

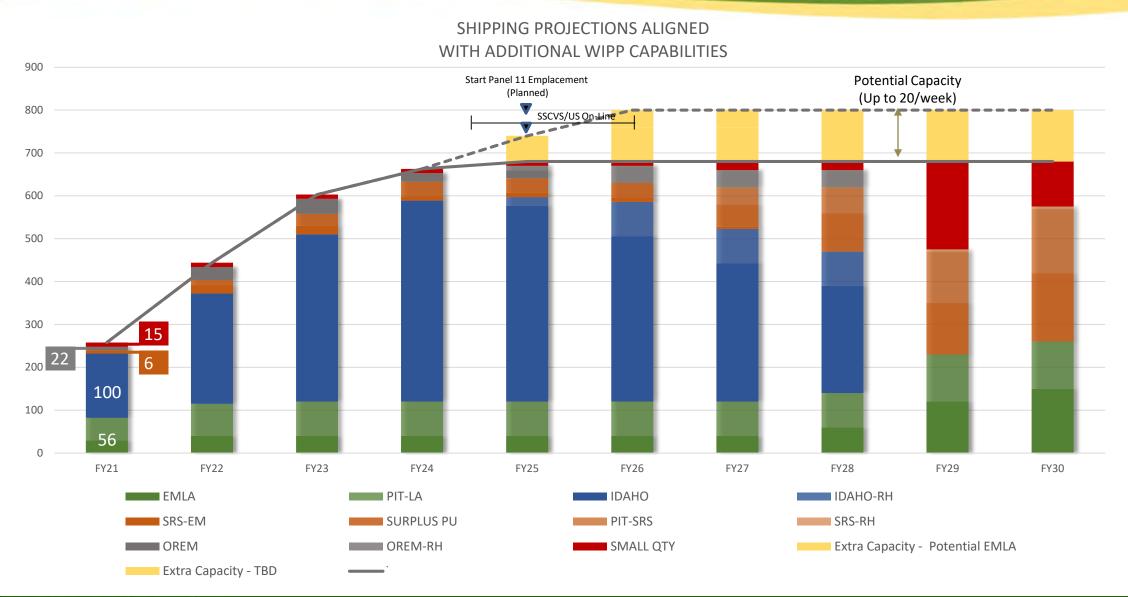


Major Accomplishments

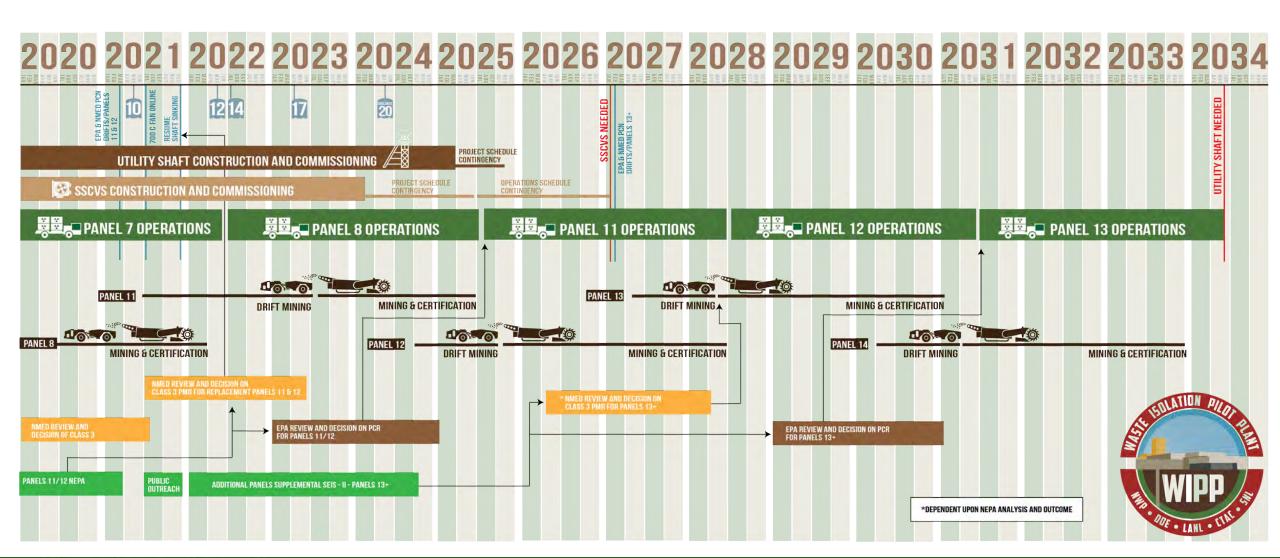
- Shipments: 199
- Shipments from Los Alamos
 National Laboratory (LANL): 56
- Loaded shipping miles: 224,304
- Mining in panel 8 complete
- Salt reduction building walls
- 700-C fan balancing complete
- Central Monitoring Room upgrade
- Approval to resume work on underground Shaft #5



Shipping Projections Aligned with Additional WIPP Capabilities

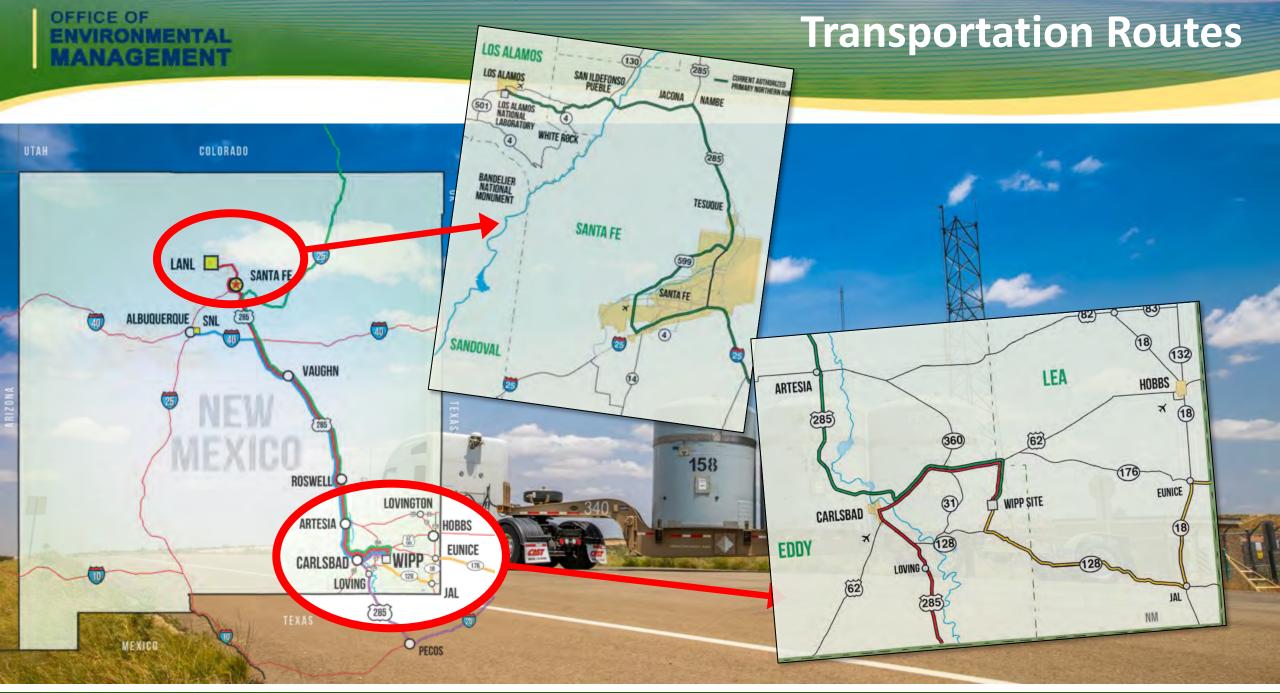


10 Year Projection



Transportation Routes

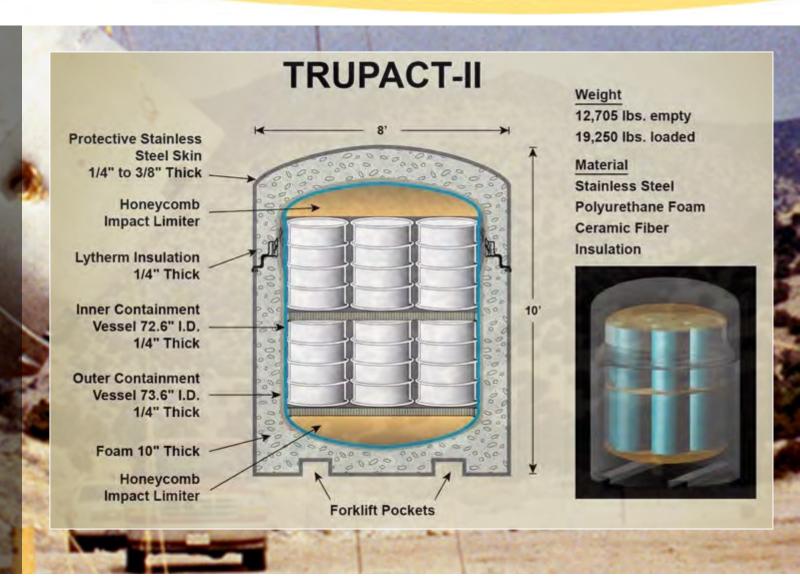




Safe Transportation

TRUPACT Testing Requirements

- TRUPACT-II, TRUPACT-III, HalfPACT
 & RH-72B CASKS must be certified
 to:
- 30 foot drop onto a flat, unyielding surface
- 40 inch drop onto a 6 inch diameter steel rod at least 8 inches long
- 1,475 degrees F for 30 minutes
- Immersion test equivalent to external pressure under 50 feet of water



Driver Requirements



- Must be a U.S. citizen
- Must have 325,000 miles in last five years/100,000 per year in two of last five years
- Must not have repeated chargeable incidents, moving violations, or a single DWI/DUI in their private vehicles
- Must not have been charged with a moving violation in a commercial vehicle in last five years
 - Must pass background check

TRANSCOM





Emergency Preparedness



Emergency Responder Preparedness

In coordination with states and tribal nations, first responder training and full scale accident preparedness drills (WIPPPTREX) are provided along WIPP routes.

- Trainings include:

 Modular Emergency

 Radiological Response
- Transportations Trainings (MERRTT & CMERRTT)
- RAD Technician, RAD Specialist, Hospital and Coroner classes are also provided

Safe Transportation

- Over 13,000 shipments received
- Over 15.5 million loaded safe miles traveled
- Averaging 5-7 shipments per week
- Consistent shipments from
 - Los Alamos National Laboratory
 - Idaho National Laboratory
 - Savannah River Site



Panel 7 Emplacement Status



Panel 8 Status

Mining completed

• 09/29/2021

Outfitting completion date

02/15/2022

Class 2 Permit Modification Request – Update Volatile Organic Compound Room Based Limits

- Submitted 10/15/2021
- Decision Expected by 2/15/2022

Expected New Mexico Environment Department Certification & Ready for Emplacement

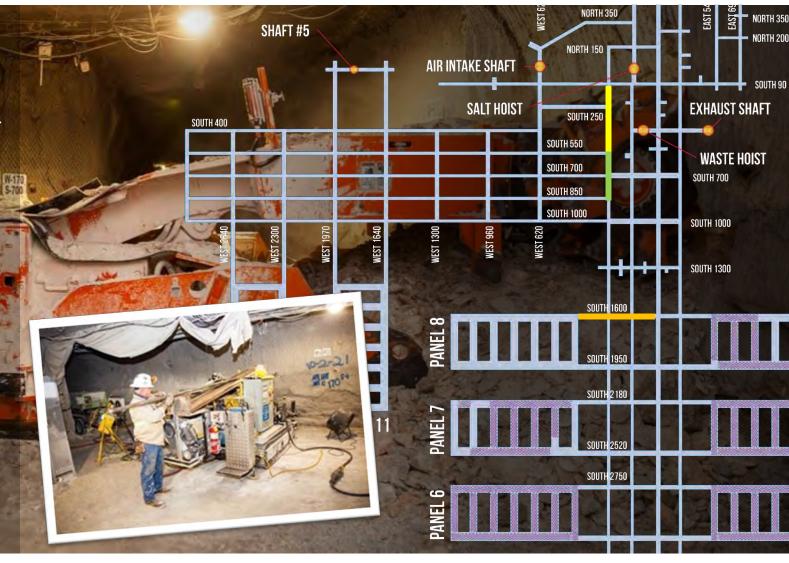
4/30/2022



Mining Progress

Mining Progress

- Began mining drifts to the west on September 26th, meeting EM calendar year 2021 goals
- Achieve continuous mining to the west on 03/31/2022
- Widen access drift to Panel 8
- Prepare access drifts for panel 11 emplacement
 - W170 drift widened from S550 S850: Began 10/15/2021
 - W170 Floor removal from S90 S850:
 Began 10/27/2022



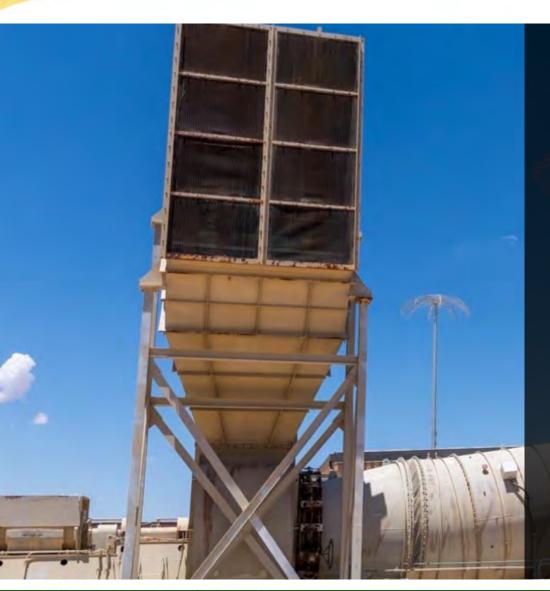
Ventilation

- Air is the lifeblood of the WIPP underground. Current filtered airflow is limited to 146,000 cubic feet per minute, making operations limited
- The Fix: Safety Significant Confinement Ventilation System (SSCVS) will pull 540,000 cubic feet per minute of filtered air through underground
- Utility shaft provides higher-capacity (26 feet diameter) air intake for SSCVS system
- In the interim: 700-C fan bridges need for more air until start of SSCVS with 240,000 cubic feet per minute for non-emplacement activities
- SSCVS allows simultaneous mining, rock bolting, emplacement and other activities



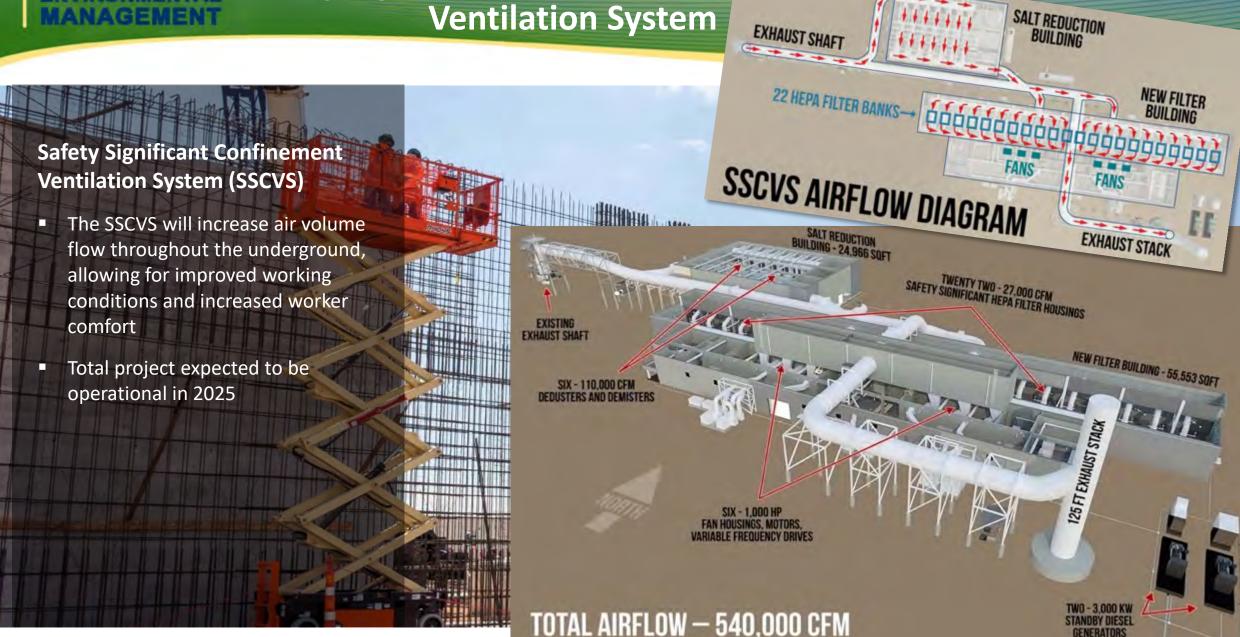
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700-C Fan Restart Status



- Bringing the 700-C legacy fan (unfiltered) online will increase airflow in the
 WIPP underground during non-waste handling operations
 - Increased comfort to our workforce
 - The 700-C fan will act as a bridge until the SSCVS is online
- We have successfully conducted the initial 4 hour startup test
- Environmental monitoring data shows no impact to human health or the environment
- Next Steps Restarted (balancing) October 26th
- 700-C fan will not operate during waste emplacement activities
- Approximately half of the data has been evaluated from the 40 hour sampling period for 700-C Fan restart. At this point, the Radiological data is well below the pre-established limits in the Sampling plan.
- https://wipp.energy.gov/700c-restart.asp

Safety Significant Confinement Ventilation System



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Safety Significant Confinement Ventilation System

Safety Significant Confinement Ventilation System (SSCVS) Project

Critical Path Items include:

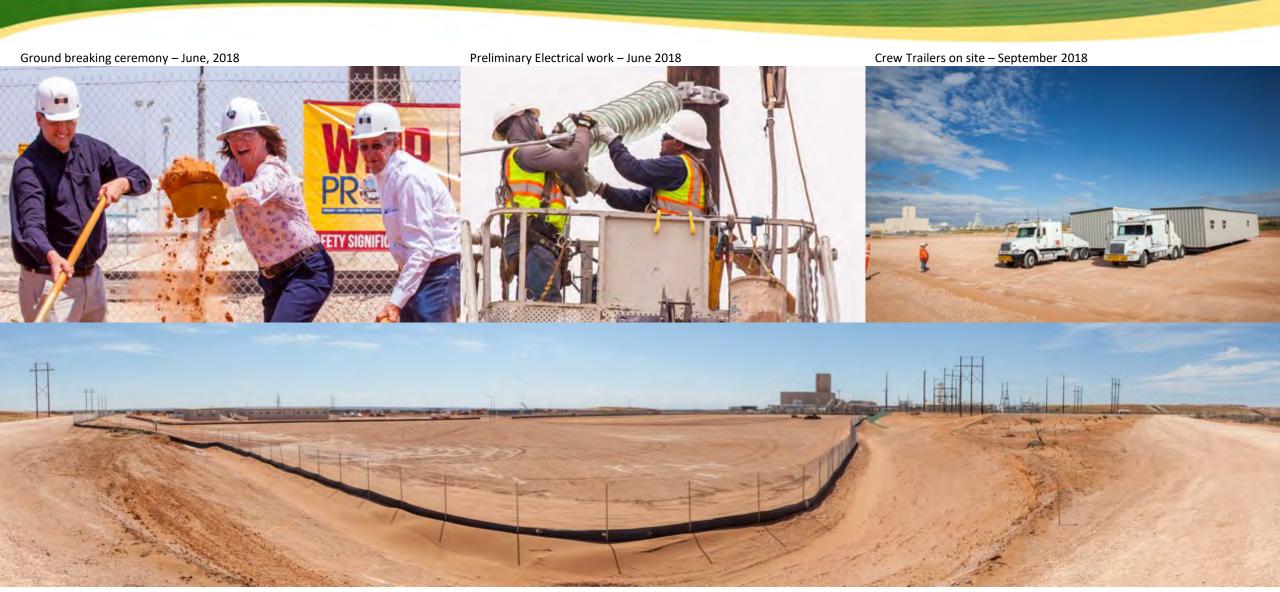
- Completion of the New Filter Building (NFB) Safety Significant Cast in Place concrete walls
- Complete New Filter Building (NFB) precast walls to complete building structure
- Install 22 HEPA Filter Units
- Install 6 Exhaust Fans

Key Performance Measurement Baseline (PMB):

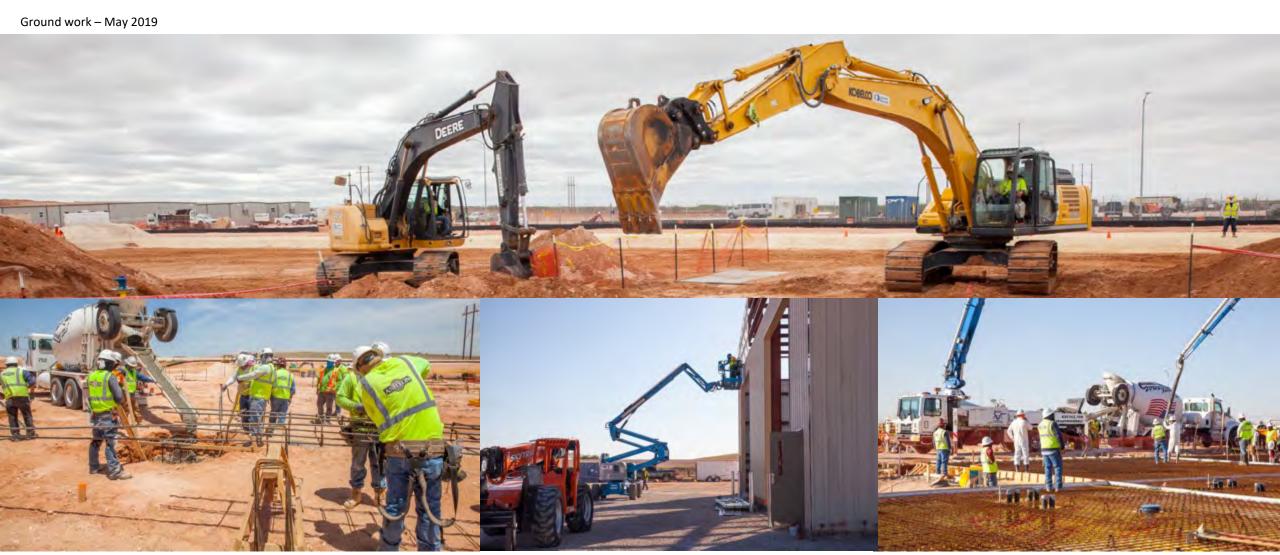
- Salt Reduction Building (SRB) Complete
- New Filter Building (NFB) Complete
- Construction Complete



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Ground work - March 2019



Installing the walls on the Fabrication Building – October 2019

SSCVS overview, showing the concrete forms for the walls of the Salt Reduction Building – July 2020



SSCVS overview, showing the concrete walls and rebar of the New Filter building and the roofed in Salt Reduction Building (Right) – November 2021



New Filter Building

SSCVS - New Filter Building

- Safety Significant slab-on-grade concrete placements: Completed August 4, 2021
- Safety Significant cast in place concrete wall placements commenced, 50 of 153 cast as of October 22, 2021.
- Received all 22 HEPA Filter Units to Site that will be installed in the New Filter Building



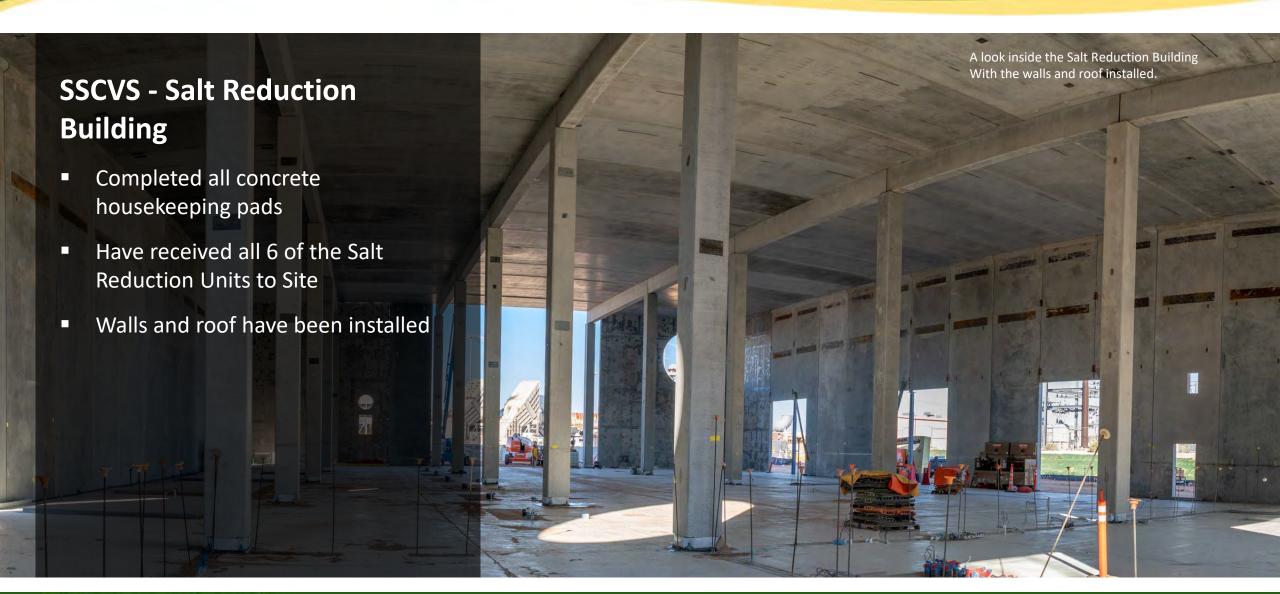
Safety Significant Confinement Ventilation System



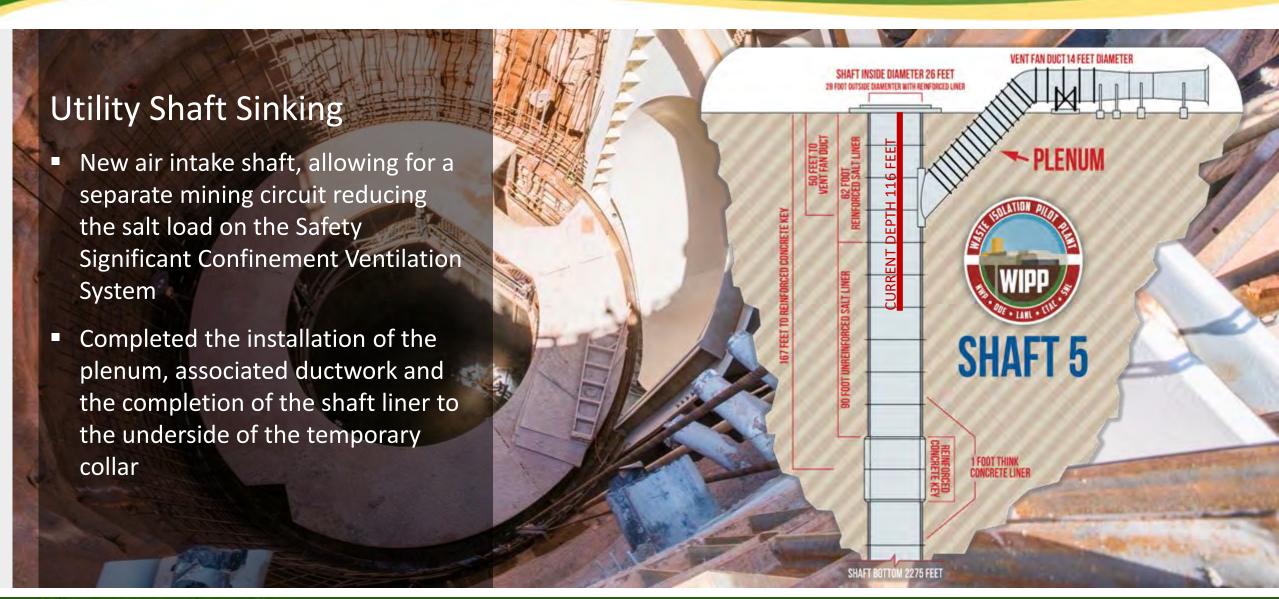
The walls and roof on the Salt Reduction Building are scheduled for completion by the end of the year.

Work on the walls of the New Filter Building continues.

Salt Reduction Building



Utility Shaft



Utility Shaft

Utility Shaft

- Completed the Infrastructure
 - #5 Salt Pond & Salt Pile
 - Power feed
 - Fire Loop
 - North Access Road Bypass
- Completed excavation of the Exhaust Stack plenum to 20 feet below ground elevation and placed the concrete for the bottom, east and west plenum sides.
- Commenced installation of Exhaust Stack ductwork structural supports and saddles.
- Key Milestone dates
 - Resume shaft sinking: August 2022
 - Install Galloway and erect headframe
 - Install Galloway begins: May 2022
 - Head frame complete: May/June 2022



Utility Shaft & Discharge Permit Status

Class 3 PMR, Excavation of New Shaft and Associated Connecting Drifts

 Class 3 PMR approved on October 27, 2021

Ground Water Discharge Permit DP-831

- Public Hearing held September 7 -8, 2021
- Findings of fact, conclusions of law and closing arguments submitted October 19, 2021
- Decision on permit modification request anticipated in early 2022



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Utility Shaft



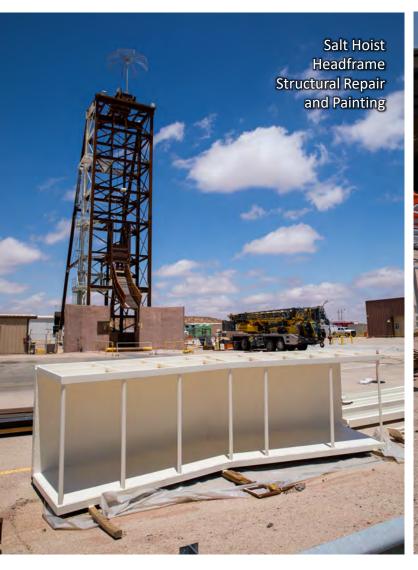


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Salt Hoist Refurbishments



Salt Hoist Refurbishments





Fire Protection



Electrical Upgrades



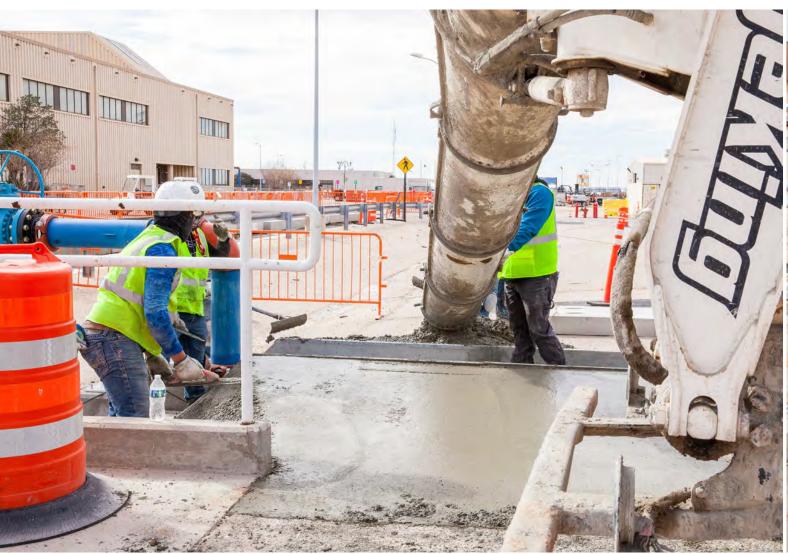








Air Line Replacement





New Air Compressors





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WIPP's electric vehicles

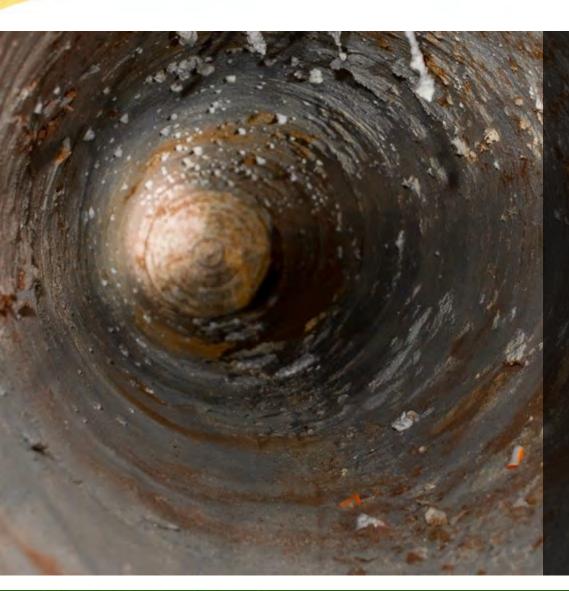
WIPP has a variety of electric vehicles in its fleet including continuous miners, forklifts and hybrid bolters. Currently there are 17 fully or partially electric vehicles/mobile equipment in the WIPP underground with plans to buy 12 more this year.







Plans for RH Bore Hole Emplacement



The RH borehole emplacement approach, which we call traditional emplacement, has initiated a startup evaluation

The evaluation is comprised of various system and equipment operational tests.

The plan is as follows:

- Initial system and equipment reviews
- System equipment repairs, refurbishments, replacements, procedure revisions and developments
- Training, qualifications, testing and operational checks
- Preparations for operational readiness and preparations for first shipment at site

Closing Remarks

- We received our 13,000th
 shipment on November 11
- We will continue to strive to maintain the Voluntary Protection Program Star Status
- We appreciate the support of our state, regulators and local communities, without their support none of this would be possible

