

AUTOMATION & INTEGRATION
DRIVE
COMPLIANCE & EFFICIENCY



Efficient Sand, Water, and Chemical Storage Solution



Sand System

4,200ft³ of storage capacity per silo. Approx. 2.4M lbs of sand per 6-pack.

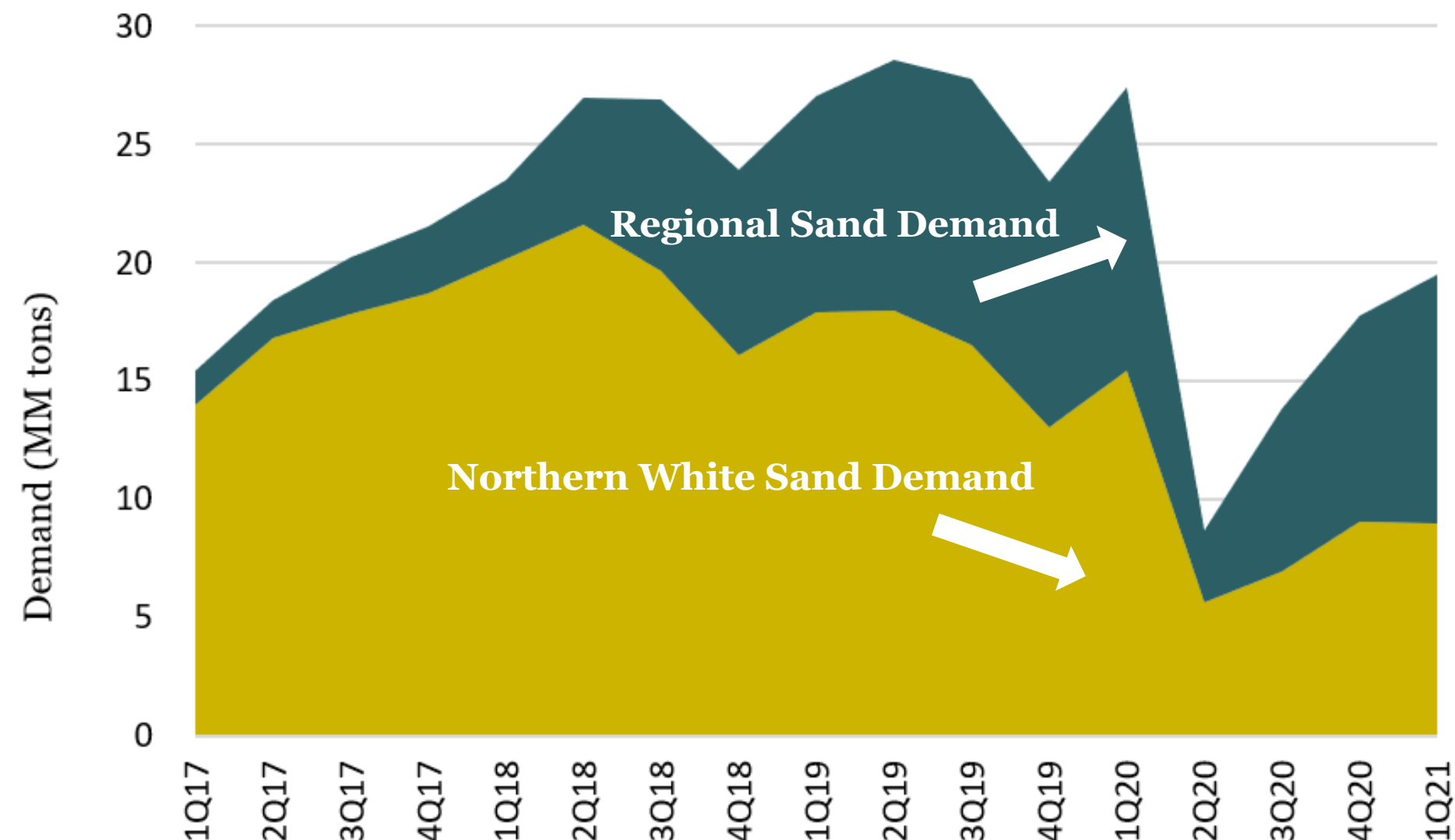
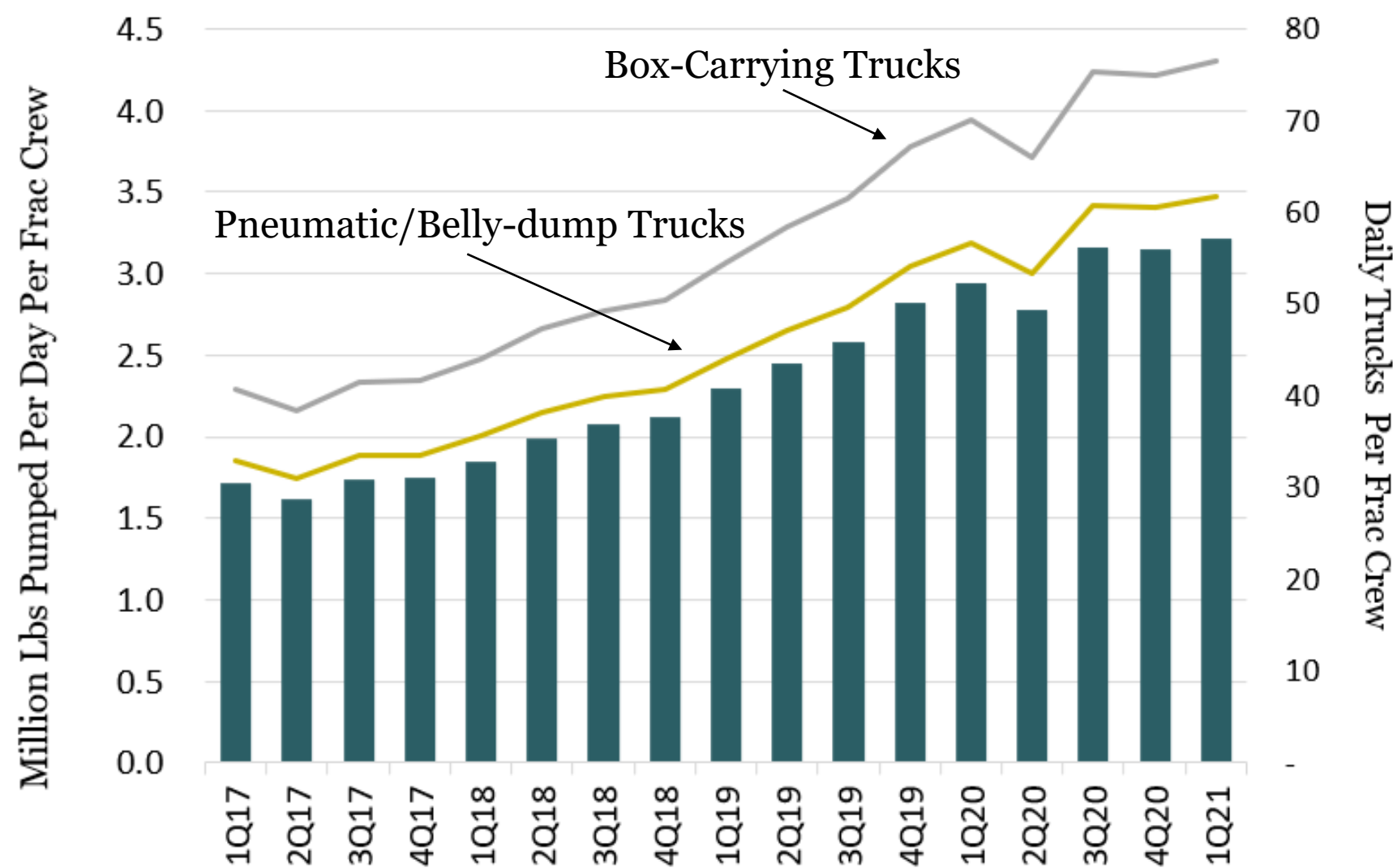
Chemical System

- **Dual Compartment Silos:** 12,500 gal per compartment
- **Acid Silo Compartment:** Belzona-lined 33,000 gal of raw acid (36%HCL); blend-on-the-fly capability

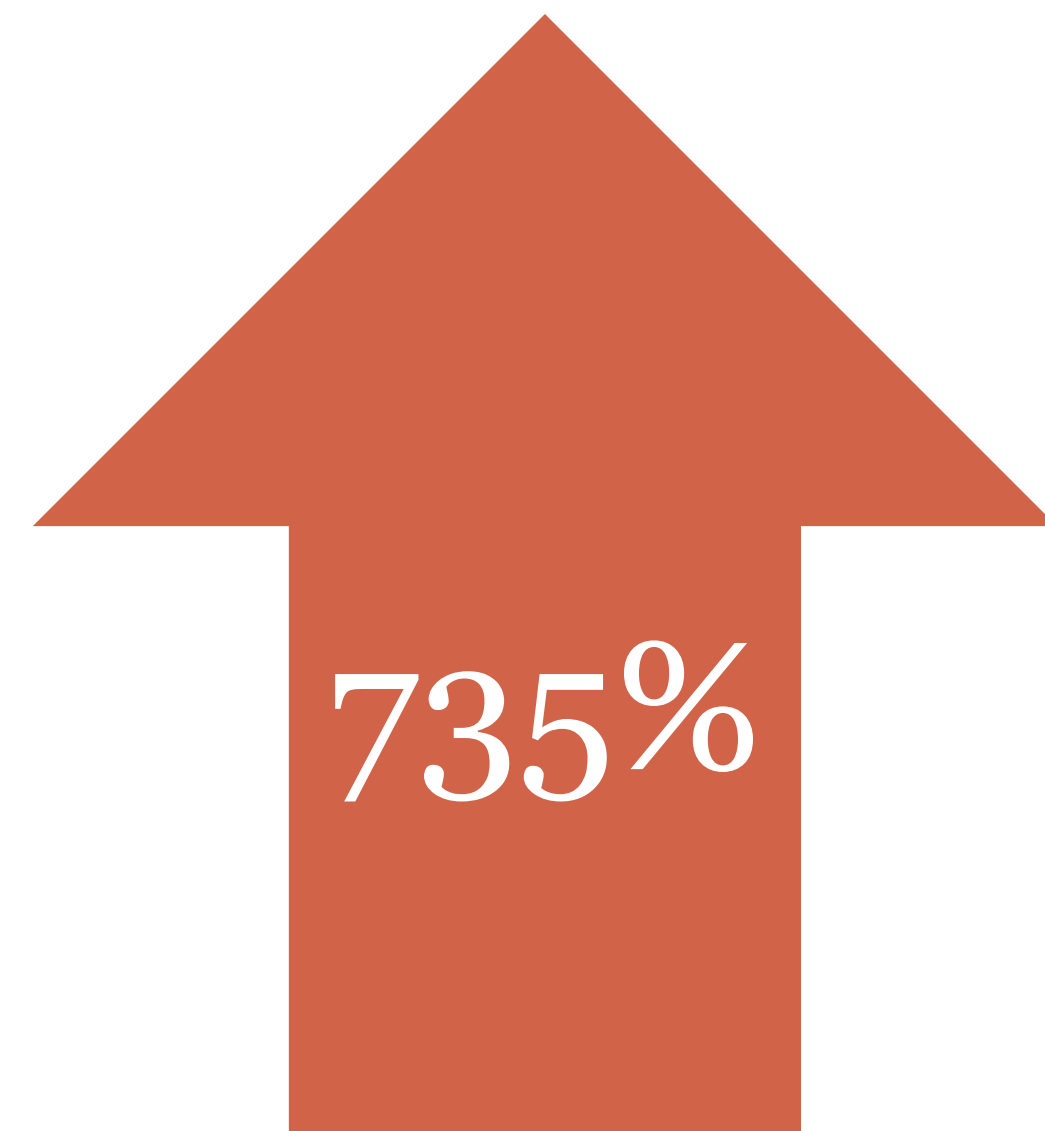
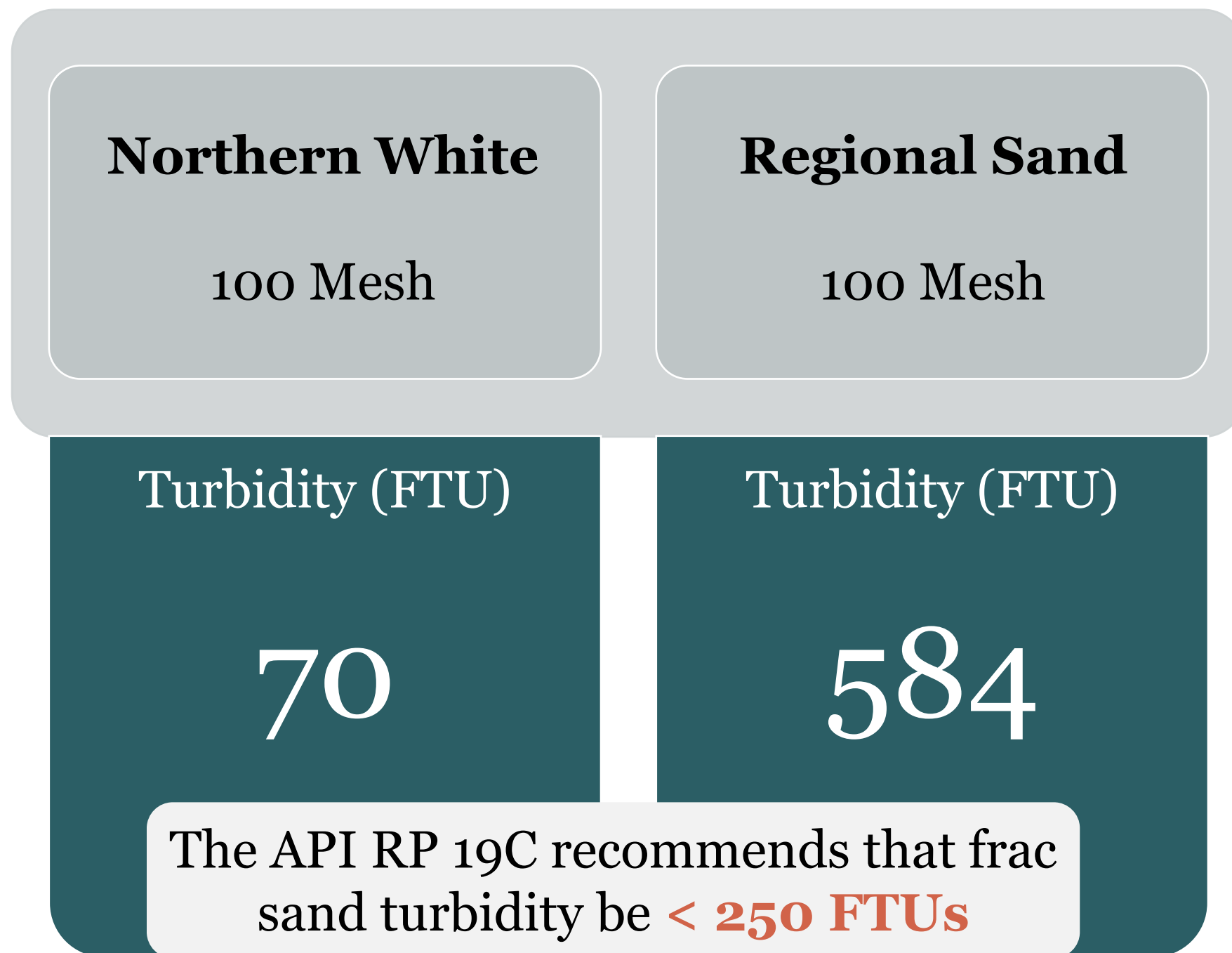
Water System

800bbl of storage capacity per silo. Approx. 2,400 bbl of water per 3-pack with hydrostatic pressure.

Aligning Operational Trends with Compliance Initiatives



Aligning Operational Trends with Compliance Initiatives

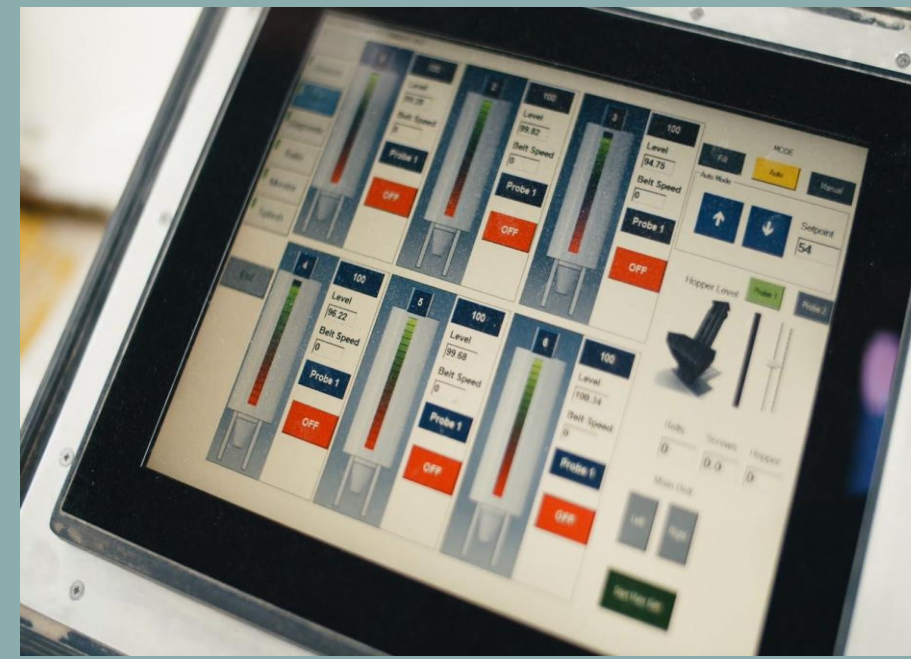


*Regional Sand turbidity figures based on samples taken by Solaris from various regional mines in Texas & Louisiana 2019-2020

Dispelling Conventional Norms



Conventional Sand Handling Methods



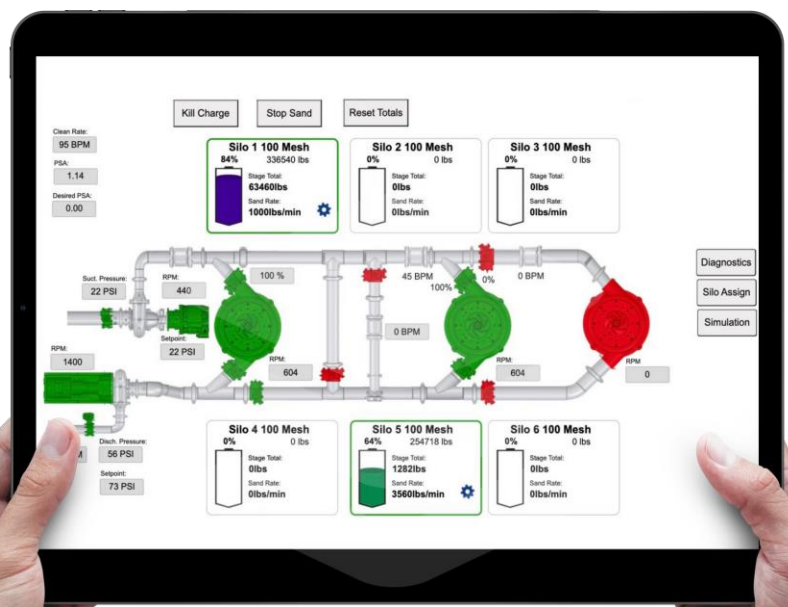
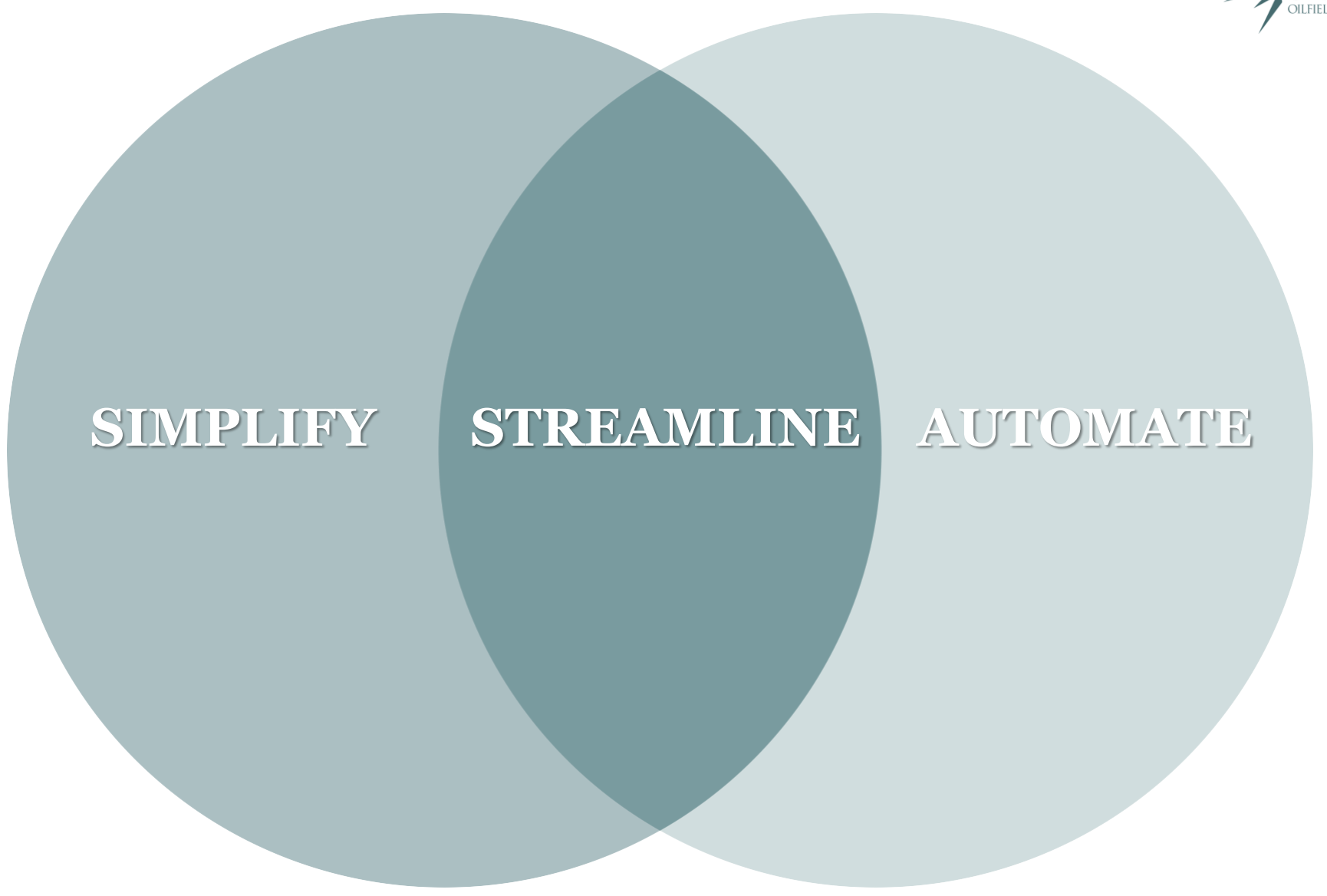
The Solaris Way

The Solaris Framework

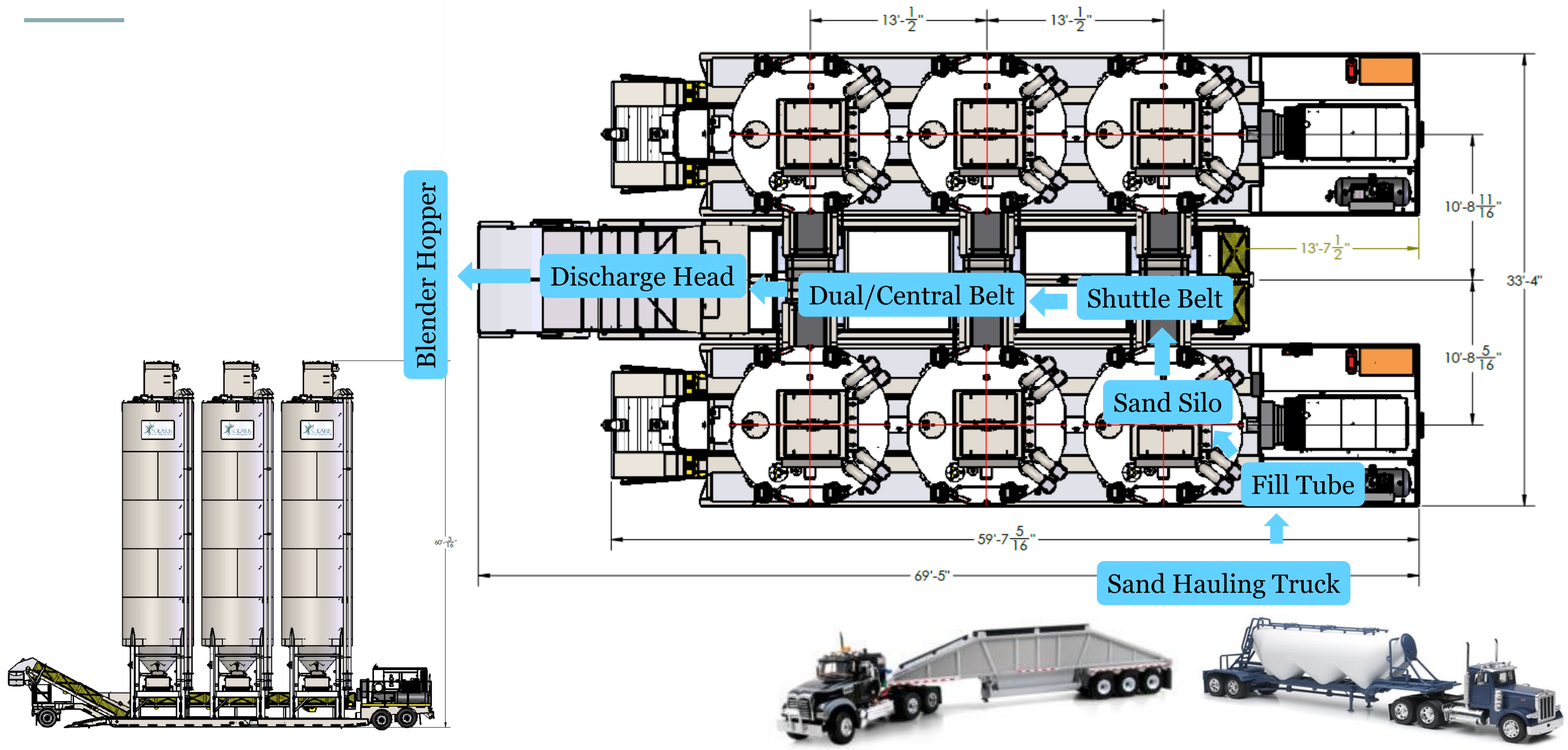
Simplify the number of touch points required to operate systems

Automate the operation to reduce personnel and unplanned logistics requirements

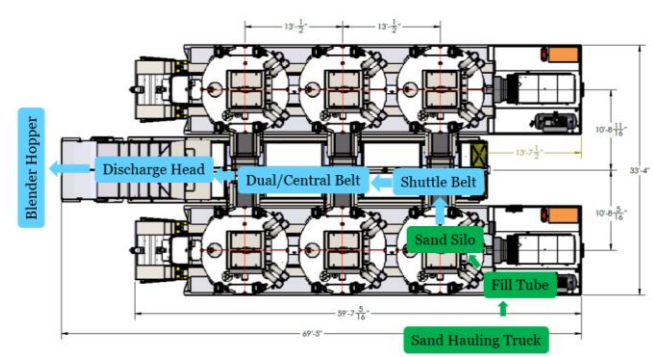
Streamline the wellsite footprint through an integrated operating system



The Proppant Path



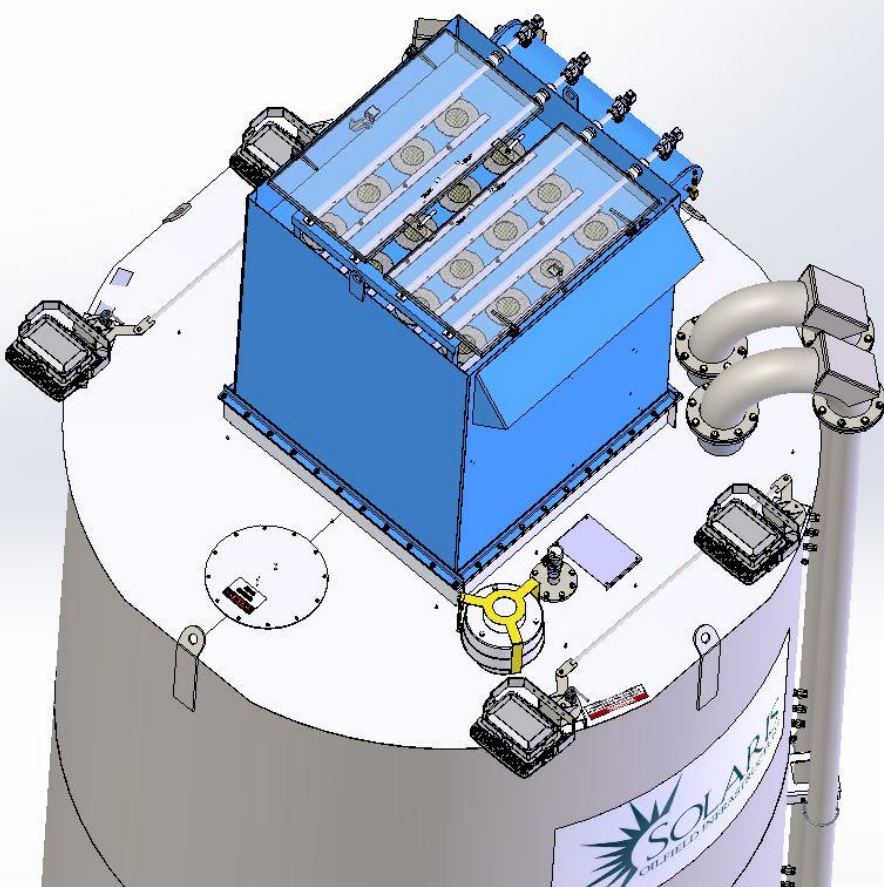
Engineering & Behavior Controls: Loading & Storage



Auto-closing fill tube caps



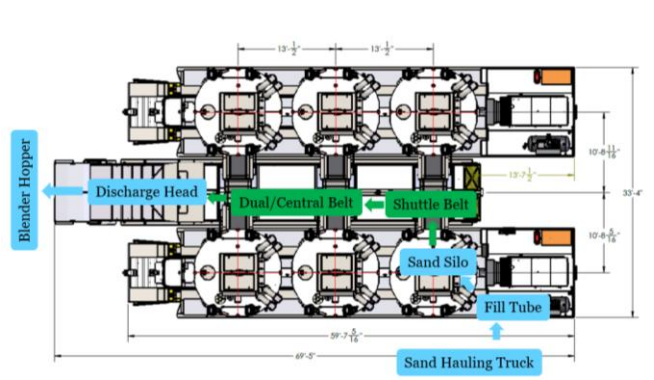
Silo Filtration Cabinets with Merv-10 Filters



Volume Sensors, Real-Time Inventory & Rate Management



Engineering & Behavior Controls: **Conveying**



Shuttle Belt Enclosures



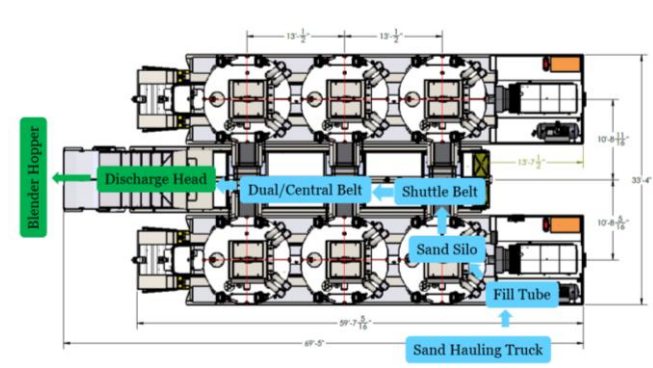
T-Belt Conveyor Enclosures



Hopper Enclosures

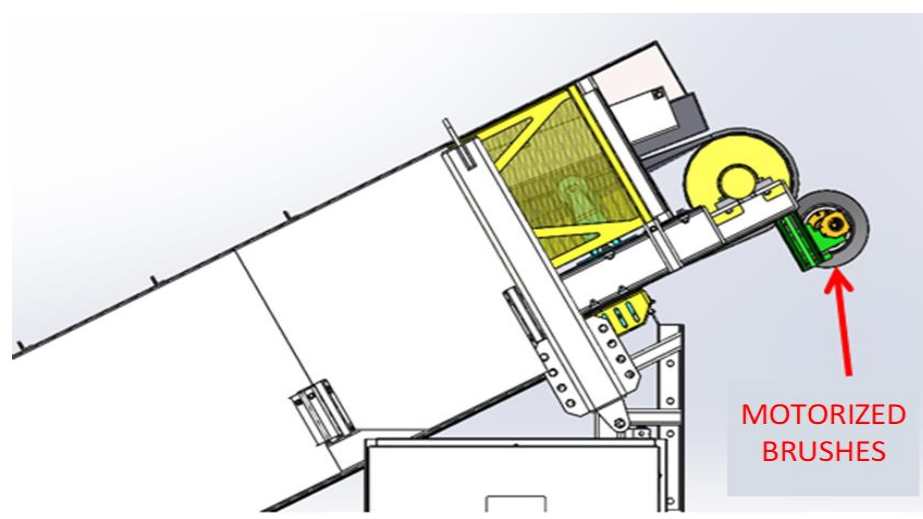
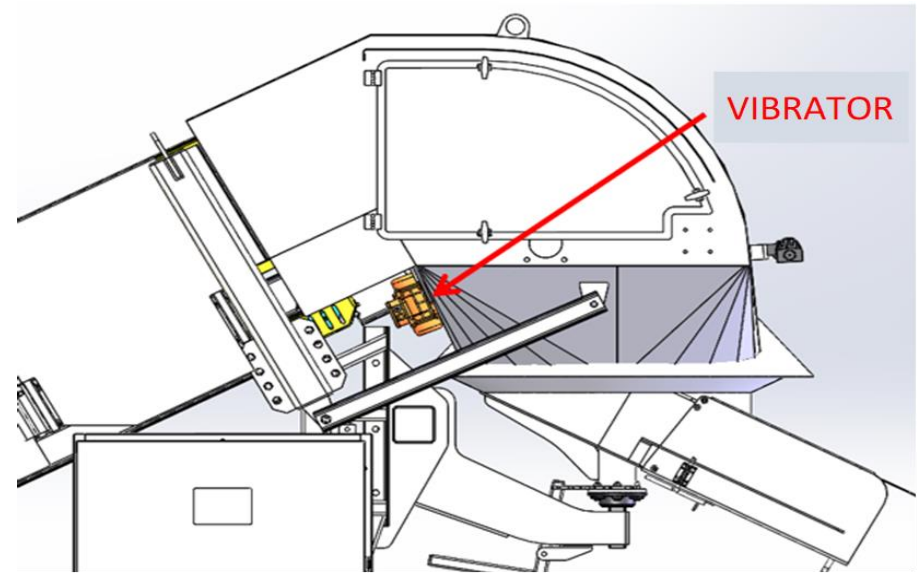


Engineering & Behavior Controls: Delivery

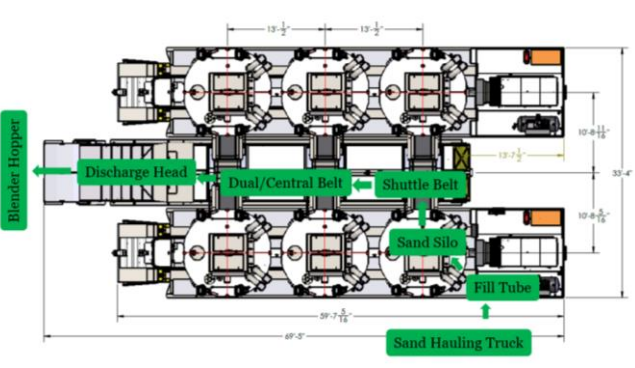


Enhanced Discharge Head

AutoHopper™ Remote Sand Operation



Engineering & Behavior Controls: Dust Collection & Filtration



Local Exhaust
Ventilation Unit (LEV)
with MERV-10 Filters

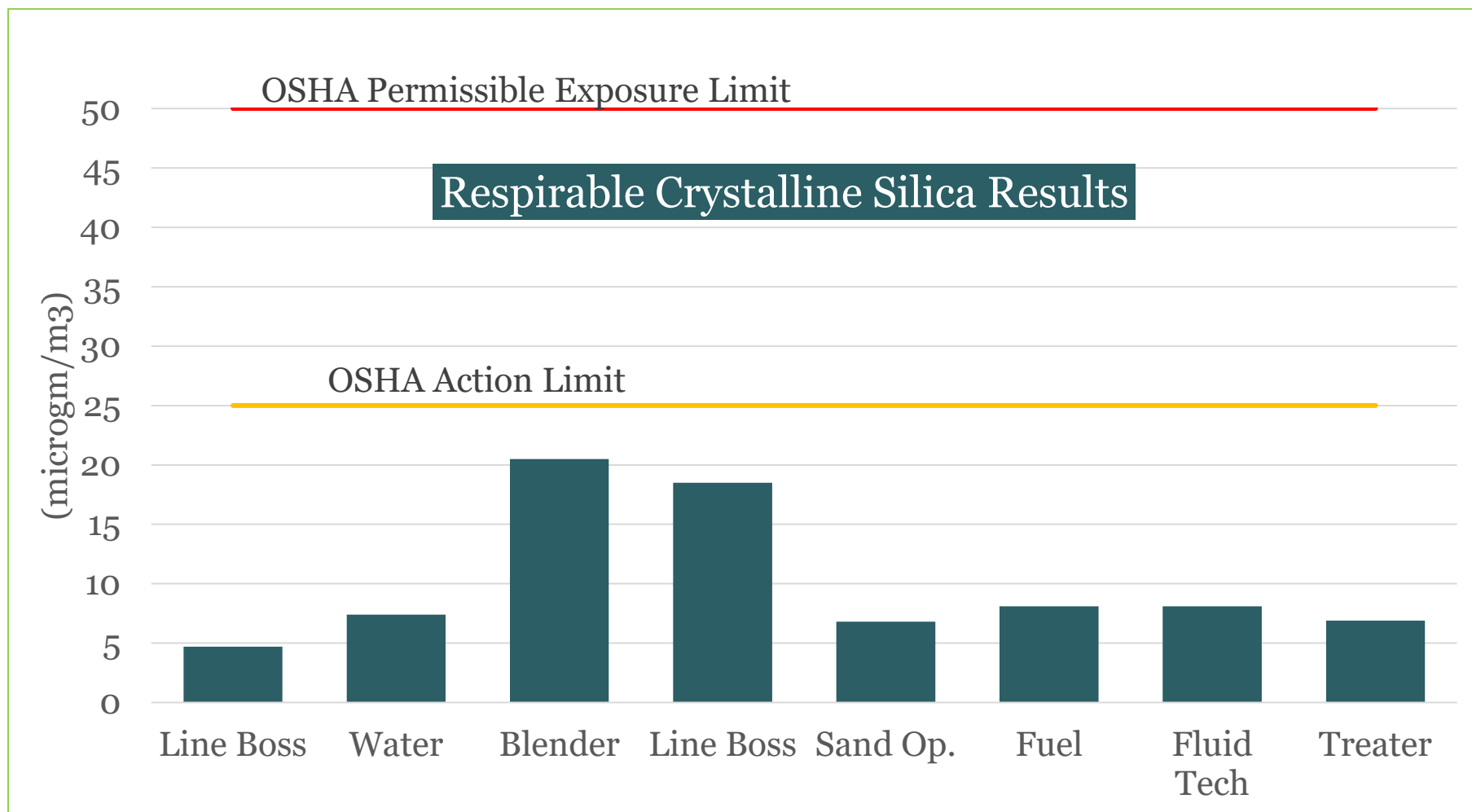


2nd LEV system on T-belt
conveyor

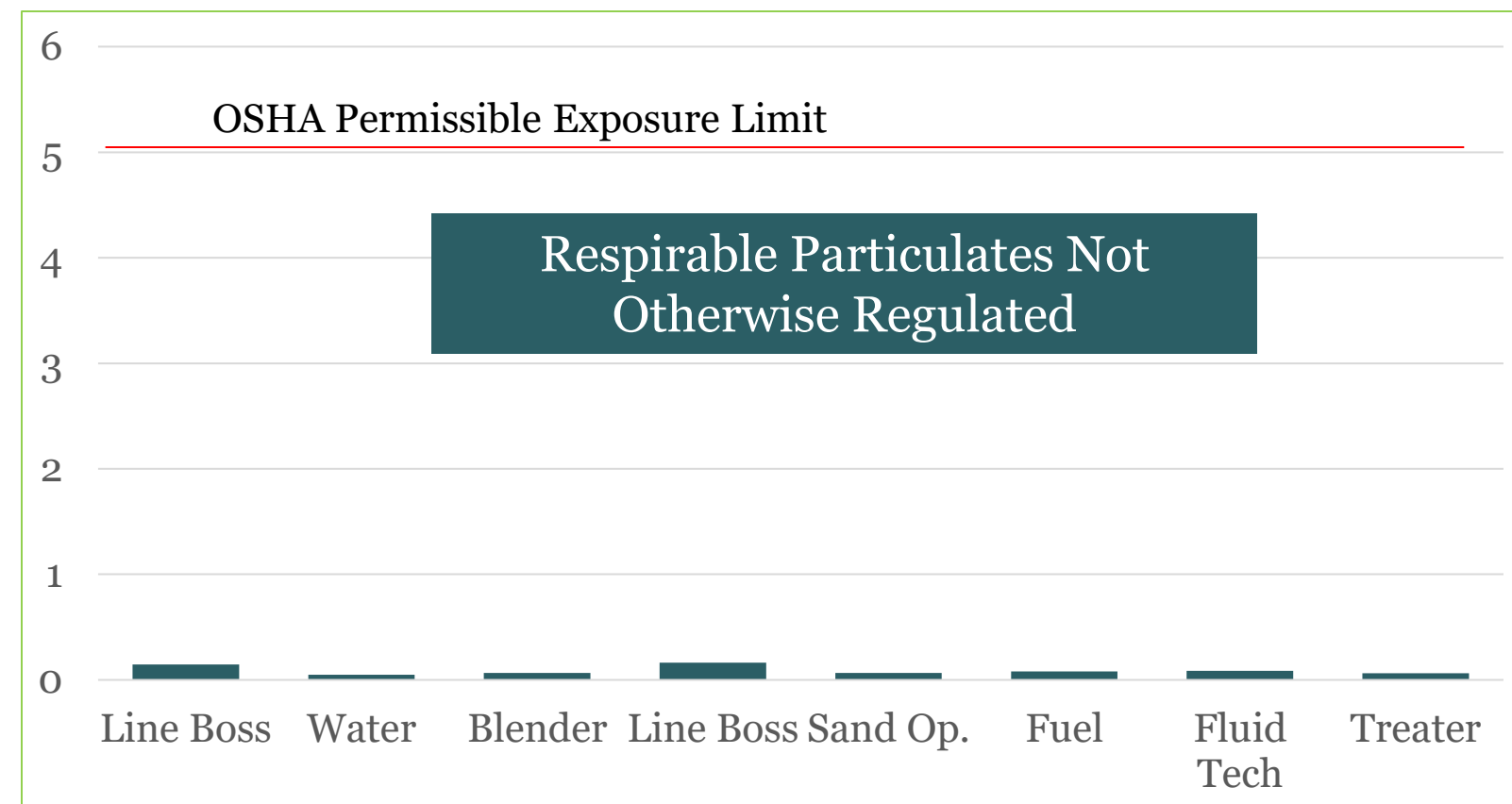
LEV's connected to each
other thru vacuum ducts



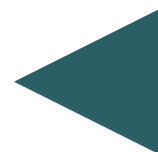
March 2021 Test Results



Solaris samples taken during February 2021's test all fell **below** both the PEL and Action Limits for Respiratory Crystalline Silica.



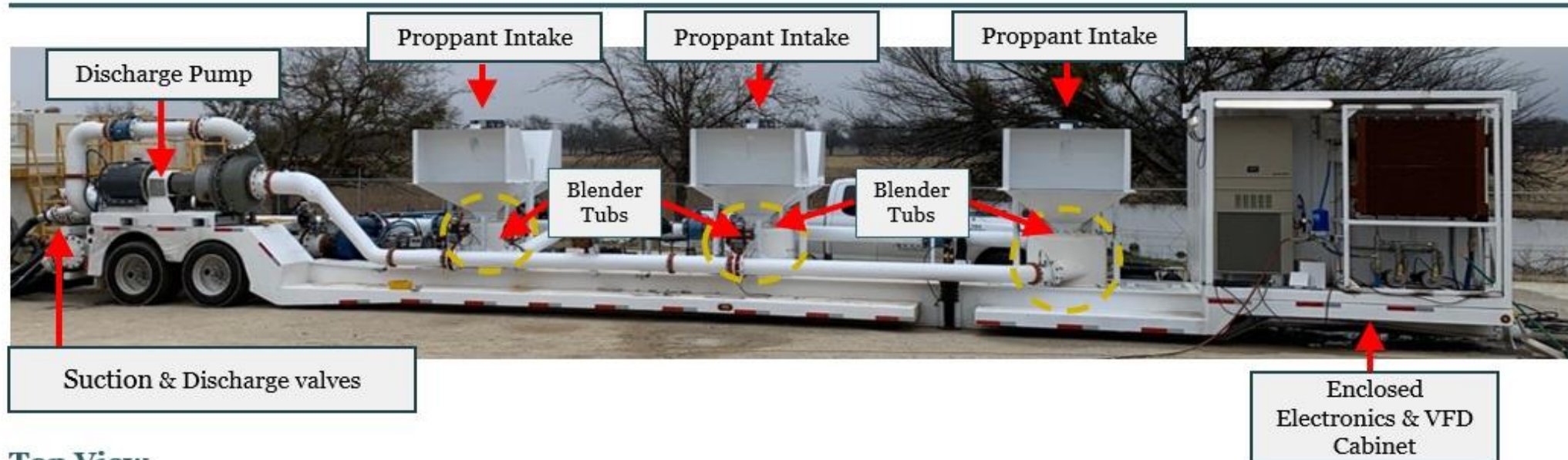
Solaris samples taken during February 2021's test all fell well **below** the PEL limit for Respirable Particulates Not Otherwise Regulated.



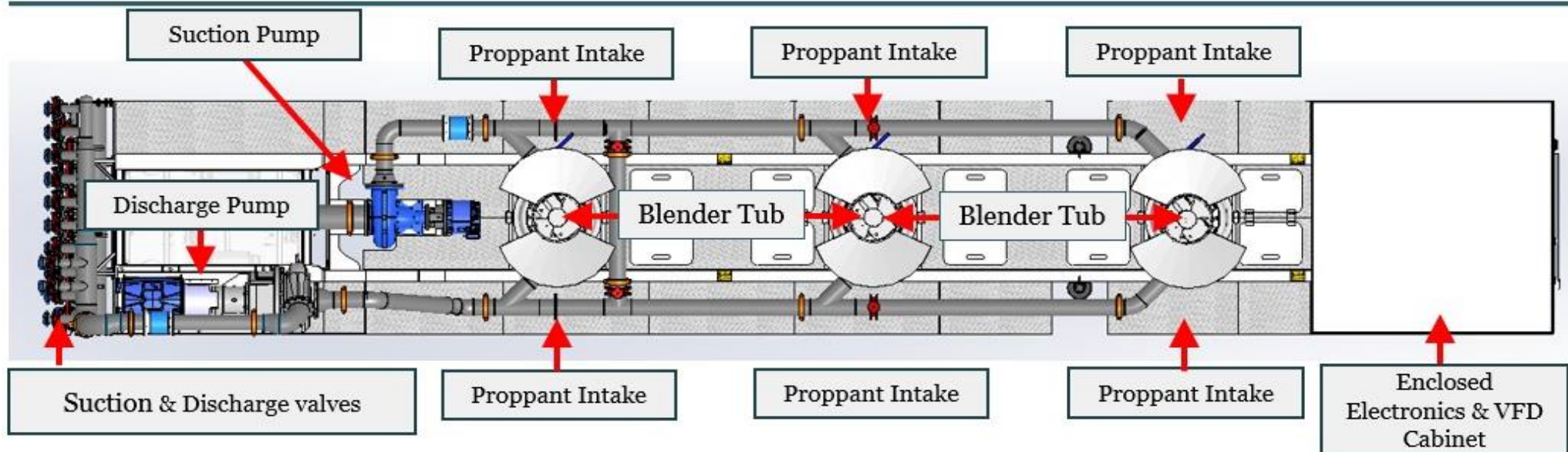
*Test results are site specific; results may vary depending on deployed engineering controls, field adoption of behavior controls, and ambient environment conditions

Solaris Integrated Solution

Side View



Top View

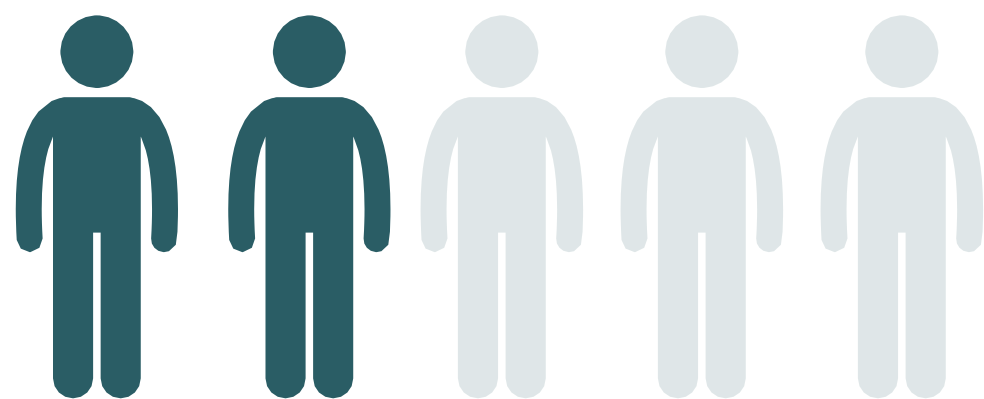
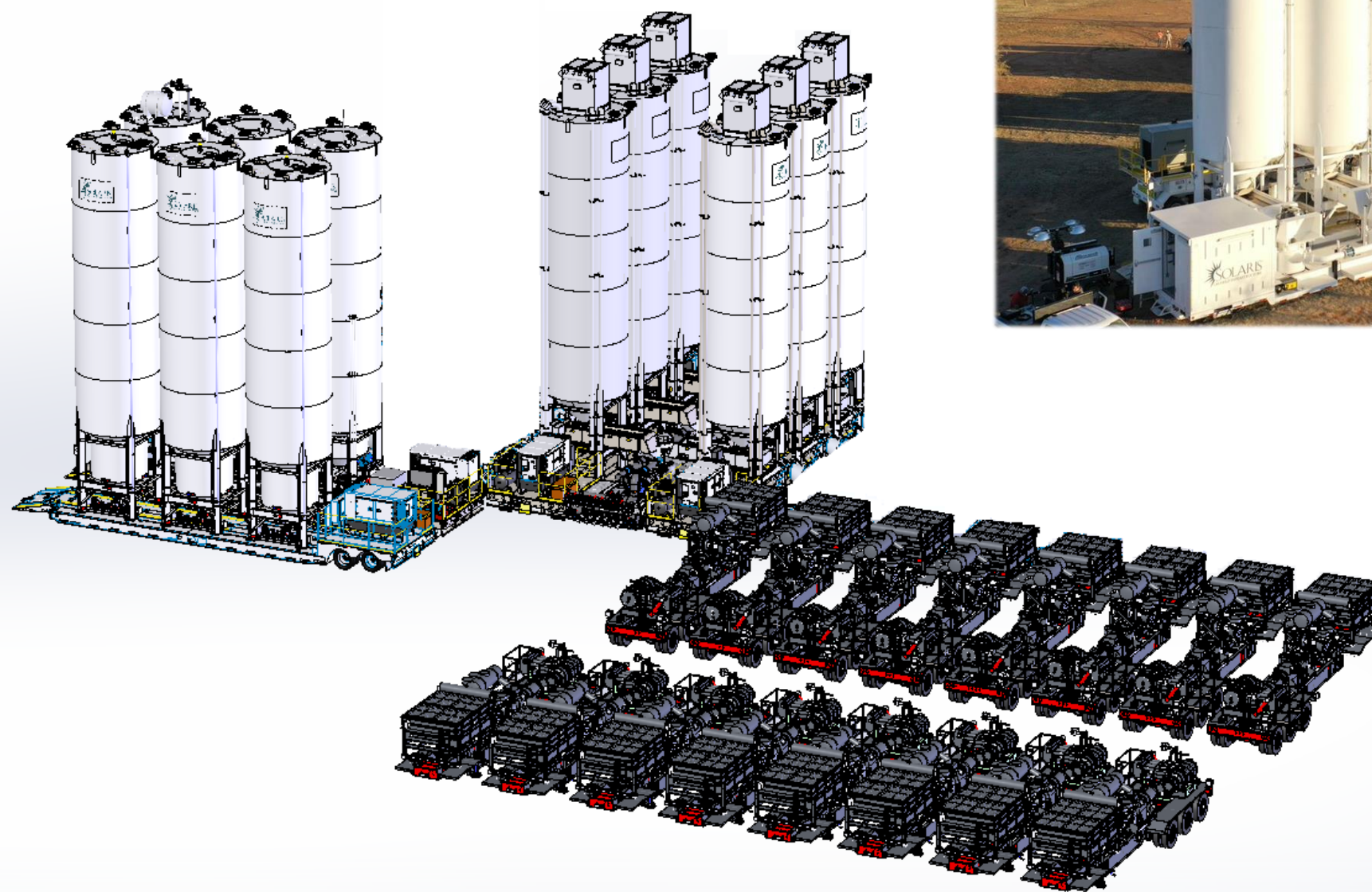


- 125 Barrels per minute
- 20k+ lbs/min sand ingestion per tub
- 3 blender tubs (Built-in redundancy)
- Dry and liquid additive capabilities
- Automated single integration control system
- Custom remote-control software
- All-electric design (800kW requirement)

Solaris Integrated Solution

- Eliminates T-belt conveyor
- Eliminates Hopper
- Eliminates Screws

- Automates Operation
- Integrates Sand, Water & Chemical Systems
- Reduces Dust & Silica



Reduce frac crew requirements by up to 60-80%

Compliance & Efficiency

All Electric System. Capable of using the same power source as electric frac fleets (turbine/grid).

Automated Operation. Machine-learning automation to reduce headcount and relocate operation to the safety of the data van.

Reduced Emissions. Reducing the number of trucks on the road by ~15% compared to competitors thru higher payload/truck.

Integrated Dust Control. Enclosed system with a Local Exhaust Ventilation (LEV) system & filtration system to capture silica fines and redistribute sand, improving safety for wellsite personnel.



ONE SOLARIS | ONE GOAL



FIRST IN SERVICE AND INNOVATION

