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IN THIS ISSUE

July 2015



10 Reading Between the Lines: **Something Shiny and New in Your Garage?**

The NTEA Fleet Purchasing Outlook shows work truck buyers are slowly and steadily updating equipment, not so worried about alternative fuels or engine technology. - Jim Kneiszel. Editor

14 Letters:

Pondering Point-of-Sale Inspections

Readers relate when the Answer Man calls for thorough real estate inspections to protect homebuyers and build respect for the septic services industry.

20 @pumper.com

Check out the latest online-only content at the Pumper website.

32 Building the Business: Look Bevond Your P & L's

The long-term success of your business depends on more than your profit and loss statements. Look at these factors to determine how you're doing. - Howard Hyden

36 Rules & Regulations

Louisiana Supreme Court: Restroom rentals and service won't be taxed in Louisiana. - Doug Day

40 Tool Time

Oregon pumpers Jeff and Debbie Coe look for accessories that will save time and prevent injuries for their hardworking crew. - Dee Goerge

50 NAWT News

Submit nominations for the Excellence in Service Award. - Dhru Bhatt

52 WWETT Spotlight

New series of Tigerflex Solarguard hoses reduce harmful UV damage. - Craig Mandli

56 Vacuum Pump & Blower Directory

62 Overheard Online: **Excavating Grit and Sand**

Perforated pipe at the tank bottom causes problems with a pressure system. Can I cut it off?

24 **Getting Schooled**

Ken Wysocky

Pennsylvania's Regan Wilson parlayed his training as a mechanic with industry networking at the WWETT Show to build a thriving new pumping business.

ON THE COVER: Five years into his business, River Valley Septic Inc. marketing-minded owner Regan Wilson has built a large clientele. Part of the reason for his success is the many lessons learned at the Water & Wastewater Equipment, Treatment & Transport (WWETT) Show. Wilson is shown with his workhorse vacuum truck, a 2002 Mack with a Jurop/ Chandler pump built out by National Truck Center. (Photo by Jane Therese)

64 Pumper Interview: **Safety Training Toolbox**

Frequent tailgate safety sessions will help ensure your crews make it home healthy and happy every night. - Doug Day

66 Money Manager: The Uncertain Future of Section 179

Generous temporary tax deductions help small businesses offset the cost of new equipment. It's anybody's guess if they will continue for 2015. - Erik Gunn

70 State of the States: **Changes Coming in Michigan**

Preserving land application and retooling the sanitary code are on the agenda for two state wastewater associations. - Doug Day

74 Classy Truck of the Month

We feature Zeiter's Septics Unlimited Inc., Morris, Illinois

78 Septic System Answer Man: Lagoon Maintenance 101

Sewage treatment ponds are a popular onsite solution in select rural areas. What should you tell a homeowner about care for a lagoon system? - .lim Anderson

82 Associations List

86 Product Focus: Pumps and Blowers - Craig Mandli

88 Product News

Product Spotlight: LiftGator promotes safer, more convenient equipment transport. - Ed Wodalski

90 Industry News

Coming in AUGUST

SPECIAL ISSUE:

VACUUM TRUCKS-TRUCK BUILDER

- CONTRACTOR PROFILE: Customer care in Washington state ■ SEPTIC SYSTEM ANSWER MAN:
- Solving graywater challenges



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Jim Florv

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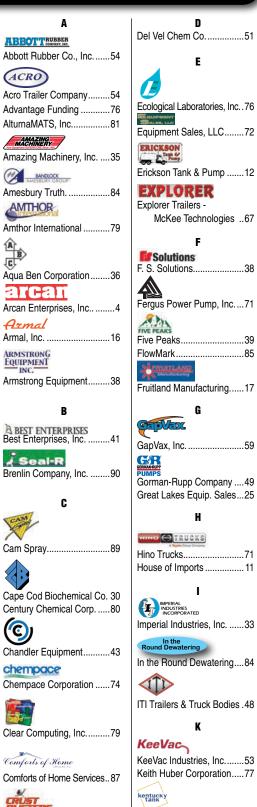


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ADVERTISER index.....

兪

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Crust Busters/Schmitz Bros...81 Kentucky Tank, Inc.17 Key Commercial Corp.80 Klear it Kone22 L LANE'S VACUUM TANK, INC. Lane's Vacuum Tank, Inc....90 Lenzvme Lenzyme/Trap-Cleer4 CLMTinc. LMT, Inc......83 Longhorn Longhorn Tank & Trailer4

July 2015

М **ES larsh** Masport Masport, Inc.....3

Mid-State Tank Co., Inc.60 <u>M</u>?P

Milwaukee Rubber Products..68

m moro Moro USA, Inc.....7

Ν NationalTruckCenter National Truck Center......15 NVE

National Vacuum Equipment...21 NAWT. Inc......84

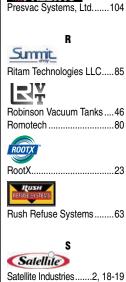
Λ Oakmont Capital Services..87

People's United Equipment Finance Corp......48 pikrite Pik Rite, Inc.65

POLYJOHN' PolyJohn Canada60 POLYJOHN" PolyJohn Enterprises......103

Polylok, Inc./Zabel77 POLYPORTABLES PolyPortables, LLC......55

PL POWER BOOSTER Pressure Lift Corporation....62



PRESVAC

SchellVac Equipment, Inc...45

Screenco Systems, LLC 67

Rest. Septic Services, Inc......31 THE SLIDE IN Slide-In Warehouse68 Specialty B Specialty B Sales......91 Stamp Works 12

Surco Surco® Portable Sanitation Products47

Sweet Septic Systems......52

T&T Tools, Inc......34





T.S.F. Company, Inc.....73 Tank World Corp.....76 TankTec

TankTec37 T

Transport Truck Sales, Inc..69 FANEWAY

Transway Systems, Inc.....5 Truck Country80 TSI

TSI Tank Services, Inc......34

Ш Ultra Shore89



Vacutrux Limited81 vs Vacuum Sales, Inc......85

VARCO VARCo.....61

Verizon Networkfleet......9 w

WALEX Walex Products, Inc.....13

wallenstein Wallenstein Vacuum Pumps/ Elmira Machine......72

WATER Water Cannon, Inc.....102

WF Wee Engineer, Inc.22 Conde

Westmoor Ltd./Conde......27

Classifieds.....94 Marketplace......92



REGIONAL

ADVERTISERS

Midwest Supplement

(after page 74)

Advance Pump & Equip......1

Centerline Tank & Trailer2

Crescent Tank Mfg.....1

Advance

CRESCENT TANK MFG.

Fabricated

Crescent Tank Mfg.....1

Marengo Fabricated Steel 3 Mid-State Truck Service1 RA ROOM NE. MO.

R.A. Ross & Associates NE..4

V&H Inc......4 VSE Vacuum Sales, Inc.....2



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Contact Jim with your comments, questions and opinions at editor@pumper.com.

Something Shiny and New in Your Garage?

The NTEA Fleet Purchasing Outlook shows work truck buyers are slowly and steadily updating equipment, not so worried about alternative fuels or engine technology By Jim Kneiszel, Editor

t's that time of the year when you're getting a good handle on the needs of your equipment fleet. By July, you've been working your trucks their hardest for several weeks and you know whether they've got the capacity and the reliability to serve the needs of your growing pumping company.

Are you satisfied that your vacuum trucks are showing the durability you need, or are you worried that one or more of your daily route workhorses might let you down and wind up in the shop? Is your current work truck roster handling the demand for your services, or are you having to juggle appointments and schedule new pumping customers further out than you would like?

Let's face it. You have to make hay while the sun shines, and you can't afford to run without your major revenue-generating trucks for any period of time in the summer. You also can't risk your reputation for prompt service by putting off customers when they call because you just can't put enough rigs on the road.

STEADY IMPROVEMENT

If you're having a great year so far, congratulations! Your pumping business seems to be mirroring a trend across North America. The long arc of economic recovery is showing a steady strengthening of the market for all work trucks, according to the 2015 Fleet Purchasing Outlook released by the NTEA, the Association For the Work Truck Industry.

The annual NTEA report shows trends that may help you as you consider new truck purchases to encourage growth and bring stability to your pumping business for this year and beyond. While the survey responses work across all industries that utilize work trucks – both in the public sector and among private service providers – they touch on some interesting trends in fleet-buying habits.

In a nutshell, there is evidence that work truck fleets are getting newer, and a large percentage of companies are contemplating major purchases. Also interestingly, companies are moving toward providing their own vehicle maintenance rather than hiring outside mechanics. And perhaps not surprisingly, the interest in alternative-fuel truck technologies has waned a little with falling oil prices.

"Given the steadily improving business climate, fleets are optimistic regarding purchasing plans. With available funding tracking even higher than last year, replacing older vehicles and exploring new truck productivity technologies appear to be key priorities," Steve Carey, NTEA executive director, said in the survey introduction.

For perspective, respondents to the NTEA survey skew larger than the average pumping company. Only 6 percent of those surveyed have a fleet of less than 10 trucks. Companies with 10-50 trucks represent 21 percent of respondents, while 25 percent of the companies have 101 to 500 trucks. The big-

Folks who expect a permanent decline in fossil fuel prices have a short memory or a poor grasp on the worldwide economic situation. You may not see a Tesla vacuum truck chassis in your garage anytime soon, but you better be open to exploring alternative fuel options when they come.

gest number of responses (43 percent) came from government fleet operators, while delivery/cartage (14 percent), construction (11 percent) and other (13 percent) might more closely fit service providers in the pumping industry.

THE SURVEY SAYS

There are some trends that would interest prospective truck buyers in the liquid waste industry. Consider these:

Truck fleets are getting newer

In 2014, 46 percent reported an aging fleet. That number shrunk to 39 percent in the 2015 survey. The majority of work trucks across all types of businesses (60 percent) are currently 5-10 years old. The number of trucks less than 5 years old actually declined a little, to about 20 percent this year. For companies running 10 trucks or fewer, the number of trucks less than 5 years old jumps to 36 percent. Interestingly, only companies with fleets of 51-100 trucks reported an average truck age of more than 20 years.

For 2015, 29 percent of respondents said they are exceeding their normal replacement cycle for trucks by one to three years. That compares to 33 percent in 2014. This indicates that companies are chipping away at the problem of aging fleets.

Companies are in the mood to update

Overall, 33 percent of respondents said they are looking to expand fleets this year, up from 30 percent in 2014 and 28 percent in 2013, indicating a slow but steady recovery. Another 59 percent said fleets will remain the same size. Private construction-related companies reported more plans to purchase, to a tune of 64 percent, up from 54 percent in 2014. By contrast, only 17 percent of municipal fleets expected to make a purchase in 2015. All told, 69 percent of respondents across the board expected to either maintain the same rate of truck buying or buy additional trucks in 2015 over 2014.





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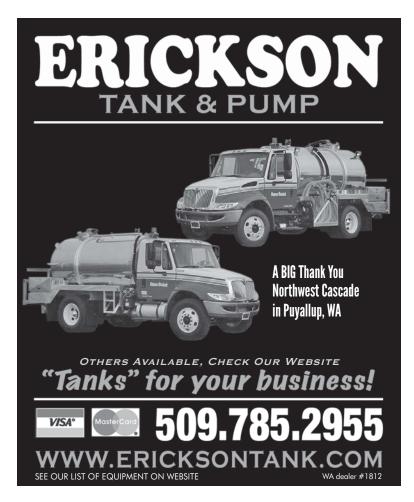
Do you have an educational message to share with other pumping professionals? Why not propose bringing it to the biggest stage in the wastewater industry, the Water & Wastewater Equipment, Treatment & Transport (WWETT) Show?

COLE Inc. is accepting proposals for seminars to be presented at the 2016 WWETT Show, slated for Feb. 17-20 at the Indiana Convention Center in Indianapolis. Proposals must be received by Aug. 1. The Call For Papers forms may be completed online at www.wwettshow.com/cfp. Or the forms may be filled out and sent by email to Julie.gensler@colepublishing.com, or mailed to Julie Gensler, COLE Inc., P.O. Box 61, Three Lakes, WI 54562.

Submissions are being accepted covering these topics:

- · Septic collection, treatment, and disposal
- Grease collection, treatment, and disposal
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The seminars should be 60 minutes long and cover topics in a neutral, nonproduct-specific point of view. Speakers whose submissions are accepted will receive four full-registration passes to WWETT 2016.



Buying rather than leasing

Outright purchasing of work trucks has been on the rise since the 2013 Outlook. This year, 72 percent of fleet buyers said they would do so through a direct purchase, while 15 percent said they planned to lease vehicles and the remaining 13 percent said they would utilize a combination of both purchase and lease options.

More fleet owners are turning a wrench

Most fleet owners are performing at least some of their truck maintenance in-house, and the trend is growing. For 2015, 80 percent of fleet owners reported doing their own truck maintenance, up from 71 percent in 2014. At the same time, 44 percent reported taking vehicles to outside mechanics, a number that's slightly down from 2014.

Alternative fuels fell out of favor

Interest in new technologies aimed at fuel conservation is flagging, most likely due to dramatic oil price drops that peaked at the start of the year. Interest in ordering new trucks with improved fuel economy as a priority has flattened out, from 65 percent in 2014 to 64 percent of buyers this year. A drop in alternative fuel usage, from 37 percent in 2014 to 24 percent this year is another indicator that lower fuel prices are having an impact on technology.

When buyers show an interest in alternative fuel technologies, they are most interested in compressed natural gas, E85, biodiesel and electric hybrid, though interest was down over both 2013 and 2014. When they explore alternative fuels, fleet buyers are most motivated by an expected reduction in operating costs (66 percent), initial acquisition costs (63 percent) and anticipated decline in life cycle costs (58 percent).

FORWARD THINKING

The NTEA Outlook leaves me with a few conclusions for the pumping industry:

First, time marches on, and haulers must march along with updated rigs if they want to maintain optimal efficiency in the field. Figures showing trucks in most small fleets are in the 5- to 10-year-old range seem about right. But when I talk to busy pumpers, they tell me newer is better when it comes to vacuum trucks; that an older service truck is more likely to suffer a breakdown at just the wrong time.

Second, interest in alternative fuels and hybrid or electric technologies might be down right now, but we'll be talking about them again when the cost of gas and diesel inevitably rises again. Folks who expect a permanent decline in fossil fuel prices have a short memory or a poor grasp on the worldwide economic situation. You may not see a Tesla vacuum truck chassis in your garage anytime soon, but you better be open to exploring alternative fuel options when they come.



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The following are letters responding to Jim Anderson's *Septic System Answer Man* column (February 2015) covering point-of-sale real estate inspections. You can reread Anderson's column by following this link: http://www.pumper.com/editorial/2015/02/promote_real_estate_point_of_sale_inspections_to_protect_your_customers

Pondering Point-of-Sale Inspections

Readers relate when the Answer Man calls for thorough real estate inspections to protect homebuyers and build respect for the septic services industry

Look out for the homebuyer's interests

I have read articles over the years regarding different aspects of our septic industry, and this particular article about real estate inspections is one that conjures up a lot of passion for me.

To the point of home-sale inspections of septic systems, we find that for the most part the only party who really wants to know the condition of the entire septic system is the buyer, and then only if they know or have been told by their Realtor what to ask.

It is the seller's responsibility to pay for the inspection, and the seller typically will rely on their Realtor to hire the inspector. Guess whom the Realtor hires? The inspector who will not mess up the home sale and may be half the price of others.



During a follow-up inspection, Alan Chapin found an interior electrical box used outdoors and no cover over a makeshift wooden frame exposing tank access lids. *(Photos courtesy of Alan Chapin)*

We pride ourselves at performing very thorough inspections, but this has led to a decline in our home-sale inspections because the Realtors gravitate toward inspectors who will not find anything wrong, do incomplete inspections, offer a cheaper price, etc. This is all because the Realtor does not



According to Alan Chapin, this tank received an OK from a previous point-of-sale inspection. The inlet baffle was missing and an inadequate 3-inch ABS pipe was used.

want the sale (their profit) to be put at risk, and more importantly, no one is held responsible for a complete inspection. The Realtor and seller can't disclose what they don't know, right?

We have provided numerous examples to our county sanitarians regarding inadequate inspections that have led to thousands of dollars in repairs paid for by the new homebuyer because the inspection done by "the other guy" said the system was "OK."

In one example, we repaired

a system at a cost of \$9,000 to the homebuyer just after it was inspected (at the point of sale). Originally installed in the 1990s, the septic system was inspected a few years ago. The septic report at the time shows only a septic tank, and the system was marked that all was OK, "no deficiencies." The septic system actually included the septic tank, pump tank, sand filter, alarm(s), drainfield, pump tank pump, sand filter pump, floats and sewage pump in the basement. The new homeowner called us to see if we could increase the size of the system. We pulled the as-built drawing and the inspection report only to discover there was a discrepancy in components listed in the time-of-sale inspection, and we recommended another inspection.

Our inspection revealed a failed sand filter; missing alarms; no inlet baffle coming into the septic tank; incorrectly sized piping; flooded inlet baffle; corroded, exposed electrical connections; root intrusion in laterals; and sludge in a manifold preventing equal distribution of effluent.

We continually find inadequate inspections by several licensed septic companies, but they continue to get the calls because they don't find problems that could jeopardize the sale, and they are cheap. There is shared responsibility from the Realtor, inspector, seller, county and homebuyer to ensure what is being sold and purchased has a properly functioning septic

system that is safe.

for the repairs.

I am working with my local

county to standardize the inspec-

tion process and provide conse-

quences for poor work, but have

yet to see anyone held respon-

sible. The unaware buyer who

thought the inspection report was

complete ends up paying the bill

ny and have a very high standard

for all work we perform, and it is

part of our strategy to educate the

county, homeowners, Realtors

We are a full-service compa-

Realtors gravitate toward inspectors who will not find anything wrong, do incomplete inspections, offer a cheaper price, etc. This is all because the Realtor does not want the sale (their profit) to be put at risk. **J**

Alan Chapin

and other licensed professionals on best management practices and to encourage "septic success" for our industry. When any of the points of contact involved in the septic inspection process fail to have integrity, honesty or the experience to perform the work, it only makes our job more difficult when trying to convince the owner of a septic system to take care of it.

Alan Chapin

Envirotek, LLC Camano Island, Washington

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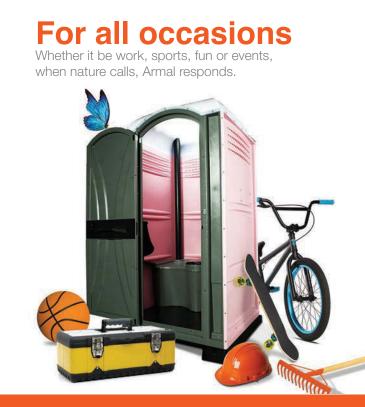
Find ways to encourage better inspections

Thank you for bringing this subject matter to the table. This has been a hot topic in Maryland and a topic in which I have been very vocal. The Maryland Department of the Environment recently came out with a policy mimicking this inspection procedure, which we instruct in our Maryland certification course through MOWPA.

First, let me agree with you that there is no consistency with septic evaluations for real estate transfers. This is true in Maryland where we see dye tests, septic cleanings being disguised as inspections, drainfield evaluations by probing, camera inspections and everything in between. I have voiced my opinion for the need of a more standardized inspection procedure helping give better consistency to the market, while improving the quality of standards within our industry. The lack of consistency is confusing to customers and creates hostility among competing septic inspection professionals.

"What should be performed for a real estate transfer septic inspection?" We must consider market conditions. A major difference with our customers is that they are not the homeowner; they are prospective homebuyers performing due diligence to make an educated and always risky decision. This puts constraints on the resources that a buyer feels comfortable allocating toward a particular inspection or test.

Leaving no stone unturned proves to be an inspection where any problems that can be found will be found. This is great advice to new septic inspectors or septic companies that want to offer to do a few septic inspections outside of a regulated market. However, it's unfair to suggest that this is the only correct septic inspection to a full-time septic-inspection company that depends on fulfilling the needs of their customers. The question of what type of septic inspection should be performed cannot be answered with only considering one variable: the number of potential problems to be found.



Azmal.

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Phone: +1 770 491 6410 Toll free: 866 873 7796 www.armal.biz Many variables need to be included in the equation: type of system, age of septic, expenditure to customer, damage to property, if there are accurate septic records on file, etc. Another market constraint we run into is the law of diminishing returns. Sooner or later in the sequence of turning stones, a stone will eventually be too costly to overturn as its benefit decreases, making that added expenditure equal to dollars wasted. A company should not be frowned upon for providing the best septic inspection the prospective homebuyer's dollar can buy.

The obvious question is at what point, or added service, is it going to stop being an added benefit and start being a waste of money? This can't be answered by a regulator, real estate agent or septic inspector. It can only be answered by the prospective homebuyer, given their understanding of their risk aversion, disposable income and many, many other factors. What septic inspectors, regulators and real estate agents can do to help prospective homebuyers is to educate them truthfully and honestly.

Here lies a deeper problem with septic inspections, as your article brings to light: Are we educating our homebuyers accurately? I do not believe so. I believe septic inspection companies have incentives to push for profitability over value, or cut services to compete for price. Real estate agents have an incentive to close a deal, which generally would suggest a lighter evaluation is their incentive. It's hard for regulators to give good information because they simply do not do the work in the marketplace. They speak to the supply side of this economic question: What problems can be found with each service? But they can't speak to the demand side: what an average, prospective homebuyer wants given their finances, risk aversion, etc.

For structural permitting purposes, our local health departments do not inspect systems with the same high standards for permits and repairs. Why is it only important during a real estate transfer? The real estate marketplace is much more complex than a market where the homeowner pays for their own inspection for their own benefit. Why aren't we asking every homeowner to do an inspection for a property they own every seven years? The septic companies should already be selling this to current homeowners to protect their investment.

It would make much more economical sense to encourage (or force) a homeowner to pay for an inspection, versus to continuously depend on the real estate industry to perform inspections and tests that prospective homebuyers simply do not want. That this service is not being provided to existing homeowners goes to prove that the cost is not perceived to be worth the benefit.

In a perfect world all components should be located and viewed. However, in Maryland, even if a buyer does want a higher-quality inspection they may not be able to purchase it! This is because the home seller is also a deterrent to allowing this type of evaluation on their property. In certain septic addendums on contracts, the sellers have the right to forbid excavation. Also, in Maryland – and I'm sure many other states – regulations allow for buried manhole access lids and distribution boxes. If septic inspectors are to prosper from doing a more comprehensive inspection, we need prospective homebuyers who are willing to pay for it. For this to be more prevalent, we simply just need access. I don't know of another industry that hides important system components beneath the ground.

In short, regulators, septic inspectors and the real estate industry need to work together for a better septic evaluation to be more cost-effective (access requirements), easy to perform (real estate contracts) and more consistent (quality companies doing quality work). The other alternative is regulation.

> Timothy M. Shotzberger Home Land Septic Consulting Essex, Maryland



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Educate the consumer

I read your article on inspections. You are so right. We have performed inspections for 10 years and have pumped for over 20. Our neighboring county has what's called a property transfer inspection. We locate all drawings of the system before we arrive. We take pictures of the front of house, well, tanks before we pump, after we pump, sludge depth, hose in tank as we pump, and measure distance from well to septic and drainfield.

When we first pull up we always expose the tank and ask the customer to add approximately 50 gallons of water to the system, either through the house or by hose. We check for a rise in the tank or high water marks, probe the drainfield and try to locate the D-box and document all findings. A Sludge Judge or core sampler removes the guesswork.

I have a lot of customers who say the last pumper "said my tank was OK." I ask how they knew. Did they pull a sample? The answer is always no! So I pull a sample, then explain why we are doing this. We are certified inspectors through the Indiana Onsite Wastewater Professionals Association (IOWPA) and signed up for the inspection course as soon as it was available. Finally, my wife contacts the customer before we inspect to ask questions, such as how many bedrooms, water supply, if the house is occupied and how many people in home, last time it was pumped, any repairs to system.

> Jon Housekneckt Sunset Septic & Excavating LaPorte, Indiana

I will share point-of-sale advice

I read your article in the February 2015 *Pumper* and really liked it; very informative for the home consumer. I am going to share it with many of my Realtor friends. There are one or two engineers/sewage enforcement officers that perform their own hybrid real estate inspection. There are some home inspectors performing awful "imitation" inspections, while others are totally out in left field with their inspections.

Most septic service companies do perform a version of the PSMA (Pennsylvania Septage Management Association) inspection. However, I am always baffled why many do not reference they are actually performing a PSMA inspection on their report. I don't know if it is fear of liability? I think it brings legitimacy if one references their source, and the consumer realizes it. In addition, using your association source, whether it's the PSMA, NAWT (National Association of Wastewater Technicians) or NSF builds respect for the association and the industry as a whole.

> **Rob Bowie** Bux-Mont Inspections Inc. Sellersville, Pennsylvania

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PUMPER PROFILE

NJ 908.797.5453 COVER STORY PA610.749.200 Regan Wilson poses with his family, wife Ani and daughter Luca. (Photos by Jane Therese) CMMERCIA DEP 09021 MUNICIPAL WASIE

Pennsylvania's Regan Wilson parlayed his training as a mechanic with industry networking at the WWETT Show to build a thriving new pumping business

By Ken Wysocky

hen Regan Wilson decided to start his own septic service business in 2010 in east-central Pennsylvania, he began with nothing more than a used vacuum truck, some sound financial advice from his father and loads of ambition.

Five years later, the 35-year-old owner of River Valley Septic in Riegelsville, about 45 miles north of Philadelphia, still runs the 2002 Mack truck he started out with and continues to rely on advice from his father, A. Rhodes Wilson, a financial adviser. But everything else is dramatically different.

Instead of wondering when the phone will ring, he barely has enough time to serve the customers he has - between 2,500 and 3,000 accounts, mostly acquired by purchasing two local companies from retiring pumpers. Wilson also made strategic purchases of productivity-enhancing equipment that saves time and labor and increases customer satisfaction - and produces new revenue streams to boot.

As a result of these moves, his revenue has increased about 500 percent since his first year in business. And Wilson, a former auto mechanic and water jet operator/pumper for a large East Coast waste management firm, has his sights firmly set on further growth.

"All it takes is doing quality work at a reasonable price and providing good customer care," Wilson says, explaining how he achieved such dramatic growth. "I take time to educate my customers - talk to them and help them understand what they have ... most people don't even understand how a septic system works.

"I also hired a secretary to answer the phone for me from 8 a.m. to 6 p.m.," he adds. "Every phone call gets answered, which is a big thing if you're a small business ... if you don't answer the phone, customers will call someone else. Sure, it's an expense, but it's well worth it. Deb (Nogradi) really keeps me on top of things."

Profile

Pennsylvania

River Valley Septic Inc. Riegelsville, Pennsylvania

OWNER: Regan Wilson FOUNDED: 2010 EMPLOYEES: 3

(continued)

SERVICE AREA: 35-mile radius around Riegelsville and west-central New Jersey

SERVICES: Septic and grease trap service, onsite system repair and maintenance

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Right: Wilson is called out to pump a septic tank that hasn't seen vacuum hose in 28 years. The homeowner watches as Wilson pops the lid and prepares for the job using his 2002 Mack vacuum truck from National Truck Center.

Below: Wilson prepares to troubleshoot a problem with a line using a Spartan Tool LLC pipeline inspection camera.



Wilson also relies heavily on support from his wife, Ani, who handles the company's books while also holding down a full-time job as a registered dietician. "She's been phenomenal," Wilson says. "To have someone I can trust handle all the paperwork and accounting is invaluable, not to mention the emotional support. She's super organized, which is so good for me."

AS THE WRENCH TURNS

Initially, Wilson planned on a career as an auto mechanic. He took a part-time job as a mechanic when he was 15 years old. After he graduated from high school, he attended a tech school, where he studied automotive mechanics. In all, he spent about 12 years as a mechanic, then two more years selling automotive supplies.

Then he worked for three years at a large residential and commercial waste management company, where he operated a water jetter, cleaning clogged septic system lines. Later, he graduated to running a vacuum truck and cleaning septic tanks. The experience he gained there gave him the confidence to strike out on his own.

"Everything I did was on the ground and in the field," he notes. "I learned a lot about septic systems and good day-to-day truck operation – how to winterize it, how to figure out proper vacuum and pressure under different situations and so on. I could've learned all that on my own, but it was better to have someone teach me versus going in blind.

"I also learned how to use a jetter ... what to do when a jetter gets stuck

All it takes is doing quality work at a reasonable price and providing good customer care. I take time to educate my customers – talk to them and help them understand what they have ... most people don't even understand how a septic system works.

— Regan Wilson

and the kinds of jobs you can do with a jetter," he adds.

Like so many entrepreneurs, Wilson was eager to make more money, set his own hours and take advantage of the flexibility afforded by running his own show. But as many entrepreneurs discover, nothing happens quickly. Money? Not so much in the early going. Set your own hours? Sure – on call, 24/7. Flexibility? To a point, but less and less as business picked up.

To gain market share, Wilson paid for local phone book and online advertising. He also had a website developed for about \$800, which he says was a great investment.

"It's not much money for the value it provides," he notes. "I paid for it in four (tank) pumpings. But my most valuable marketing tool was word-of-mouth referrals."

BUYING MARKET SHARE

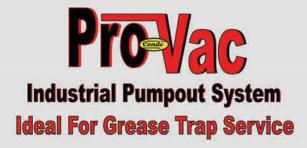
But acquiring two local pumping companies played a much larger role in increasing River Valley's business profile. In 2012, he bought Pursell Septic from Butch Pursell, who was retiring after running the business for 20 years. It was a fortuitous purchase; Wilson's father had been Pursell's accountant for years. So when Pursell started to think about retiring, Wilson was the first person he asked to buy the company, located about 5 miles south of Riegelsville.

"Butch had about 1,300 accounts, and most of them were within the territory I already covered," Wilson says. "So it was a good fit for my business. Plus it included some long-term commercial contracts to clean hold-ing tanks, which offered steady work and improved my cash flow."



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Odds are pumpers won't find other local septic service veterans to share their trade secrets. But as Regan Wilson can attest, the odds of getting valuable tips and insights increase dramatically at the Water & Wastewater Equipment, Treatment & Transport (WWETT) Show, sponsored by COLE Publishing.

"Everywhere you go, people give you advice because they're not direct competitors," says Wilson, the owner of River Valley Septic Inc. in Riegelsville, Pennsylvania. "You talk to everyone you meet and they're all willing to answer questions."

A good example is the Spartan Tool pipeline inspection camera Wilson bought in 2014. Wilson has attended almost every show since 2010 and made a major equipment purchase each time, including a used Mack vacuum truck with a 4,000-gallon steel tank.

"I had my heart set on a certain brand of camera," Wilson recalls. "But when I sat down for lunch with a guy who runs a drain cleaning and septic pumping company, he told me he'd recently purchased a plumbing company that already owned a great inspection camera – a Spartan camera. I ended up buying it based on his recommendation and it was a great purchase."

Education Day classes offered at the WWETT Show are also valuable to Wilson. After attending a class covering septic tank pump installation, he added that service to his company – and boosted revenues in the process.

"The majority of classes I take are about septic system installations," Wilson says. "I'd like to eventually install systems, so every time I go to the WWETT Show, I take courses that show me how to be a better installer. I've also attended classes that taught me how to market my company better, from developing a better website to simple tricks to make business cards stand out more. All the classes provide great value for the money."

In 2013, Chris Winton – a pumper whom Wilson bumped into occasionally at a local waste disposal facility – asked if Wilson would be interested in acquiring his business because he, too, was retiring. The business, Roberson Septic, was located about 10 miles from Riegelsville and serviced less than 500 customers. Again, it was a good fit geographically.

"Roberson's business volume wasn't as big," Wilson says, explaining that he financed the two purchases through private loans held by the two sellers. "But part of my reasoning for buying it was to keep my competition from buying it. I'm not making a lot of money yet from the second acquisition, but it's helping to pay off the loan for the first acquisition, and I'll start making money on the second purchase after the loan is paid off in 2016."

Wilson uses his compact Kubota backhoe loader to excavate a pipe during a repair call.

This tank is wellcamouflaged, surrounded by landscaping. Wilson dragged his hoses up a walkway to reach the tank in Ottsville, Pennsylvania.

INVESTING IN EQUIPMENT

As River Valley grew and revenue increased, Wilson invested in equipment that could save time and labor and generate new revenue through upcharges. The company's workhorse is the pre-owned Mack truck, outfitted by National Truck Center with a 4,000-gallon steel tank and a 420 cfm Jurop/ Chandler pump.

Most septic tanks Wilson pumps hold 1,000 gallons, so it made sense to buy a truck with a tank large enough to maximize dump trips and subsequently minimize fuel costs and vehicle wear and tear. The truck, which Wilson bought at the Water & Wastewater Equipment, Treatment & Transport (WWETT) Show, features an Eaton-Fuller 10-speed manual transmisI'm very comfortable with what I do, but it's more physical labor than I'll want to do in the future. But it's difficult to get past that first step – hiring someone, then providing them with an income.

— Regan Wilson

sion and a 330 hp Mack diesel engine.

"I wish the truck had more features, such as better sight glasses (the truck has two, indicating half-full and full), an automatic transmission and a sample access valve," Wilson says. "But all in all, it's been a good truck. It was the right price at the right time – about \$65,000, which was my life savings."

To expand his capabilities, Wilson also bought a toolbox jetter (3,000 psi at 5 gpm) made by Advance Pump & Equipment; a pipeline inspection camera and locator manufactured by Spartan Tool LLC; a 10,000-pound flatbed trailer made by Ringo Hill Farms Equipment Co.; a 2000 Chevrolet Silverado 2500 pickup truck; and a small Kubota backhoe loader.

"If a tank is deeper than 2 feet, I won't dig it manually," Wilson says. "Instead, I'll use the backhoe to excavate, then install a riser and bring it up to grade. I use the backhoe, which also enables me to do small repairs, such as replacing a line from the house to the tank or from the tank to the D-box."

A GROWING CONCERN

Wilson's long-term goals include hiring more employees, running four or five trucks and eventually diversifying the company by getting into







Mounted below his truck's hose tray, a toolbox jetter from Advance Pump & Equipment comes in handy to clear a clogged line during a maintenance call.

onsite installations and expanding a small specialty in grease trap pumping. He also doesn't rule out more acquisitions. "But it's got to be just the right deal at this point," he says.



But like many smallscale outfits looking to grow bigger, he struggles with the idea of hiring that first full-

time driver – and then being responsible for providing that employee, and perhaps others, with a livelihood. On the other hand, he also realizes that the physical labor required by septic pumping gets harder as you get older. As such, he's leaning toward hiring a high school age worker or someone who's just out of high school and wants a blue-collar career, just like he wanted at that age.

"I'd love to spend less time in the truck and do more repair work," he says. "I'm very comfortable with what I do, but it's more physical labor than I'll want to do in the future. But it's difficult to get past that first step – hiring someone, then providing them with an income."

In the end, however, he expects that the traits that helped him build a thriving business will continue to serve him well: The ability to make people feel comfortable, honed by several years of sales experience and working with customers; taking calculated risks by investing in revenue- and productivity-enhancing equipment (he's already eyeing a Crust Buster tank agitator, made by Schmitz Brothers LLC); and aggressively pursuing new clients.

"I'm a bit of a risk-taker, which I think you have to be to step out on your own," he says. "I was very aggressive in finding new customers when I first started out – I really worked hard to promote myself. I'm a go-getter. And I don't see that changing." ■

MORE INFO

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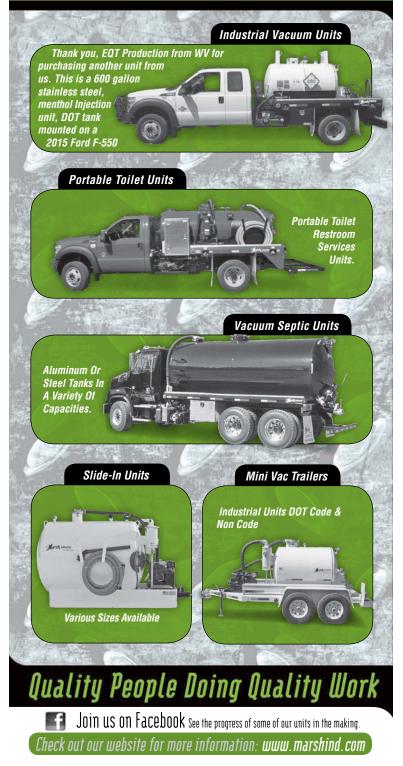
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Look Beyond Your P & L's

The long-term success of your business depends on more than your profit and loss statements. Look at these factors to determine how you're doing. By Howard Hyden

oo many companies are obsessed with their profit and loss reports. It hasn't occurred to them that they might be looking at the wrong numbers. Let's examine some factors that might have a bigger impact on profit and loss.

Reduce total cost to the customer. A forklift distributor in Los Angeles, who sells and services forklifts to national companies like Home Depot, among others, has adopted this strategy. A customer's forklift operator had run his lift into a post, damaging the lift cage. The cage was severely bent. The normal action by the technician responding to the call would have been to order a new cage. The cost of this part is substantial, not to mention the labor required to remove the damaged cage and install a new one.

Instead, the technician, without consulting with his manager, went to an auto parts store and purchased a hydraulic jack for \$200 with his own money. The technician figured he could use the power jack to return the bent frame of the cage to its original condition. His action saved the customer a large sum of money. This will have a huge impact in increasing customer loyalty in the future. When a business shows this kind of initiative, customers will spread the PWOM (positive word-of-mouth), which can also contribute to an increase in sales for the company.

The cost of not training is greater than the cost of training. The huge investment has already been made. The cost of human capital, which includes salary, benefits, payroll tax, Social Security, etc., is usually the single biggest expense an organization has. But don't forget about training. It's this small investment that leverages the big investment that has already been made. A formula to plan your investment in training is:

Dollars invested in training (12 months) / gross salary = ___%

In other words, training is a percent of payroll. The average in this country has been .5 to 2 percent, which is fairly anemic. That number should be skyrocketing. Businesses that want to excel should target the 5 to 10 percent range.

The cost of not weeding the garden. If you do not weed the garden of your poor performers, you will jeopardize losing your top performers, and the performance of the team will go down. When you finally weed the garden, employees will not only applaud your actions but also wonder what took you so long.

PWOM (positive word-of-mouth). Everyone knows that positive word-of-mouth is the most effective form of advertising. Yet too often companies do not measure it. Look at this example:

Company A	Company B	
70%	PWOM	30%
30%	Paid Media	70%

It takes some out-of-the-box thinking to consider (these) non-P & L financials.

If these two organizations were equals in revenue, Company B would have to have many more sales reps to get to the same level of revenue as Company A. Referrals from PWOM will close at a much higher rate than leads from paid media. The company may also spend more money writing proposals and using support staff time to help the reps as well as additional marketing materials, etc. Every organization wants referrals but amazingly few track it.

Small businesses that want to generate more referrals should include PWOM in their strategic planning discussions. They should set a goal for what percentage of their business should come from PWOM. They can also target the number of new accounts they want from PWOM. Setting goals and tracking PWOM should be included as a number to review in monthly management meetings.

The lifetime value of a customer. When you lose a customer, you're not just losing a single order. You are losing the revenue from that account for a lifetime. However, it doesn't stop there. Most businesses fail to calculate the additional financial impact. If customers are frustrated or irate, they will spread NWOM (negative word-of-mouth.) The lack of having a PWOM strategy in place means you will also lose the revenue generated had you turned this negative situation into a success for the customer.

Repeat customers. This is one more financial number that is probably not on your P & L statement.

Company A	Company B		
70%	Repeat Customers	30%	
30%	New Accounts	70%	

It has been said numerous times that the cost of acquiring a new account is far greater than the cost of keeping current customers. If that's the case and the two companies above are equals in revenue, Company A will come out on top in profits, thanks to its wealth of repeat customers.

DIGGING DEEPER

Why is it then that so many companies focus on standard financial statements and rarely take a hard look at these other factors? Part of the reason is that general accounting principles categorize expenses and revenue into the traditional account numbers that permeate every company's financial statements. It takes some out-of-the-box thinking to consider the non-P & L financials.

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Louisiana Supreme Court: Restroom Rentals and Service Won't Be Taxed

By Doug Day

he Louisiana Supreme Court has ruled in favor of a portable restroom company in a dispute over sales tax. Under the state's sales tax code, the lease of property is a taxable transaction, but waste collection and cleaning services are not taxable. Pot-O-Gold Rentals was assessed sales tax on the full value of contracts that involved both portable restroom rentals and cleaning/hauling services. The company had been charging the sales tax only on the leasing portion of such contracts.

A trial court issued a summary judgment in Pot-O-Gold's favor. That ruling was overturned by the Court of Appeals, which determined the entire transaction was taxable due to the "intertwined relationship" between the leasing and cleaning services. The Supreme Court, stating that tax laws should be interpreted liberally in favor of the taxpayer, overturned the Appeals Court, ruling the bundled rental and service transaction was not taxable at all. It supported its ruling by citing a state tax regulation dealing with garbage dumpsters in which neither the dumpster rental nor collection of waste is taxable.

"It is difficult to determine why one situation is treated differently than the other," the court stated. It also noted, "...to hold that providing cleaning services for portable toilets is not a taxable event if the toilet is owned by someone else, but is a taxable service if the toilet is owned by the lessor, creates an absurd result."

Maryland

To help fund its Chesapeake Bay cleanup effort, Maryland already has a rain tax (stormwater) and a flush tax on both sewer and septic users. Next up could be a chicken tax of 5 cents on every bird placed on farms by poultry companies. Supporters say the proposal would help fund septic system improvements, the cover crop program and other measures aimed



at improving water quality in the bay. Opponents say it singles out poultry companies and would cost five large poultry companies \$15 million and could hurt poultry farmers who raise the animals. A similar bill last year failed due to a veto threat from then-Gov. Martin O'Malley, who could not seek re-election due to the state's term limits.

Wisconsin

A provision in the Wisconsin state budget would end a program designed to help low-income people and small businesses replace or repair their failed septic systems. The Wisconsin Fund provided \$2.3 million in 2014 to help 654 property owners. All but five of the state's 72 counties participate in the program, which began in 1978. The proposal in Gov. Scott Walker's budget is subject to approval by the state Legislature.

Missouri

Taney County spent \$73,335 in 2014 to pay for the pumping of 500 septic tanks and will continue the program. It was the first year the county offered to cover the full cost, an average of \$145, to make sure septic systems were being pumped properly. The fund utilized 1 percent of the revenue from a county .5 percent Wastewater Capital Improvements Sales Tax. The county has renewed an agreement with a local pumping company for 500 pumpouts again in 2015 with 70 homes already signed up due to a backlog from last year. A homeowner can only access the program every four years. The free pumping applies only to single-family residential properties.

Alberta, Canada

Helping homeowners manage their septic systems is the goal of a pilot program launched in early 2015 in the province of Alberta. "Septic Sense: Solutions for Rural Living" is sponsored by the Land Stewardship Centre and the Alberta Onsite Wastewater Management Association. The one-year program will implement, test and evaluate the feasibility of developing a full-fledged septic system operation and maintenance workshop program in Alberta.

According to an announcement of the program, it will "offer a range of educational opportunities and resource materials for landowners, including a workshop and a homeowner's guide developed by wastewater management experts that covers various types of ways to cost-effectively maintain septic systems." It is based on a similar program offered for years for private well owners.



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Jeff and Debbie Coe, owners of Jim's Septic Service in Grants Pass, Oregon. (Photos by Amanda Loman)

Oregon

JIM'S SEPT SERVIC

Oregon pumpers Jeff and Debbie Coe look for accessories that will save time and prevent injuries for their hardworking crew

By Dee Goerge

eff Coe, a successful general contractor for 35 years, recognized opportunity when he saw steady truck traffic in and out of his neighbor's driveway at Jim's Septic Service. It was 2007, and Coe was in the midst of a slump in his own business, so he had a few over-the-fence conversations with pumper Murray Coupland.

It turned out that Coupland was ready to hang up the hose and retire after 23 years in business. The neighbors negotiated a deal, and by 2008 Jeff and Debbie Coe owned the septic service business in Grants Pass, Oregon. Just as Coupland kept the business name when he bought it, the Coes took advantage of the same name and the valuable reputation it had built up.

By building and improving on the existing business and adding their own entrepreneurial savvy and skills, the Coes added a truck and doubled the customer list to nearly 20,000 names within seven years. While the business came along near the end of their careers, it has been a good move, they say.

"It seems like you don't pick the pumping business," Jeff laughs. "It picks you."

(continued)

Jim's Septic Service Grants Pass, Oregon

Jim's Septic

Service

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OOLTME

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FOUNDED: 1985	F
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Left: Technician Joshua Fiske works in some beautiful Oregon territory. Here he returns a hose to his pumping rig, a 2006 Freightliner with a National Vacuum Equipment pump from House of Imports.

Below: Technician Doug Modgling controls the hose, while Fiske uses a custom-made 10-foot aluminum rake to keep the slurry moving during a pumpout. The rake has a 3/8-inch-thick aluminum plate welded to the working end. The key to customer service success, Debbie says, is to be prompt, personal and professional. Sometimes she can help customers troubleshoot problems over the phone so they don't have to pay for a service call. If a plumber or installer is a better fit for the work, she recommends one.

"We look out for our customers. We go the extra mile and give them the right person for the right job so that we are trustworthy. I take pride in this. I'm

> taking it to a different level it's not just work," she says. "People get that I care."

QUALITY EMPLOYEES

Some of Debbie's favorite calls are those regarding employees. "One of the best comments we've had is that our employees are a breath of fresh air," she says. "Who says that about pumpers?"

Jeff explains that hiring good employees is one of the most important things about running a successful business.

"Good service wins. If you have bad employees representing you, you're not going to do very well," he says. "I'm really good at hiring. They have to meet my criteria. I'm easygoing, but I'm demanding."

Most of the time, the Coes' two employees work together to service an average of six tanks a day. Debbie gives them the list of customers, and they plan the route with the truck's Garmin GPS. They follow a specific protocol: clean trucks that don't leak on driveways, laying tarps down when removing sod to open a tank, polite behavior with customers that includes answering questions and providing education (about not flushing flushable wipes and the best bathroom tissue choices), a mini-inspection and having customers flush toilets to make sure there are no maintenance issues.

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(continued)

REALISTIC EXPECTATIONS

"Murray created an awesome business. Everyone knew Murray, and we had big shoes to fill. And we knew from the beginning we would have employees because we are older," notes Debbie. The Coes are both 60.

Jeff calls the area where they live "paradise," just an hour and a half away from the ocean — and fishing. Even as he purchased the business, his thoughts were on retirement. Debbie found herself loving running the business — even if she is tethered to her cellphone

wherever she goes and needs to mix business (her laptop) with pleasure when she goes to the beach.

Debbie's focus has been top-notch customer service and to build on the good reputation Coupland created. Jeff learned about pumping by riding with Coupland for a few months, and Debbie also went on runs so she would better understand the business. She uses that knowledge to ask questions and have conversations with people who call. She's taken the customer list from index cards to data files in her computer, which includes contact information, call-back prompts and notes that have helped her develop personal relationships with repeat customers.

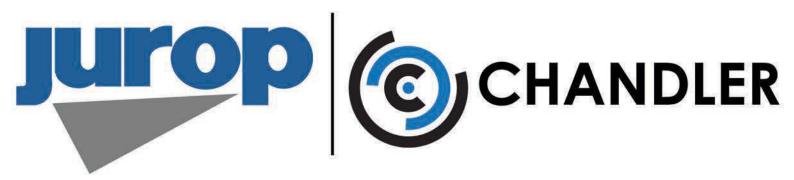


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Matching vinyl graphics with a forest and mountain theme are a key element to dressing up the fleet at Jim's Septic Service. Two Freightliner rigs, a 1999 model (left) and a 2006 model from House of Imports, are shown in the company yard.

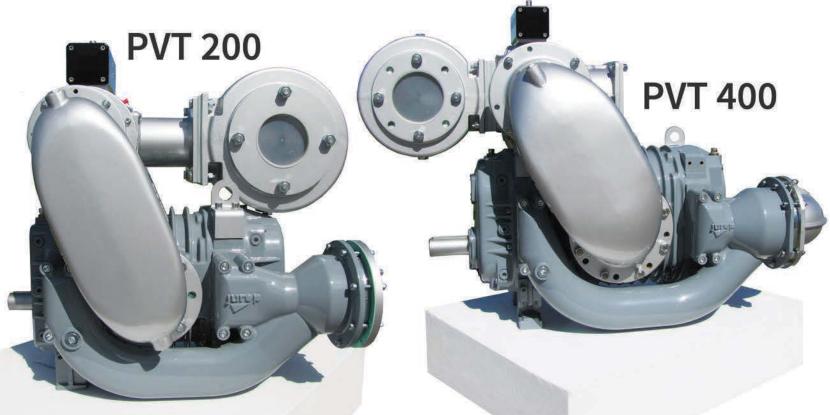


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4180 WEST SUNSET AVE. SPRINGDALE, AR 72762 800.342.0887 | 479.751.9771 "They work very hard for Jim's Septic Service; they treat it like their own business," Debbie says.

According to the Coes, employees receive annual raises, two weeks paid vacation, commission on product sales, bonuses and companyprovided uniforms. The Coes say they are flexible about work schedules to accommodate family needs and time off for hunting and fishing.

Joshua Fiske has been with them since the beginning, while Doug Modgling has been on the job since 2013. Both are certified technicians who take classes annually to maintain inspection certifications.

TOOLS OF THE TRADE

Jim's Septic has two trucks: the 1999 FL70 Freightliner with a 2,300-gallon aluminum tank and Masport pump that came with the business, and a 2006 Freightliner with a 3,600-gallon steel tank and National Vacuum Equipment pump, built by House of Imports.

The business needed the larger tank on the newer truck, Jeff notes, to save time and money. The drivers can pump To raise efficiency for maximum profit, you have to have the correct tool for the job. Tradesmen in America typically work at least 30-40 years; proper tools help achieve this.

— Jeff Coe

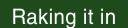
more tanks before driving to a private treatment plant. With dumping fees ranging from 12 to 15 cents per gallon, Jeff says it's important to look for ways to keep the business expenses down. Fortunately the plant is 3 miles from the Coes' business and centrally located to the 50-mile radius they service.

One customized item Jeff insisted on with the newer rig is two full-length toolboxes under the hose trays. They hold all the tools necessary for pumping and simple repair work – a ladder, pry bars, shovels, winch, jackhammer, etc. – and parts to replace baffles, etc. Coupland had the toolboxes in his truck, and the Coes can't imagine having a truck without them.



Left: Joshua Fiske replaces a failed pump with a 280 Series Liberty pump during a septic service stop at an Oregon home.

Below: Technician Doug Modgling uses a RIDGID K-3800 Drum Machine to snake through a clogged line running to a septic tank.



Septic service trucks have a professional appearance. But they should also be outfitted to carry all the tools a technician will need throughout the day. So says Jeff Coe, co-owner of Jim's Septic Service in Grants Pass, Oregon.

Each of Jeff's trucks carries everything drivers will need to pump tanks and perform minor onsite system repairs. The piece of equipment used most often isn't something he purchased, but something he has custom-made by a local welder — 10-foot rakes used to stir septage during the pumping procedure.

To do a better job, two technicians work most pumping jobs.

"One guy works the hose and the other works the rake, and they can trade off. When it's thick there's lots of torque and it will bend the rake," he explains.

The rakes are made out of 1 1/4-inch hollow aluminum tube welded to a 4by 16-inch 3/8-inch-thick aluminum plate. They're used as a matter of routine to ensure stubborn sludge is removed from the bottom of the tank.

"As far as we're concerned, we're here to get that out of the tanks. That's what ruins drainfields. That's why we're here," he says. "Some (tanks) haven't been pumped in 15 years. We did a 40-year-old tank recently that had never been pumped."

Jeff is also concerned about technicians avoiding injury while meeting the physical demands of pumping, digging out and lifting lids, etc. To reduce mishaps and injury lifting lids, he had a hook custom-made to use as a lift bar. Made out of 5/8-inch round stock steel, a T-bar handle welded to a hook makes it easier for one or two workers to lift tank lids.

"To raise efficiency for maximum profit, you have to have the correct tool for the job," he says. "Tradesmen in America typically work at least 30-40 years; proper tools help achieve this."

EXCAVATING MADE EASY

To keep the truck and tools clean, each truck has a 50-gallon pressurized water tank built by a local welder. Technicians can also use the 200 feet of hose with it, for what Jeff considers one of his most useful pieces of equipment, a Power Booster from Pressure Lift Corporation. When cleaning thick septage or pumping from a slope, technicians can switch from water to air to reduce the hose weight and pump faster.

Jeff emphasizes investing in the right tools that help save backs and money.

"We also use a Kioti 30 hp tractor with a loader bucket and backhoe. A small tractor is almost a must in this business," he says. He has a double-axle trailer to haul it to sites when a system needs to be opened up for repairs such as installing new baffles or clean-outs. "I paid \$25,000 for it (tractor)

new in 2009, and it paid for itself the first year."

"Doing so many calls a day, we're always thinking of our guys' safety — it's very backbreaking," Debbie explains. Jeff designed a lift bar and had it welded with a hook for one or two men to pull up lids.

Other standard equipment includes a Cam Spray jetter with adjustable pressure and a 100-foot hose, Prototek locating devices and a MyTana Mfg. Company camera with a 100-foot cable that records video for inspections. Each truck carries an inexpensive digital camera for documenting real estate inspections. The company also uses a RIDGID K-3800 Drum Machine.

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SELLING THEMSELVES

Word-of-mouth has been the Coes' best

marketing tool, but investing in advertising

Owners Jeff and Debbie Coe, center, are flanked by technicians Doug Modgling, left, and Joshua Fiske.

(about \$2,000/month) has been important in growing their business. They advertise in local phone books and area shoppers and support local teams or businesses, such as paying for their name to be on a bench at the local golf course. In the future, Debbie plans to improve the company's current one-page website, though it hasn't been a priority because the phones keep ringing.

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"We have two beautiful trucks that are driving billboards," she says. The trucks' graphics and cleanliness send a clear message about the business' focus on detail.

The area's temperate climate reduces weather challenges pumpers in other areas may face, but there are other challenges connected with aging systems, many dating to the 1950s through the 1970s. With a population of 250,000, about 80 percent of the area's homes utilize septic systems. A new mandated seven-page inspection report for real estate sales (up from onepage) has soured some pumping companies from offering the service, Jeff notes.

"To us, it's just another bureaucratic hoop to jump through, so why not? We change accordingly as always, and are happy to supply this service," he says.

Besides residential customers, Jim's Septic provides service to jails, schools, banks, RV parks and commercial grease tanks. One unique customer is a secure mental health facility. Jeff notes the layout was well planned, with the septic system located outside the locked walls and adjacent to a parking lot, making it handy to pump.

Comparing that to some nightmare residential setups - where the tanks are accessed under bedroom floors - Jeff says the tighter DEQ regulations are well founded.

THE NEXT GENERATION

Nearing the end of their working careers, the Coes haven't pursued some natural new service offerings. For example, they currently refer all inside plumbing work to another business. Debbie notes that a Jim's Septic employee could run a service van to handle the work. That's a possibility, as the Coes' son, Aaron, looks forward to taking over the family business one day.

For now, Jeff says Debbie has a good handle on running the business, and he can help when he wants to - and enjoy retirement-like activities at the same time.

"Luckily my wife has taken a shine to this business and she really enjoys what she does. She is the brains behind this. I've worked 45 years, and I'm here for advice and financial ideas, and together it's working out real well for us," he says. "She's enjoying what she's doing and I'm enjoying not doing as much as I usually do."

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Submit Nominations for the Excellence in Service Award

By Dhru Bhatt

t is the time of the year to remind everyone to prepare nominations for the next National Association of Wastewater Technicians Excellence in Service Award. This is your opportunity to recognize someone you have noticed who goes beyond the ordinary. It is something this industry does not do enough of: recognize our peers for all their hard work and service. The award is presented annually at the state association breakfast during the Water & Wastewater Equipment, Treatment & Transport (WWETT) Show, just before the presentation of the Ralph Macchio Lifetime Achievement Award. The 2016 breakfast will be held Feb. 19 in Indianapolis.

The NAWT Board established the Excellence in Service Award in 2010 as an update to the former Man of the Year award. Establishment of this award reflected the changing industry and provides the opportunity to recognize any individual or company the NAWT Board feels has exhibited exceptional service to the wastewater profession. The nomination criteria and instructions are provided below. Nominations should be submitted by Nov. 1.

Basis for award

To recognize a NAWT member or NAWT-sponsored individual or company that has shown exceptional accomplishments in their service to the community and to the wastewater profession.

Nomination criteria

The Excellence in Service Award is based on one or more of the following criteria:

• A significant contribution to the wastewater profession and/or to NAWT.

• Commendable service during a significant community or national event within the last several years.

• Additional responsibilities that resulted in a benefit to the community or wastewater industry.

• Actions performed above and beyond the call of duty.

- Provided inspiration to others.
- Exhibited exceptional leadership.

NOMINATION INSTRUCTIONS

Who can nominate?

• NAWT members in good standing with personal knowledge of the accomplishments of the nominee.

• Liaisons from NAWT-affiliated organizations who have personal knowledge of the accomplishments of the nominee.

• Nonmembers may make a recommendation through any NAWT member or liaison.

Who can be nominated?

• Anyone who meets the nomination criteria.

• Past non-winning nominees.

When to submit nominations.

• All nomination forms must be received by or postmarked Nov. 1. Any applications received after the deadline will be placed on file for the next calendar year.

• All post-deadline nominators will be notified of this fact and given further instructions.

Documentation required.

• An Excellence in Service Award application form, which can be obtained by calling the NAWT office at 800/236-6298, emailing info@nawt. org or downloading from the NAWT website at www.nawt.org.

• A nomination letter explaining why the nominee should be considered for the Excellence in Service Award based on the award criteria and signed by the nominating individual.

• An additional signed endorsement letter to vouch for the nominee's achievements may be included, but is not required.

• Submit the application packet to the NAWT office marked ATTN: Excellence in Service Award Committee via: email to info@nawt.org; mail addressed to NAWT, 2800 W. Higgins Rd., Suite 440, Hoffman Estates, IL 60169. ■

OPEN CALL FOR PAPERS

Speak at the 2016 WWETT Show!

COLE, Inc is now accepting proposals for sessions to be presented at the 2016 WWETT show in Indianapolis February 17-20, 2016. If you are interested in presenting please send us a completed session proposal form **no later than August 1, 2015**. Forms may be completed online at wwettshow.com/CFP.

Accepted submissions will receive four (4) full registration passes to the 2016 WWETT Show. **Presentations should be 60 minutes** *in length and cover topics from a neutral, "non-product-specific point of view."*

For a list of accepted topics and to submit your presentation proposal please visit:

wwettshow.com/cfp









Solar Protection

New series of Tigerflex Solarguard hoses reduce harmful UV damage

By Craig Mandli

oses used by pumping professionals require durability to convey abrasive liquids and toughness to withstand prolonged use in harsh environments, including snow, ice and rain. But hoses used outdoors for prolonged periods of time are also subject to damage from exposure to heat and UV light.

Tigerflex Solarguard Amphibian AMPH-SLR Series polyurethane-lined wet or dry material-handling hoses, introduced by Kuriyama of America at the 2015 Water & Wastewater Equipment, Treatment & Transport (WWETT) Show, are designed to stand up to heavy-duty work and harsh elements.

"We actually use a special compound that contains a double dose of UV stabilizers that reflect the damaging UV photons away from the hose," says John Kohls, national sales manager for Kuriyama of America. "We first found success using this material for hoses in the methane gas industry, then decided to transfer it to the hydrovac and pumper truck market."

Solarguard hoses are made with a reflective yellow pigment that reduces heat absorption, as they can remain up to 10 degrees F cooler than darkercolored hoses, further protecting the hose and extending service life. Tests commissioned by Kuriyama showed a 3 percent reduction in hose material strength after prolonged UV exposure, whereas the company's standard PVC hoses showed over 40 percent strength loss over the same period.

"We knew from the testing that this was going to be a success," says Kohls. "The Solarguard hose does cost a little more than our traditional polyurethane hose, but it's going to last twice as long."

Solarguard Amphibian AMPH-SLR Series hoses are used for hydroexcavation, industrial vacuum equipment, material handling (including heavy-duty abrasives), sewer truck boom hose and slurry handling. It has a durable PVC cover with polyurethane liner, and PVC helix, and is rated for use in temperatures from -4 to 150 degrees F. A multi-strand grounding wire built into 6- and 8-inch hose helps prevent buildup of static electricity for added safety and to help keep material flowing smoothly.





Kuriyama began selling the hose in December 2014 in a limited capacity before officially launching the product at the WWETT Show.

"The feedback we've received from those using Solarguard hose in the field has been excellent," says Kohls. "Our big goal having it at the WWETT Show is John Kohls, right, national sales manager for Kuriyama of America, shows the AMPH-SLR Series heavyduty polyurethane-lined wet or dry material-handling hose to an attendee at the 2015 WWETT Show. (Photo by Craig Mandli)

to educate potential consumers on the strong value it provides, despite the little-bit-higher cost."

Kohls says that the feedback he and the rest of the exhibit floor Kuriyama staff received regarding the Solarguard hose has been overwhelmingly positive. He pointed out that the company came into the show with high expectations, and it was apparent almost immediately those would be surpassed.

"This product solves a big problem that a lot of contractors in the field were dealing with, and told us about in previous years," Kohls said while at the WWETT Show. "Attending this show gives our staff a great opportunity to gather that feedback from different portions of the market, and use it to make better products. That's why we're excited to be here." **847/755-0360**; www.kuriyama.com. ■



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Denver, CO Bellefonte, PA Kansas City, MO Orlando, FL



www.keevac.com

\$107,995 2015 PETERBILT

Cummins 240 HP engine
 Allison 2500 6-speed RDS automatic
 Air brakes • 25,999 GVWR
 • 2,000 gal. aluminum tank
 Two compartment tank, 500 fresh water/1,500 waste

• NVE primary moisture trap
 • NVE 20" top man way
 • 4" waste discharge line with valve, adapter, and cap
 • Anti-surge baffles
 • Heavy duty toilet carrier with trailer hitch



Cummins 220 HP engine
 Allison 2500 6-speed RDS automatic
 Air brakes • 25,999 GVWR
 •2,000 gal. aluminum tank
 Two compartment tank, 500 fresh water/1,500 waste

• NVE primary moisture trap
 • NVE 20" top man way
 • 4" waste discharge line with valve, adapter, and cap
 • Anti-surge baffles
 • Heavy duty toilet carrier with trailer hitch



Call For Pricing DODGE or FORD 4WD or 2WD CHASSIS •950 Gallon (650X300) steel restroom tank •Fold down toilet carrier

• 950 Gallon (650X300) steel restroom tank
 • Your choice of pump

Heated or Non-Heated Available IN STOCK



2015 FORD F550

999 Gallon (749X250) aluminum restroom tank
 Masport HXL4 • Flo-Jet washdown with 50' hose
 • Fold down toilet carrier



2015 INTERNATIONAL 4300

• 280 HP Cummins • Allison 3000 RDS automatic 2500 Gallon Aluminum Tank
 • NVE 607 380 CFM



450 Gallon Aluminum Slide-In 300 Gallon Waste/150 Gallon Fresh

Electric Start 5.5 HP Honda, Condé Super 6 – vacuum pump w/4-way valve 30'x2" Tiger Tail inlet hose w/stinger, washdown system w/50' hose, 3" discharge, 12V battery & work light





Side Engine Style

950 Gallon (650/300), Aluminum Slide in, Flanged and dished heads, Condé SDS6 (115 CFM), Honda 9 HP Electric start, 30" tiger tail hose with valve and wand, 50" wash down hose, COMPLETE AND READY TO WORK

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SEASONS CHANGE - DEDICATION DOESN'T

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Portable Restrooms | Hand Wash Stations | Deodorizers | Cleaners | Trucks







	LOWER & VACUUM PUMP ANUFACTURER DIRECTORY				MAXIMUM VACUUM (HG)	MAXIMUM PRESSURE (PSI)	NET WEIGHT (LBS)	NUMBER OF VANES	LIQUID COOLED	RPM RANGE	NUMBER OF LOBES	HORSEPOWER (BHP)	PORT/PIPING
	MANUFACTURER - COMPANY	PUMP MODEL #	BLOWER MODEL #	RECOMMENDED TANK SIZE (GALLON)	MAD	MA	NET	NUN	AIR	RPN	NUN	۴ E	POR
		Jurop PN23		0 - 1,000	27.6"	21	117	3	Air	900 - 1,300			
		Jurop PR200		0 - 6,000	27.6"	30	981	6	Liquid	900 - 1,100			
		Jurop PN58		0 - 2.500	27.6"	21	225	4	Air	900 - 1,300			
	6	Jurop PN84		0 - 4.000	27.6"	21	254	4	Air	900 - 1,300			
		Jurop R260		0 - 6,000	27.6"	25	397	4	Injection	900 - 1,200			
		Jurop RV360		0 - 6,000	27.6"	30	430	5	Fan	1,100 - 1,300			
	CHANDLER EQUIPMENT	Jurop LC300		0 - 4,000	27"	30	430	4	Liquid	900 - 1,100			
	Chandler Equipment, Inc.	Jurop LC420		0 - 6.000	27"	30	462	4	Liquid	900 - 1,100			
See ad page 43	4180 W Sunset Ave.	Jurop RVC360		0 - 6,000	27.6"	30	470	5	Fan	1,100 - 1,300			
page 40	Springdale, AR 72762 800-342-0887 • (f) 888-645-9700	Jurop LC580		0 - 6,000	27.6"	29	512	4	Liquid	900 - 1,100			
	todd@chandlerequipment.com	Jurop RV520		0 - 6,000	27.6"	30	540	5	Fan	1,100 - 1,300			
	www.chandlerequipment.com	Jurop PR150		0 - 6,000	27.6"	30	761	6	Liquid	900 - 1,100			
			Jurop PVT 200	0 - 8,000	27.6"	29	386	-		900 - 4.500	3	54	4"
			Jurop PVT 280	0 - 8,000	27.6"	29	423			2,100 - 3,300	3	110	5" or 6'
			Jurop PVT400	0 - 8,000	27.6"	26	518			1,500 - 3,350	3	160	6"
			Jurop PVT700	0 - 10,000	27.6"	29	1,345			1,000 - 2,500	3	176	6"
			Jurop PVT1000	0 - 12,000	27.6"	29	2,260			1,000 - 2,500	3	241	10"
		Wallenstein 30		50 - 1,800	28"	35	20	4	Air	500 1 750			
		Wallenstein 151		50 - 1,800	28"	35 35	20 100	4	Air	500 - 1,750 500 - 1,750			
		Wallenstein 202				35 35	160	4					
		Wallenstein 302		50 - 1,800 50 - 1,800	28" 28"	35	185	3	Fan Fan	500 - 1,200 500 - 1,200			
				· · · · · · · · · · · · · · · · · · ·				3					
		Wallenstein 402 Wallenstein 403		50 - 1,800	28" 28"	35 35	200 245	3	Fan Fan	500 - 1,200			
	Elmira Machine Industries	Wallenstein 403LN		1,800 - 4,300 1,800 - 4,300	28.5"	35	245 245	3	Liquid	500 - 1,200 500 - 1,200			
	20 Martins Ln. Elmira, ON N3B 2A1 Canada	Wallenstein 553		1,800 - 4,300	28"	35	245 300	3	Fan	500 - 1,200			
See ad	800-801-6663 • 519-669-1541	Wallenstein 753		1,800 - 4,300	28"	35	340	3	Fan	500 - 1,200			
page 72	(f) 519-669-8331	Wallenstein 753LN		1,800 - 4,300	28.5"	35	340 340	3	Liquid	500 - 1,200			
	info@elmiramachine.com www.wallypumps.com	Wallenstein 1054		3,200 - 10,000	28"	35	700	5 5	Fan	500 - 1,200			
		Wallenstein 1054LN		3,200 - 10,000	28.5"	35	750	5					
		Wallenstein 1504LN		3,200 - 10,000	28.5"	35 35	750 750	э 3	Liquid Liquid	500 - 1,100 500 - 1,100			
		Wallenstein 1604		3,200 - 10,000	28"	35	1,200	5	Fan	500 - 1,100			
		Wallenstein 1604LN		3,200 - 10,000	20 28.5"	35	1,200	5	Liquid	500 - 1,100			
		Wallenstein 2106		3,200 - 10,000	20.5	35	1,200	5	Fan	500 - 1,100			
		Wallenstein 2106LN		3,200 - 10,000	28.5"	35	1,700	5	Liquid	500 - 1,100			
				, ,						,			
	SFRUITLAND	RCF 250 RCF 370		12,000	27"	30 35	255 385	4 8	Fan	1,400			
	Falability Reduction			12,000	28.5"				Fan	1,400			
	Fruitland Manufacturing, Inc.	RCF 500		Any	28.5"	35	450	8	Air	1,400			
See ad page 17	324 Leaside Ave. Stoney Creek, ON L8E 2N7 Canada	RCF 870		Any	28.5"	30	575	8	Air	1,400			
1.2.	800-663-9003 • 905-662-6552	RCF 1200		Any	28.5"	35	1,400	8	Air	1,000			
	(f) 905-662-5412	VacuStar WR 2500		Any	26"	21.3	385		Liquid	1,600			
	sales@fruitland-mfg.com www.fruitlandmanufacturing.com	VacuStar WR 3100 VacuStar WR 4000		Any Any	26" 27"	21.3 14.5	422 657		Liquid Liquid	1,600 1,300			
	hibon		VTB 805.XL VTB 807.XL	Up to 1,000 Up to 1,000	28" 28"	15 15	280 346			4,800 4,800	3 3	38 59	4" 4"
			TB 810.XL		28 28"	15	346 494						4 4"/6"
	Hibon Inc. (A Division of Ingersoll Rand)			Up to 2,500						3,800	3	63	4"/6" 6"
	12055 Cote de Liesse		VTB 820.XL	Up to 3,500	28"	15	589			3,800	3	90	
	Dorval, QC H9P 1B4 Canada		VTB 822.XL	Up to 3,500	28"	15	860			3,000	3	153	6"
	888-704-4266 • 514-631-3501 (f) 514-631-3502		SIAV 840	Up to 4,000	28"	15	1,543			2,600	3	225	6"/8"
	jeff_peterson@irco.com		SIAV 8702	4,000+	28"	15	2,645			2,000	3	311	8" 9"/10"
	www.hibon.com		SIAV 8902	4,000+	28"	15	2,750			2,000	3	400	8"/10" 8"
			TS-56	4,000+	18"	15	1,466			2,400	2	189	8

	OWER & VACUNUFACTURER			recommended Tank size (gallon)	MAXIMUM VACUUM (HG)	MAXIMUM PRESSURE (PSI)	NET WEIGHT (LBS)	NUMBER OF VANES	AIR, FAN OR LIQUID COOLED	RPM RANGE	NUMBER OF LOBES	HORSEPOWER (BHP)	PORT/PIPING
	MANUFACTURER – COMPANY	PUMP MODEL #	BLOWER MODEL #	REC TAN	MAD	MA) PRE	NET	งกง	AIR, LIQL	RPN	ŃN	ноя	POR
		VK650		2,500 - 4,000	27"	30	560	6	Fan	1,200 - 1,400			
	Masport	HXL400WV		2,500 - 4,000	27"	30	450	6	Liquid	1,100 - 1,250			
	Masport, Inc.	HXL15WV		2,000 - 3,500	27"	30	350	4	Liquid	1,100 - 1,250			
See ad	6801 Cornhusker Hwy.	HXL15V		2,000 - 3,500	27"	30	320	4	Air	1,100 - 1,250			
page 3	Lincoln, NE 68507 800-228-4510 • 402-466-8428	HXL75WV		1,250 - 2,500	27"	30	260	4	Liquid	1,100 - 1,250			
	customerservice@masportpump.com	HXL75V HXL4V		1,250 - 2,250 500 - 1,750	27" 27"	30 30	230 167	4	Air Air	1,100 - 1,250 1,100 - 1,400			
	www.masportpump.com	HXL3V		250 - 1,200	27"	30	110	4	Air	1,100 - 1,400			
		HXL2V		250 - 750	27"	30	96	4	Air	1,225 - 1,750			
		Moro PM60A		500 - 2,500	28"/18"	29	265	6	Air	1,000 - 1,400			
	m	Moro PM70A		1,000 - 3,000	28"/18"	29	309	6	Air	1,000 - 1,400			
	morg	Moro PM80A		1,000 - 4,000	28"/18"	29	357	6	Air	1,000 - 1,400			
	PUMPS	Moro PM70T		500 - 2,500	28"/22"	21.7	350	3	Fan	1,000 - 1,100			
	Moro USA, Inc. PO Box 424	Moro PM80T		1,000 - 3,000	28"/22"	29	400	3	Fan	1,000 - 1,100			
See ad	Union, MO 63084	Moro PM100T		2,000 - 4,000	28"/22"	29	550	6	Fan	1,200 - 1,500			
page 7	800-383-6304 • 412-787-8400 (f) 412-787-8444	Moro PM60W Moro PM80W		500 - 2,500 2,000 - 4,000	28"/24" 28"/24"	29 29	350 480	6 6	Liquid Liquid	1,000 - 1,400			
	sales@morousa.com	Moro PM110W		2,000 - 4,000	28"/24"	29	400 645	6	Liquid	1,000 - 1,400			
	www.morousa.com	Moro PM200		2,000 - 6,000	28"	14.5	970	4	Liquid	1,000 - 1,250			
		Moro PM2000		3,000 - 4,000	28"	29	1,034	6	Liquid	1,200 - 1,400			
		Moro PM3000		3,000 - 6,000	28"	29	1,177	6	Liquid	1,200 - 1,400			
		Moro HM46		3,000 - 6,000	28"	14.5	1,587	6	Liquid	900 - 1,000			
	National Vacuum Equipment	304 Challenger		Application Specific	27.5"	30	260	4	Air	1,100 - 1,400			
	2707 Aero Park Dr.	607 Challenger Heavy-Duty		Application Specific	29	30	395	7	Fan/Liquid	1,100 - 1,500			
	Traverse City, MI 49686 800-253-5500 • 231-941-0215	866 Challenger Heavy-Duty Defender 500		Application Specific Application Specific	27" 27.5"	20 25	507 397	6 5	Fan/Liquid Ballast Port Cooled	850 - 1,150 900 - 1,200			
See ad page 21	(f) 231-941-2354		4307 Tri-Lobe	Application Specific	27.5	25 15	397 421	Э	Dallast Port Cooleu	2,400 - 4,000	3	47	4"
	sales@natvac.com www.natvac.com		4310 Tri-Lobe	Application Specific	27"	15	456			2,400 - 4,000	3	58	4"
			5314 Tri-Lobe	Application Specific	27"	18	532			1,500 - 3,600	3	95	6"
			6817 Tri-Lobe	Application Specific	27"		1,080			2,750	3	160	8"
See ad page 104	PRESIAC Presvac Systems 4131 Morris Dr. Burlington, ON L7L 5L5 Canada 800-387-7763 • 905-637-2353 (f) 905-681-0411 davidsipkem@presvac.com www.presvac.com	Presvac PV750		500 - 5,000	27"	35	450	8	Fan	1,300 - 1,500			
See ad page 61	VARCo 7489 Mason King Ct. Manassas, VA 20109 866-872-1224 • 703-334-5980 (f) 703-334-5979 sales@varcopumper.com www.varcopumper.com	Patriot 300		2,000 - 6,000	18"	21.8	397		Ballast Port	900 - 1,200			
	Conde	Conde Super 6		300 - 500	27"	20	90	3	Fan	1,200 - 1,750			
	Westmoor, Ltd.	Conde SDS 6		500 - 1,000	27"	20	110	4	Fan	1,200 - 1,500			
See ad page 27	906 W Hamilton Ave. Sherrill, NY 13461 800-367-0972 • 315-363-1500 (f) 315-363-0193 dshea@westmoorltd.com www.westmoorltd.com	Conde SDS 12 Conde SDS Ultra		1,000 - 1,500 1,200 - 2,000	27" 27"	20 20	135 150	4	Fan Fan	1,200 - 1,500 1,200 - 1,500			

BLOWER & VACUUM PUMP DEALER/DISTRIBUTOR DIRECTORY

	DEALERS/DISTRIBUTORS COMPANY	VACUUM PUMP & BLOWER LINES
See ad page 1 Eastern & Midwest Supplement	Advance Pump & Equipment, Inc. 15418 Old Hwy. Rd., Peosta, IA 52068 877-557-7867 • 563-557-0957 • (†) 563-557-0961 wayne@advancepump.com www.advancepump.com	National Vacuum Equipment, Masport, Robuschi, Demaag Wittig, Moro, Jurop, Conde, Dresser Roots
See ad page 2 Eastern Supplement	Andert, Inc. 39 Route 244, Eastford, CT 06242 860-974-3893 • (f) 860-974-2145 andertinc@gmail.com	Wittig, National Vacuum Equipment, Masport, Fruitland
See ad page 38	Armstrong Equipment, Inc. 11200 Greenstone Ave., Santa Fe Springs, CA 90670 800-699-7557 • 562-944-0404 • (f) 562-944-3636 jerome@vacpump.com	Gardner Denver Wittig, Masport, Fruitland, Conde, Jurop, Challenger, Battioni, Sutorbilt, Tuthill, Burks DC 10
See ad page 41	Best Enterprises, Inc. 3513 W Mountain Springs Rd., Cabot, AR 72023 800-288-2378 • 501-988-1905 • (f) 501-988-2880 info@bestenterprises.net www.bestenterprises.net	Masport, Conde, Jurop, Fruitland, Moro
See ad page 2 Midwest Supplement	Centerline Tank & Trailer Manufacturing, LLC 25 4th. St. S., Long Praire, MN 56347 800-752-5159 • 844-4FIX-FAST smillhouse@centerlinetrailer.com www.centerlinetrailer.com	NVE Challenger, Masport, Fruitland, Cowboy, Bowie, Viking, Robuschi, Wallenstein
See ad page 1 Eastern & Midwest Supplement	Crescent Tank Mfg. P0 Box 116, Bloomfield NY 14469 585-657-4104 • (f) 585-657-1014 info@crescenttank.com www.crescenttank.com	Masport, Challenger, Conde
See ad page 12	Erickson Tank & Pump 800 Rd. P .5 SW, Quincy, WA 98848 509-785-2955 • (f) 509-785-3770 sales@ericksontank.com www.ericksontank.com	Masport
See ad page 59	GapVax, Inc. 575 Central Ave., Johnstown, PA 15902 888-442-7829 • 814-535-6766 • (f) 814-539-3617 kdoyka@gapvax.com www.gapvax.com	Hibon, Fruitland
See ad page 33	Imperial Industries, Inc. PO Box 1685, Wausau, WI 54402 800-558-2945 • 715-359-0200 • 715-355-5349 toma@imperialind.com www.imperialind.com	National Vacuum Equipment, Masport, Fruitland, Moro, Conde, Gardner Denver Wittig
See ad page 48	ITI Trailers & Truck Bodies, Inc. 8535 Mason Dixon Hwy., Meyersdale, PA 15552 888-634-0080 • 814-634-0080 • (f) 814-634-5846 www.itimfg.com	National Vacuum Equipment, Gardner Denver, Fruitland, Masport
See ad page 83	LMT - VAXTEEL 1105 SE 2nd St., Galva, IL 61434 800-545-0174 • 309-932-3311 • (f) 877-471-2564 info@vaxteel.com www.vaxteel.com	Jurop, Masport, Moro, Conde, Fruitland, National Vacuum Equipment, Battioni Pagani, Wallenstein
See ad page 3 Eastern & Midwest Supplement	Marengo Fabricated Steed, LTD. 1089 Cty. Rd. 26, Marengo, OH 43334 800-919-2652 • (f) 419-253-2120 www.mfsltd.com	Wallenstein, Masport, Moro
	Marsh Industrial Services 135 E Mile Rd., Kalkaska, MI 49646	Masport, National Vacuum Equipment, Jurop, Giant, Moro,

	DEALERS/DISTRIBUTORS COMPANY	VACUUM PUMP & BLOWER LINES
See ad page 68	Milwaukee Rubber Products, Inc. N52 W13319 Falls Creek Ct., Menomonee Falls, WI 53051 800-325-3730 • 262-781-7888 • (f) 262-781-1742 www.milwaukeerubber.com	Moro, Jurop, National Vacuum Equipment
See ad page 21	National Vacuum Equipment 2707 Aero Park Dr., Traverse City, MI 49686 800-253-5500 • 231-941-0215 • (f) 800-998-6834 sales@natvac.com www.natvac.com	Battioni
See ad page 65	Pik Rite, Inc. 60 Pik Rite Ln., Lewisburg, PA 17837 800-326-9763 ● 570-523-8174 ● (f) 570-523-8175 sales@pikrite.com www.pikrite.com	Masport, Robuschi, Jurop, National Vacuum Equipment, Fruitland, Conde, Moro, Gardner Denver Wittig, Wallenstein
See ad page 4 Eastern & Midwest Supplement	R.A. Ross NE, Inc. 10280 Brecksville Rd., Brecksville, OH 44141 800-678-4581 • 440-546-1190 • (f) 440-546-1188 danw@rarossne.com www.rarossne.com	Fruitland, Jurop, Masport, Battioni, National Vacuum Equipment, Dresser Roots, Hibon, Moro, Tuthill, Sutorbilt, Gardner Denver
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Excavating Grit and Sand

Perforated pipe at the tank bottom causes problems with a pressure system. Can I cut it off?

This feature in Pumper reports noteworthy conversations that take place at the Pumper Discussion Forum, an online forum for industry professionals found at www.pumper.com. Pumper Discussion enables exchange of information and ideas on septic and drainfield installation and maintenance, trucks and equipment, portable sanitation, chemical and additives and much more. Information and advice in "Overheard Online" is offered in good faith by industry professionals. However, readers should consult in depth with appropriate industry sources before applying such advice to a specific business situation. **QUESTION:** I just bought a used tank for my truck. It has the vacuum hose coming out of the top, and the pressure line and a pipe lie in the bottom of the tank with holes drilled in it. Gravel and sand lie in the bottom along this pipe, and it will not blow out. Does anyone else have one like this? I am thinking about cutting the pipe out. That way I can use a long hoe and clean the belly out or take the front cap off and use a pressure washer and clean it out. About 10 years ago, I bought a field slurry tank and it basically had the same set up and seemed to have the same problem. I cut it out. Any opinions?

ANSWERS: It's an "air stir" that doesn't work very well at the 6 o'clock location; 4 o'clock would be better. I would also remove the horizontal pipe. Check-valve the elbow and have a front air-stir, or plumb it to a 2-inch water pump and drink a Coke while the grit is washed out. Either way, the tank needs a manual vent.

• • •

The best way to keep your tank clean is by dumping using an outlet of 6 or 8 inches, which exits from the bottom on your tank on the rear. The liquid goes out fast and powerful enough to take everything with it. This comes from more than 40 years of experience. If you have to dump from a smaller opening due to your disposal requirements, I have nothing for you.

Should I wrap or paint my new aluminum vacuum tank?

QUESTION: I have an aluminum tank that has four large rings around the outside. Is it better to vinyl-wrap or paint this tank? It looks good now but a (graphic) design would bring in a lot of new business.

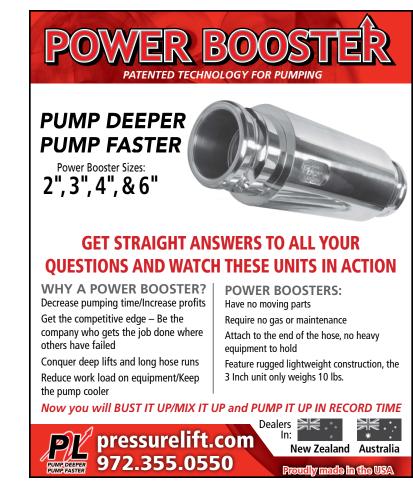
ANSWERS: Because the aluminum is a polished surface, it needs to be prepared for paint to stick to it. Etching primers are used for this. Over the years, I've done lots of vinyl wraps. The polished aluminum surface is ideal for vinyl graphics wraps to stick to as long as it is clean and degreased by wiping down with a solvent. Also, if you peel the vinyl off years down the road, the aluminum will still look brand-new underneath.

* * *

It won't have any glue residue stuck to the tank? Will I have to go around the whole thing with Goo Gone to get rid of it? Will it rip real easy when backing in a customer's driveway and the tree limbs hit it?

* * *

I wrap my trucks and have a lot of aluminum to cover so it's rather expensive. My guys are not very careful, so it takes a lot of abuse. My oldest truck, which was done in 2007, is getting close to needing a re-cover. If it was paint, it wouldn't have made it near this long. ■



62 Pumper • July 2015

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Safety Training Toolbox

Frequent tailgate safety sessions will help ensure your crews make it home healthy and happy every night By Doug Day

hether you are required to hold them or not, safety meetings are critical to protecting your workers and your company from the many risks encountered in the field, shop, your vehicles and yards every day. "We have to counteract the contractor's desire to get the job done," says Joel Levitt, author and director of international projects at Life Cycle Engineering. "The goal of safety meetings is to increase people's consciousness."

For the last 30 years, Levitt has provided training in the maintenance and engineering fields for more than 3,000 organizations in 25 countries.

He has written more than 150 articles and 10 books on the topics around maintenance management. His latest book is *10 Minutes a Week to Great Meetings*.

Pumper: How often should people hold safety meetings, and how much time do we need to deliver the messages?

Levitt: It depends on your goal. What I'm most interested in is people not getting hurt.

It's not unreasonable to have a safety moment every day. It could be one or two minutes. Some companies, when they have any meeting, they always have a safety moment.

A lot of times we'll do just a five- or 10-minute toolbox meeting in the morning; nothing real elaborate. If you're going to

cover a bigger topic, it might be a half-hour or an hour with a PowerPoint presentation.

Or it could be a single-point lesson during a toolbox meeting before going to work in the morning. Fatigue is a common cause of accidents: When you are tired there is more of a chance of injury. Ergonomics would be another, how to pick up something correctly; keeping your back straight, using your legs, not bending over your center of gravity.

Contractors have a unique situation compared to the in-house people. Every single day they are facing a different set of hazards because of the different locations. So they want to get the team together to discuss what's going on at that site. Take five minutes to look at the hazards like slippery surfaces, construction going on around them, the position of cranes and heavy lifts, and overhead power lines.

New guys get hurt all the time, but the other big group is those who have 15 or 20 years of experience who have a momentary lapse in judgment. That's what we're trying to help them with. You want to keep reinforcing to make sure it's in people's minds when they go to work. My concern is that people are thinking and participating in meetings, so you have to make it fun, interesting and get people's attention.

Pumper: Do you have suggestions for developing meeting ideas and materials?

Levitt: OSHA has some really great material for safety meetings that you can just snatch from their website (osha.gov/sltc). There are literally enough topics there to last a year.

Here are some topics I recommend in my book 10 Minutes a Week to Great Meetings:

- Behavioral safety
- Confined space
- \bullet Disease prevention
- Electrical hazards
- Ergonomics
- Hearing conservation
- Ladders

New guys get hurt all the time, but the other big group is those who have 15 or 20 years of experience who have a momentary lapse in judgment ... You want to keep reinforcing to make sure it's in people's minds when they go to work. Hazcom, MSDS sheets, labeling and the likeLifting toolbox: Topics about lifting and general back care

• Hazard communications:

- LOTO: Lockout and tagout
- Office issues
- PPE (personal protective equipment)
- Seasonal toolbox topics dealing with seasonal issues or holiday awareness
- Slips, trips and falls
- Fatigue
- Fire
- Forklifts
- Small tool topics associated
- with hand or powered tools
- Weather and how it affects safety

The meeting could even include home hazards and driving hazards.

- Joel Levitt

Pumper: Some of those are very important to the septic service industry. How often should key topics like confined space be reviewed?

Levitt: You can do it every couple of months, maybe cover a different aspect of it each time. The one story that got my attention is the guy who bent over to pick up a tool and collapsed. The guy standing next to him, thinking he's having a heart attack, bends over to help him and he collapses. It turned out



Reach Joel Levitt at 267/254-0061 or jdl@maintrainer.com.



there was a chest-high level of carbon monoxide, so as long as they were standing up they were fine.

They did oxygen sensing at head level. If they had done it up and down their entire body they would have known there was a problem and accommodated it. A lot of people don't know you have to do that, so using oxygen sensors correctly would be a good single-point lesson.

Operational experience is not helpful if you don't know the things be-

OSHA QuickTakes newsletter

OHSA QuickTakes is a newsletter about workplace safety and health published twice a month. It is available online (osha.gov/as/opa/quicktakes) and by email subscription or RSS feed. hind it. People get hurt by all kinds of crazy stuff. Telling those types of stories is useful.

Pumper: Larger companies are required to

keep safety training records. Should every company do that whether or not they are required to provide training?

Levitt: I would keep a log of the topics so you know what you are covering and to use for planning your next meetings. Sessions should be held on company time and cover the hazards that your organization faces. You should also keep a record of who is in attendance. For those covered by OSHA rules, hazard communications training is required once a year.

Pumper: Do you have tips about planning an effective meeting? **Levitt:** The biggest single problem we see is that nobody knows what the meeting is about; why are we having this meeting? A lot of times, management will call meetings to make a decision they have already made. If you do that too often, people catch on really fast. The appearance of soliciting opinions and actually soliciting opinions are different.

My book includes 10 ground rules for solid, dynamic meetings:

1. Set up a focus so everyone knows what a particular meeting is trying to accomplish. There might even be a statement about how this fits into your overall mission.

2. Distribute an agenda before the meeting begins, which gives participants time to think about and prepare for the specific issues that will be raised.

3. Make it mandatory that people RSVP, and make them understand that if they accept, they should attend. If someone can't come at the last minute, tell that person to contact the chair or secretary.

4. Start and end on time.

5. Make attendees understand that if they were given an assignment at a previous meeting, they need to have it ready. If someone wasn't able to complete his or her homework, the chair needs to be told so in advance of the meeting.

6. Everyone has to pay attention, so set phones on vibrate, deal with urgent – life-or-death urgent – texts or emails outside the meeting room. Ban Facebook, Twitter, LinkedIn or random surfing.

7. Be courteous. Only the chair can interrupt a speaker, and then only to bring the conversation back to the agenda or to help manage the discussion.

8. Focus. Discuss only the topic on the floor. Make sure all the topics are on the agenda.

9. Encourage and nurture participation. Every participant should take an active part in the meeting to the extent of his or her ability.

10. Keep minutes and action lists to spur and support follow-up. All participants should have access to these documents. \blacksquare



Erik Gunn is a business writer in Racine, Wisconsin.

The Uncertain Future of Section 179

Generous temporary tax deductions help small businesses offset the cost of new equipment. It's anybody's guess if they will continue for 2015. By Erik Gunn

ill Congress renew higher limits under Section 179 of the U.S. tax code for 2015? It's a question that has dogged small-business owners annually as they contemplate using generous temporary deductions expanded to stimulate the economy during recessionary times.

Section 179 is a great deal, and most pumping contractors know it. The rule lets small business owners take an immediate federal tax deduction on the full purchase price of certain new equipment the year it is purchased. Before its implementation, business owners were required to take the deduction piecemeal over several years, factoring in its depreciating value in the process.

The section has been around a long time — no one's talking about terminating it. That's not the issue. But what no one knows for sure is whether

the value for the deduction will stay as high as it's been in the recent past. And if past patterns offer any clue, we won't know until the year is almost out. That doesn't offer much reassurance to contractors looking into bigticket items like a new vacuum truck.

EXPANDING THE BENEFIT

Section 179 has traditionally capped the cost of the equipment eligible for the deduction at \$25,000. Also, for businesses that spent more than \$125,000 on equipment in a year, the cap itself went down. So the measure tended to be targeted at really small businesses.

More than a decade ago, however, Congress passed a temporary provision that boosted the cap. For the last few years, a business could qualify for the immediate deduction on equipment costing up to \$500,000. The temporary change also boosted the ceiling on total an-

nual equipment purchases that a company could make and still qualify for the full deduction to \$2 million.

Those changes were made as part of an economic stimulus program under President George W. Bush after the recession that followed the 9/11 attacks. But they were always written as temporary adjustments. Since then, the temporary adjustments have continued to be renewed from year to year.

That sets up an annual cliffhanger, with Congress deciding at the proverbial 11th hour every year to extend the higher deduction limit and the higher spending ceiling to qualify for the provision. Sure enough, in December 2014 the lawmakers did it once again, approving an extension so the provision is much more generous than it used to be. When it comes to those annual extensions, "Congress has been quite consistent for the last several years about not passing legislation until after the year ends," says Eva Rosenberg, the proprietor of TaxMama.com, a website that fields visitors' tax questions.

In fact, she points out, for 2014 lawmakers acted a bit sooner than usual, voting to extend the provision back on Dec. 16. (In the past, when the extension hasn't been granted until after the new year has begun, lawmakers have simply made it retroactive to the year just concluded.)

Even with the earlier activity, by the time Congress finally acted, "there simply wasn't time to order the heavy-duty equipment, have it delivered and set up, and put it into use in 2014," Rosenberg says.

WHERE TO NOW?

Too many businesses put off major purchases because of the uncertainty of recouping their costs as significant tax deductions. Frankly, this kept them from buying much-needed new equipment. **11**

Eva Rosenberg

That doesn't mean businesses didn't get the break. But Mathias Weber, tax principal at the California-based accounting firm Haskell & White, says that for those businesses it was a lucky extra. They could not include Section 179 as part of their decision-making process.

So while many businesses — including wastewater contractors — have probably benefited from the more generous rule when tax time rolled around, they were flying blind at the time of the purchase itself.

Last year, businesses that waited until Congress acted before pulling the trigger on buying a piece of equipment "had less than two weeks to make decisions on new purchases," Weber says. Furthermore, he points out, for a business to qualify for the break the new equipment or technology "must be 'placed in service' in the year you take the deduction."

So what's the forecast for 2015?

Weber takes a cautious approach as he looks ahead: "There are no guarantees that the deduction will be renewed for 2015, or that it will be enacted with enough notice to truly look at software or equipment purchases strategically," he says.

That alone is a good reason to deepen your relationship with the CPA who works with your business. (You do have one, right?)

"The best bet is for business owners and company executives to discuss their business plans with their certified public accountant on an ongoing basis," he continues. Weber likes to be in on the ground floor as a consultant to his clients so he can advise them on the best tax-benefit strategies before a purchase, "rather than just recording the transaction after the fact."



A CONFIDENT FORECAST

Rosenberg is perhaps a bit more willing to go out on a limb. She reports that most tax professionals are confident the higher limits will once again be extended.

But even if Rosenberg's right, Congress probably won't act until very late in the year. So, once again, if you are relying on lawmakers to help you decide whether to buy that new service truck or trailer jetter, you're probably out of luck. You'll need to decide without knowing if you'll get the higher deduction.

So it's understandable if you hesitate.

"It's time to live with reality," Rosenberg says. "Last year, too many businesses put off major purchases because of the uncertainty of recouping their costs as significant tax deductions. Frankly, this kept them from buying much-needed new equipment."

So, don't wait for Congress. "Get the vital equipment you need to grow your business and serve your customer base," Rosenberg concludes.

CONSIDER LEASE-PURCHASE

But, she says, it might be possible to hedge your bets so that you can help your tax bottom line whether or not the higher limits stay in force: See if a supplier will agree to a lease-purchase arrangement conditioned on the section.

"It will take some rewriting of boilerplate contracts," Rosenberg acknowledges. But here's how it would work: Work out an agreement that lets you lease the equipment, but also can be converted right away to a conventional purchase loan in the event Congress renews the higher limits for the 2015 tax year.

A conventional lease-to-own contract comes with a nominal buyout price at the end of the leasing period — the part of the purchase cost that is over and above what is built in to your monthly lease payment. With this deal, Rosenberg says your purchase price at the lease conversion would instead cover most of the product's cost — and ensure you get the tax deduction.

Meanwhile, if the tax pros are wrong, the extension does finally expire and the deduction limit falls back to \$25,000, "the buyer can count on deducting the lease payments," Rosenberg says. "It's a little complicated. But if someone needs to spend \$50,000 or \$150,000 for equipment, you need a certain level of assurance that you'll be able to recoup some of that outlay quickly via tax benefits."











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Changes Coming in Michigan

Preserving land application and retooling the sanitary code are on the agenda for two state wastewater associations By Doug Day

fter more than two years of work, onsite wastewater professionals in Michigan have a new law dealing with septage disposal. The law was signed by Gov. Rick Snyder in January and continues an exemption so haulers with certain storage tanks can continue to land-apply septage rather than having to use a local municipal treatment plant.

More changes are possible with an effort underway to pass statewide onsite wastewater rules. Joe Hall, president of the Michigan Septic Tank Association (MSTA), is one of those keeping an eye on proposals. Another is Ron Lindsay, vice president of the Michigan Onsite Wastewater Recycling Association (MOWRA).

The 65-year-old MSTA has about 240 members, mostly pumpers with some installers, portable restroom companies, vendors and equipment manufacturers. MOWRA started in 1995 and consists of installers, designers, service providers, inspectors, academics and regulators. In a given year, membership will range between 30 and 75, depending on the current hot issue affecting the industry, according to Lindsay.

How does the new septage law help the industry?

Hall: It will take away a deadline for those who have a storage facility of 50,000 gallons or more and operate in a service

area for a septage receiving facility. If that storage tank was erected or authorized before the service territory was created (a requirement for new receiving facilities), you do not have to take your septage to that facility and can continue to land-apply. The exemption had a sunset provision in 2025, so the bill takes away that sunset and allows land application to continue. (Current law also requires local governments that ban land application to offer a septage receiving station.)

The second half of the bill allows pumpers to take septage to a receiving facility in any service area in which they operate. There was a loophole in the law that allowed receiving facilities to require septage in their service area to be disposed of only at their facility.



Contact Joe Hall through the Michigan Septic Tank Association, at 989/808-8648 or www.msta.biz.

To get the bill passed, we agreed to an amendment to allow mandatory disposal for existing plants until their debt is paid off. Grand Traverse County has an ordinance that any septage pumped in that county has to go to their facility. When they first built it, they had some construction problems, a holding tank wall collapsed, and they had to rebuild it. The disposal cost was 12 cents a gallon when they opened and has gone up to 18 cents. Jackson County has a similar ordinance and their cost is 21 cents.

There has also been talk of a new statewide sanitary code. Is that making any progress?

Hall: That should be coming up and hopefully passed this year. Some committees have formed and it's being talked about. Every local health

Talking to some of the health departments recently, they see the next year to be very strong. They're seeing a lot of activity as far as soil evaluations and so forth right now, so they anticipate an increase in work.

- Ron Lindsay

district has its own sanitary code; there is no statewide code for them to follow. Installers are concerned because they have a different set of rules from county to county (and) that makes it confusing.

Lindsay: There has been talk for a number of years and it keeps getting stalled. It's a big initiative for this year. There's a lot of politics and various stakeholder groups involved. I think we do have a little bit better chance this time around. MOWRA is providing technical information. There is a need for uniformity as designers and installers work across county lines. Secondly, there is a big need for maintenance requirements for onsite systems in Michigan.

What do your groups provide in the way of training?

Hall: Our biggest thing is education. Our annual wastewater conference in January offers continuing education credits toward the 30 needed for your pumper license renewal every five years. The conference is sponsored by our groups, along with the Michigan Department of Environmental Quality, the Department of Ecosystems and Agricultural Engineering, Michigan Water Environment Association, and Michigan Environmental Health Association.

Lindsay: The annual conference is MOWRA's biggest initiative; this last one was the 64th. We had about 500 attendees: about 120 regulators, 200 pumpers, 80 installers, 40 vendors and a mix of service providers, time-of -sale inspectors and system designers. Unlike the pumpers, the rest of the onsite wastewater professionals don't have requirements for certification and continuing education. We would like to see that as part of the bill for the statewide standards.

Some of our members serve with the Michigan State University Extension providing onsite wastewater training for onsite professionals. They just started that last year, primarily over the winter months at about a half dozen locations across the state. They also provide educational workshops for homeowners and other users of onsite systems.



Once or twice a year, MOWRA hosts educational field trips to various decentralized wastewater treatment/collection sites. Onsite professionals can learn about various advanced treatment systems firsthand by asking questions of the professionals that were involved with the project.

MOWRA will also help fund public service announcements by the Ex-



Contact Ron Lindsay through the Michigan Onsite Wastewater Recycling Association, at 989/205-2187 or www.mowra.org.

tension to help the public understand the importance of wastewater management and the need for a statewide code. That is just getting underway.

Is there any other legislation you are following?

Hall: House Bill 5939 was introduced last November by the Farm Bureau Association. MSTA opposes this bill that would allow farmers to service their own portable restrooms without having to obtain a Michigan Septage Haulers License. We're opposed because it would be more competition for haulers, and if we have to be licensed and go through all the education, farmers should have to do the same thing.

The bill didn't go anywhere in the last session and will have to be reintroduced. We've been in contact with the DEQ and the Farm Bureau and are

going to set up some meetings to hash things out a little and hopefully get everybody on the same page.

We heard about the bill from the DEQ. They wanted to know our opinion. I think there's probably some room for negotiation, but we definitely want them to get a license. Hopefully we can come up with something that is agreeable to everybody.

What does the future hold for the onsite industry?

Lindsay: With the economy, we're one of the first ones to slow down and one of the last to recover. During the last five years there has been a reduction in the number of onsite firms, and many of those that are still around downsized significantly. This past year has been tremendous for installers and designers; most have been overwhelmed with the workload. People are kind of standing on the fence right now. Is this a trend that is going to continue or is it just pent-up demand? Talking to some of the health departments recently, they see the next year to be very strong. They're seeing a lot of activity as far as soil evaluations and so forth right now, so they anticipate an increase in work.



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Jim Anderson, Ph.D., is an emeritus professor at the University of Minnesota Department of Soil, Water and Climate, education coordinator for the National Association of Wastewater Technicians, and recipient of the pumping industry's Ralph Macchio Lifetime Achievement Award. Email Jim questions about septic system maintenance and operation at editor@pumper.com.

Lagoon Maintenance 101

Sewage treatment ponds are a popular onsite solution in select rural areas. What should you tell a homeowner about care for a lagoon system? By Jim Anderson, Ph.D.

QUESTION: What do I need to do to maintain my sewage lagoon system?

ANSWER: A few months ago, a visitor to the *Pumper* website wrote to me about the individual lagoon system serving a residence. The writer's family had just moved out from the city and they wondered how to take care of the system.

Personally, I don't have experience with lagoon systems; it's a technology not routinely used in my state. Over the years, though, I served on various committees and task forces reviewing individual sewage treatment systems and had varying levels of discussion with colleagues from Missouri, North Dakota and a couple of other states where these systems are allowed in less densely populated areas. In Missouri, they also looked to this option in areas of the state where the soils were very slowly permeable (clay) and, in their view, difficult to have soil-based systems perform well.

In most cases, an individual lagoon system has a septic tank between the house and the lagoon to capture the large solids and scum. Effluent flows by gravity from the tank to the middle of the lagoon where it discharges. Most – but not all – states require septic tanks in front of the lagoons. Having a septic tank in front of the lagoon reduces odor problems and prevents floating solids on the surface.

SIZE MATTERS

The lagoon itself can be circular or rectangular in shape. Sizing is dependent on the flow from the house and the local climatic conditions; the differences between precipitation and evaporation over the year; and the length of the winter season without significant evaporation. These factors lead to significant differences in size requirements among states and regions.

For instance, Missouri requires 440 square feet per bedroom, and North Dakota 1,000 square feet per bedroom. The square footage is the working area of the lagoon. Typically lagoons will have a 3-foot working depth with the dikes built with a 3-to-1 side-slope ratio. So the actual area required for the lagoon is much larger, which is one of the drawbacks for using lagoons for individual houses. Setback distances from neighbors' property lines also vary widely, with 100 feet required in Missouri and a quarter of a mile in North Dakota.

The lagoon is not meant to be an infiltration pond; it is meant to act as a container in which the facultative, aerobic and anaerobic processes can take place to break the waste down. At a minimum the lagoon needs to be lined with a clay bottom that is never allowed to dry out. In most areas, a synthetic liner is now required to ensure the lagoon does not leak out the bottom. A grassy area is usually provided to deal with times of lagoon overflow due to excessive precipitation. Each state has its own requirements for how overflow situations are handled.

Most – but not all – states require septic tanks in front of the lagoons. Having a septic tank in front of the lagoon reduces odor problems and prevents floating solids on the surface.

TAKING CARE OF BUSINESS

With that background about lagoons, what about the maintenance question? The inquiry came from Michigan, where the lagoon is located on a farm and the nearest neighbor is a quarter mile or more away. So it fits the overall rural location criteria.

As with any onsite system, maintenance begins with household use patterns and the septic tank. Levels of scum and sludge accumulation should be monitored regularly and the tank cleaned when those levels exceed 25 percent of the tank's operating depth. For example, a tank with a 60-inch operating depth needs to be cleaned when the depth of the scum and sludge total 15 inches. For a typical residence in Minnesota, this occurs every three to five years.

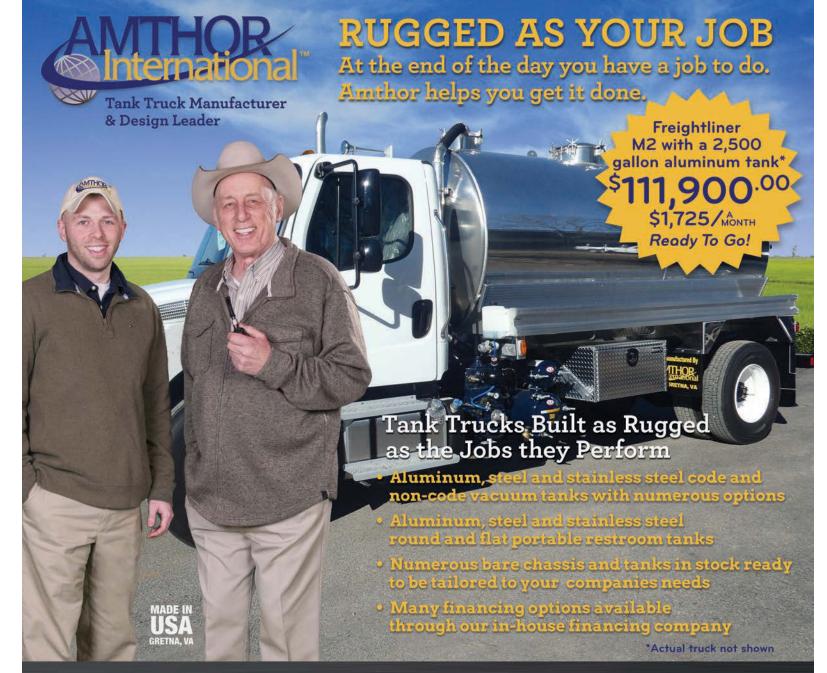
This is why a number of states and local counties have programs requiring systems be evaluated on three-year intervals. When the tank is cleaned, it should be evaluated for the baffles and effluent screen being in place, overall tank condition and watertightness. Any defects or problems should be fixed.

Lagoons need to be in direct sunlight and open to the atmosphere and breezes to operate most efficiently. There should not be any trees or brush located near enough to the lagoon that it is shaded or interfering with wind patterns across the lagoon. Part of the treatment process requires oxygen mixing, and wind is the primary way for this to happen. Also, when trees or brush are too near the lagoon, falling leaves can create additional organic solids that contribute to excessive sludge accumulation.

BE A STEWARD

Lagoons need to be fenced to restrict access to individuals or animals that may wander into the area. The fence and gates need to be maintained to prevent entry to animals and, more importantly, children.

Berms should have a grass cover, which should be periodically clipped during the growing season. This is to discourage burrowing animals from setting up their homes in the berm, which may lead to berm failure and sewage discharges. Dikes should be periodically walked to inspect for animal damage.



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Similarly, if cattails or other plants become established inside the berms, they can help with the treatment processes, but their roots can also provide channels for seepage through the dike. Checking the dikes periodically and solving any seepage problems before they become failure points is important.

Overflow areas are usually provided into a grassed waterway. The waterway should be maintained with a good stand of grass vegetation. Making sure this is in place is important to protect other areas and other properties during periods of excessive rain.

Finally, even though lagoons are not supposed to accumulate sludge if designed properly, sludge sometimes accumulates and needs to be removed. This requires a professional just as with the septic tank. The sludge needs to be removed and disposed of according to state regulations. This may require dewatering or other treatment. ■

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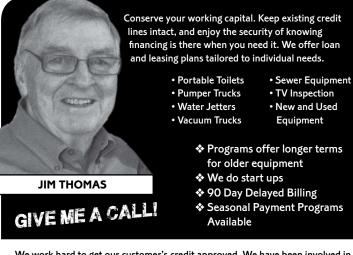
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California

California Onsite Wastewater Association www.cowa.org; 530/513-6658

Colorado

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Maine

Maine Association Of Site Evaluators www.mainese.com.

Maine Association of Professional Soil Scientists www.mapss.org.

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Minnesota Minnesota Onsite Wastewater Association www.mowa-mn.com; 888/810-4178

Missouri Missouri Smallflows Organization www.mosmallflows.org; 417/739-4100

Nebraska

Nebraska On-site Waste Water Association www.nowwa.org; 402/476-0162

New Hampshire

New Hampshire Association of Septage Haulers www.nhash.com; 603/831-8670

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New Mexico

Professional Onsite Wastewater Reuse Association of New Mexico www.powranm.org; 505/989-7676

New York

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North Carolina

North Carolina Septic Tank Association www.ncsta.net; 336/416-3564

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Ohio

Ohio Onsite Wastewater Association www.ohioonsite.org; 866/843-4429

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NATIONAL

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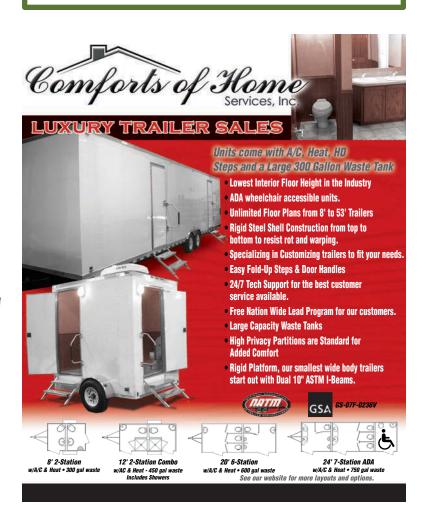
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PRODUCT NEWS



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The result of a college class project, the LiftGator was designed by 22-year-old Justin Russo and fellow Cal Poly graduate Marty Affentranger.

"It was a one-year project, and I had been working on this for a year on my own when Marty became involved," says Russo, president of Superior Solutions Mfg.

Working as a fabricator on a ranch in Goleta, California, Russo needed to move air compressors, blowers and generators but couldn't lift the heavy equipment by himself.

"It's a problem all of us face on a pretty regular basis," says Russo, who was studying mechanical engineering at the time. "We use our trucks for work to move heavy things around. You can either get a bunch of guys to help you or try to muscle it yourself."

In October 2014, Russo and Affentranger took top prize in the annual TechPitch competition for small businesses in the area.

"The judges liked the real-life application of the product," says Russo, who compared the competition to TV's *Shark Tank.* "You talk about your business, where you've come from and where you plan to go. They judge you on how successful they think you'll be."

The lift gate attaches to any pickup truck, flatbed or utility body truck equipped with a hitch receiver. The majority of the lifting weight is distributed to adjustable legs incorporated into the unit. A wiring kit connects to an adapter at the back of the truck to power the lift. The truck does not need to be running to operate the lift.

The lift gate can be used by pumpers, onsite installers and portable restroom operators to transport equipment to various onsite installations, special events and septic job sites.

"What we found is a lot of times you can send one person to do a job that you might have needed two people to lift. It helps you work more efficiently," Russo says.

"The key feature of the lift gate is it's removable. You only have it there when you need it and you can put it on multiple vehicles. If you have three, four, five trucks in a fleet, you can just put it on one truck for the worker who needs it. The No. 1 thing is safety. No one wants worker-comp claims." **805/448-7183;** www.liftgator.com.

KOMATSU HYDRAULIC EXCAVATOR

The PC360LC-11 hydraulic excavator from Komatsu America Corp. is powered by a Tier 4 Final Komatsu SAA6D114E-6 engine producing 257 net hp. The operating weight is between 78,645 and 80,547 pounds. Up-



graded cab features include an enhanced power mode for greater productivity. Komtrax technology relays fuel levels, diesel exhaust fluid (DEF) levels, operating hours, location, cautions and maintenance alerts. **847/437-5800;** www.komatsuamerica.com.



VANAIR ROTARY SCREW AIR COMPRESSOR

The Reliant RS85 rotary screw air compressor from Vanair Manufacturing delivers up to 85 cfm at 100 psi and replaces the Viking and Viper Hydraulic lines. The direct-drive unit eliminates belts

and pulleys. 800/526-8817; www.vanair.com.

HBC HAND-HELD TRANSMITTER

The micron 7 hand-held transmitter from HBC, designed for remote machinery operation, features a TFT color display, providing the operator access to machine information and warnings. The HBC Smart Card protects against unauthorized use, while the radiomatic yuCON controls graphic display settings. **800/410-4562; www.hbc-radiomatic.com.**





VACTOR HYDROEXCAVATOR WITH PETERBILT OPTION

The HXX HydroExcavator from Vactor Manufacturing is available with a Peterbilt 567 Class 8 truck chassis

option. The chassis design reduces weight for increased payload capacity and improves maneuverability for operating in congested work sites. Chassis improvements include new air and fuel hard lines and the separation of air, fuel, diesel exhaust fluid (DEF) and electrical system routings. **800/627-3171; www.vactor.com.**

O'BRIEN TRAILER JETTER WITH SEDIMENT PUMP

The 7000 Series of trailer-mounted jetters from O'Brien Mfg., a product of Hi-Vac Corporation, feature water tanks with a sediment pump for easier clean-



ing and longer life, as well as 15 percent more water capacity. The trailer also features the muffler and air cleaner mounted inside the enclosure for improved sight line, electric reel control for smoother rotation and ease of control, and hydraulic and water gauges mounted in the main control panel for easier viewing. **800/752-2400; www.hi-vac.com.**

NLB ULTRAGREEN HIGH-PRESSURE WATERJET PUMP



UltraGreen high-pressure waterjet pump units from NLB Corp. feature Tier 4F engines that comply with the

latest U.S. Environmental Protection Agency emissions regulations. In addition to reducing exhaust emissions, the advanced engine technology improves fuel efficiency and increases torque, enabling pump units with smaller engines to handle bigger jobs. UltraGreen units can be used in all 50 states. **248/624-5555; www.nlbcorp.com.**



CAT PUMPS HIGH-PRESSURE PLUNGER PUMP

The Model 3550 high-pressure plunger pump from Cat Pumps is rated to 10 gpm at 6,000 psi. The pump is designed for equipment operating in remote or mobile high-duty

cycle applications such as hydroexcavating, jetting, blasting and hydrostatic testing. It can be direct-driven hydraulically or pulley-driven from a motor or engine. Features include lubricated and cooled V-packings and lowpressure seals with hard-chrome plated forged brass inlet/discharge block manifolds. The wet end can be serviced without entering the crankcase. **763/780-5440; www.catpumps.com.**

COXREELS LG SERIES HOSE REEL

The Little Giant Series hose reel from Coxreels is designed for tubing and air/water applications. Made for commercial and industrial settings where space is limited, the reel weighs 9 to 13 pounds, depending on model, and is 10 5/8 inches tall. The reel has a continuous radius grommet de-



sign made from bearing-grade, FDA-compliant Cox-

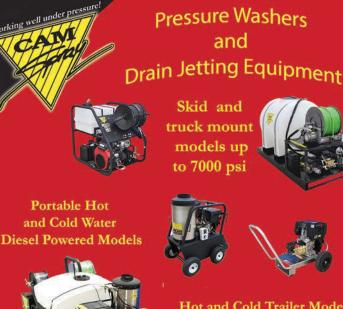
Composite that does not pinch or catch the hose during operation. Other features include low pull tension to reduce the chance of stretching the hose and a noncorrosive CoxComposite ratchet hub with self-lubricating bronze bearings for smooth rotation. **800/269-7335; www.coxreels.com.**



case. www.portabranding.com.

PORTABRANDING PORTABLE RESTROOM ADVERTISING

Screen-printed fabric restroom advertising covers from Portabranding secure at the bottom of the unit using a bungee cord. The fabric is machine washable for multiple uses and comes with a carrying



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General Tire celebrates 100 years

U.S. tire brand, General Tire, celebrates its 100th anniversary this year. Focusing on the truck market, founders William F. O'Neill and Winfred E. Fouse pioneered an oversized pneumatic tire called the General Jumbo. At

the time, trucks ran on solid rubber tires. By the 1930s, General Tire was the largest U.S. truck tire manufacturer.

GapVax Rental names operations manager

GapVax Rental Units named Earnest Rankin operations manager. G.R.U. offers daily, weekly or monthly vac-



uum truck rentals.

Earnest Rankin

Wasteguip adds regional sales managers

Wastequip named Anthony E. Parker and Ernie Castro regional sales managers for its Technical Products Division. Parker will be responsible for the Midwest region and Castro will be responsible for the Southeast, Latin America and the Caribbean.

Benlee offers recycling report

Benlee, a manufacturer of roll-off trailers, and its sister companies, Goldsboro and Raleigh Metal Recycling, launched the Commodities and Metal Recycling Report. The weekly video, posted on the companies' websites, features a synopsis of the industry, as well as demand and pricing for metals and other commodities.



Portable Restroom Trailers



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Wabash National names managers

Wabash National's Aviation and Truck Equipment business, which manages the Progress Tank and TST brands of truck-mounted tanks, named Michael Warkentien vice president and general manager, Aviation and Truck Equipment. Wabash also named Nancy Rudolph engineering manager; Wayne Terpstra director of sales, Progress and TST; Matt Decker sales manager, Progress and TST; Steve Thorn sales manager, Progress Tank; and Dan Pederson sales associate, Progress Tank and TST.

Jet director of product development passes away

Trent Lydic, 40, director of product development at Jet Inc., passed away June 7 from a heart attack. Lydic was president of the Ohio Onsite Wastewater Association, a frequent participant in National Onsite Wastewater Recycling Association conferences and served on industry committees including the National Sanitation Founda-



tion Joint Committee for Wastewater Treatment, the National Precast Concrete Association Onsite Wastewater Product Committee, the State Onsite Regulators Alliance Captains of Industry Forum, the Ohio Sewage Rule Advisory Committee and the Ohio Department of Health's Technical Advisory Committee.

"He was one of the greatest minds and kindest personalities in our industry," says Chris Mandich, sales manager, Americas at Jet Inc. "He will be missed by many."

He is survived by his wife, Beth, and children Charlie, Tommy and Penny. A scholarship fund to assist the family has been established at www. gofundme.com/lydicfamilyfund.

Vacuum Truck Rentals adds Hydro-Knife hydroexcavator

Vacuum Truck Rentals added the Ledwell Hydro-Knife hydroexcavator to its fleet of rental equipment. The 2,100-gallon hydroexcavator delivers up to 200 degrees of hot water at 3,000 psi. Two 125-foot hoses work independently or in tandem to deliver 10 gpm each. The Hydro-Knife supports multiple excavators with or without onboard water systems.

VARCo adds vacuum pump repairs, rebuilds

VARCo, supplier of hose, valves, vacuum pumps, restroom chemicals and vacuum truck components for the liquid waste industry, has added vacuum pump repairs and rebuilds.



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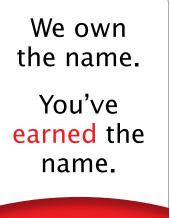
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PORTABLE TOILET COMPANY established for over 25 years in the metro New York area for sale. 250 portable toilets, 10-position transport trailer, 27 ft. comfort trailer, ADA units, sinks, hand sanitizers, holding tanks, etc. Strong customer base includes contractors, special events & government contract. Owner retiring, serious inquires only. Email outhouseinfony@gmail.com (P09)

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Septic tank cleaning & inspection service business for sale in Central Maine. Owner is branching out after 20 years and wants to sell this part of the business. Profitable, turnkey business with a loyal customer base. Two pump-truck operation (1) 2000 GMC - 2,500-gallon capacity, 136,000 miles. (2) 2004 Peterbilt – 4,500-gallon capacity, 129,000 miles. Serious inquiries only! \$257,000. Call 207-782-1620 or email septicbizsale@gmail.com (PBM) PARADISE FOR SALE! Bee's Honey Pots, Inc., portable toilet company established in 1983 in the beautiful Florida Keys is for sale. Based on Big Pine Key, Bee's is the oldest established and largest portable toilet company in the Keys. Sole owner and operator for the past 30+ years wants to go fishing! Interested? Call 305-872-2287. (P07)

Portable restroom company for sale. Approximately 400 units and three trucks located in Southeast Connecticut. Owner retiring. Serious inquiries only. 860-887-6542 (P08)

Portable toilet company established for over 30 years in Southwest Louisiana for sale. Portable toilets, septic tank cleaning, roll-off trash dumpsters. Call 337-789-5991 or email bigkkans1956@netcommander.com for more information. (P09)

Front Range Colorado septic pumping business, turnkey with 2,000+ client list, website & 4 trucks. Grossed over \$250,000/ year for 3 years. \$395,000. If serious email johnstonsanitation@gmail.com (P08)

Septic Tank Service Business for Sale, Northeast Florida. Owner wishes to retire. Callahan area north of Jacksonville, a fastgrowing area in Florida. Profitable, turnkey business. 29 years in business with loyal customer base. Two pump tuck operation: (1) 1996 International 4900: DT466, 5-speed transmission, 2-speed axle. 2,500-gal-Ion capacity. 297,000 miles. Good tires, excellent condition. (2) 2000 Freightliner FL70: 8.3 Cummins, 6-speed transmission, 2.400-gallon capacity, 195.000 miles. Good tires, excellent condition, Business includes complete onsite lime 20,000-gallon stabilization plant in Northeast FL. Owner will train and assist with licensing. Call for more information. Kenny Farmer 904-879-4701 or 904-545-0357. (P07)

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Bright Technologies 3.0m Belt Filter Press Skid System Model # P-12000. To be sold via online auction on August 5, 2015. Manufactured by Bright Technologies in 1999, this unit comes complete with touchscreen controls, a Vogelsang rotary-lobe sludge pump, washwater booster pump, liquid-emulsion polymer system, automated pneumatic steering and tensioning and multiple sludge conveyors. The package also includes Krohn and Badger non-contact sludge flow meters along with some additional ancillary equipment. Less than 8.000 hours on the system. This unit is located in Lebanon, WI. For further details or to bid contact Dave Bell at Dave Bell Auctions and Equipment, 920-763-8373 or email: davebellauctions@gmail.com See the system live at www.davebellauctionsandequipment.com or www.auctiontime.com. You can also review complete equipment information at www.brightbeltpress.com (P07)

For Sale: Approximately 5-yard dewatering box mounted on 2001 10,000 lb. Brimar dual-axle, hydraulic-dump trailer. Polymer feed system with polymer pump and approximately 30-gallons liquid polymer. \$9,500. 518-651-6345 (P09)

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2005 Kenworth T800 Vactor 2115: 15-cubic-yard hopper - 1,500-gallon water capacity. Roots 1024 Ras-J 18" blower 80gpm/2,500psi water system. 800' x 1" sewer hose/2,500psi. 2005 Kenworth T800, CAT C-470hp. Chassis tri-axle. Eaton-Fuller manual transmission with push axle. \$193,000. Call Jeff Brooks @ 317-258-4900 (P07)

2006 International VacCon: CAT pony motor, 3-stage fan, 12-yard tank, 1,300-gal-Ion water tank. \$88.000. Call Jeff Brooks @ 317-258-4900 (P07)



1999 Freightliner Guzzler w/Cummins M-11, 350hp, Allison HD4060, 64k GVW. Guzzler combo unit w/stainless water and debris tanks, extendable & rotating hose reel, extendable boom. Roots 824PD blower, Meyers 80gpm pump. Ready for work. Photos available.\$58,000 708-878-8401. IL P07



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2009 Sterling Vac-Con: VPD3616LHAEN S\N: 09085083. 3,975 main engine hours. Bean jetting pump. Roots 824 RCS blower, 16-yard debris tank. New aluminum extension tubes. Hydraulic-driven jetter pump. Ken's Truck & Equipment: www.khtrucks.com 972-938-1905 or 214-632-5277 (PBM)

2002 International Guzzler: 54,000 miles, 10-speed, 27" Roots blower. Stainless steel tank. Stk# 2300. Ken's Truck & Equipment: www.khtrucks.com 972-938-1905 or 214-632-5277 (PBM)

2006 International Vactor 2112\15: 9,300 hours, S\N: 05-07V-9443, Vactor jet pump 80gpm @ 2,000psi. 600' 1" new hose. 800' hose reel capacity. Pump-off system. Ken's Truck & Equipment: www.khtrucks.com 972-938-1905 or 214-632-5277 (PBM)

1998 Volvo GapVax: Stk# 2301, VIN# 4VHJCB JF8WN857157. Stainless steel tank, N-14 Cummins, 9-speed Fuller transmission, Roots 27" blower. Ken's Truck & Equipment: www.khtrucks.com 972-938-1905 or 214-632-5277 (PBM)

Vac-Con V390LHA combination unit with Roots 827 blower, 1999 International Model 2554 cab and chassis. (Stock #3918C) www.VacuumSalesinc.com, (888) VAC-UNIT (822-8648) (PBM)

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30 Blue PolyPortables toilets. Great condition \$275 each. 1 PolyPortables super twin Ultra Sink, like new \$325. 4 PolyPortables Tag-along blue sinks, like new \$225 each. 25 Olympic construction-grade toilets \$175 each. Call 217-827-3180 Illinois (P09)

We have over 100 Tuff Jon units for sale. All are faded on the outside but insides are pretty clean. Call or text 828-712-7761. \$125 minimum of 10 at this price. (P07)

28 blue PolyPortables standard units, construction grade. All units have hand sanitizers. Approximately 10-12 years old. \$225 each. Near Toledo, Ohio. Call 419-877-5351. (PO7)

300 used toilets: Satellite Tufways and Poly-Portable Integras, green and blue colors available. All in good condition. \$275 to \$350. Quantity discounts available. Sold in loads of 28 or more only. 920-322-3342 (P07)

SUBMIT YOUR CLASSIFIED AD ONLINE at www.pumper.com

If you are using an **800 NUMBER** in your ad, be sure it can be used in all areas nationwide. Used ADAs and semi enhanced for sale. Call 920-342-3251. We are located in Watertown, WI. (P09)

For Sale: Used portable toilets - Poly-John - Synergy. Please contact Michael Perez at 956-592-5975 or email him at Michaelperez@portoco.com (P08)

350+ portable toilets for sale. We have Tuff-Jon I units in varying condition with prices ranging from \$250-\$350. We are located in Canton, NC. 828-648-3170 (P08)

28 PolyLift roofs, used condition for PolyJohn Highrise units. \$100 each. Call 561-346-9296 or email Lance@redtoilets.com (P07)

100 tan PolyPortables standard units, construction grade. Approximately 10-12 years old. \$150 each. Located in Albuquerque, NM. Call 505-345-3965. (P08)

PORTABLE RESTROOM TANKS

2008 Progress 1,500-gallon aluminum portable restroom tank by Lely Manufacturing. Dual work sides and boxes, sight glasses, 4" pump off, 20" manway, Jurop pump, 1,100 waste and 400 fresh. Good condition. \$15,000. glewis@capitalwaste.net or 804-638-0435 (P07)

PORTABLE RESTROOM TRAILERS

2 Decons, 28' Tonto, 18' Royal, 2001 ASCI, 16' Presidential, 26' Presidential, portable toilet hauler trailers. 315-437-1291, NY. (PBM)

WANTED: Used Wells Cargo UltraLav and Comfort Elite restroom trailers. Call Jamie Hunter at Hoosier Portable Restrooms 317-439-9383. (P07)

PORTABLE RESTROOM TRUCKS



Dave 816-935-2663, MO P07

2000 Int 4700 - \$17,500; 2002 Int 4300 -\$23,500; 2006 Int 4300 - \$39,500; Roll-off -\$23,500. Restrooms - \$150. 256-757-9900 or www.pbsos.com. (PBM)



Complete Portable Toilet service truck mount units (turn-key), mounted on your truck or ours. Tool boxes, dual work stations, dc10 washdown pump, reversible vacuum pump, hose reel, set up complete, toilet racks available. 1100 waste/400 fresh: \$19,000, 1700 waste/600 fresh: \$20,500. Any custom options or sizes available!

> TexLa Services 936-641-3938 www.texlaservices.com

P07

P08



903-784-6821, TX



2006 International 4300: DT466, Allison automatic transmission, air brakes, a/c, toilet hauler rack, Abernethy tank 1,100/400. 316k miles.\$27,500 901-452-7040, MN P08

2003 Ford F450: Dual-wheel with 500 waste/300 fresh, vacuum from both sides of the truck, water tank with pressure. Needs oil ring and motor work. Asking \$5,000. If you would like to see picture please email bestseptic@gmail.com (P07)



2014 Ford F550 4x4, loaded, 42,000 miles. 2005 Crescent flat vac. 750 waste. 250 fresh water. Call for more info/pics.\$63,000 Derek 785-477-2254, KS P08

2011 Isuzu NRR: Diesel, automatic with 2008 Progress aluminum tank, 350 water, 900 waste, Masport pump, 77,000 miles, \$39.000. Call 845-883-7880. (P07)

2005 Ford F550: Diesel, auto, new aluminum tank 600 waste/300 water, Conde 6 pump w/ Honda motor. www.pumpertrucksales.com. Call JR. @ 720-253-8014, CO. (PBM)

2006 GMC: Duramax diesel. Allison auto. New aluminum tank 400 waste/200 water. Conde pump. Honda motor. www.pumpertrucksales.com. Call JR. @ 720-253-8014, C0. (PBM)

PORTABLE SHOWER TRAILERS

For Sale: Two (2) 40-ft. shower containers. 14 shower heads per container, handicap accessible. Trailer and accessories included. For pictures go to www.candsshowers.com. 712-428-6143 or cell 712-880-1250. (P08)

Several semi-portable shower trailers. Towable but special permission required for over width. 8-18 stall trailers 12' wide x 30-50' long. Starting at \$8,000. Email or call for pics peggy@rentapotty.net or 920-322-3342. (P07)

POSITIONS AVAILABLE

GapVax, Inc., a nationally recognized manufacturing business, is seeking a talented, highly motivated individual to fill a full-time Sales Position in the Midwest (lowa based preferred) region. GapVax is the leading manufacturer of industrial and municipal vacuum units and hydroexcavation units in the United States. We provide the most reliable, comprehensive, and efficient mobile vacuum units in the industrial and municipal markets. Specifications of the position are listed on our website, www.gapvax. com. click on the Now Hiring link in the left hand column. Send resumes to Lthomas@ gapvax.com or 575 Central Avenue, Johnstown, PA 15902. (CPMGBM)

Looking for experienced operators & technicians in Florida. Florida-based sewer, wastewater treatment & pipe cleaning company looking for experienced operators and technicians. Travel, clean CDL license, drug-free workplace. Competitive pay based on experience. Please call 407-809-5556 x102. (P07)

PUMPS-VACUUM

Fruitland RCF500. Used. Very good condition. \$3.500. Several available. 305-545-0314 (P07)

Roots URAI 711 blower vac pump. Older, but extremely low hours on unit. Best offer. Jay 651-489-5185, M-F daytime. (P08)

Buy & Sell all makes and models, new & used vacuum pumps & high pressure water pumps, and good used replacement parts. Call for an inventory sheet and save. www.Vacuum Salesinc.com, (888) VAC-UNIT (822-8648) (PBM)

RENTAL EQUIPMENT

Liquid vacs, wet/dry industrial vacs, combination jetter/vacs, vacuum street sweeper & catch basin cleaner, truck & trailer mounted jetters. All available for daily, weekly, monthly, and yearly rentals, VSI Rentals, LLC, (888) VAC-UNIT (822-8648) www.vsirentalsllc.com (PBM)

ROLL-OFF TANKS



New 4,000-gallon roll-off tank with new Fruitland hydraulic-drive pump. Use with any roll-off truck. Ready for work.\$34,500 **KLM Companies** 617-909-9044 PBM

SEPTIC TRUCKS

1999 Sterling vacuum truck, white, 177k miles. 2,200-gallon tank, 3126 CAT, 9-speed, 33,000 GVW, air brakes, aluminum wheels with all new tires. Runs and looks great! \$32,000. Call/text Kevin 208-221-2777. If no answer please email boverfun@ vahoo.com (P07)



1998 Sterling with M-11 Big Power Turbo diesel. 10-speed transmission, AM/FM radio, a/c. 12,000 front, 42,000 rears. Air-ride suspension. New 225 tires, DOT inspected. New 2015 3.000-gallon Imperial tank. New Patriot 300 vacuum pump. 363cfm (tank & pump never used). 90 PTO gear case, work lights and more. Painted - Ready to go. ... \$39,900 P07

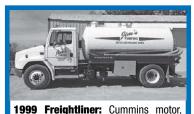
Scott 763-213-8235, MN



Turn-Key Vacuum Tank Units: 3,600gallon, unit mounted on your truck or ours; \$20,000. 3,200-gallon truck units; 19,500. 2,500-gallon truck units; \$18,000. 1,500-gallon truck units; 16,000. Self-contained vacuum skids, 1,000-gallon; \$10,500. 2,500-gallon painted tanks ready to mount; \$13,000. PortaPotty trucks and any custom options or sizes available!

> **TexLa Services** 936-641-3938 www.texlaservices.com

P07



pre-emissions, 8LL transmission. All tires are new, very low miles - 157,000.\$26,500 PRM

Call 715-938-0119, WI

2007 Freightliner M2 Business Class: CAT C7 250hp, 6-speed manual transmission, 190k miles, DOT inspected. 85% tires and brakes, NEW 2,500-gallon vacuum tank, Jurop LC420 pump, large tool box, best of everything! \$49,500. Call or text 734-309-2093 email dbergeron@live.com for more info and pictures. (P07)



1994 GMC/WHITE Septic Pump Truck: R260 pump, 4,000-gallon Lely waste unit. Excellent condition! Mechanically sound. DOT inspected. More pictures on request!\$29,000 703-361-4517, VA P07



2005 International: 335hp CAT engine. 278.000 miles. 10-speed transmission. a/c, cruise. New 2,500-gallon tank, stainless hose trays, and Jurop R260, 364cfm vacuum pump. Showroom quality truck. \$48,500 Eugene 740-259-5555, OH P07



2006 Peterbilt 357 tanker truck: 169,097 miles, 11,334 hours, 70,000 GVW. CAT C-13 430hp motor, 18-speed transmission. 3.90 gear ratio, 24.5" tires at 80%, brakes are 75%. Chalmers suspension, jake brake. 4,000-gal-Ion tank, pump is a masport h400w pump 1-year-old Masport H400W pump. Truck comes with hoses, pintle hitch, air and electric to the rear. This is a super nice truck, well maintained as well!\$79,999 Keith 973-896-6716, NJ P07

1998 Sterling with 3,000-gallon reconditioned septic tank, rebuilt PV750 vacuum pump. CAT 350hp engine with Fuller 8-speed transmission. New paint on truck and tank. Ready for work. \$36,500. KLM Companies 617-909-9044 (PBM)

2005 International 4300: National Vacuum Equipment 400cfm, 80% tread on Bridgestones, fresh-painted grey cab/ white tank, 300k. Good condition. \$42,900. 905-681-3614 (P08)

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SEPTIC TRUCKS



1998 Mack RD688s: Transway 4,000-gallon carbon steel tank, rearopening door, 3 baffles, 4 sight glasses, 4" intake, 6" discharge, heated valves. Mack 12-speed extended range splitter. 350hp Mack engine. 2-stage jake brake, differential lock. Air-ride cab, spring suspension, double frame. 170,000 miles, 13,525 hours. Transway 1,045cfm pump. Tank dumps just like a dump truck with hydraulic piston. All maintenance done. Springs front and rear, rear frog legs, kingpins, sandblasted chassis and tank, primed and painted 5 years ago. Cab in great shape - no rust. Truck is 100%. Have all paperwork since 1998. We are getting a new truck. Asking \$65,000. Truck was \$198,000 new. Located in Boston, MA. Call or email for more info.

dustin@preventativeseptic.com Dustin 978-473-4510, MA PBM



307-351-4403, WY

POS



1999 Sterling SC8000 cabover, 2,500-gallon tank, hydraulically-operated Challenger 360 vacuum pump. Needs engine repair/replacement. \$15,000 firm. **205-425-8303, AL** P07





Eight great older pump trucks - \$35,000 each. Big power. Jake brakes. 3,365-gallon vacuum tanks, Masport pumps. All makes & models. www.pumper-truck.com. Call JR @ 720-253-8014, C0. (PBM)



Call 704-545-6159, NC P07



2007 Mack Vision: 4,000-gallon tank, 100-gallon freshwater tank, 3,500psi/8gpm jetter. 421,500 total miles, 10-speed transmission. Truck built 18 months ago. New tank, new pump, etc. 420cfm Jurop liquid-cooled pump. Very good tires, paint excellent. Like new. Email for more pictures. \$65,000

> Call 772-287-0651, FL donna@callcookes.com P07



1987 Kenworth T600A: CW CAT 6-cylinder. Eaton-Fuller 15-speed. 8-bag A-R suspension. 3,365-gallon vacuum tank, Masport 75 pump. \$31,000. www.pumpertrucksales.com. Call JR. @ 720-253-8014, CO. (PBM)

2000 Peterbilt: 300hp CAT, 9-speed, rear locking. Excellent condition. New 2,500-gallon vac tank. www.pumpertrucksales.com. Call JR. @ 720-253-8014, CO. (PBM)



Call 715-938-0119, WI PBM



2008 Freightliner M2: 260hp Cummins. Allison auto., air ride with new 2,500-gallon Imperial tank and 350cfm Masport.

920-997-4922, WI P07



1996 Western Star: Detroit Series 60, 18-speed transmission. Hendricks suspension. 3,365-gallon vacuum tank, Masport 400 pump. www.pumpertrucksales.com. Call JR. @ 720-253-8014, CO. (PBM)

1994 Peterbilt 377: Detroit Series 60, 10-speed transmission. 3,365-gallon vacuum tank, Masport HXL pump. www.pumpertrucksales.com. Call JR. @ 720-253-8014, C0. (PBM) **2003 International 4300:** DT 466 new inframe overhaul; Allison auto., 136k miles, used 1,200-gallon steel vac tank, under CDL; PV3 vac pump. www.pumpertrucksales.com. Call JR. @ 720-253-8014, CO. (PBM)

2008 Ford F750: 260 Cummins, 7-speed, rear locking differential, New 2,500-gallon vac tank, new Jurup pump. www.pumpertrucksales.com. Call JR. @ 720-253-8014, C0. (PBM)

1997 Mack with a 4,000 U.S. gallon c/s vacuum tank unit with a Masport pump package. (Stock# 0330C) www.VacuumSalesinc. com (888) VAC-UNIT (822-8648) (PBM)

Pre-owned 3,000 U.S. gallon carbon steel vacuum tank with a Masport H75W vacuumpressure pump installed on a 2000 Mack CH613 cab and chassis. (Stock# 8498C) www.VacuumSalesInc.com (888) VAC-UNIT (822-8648) (PBM)

2004 Peterbilt 330 with a 2004 Progress 3,600-gallon tank and Presvac PV750 pump. (Stock# 1693V) www.VacuumSalesinc. com (888) VAC-UNIT (822-8648) (PBM)

2002 Freightliner FL70 with a Presvac 2,300 US gallon carbon-steel vacuum tank and Fruitland pump. (Stock# 4427C) www.VacuumSalesInc.com (888) VAC-UNIT (822-8648) (PBM)

2004 GMC with Progress 1,200 gallon aluminum vacuum tank and Masport pump. (Stock# 1364V) www.VacuumSalesinc. com (888) VAC-UNIT (822-8648) (PBM)

SERVICE/REPAIR

Dynamic Repairs - Inspection Camera Repairs: 48 hour turn-around time. General Wire, Ratech, Ridgid, Electric Eel, Gator Cams, Insight Vision, Vision Intruders. Quality service on all brands. **Rental equipment available.** For more info call Jack at 973-478-0893. Lodi, New Jersey. (PBM)

SLUDGE APPLICATORS



2006 TerraGator 3104 - Only 359 hours! JD 300hp Tier II. JD 11-speed transmission. 4,200-gallon with Kongskilde Injection System........\$210,000 Contact John Aguglia 585-689-3390, NY

john.aguglia@javafarmsupply.com www.javafarmsupply.com P07



2015 Freightliner M2106: Cummins ISL 350, APS9060 bright-finish aluminum 1,000-gallon tank. Rear sump with 4" flange. The tank has full-length aluminum 34" sills, 20" pressure manhole on top and rear, 3" primary shut-off, and 4" rear inlet flange with riser pipe and S/S deflector. Defender 500 vacuum pump by Challenger. Raven Viper Pro. 309-527-6455, IL P07

CAT corporate special **CT660L 6x6** with chassis and electrical specifications by Linco-Precision. 58,000 lb. rear axles with 60" spread. Sludge system: 5,500-gallon pressure/vacuum tank, 82" x 19', with 5/16" walls and 2 baffles. All plumbing is TIG welded stainless steel. Raven Viper Pro.

309-527-6455, IL P07

1988 2004 Ag Chemical Terra Gator: Yellow, 2,200-gallon tank, Moro pump. Factory-rebuilt 519 Cummins motor – 200 hours. New clutch, 10-speed Road Ranger transmission, injectors, floater tires. Good shape. \$32,500. 802-477-2716, VT (P07)



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SLUDGE APPLICATORS

1986 Field Gymmy Truck: Blue, 427 automatic. 2,000-gallon stainless steel tank, newer Moro pump. Floater tires. Extra set of new tires. 1976 GMC parts truck included. Good shape. \$15,000. 802-477-2716, VT (P07)

Maximizer Septage Screening Machine: Removes the trash from the septage before you land apply. Works well. Stainless steel construction. New in 2004. Very good shape. \$10,000. Generator available to run machine in remote location - \$1,500. 802-477-2716, VT (P07)

TANKS



100 - 2011 Wichita 500 bbl. (21,400 gallons) portable frac tanks. Epoxy lined. Delivery available.

Call 815-341-0375 P07 or email tsgeneva@hotmail.com



New aluminum tanks in stock and ready to go: 950/300 gallon - \$14,250; 1,100/400 gallon - \$15,250; 1,500/500 gallon - \$21,000; 2,300 gallon - \$21,000; 2,500 gallon \$23,000; 2,800 gallon -\$24,000; 3,500 gallon - \$25,000; 4,000 gallon - \$27,500.

Rodney Lane 270-832-3793 P07

Vacuum Tanks - New: Sizes from 1,000-4,300 gallons. All complete! Delivery available. www.JEagleTanks.com. Contact Jerry: JEagleTanks@yahoo.com or 800-721-2774. (PBM)

100 BBL / 4,700-gallon septic truck tank. Two 6" valves in front, one 4" and one 3" valve in rear. Tank built in 2010 by BCA Fabrication. Jurop R260 pump included. \$11,500 OBO. Link for pictures: http://bal timore.craigslist.org/hvo/5064777701.html. Call Brad @ 443-243-6234 (P07)

2008 LMT 3,000-gallon carbon steel vacuum tank. (Stock# LMT3000V) www.Vac uumSalesinc.com (888) VAC-UNIT (822-8648) (PBM)



TOOLS

Crust Busters: Portable, lightweight machine, guaranteed to mix up septic tanks and grease traps! Save time and money! www. crustbusters.com, 1-888-878-2296.(PBM)

T&T Tools, Probes, Hooks: Probes feature steel shafts with threaded and hardened tips. The insulated **Mighty Probe**TM tested to 50,000 volts. **Top Poppers**TM open manhole covers easily. Free catalog. **www.TandT tools.com.** Phone **800-521-6893.** (PBM)

TOYS

Septic pumper and vacuum die-cast toy trucks: In your choice of colors and logos, several cabs available. Call 877-450-2100, write to Granite State Collectibles, PO Box 440, New Ipswich, NH 03071; or www. granitestatecollectibles.com. (PBM)

TRAILERS-VACUUM/TANKER



800-558-2945 Ext. 328 PBM

2015 Acro Vacuum Trailer: Stainless steel 6,000 gallon, DOT certified double conical with air-ride suspension. Aluminum wheels all positions, full hose trays, OSHA walkways and railings. Vacuum pump option either hydraulic or self-contained. KLM Companies 617-909-9044 (PBM)

TRUCKS -MISCELLANEOUS







 2012 Ford F750:
 2,150-gallon Imperial

 aluminum tank,
 350 fresh/1,800 waste.

 125k miles.
 Excellent condition, a must

 see.
 \$68,500

 Call Git-R-Done Sanitation at
 307-682-3900, WY

2008 Peterbilt 367: Oilfield equipped, only 54,000 miles. \$115,000. ISX 550 Cummins diesel, 550 horsepower, 18-speed transmission, 20,000 lb. front, 46,000 lb. rears, 80-barrel water tank with Fruitland 500 pump. Call or email Del at 815-459-7751 or dayscrawford7@att.net for more information including pictures. (P10)

TV INSPECTION



2002 Ford E450 CUES camera van: Night Owl Series camera, approximately 1,500 ft. of cable, 56k miles, Stock#02-99. \$37,950. 2000 Workhorse CUES camera van: Night Owl Series camera, approximately 1,500 ft. of cable, CUES multi-grout chemical pumping system, 500 ft. of Quad-Line chemical/air/water hose, 18k miles, Stock#00-99. \$42,950. For more pictures and info please visit

www.letsrollautoandequipment.net or call 719-494-4927, C0 P08

2003 Ford Aries TV Inspection: Stk# 2168, V10 Triton gas engine. Honda motor powers rear unit. One (1) camera. Ken's Truck & Equipment: www.khtrucks.com 972-938-1905 or 214-632-5277 (PBM)

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2005 Dodge Sprinter van with preowned Aries video pipe inspection system with 30,586 miles, main line camera and lateral camera. \$22,985. For more information contact Joe Tompkins:

> 856-981-5668, NJ or email jt@hadehart.com P09

VACUUM EQUIPMENT



REDUCED PRICE! 1995 Ford L9000 chassis, 3306 CAT diesel engine. 9-speed Fuller transmission, Holmes 10x20 RBST, 5,000cfm blower, 1645 Vactor Spicer transfer case. \$52,500. Please ref V-24. Also other surplus NLB waterblasting units available: 10120, 8120, 10150D.

734-722-8922, MI

VACUUM LOADERS

2001 Gap Vax HG57 WET/DRY on Volvo WG64, 5,500 cfm, 27" Hibon blower, Cummins engine, chassis tank and bag house, in good condition, ready for work. KLM Companies 617-909-9044 (PBM)

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blower, 1645 wase \$52,500

P07

Gardner Denver T-375M: Bare Shaft pump. Gardner Denver T450M Bare Shaft pump NLB 20-200: 12 gpm @ 20,000 psi. Gardner Denver LC-1500: 390 gpm max, 15,000 psi max. NLB 36-200 6 gpm @ 36,000 psi. HT-150S 25 gpm max 10,000 psi max, Shell Side Machine, Wheatley 165: 30 gpm @ 10,000 psi, Wheatley 165: 17 gpm @ 20,000 psi. Wheatley 125 with aluminum bronze fluid end. Boatman Ind. 713-641-6006. View @ www.boatmanind.com. (PBM)

2006 Sterling Supersucker: C-13 Caterpillar, Eaton-Fuller 10-speed, Dresser/Roots 6,600cfm, 28"HG. 41,000 miles, 9,200 engine hours. Sludge pump on discharge. \$122,000. For more info or pics call 325-

2014 Freightliner M2 106 with Ledwell Vac Unit - 3,000-gallon/70-barrel vac unit with

2,600cfm. 44,180 miles/2,176 hours. Tandem axle with drop axle. \$244,000. Located

in Williston, ND. Call 406-388-8332. (P07)

1999 Sterling with a 3,200-gallon Cusco

Master Vac high-dump unit. (Stock# 3378V)

www.VacuumSalesinc.com (888) VAC-

WANTED

Need ADA restrooms. Please contact Michael

Perez at 956-592-5975 or email him at

Wanted: Portable toilets, handicap toilets,

and hi-rise units. Please contact Lance 561-346-9296 or lance@redtoilets.com (P12)

Wanted to Buy: Vactor 2100s and late model

Guzzlers. Cash. Phone 800-336-4369. (PBM)

Michaelperez@portoco.com

(P07)

(PBM)

(P07)

938-7527 or 325-642-1031.

UNIT (822-8648)

NLB 1012 waterblaster running at 10k psi, trailer mounted. In good operating condition. Also large amount of misc. accessories for sale. This blaster is ready to work and make money. Please call with any questions. 330-716-2004 (P07)

I have a Jetstream 10175 waterblaster set at 10k psi for sale. It is trailer mounted. Runs great and is ready to work. I also have a large amount of blasting accessories for sale. Please call with your questions and needs. Rick 330-716-2004. (P07)

I have a NLB 10305 waterblaster that is in great shape and is ready to work. I also have a large amount of misc. water blasting accessories for sale. Please call for details. 330-716-2004 (P07)



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 @ 2000 PSI, 100 USG Water Tank

Powervac Mini w/ Hydro-X Package

> DOT 407/412 Code Tank
 > 1650 CFM Blower
 > 27" HG
 > Waste Tank: 4200 US Gallon SS 316
 > Hydro-X Package: 5 GPM
 @ 3500 PSI, 440000 BTU Burner,
 700 US Gallon Water Tank SS 304



Dump Trailer / Tractor Combo Stainless Steel 316

 > DOT 407/412 Code Tank
 > 900 CFM Blower
 > 27" HG
 > 7800 US Gallon Tank
 > Axle Spacing & Tank Size Configured To Your State Regulations

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