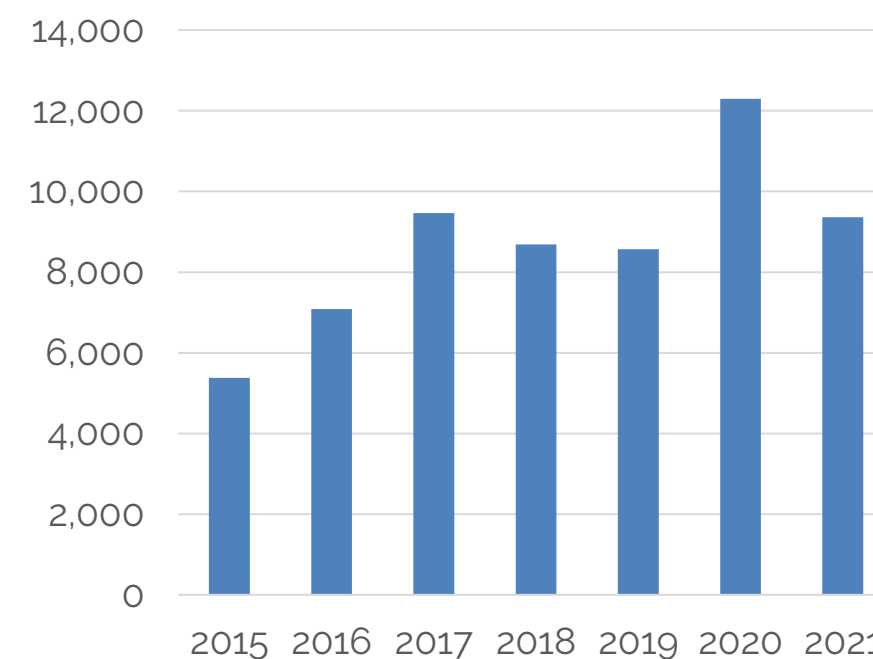
The main drivers for valuation of the assets include:

- Revenues from the sale of helium: depends on helium price and volumes of helium sold
- Revenues available from storage and resource management: this is driven by the Storage Contracts and based on the volumes
- Revenues from natural gas: depends on market gas/NGL price, discount to this and volumes sold
- Future revenue stream from the assets
- Operating expenses
- Discount rate or cost of capital assumed

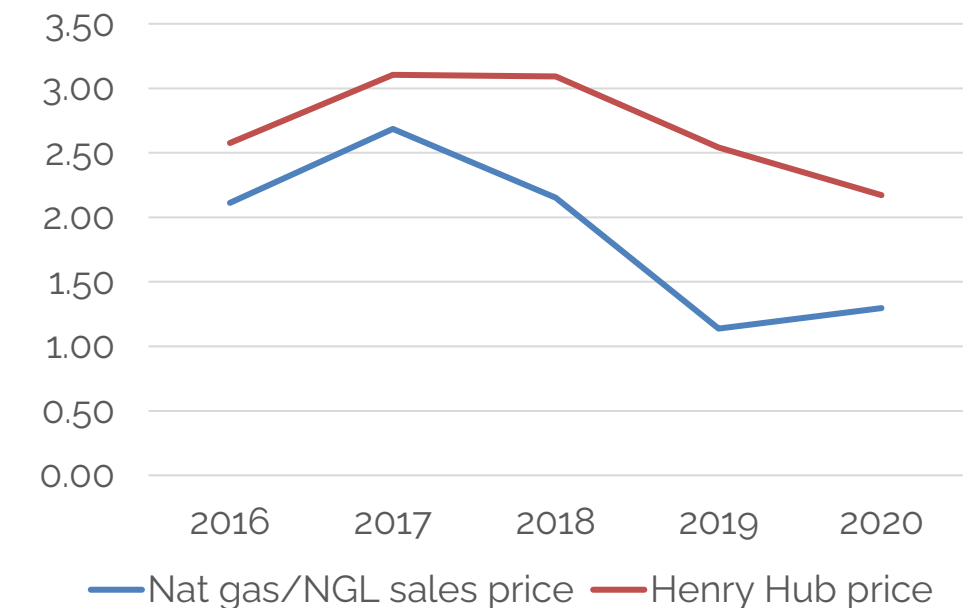
Historical revenues FY'10 to FY'21 (US\$ '000)



Storage fee (US\$ '000) FY'15-FY'21



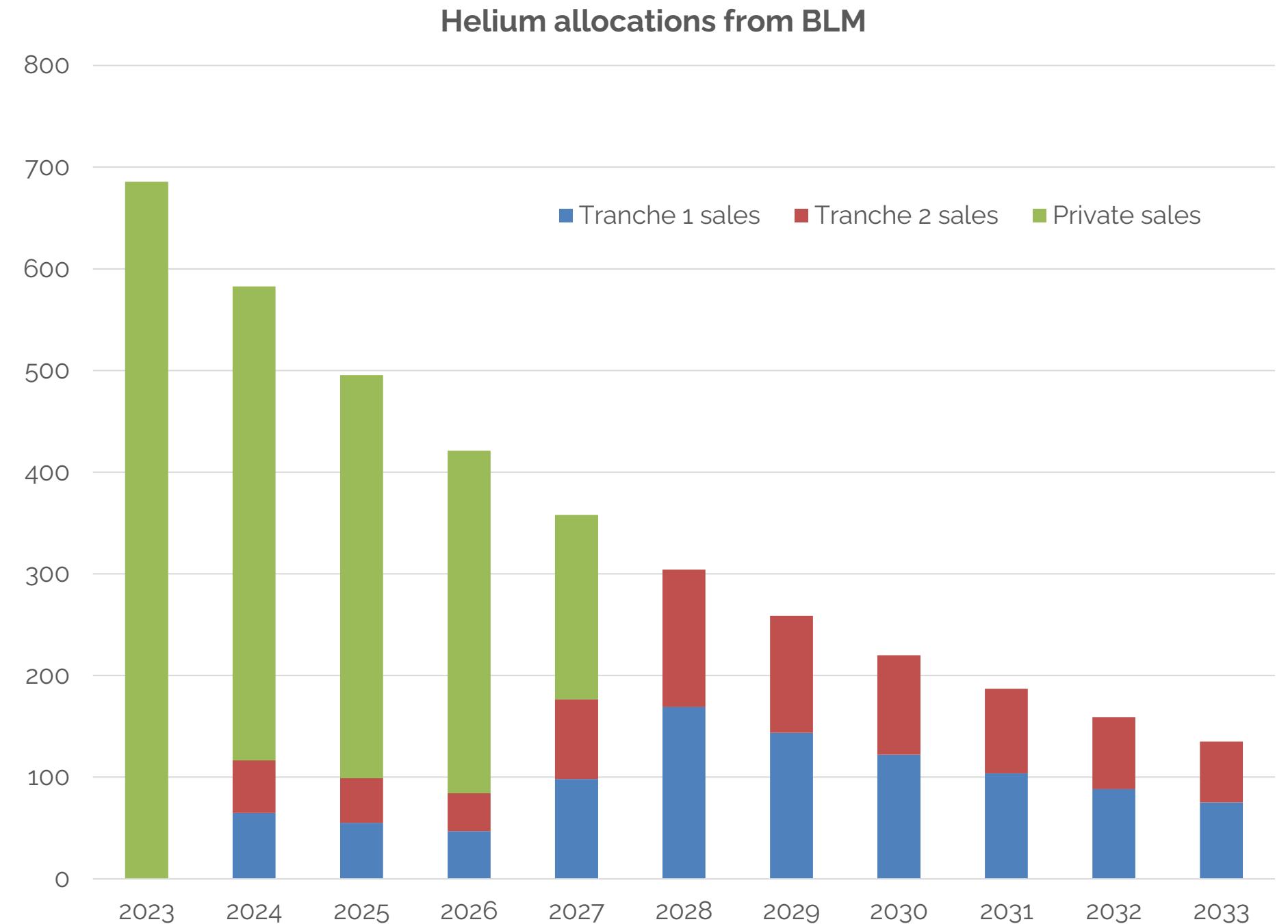
Comparison of the realised nat gas/NGL price (\$/MMBtu) versus the Henry Hub price





# Base case production scenario

- The chart shows a potential production scenario for the remaining helium from the reserve by Fiscal Year.
- The base case assumes a 13% per annum decline rate in production based.
- The private holders will take 80% of the helium until their reserves are exhausted: in this scenario they have taken all their helium by 2027.
- Tranche 1 and 2 volumes ramp-up after 2027/2028.





# Valuation scenario

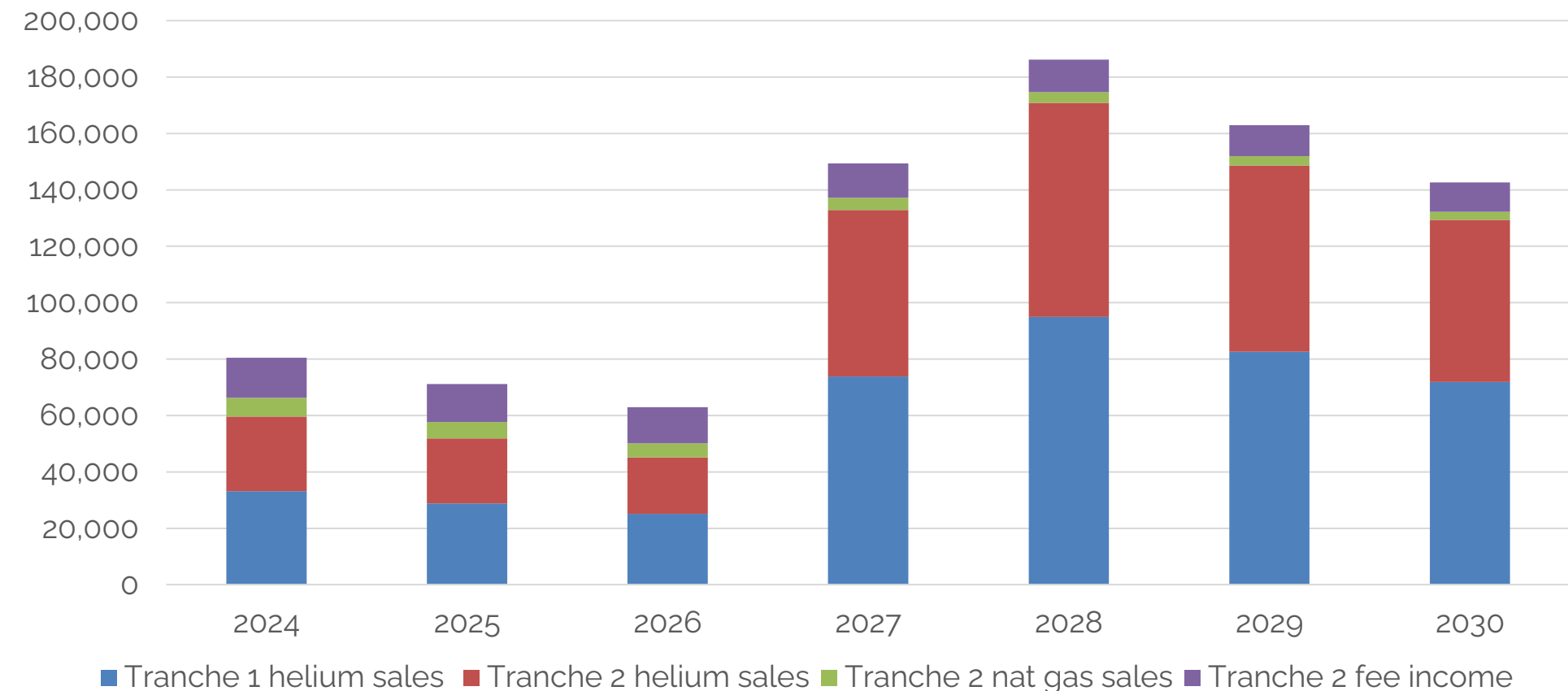
Key drivers and scenario value:

- Helium price: US\$500/mcf, flat
- Natural gas price: US\$3/mcf, flat
- Discount rate: 10% from FY'23
- FY'23 total costs: US\$16mm
- Assumed cost deflation: 5% per annum
- Costs allocated proportional to helium withdrawals
- NPVs are pre-tax

Tranche 1 NPV (US\$mm)		Helium price (\$/mcf)			
		250	500	750	1000
<b>Discount Rate</b>	5.0%	199	410	620	831
	7.5%	175	361	546	731
	10.0%	155	319	483	647
	12.5%	138	284	430	576

Tranche 2 NPV (US\$mm)		Helium price (\$/mcf)			
		250	500	750	1000
<b>Discount Rate</b>	5.0%	190	359	527	695
	7.5%	168	316	465	613
	10.0%	150	281	412	543
	12.5%	134	251	368	485

Revenues (US\$ '000) from Tranche 1 and 2, FY'24 to FY'30



Note: these numbers are not forecasts but simply for demonstration purposes



The future revenue potential from Tranche 2 could come from:

- Utilizing the facility as storage for third party customers and fee revenue from the existing pipeline network for future helium and gas developments nearby
- Producing the native helium from the reservoir: there is the potential for the production of 2.3bcf of native helium (based on FY'20 reported data)
- Other storage: it may be possible to storage carbon dioxide for CCS
- Also, it may be possible to use the reservoir for hydrogen storage



# Key documents in data room

---

There are a large number of files in the Data Room. We have listed several of the files that are most useful as a starting point:

- Final DRAFT Phase I ESA Report Brickplant Helium 022618 (PDF) – **Environmental Site Assessment**
- 2022\_Annual\_Report\_EGI – **Reserves report**
- Advanced History Matching Analysis at Bush Dome Reservoir (PDF) – **Geological reservoir modelling**
- Geologic Maps (Powerpoint) – **Reservoir maps**
- FY 2022-2027 storage contract – **Details of the storage fees**



# Storage Contract Holders

The storage holders...

Storage #	Refiner?	Company Name
2021-3249	Y	Messer, LLC
2021-3251	Y	Linde Inc
2021-3256	Y	Air Products and Chemicals, Inc.
2021-3284	N	Air Liquide Helium America, Inc.
2021-3287	Y	Keyes Helium Company, LLC
2021-3288	N	Matheson Tri-Gas, Inc.
2021-3290	N	Airgas Merchant Gases
2021-3293	N	Global Gases America, Inc.
2021-3294	N	Scout Energy Management
2021-3297	Y	IACX Energy
2021-3298	N	Uniper Global Commodities NA LLC



# Summary of FAQs

- The Helium Stewardship Act directs the United States government to exit the helium industry, which means it will no longer have direct control over access to helium markets once the Federal Helium System is sold.
- There will be no In-Kind program after the disposal of the Federal Helium System. The In-Kind program ended on September 30, 2022.
- The new owners of the Cliffside field must comply with Texas drilling and spacing regulations and environmental regulations set by the Texas Commission on Environmental Quality (TCEQ).
- The purchaser of the Helium Reserve System will assume the storage contracts and assume delivery. The storage contracts provide guidance on how the purchaser can assign fees.
- **The CHEU is not included in the sale** as it is not considered an interest held by the United States. The government is selling the property as is, where is, will not indemnify the purchaser from claims related to the Crude Helium Enrichment Unit (CHEU) or pipeline failures.
- Bidders should consult their tax attorney regarding the State of Texas excise gas production tax.
- Bidders have access to blank copies representative of all the FY 2022-2027 storage contracts for review.
- The purchaser of the Federal Helium System will be required to comply with applicable laws and regulations and will be subject to review and oversight by relevant state and federal regulatory agencies.
- Bidders do not have access to the government's appraisal.
- The Bureau of Land Management (BLM) will sign the conveyance documents to transfer the title of the Helium Reserve System to the purchaser.
- The BLM/GSA will review the offers and determine which offer will be accepted for the purchase of the Helium Reserve System.
- The Federal Helium System is being sold as is, and the government will not refund part of the purchase price if the actual amount of helium is less than represented in the sale documents.
- No tax advantages or financing are offered by the government, and federal funding will not be available to operate the Helium Reserve System after the sale.








While Edelgas considers that the information provided herein is sound, Edelgas makes no representations or warranties, expressed or implied, regarding the accuracy or completeness of such information, and persons using or acting on such information do so at their own risk. Edelgas assumes no responsibility for the accuracy or completeness of such information and will not assume any liability for loss or damage arising out of the provision of this report.

The report contains projections that are based on assumptions that are subject to uncertainties and contingencies. Projections, forecasts or estimates are based on subjective judgements and inherent uncertainties, and events frequently do not occur as expected, Edelgas makes no representation that projections, forecasts or estimates provided are correct or will be achieved and actual results may be different. Any projections, targets or estimates should not be construed as indicative of the events which will occur. All persons are advised to base their actions on an awareness of the range of such projections, and to note that the range necessarily broadens in the latter years of the projections.



## What we do:

Edelgas Group is a full-service industrial, specialty and rare gases advisory firm. With over 80 years of combined experience Edelgas has the breadth and depth of knowledge to meet your requirements encompassing upstream, operations, marketing, contractual, and data analytics.

-  **Project Development** Assisting explorers, financiers, and founders throughout the project lifecycle including exploration, development, finance, sales, and operations.
-  **Pricing** Providing advice, guidance, and transparency on the pricing of rare gases, particularly helium.
-  **Deal Structuring** Advising on acquisitions, fundraisings, joint-ventures, deal structuring, contract negotiations and strategic planning.
-  **Contracts** Assist with the review, preparation, and negotiation of contracts, including royalty, finance, concession, earn-in, tender, and EPC agreements.
-  **Regulatory and Compliance** Advising on regulatory and compliance issues relating to the supply and sale of industrial gases, including legal and risk management, procurement, and government contracts.

Our goal is to bring transparency, stability and confidence to projectowners and end-users in the sourcing, supply, and pricing of helium and other rare gases.