

Add New Services and Watch the Revenues Grow



• By *Scottie Dayton* | Cover Story | [June 2016](#) | Appeared in print as "Jace of All Trades"

From farming and swinging a hammer on a construction crew, New Mexico's Jace Ensor grew into a rewarding career with several specialties in the onsite wastewater industry.

Growing up on a farm taught Jace Ensor of Ruidoso, New Mexico, everything he needed to know about being independent. By age 20, he was married and foreman of a construction crew.

Three years later, he opened Ensor Construction in 1978. Ensor's attention deficit

hyperactivity disorder (ADHD) worked to his advantage, driving him to add profit-driven dimensions to his businesses whenever possible.

"It isn't always easy to step away from new adventures and focus on the basics," he says. "However, adaptability enabled me to survive while other contractors succumbed to economic downturns."

Today, Ensor's Mountain Top Inc. installs, repairs and maintains residential onsite systems. In preparation for branching into installing and managing decentralized systems, Ensor earned a Level 3 utility wastewater operator license (Level 4 is the highest). Last year, he formed Sun Snow Development and built a composting facility to produce Class A biosolids.

Ensor attributes his success to wife Jan's unwavering support; his talented office manager, Nanci Swanner; and living in a mountain resort community in the middle of New Mexico. "We have more advanced treatment units per square mile than anywhere else in the state," he says.

CHANGING TIMES

Building houses was a wonderful life for Ensor until the 1981 recession crippled the market. He noticed that real estate agents always received commissions whether homeowners or contractors made or lost money. Ensor became a licensed Realtor in 1982 and joined a residential real estate franchise. "I despised wearing a coat and tie and working in an office," he says. He relinquished his license in 2001.

As the economy recovered, Ensor returned to building houses until he burned out in 1997. Friends rescued him as he searched for another source of revenue. Excavation contractor Mark Hughes mentioned the price of precast septic tanks had increased from \$350 to \$450, but the cost of concrete hadn't changed. Tom White, another contractor, knew of a precast company in Santa Fe selling 20-year-old molds.

Ensor gambled on the opportunity and bought a set of 1,200-gallon molds. The first tank took a day to pour. To ensure quality, Ensor purchased concrete from the local ready-mix plant. "Mark installed one tank a month and was my ready-made market. I charged him \$400 and made \$175 with a lot of effort."

Three months later, Ensor was selling and setting tanks for homebuilders, and purchased two sets of new 1,250-gallon molds from Taylorsville Precast Molds. To help ramp up production, White offered some land next to the concrete plant. (Ensor purchased the property in 1999.)

At an auction, Ensor bought a Pitman corner-mount crane truck designed for setting telephone poles. Its deck was just large enough to stack the tank halves upside down, but it served as the company's delivery truck until Ensor replaced it with a Ford L8000 flatbed truck and National knuckleboom crane (Manitowoc Cranes). Then he added a Lorain MCH350D 35-ton hydraulic truck crane capable of setting septic tanks 80 feet away.

ADVANCED SYSTEMS

Although busy, Ensor still accepted odd jobs. In 1999, a homeowner asked him to add more bedrooms to a three-bedroom home he had built. "I had no idea what septic systems were because I'd always hired people to install them," he says. Ensor was about to find out.

State inspector Carl Stubbs caught the now noncompliant system and told Ensor to install an aerobic treatment unit. "Nobody knew how to install them because the state had just approved them," says Ensor. Sensing an opportunity, Ensor received training to install ATUs and completed the job. Then he installed a second unit on a lot with no suitable soils.

"Lincoln County is unique, with Ruidoso soils — clay loam or silty clay loam above clay — on valley floors between very steep rock outcroppings," says Ensor. "As conventional systems failed, ATUs were their salvation."

Ensor soon switched to MicroFAST systems (Bio-Microbics) with nitrogen reduction, and became a distributor. In 2005, he added a Taylorsville half mold to pour the top or bottom of 3,000-gallon tanks. Today, worker Chris Anaya casts 120 assorted tanks annually. Sales and installations account for 30 percent of the company's total revenue.

Until 1999, 30 area earth-moving contractors each installed two or three conventional septic systems annually. Many dropped out when ATUs hit the market. "Specializing in onsite systems was a new concept," says Ensor.

In 2001, he earned his installer's license, bought a Caterpillar 416C-IT backhoe, and opened Mountain Top. State code enabled Ensor to design systems, and the

building boom made ATUs a massive part of his income. "Instead of dirt contractors buying septic tanks from me, they purchased FAST units that I install and service," he says.

Today, the crew installs 25 residential aerobic systems per year, down from 50 at the company's height. Annually, they replace 12 conventional systems. Nearly all replacements are FAST units discharging to chambers or EZflow bundles from Infiltrator Water Technologies.

The state requires maintenance agreements for ATUs. Inspections and effluent monitoring happen twice a year, and Mountain Top services 400 contracts. Swanner generates the monthly list of systems to inspect, then employees Sam Blatchley and John Wright visit them and do authorized repair work.

DEWATERING FOCUS

As the service provider branch expanded, Ensor purchased a wrecked Mack KSA septage dewatering truck (Simon Moos Mfg. A/S, Clearwater Cleanup Co. distributor). He spent 2004 rebuilding components and added a Jurop/Chandler R260 pump in 2016.

The KSA, in the 22nd year of its 20-year life span, has a 1,200-gallon steel vacuum tank, 3,000-gallon dewatering compartment and 900-gallon filtrate (reject water) compartment. The truck is too large for tight locations, so Ensor bought an Isuzu portable sanitation truck with 1,500-gallon steel tank (Keith Huber Corp.), removed its baffle wall and created an agile septic truck.

"I can pump seven tanks, mostly ATUs, with the KSA," says Ensor. "After cleaning the last tank, I retain 500 gallons of filtrate for the washout and to reconstitute the 2.5 percent solids for discharge at the Carrizozo Wastewater Treatment Plant." Ensor and Patrick Hansel, who helps two or three times a week, pump 150,000 gallons/year. The truck dewateres septage to 60,000 gallons, or 20 loads.

Rehydrating cake (dewatered solids) defeated the truck's purpose and irritated Ensor. So did paying the municipal plant's \$384 tipping fee. In 2015, he formed Sun Snow Development, bought 20 acres, and built Three Rivers Composting to produce Class A biosolids. His nearest neighbor is a horse farm a half mile away.

The facility has a 100- by 100-foot plastic-lined pit bedded with 24 inches of compacted native sand. A local company delivers 100 cubic yards of wood chips, then Ensor forms a 30- by 15-foot "bathtub" in the center with a John Deere 6944AB wheeled loader. He also has a Cat 277B multi-terrain loader for use at the compost facility.

Every two days, they dump a load of sludge. "That's when the flies emerge," says Ensor. "They're after the moisture, but disappear as we blend the chips and sludge with the loader and form a windrow. It's amazing how effective wood chips are at managing odors and flies."

Windrows remain in the pit until composted, as there is adequate room for mixing and storing. When the time comes, Ensor owns another 20 acres for expansion.

The facility is still too new to produce marketable Class A biosolids. Furthermore, municipal wastewater treatment plants give away their biosolids. "New Mexico has an abundance of them and not enough takers," says Ensor. "Currently, our operating costs are identical to the tipping fee, but as pumping increases, we'll make money on the receiving end and donate product to farmers."

SERVICE MENU GROWS

To increase pumping, Ensor branched into portable sludge dewatering. He bought a roll-off truck, a 20-cubic-yard roll-off container and an Envirotube dewatering bag (Industrial Fabrics). Processing material on site enables small municipal

wastewater treatment plants to eliminate their sludge holding tanks and associated costs.

"We're still developing this market," says Ensor. "We pump sludge from a 12,000 gpd facility, blend in Superfloc polymer (Kemira), then send the mixture to the Envirotube in the container. A pipe returns filtrate to the headworks and the cake goes to Three Rivers."

Another pumping venture Ensor began last year is a voluntary annual inspection program for owners of conventional septic systems. It's designed to overcome the "flush and forget" mindset and promote proper maintenance. "I despise telling homeowners that pumping their tanks five years ago would have saved them spending \$10,000 to replace the system," he says.

Ensor and Hansel mention to customers that for an annual fee of \$75, they will open the septic tank, clean the effluent filter, measure the sludge, check for concrete deterioration and provide a written report. "More than 50 percent of the people we talk to sign up," says Ensor. The company recently hired Chad Swanner, Nanci's son, to create a customer database of completed home inspections that will be used to promote the service.

KEEP IT GOING

With the residential side of the business rolling along, Ensor felt comfortable testing the feasibility of commercial work. "As developers grapple with small lot sizes and poor soils, decentralized systems are becoming more attractive," he says. "I want to install and manage them."

At age 60, Ensor has too many plans and is far too busy to contemplate retirement. His biggest challenge is maintaining the business at a manageable size when all it does is grow. However, the farm boy knows that adding one more cow at a certain point will tip the delicate balance between financial stability and overexpansion.

Pain, pain, go away

Heavy physical work in the Ruidoso, New Mexico, building and onsite trades exacerbated neck and low back injuries Jace Ensor suffered as an adolescent.

In 1994, the disc between vertebrae C6 & C7 at the base of Ensor's neck ruptured for the second time. Surgeons replaced the disc with bone chiseled from his hip.

By 2010, Ensor was in chronic pain from the damaged disc in his lumbar region. Surgeons at the Laser Spine Institute in Tampa, Florida, removed the disc, opened nerve canals and eliminated pain sensors no longer needed by adults.

"After that, I felt great for the first 15 minutes of each day, then had to chase the pain with ibuprofen," says Ensor. "When a pressure point on the sole of my left foot acted up, I knew it was time to take the next pill."

Monthly visits to a chiropractor and the back exercises he recommended hastened Ensor's improvement. "I was under the impression that the physical work I did more than compensated for an exercise program," he says. "I learned that wasn't true. Certain exercises strengthen the abdominal, buttocks and hip muscles. When they're strong, they support the spine, keep it in alignment, and facilitate movements that extend or twist the back."

Ensor committed to a 10-minute exercise routine every morning. He does 50 bent-knee sit-ups, 40 back arches and 40 standard pushups. After three years of exercising, he's pain free and no longer needs ibuprofen. "Although I don't know why, even my neck has improved," says Ensor. "I would advise an exercise program to everyone."