



The logo for LAPIS features the word "LAPIS" in a large, white, sans-serif font. The letter "A" is unique, containing a small orange downward-pointing triangle at its base. To the left of the text, there is a vertical bar composed of three horizontal segments in orange, blue, and light blue colors.

# LAPIS

PROJECT BLUE UPDATE: DEC. 2025-JAN. 2026

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# ABOUT LAPIS AND PROJECT BLUE



## CAPTURE

CO<sub>2</sub> capture solutions  
customized to each  
industry partner

## TRANSPORT

Safe movement of  
compressed CO<sub>2</sub> to storage  
sites or utilization partners

## WHAT WE DO

Lapis develops, constructs, and operates Carbon Capture, Utilization, and Storage (CCUS) projects, providing solutions for emitters looking to decarbonize industrial operations. Our technical expertise allows Lapis to utilize a dual approach to CCUS project development:

- ▶ Identifying strategic sites for sequestration
- ▶ Providing custom carbon solutions tailored to emitters' needs

• **UTILIZE**  
Utilization services to provide  
CO<sub>2</sub> to food and beverage  
industry partners

• **STORE**  
Permanent CO<sub>2</sub> storage, monitoring,  
and site closure in line with Class VI  
EPA standards

# ABOUT PROJECT BLUE

Lapis is working with LSB to sequester more than 400,000 metric tons of carbon dioxide (CO<sub>2</sub>) per year primarily under LSB's El Dorado, Arkansas, facility. The project will reduce LSB's emissions by 25% and help the company become one of the world's first suppliers of "blue ammonia"—low-carbon ammonia that is critical for a range of industries and applications.

Project Blue is the state's first CCS project and only the third project of its kind in the U.S.

PARTNER  
LSB

SERVICE  
CAPTURE, TRANSPORTATION,  
AND STORAGE

ESTIMATED VOLUME  
400,000+ METRIC TONS OF  
CO<sub>2</sub> PER YEAR

CLASS VI STATUS  
SUBMITTED

PROJECT TYPE  
PRIMARILY UNDER-PLANT  
SOLUTION



2022

Project development  
agreement signed

2023

Submitted Class VI  
permit application

2024

Planning, design, and  
relationship building

2025

Construction begins,  
continued community  
outreach

2026

First injection target,  
subject to permit

2026+

Injection, 24/7  
comprehensive  
monitoring

# PROJECT BLUE FOOTPRINT



## LEGEND

- Injection well
- Water sampling well
- Monitoring well
- LSB Industries property
- Flowline
- CO<sub>2</sub> supply line
- Pad outline
- Compression station

# WHAT IS BLUE AMMONIA?

## WHAT IS AMMONIA USED FOR?

Ammonia is typically used in agriculture as a fertilizer. It's also a critical component of cleaning products, refrigeration systems, and other chemicals.

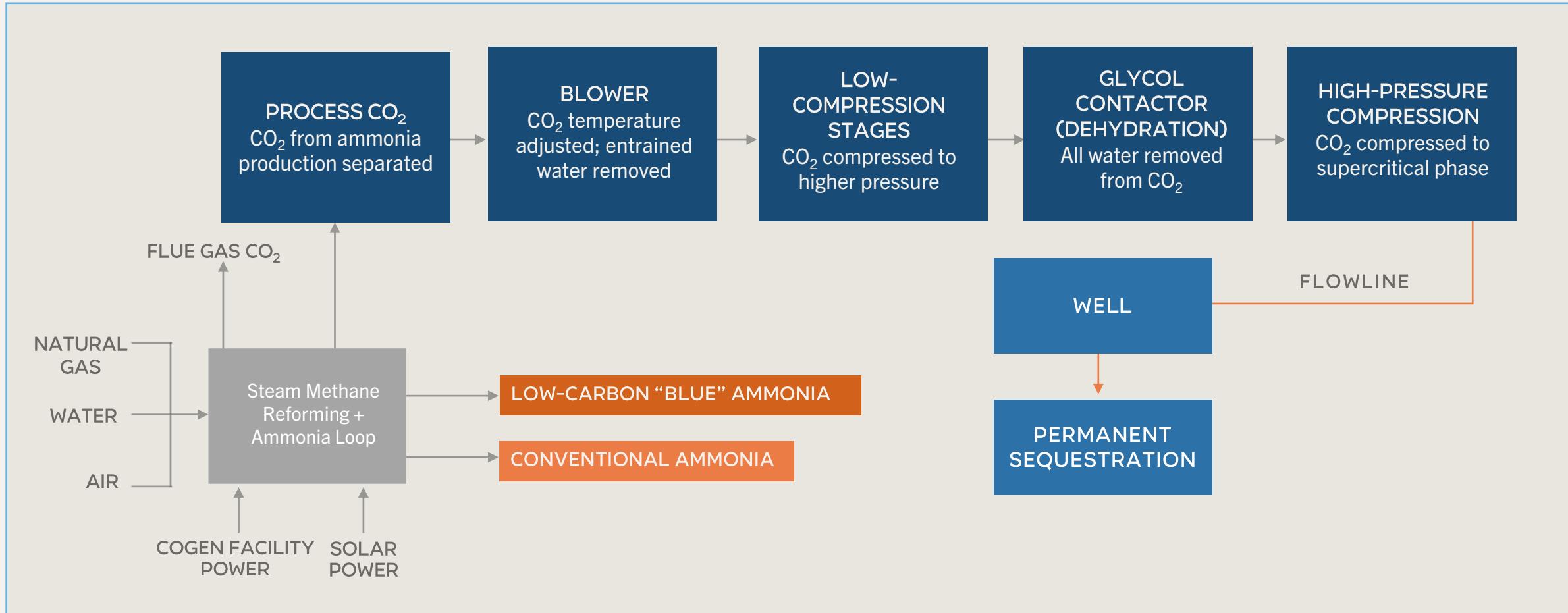
Ammonia also has the potential to be used as a clean fuel. This is a new and promising technology being explored by researchers all over the world.

## HOW DOES THE BLUE AMMONIA PRODUCTION PROCESS DIFFER FROM THE TYPICAL PRODUCTION PROCESS?

The conventional ammonia production process emits a significant amount of CO<sub>2</sub>, primarily produced during steam-methane reforming, where high temperature steam creates hydrogen from natural gas. This CO<sub>2</sub> is released into the atmosphere.

To produce Blue Ammonia, instead of emitting CO<sub>2</sub> into the atmosphere, CO<sub>2</sub> is captured and permanently stored underground using CCS technology.

# THE BLUE AMMONIA + CCS PROCESS



# ABOUT CCS

# WHAT IS CCS?

Carbon Capture and Storage (CCS) is the process of separating then permanently and safely storing CO<sub>2</sub>.

## 1 CAPTURE

Separate CO<sub>2</sub> from other gases produced at large industrial facilities.

## 2 TRANSPORT

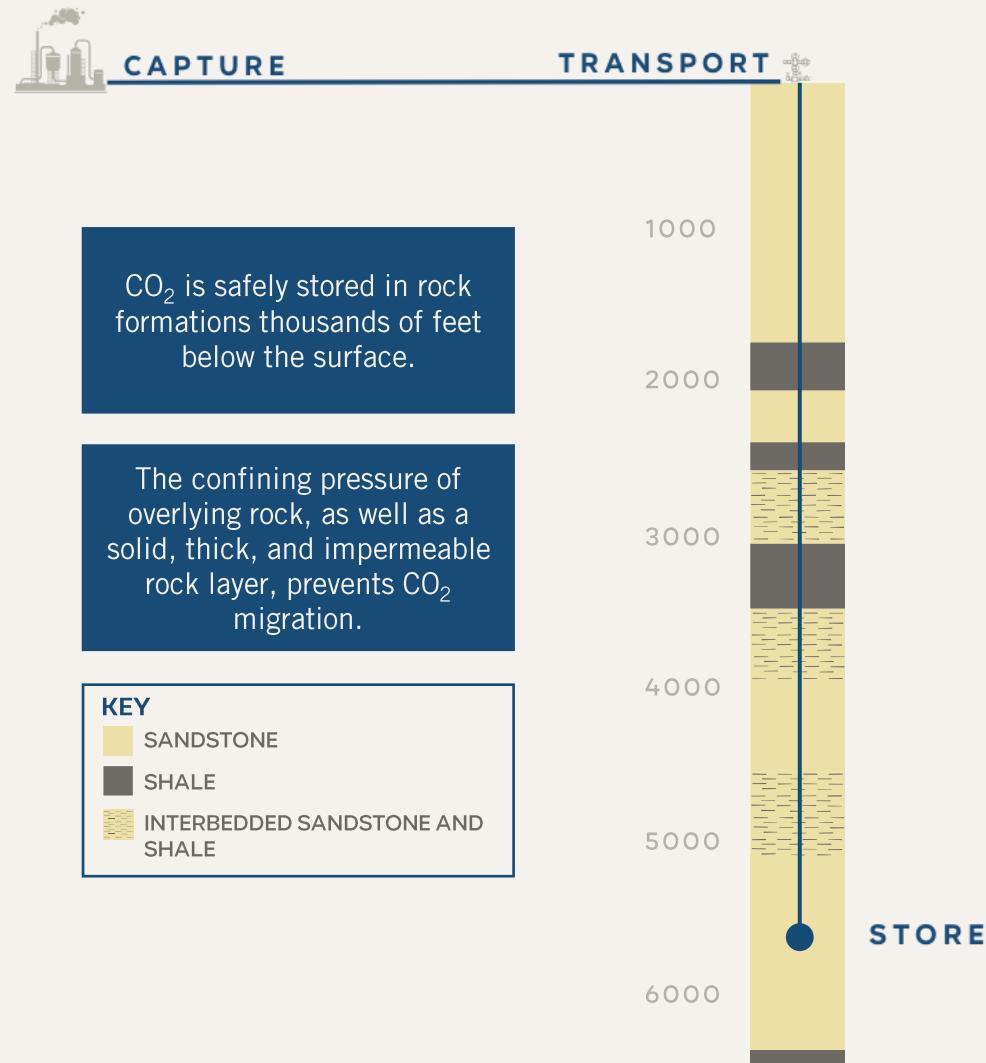
Compress and transport CO<sub>2</sub> to a suitable site for geological storage.

## 3 OPERATE

Inject and rigorously monitor injection, CO<sub>2</sub> movement, seismic activity, and water quality in accordance with EPA and industry standards.

## 4 SAFE, PERMANENT STORAGE

CO<sub>2</sub> is stored deep underground in sandstone rock formations thousands of feet below the surface. The site is monitored 24/7 throughout operations and for more than a decade post-operations per EPA standards.



# CCS: A TESTED TECHNOLOGY

## CAPTURE

- Capture technology **BEGAN IN THE 1930S**.
- At least **160 MILLION METRIC TONS** of CO<sub>2</sub> are captured every year for use in industries such as food, beverage, and fertilizers.
- CCS is **HEAVILY REGULATED** by the EPA.

## TRANSPORT

- There are **5,000+ MILES** of CO<sub>2</sub> pipelines in the U.S.
- In the last 50 years, pipelines have transported **OVER 500 MILLION** metric tons of CO<sub>2</sub>.
- During the **ENTIRE PERIOD** of CO<sub>2</sub> pipeline operation there have been **NO RELATED FATALITIES**.

## STORE

- In the U.S., over **850 MILLION METRIC TONS** of CO<sub>2</sub> have been safely injected since the 1970s for a process known as enhanced oil recovery.
- **OVER 20 MILLION** metric tons of CO<sub>2</sub> have been injected into dedicated geological storage sites for climate purposes since 1996.
- CCS operators must employ **ROBUST, CONTINUOUS MONITORING** programs.

- ▶ SOURCE: CLEAN AIR TASK FORCE
- ▶ SOURCE: CARBON ACTION ALLIANCE

# PROTECTIVE TOP SEALS AND INJECTION ZONES



## SHALE: SEAL

Shales protect Underground Sources of Drinking Water (USDW) from CO<sub>2</sub> migration. These rocks are impermeable—CO<sub>2</sub> cannot move through them. For Blue, multiple layers of thick (hundreds of feet thick) shale act as seals that prevent CO<sub>2</sub> movement.



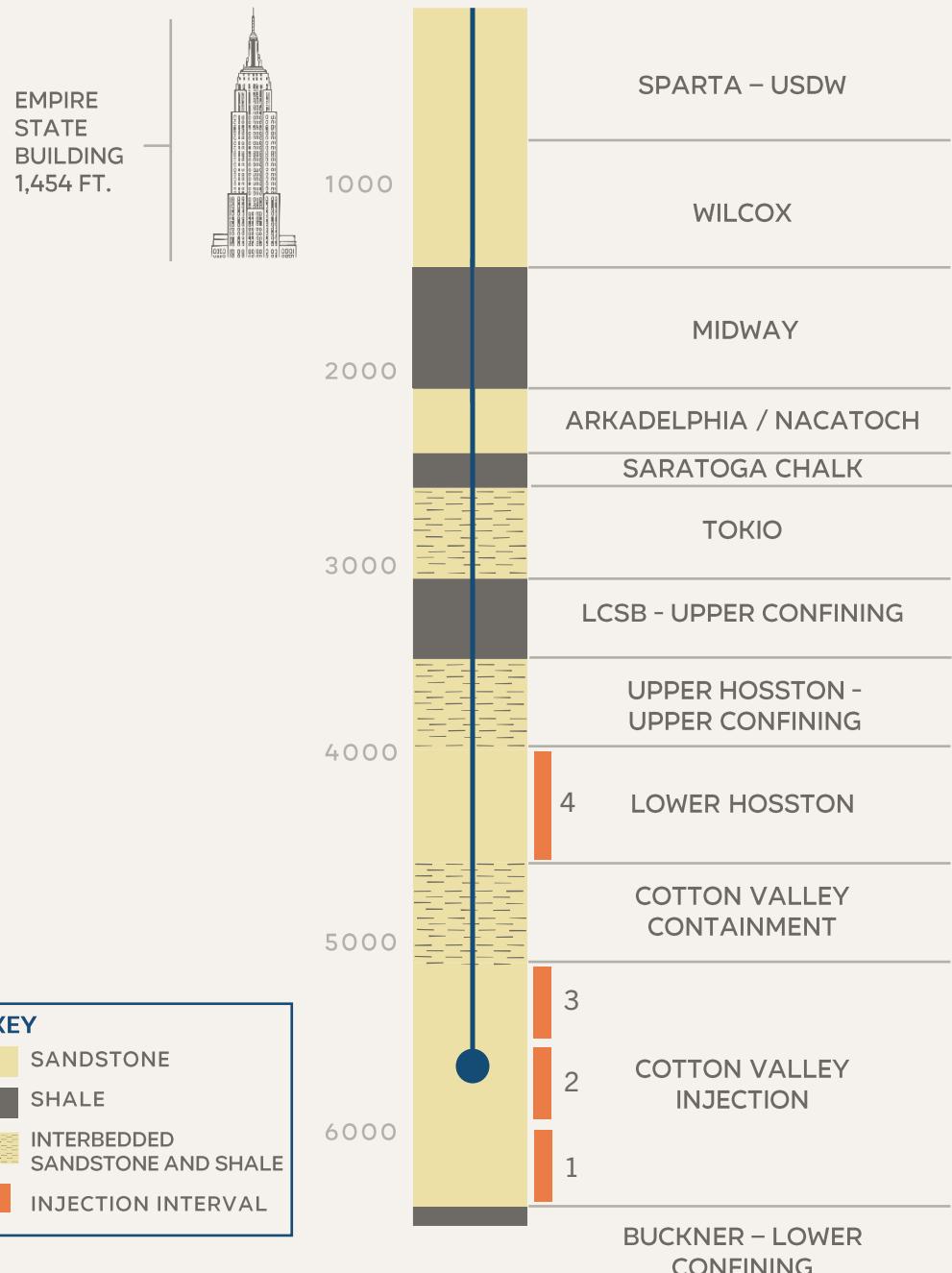
## SANDSTONES: INJECTION ZONE

Sandstone is a highly porous rock—imagine a sponge—with tiny gaps between sand grains filled with saline (non-potable water, i.e., not safe for drinking). During injection, CO<sub>2</sub> displaces this salty water and enters the sandstone.



## CO<sub>2</sub> STORAGE ZONE

For Project Blue, we're targeting injection intervals that are 3,500-6,500 feet below the surface. CO<sub>2</sub> is stored at a depth that's similar to stacking more than two Empire State Buildings below the ground.



# WHAT IS A CLASS VI PERMIT?

Class VI is the type of permit needed to inject CO<sub>2</sub> underground.

## CLASS VI WELLS ARE SUBJECT TO A RIGOROUS PERMITTING PROCESS.

The time frame from application to injection typically takes years and a number of permits from various state and federal agencies.

Class VI wells—the type of well needed to inject CO<sub>2</sub> underground for safe, permanent storage—are designed to rigorous standards, more so than oil and gas wells.

## THE EPA MANAGES CLASS VI PERMITS IN MOST STATES.

The EPA has a tracker where you can see all applications and their status [here](#).

Once the Class VI permit has undergone further review, the EPA will issue a draft permit, then open the permit for public comment, before granting a permit to construct, followed by a permit to inject.

## OUR CLASS VI STATUS

Recognizing the rigor of the Class VI application process and the permitting timeline, we submitted our Class VI permit application to the EPA in 2023. We are currently incorporating additional information from a dedicated data collection well and expect to enter the final stages of the technical review process in late 2025.

# MONITORING

Class VI wells must have ***comprehensive, real-time monitoring*** in place ***before injection begins***. We plan to monitor through four primary mechanisms:

## 1 SEISMIC MONITORING

24/7, real-time seismic monitoring using remotely controlled seismic devices, which will monitor CO<sub>2</sub> movement and seismic activity underground.

## 2 PRESSURE MONITORING

Gauges on injection wells will enable us to detect pressure changes – which indicate potential leaks – within the wells in real-time.

## 3 MONITORING

We will monitor CO<sub>2</sub> pressure and movement both within the injection wells and through a monitoring well installed away from the injection wells but near the plume area.

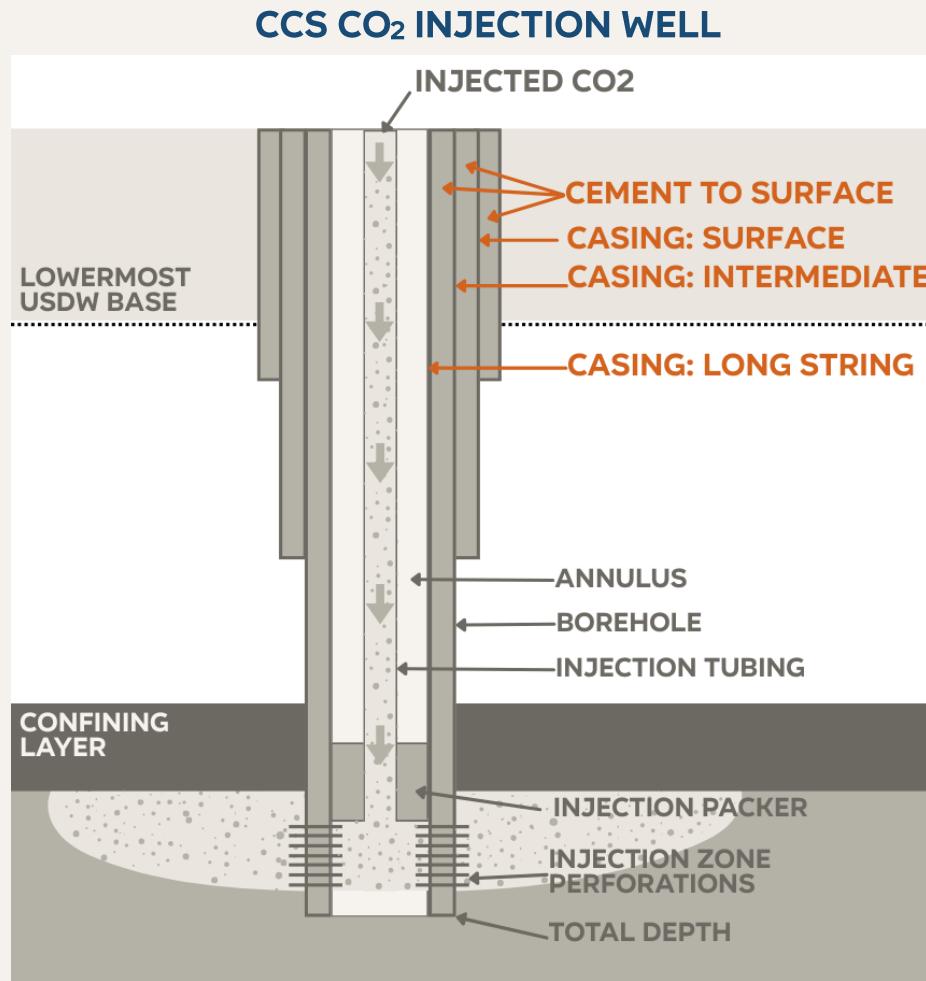
## 4 WATER WELLS

Multiple water wells will be installed to continuously monitor water quality and ensure we protect Underground Sources of Drinking Water (USDWs).

Our monitoring program will be thorough, ongoing, and iterative in response to CO<sub>2</sub> movement.

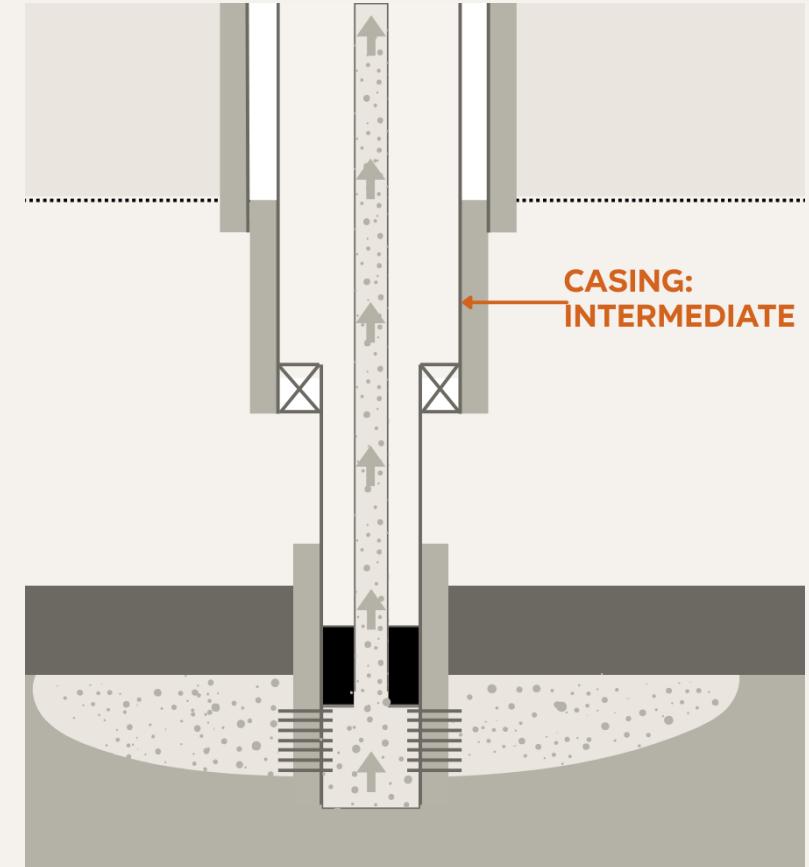
# WELL SPECIFICATIONS: CO2 INJECTION VS. OIL AND GAS

CCS wells are designed to exceptionally high standards—more so than a typical oil and gas well.



4-8X COST OF A REGULAR OIL AND GAS WELL

## TYPICAL OIL AND GAS WELL



All casing strings extend to surface

All casing strings are cemented to surface

Use of corrosion resistant alloy over injection interval

Use of highly corrosive resistant cement over entirety of well bore surface vs. Portland cement and regular steel casing in an oil and gas well

# COMMUNITY BENEFITS AND ENGAGEMENT

# CCS ENHANCES ECONOMIC GROWTH.

BY IMPLEMENTING CCS, LSB WILL BECOME ONE OF THE WORLD'S FIRST BLUE AMMONIA SUPPLIERS.

TOGETHER WITH LSB, WE'RE UNLOCKING EVEN MORE VALUE FOR THE COMMUNITY.



*LSB and Lapis employees on-site during drilling, April 2025.*



*Lapis, LSB, and other stakeholders dedicated a "pocket park" in downtown El Dorado, featuring a sculpture funded by Lapis and LSB.*



*Lapis and LSB team members during an El Dorado Chamber of Commerce meeting.*



*Lapis supported GLAMS (Girls Learning About Math and Science), an annual conference for sixth-grade girls hosted by South Arkansas College.*

# EL DORADO ENGAGEMENT

## EDUCATOR SUPPORT

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We focus on supporting local educators. Highlights include:

### SOUTHARK MAKERSPACE

We donated \$25,000 to SouthArk College to create a MakerSpace, a community hub for creativity, technical learning, and innovation for students and the El Dorado community more broadly.

### CLASSROOM ENRICHMENT FUND

We seeded a new Classroom Enrichment Fund for Union County teachers, allowing educators to access grants to purchase resources, upgrade their classrooms, and enhance learning outcomes.

### MAKING SPIRITS BRIGHT

Now in its third year, we marked the start of winter break with an annual celebration honoring Union County educators with free coffee, treats, and gifts.

## CCS ENGAGEMENT

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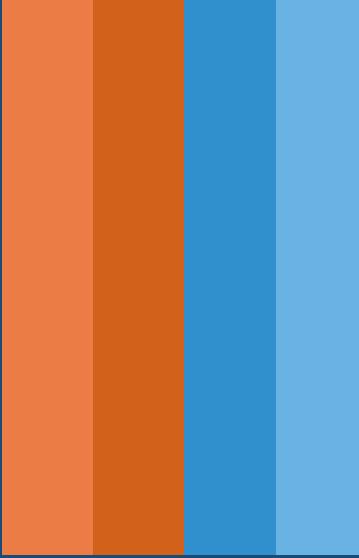
We engage with business and community leaders, providing CCS education and regular project updates. This includes the Rotary Club, the El Dorado Chamber of Commerce, Union County Water Conservation Board, Union County Quorum Court, and Union County Office of Emergency Management.

## GET IN TOUCH

This deck is updated monthly and includes answers to recent community member questions. Have questions or want more information? Please reach out!

EMAIL: [PROJECTBLUE@LAPISCARBONSOLUTIONS.COM](mailto:PROJECTBLUE@LAPISCARBONSOLUTIONS.COM)

OR VISIT THE [PROJECT BLUE FACEBOOK PAGE](#).



# L A P I S

C A R B O N   S O L U T I O N S

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