

In mid-January 2025, reps from about 15 E&P operators looked on as PropX executed an industry first – feeding a wellsite damp sand pile with a multi-mile slurry line designed for frac sand’s last mile.

We tagged along on a tour with a top E&P team to take it all in. Here’s what we saw and thought about it...

This was a closed-loop demo, not a live frac job. But PropX proved their point, the equipment and the technology during this demo of their prototype in our opinion.

Hydro transporting silica is common practice in mining operations, but with this demo PropX has launched the industry’s first slurry system for use in the oilfield to replace or augment trucking in frac sand’s last mile.

PropX’s Slurry Prototype Demo Was A Success

On ranch land leased near Big Spring, TX by PropX, their slurry technical team has been quietly figuring out and optimizing their patent pending slurry system for some time now.



PropX's dual leads on the technical side of this project are Ron Hyden & Kevin Gray. Ron is a frac industry veteran who worked for 33 years at HAL and 11 years at Southwestern before this gig, and he hosted us for the demo on site. His involvement instantly adds credibility – he's a frac industry veteran who's seen it all and came out of retirement to work on this because of the appeal of doing something revolutionary (he's also a great guy to spend time with... they just don't make 'em like that anymore). Ron's partner in development of this concept is Kevin Gray, a long time PropX operations guy.

The demo loop PropX showed off to potential customers and Infill Thinking last week is comprised of 2 miles of 10-inch lay-flat slurry line moving frac sand up and down a 50 ft. grade with ease.

This equipment was recirculating a stockpile of about a million pounds of sand that the company delivered to this location for test run purposes. They kicked off testing here in mid-December 2024.

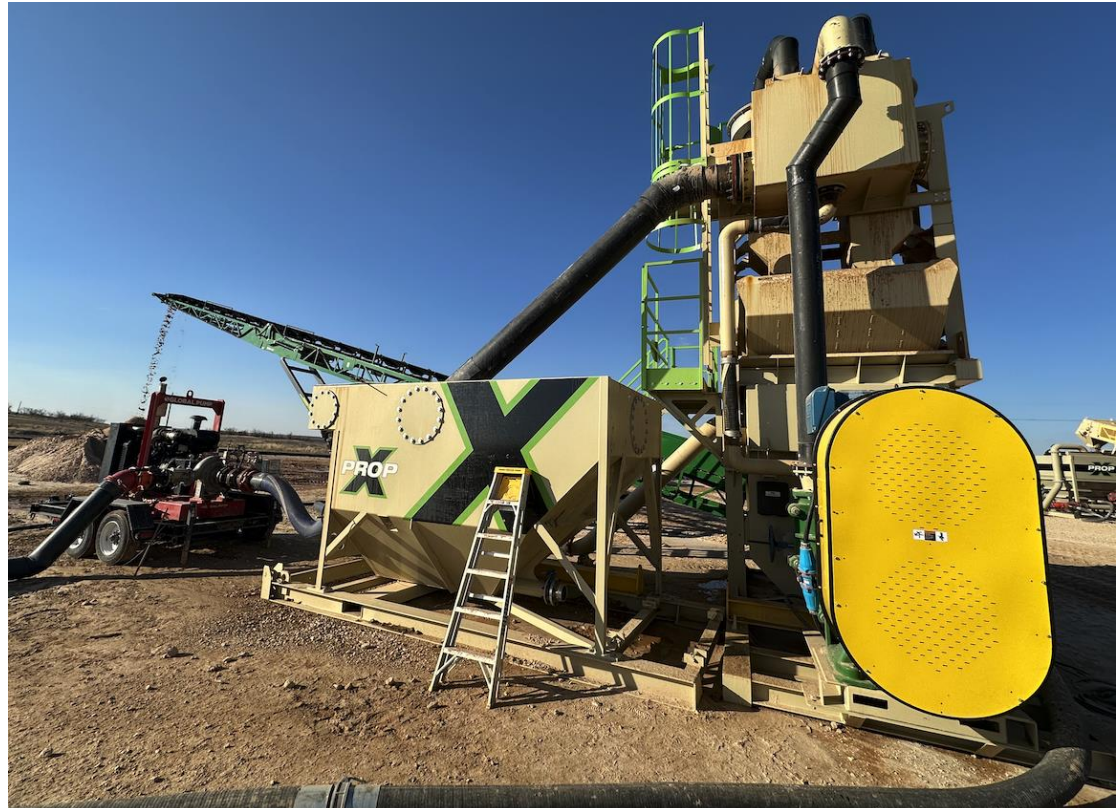
At the beginning of the line, PropX was using a front-end loader to put sand into a simple hopper / blender setup to feed the hose. Here's a picture we snapped on location.



There are plenty of twists and turns for the hose to navigate around the 2-mile proving ground PropX set up here, including 90 and 180 degree angles. The ops team purposely challenged the hose with sharp turns, kinks, and elevation shifts to evaluate the impact of possible real-life job scenarios.

The hose has high resin content for better pressure performance, and PropX was pumping a 2.5 lbs sand per gallon fluid at 65 bpm in the line during our visit. With this setup, the sand takes about 20 minutes to make the 2 mile journey from start to finish in the demo line.

At the end of the line sits a key innovation for water handling, which is something that makes slurring sand in wellsites different than on mining sites. To deploy the slurry concept in frac, PropX has developed a dewatering tower that is paired with one of their PropStack systems to make a damp sand storage / WIP pile at the wellsite. PropX says they are seeing sand delivered out of the tower with 10% moisture content into the pile. The end of line spread has a small footprint about the same as you'd see on any wet sand pile job and is pictured below.



The water is recycled out of the dewatering tower for reuse as the hosed sand's carrying agent. We expect a real-world application would also most likely recirculate fresh water to carry the sand as we saw in the prototype; however, PropX is discussing with potential customers multiple options for handling the separated water at the wellsite. These could include produced water or brackish water. We think produced brine would have more scrutiny (and maybe require more engineering) since the wet sand is piled on the ground and potential leaks would be higher impact with produced water in the line.

Notably the ops team here says that although they've run over 100mm lbs of sand through their demo system, which they willfully kinked, they have not worn out any hose yet. In fact, the hose sections they cut out of the working line to show tour participants exhibits no visible wear and tear.

All the components they are utilizing here are proven in other industry applications, but are being employed in a new operating envelope for this job. Everything they are doing here is a "first." That said, management says they see this system as tame, unsurprising, low maintenance, and consistent. "The math is consistent, the math is linear," Ron told us on location.

With Big Volumes Proven, Long Distances Are Possible

Importantly, this demo was delivering about 3,500 tons per day of sand to the end of the line – a level we visually confirmed during our visit and a level above average of most jobs today (see data trend of sand per crew per day [here](#)).

PropX believes they can double or even triple the capacity of this prototype on live frac pads with some modification in order to meet the most demanding operator requirements for delivery intensity.

Also importantly, the PropX team believes there really isn't a limit to how far this line could transport sand. As Ron Hyden told us on site, "it's not a question of how far we can pump, it's just a math problem of how many pump stations and miles of hose that you need."



What Next For The Slurry System?

The adoption of damp sand and wellsite piles combined with PropX's forward thinking are enabling factors that came together to finally get this concept off paper and into the field for a physical prototype.

Some benefits likely to attract customers with this system include cost savings, decoupling sand supply from trucking, automation and factory supply chain model, strong throughput, and ESG benefits from emission reductions and road safety improvement and public perception.

What's the next milestone going to be? We are looking for news about the first commercial deployment next as well as learning the answers to more open questions on everyone's mind at this early stage in this disruptive technology's life.

As PropX openly acknowledges, there is plenty more discovery to make here around use cases, adopters, economics, business models, addressable market size, and useful life. Here are a few questions still on our mind about what we saw:

- Who will the first customer be?
- What kind of site will they use it on?
- Does it make sense in all basins? We see strong potential use cases in the Permian where wet sand proximity mines are far along, the Barnett where frac'ing happens close to population centers, and the Northeast where trucking can be limited due to regulations.
- Does the E&P need to source from a proximity damp mine to make the economics work? Or could they use this for forward staging sand in sort of a hub and spoke model?
- What sort of business model will PropX and their customer employ – rental, operations, \$/ton delivered, etc.?
- What sort of land surface issues does such a deployment entail (i.e. will land owners require a volume tariff or a fixed fee to lay this hose across their property)?
- Can produced water be used or is fresh as carrying agent with return line the best option?
- A couple technical challenges that we can see popping up in the field (that we are sure PropX is thinking about) include:
 - the line walking,
 - turbidity buildup in the carrier fluid,
 - debris in the line (may install filter pods along the line?), and
 - decant pad run-off.

This PropX prototype is giving innovative E&P procurement teams a lot of food for thought.

This is the kind of solution that only comes along every once in a while – it’s a step change, an S-curve shift, and for the first time it appears to be technically viable.

As shale advances towards a “factory frac’ing” future, this is the kind of innovation that will get the most forward-thinking E&Ps developing big sections of contiguous acreage excited.

And because PropX has multiple other solutions under their operating umbrella for last mile (dry sand boxes, wet sand boxes, Scorpion, PropStack, etc.), they can offer early adopters of the slurry system peace of mind by providing a backup with their other solutions at least initially until the system builds an operating history on live jobs.

Our thought is that this concept will likely remain a niche *within* the damp sand niche for the near-term. And revolutionary ideas sometimes have longer sales cycles than incremental improvements to wellsite kits. But we have a feeling that PropX will have their first customer using this on a job during 1H2025. Lead time is short on equipment to deploy these units as they aren’t built with any exotic components.

We expect the system’s ability to eliminate trucks in the last mile on damp sand and optimize proximity mining already makes sense to cut costs for some frac jobs currently sourcing damp sand from in-field mines. On top of the cost savings, early adopters get to claim emission reduction / ESG benefits from burning less diesel in supply chain and clearing up the roads through innovation – a nice selling point to share with their investors.

So... we walked out of the demo wondering not *if* this will be deployed but who will be first, where, and how far it will go!

Finally, we look forward to seeing PropX have some fun on the road marketing this. Those who know the PropX braintrust know they are branding wiz kids who like to have some fun with their product promos. We can’t wait to see what catch phrase they are about to drop to promote slurry lines alongside their “I ♥ Boxes” stickers and Sand Scorpion themed Hawaiian shirts...