avanti helium

CORPORATE PRESENTATION

April 2025

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Additional Information and Cautionary Statements on WNG 11-22

(i) The Company's net interests in mineral lands vary from ~85% to ~75%.

(ii) The resource is contingent on funding for development and production.

(iii) There is uncertainty that the project will be commercially viable to produce any portion of the contingent resources.

(iv) The estimates presented in this release are based on data and test results from one well. There is potential for future drilling activity to materially impact the estimated volumes based on additional geological data and production testing. Estimated pool volumes may increase or decrease in the future.

(v) The contingent resources estimated for WNG 11-22 and offsetting locations relies on comparisons to analogous wells, and no production data is available from the well included in this estimate.

(vi) The reader is cautioned that disclosure of helium in place volumes is not included in National Instrument 51-101 guidelines.

Information Regarding the Contingent Resources

The effective date of the contingent resource estimate is July 1, 2022 and was prepared in accordance with the COGE Handbook.

This news release discloses estimates of the Company's contingent resources. The Company defines contingent resources are those quantities of gas estimated, as of a given date, to be potentially recoverable from known accumulations using established technology or technology under development but which are not currently considered to be commercially recoverable due to one or more contingencies. There is uncertainty that it will be commercially viable to produce any portion of the resources.

The resource provides an estimate of raw gas. In April 2022, preliminary lab results showed the raw gas composition of the Cambrian zone at the WNG 11-22 well was 97.5% Nitrogen, 1.1% Helium, 1.1% Methane, 0.3% Co2 and trace amounts of other hydrocarbons.

The resource estimates presented above are subject to certain risks and uncertainties, including those associated with the drilling and completion of future wells, limited available geological, prices of the various raw gases and geophysical data and uncertainties regarding the actual production characteristics of the reservoirs, all of which have been assumed for the preparation of the resource estimates. The resources are classified as development. Contingent resources do not constitute, and should not be confused with, reserves. Contingent resources are defined as those quantities estimated, as of a given date, to be potentially recoverable from known accumulations using established technology or technology under development, but which are not currently considered to be commercially recoverable due to one or more contingencies. There is a range of uncertainty of estimated recoverable volumes. A low estimate ("1C") is considered to be a conservative estimate of the quantity that will actually be recovered. It is likely that the actual remaining quantities recovered will exceed the low estimate, which under probabilistic methodology reflects at least a 90% confidence level. A best estimate ("2C") is considered to be a realistic estimate of the quantity that will actually be recovered. It is equally likely that the actual remaining quantities recovered will be greater or less than the best estimate, which under probabilistic methodology reflects at least a 50% confidence level. A high estimate ("3C") is considered to be an optimistic estimate. It is unlikely that the actual remaining quantities recovered will exceed the high estimate, which under probabilistic methodology reflects at least a 10% confidence level. There is uncertainty that it will be commercially viable to produce any portion of the resources.

All of the resources classified as contingent are considered to be discovered, and as such have been assigned a 100% chance of discovery, but have however been risked for the chance of development. The chance of development is defined as the likelihood of a project being commercially viable and development proceeding in a timely fashion. Determining the chance of development requires taking into consideration each contingency and quantifying the risks into an overall development risk factor at a project level.

Contingent resources can be subcategorized by project maturity status:

(i) Development Pending is where resolution of the final conditions for development is being actively pursued (high chance of development). Resources classified in this sub-category must be economic and have been assigned a chance of development ranging between 80% and 99%.

(ii) Development On Hold is where there is a reasonable chance of development, but there are major non-technical contingencies to be resolved that are usually beyond the control of the operator. Resources classified in this sub-category must be economic and have been assigned a chance of development ranging between 50% and 79%.

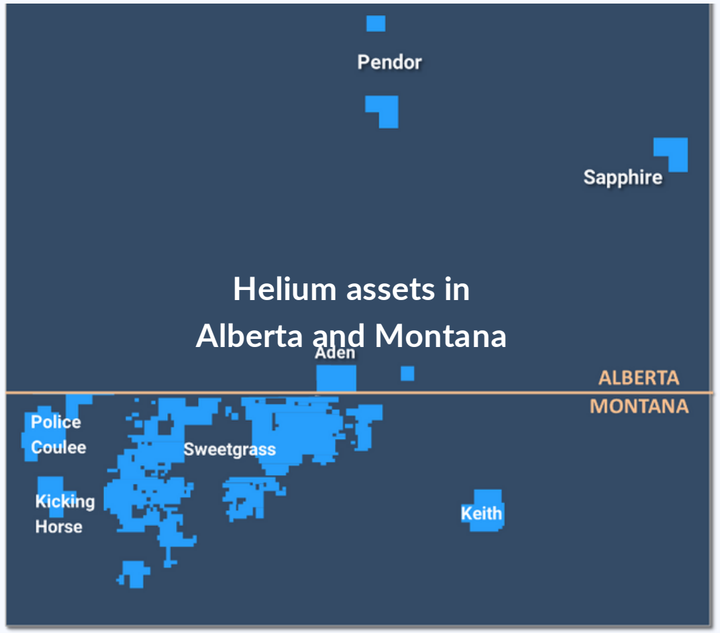
(iii) Development Unclarified is where the evaluation is incomplete due to the project being in an early stage of maturity and there is ongoing activity to resolve any risks or uncertainties. Resources classified in this sub-category can either be economic or sub-economic and have been assigned a chance of development ranging between 20% and 79%.

(iv) Development Not Viable is where no further data acquisition or evaluation is currently planned and hence there is a low chance of development. Resources classified in this sub-category can either be economic or sub-economic and have been assigned a chance of development ranging between 0% and 49%. Based on these definitions, all of the contingent resources disclosed in this news release are classified as Development Pending and are considered economic with either a high or reasonable likelihood of being commercially viable.

In general, contingencies which prevent contingent resources from being classified as reserves are grouped under three categories: economic contingencies, non-technical contingencies and technical contingencies. Economic contingencies are applicable only in the case of sub-economic contingent resources. As all of the contingent resources disclosed in this news release are classified as economic contingent resources, there are no economic contingencies in respect of such resources. Non-technical contingencies include factors such as required corporate or third party (such as joint venture partners) approvals, legal, environmental, political, social license and regulatory matters or a lack of infrastructure or markets. Technical contingencies are applicable where there is a technology currently under development that would be required to classify the contingent resources in question as reserves. None of Avanti's estimated contingent resources are subject to technical contingencies.

Estimates of economic contingent resources are based on existing access to infrastructure capacity and the current regulatory frameworks in which Avanti operates.

Avanti Helium is Focused on the Exploration, Development and Production of Helium Across Western Canada and the United States



Avanti's Land

Strategic Evaluation

We employ a targeted approach and selection methodology to evaluate and prioritize multiple helium assets across Western Canada and the United States

Focused Acquisition

We focus on assets with highly prospective helium reservoirs and economic helium concentrations.

Diversified Portfolio

Our strategy is to diversify our helium assets, where each asset carries a different risk profile for helium exploration.

Our Process

- Avanti has built a proprietary geological model to understand helium migration and accumulation at a fundamental level.
- Approach and methodology are similar to that used to identify and access conventional plays.
- We have acquired several helium assets and proven production in our asset in Montana.
- Transitioning to split between development and exploration drilling.
- Targeting ~Q4 2025 for on-stream helium production.

Exploration & Development

Development:

Greater Knappen

- Proved initial helium pool surrounding the WNG 11-22 well, in northwestern Montana.
- Published third-party preliminary resource estimate of 221 million cubic feet of helium in Sweetgrass Pool.
- Sweetgrass pool helium production is targeted to be on stream in ~Q4 2025.

Exploration:

- Montana – licensed Keith 14-13 well in new pool SE of WNG 11-22.
- Alberta – licensed Aden 12-4 well in new pool across the border from WNG 11-22.
- Multiple additional properties in the U.S have been worked and are ready for acquisition.

Management & Technical Team

Chris Bakker, MBA
CEO, DIRECTOR

Chris Bakker has over two decades of experience in oil and gas, most recently working as a commercial negotiator with Encana/ Ovintiv for significant facilities and pipelines in the Montney gas play. His expertise includes all facets of Natural Gas Exploration, such as land acquisition, exploration, drilling, well production, facility integration, and construction. Before Avanti, Mr. Bakker co-founded Terrelium Resources as a pure-play helium company. His educational background includes a Bachelor's and Master's in Economics and an MBA later in his career

Brad Paterson
CFO

D. Brad Paterson has over 28 years' experience acting as a senior officer of listed companies. He has a thorough knowledge of management and financial accounting, corporate finance, cross border transactions, corporate governance, and the regulatory markets. Mr. Paterson has earned a Bachelor of Arts in Economics and a Graduate Diploma in Management Accounting from the University of Alberta. In addition, Mr. Paterson has completed the Canadian Securities Course and has received the Chartered Professional Accountants and Certified Management Accountant designations.

Genga Nadaraju
VP-SUBSURFACE, DIRECTOR

Genga Nadaraju has over two decades of diverse professional experience in the oil and gas industry that includes asset exploitation, strategic planning, investor relations, and technical innovation. Her technical expertise spans both the conventional and unconventional oil and gas plays in Western Canadian Sedimentary Basin. Ms. Nadaraju brings strong project management and organizational skills with the ability to interact effectively with all stakeholders within the organization. She also has served as a board member for the Canadian Energy Geoscience Association (CEGA) from 2021-22.

Cam Buss, P.Eng
VP-OPERATIONS

Cam Buss is a professional engineer with 28 years' experience. Mr. Buss worked for Encana (now Ovintiv) for twenty-five years taking on roles up to Senior Manager in both upstream and midstream oil & gas. His broader experience includes O&G development, long range planning, infrastructure planning and design, production operations and completions engineering. He is driven by performance in meeting and exceeding targets and continually innovating. Mr. Buss attended the University of Alberta and received a bachelor's degree in chemical engineering.

Darrel Zacharias P.Geol
SENIOR GEOLOGIST

Darrel Zacharias has 29 years of technical and managerial experience in the Canadian energy industry. His knowledge of many play types comes from having generated, evaluated and drilled hundreds of prospects in the Western Canadian Sedimentary Basin during his career. He also has ten years of executive-level experience at publicly traded companies, including most recently as Vice President – Exploration at Chinook Energy Inc. Mr. Zacharias is a graduate of the University of Saskatchewan (B.Sc. Geology, 1993) and is a member of APEGA (P.Geol.).

Chad Lerner
DIRECTOR LAND & BUSINESS DEVELOPMENT

Chad Lerner has over 23 years of experience in many aspects of energy exploration. He has extensive experience in commercial agreements, joint ventures, business development and land acquisition strategy. His experience has focused on junior and emerging energy companies having been involved in both private and public energy entities. Mr. Lerner is a graduate (1998) of the University of Calgary, holding a Bachelor of Commerce Degree with a major in Petroleum Land Management.

Richard Balon P.Geopsh
SENIOR GEOPHYSICIST

Richard Balon has over 30 years of experience in the Western Canadian Sedimentary Basin. He is a technically focused geophysicist with a proven track record working extensive analysis of 2D and 3D seismic data across some of the largest oil and gas fields in Canada. Mr. Balon holds a B.Sc. Geophysics from the University of Manitoba and is a member of APEGA (P.Geoph.), SEG, CSEG, CSPG.

Carter Chalmers
DIRECTOR MARKETING & CORPORATE DEVELOPMENT

Carter Chalmers is a senior business leader with over 18 years of experience in business development and corporate development, include marketing and investor relations across a wide range of mediums from mining, technology and oil and gas data solutions. He is experienced in all aspects of corporate development and investor relations for multiple start-ups and TSXV and CSE-listed companies. Prior to Avanti, Mr. Chalmers co-founded Terrelium Resources as a pure-play helium company.

Board Of Directors

Chris Bakker, MBA
DIRECTOR

Chris Bakker has over two decades of experience in oil and gas, most recently working as a commercial negotiator with Encana/ Ovintiv for significant facilities and pipelines in the Montney gas play. His expertise includes all facets of Natural Gas Exploration, such as land acquisition, exploration, drilling, well production, facility integration, and construction. Before Avanti, Mr. Bakker co-founded Terrelium Resources as a pure-play helium company. His educational background includes a Bachelor's and Master's in Economics and an MBA later in his career

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Brad Krizan
INDEPENDENT DIRECTOR

Brad is a prominent business and community leader based in Calgary. He brings a wealth of experience from his roles in both the private and public sectors, spanning various industries. His extensive Board of Directors experience includes organizations involved in regulatory and policy-making activities with government agencies, boards, and commissions, as well as significant work with First Nations. Brad's background features comprehensive Profit & Loss oversight, strategic planning, and strategy execution, along with managing numerous corporate initiatives and major projects across diverse organizations. Currently, Brad serves on the Board of Directors for the Alberta Motor Vehicle Industry Council, Calgary Co-operative Association, Care Group of Pharmacies, Mistahiya Development Corporation, and the Real Estate Insurance Exchange. His notable past board experience includes the Alberta Gaming, Liquor and Cannabis Commission, cSPACE Projects, the Calgary Convention Centre Authority, and the Safety Codes Council of Alberta. Brad holds a Master of Business Administration degree from Royal Roads University, a Bachelor of Arts degree in Urban and Regional Studies from the University of Lethbridge, and the Institute of Corporate Directors ICD.D designation.

Clark Schow
INDEPENDENT DIRECTOR

Clark Schow is a Corporate Director. Mr. Schow is also the Founder and Director of Legal Services of EXG Legal, a law firm in Calgary, Alberta. His practice focuses on general corporate work, including mergers and acquisitions, joint ventures, commercial contracts, real estate, and banking and finance. Prior to the creation of EXG Legal, Mr. Schow was a member of the energy and infrastructure practice group at a national law firm in Calgary and worked as in-house counsel for one of Canada's largest integrated oil and gas companies. His energy/oil and gas experience include international project development work, drafting and negotiating asset purchase and sale agreements, conventional and offshore oil and gas transactions, conducting large-scale oil and gas due diligence reviews and managing day-to-day oil and gas and commercial matters. Mr. Schow also serves as Executive Member of the Calgary Minor Basketball Association. He earned law Bachelor of Laws (LLB) and Bachelor of Commerce (BCom) Degrees from the University of Alberta.

Helium Use Growth

MEDICAL INDUSTRY

Helium is mandatory for MRI machines which require 800 litres of Helium. Heliox mixtures in respiratory treatments.

CRYOGENICS

Helium is the only element that can come close to reaching absolute zero.

WWW

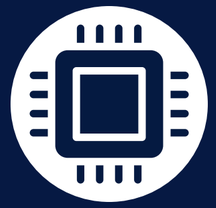
High Speed Internet, fibre optic cables must be manufactured in a pure helium environment

COMPUTERS

Helium filled hard drives offer 50% higher storage capacity with 23% lower operating power

SPACE EXPLORATION

Helium is critical for launching rockets into space, which is a $500Bn a year industry



ELECTRONICS

Electronics & Semiconductors require helium to be used at different stages in the production process.

SAMSUNG

building a $17Bn Semiconductor plant in the U.S. scheduled to open in 2025.

TSMC

Electronics & Semiconductors require helium to be used at different stages in the production process

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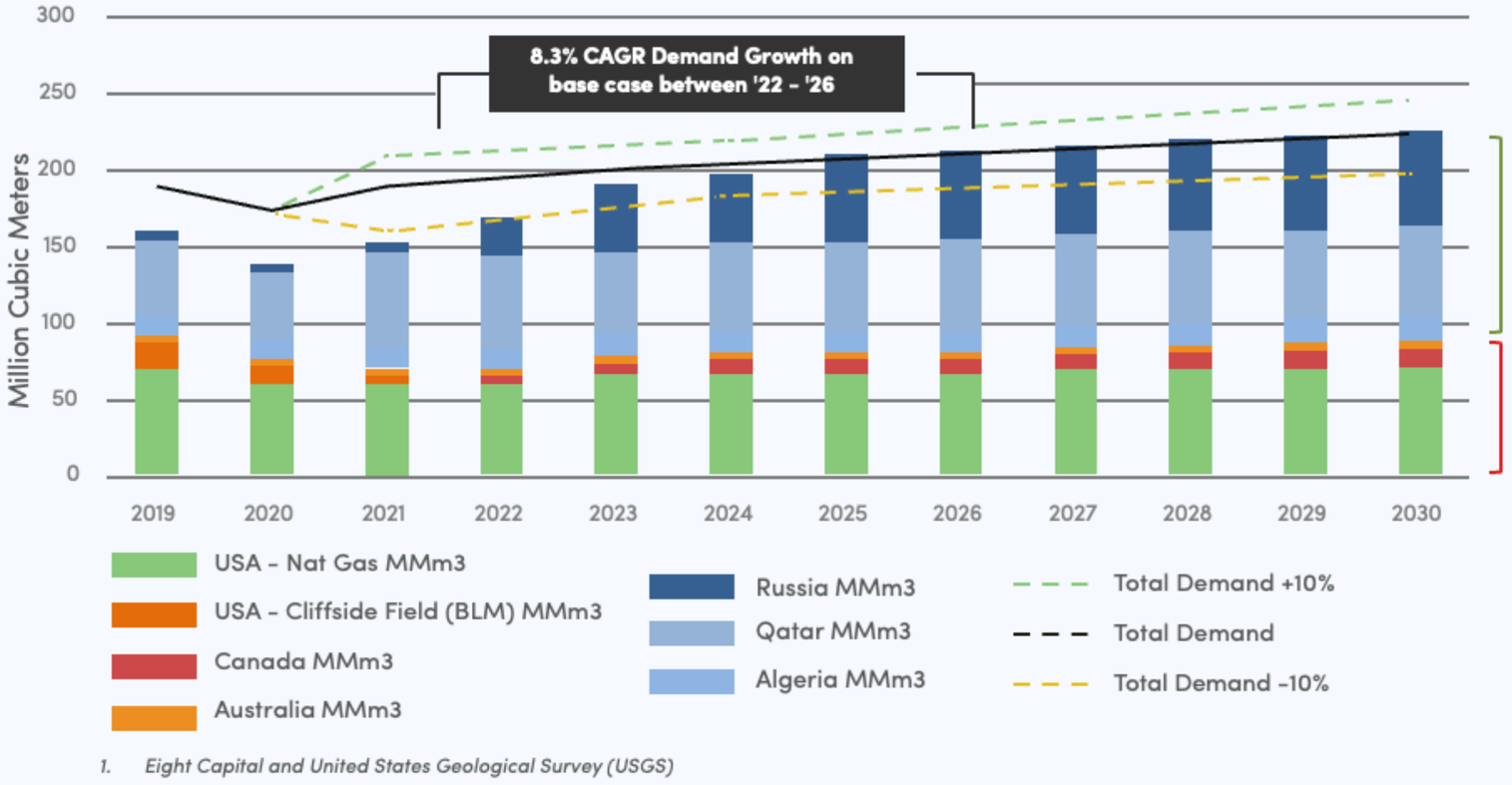
Rising Demand & Geopolitical Risk To Supply



1. *Eight Capital and United States Geological Survey (USGS)*

Supplies from Russia, Qatar, Algeria are more sensitive to geopolitical risks

U.S, Canada and Australia are expected to produce smaller share of the global helium supply, exposing the western world to helium dependence

ALBERTA & MONTANA

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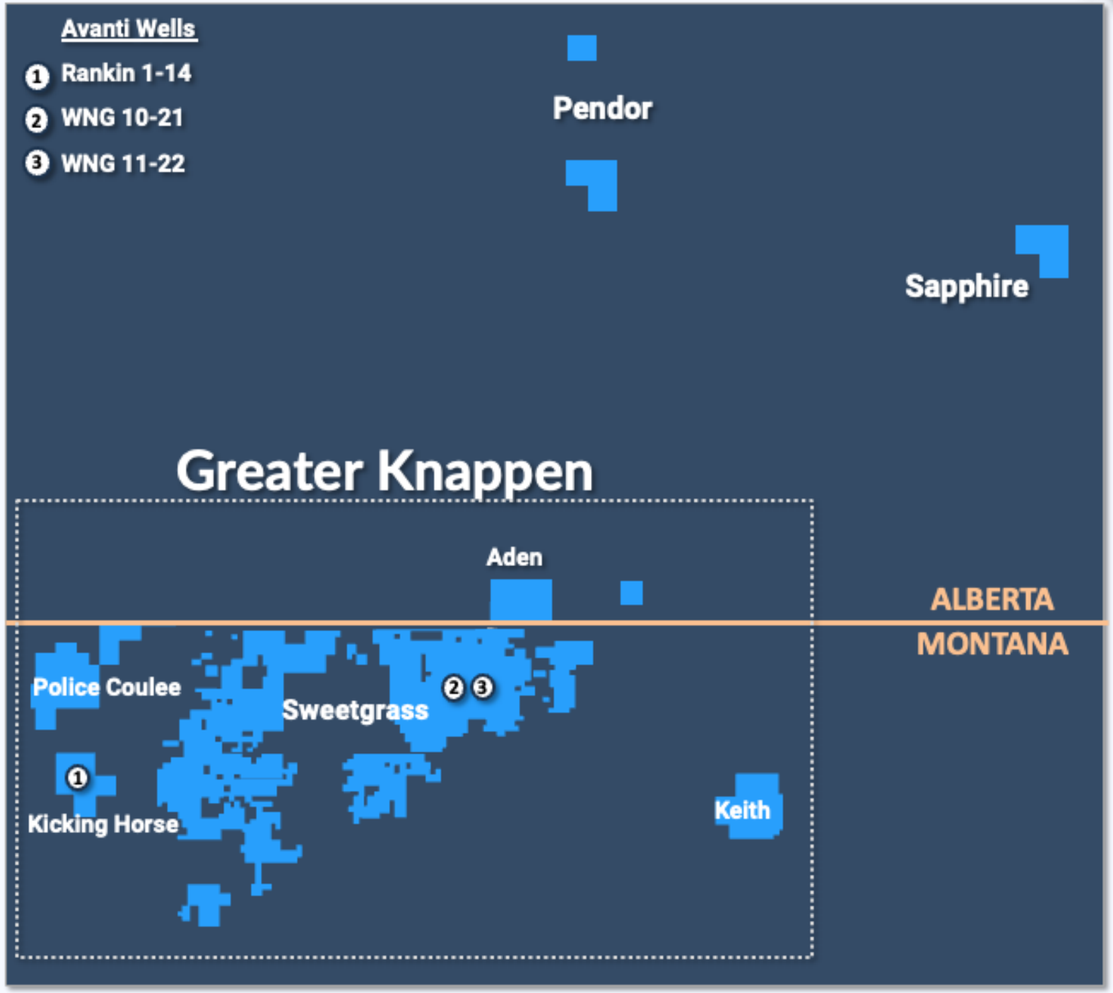
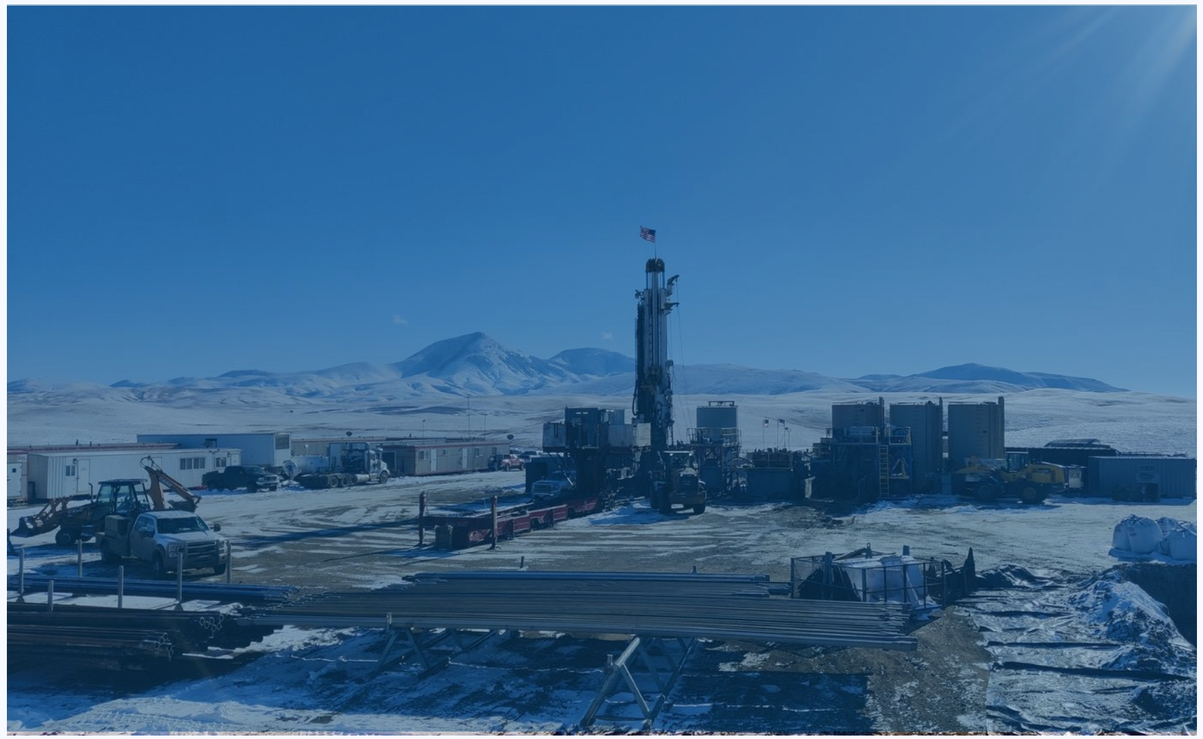
Alberta & Montana

- ~78,000 acres of leases/licenses in Northwestern Montana and Southern Alberta.
- Initial exploration activities in Greater Knappen.
- Drilled and cased 3 wells.
- Two wells in Sweetgrass capable of total gas production of ~18,500 MMcf/d with 1.1% He.
- First Helium production ~ Q4, 2025.
- With the success of the initial exploration wells, plans are in place to drill other mapped structures in the area.



Greater Knappen Overview



Avanti's WNG 10-21 Well during drilling

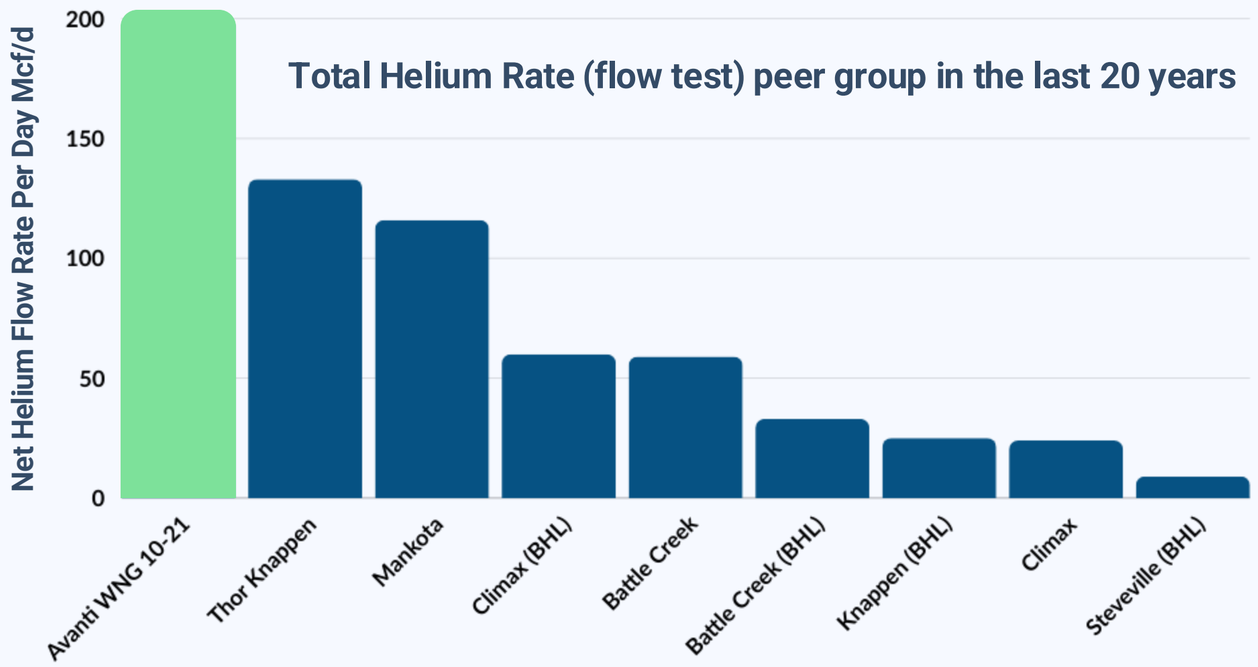
An area with proven helium production from multiple targets in the Cambrian and Devonian subsurface zones.

~78K Acres of Prospective Helium land

100% Operatorship

1%-2% Helium Content

Pure Play with 97.5% Nitrogen



Sweetgrass Pool Overview

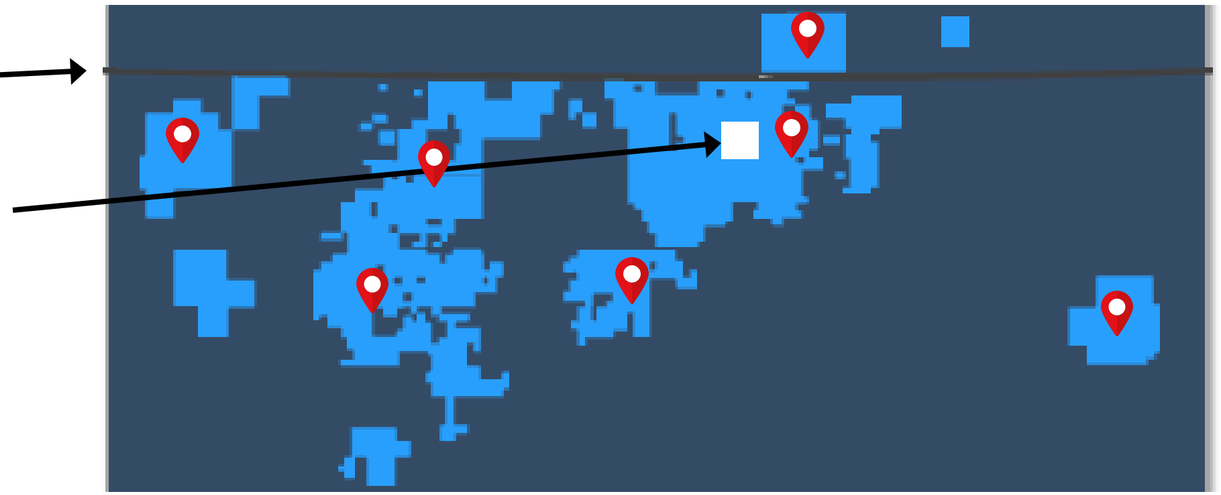
In January of 2023 McDaniel Associates prepared a Contingent and Prospective resources estimate for both the sweetgrass pool and Greater Knappen.

Canada US Border Between Alberta and Montana

Contingent Resources Contains Avanti's WNG 10-21 and 11-22 wells within the sweetgrass structure.

Avanti's Land in Greater Knappen

Prospective Resource



CONTINGENT RESOURCES					
	Gross Unrisked		Avg	Net Unrisked	
	Total Gas	Hellium	WI	Total Gas	Hellium
	Bcf	MMcf	%	Bcf	MMcf
Low	16	176	91	14	153
Medium	23	255	91	21	221
High	42	465	91	38	402

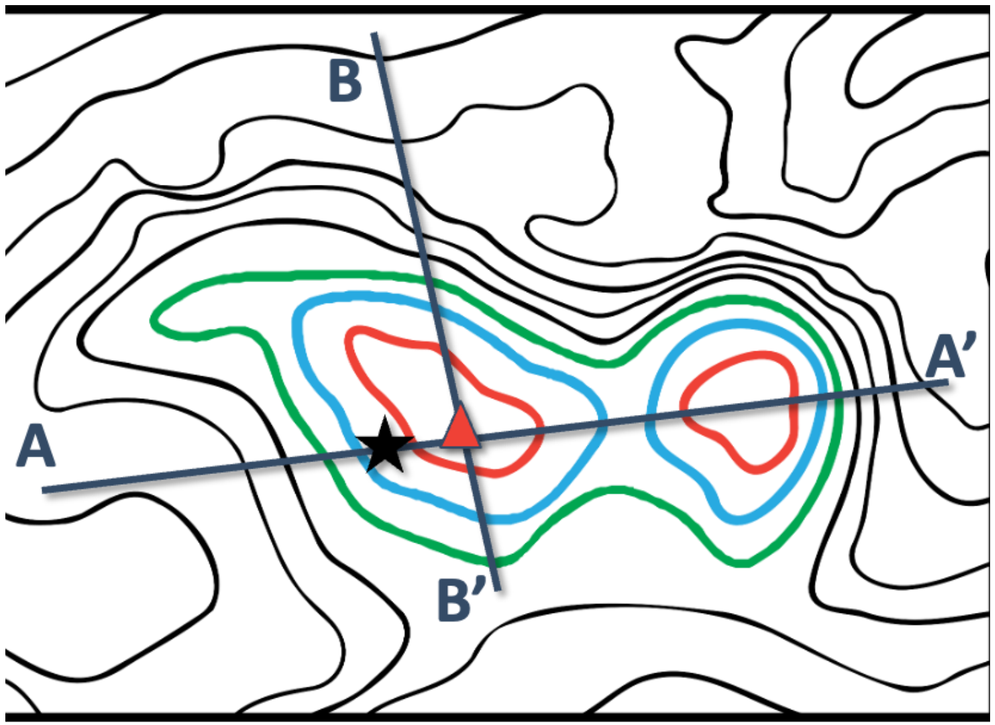
PROSPECTIVE RESOURCES					
	Gross Unrisked		Avg	Net Unrisked	
	Total Gas	Hellium	WI	Total Gas	Hellium
	Bcf	MMcf	%	Bcf	MMcf
Low	54	607	87.2	47	503
Medium	124	1,391	87.2	108	1,152
High	276	3,092	87.2	241	2,563

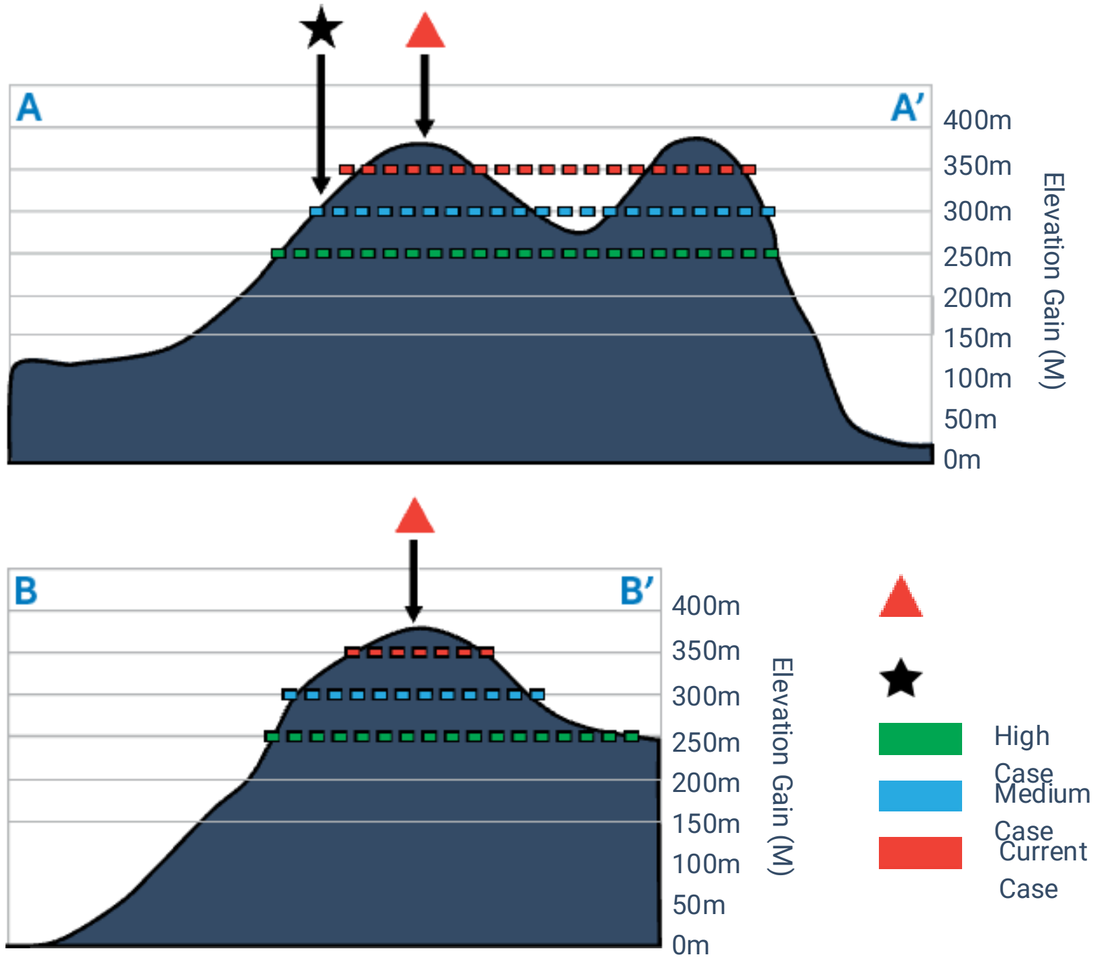
PROSPECTIVE + CONTINGENT RESOURCES				
	Gross Unrisked		Net Unrisked	
	Total Gas	Hellium	Total Gas	Hellium
	Bcf	MMcf	Bcf	MMcf
Low	70	783	62	656
Medium	147	1,646	129	1,373
High	318	3,557	279	2,965

Notes:

1. Contingent resources are completed and consistent with March-23-2023 news release.
2. Prospective resources are preliminary with additional work to be completed:
   - Current working interests are estimated based on lands acquired.
   - There is no certainty that any portion of the prospective resources will be discovered. If discovered, there is no certaintythat it will be economically viable or technically feasible to produce any portion of the resources.
   - Prospective Helium resources are based off Sweetgrass discovery wells gas analysis mole percent
3. The Total is based on the arithmetic aggregation of all the prospects shown on the map above.
4. Volumes listed are full life volumes, prior to any cutoffs due to economics.
5. All reserve reports are as of January 31, 2023 effective date as per the McDaniel's & Associates independent reserves report.

Sweetgrass Structure





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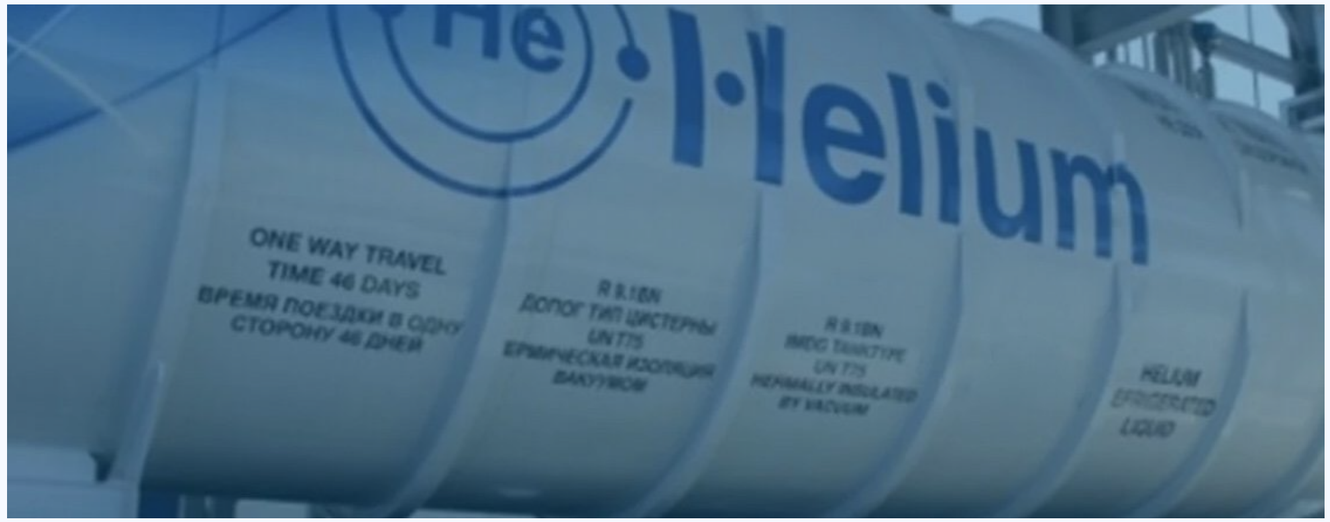
Sweetgrass Pool Production Timeline

- Targeting commencement in ~Q4 2025, Avanti will have 99.999% liquid helium in production.
- A liquid ISO container, shown below, holds the gaseous equivalent of just under 1MMcfd of gaseous helium.



2025 Production:

~Q4	~4	~12-24
COMMENCEMENT DATE	MONTHLY ISO'S AVAILABLE	YEARLY ISO TOTAL

2026 Production:

Jan 1	~4	~48
COMMENCEMENT DATE	MONTHLY ISO'S AVAILABLE	YEARLY ISO TOTAL

2027 Production:

Jan 1	~4	~48
COMMENCMENT DATE	MONTHLY ISO'S AVAILABLE	YEARLY ISO TOTAL

Sweetgrass Helium Production

The HRU plant is expected to come online in ~Q4 2025 at 15 MMcf/d raw gas equating to ~48 liquid ISO's annually.

Helium Sales Logistics Process

WNG 10-21 Helium Well

WNG 11-22 Helium Well

Gas is fed into facility from wells via pipeline.

Centralized HRU Facility Greater Knappen Montana

Concentrated Helium gas (98%) is transported to liquefaction partners via composite helium trailers.

Partner Liquefaction Plant

Customers pick up 99.999% liquid helium via ISO containers

In Q4 2023, Avanti started work on the ancillary components for the facility, including pipelines, powerlines inlet separators, compression.

2025-26 Tentative Development Plan

~Q4 2025

Sweetgrass Pool onstream @ 15MMCF/D raw gas with helium sales commencing.

~Q4 2025

Drilling program to commence in Keith Structure in Greater Knappen

~Q4-2025 - Q1 2026

Assess Keith drilling and commercial data.

Sweetgrass Pool will increase to 15MMCF/D Raw

~Q3 2026

Bring Keith Pool into production

Greater Knappen		Exploration and Development			McDaniel
Prospect area	Pool Area P50 Case1 (acres)	Wells Drilled to date	2025-26 Drill Forecast	Future well count	Resource designation
Sweetgrass West	1,633	2	1	1	Contingent
Sweetgrass East	690	0	1	1	Prospective
Keith	1,774	0	1	3	Prospective
Aden	990	0	1	2	Prospective
Kicking Horse	576	1	0	0	Unassigned
Police Coulee	195	0	0	1	Prospective
Sweetgrass South	301	0	0	1	Prospective
Sweetgrass West 1	892	0	0	2	Prospective
Sweetgrass West 2	158	0	0	1	Prospective
Additional Properties (TBD)		0	2-5	10	Unassigned

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Thank You

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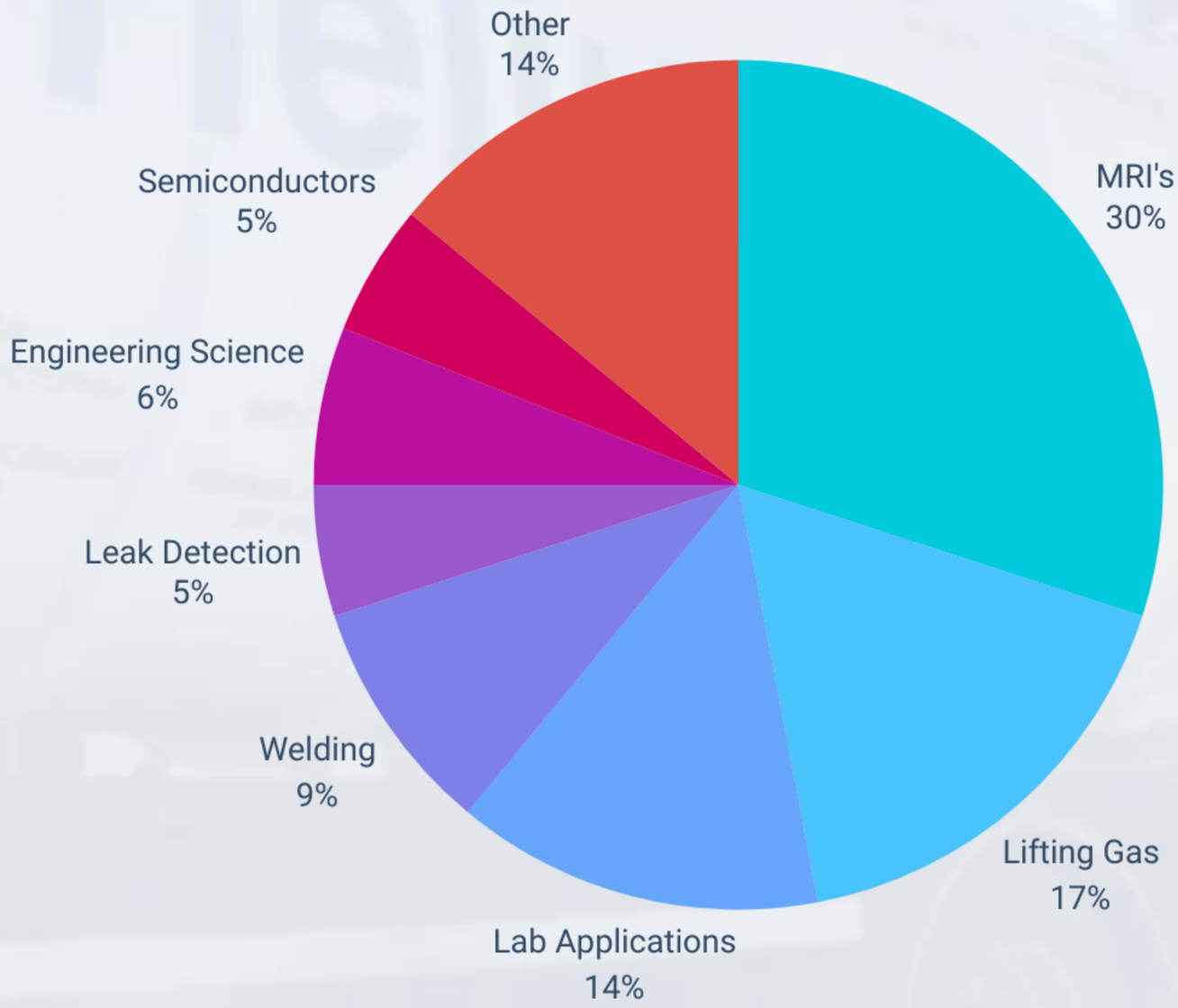
Demand Constituents Of Helium USA



Source: US Geological Survey, Cormark Securities Inc.

Where is Helium Found?

- Helium is found by drilling wells, similar to natural gas. It is formed from radioactive decay of heavy elements like Uranium and Thorium.
- Helium can be trapped deep under hard non- porous rock where it cannot escape. Gravity can't trap helium from escaping the atmosphere.
- Our focus is on helium-bearing non-hydrocarbon sources in Western Canada and Montana.
- Once helium is found it is purified by Cryogenic, Membrane or Pressure Swing Adsorption processes that can produce ultra-pure helium

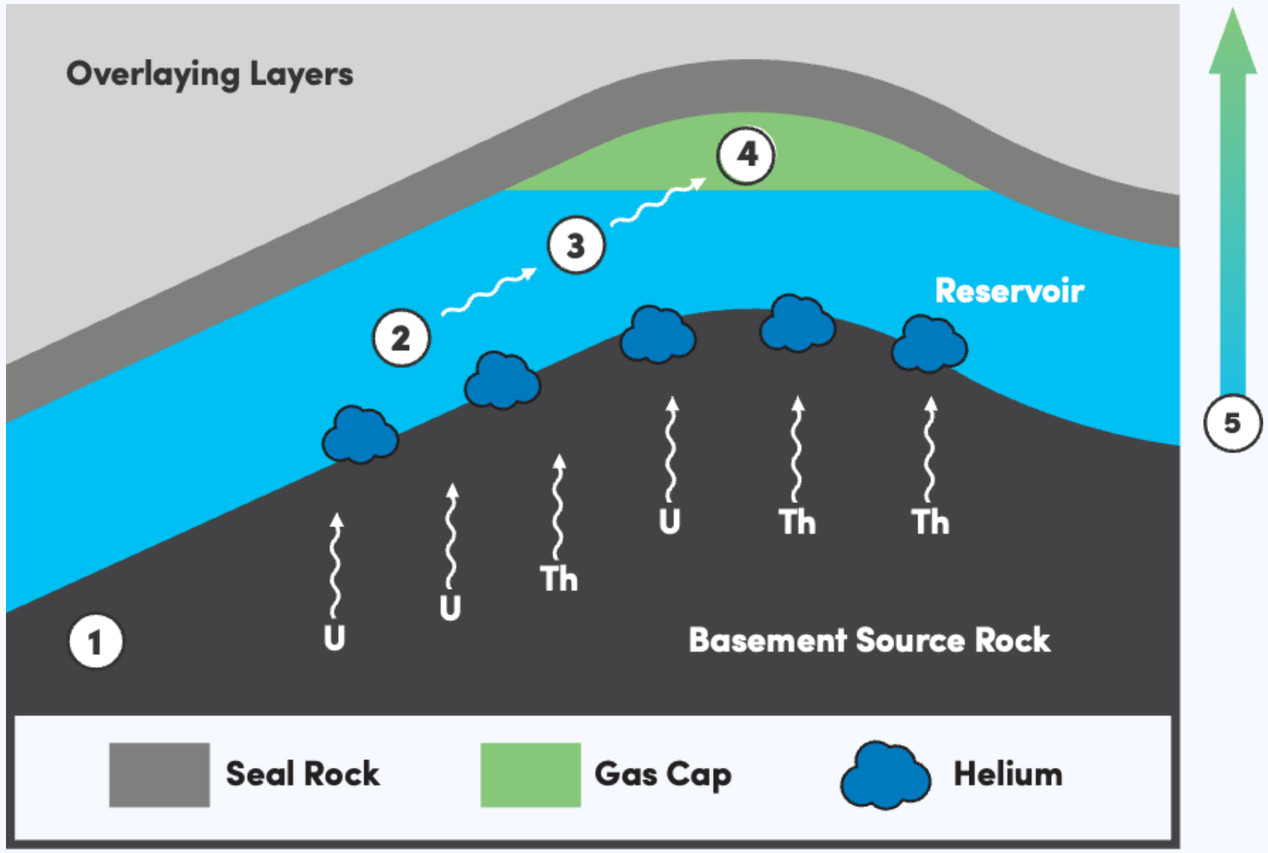
Why Helium?

Helium is the second most abundant element in the universe but extremely rare on earth. As a noble gas, Helium is not combustible. It has properties that make it irreplaceable for industrial applications like fibre optic cables, data centers, semiconductor manufacturing, medicine / MRI machines, cooling & cryogenics. Avanti is focused on developing large-scale projects to extract Helium deposits trapped within the earth.

- 100 times more valuable than Natural gas. Natural Gas $2-$5 per Mcf, Helium $400-$600+per Mcf.
- Global shortage, it's estimated the supply will not keep up with the demand for the next 20 years.
- Canada has large reserves in the world. A handful of producers are extracting helium in Saskatchewan.
- Industry demand CAGR of 11% each year through 2037.

Helium Generation And Trapping Model

1. Helium is generated by the decay of uranium and thorium in the basement rocks.
2. Once released from the source rock, helium can interact with formation water.
3. Formation water carries the dissolved gases as it ascends.
4. When the water contacts a pre-existing gas cap (containing methane or carbon dioxide), Helium partitions out into the gas cap.
5. Helium concentration varies going up the stratigraphic rock column.

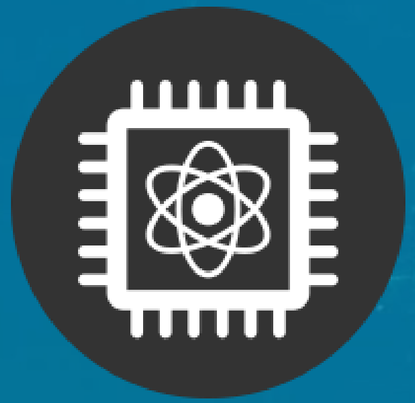


Modified from On The Hunt for Helium, Physics World (2017)

FUELING THE HIGH-TECH FUTURE

THE REACTOR OF THE FUTURE

Superconducting coils are cooled with helium and are used everywhere strong magnetic fields are needed. Wendelstein 7-X, the world's largest stellarator device which is used to evaluate the main components of a fusion power plant, uses helium for cooling.



HELIUM COOLING PARTICLE ACCELERATORS

At the European Organization for Nuclear Research (CERN), liquid helium also plays a central role. It is cooling the superconducting magnets that keep particles on their track. CERN operates the biggest "refrigerator" in the world

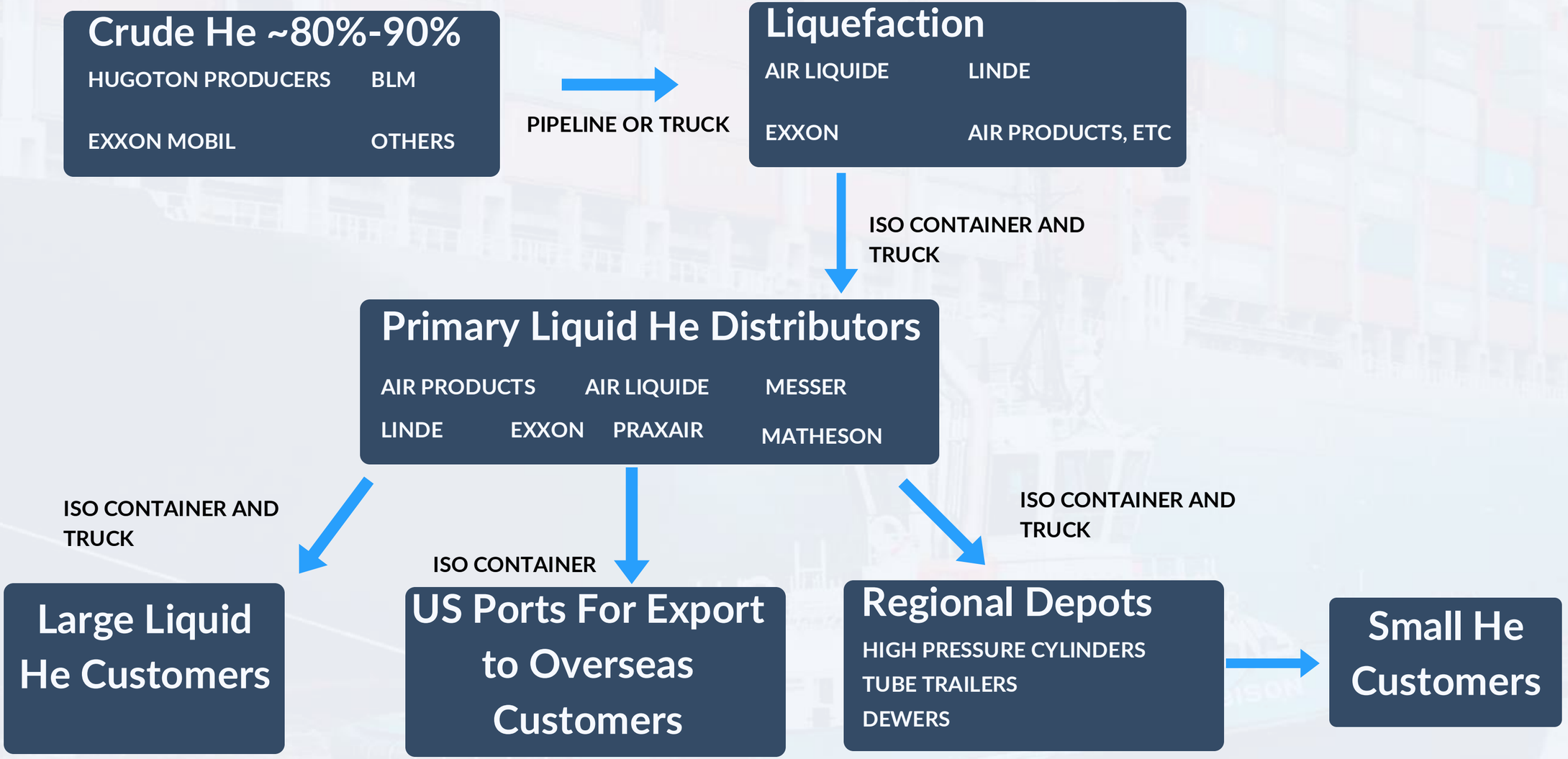
WORLD'S LARGEST DILUTION REFRIGERATOR

Quantum computing relies on incredibly low temperatures. Goldeneye is IBM's internal codename for the world's largest dilution refrigerator, which will house a future 1,000,000 qubit quantum processor.

FIBRE OPTIC CABLE MANUFACTURING

After fiber-optic glass is drawn into fine strands, it is shielded with helium while the cladding is applied to prevent the newly formed glass surface from reacting with the contaminants present in ambient air.

Supply Chain



avanti helium

Separation & Purification

Typical Nat Gas Steps If Necessary

Dehy, Sweetening

etc.

↓

Membrane Separation

↓

Pressure or Temperature Swing Absorption

↓

Cryogenic Separation & Liquefaction

Commercial Grades Of Helium

Grade	Purity	Description
Grade 6	99.9999%	Used in the manufacturing of semiconductor chips and for scientific research, MRI machines and for gas chromatography. Derived through liquefaction process.
Grade 5.5	99.9995%	Like Grade 6 helium, it is generally considered "research grade". Similar uses as Grade 6 helium but additionally used in welding and as a cooling gas in fiber optics.
Grade 5	99.999%	Laboratory uses such as gas chromatography, mass spectrometry and also used for weather balloons and blimps.
Grade 4.8	99.998%	Highest use of industrial grade of helium (similar uses as below).
Grade 4.7	99.997%	Grade-A Helium, most often used for cryogenics and pressurizing/purging along with atmosphere control, welding, in breathing mixtures and leak detection.
Grade 4.6	99.996%	Used for weather balloons, blimps, leak detection, welding and coolant for rockets.
Grade 4.5	99.995%	Commonly used in the balloon industry and in certain MRI applications.
Grade 4	99.99% & Lower	Considered balloon grade helium.