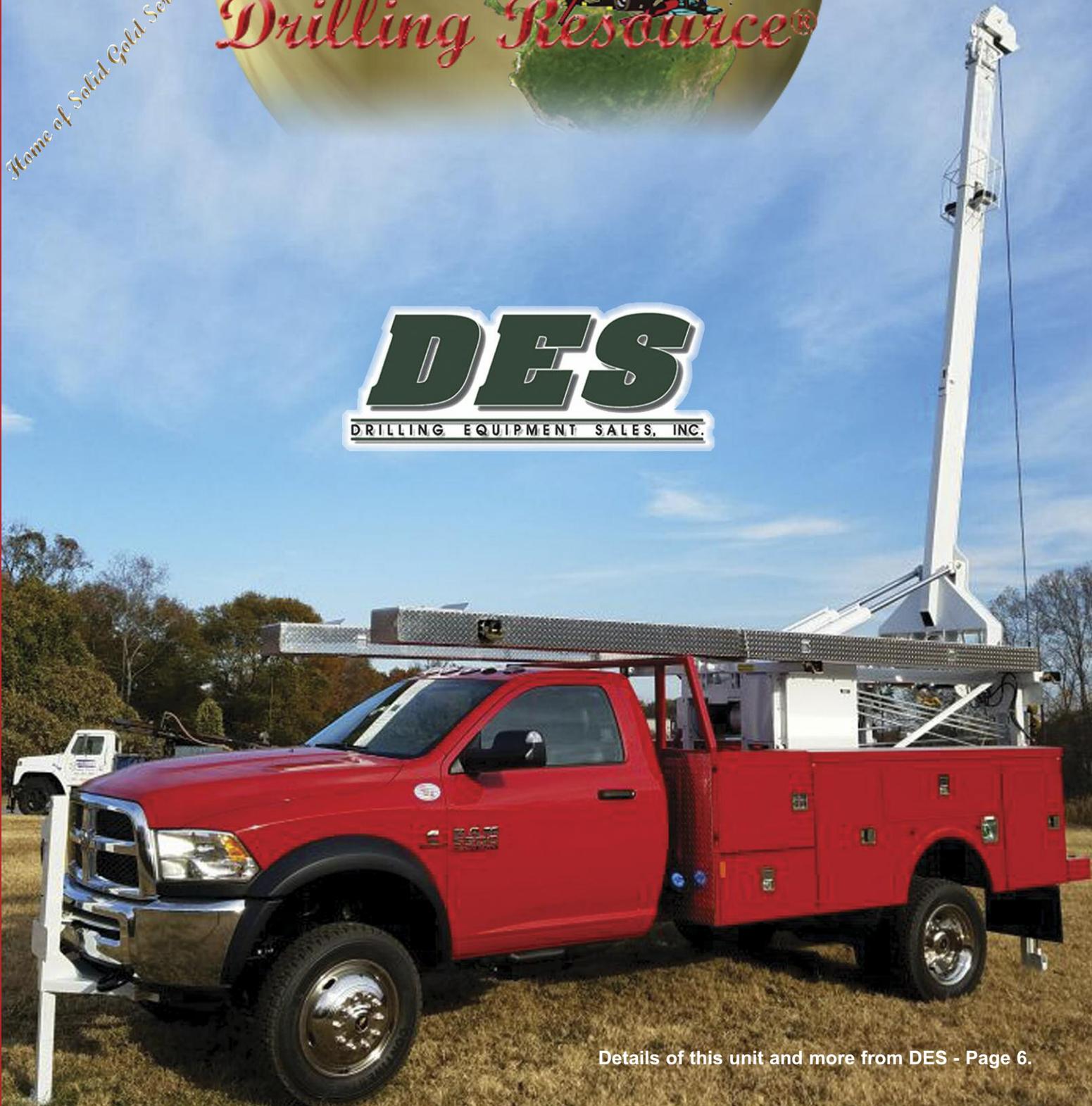


WorldWide Drilling Resource®

Home of Solid Gold Semicon

DES
DRILLING EQUIPMENT SALES, INC.



85
Years

Water Well
Industry
MVP
GEFCO 30K



#Team **GEFCO** ★

GEFCO, Inc. – An Astec Industries Co.

GEFCO, INC. an Astec Industries Company



2215 SOUTH VAN BUREN · ENID, OKLAHOMA, USA 73703 · PHONE 580.234.4141 · domsales@gefco.com · intsales@gefco.com · www.gefco.com

ROCK



SOLID

We carry a complete line of new and surplus tricone bits, hammer bits, hole openers, PDC bits, HDD single cutters, HDD DTH products and much more.

KS/BIT

800.213.1389 / 618.438.9279 (ESPAÑOL) / KSBIT.COM



WATER WELL / GEOTHERMAL DRILL RIGS

by SIMCO Drilling Equipment, Inc.

SIMCO 2800 - Water Well / Geothermal Drill Rig

The **SIMCO 2800** is the best built drill for water well / geothermal well drilling in its class on the market today. **SIMCO 2800** is compact, ruggedly built, easy to maintain, and its all-hydraulic tophead drive is ideal for providing the power needed to get the job done.



SIMCO 2800 - The Most Powerful 2800 Ever Built!

SIMCO 7000 - Water Well / Geothermal Drill Rig

The **SIMCO 7000** Water Well / Geothermal Drilling Rig is the workhorse of the SIMCO family with its auto-indexing drill rod carousel and mud pump options.



SIMCO 7000 - Geotechnical / Environmental Versions Available, Too!

CONTACT SIMCO TODAY FOR A QUOTE

SIMCO has a 45-year track record of quality-built drilling rigs, equipment, and service. All SIMCO rigs are backed with the best warranties in the industry. SIMCO provides unmatched, professional service and support to our customers.



1-800-338-9925 | www.SIMCODrill.com



Editorial

Solid Gold Advertisers

Breaking News.....	13
Classified Section: WorldWide SUPER MART™	57-72
Dealmakers.....	18
Education Connection.....	22
Fun Page.....	35
Hot Off the Press	9
Obituary: Constable, Sandra A. (Currie).....	32
Photo Gallery	27,50
Product Spotlight.....	54
Ronnie's Real World	19
Where are you planning to go?.....	14
Who's in the News.....	13
<i>WorldWide Business Directory™</i>	11
<i>WorldWide Home of Solid Gold Service ~ with a Smile™</i>	6
<i>WorldWide Service Center™</i>	56

Construction-Geotechnical

Battersby, Mark E.: Drilling Into Money Not Boring.....	33
CONEXPO-CON/AGG® Announces Fundraising Efforts.....	43
Increased Construction Drives Up Demand for Met Coal.....	27
San Francisco's Leaning Tower.....	35

Directional

Don't Forget to Maintain Your Battery!.....	31
Oil Wells Using HDD are Among the Highest Producers.....	28
Wilson, Jr., Robert Evans: The Un-Comfort Zone II.....	7,24

Environmental

Good Ole Rock 'N' Soil.....	45
Kwader, Thomas: Environmental Monitoring.....	10

Exploration-Blasthole

Frequently-Used Geological Terms Part 58.....	28
Kuebelbeck, Jim: Through the Back Door!.....	18

Gas & Oil

2015 U.S. Proved Reserves Report.....	50
Connor, Tim: Thirty Minutes & Success & Happiness.....	23,52
The Asset of Effective Marketing.....	40,54

Geothermal

Danish Company Wins Heat City Contract.....	42
Drilling for Geothermal Plant in Indonesia Commences.....	31
E-News Flash Readers' Choice: The Search for the World's.....	51
Italy - A View from the Camera.....	25
Storkson, Britt: Keep it Simple.....	17,48

Mining

Australian Innovation with Worldwide Application.....	30
"Smith, Billy Bob": The "Idiot's" Corner.....	37
Solar Power in the Sunshine State Thanks to Mining.....	41
White, Harold: Oil/Water Exploration.....	12

Water

In the Eyes of a Rookie.....	44
Corey, Bill: S.A.E. Pumps.....	55
Municipal Installation Made Simple with Flexible Drop Pipe.....	8
Rasmussen, Tim: Water For Life International.....	39
Wire, Jeremy C.: Tales from the Field.....	26,34

Alberta Water Well Drilling Association (AWWDA) Conv.....	13
Allegheny Instruments.....	45
America West Drilling Supply.....	69
AMS, Inc.....	10
Aries Industries, Inc.....	9
Armstrong Machine Co., Inc. (AMCI).....	17
Atlantic Screen & Manufacturing, Inc. (ASI).....	22
Baker Water Systems.....	37
Baroid Industrial Drilling Products (IDP).....	49
Barrett Supply Company, Inc.....	45
Best in the West Drill & Blast Conference (ISEE).....	26
Better Water Industries, Inc.....	12
Bit Brokers International.....	24
Bitco, Inc.....	52
Bloom Mfg., Inc.....	30
Blue Demon Company, Inc.....	14
China Coal and Mining Expo.....	38
Constant Water, LLC.....	22
Drill Pipe, Inc.....	56
Drilling Equipment Sales, Inc. (DES).....	1
Drilling Supply & Mfg (DSM).....	53
DRILLMAX, Inc.....	72
Eijkelpamp/SonicSampDrill.....	29
EXPONOR 2017.....	20
EXPONOR 2017.....	21
Filmark Products, Inc.....	33
Foremost Industries.....	15
GEFCO, Inc. (an Astec Industries Company).....	2
GEFCO, Inc. (an Astec Industries Company).....	41
Geoprobe Systems®.....	46
Geoprobe Systems®.....	47
HINOWA S.p.A.....	25
Hose Solutions, Inc.....	8
Infinity Tool Manufacturing.....	70
Jentech Drilling Supply, Inc.....	44
Kruse Energy & Equipment, LLC (Auction).....	31
KS Bit, Inc.....	3
MARL Technologies, Inc.....	34
Merrill Mfg.....	55
Michigan Ground Water Association (MGWA) Conv.....	35
Mills Machine Company, Inc.....	54
Moab Bit and Tool Company, Inc.....	32
New England Water Well Association (NEWWA) Expo.....	33
Noland Drilling Equipment.....	18
Palmer Bit Company.....	16
PRINOTH Ltd.....	42
Qwater Well Development Tools.....	31
Rauch Manufacturing, Inc.....	55
Rex McFadden Ltd.....	39
Rockmore International.....	7
SEMCO, Inc.....	71
Shallow Exploration Drillers Clinic (SEDC).....	17
SIMCO® Drilling Equipment.....	4
Star Iron Works, Inc.....	23
Star Iron Works, Inc.....	51
Sullivan-Palatek, Inc.....	43
T&T Carbide, Inc.....	36
Tennessee Water Well Assn. (TWWA) Mtg & Trade Show.....	48
Texas Alliance of Energy Producers Expo & Annual Mtg.....	52
Throop Rock Bit Company.....	40
Tim Speaks 4 U.....	23
Well-Vu, Inc.....	28
Wyo-Ben, Inc.....	12



Ronnie,
Managing Publisher
ronnie@
worldwidedrillingresource.com
With pen (computer) in
hand...

Home of Solid Gold Service ~ with a smile!™

A great deal has happened these past few months I wanted to share with you. The remodel on the office is progressing well with the three offices complete and occupied. Really looks nice - many compliments from visitors. The remodel will continue with a new entrance and a ramp, as well as two additional offices and storage. "Growing Pains!"

While we were in the midst of all that, we made some additional changes:

Hired an Associate Editor, Caleb Whitaker. Hired Betsy Willett for marketing (you may have seen her in Las Vegas - that was her debut). Then a staple here at *WWD* ended her Leave of Absence - Kathy Heinrich. Now we are fully-staffed for a short time - still looking for another editorial associate, but I'm certain that will come once the other offices get completed. Right now everyone has "their own space", and that is an **accomplishment** when we have had 3-4 people per room at times.

While doing that, we did a little internal remodeling to one of the offices - made a small work area into quite a larger one - with a great area for spreading out paperwork, etc.

So, now we decided our "sales" people aren't sales people. WHAT? You say! That's right! Because you see, we don't really have anything to sell - we are **SERVICE PROVIDERS**. We are the *Resource* people turn to when they need YOU with YOUR equipment, products, and services. So from now on we have PUBLIC RELATIONS PROFESSIONALS = Brenda, Betsy, Jan, and Kathy. They are professionals in their fields and know how to help your business grow through proper planning of your marketing advertisements, as well as how to work with our editorial department - Bonnie and Caleb, for editorial coverage that will draw attention to exactly what you do, what your equipment and products do, and how all of that together, aids your customers in providing their service even better - right on through our production department and Marcel.

So when you see, *WWD*, and see those **red jackets worldwide** - you will truly know...we are here to help you stay in business, not put you out!

SEE YOU ON THE TRAIL! No frowners allowed!

*Sending out a
GREAT BIG
WELCOME
to our newest
contributing
writer -
JEREMY
WIRE!*

This month's Hot Topic is Construction / Geotechnical Drilling!



~ From the Cover ~

units ready for delivery through February.

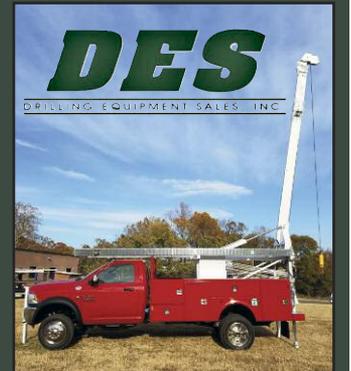
Need a rig? Contact: Jeff Jacomine

Phone: 828-322-3056 • Fax: 828-322-4042

2515 Highway 70 SW • Hickory, NC 28602

E-mail: jeffj@drillingequip.com www.drillingequip.com

**MORE Equipment available in the GROUTERS, PUMP HOISTS,
and RIGS SECTIONS of WorldWide SUPER MART™!**



Proudly Made in the United States of America - delivered WorldWide!

WorldWide Drilling Resource®

The **complete magazine** for the drilling industry worldwide, owned by drilling industry associates dedicated to bringing the most up-to-date technology and information to subscribers. Covering **construction-geotechnical, directional, environmental, exploration-blasthole, shallow gas & oil, geothermal, mining, water well, irrigation, wastewater**; from bits, to pumps, to rigs, to tanks, through wire and more - **whatever it takes to get the drilling job completed!**



WorldWide Drilling Resource® is published monthly by WorldWide Drilling Resource, Inc., a Florida Corporation
PO Box 660 (3089 Northridge Lane) Bonifay FL 32425-0660.
Telephone: 850-547-0102
Fax: 850-547-0329

E-mail: wldr@worldwidedrillingresource.com
Website: www.worldwidedrillingresource.com



Managing Publisher/CEO/President: Veronica I. "Ronnie" Jones
Vice President: Troy Cunningham
Office Administrator: Michele Stevens
Editor: Bonnie Love
Associate Editor: Caleb Whitaker
Public Relations Professionals: Brenda Helms
Jan Allen
Betsy Willett
Kathy Heinrich



Production/Webmaster: Marcel Schimpf
Representative: Marie Cunningham

Editorial Contributors for this month:

Mark Battersby	Tim Connor	Bill Corey	Jim Kuebelbeck
Thomas Kwader	Tim Rasmussen	"Billy Bob Smith"	Britt Storkson
Harold White	Robert Evans Wilson, Jr.	Jeremy Wire	

Hyd/Eng Consultant: Thomas Kwader, Ph.D., P.G. Consultant: Mary Ann Pelletier

Copyright 2017, WorldWide Drilling Resource, Inc. Seen by countless WorldWide. Publication Agreement No. 40892520. Back issues may be requested. Cost per issue \$10.00 USD. No part of this publication may be reproduced in any manner without the strict written consent of the publishers. Advertising rates furnished upon request. Editorial contributions are welcome subject to editorial review. *WorldWide Drilling Resource®* reserves the right to refuse any advertisement.

*Editorial contributions & advertisements include statements of fact and opinions that are the sole responsibility of the author and/or companies and do not necessarily imply any opinion of the owners, management, or staff of *WorldWide Drilling Resource®*. Images may have been altered for clarity. Complete advertising information may be found at: www.worldwidedrillingresource.com or by calling 850-547-0102. *WorldWide Drilling Resource®* makes every effort **not** to place advertisements for "like" products on the same page in our publication; this may occur however, due to size and space within the publication. We regret any inconvenience this may cause our advertisers.

The Un-Comfort Zone II

by Robert Evans Wilson, Jr.



Good Advertising is Rooted in Psychology

Back in the early 1990s, the marketing director of a small software company called me for a consultation to help them with their advertising. I had been recommended by one of their customers, and by one of their vendors. She explained the company was in crisis. Until recently, they had been very successful. Their software was a business application which served many different types of companies, and had grown rapidly. During this time, they had enjoyed the tranquility of being the only player in a niche market. Their success inspired the owner of the company to send out press releases, and in turn, the company received a lot of positive publicity. The publicity, however, attracted the attention of several larger software companies, who, upon learning of the lucrative niche market, decided to enter it as well. Soon, the little software company was losing market share to the larger competitors.

When I first heard the story, I thought of an old story my father had told me. It was about a little bird who failed to migrate south early enough, and was caught in a snowstorm. Its little wings iced up and it crashed into a barnyard where it looked like it would soon freeze to death. A passing cow then dropped a load of manure on the little bird. The warmth of the manure thawed out its wings and it was so happy it began to sing. A cat heard the bird, dug it out of the manure, and ate it. My father said the moral of the story is: Just because someone craps on you, doesn't mean they are your enemy; and just because someone takes crap off of you, doesn't mean they are your friend; and when things are going well, you should keep it to yourself so you don't attract unwanted attention.

On my arrival at the software company, the marketing director led me into a conference room. As I asked her questions about their current marketing strategy, I noticed she kept looking at her watch. After about five minutes, she told me the president of the company wanted to sit in on our meeting. Almost immediately, the door flew open and a burly, florid-faced man burst in without introducing himself. He walked rapidly toward me. Assuming he was the president of the company, I rose from my seat and extended my hand in greeting. He ignored my gesture to shake, and slammed a stack of laminated company advertisements on the table in front of me and demanded, "If you know so damn much about advertising, tell me which of these ads worked and which didn't." I was shocked by his rude behavior and thought to leave, but decided it could be a lucrative account. So I took a deep breath and counted to ten. I was a little disconcerted anyone would question my ability in such an obnoxious way - especially when I had been highly recommended to the company. I had expected my expertise to be accepted because of the word-of-mouth referral. After composing myself, I was able to respond to his request.

Wilson cont'd on page 24.



DRILL MORE with Rockmore's High Performance DTH Hammer featuring SonicFlow Technology - The ROK Series

Streamlined design means fewer parts, easier maintenance

New piston geometry for more impact energy

Optimized air channels deliver more energy to the piston

Patented SonicFlow technology minimizes backflow and turbulence

SONICFLOW X TUBELESS X MULTIPoint

Wilsonville, Oregon, USA
+1 (503) 682-1001
Judenburg, Austria
+43 3572-86300

Rockmore International
Rock Drilling Tools
www.rockmore-intl.com

65 YEARS DRILLING EXPERTS

Facebook, YouTube, LinkedIn, Twitter icons



Municipal Installation Made Simple with Flexible Drop Pipe

Adapted from Information by Hose Solutions, Inc.

submersible pump at 430 feet. The 600 gallons per minute will be pumped into a nearby canal and distributed to the City of Angels - Los Angeles, California. The submersible pump hangs on a continuous length of six-inch flexible drop pipe with no threads or joints, making installing and retrieving pumps easy, quick, and safe.



The *WWD* camera caught up with Nicolas Steverlynck from Hose Solutions, Inc. as he proudly displayed his Boreline flexible drop pipe equipment to Jim Dobrovoly of Delta Irrigations at Las Vegas Water Expo.

ing depth settings was attached. The flexible drop pipe was clamped and lowered into the well. The clamp eventually came to rest on the well casing while a second clamp lifted the next section of pipe.

Flexible drop pipe is lighter than steel so a smaller pump rig can be used for installations. A rib along the Boreline flexible pipe was used to support the power cable along the entire length. The double-ring fittings were used to secure the drop pipe to the pump and elbow.

The elbow was lowered into position, the final plumbing was completed, and the pump was up and running. These guys chose flexible drop pipe because it is ideal for wells spread around a vast area.

Boreline's flexible drop pipe and fittings are all NSF61 certified for use with potable water, totally noncorrosive, and great for aggressive water conditions. It does not scale and is not subject to micro-biological attack. It also has tremendous tensile strength, superior flow rates, and is covered by a 50-year warranty.

With flexible drop pipe, pump installations can be completed in a fraction of the time, day or night, hot or cold, rain or shine.

The pump, motor, and drop pipe were prepared the day before the installation. Working in the controlled environment of the yard was more efficient. Site conditions vary, and in this desert environment, the temperature hit 105°F (40°C) on the day of installation. From start to finish, it took two hours to install the pump on flexible drop pipe.

Arriving on-site, the pump and motor were lifted off the trailer and lowered into the well. The only equipment required was a pump rig and a pair of lifting clamps.

The power cable was protected where it passes the drop pipe fitting. An air line used for check-



BORELINE Flexible Drop Pipe

- Simple installation and retrieval.
- Total corrosion resistance.
- Safer working environment.
- 50-year warranty.
- 900 psi burst; 40,000 lbs. tensile.



Hose Solutions, Inc.

Scottsdale AZ
480-607-1507 • sales@hosesolutions.com
www.hosesolutions.com

Boreline Flexible Drop Pipe
Simplify your life.
Replace your rigid pipes.



Hot Off the Press

Permatex Wins Award

Permatex®, a leading innovator in chemical technology for automotive maintenance and repair, received the Best Merchandising/Advertising Award for its Fast Orange Grease X Mechanic's Laundry Detergent. The award was presented by the Import Vehicle Community as part of its 2016 Import Products and Marketing Awards at the 2016 Automotive Aftermarket Products Expo Show.

Dan Clarke, senior product manager at Permatex noted, "When we launched our Fast Orange Grease X Mechanic's Laundry Detergent, we wanted to focus on the plight of our primary customer, the professional mechanic. So we developed advertising assets that talk directly to a nagging issue that plagues mechanics and their households on a daily basis, namely greasy and smelly work clothes that simply don't come clean with regular detergents. We placed these advertisements in a variety of print, web, and social media outlets."



The company said Fast Orange Grease X is a first-to-market, professional-grade laundry detergent specially formulated to clean grease, stains, tar, oil, automotive fluids, and odors from work clothes. It features a built-in pre-

treater which removes up to 99% of automotive stains and odors. Grease X also incorporates a proprietary soil release/antistatic agent to repel future soils and keep the washing machine clear of residual grease, which can end up on clothes in the next wash.



For a link to this website, visit:
worldwidedrillingresource.com



Hot Off the Press page is proudly sponsored by Aries Industries, Inc.

EXPLORER Aries New Portable Borehole Inspection System

ARIES
INDUSTRIES, INC.

See what you're missing.

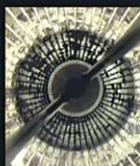
ONE OPERATOR. IMMEDIATE RESULTS.



The Explorer is the new, affordable system for borehole inspections to depths of 1200 feet (366m).

The compact unit is easy to set-up and operate, truly requiring only one operator.

A downhole and 360° Side Scan camera efficiently detects integrity problems early to reduce costly, unnecessary repairs.



Manual Focus and Iris ensure clear images



Control unit with swivel head and height adjustment



Compact, maneuverable cart with 16-inch wheels

Scan below to see the Explorer in action.



www.ariesindustries.com/explorer
(844) 750-4923

© Aries Industries, Inc.

Environmental Monitoring

by Thomas Kwader, Ph.D., P.G.



A Word of Caution Concerning Private Wells

Recently, I “chastised” the large public water supplies for “prohibiting” the drilling of new private wells within their jurisdiction. Well (no pun intended), I received an earful of what is wrong or potentially a problem with private wells.

Owners of private wells have some moral responsibilities also, such as:

- 1) When there is a drought and water restrictions are imposed, we as private well owners withdrawing from the same aquifers, should also cut back on water consumption. In most cases, we all share the same aquifer and need to do what is best for each other and the groundwater resource.
- 2) Test water for bacteria and “drinking water contaminants of concern”. If the water has a peculiar taste or the area is near commercial businesses, it is possible it could have low levels of harmful contaminants such as benzene, chlorinated solvents, pesticides, etc. I can’t tell you how many drinking water wells I’ve tested with “compounds of concern” (CoC’s)

and the owners didn’t even suspect they were drinking them. In some communities, the local health department or city laboratory may analyze a sample for free or at a reduced cost.

- 3) Bacteria - Keep in mind, public water supplies are chlorinated to kill bacteria and/or viruses. If a well does not have a chlorinator, it may or may not have a bacteria or virus problem, particularly if it is a shallow well and or has an on-site septic tank. Most health departments will test private well water for harmful pathogens at little or no cost.

- 4) Proper well construction - Is the well grouted from top to bottom? If not, it could have contaminated water and/or be contaminating the aquifer for other users downgradient. If unknown, confirm the integrity of the well seal. I know of an incident where a well with a short casing (cased above the water level) near a landfill, allowed methane gas to seep up alongside the well and into the house. When the basement pump turned on (electrical contacts), there was an explosion. Fortunately, there was no one home at the time.

Owning a private well has many advantages; however, there are responsibilities that come with “well ownership”.

Tom

Tom Kwader may be contacted via e-mail to michele@worldwidedrillingresource.com

Approximately 400 billion gallons of water are used in the United States each day. Nearly half of the water is used for thermoelectric power generation.

WorldWide Drilling Resource®



THE NEW 9520-VTR POWERPROBE™ IS A VERSATILE DIRECT PUSH MACHINE THAT HAS AUGER CAPABILITIES AND CAN BE USED IN ENVIRONMENTAL AND GEOTECHNICAL APPLICATIONS.

While retaining many of the same features of our larger PowerProbes™, the track-mounted 9520-VTR utilizes a more compact carrier platform and has the added benefits of more horsepower, improved fuel economy, and emissions. It also features a stowaway and lockable control panel, 350 ft/lb percussion hammer, 4,000 ft/lbs of auger torque, STP auto-drop hammer, updated hydraulics, auxiliary output connections, and a dual dozer blade for stability.

Together we can save the world, one sample at a time.



FIND US ON: [f](#) [yt](#) [in](#)

PowerProbe™

EQUIPPING THE WORLD TO SAMPLE THE EARTH

Stay in the black with

WorldWide Business Directory™

acker
DRILL COMPANY

P.O. Box 830
Scranton, PA 18501

Matthew K. Vass
SALES REPRESENTATIVE

Office: 570.586.2061
Toll Free: 800.752.2537
Fax: 570.586.2659

www.ackerdrill.com mkvass@ackerdrill.com

READY TO DRILL *Atlas Copco*

Quality rigs with local support.

Kiki Price
Kiki.Price@us.atlascopco.com
520-403-0654

New and Used



www.atlascopcomarketplace.com

Mid America Meter Inc.

Nationwide Sales & Service
Water Meter Testing, Repairs & Calibration
1-800-324-0365

Bruce Pietig
710 Hamel Road
Medina, MN 55340

Phone 763-478-8041
Fax 763-478-8043

www.midamericameter.com

BIT BROKERS INTERNATIONAL



CHESTER THOMAS
SALES REPRESENTATIVE

chester@bitbrokers.com
OFFICE: 618.435.5811
CELL: 618.218.5373

5568 Logan Road
West Frankfort, IL 62896

BITBROKERS.COM

BOSHART INDUSTRIES
COMMITTED TO EXCELLENCE SINCE 1955



www.boshart.com

PO Box 310,
25 Whaley Ave.
Milverton, ON N0K 1M0

Tel: 519-595-4444
Fax: 519-595-4380
Toll Free: 1-800-561-3164

Mike Felder

ChemGrout®

Widest Selection of Grouting Equipment in the World

Tel: 708-354-7112
Fax: 708-354-3881

mfelder@chemgrout.com
www.chemgrout.com

P.O. Box 1140
805 E. 31st. Street
LaGrange Park, IL 60526

EWM EAST WEST
MACHINERY EXPORTING, INC.
ALEX XAGORARAKIS
SALES & MARKETING MANAGER

258 MAGNOLIA STREET
COSTA MESA, CA 92627 USA

PHONE: 949.722.8643 PHONE: 800.828.6131
FAX: 949.722.2561 CELL: 949.422.2369

www.eastwestdrilling.com
alex@ewdrilling.com

EDM Eastern Driller Manufacturing Co., Inc.

DTH Hammers and Drill Bits
Made in Pennsylvania...
Sold Around the World!



105 Walnut Street, Columbia, PA 17512 U.S.A.

Bus: (717) 684-3070 1-800-233-0173 Fax: (717) 684-2566
www.edmmfg.com Email: sales@edmmfg.com

kingsland
Drill International Inc.

7920 Ward Drive, Mercersburg, PA 17236

tel: (800) 563.4988 | tel: (717) 328.4988
US and CANADA fax: (717) 328.4998

David F King | President
dking@kingslanddrill.com

MITSUBISHI *The Solutions Partner*
YOUR GLOBAL CHARTERED STUDIO

GARY BARNETT
North America SMB Sales Manager
Rock Tools Group / Engineered Carbide Products

A. MITSUBISHI MATERIALS U.S.A. CORPORATION
2690 Salisbury Hwy, Statesville, NC 28677
(800) 423-1356 • Cell (503) 602-2847 • Fax (704) 838-8177
E-mail: gbarnett@mmus.com
www.mmus.com • www.mitsubishicarbide.com

Ashish Rathi
National Sales Manager

SHAKTI PUMPING LIFE

M: 602-327-4306
T: 407-574-2797, 4001
E: ashish@shaktipumps.com
W: www.shaktipumps.us

SHAKTI PUMPS USA LLC
740, Florida Central Parkway
Suite # 1008, Longwood,
FL 32750, USA

Eijkelkamp
North America

Jay Boland
Sales

M 413 329 7525 E j.boland@sonicsampdrill.com
T 919 694 1114 I www.sonicsampdrill.com

9230 Globe Center Drive
Suite 110
Morrisville, NC 27560

814-427-2555 FAX: 814-427-5184
800-927-0560

STAR Iron Works, Inc.
Serving the drilling industry

Web Site: http://www.starironworks.com 257 Caroline Street
E-mail: sales@starironworks.com Punxsutawney, PA 15767

Sullivan Palatek *Tom Viskniski*
V.P. of Sales

"The Ultimate Performance Rotary Screw Compressor"

1201 West US Highway 20, Michigan City, Indiana 46360
Office: (219) 874-2497 Fax: (219) 809-0203

www.Sullivan-Palatek.com tviskniski@palatek.com

T & T Carbide, Inc. Ph. 618.439.7253
17409 Lowry Ave. 800.333.1816
Logan, IL 62856 Fax 618.435.4347



www.tandtcarbide.com Nathan Colvin
email: sales@tandtcarbide.com Sales

Kyle Rehme
PROPERTY & CASUALTY CONSULTANT

Property & Casualty Insurance

1100 Haxton Drive | #100
Fort Collins, CO 80525

(970) 223-1804
(970) 225-6596
(970) 420-6669
kyle.rehme@volkbell-pc.com
volkbell-pc.com

WINDMILL 702 LLC

Daniel Ruiz

702 ENTERPRISE SUITE #1 LAREDO TX 78045

Phone: (956) 717-2900
Fax: 717-2933
Cell: (956) 319-4409
druiz@windmill702.com www.windmill702.com



Want your business to be seen here?
Give us a call:
(850) 547-0102
or e-mail us: wwdr@worldwidedrillingresource.com



Oil/Water Exploration by Harold White

Preparing to leave home in Eugene, Oregon, we first fueled up the pickup truck and changed the oil. After breakfast, we got a U-Haul trailer and took it to our granddaughter Abigail's house. There, we loaded her clothing, furniture, dog, and ourselves. She was moving to Tonopah, Nevada. Arriving in Reno, Nevada, we stayed at Circus Circus Hotel and Casino for two nights, then drove on to Abigail's new home.

Leaving the U-Haul, we went on to stay two nights at the Tonopah Stage Stop Hotel. This is where the bearings went out on the pickup truck. We needed

parts, and there were none for miles. Abigail and her fiancé drove us into Las Vegas and we got a rear axle. We stayed for the Groundwater Convention while they drove back to Tonopah and installed the rear end. When replacing the axle, they noticed it was bent. The place we bought it from found another one - back home in Eugene - and had it shipped to Tonopah.

I met a drilling contractor from Bozeman, Montana. I told him I had been there on an oil and gas research tour and had stopped at Potts Well Drilling and talked to some of his crew. He said he would have liked to have been there, for me to stop again sometime. His friend is a missionary's son raised in Africa, who wants to drill wells for some of the tribes there who need clean, pure water. I told him I would like to help, and he thought it could be arranged.

The Silver Peak Mine in Silver Peak, Nevada, has the most pure lithium in the world, and has been operating since 1960. I went there to study about the best, so when I go out into the rest of the world to find lithium for interested parties or persons,

it is not that I don't know how or where to find lithium. I just want to find the best for them.

Harold

Harold White may be contacted via e-mail to michele@worldwidedrillingresource.com

From *WWD* Publisher Veronica I. "Ronnie" Jones ... Shortly after Harold sent us this article, he called and told me after the Las Vegas Water Expo, he had vehicle trouble which delayed his trip back home to Creswell, Oregon. Then, as they started back, he received a telephone call advising his home had been destroyed by fire along with everything in it. Harold has a terrific outlook on life and always looks on the bright side of things. He was not in the home, nor was anyone else at the time of the fire, so there were no injuries or deaths. However, he was very saddened to see all of those quilts, his mother had left him, along with much memorabilia had been destroyed. Then, he quickly said everything has a bright side, and he looks forward to the future with bright eyes and ideas on how to improve the homesite. I personally say, God Bless You Harold - you are not one of those people who cry with sorrow, you actually look around and know others around you never had a home to burn down.

SENTRY I WELL CHLORINATOR

Will Treat...



Iron Bacteria

**Hydrogen Sulfide
(Rotten Egg Odor)**



... and Treats MUCH more!



BETTER WATER IND, INC.

www.BetterWaterInd.com

(507)247-5929



BREAKING NEWS

Mobile App Available for CONEXPO-CON/AGG® Attendees

CONEXPO-CON/AGG® and IFPE 2017 released a new mobile app, powered by CAT®, to help attendees efficiently preplan their show visit and stay connected onsite.

The new app is enhanced with beacon technology and features interactive 3-D contiguous maps to help attendees easily navigate the show floor. The app continuously synchs to the online show planner where attendees can create a personalized agenda of can't-miss exhibits, education, and meetings. Visitors can also use the app to stay connected with real-time show notifications, participate in gamified show activities to earn prizes, network with fellow attendees, and much more! Search your mobile app store for the free download.



Alberta Water Well Drilling Association Convention and Trade Show

Be Sure To Join Us Once Again In Red Deer at the Sheraton Hotel & Conference Center, Red Deer, AB, Canada

April 27 - 29, 2017

Technical Sessions
Entertainment

Regulations and Information • Annual Meeting
Drilling Rigs and New Technology Displays



For More Information Contact Carol Larson
Phone: (780) 386-2335 • E-mail: awwda@xplor.net



WHO'S IN THE NEWS



During the Ohio Water Well Association (OWWA) Annual Convention and Trade Show, the association presented Fred Schreiber with a Certificate of Appreciation for his dedicated service to the OWWA Board.

Look for additional announcements from OWWA, as well as awards from the Las Vegas Water Expo online at worldwidedrillingresource.info/Whos1.pdf

Send your Who's in the News to: promotions@worldwidedrillingresource.com

Where are you planning to go? How about including these shows:

Join *WWD*



Every three years, CONEXPO-CON/AGG® is the international gathering place for the construction industry, including aggregates and ready-mixed concrete. Held at the Las Vegas Convention Center in Las Vegas, Nevada, this massive event features exhibits of the latest technologies and innovations in equipment, products, and services. There's also education opportunities with tracks on technology, business management, workforce development, and much more. Be there March 7-11!

Get all the information you need at www.conexpoconagg.com

The 89th Annual Michigan Ground Water Convention and Trade Show will take place March 9-10, at the Grand Traverse Resort and Spa in Acme, Michigan. Thursday is filled with the McElhiney Lecture, industry updates, annual banquet and awards, entertainment, casino night, and microbrew/wine judging. Even more happens Friday, including the trade show exhibiting the products and equipment needed to do your job from start to finish.



Visit www.michigangroundwater.com



Get set for the New England Water Well Expo at the Best Western Royal Plaza Trade Center in Marlborough, Massachusetts, March 10-11. The event starts on Friday with educational seminars, followed by the trade show preview at 4:00 p.m. Then family fun night begins at 6:30 p.m.

Saturday has more seminars and another chance to view all the displays. Don't miss it!

Registration is easy, go to www.newwassoc.org

Be the solution at the CGA (Common Ground Alliance) Excavation Safety 811 Conference & Expo, March 14-16, at Rosen Shingle Creek in Orlando, Florida. This is the largest annual educational and networking event dedicated to utility damage prevention and protection of buried

assets, such as water and sewer infrastructure. Sessions, workshops, and displays abound, so there's numerous opportunities to learn new information directly related to what you do, to visit with peers who understand your job function, and share ideas with other dedicated professionals.



For additional information, see www.cgaconference.com

Dig in to the ground source heat pump industry March 14-16, at the IGSHPA (International Ground Source Heat Pump Association) Conference & Expo at the Crowne Plaza Denver Airport Convention Center in Denver, Colorado. Expanded breakout sessions and dedicated expo hours provide the tools and information needed to take your geothermal business to the next level. Be there to see some new faces who can help support your work!

Learn more about this event by visiting www.igshpaconference.com



The TWWA (Tennessee Water Well Association) will hold its Annual Meeting & Trade Show March 31 - April 1, once again at the Park Vista Hotel in Gatlinburg, Tennessee. Enjoy breakfast and lunch on Friday and Saturday, the trade show, technical sessions, Friday night dinner, scholarship auction, and door prizes.

In case you're wondering, the hotel was a victim of the wildfire last year, but has undergone repairs and they are "super excited to have everything back together".



E-mail:

info@tnwaterwellassociation.org

See more events online at
worldwidedrillingresource.info/Planning1.pdf



BLUE DEMON COMPANY, INC.
Economy Line



Step Type Available 3 or 4 way
3 7/8" to 6 1/4"



Chevron Style Available 3 or 4 way
3 7/8" to 6 1/4"

We have made quality drill bits since 1948

Call us at 800-282-6760
or see us on the web at
www.BlueDemon.com

FOREMOST DRILLS provide TOTAL CONTROL

DRILLS THE STRAIGHTEST HOLES



The rotation of the casing by the lower drive results in a very straight hole making it ideal for shaft holes and foundation piles. This also minimizes stress on casing and casing welds, and eases the task of installing screens and pumps in water well applications.

COMPLETE CONTROL OF DISCHARGE



Cuttings are diverted through the discharge swivel and can be directed to a safe and convenient dumping or monitoring point. This is a useful feature when drilling in urban areas or when cuttings must be contained for sampling environmental or safety reasons.

EASIEST DRILL TO MAINTAIN



Foremost DR rigs feature a directly connected hydraulic feed system – which means no chains, sheaves, or sprockets. This type of feed system generates zero load on the mast crown, permitting a simple, low-maintenance mast design that does not sacrifice pullback capability.



DR-12



DR-24



DR-24HD



DR-40

Visit Foremost at the Montana Water Well Drillers Association Event, February 1st-3rd, 2017 and at the Mountain States Groundwater Expo February 9th-10th, 2017.

MWWA Booth No.

29

Mountain States Booth No.

43

To learn more, visit foremost.ca
or call 1.800.661.9190 (Canada/U.S.A.) 1.403.295.5800 (Worldwide)

FOREMOST
DRdrills



PALMER BIT CO.

Manufacturer of Red Devil Bits



PDC Hole Opener

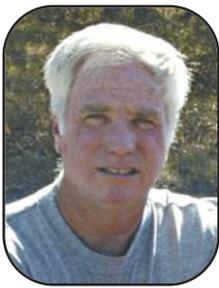
Our hole openers meet a variety of needs from expanding test holes in water wells to drilling holes for pylons. When you need to open a hole, we can meet your needs.

- Any thread
- Any size
- Any length
- Many numbers of wings

Palmer Bit Company

800-421-2487 • sales@palmerbit.com

www.palmerbit.com



Keep it Simple
by Britt Storkson
Owner, P2FlowLLC

In past articles, I have given examples of how simpler designs are often better, cheaper, and more reliable than their complicated counterparts. Almost always in industry you will find the simplest, least expensive design is utilized for nearly everything, unless there is a very good reason not to use it. Often, there are good reasons for the manufacturer to not use the simplest, most reliable design.

Lee Iacocca, former CEO of Chrysler Corporation has been quoted as saying they (the car companies) thought they would have success building "little boxes that got 30 miles to the gallon", but found out it didn't work in terms of sales appeal. I would agree with this, to a point. There are always some car buyers who want all of the bells, whistles, gadgets, fancy paint jobs, and interiors, who are willing to pay for it. However, there is a significant segment of the car buying public who values things like durability, reliability, low maintenance, and ease of maintenance when it is needed. If this is not the case, how do you explain the success of the Volkswagen Beetle? The original Volkswagen did not have any frills and it wasn't perfect, but it was cheap to buy, reasonably reliable, cheap to run (good gas mileage) and, most importantly, was cheap to maintain and repair. A fellow I worked with one time told

Storkson cont'd on page 48. 



**Announcing the 52nd Annual
Shallow Exploration Drillers Clinic!**
April 11 - 13, 2017
Embassy Suites by Hilton
Olathe, KS

The 52nd SEDC will feature a National Drilling Association (NDA) program, indoor exhibitors, outdoor displays, and a full agenda of technical presentations. We look forward to seeing you there!

For more information contact:

Kyle Halverson
kyle.halverson@ks.gov
(785) 291-3860

Randy Billinger
randy.billinger@ks.gov
(785) 291-3037

Or visit: <http://sedc.unl.edu>

For Room Reservations Call: (913) 353-9280
www.kansascityolathe.embassysuites.com

Room rate is \$149.00/night—Mention you are with SEDC to receive this rate.
There is a limited block of rooms, early booking is recommended.



Armstrong Machine Co. Inc.

201 SW 7th Street • Pocahtontas, IA 50574 USA
712-335-4131 ~ 24 Hours 7 Days a Week • Fax: 712-335-4565
Watts: 800-831-4527 USA & Canada (8AM to 4PM Monday-Friday)
See our Web Page: www.armstrongmachine.com
Email Address: amci@armstrongmachine.com

Rebuilt Mud Pumps

4-1/2x6 Gaso Duplex.....CALL FOR PRICE
4-1/2x6 Oilwell Duplex.....CALL FOR PRICE
Gardner Denver 4-1/2x8 PA-8 Triplex..... CALL FOR PRICE
Gardner Denver 5x6 Duplex.....CALL FOR PRICE
Gardner Denver 5x10 Duplex.....CALL FOR PRICE
Gaso 5x10 Duplex.....CALL FOR PRICE

WE HAVE OVER 300 PUMPS IN STOCK

We Have a Variety of Pumps and Power Units in Stock.

Brand New Pumps In Stock

Gardner Denver 4x5 TEE Triplex.....CALL FOR PRICE
Gardner Denver 5-1/2x5 TEE Triplex.....CALL FOR PRICE
Gardner Denver 4x5 or 4-1/2x5 Duplex.....CALL FOR PRICE
Gardner Denver 5x6 Duplex.....CALL FOR PRICE
Gardner Denver 5x6 Air Drive Duplex.....CALL FOR PRICE
Gardner Denver 5x8 Duplex.....CALL FOR PRICE
Gardner Denver 5-1/2x8 Duplex.....CALL FOR PRICE
Gardner Denver 7-1/2x8 Duplex.....CALL FOR PRICE
Gardner Denver 7-1/2x10 Duplex.....CALL FOR PRICE
Gardner Denver 5-1/2x5 THE Triplex.....CALL FOR PRICE
Gardner Denver 5x8 PAH Triplex.....CALL FOR PRICE
Hydraulic Grout Pump 5".....\$4400.00
Hydraulic Grout Pump 6".....\$4900.00
Hydraulic Grout Pump 7-1/2".....\$10,500.00

We Pay Cash for Surplus Mud Pumps.
Special or Obsolete Parts Made to Order.

We Have a Variety of Brands of
Mud Pump Parts in Stock.

Nitrate Coated Premium Liner

5x6 Gardner Denver.....\$176.00
5x8 & 5x10 Gardner Denver.....\$200.00
5-1/2x8 & 5-1/2x10 Gardner Denver.....\$200.00
7-1/2x8 & 7-1/2x10 Gardner Denver.....\$370.00

Rods Heat-Treated & Chromed

5x6 Gardner Denver.....\$103.00
5x8 & 5-1/2x8 Gardner Denver.....\$121.00
5x10 & 5-1/2x10 Gardner Denver.....\$121.00
7-1/2x8 Gardner Denver.....\$121.00
7-1/2x10 Gardner Denver.....\$121.00



Grout Pump



Through the Back Door!

by Jim Kuebelbeck

From my daily notes . . .

Had a job this morning locating a water supply for someone who wanted to get off of a city water supply for watering his lawn. It was costing him \$500 every two months! I think we did find him one good possibility, which was the only choice on the small city lot.

This afternoon, we had another job for someone who was in the final stages of constructing a huge chicken "broiler barn". It must have been at least 300 feet in length and 60 feet wide. They had already drilled three dry holes fairly close to the building site, and the drilling contractor had told him to call us. When we got to the site, we could see two of the dry holes were drilled within 12 feet of each other! I knew immediately some other (probably less expensive) dowser or dowsers must have preceded us, or the crew wouldn't have drilled right next to a dry hole. Already knowing the answer, I asked why they had drilled so close to a dry hole, and the guy mumbled something about "he wasn't sure". Rather than pursue further conversation which might be uncomfortable for the both of us, I simply told him I would try to see what I could find. I first worked around the previous dry holes, and then told the landowner I didn't find what I was looking for on those sites. (Not quite rocket science, right?) I did eventually locate two good possibilities about two or three hundred feet away from the new building. They'll be drilling again tomorrow.

*The statements and comments in this article are based on information and references believed to be true and factual. If you have any questions or comments, please forward them to me in care of **WWD.R.***

Jim

Jim Kuebelbeck may be contacted via e-mail to michele@worldwidedrillingresource.com



Maxidrill, Inc.



Maxidrill's Michel is with Real and Christian of Forage RC in Quebec, Canada, who are proud of their HARDAB track-mounted water well drilling rig acquisition.

Send your deals to:
promotions@worldwidedrillingresource.com

The **Choice**
of **Drilling**
Professionals

PARTS, SALES, & SERVICE



NOLAND
DRILLING EQUIPMENT

Water Well • Geothermal • Oil & Gas • Exploration
 Specialists in Parts, Repairs, and Complete Rig Refurbishments

Roanoke, VA
 Phone: 800-462-9340 • 540-982-8001
 Fax: 540-342-0546 • nolanddrill@noland.com





www.nolanddrilling.com



Ronnie's Real World ~ Setting the Record Straight.

Managing Publisher - Veronica I. "Ronnie" Jones

Those who know me, I mean really know ME, understand this company has and continues to be built on HONESTY for the purpose of providing a service to our drilling industry worldwide. At some point in time, it becomes my obligation to **SET THE RECORD STRAIGHT**. This is that time, and here it is.

THOSE PESKY STATISTICS Mean a lot to you... Read on...

by Veronica I. "Ronnie" Jones, Managing Publisher, *WorldWide Drilling Resource*®

We are just like you – struggling for many years now to stay on top of a great many things – we aren't wealthy – we watch each and every dollar – incoming and outgoing – just like you.

This small team of **WorldWide Drilling Resource, Inc.** employees work hard each and every day – just like you. Big Corporation? No; Fancy cars? No; Fancy clothes? No; just down to earth people – just like you.

Honestly speaking – your dollars and cents placed in the capable hands of this team will help you reach each and every contact possible in the drilling industry – which includes much more than rigs, bits, etc. – it includes pumps, tanks, pipe, safety for your employees, education, wire, electronics, and more.

WHATEVER IT TAKES TO GET THE JOB DONE – that's what I'm talkin' about – The **WWR** Team helps you reach nearly 40,000 potential customers each

and every month in print – while also reaching out via the internet with the complete magazine online – FREE LINKS – who knows how many people you can reach – UNLIMITED! In addition, the *E-News Flash* articles, which are sent to close to 8000 inboxes between the print issues, keeps your company's face out there. And of course, all those trade event attendees the **WWR** Team sees (some 40-46 events worldwide) along with your ability to earn **WWR** reward points! The benefits just keep adding up.



So look at the statistics as we have – bragging? No – “Just the Facts ...” You decide where to put your valued dollars and cents.

ND	20,598 Average Monthly
WWJ	24,000 Average Monthly
Australasian Drilling	3,500 Average Bi-monthly
CSDA	19,000 Average Quarterly
Drill Bits	9,000 Average Bi-annual
WWR	37,317 Average Monthly*

Now if you do what most want you to do – count the number of each issue as if it is passed onto 5-10 people to read – those figures are then transformed into:

	5 passes =	10 passes =
ND	102,990	205,980
WWJ	120,000	240,000
Australasian Drilling	17,500	35,000
CSDA	95,000	190,000
Drill Bits	45,000	90,000
WWR	186,585	373,171

Now, for the number of copies (ability to reach contacts annually):

ND	247,176 Average Annually
WWJ	288,000 Average Annually
Australasian Drilling	21,000 Average Annually
CSDA	76,000 Average Annually
Drill Bits	18,000 Average Annually
WWR	447,806 Average Annually

Really, I don't make these things up – I just did the fact-finding pesky statistics work for you. Now all you have to do is make the decision.

**Note – This is down from the 40,000+ we normally print and mail due to world crisis and deliveries to certain countries, as well as the downturn in drilling ventures.*

WorldWide Drilling Resource, Inc. is providing this verified information for your use in planning your marketing campaign in an effective way. Should you need additional information, please contact one of our Public Relations Professionals at 850-547-0102 or their individual e-mails:

brenda@worldwidedrillingresource.com
jan@worldwidedrillingresource.com
betsy@worldwidedrillingresource.com
kathy@worldwidedrillingresource.com

The **WWR** Team is here to “keep you in business” ~ “not to put you out of business.”

This truly is, Ronnie's Real World. . .

EXPORT WITH PURPOSE. EXHIBIT WITH CONFIDENCE.

When the world looks for leadership and innovation in mining, it turns to the United States. And when American exporters look to meet overseas buyers and decision-makers, they turn to Kallman Worldwide. For more than 50 years, Kallman has helped enterprises of all sizes build their brands and businesses at international trade events.

JOIN US AT THESE UPCOMING EVENTS



EXPONOR 2017
May 15 - 19, 2017
Antofagasta, Chile



PERUMIN | EXTEMIN 2017
September 18 - 22, 2017
Arequipa, Peru



EXPOMINA PERU 2018
September 2018
Lima, Peru

Book your space in our place at the world's premier mining shows. From our flagship U.S. International Pavilion to custom stand-building and corporate hospitality services, Kallman delivers more impact for your export marketing investment.

LEARN MORE. SELL MORE. YOU KNOW THE DRILL.



+1.201.251.2600 | info@kallman.com

WWW.KALLMAN.COM



CHILE IS BUYING. WHAT ARE YOU SELLING?

METALS, MINERALS, MATERIALS, ENERGY.

Below the surface, the mining business is rebounding in South America, and EXPONOR 2017, Chile's biennial technology and innovation show, is bracing for the boom. Hosted in the heart of the rugged and robust Antofagasta region, EXPONOR positions exhibitors in "point-of-sale proximity" to major mining operations. The 2015 edition saw 1,000-plus exhibitors generate more than \$850 million in new business from the show.

FOLLOW THE ROAD TO RESULTS

Organizers have published a **detailed roadmap** outlining the Chilean mining industry's operational needs and challenges — and your opportunities to increase productivity, increase resources, protect the environment and improve worker safety. (**Contact us** - we'll send you a copy!)

JUST ADDED: SUSTAINABLE ENERGY PAVILION

If you're in the business of helping miners cut their power costs, ask about exhibiting in the NEW Sustainable Energy Pavilion at EXPONOR. Produced by a partnership of the Antofagasta Industries Association & Kallman Worldwide's IFT Energy, this international showcase area sharpens the focus on high-efficiency, low-impact solutions so everyone can dig deeper cheaper.

CONTACT US

UNITED STATES

JODI MUNZER

JodiM@kallman.com

+1-201-251-2600 ext. 119

SOUTH AMERICA

RODRIGO BASTIDAS

rb@kallman.com

+1-201-251-2600 ext. 153

ORGANIZER OF THE
U.S. INTERNATIONAL PAVILION



WWW.KALLMAN.COM



Education Connection

Blasting

by: Academy of Blasting and Explosive Technology

Rock Blasting & Overbreak Control

March 6-8 ~ Monteville, OH

Underwater Blasting

March 28-30 ~ Monteville, OH

phone: 440-474-6700

www.academyblasting.com

Foundations

by: Pile Driving Contractors Assoc. & Pile Dynamics, Inc.

Seminar on Deep Foundation Integrity Testing and Wave Equation Analysis

March 1 ~ Orlando, FL

High Strain Dynamic Foundation Testing Workshop

March 2-3 ~ Orlando, FL

High Strain Dynamic Foundation Testing Workshop

March 2-3 ~ Orlando, FL

e-mail: debbie@piledrivers.org

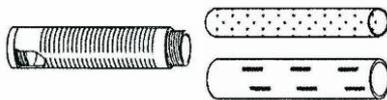
www.piledrivers.org

by: International Society for



Atlantic Screen & Mfg., Inc.

- Well Rehab. Products
- Manholes
- Bentonite
- Filter Sock
- Inline Chemical Mixers
- Sampling Bailers
- Clear PVC Pipe
- Locking Caps



Manufacturers of Slotted & Perforated Pipe ranging from 1/2" to 24" diameter

302-684-3197

FAX: 302-384-0643

142 Broadkill Rd. • Milton, DE 19968

www.atlantic-screen.com

email: atlantic@ce.net

LIFE DOESN'T STOP WHEN THE POWER GOES OUT. WATER SHOULDN'T EITHER.

Are your customers ready?

Do they lose water when:

- they lose power?
- the well pump fails?
- the water main breaks?
- the generator fails or runs out of fuel?

Reduces or eliminates reliance on generators

- Reliable
- Easy to use
- Easy installation
- Environmentally friendly



CONSTANT WATER

Automatically provides fresh pressurized water to the whole house as soon as they lose power—every sink, every shower, every toilet.

Discount available for distributors and installers

www.constantwater.com • 540-347-3440

Micropiles, Int'l Assoc. of Foundation Drilling, & Deep Foundations Institute
13th International Workshop on

Micropiles

March 29-April 1 ~

Vancouver, BC, Canada

phone: 973-423-4030

www.dfi.org

Groundwater / Water Well

by: Washington State Ground Water Association

Driller & Pump Installer Seminar

March 10 ~ Tacoma, WA

March 11 ~ Kelso, WA

March 24 ~ Spokane, WA

March 25 ~ Richland, WA

phone: 360-757-1551

www.wsgwa.org

by: National Ground Water Association

Conference on Hydrogeophysics and Deep Groundwater

March 20-21 ~ Denver, CO

Applications of Groundwater

Geochemistry

March 23-24 ~ Portland, OR

phone: 614-898-7791

www.ngwa.org

Irrigation

by: Rain Bird Academy

Training

March 6-10 ~ Salt Lake City, UT

March 6-10 ~ Huston, WI

March 13-17 ~ Little Rock, AR

March 13-17 ~ Niagara Falls, NY

March 20-24 ~ Pensacola, FL

March 20-24 ~ New York, NY

March 27-31 ~ Sacramento, Ca

March 27-31 ~ Houston, TX

phone: 800-498-1942

www.rainbirdservices.com

Mining

by: Colorado School of Mines

Project Management for Mining

March 22-24 ~ Golden, CO

phone: 303-279-5563

www.csmospace.com

Pipe

by: McElroy University

Polypropylene Socket, Outlet, and Butt Fusion Operator Qualification

March 1-3 ~ Tulsa, OK

Small Diameter Operator Qualification

March 27-29 ~ Tulsa, OK

Medium Diameter Operator Qualification

Qualification

March 29-31 ~ Tulsa, OK

phone: 918-836-8611

www.mcelroy.com

Pumps

by: Franklin Electric

Base Level

March 14-15 ~ Wilburton, OK

phone: 800-348-2420

<http://franklinwater.com/more/training/franklintech-schedule/>

More next month...



Thirty Minutes, and Success and Happiness are Yours!

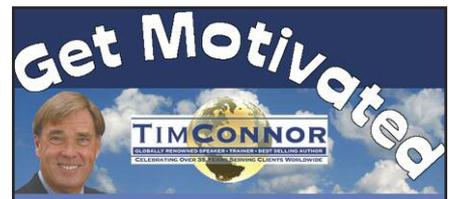
by Tim Connor

If you devoted just 30 minutes a day (a small portion of the 24 hours you get), focused on a variety of actions, attitudes, and behaviors, you can't imagine the positive outcomes both short- and long-term you could experience. Everyone wastes a great deal of time every day on any number of useless and often nonproductive activities. If they would just invest a mere 30 minutes concentrating on simple and productive actions, they would be amazed at the progress they could make in a variety of life areas, such as relationships, health, wealth, career, and life in general.

You can find 30 minutes a day - the problem is the willingness to devote this time in activities which will produce more successful outcomes than current behaviors or routines. Do you spend at least 30 minutes or more every day in front of the TV, at your computer searching aimlessly for information which will not change your life, commuting to and from work, jogging, gardening, etc.? I'm not implying these and other activities are not worthwhile or valuable uses of your time and don't often contribute to your success or happiness, but the question remains - if you spent just 30 minutes each day on specific actions that over time would specifically and directly improve an important aspect of your life - would this be a worthwhile task? If yes, read on.

I have developed a simple approach to ensuring each day of your life you make regular progress in the right direction toward your goals, dreams, and desires. Yes, we all need to improve our talent and skills. Yes, we all need to spend time at work, on our businesses or careers, and yes, we all need to devote time to our families and building relationships. If you will use the following process, you will make significant progress sooner, rather than later, in all these areas.

So, what's the process? There are 30 actions at the end of this article. I would like you to take or focus on one each day for 30 days. Print off the list and individually cut each item from the list and fold them in half. Now put the items in a jar. Every day, reach into the jar and pull out one item. Focus on this item for 30 minutes before the end of the day. Put the item aside, and



Entertaining, thought-provoking methods, practical and relevant ideas and techniques is what you will receive. Tim Connor's vast experience as the motivational sales and management/ leadership speaker in over 4000 presentations / 25 countries plus, will keep your audience / employees totally engaged.

Contact him today

704-875-1230

Timspeaks4u@gmail.com

Timconnor.com

Connor cont'd on page 52.



SERVING THE WATER WELL INDUSTRY

257 Caroline Street
Punxsutawney, PA 15767
800-927-0560 • 814-427-2555
Fax: 814-427-5164

Need something special?
Talk to us - we'll make it happen faster than you think.

STAR IRON WORKS
Serving the Drilling Industry

www.starironworks.com

I separated the ads into two piles. Pointing to the first pile I said, "These two ads may have generated a small response, but far from what you hoped for." I could tell by the look on his face I was correct. I then pointed to the second pile and stated confidently,

"These four ads generated no response at all."

The company president's mouth fell open and he said, "You're absolutely right." He then demanded angrily, "How can you know that?"

I tried to explain to him there is a science to advertising. It's not difficult, but there are simple principles of psychology to be followed which ensure an ad will work. Most of the ads from the zero response pile had humorous headlines, photos, and illustrations which had nothing to do with his product. Beginners, who have watched too many beer commercials, believe an ad has to be funny or clever to get attention. Below the headlines and visuals were dense blocks of copy which would turn away any casual reader. The copy in all of his ads mostly bragged about the company's growth, and said little about the product other than its features. There was no copy which pointed out the benefits the customer would gain from doing business with this company. By contrast, in a successful ad, the headline and its supporting images call out to the target audience, letting them know about something beneficial to them. The greatest failure of his ads was they did nothing to show how his software would solve his prospective customer's problems. Advertising is all about problem solving; and people are motivated by solutions to their problems.

BIT BROKERS INTERNATIONAL
ESTABLISHED 1988 USA

BIT BROKERS INTERNATIONAL
618-435-5811

#1 WORKOVER BIT

VALCO
QUALITY ROCK BITS

**OIL FIELD TESTED & APPROVED
A BETTER BIT AT A BETTER PRICE!**

CALL FOR YOUR QUOTE TODAY!

1-618-435-5811

5568 LOGAN ROAD
WEST FRANKFORT, IL 62896
WWD@BITBROKERS.COM
PH 618.435.5811
FX 618.435.2388

VISIT US ONLINE AT BITBROKERS.COM
ALSO FIND US ON FACEBOOK AND TWITTER!

After the meeting, I learned the owner had created those ads himself and had expected me to praise them. When I didn't, he grew angry. I understood his anger was really about his company losing market share, but he was also a "control freak" who had built his business himself, and wasn't accustomed to accepting advice from others. Needless to say, we did not do any business together. Sometime later, I heard he ended up selling his company to one of his competitors.

The software company owner's problems seemed to stem from his pursuit of publicity. When you use public relations as a marketing tool, you relinquish control of the message. Advertising is much more expensive, but you control the message and who sees it.

Even though I didn't get the job, I learned a lot about my ability to diagnose ads, which I was able to use in helping other companies. What adverse situations have you encountered where the silver lining was the awesome lesson you learned from it?

Robert

Robert is an author, humorist, and innovation consultant. He works with companies that want to be more competitive and with people who want to think like innovators.

For more information on Robert, visit www.jumpstartyourmeeting.com or contact him via e-mail to michele@worldwidedrillingresource.com

Deadline for April issue!

Space Reservation:

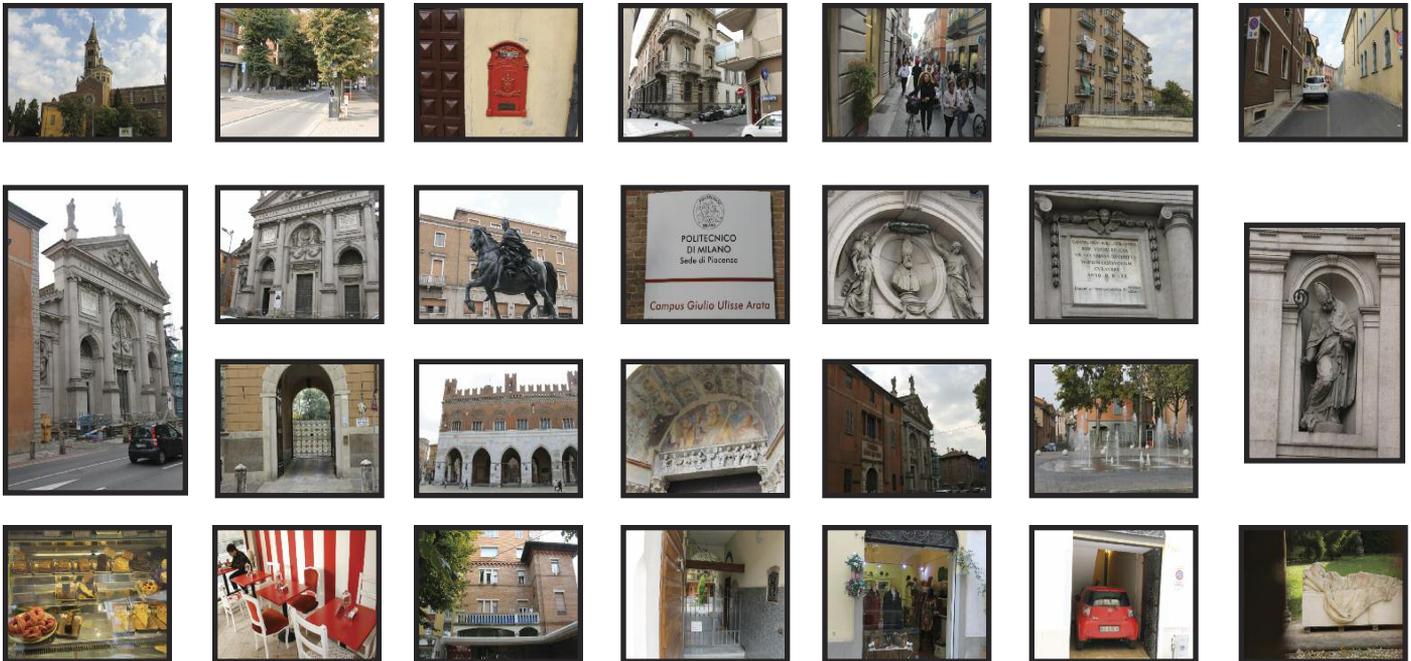
February 25th

Display & Classified

Ad Copy: March 1st

Italy - A View from the Camera, by Marcel Schimpf, *WDR*

There is nothing like seeing a country and its beauty in person, but our Marcel Schimpf has done his best to bring Piacenza, Italy, to you straight from the camera in these photos from his trip to the GEOFLUID Event last October. We hope you enjoy this short trip to a beautiful historic country.



Italy still believes in keeping its historical buildings and statues, and combines them with today's lifestyle as you note the car in the garage and the red and white eatery and the wonderful food waiting to be devoured! Hope you enjoyed Piacenza!



TRACKED UNDERCARRIAGES

www.hinowa.com



Capacity from 1,000 to 60,000 lb (1 to 30 tons) !



Versions:

- Rubber crawlers
- Steel crawlers
- Hydraulic widening
- Customized models
- Double speed
- With open and closed circuit



Hydraulic unit
Ready to mount your equipment
Capacity from 1,000 to 6,000 lb
(1 to 3 tons)



Exhibitor at
SaMoTer
38th INTERNATIONAL EXHIBITION AND BUILDING MACHINERY EXHIBITION
VERONA, ITALY - 22-25 February 2017 samoter.com
Hall 1, Stand D2-E2

HINOWA S.p.A. • Via Fontana • 37054 Nogara • Verona • ITALY • Tel. +39 0442 539100 • Fax +39 0442 539075 • info@hinowa.com

Tales from the Field

by Jeremy C. Wire
Geoconsultants, Inc.



WorldWide Drilling Resource® welcomes Jeremy as a contributing writer. He is president and principal hydrogeologist at Geoconsultants, Inc. and has worked extensively in the hydrogeology field since 1961. He has been honored by several geological societies and organizations, including the California Groundwater Association establishment of the Jeremy C. Wire Award to honor its technical members of merit.

The Saga of “The Well from Hell”

Anyone who has been involved in water well drilling projects for any length of time, especially drilling contractors, occasionally get involved in a well drilling operation which seems, despite best-laid plans, everything that can go wrong does, sometimes from the start. We call these projects the “wells from hell”. These jobs may be rare, but they do happen and particularly try the skill and patience of the drill crew and everyone else involved. Worse, they often “blow” the budget. The outcome may be uncertain at best; sometimes good, sometimes bad. In this particular case it was . . . well, you’ll need to read on for “the rest of the story” as the saying goes.

The location was in Northern California, where a rural public utility district needed a large-diameter well drilled. The geologic setting involved volcanic rocks, noted in the region for difficult drilling conditions at best, with such potential geologic hazards as large open fracture zones, lava tubes, rubble zones, and “block and ash” intervals consisting of hard blocks of rock (sometimes as large as small cars) surrounded by soft ash. We had some idea of subsurface conditions from a nearby test hole drilled and logged ten years previously, but for various reasons, a well was never completed at the time. The project started by drilling a new small-diameter test hole to a depth of 300 feet. The first indication of problems to come was caving of the borehole so an electrical log could not be run below a depth of 200 feet despite repeated efforts to clean the hole. The logger had another job to do and finally had to leave. It always seems these kinds of problems occur when a location is remote from the logging service company’s home base! In any event, the production well was designed using what information was available from both the new and previous test hole.

A reverse circulation rig was then mobilized to the site, but by time late fall arrived with subfreezing temperatures. The drill crew discovered the hard way that diesel fuel in equipment from a warmer climate will “gel” without a proper additive, a problem which caused some delay. In addition, drilling the 24-inch-diameter bore through the hard, but fractured, volcanic rock took several passes, taking more time than expected, compared to the relative ease of drilling the test hole. Small hole diameter drilling does not necessarily correlate to drilling a large-diameter hole

Wire cont’d on page 34.

30th Annual
BEST IN THE WEST
DRILL & BLAST CONFERENCE
SPEARFISH, SD
April 2017

April 19-21, 2017
Spearfish, SD

Spearfish Holiday Inn and Convention Center
Phone: (800) 999-3541 • (605) 642-4683
For room booking use group code: BIW
www.holiday-inn.com/spearfishsd

What you can expect from this conference:

Regulatory session • Crazy Horse Mountain Tour • Paul Muehl Scholarship Clay Shoot • Bob Martin Scholarship Golf Scramble • primer social hour • technical sessions • booster social hour • banquet • live scholarship auction • exhibitor booths with the latest in blasting technology and products • lunch • door prizes • and much more!

Blaster recertification credit hours available for Wyoming and many other states!

James McNulty: (605) 786-4959 • bitwconference@gmail.com
Doug Hoy: (605) 940-1055 • dough@sayreassociates.com

For more information, or to register online, go to: bitwconference.org

See you there!



Open the Doorway to all the Event Photos during the 2016 Las Vegas Water Expo.



To see all the pictures from this event, go to: www.worldwidedrillingresource.info/gallery/2016/LVWE2016, or just click [here](#).

Feel free to download at will and print the photo(s) of your choice.

Compliments of WorldWide Drilling Resource®.

Photos are copyrighted and released for personal use only - no commercial use permitted.

Increased Construction Drives Up Demand for Met Coal

Compiled by Editorial Staff of WorldWide Drilling Resource®

Construction projects may often be seen by some as a messy hindrance to society, but they are major influences to increasing economic growth for businesses, cities, and nations worldwide. When it comes to the coal sector, construction can be a major player in increasing demand for certain types of coal, such as metallurgical (met) coal. Met coal, also named coking coal, is an excellent fuel source to make steel because it burns hot and clean. Thus, increased construction and infrastructure projects will lead to a greater demand for steel and the met coal used to create it. Prices for met coal have already begun to rise largely because of China's influence in the market, but increased demand is sure to bolster the price as well.

New Colombia Resources Inc. is one such company which has benefitted from increased demand in met coal due to increased construction. The company is focused on the acquisition and development of high-quality met coal producers in Colombia, where demand is currently high for building material as new construction projects and infrastructure begin to be approved.

Corsa Coal Corp., headquartered in Canonsburg, Pennsylvania, is another company showing significant gains in revenue from met coal production due to increased steel demand. The company recently stated, "Corsa plans to increase production and sell significantly more tons of metallurgical coal over the coming quarters." Increased production might just become a reality for Corsa because spot prices for met coal have risen almost 250% on a year-to-year basis, and there has been great improvement in global steel prices. Corsa's met coal has quickly garnered the attention from both domestic and international steel companies looking to fill their increased demand.

All current indications seem to predict as more infrastructure and construction get underway worldwide met coal will experience an increased demand, and the companies will benefit greatly. The market is trending toward cleaner burning fuels and away from fuels heavy in carbon content, and met coal is already in demand with sales ready to take off. As the world changes with increased construction and infrastructure, met coal looks to be the force behind the scenes creating much of the metal used to reshape our world.



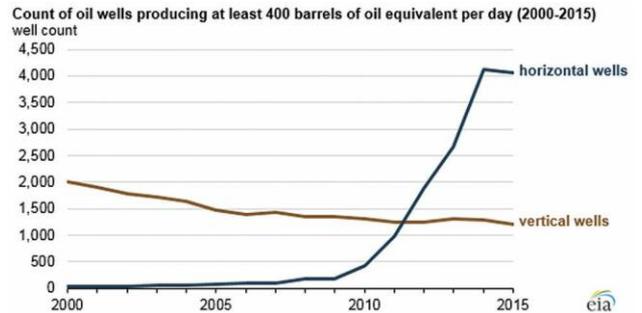
Oil Wells Using HDD are Among the Highest Producers

Adapted from Information by the U.S. Energy Information Administration

Commercial use of horizontal directional drilling (HDD) began in the 1980s. Since then, enhanced drilling techniques have improved the process and it has become a more common practice in the oil and gas industry. HDD is currently used in some of the highest producing wells in the country.

Typically, geologic formations are greater in horizontal extent than they are in vertical thickness. For this reason, more oil-bearing rock is exposed for production in horizontal drilling than in vertical drilling. HDD wells are often completed in combination with hydraulic fracturing to maximize production along the exposed rock formation. The U.S. Energy Information Administration estimates two-thirds of U.S. natural gas production comes from hydraulically fractured wells.

In 2015, nearly 77% of the most prolific U.S. oil wells, or those producing more than 400 barrels of oil equivalent (BOE) per day, were horizontally drilled. For about 85,000 moderate-rate wells producing in 2015, defined here as more than 15 BOE per day and up to 400 BOE per day, 42% were drilled horizontally. Of the approximately 370,000 lowest rate, marginal oil wells in 2015, also known as stripper wells, only about 2% were horizontal wells.



Frequently-Used Geological Terms Part 58

Glossary Adapted from the Dictionary of Geological Terms

O

Onyx - A variety of chalcedony which is like banded agate in consisting of alternating bands of different colors but unlike it in that the bands are always straight and parallel.

Onyx Marble - A compact, usually banded, generally translucent variety of calcite, or occasionally aragonite, resembling true onyx. It is usually deposited from cold water solutions, often in the form of stalagmites and stalactites in caves.



WWDR photo of opals.

Oölite - A sedimentary rock, usually a limestone, made up of oöoliths cemented together.

Oöolith - One of many small rounded bodies in a sedimentary rock resembling fish eggs. It is generally formed of calcium carbonate, in layers around a nucleus such as a grain of sand.

Opal - A mineral consisting of packed spheres of silica. Opal occurs in most colors, is transparent to nearly opaque. It is deposited at low temperatures and is found in a wide variety of rocks and forms. The transparent colored varieties showing opalescence are valued as gemstones.

Opalescence - A milky or somewhat pearly appearance or luster of a mineral, like that shown by opal and moonstone.

DO YOU WANT TO GET THE MOST OUT OF YOUR VIDEO CAMERA?

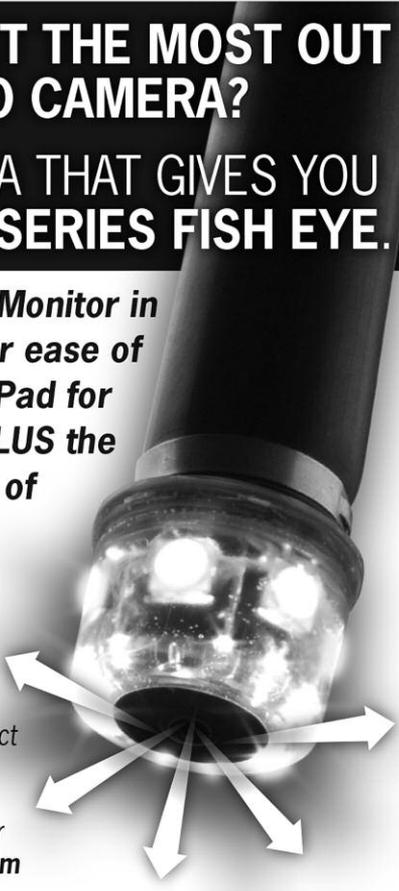
THEN GET THE CAMERA THAT GIVES YOU THE MOST—THE PRO SERIES FISH EYE.

Our DVCC with 15" Color LCD Monitor in lid, DVR to SD Memory Chip for ease of transfer, Microphone and Key Pad for Data entry on screen/video. PLUS the Industries' FINEST WARRANTY of 30 MONTHS.

Well-vu



For more information, contact your favorite wholesale distributor or go to our website to find a distributor near you at: www.wellvu.com or call 406-436-2087



Look for more terms next month!



WorldWide Drilling Resource®

Eijkelkamp

SonicSampDrill

SmallRotoSonic Crawler SRS

The SmallRotoSonic excels through capturing the powerful sonic force in an extraordinarily small and maneuverable package, combining efficiency and cost-effectiveness. This rig makes the difference and accelerates your drilling and sampling productivity for a broad variety of applications!

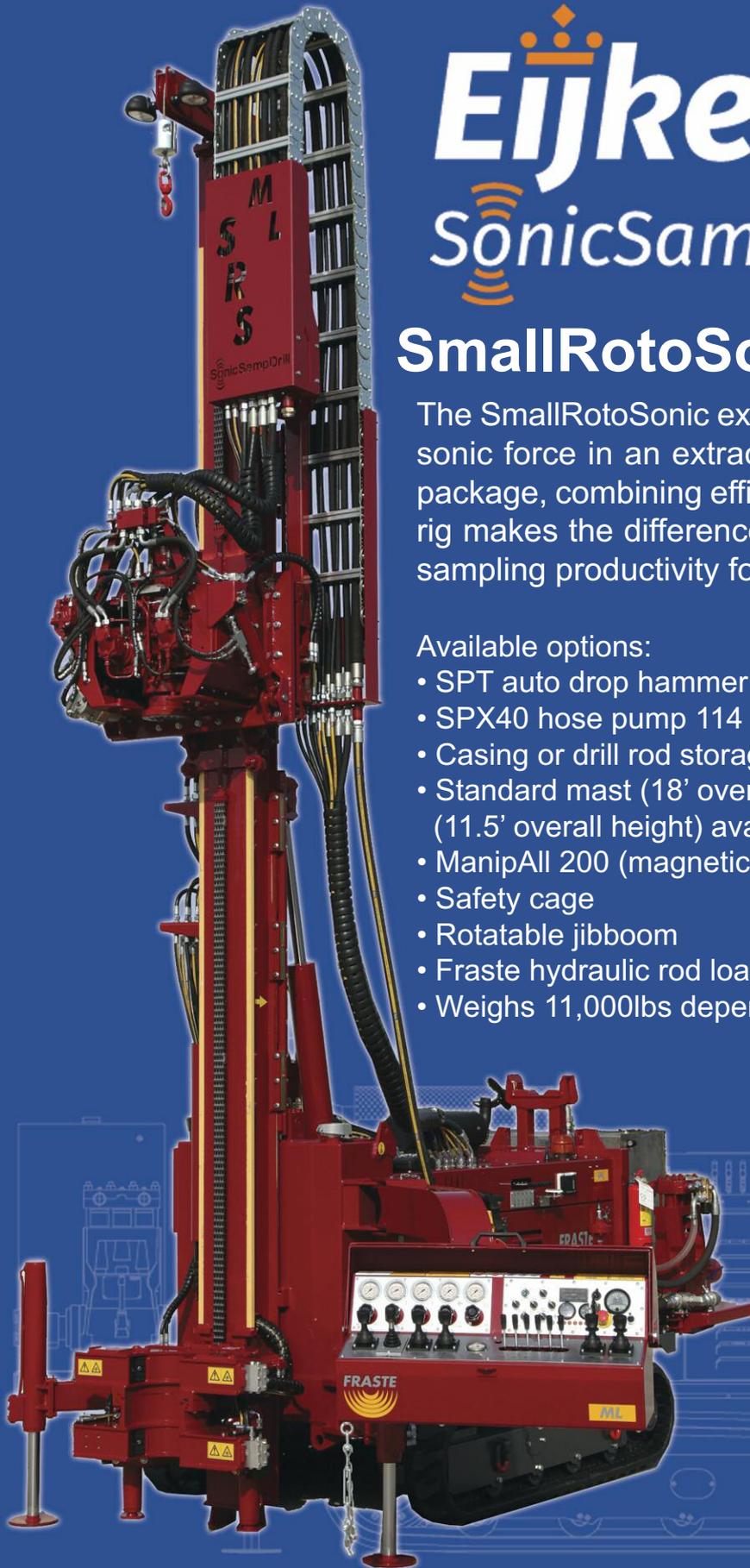
Available options:

- SPT auto drop hammer with blow counter on control panel
- SPX40 hose pump 114 l/min @ 9.6 bar, 30 gpm @ psi
- Casing or drill rod storage depends on diameter and length
- Standard mast (18' overall height) and short mast (11.5' overall height) available
- ManipAll 200 (magnetic rod loading arm)
- Safety cage
- Rotatable jibboom
- Fraste hydraulic rod loader
- Weighs 11,000lbs depending on options

Eijkelkamp
SonicSampDrill

Eijkelkamp North America Inc.
9230 Globe Center Drive, Suite 110
Morrisville, NC 27560
919-694-1114
info@eijkelkamp-usa.com
www.eijkelkamp-usa.com

Eijkelkamp SonicSampDrill
The Netherlands
+31-313-88-02-01
sales@sonicsampdrill.com
www.sonicsampdrill.com



SPECIALTY WINCHES FOR THE WELL AND FOUNDATION DRILLING INDUSTRY

LIFT-SAFE®

WINCHES

DESIGNED FOR OUTSTANDING
**PERFORMANCE
& SAFETY**



BLOOM MANUFACTURING, INC. Custom Engineered Solutions Since 1910

Independence, IA 50644, USA | bloommfg.com
P: 319-827-1139 | 800-394-1139 | F: 319-827-1140

Australian Innovation with Worldwide Application

*Adapted from Information Provided
by Spinflector Industries*

South Australia's mine sites may become significantly safer thanks to an innovation called the Spinflector. Produced by Trampas Cutler, the Spinflector is a new device designed to clean reflectors on delineator posts, solving an all-too-common safety problem by maintaining visibility for machine operators.

For five months, the Spinflector was used successfully at an iron ore mine in South Australia's Iron Triangle. At most mine sites, teams of workers spend valuable time traveling almost weekly along major thoroughfares with the sole purpose of manually cleaning dust and grime from the reflectors. Along with resulting in

a loss of productivity and a hike in labor costs, serious safety concerns cropped up on the route.

"It's an endless job as the reflectors get dirtied with grime over and over again," said Cutler, the Spinflector Industries founding director. "That interrupts production because they have to put signage in place, they have to have clear radio communications with the trucks to tell them to slow down when they drive past, and the massive safety issue of them being run over by a machine."

So how does it work? The Spinflector is built to mount on a PVC delineator post with either a small amount of PVC glue or with self-tapping screws, sporting a series of brushes to clean mud and debris from reflectors. The brushes are powered by a built-in wind vane, requiring no electricity or water to work. According to Cutler, the device only needs to rotate about half a dozen times in a 48-hour period to be effective, simply not allowing a dangerous build up of dirt. The product is constructed of durable materials intended to withstand harsh conditions, and there are also mounting solutions available for delineators built to different specifications.



The Spinflector harnesses wind power to provide safer working conditions at mining sites.

WorldWide Drilling Resource® is a proud member of these associations:

Alaska Miners Association
Phone: 907-563-9229 Fax: 907-563-9225
ama@alaskaminers.org
www.alaskaminers.org

Alberta Water Well Drilling Association
Tel: 780-386-2335
awwda@xplornet.com

American Exploration and Mining Assn.
Phone: 509-624-1158 Fax: 509-623-1241
info@miningamerica.org
www.miningamerica.org

Atlantic Water Well Association
Tel: 888-242-4440 Fax: 902-435-0089
nsgwa@ns.aliantzinc.ca • www.nsgwa.ca

Australian Drilling Industry Association
adia@adia.com.au

Black Hills Chapter of the ISEE
President: Doug Hoy
www.bitwconference.org

British Columbia Ground Water Assn.
Tel: 604-530-8934 Fax: 604-530-8934
secretary@bcgwa.org • www.bcgwa.org

National Drilling Association
Tel: 877-632-4748
Fax: 216-803-9900
www.nda4u.com

New Zealand Drillers Federation, Inc.
www.nzdrillersfederation.co.nz

Northern Plains Chapter of the ISEE
President: Billy Obermire
Tel: 307-689-0050
www.bitwconference.org

Nova Scotia Ground Water Association
Tel: 888-242-4440 Fax: 902-435-0089
nsgwa@ns.aliantzinc.ca • www.nsgwa.ca

Ontario Groundwater Association
Tel: 519-245-7194 Fax: 519-245-7196
ogwa@ogwa.ca • www.ogwa.ca

Women In Mining
866-537-9694
wim@womeninmining.org
www.womeninmining.org



Drilling for Geothermal Plant in Indonesia Commences

Adapted from a Press Release by KS Orka Renewables

KS Orka Renewables Pte Ltd of Singapore announced drilling for the Sorik Merapi geothermal project in North Sumatra, Indonesia, has started. The first drilling rig, operated by Dati, is proceeding with drilling on pad A and another drilling rig from KS Drilling is being mobilized for another area in the concession, pad E.

The 240-megawatt project is one of the largest greenfield projects in Indonesia. KS Orka is the 95% owner and developer of the project.

KS Orka is a joint venture between Hugar Orka ehf (an Icelandic company) and Zhejiang Kaishan Compressor Co., Ltd. KS Orka combines the Icelandic knowledge in geothermal development with Kaishan's power plant technology and manufacturing expertise to form Asia's only vertically integrated geothermal and waste energy company. KS Orka brings to the project some of the most experienced geothermal experts and power project developers in the world.

The KS Orka team plans to bring the first pilot power plant into operation some time this year.

Don't Forget to Maintain Your Battery!

by Darren Stanley Geoprobe® Service Manager

The battery, and specifically the connections to it, seems to be one of the most neglected items on a drilling rig. The hydraulics and engine may get serviced routinely, but very rarely do people take time to clean and maintain the connections at the battery.

Loose or corroded connections can lead to starting issues in the field. Routine maintenance of battery connections, and even the connections to the Master Disconnect can eliminate many problems down the road. A poor connection can lower the amperage from the battery getting to the starter, leading to cranking the starter too long without it starting, which in turn can burn up the starter or, at the very least, shorten its life.

A good rule of thumb would be to simply remove and clean the connections and reinstall them with some dielectric grease whenever you service the hydraulics.

Patent No. 6,868,904

WATER

WELL DEVELOPMENT TOOLS

ENVIRONMENTAL SERIES



- ◆ 3/4-inch
- ◆ 1-inch
- ◆ 1.25-inch
- ◆ 1.5-inch
- ◆ 2-inch

Advantages of Surge Block Method

- ◆ Most effective way to develop any well
- ◆ Produces more water, less color and turbidity
- ◆ Only the surge block method "back washes" the well screen, removing clay bridge, sands and silts
- ◆ Flexible wiper creates suction and pulls water into the screen (not available with other methods)
- ◆ Constructed of inert long-lasting materials
- ◆ Capable of lifting water over 50 feet
- ◆ Removable ball valve prevents water from flowing back into well and will not clog with sediments
- ◆ Fast, effective and saves time and money

PRODUCTION SERIES





4", 5" 6"

For more information visit:
www.welldeveloper.com
 850.727.4427

KRUSE ENERGY AUCTIONEERS
an IronPlanet marketplace

IRON INTERNET BIDDING

Auctioneers: Jim Richie - OK Lic# 0330149 • James Dyess - TX Lic# 8550
A 2.5% administrative fee will be charged on all purchases



AUCTION

THURSDAY • APRIL 20TH, 2017

TONKAWA, OKLAHOMA

O-K Bit Service, Inc.

Inventory Reduction Sale for OK Bit Service, Inc.

40 Plus Years in Business...Same Location

Over 3,500 Rock Bits For Oil & Gas • Water Well

Mining & Directional Drilling Operations

TCI & Milled Tooth Bits, Including Many NEW

From 44" to 3-7/8" • Plus Matrix & Steel Body PDC's & Hole Openers

FOR MORE INFO Call Gary Stout @ 405-203-0311 or View Online at www.kruseenergy.com



In Memoriam

Sandra A. (Currie) Constable (1945~2016)



When we hear of the loss of a friend across the miles, it tears at our heartstrings. Such was the feeling as I read the notice from the Ontario Ground Water Association just before Christmas. Sandra Constable was indeed a friend to many despite the fact she was from Ontario, Canada.

Sandra left us on December 14, 2016, at the age of 71. She was the wife of Ken, loving mother of Teresa Hawley (Grant Spurdle), Kevin Hawley, and stepmother of Kevin (Nicole) Constable, and Kerrie Constable. She cherished her grandchildren Max, Zach, Ryan, and Kurtis. Sandra will always be remembered by her sister Sharon (Glenn) Fraser, brothers Eugene (Elaine), Eldon (Marie), and Gary Currie; sister-in-law Gloria Currie, as well as her many nieces, nephews, and a terrific circle of friends. She was predeceased by her brother Ross Currie.

Memorial donations in her honor may be sent to the Thornton Community Food Bank.

Condolences may be sent through www.adamsfuneralhome.ca.

You rarely saw her without her loving husband Ken; except when she was holding a Board Meeting at one of the events!

Or, at the hospitality suites!



She might even have become a miner, or how about a singer? One thing is for sure, Sandra had a great many friends in the drilling industry as is quite evident by a few of the photos the *WWD* Team managed to capture her in. Such great times with her is one thing we here at *WWD* will never forget. When such a person enters your life, they are never really gone, they are right there with us always in fond memories. She did love to have fun and smile with everyone, and this is the way we remember her.

The management and staff of *WorldWide Drilling Resource*® send our sincerest sympathies to Sandra's dear family and friends worldwide.

Lest we forget...



MOAB BIT & TOOL Co., INC.

Doing business for over 50 years.

THE MOAB BLACK HOLE LINE



999 W. 400 N. • P.O. Box 817
Moab UT 84532 • Fax 435-259-2968

**For bit design and bit program consultation call 800-453-1052
or visit us online at www.moabbit.com**

- PDC Bits customizable to any size and application at an affordable price.
- PDC Bit Repair
- Custom Bits
- Tricones
- Hole Openers
- Drill Pipe
- Subs
- Stabilizers
- Claw Bits
- Reverse Circulation Bits



Drilling Into Money Not Boring

by Mark E. Battersby

Last-Minute Tax Savings & Potential Pitfalls

Although tax planning should be a year-round strategy, with year-end and planning a good backup - even as the tax filing deadlines approach - it is not too late to reap tax savings. Keeping in mind a drilling professional's obligation is to pay their fair share of taxes, and not a dollar more, consider a few last-minute tax savings tips.

Depreciation is an annual allowance for the wear and tear, deterioration, or obsolescence of business property such as buildings, machinery, vehicles, furniture, and equipment. The "extenders" bill passed late in 2015, permanently set the Section 179, first-year expensing write-off at \$500,000 with a \$2,010,000 (thanks to inflation) overall investment limit before phase-out.

The same extenders bill also extended the 50% "bonus" depreciation write-off for equipment placed in service between 2015 and 2017, with a lower percentage kicking in for an additional two years. This means a write-off of 50% of the purchase price in the first year, plus regular depreciation for the remaining 50%.

Whenever possible, repairs and maintenance expenses should be deducted immediately, rather than capitalized and depreciated. Small businesses lacking so-called applicable financial statements (AFS) can still take advantage of a de minimis safe harbor to deduct \$500 or less per purchase or per invoice. Businesses with an AFS can deduct as much as \$5000 per purchase or invoice. Small businesses with gross receipts of \$10 million or less can also take advantage of a safe harbor for repairs, maintenance, and improvements to eligible buildings.

S Corporations - the most common entity in the United States today - are required, at least to the extent their owners perform services for the business, to pay the owner a reasonable compensation for those services - an amount which is subject to self-employment tax.

Anyone who has tried but can't get their taxes prepared by the filing deadline can file a Form 4868, Application for Automatic Extension of Time To File U.S. Individual Income Tax Return or use an online service. Remember however, the extension provides more time to file the returns, but not more time to pay the tax bill.

FILMARK

Products, Inc.

PO Box 60249 Midland TX 79711-0249
432-563-5941 432-563-5942 (fax)

5x6 Pump Parts

5" File Hard Liner	\$145.00
Liner Packing T.T. Style.....	\$10.00
Piston Rod API-1.....	\$87.86
Rod Packing Set (4 pcs.).....	\$12.00
Standard Valve (Rubber).....	\$65.00
Gravel Valve (Rubber).....	\$69.50
Seats.....	\$45.00
Rubber Valve Inserts.....	\$7.00
Urethane Valve Inserts.....	\$11.00
Valve Spring S.S.....	\$5.25
Valve Cover Gasket.....	\$7.50
2" Swivel Packing.....	\$6.00

Rod & Piston Specials

5x6 API-1.....	\$155.00
5-1/2x8 API-3.....	\$235.00
5-1/2x10 API-3.....	\$240.00
5x8 API-3.....	\$225.00
5x10 API-3.....	\$230.00

Pistons & Rubbers

Pistons Complete	Rubber Kits
4" Series A, API-1.....	\$45.00
4-1/2" Series A, API-1.....	\$48.50
5" Series A, API-1.....	\$50.00
5" Series B, API-3.....	\$65.00
5-1/2" Series B, API-3.....	\$68.00
7-1/2" Series B, API-3.....	\$112.63

Pump Liners

5x8 Liner.....	\$210.00
5-1/2x8 Liner.....	\$215.00
5x10 Liner.....	\$210.00
5-1/2x10 Liner.....	\$215.00
7-1/2x10 Liner.....	\$440.00

Prices Subject To Change Without Notice. PRICES ARE C.O.D.

sales@filmarkproducts.com

800-635-5229

Pre-Registration NEWWA

New England Water Well Expo March 10 - 11, 2017
Best Western Royal Plaza Trade Center
Marlborough, Massachusetts

New England Water Well Association CC Meeting and Event Services
7 Bailey Lane, Brewster NY 10509 Phone: 845-278-1892 Fax: 845-278-1899

Contact: _____

Address: _____

State/Zip Code: _____

Phone & Fax : _____

E-mail: _____

Pre-Registration \$ 20 per person
Spouse & Children under 16 years
FREE

Onsite Registration \$ 25
Registrant (s) Names: _____

Credit Card Type _____ **Credit Card Number** _____

Expiration Date _____ **CCV (security code)** _____

Pre-Registration Deadline - March 1, 2017

Complete this form and fax or mail it along with your payment ASAP to NEWWA.
Register online at www.newwassociation.org
NEWWEXPO@gmail.com

Although taxes should never be the primary reason behind any strategy, purchase, or move made by a drilling business, it is never too late to plan on saving taxes. To achieve a low tax bill, either before or after the return is prepared, professional assistance may be required.

Mark

Mark E. Battersby may be contacted via e-mail to michele@worldwidedrillingresource.com

Natural gas is used to make several common products you may not even realize, such as: plastic, eyeglasses, food preservatives, lotion, fertilizers, fishing rods, footballs, tires, trash bags, toothpaste, and much more!

in this environment! By this time, with winter snow, the contractor was anxious about this job taking excessive time. Finally, however, the casing and screen were set to total depth, and the cement seal placed to 160 feet by late one freezing night. By now, the crew was looking forward to some short development time followed by demobilization.

The next afternoon, the contractor called, saying they had a problem. They thought the casing had collapsed, and they couldn't work the drill stem past about 128 feet. Obviously bad news, and the cause for such a calamity was unknown. A downhole camera was needed to assess the situation. Luckily, the utility had a very small-diameter camera they used to inspect sewer pipes. The camera revealed the thick, 14-inch diameter steel casing was crushed inward, so the cross section resembled a "crescent moon", but allowing the camera to pass through a very small opening. A ten-foot section was damaged, fortunately above the static water level, and the casing and screen were undamaged.

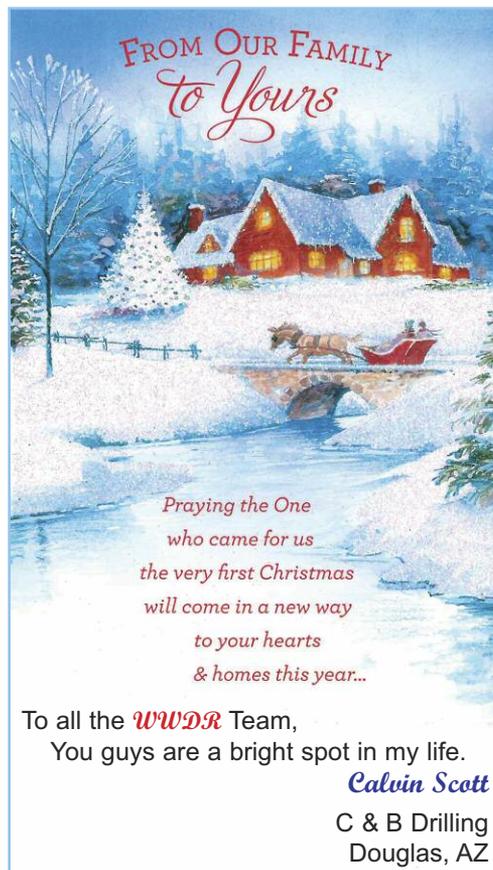
Abandoning the well and starting over was out of the question considering the time, effort, and money spent to date, and it had to be saved! More snow hindering access to the location allowed time to develop a strategy for repair. A specialist in the use of explosives for destroying wells was employed to carefully blast away the ten-foot section of deformed casing, also breaking parts of a large rock, presumably from a "block and ash" flow which somehow had been dislodged during the cementing process, crushing the casing. Several liners were then installed to repair the casing.

Then the question was: "Will the production from this 300-foot well be worth nearly four months of time, effort, and extra funds to repair it? A sustained pumping test soon answered the question. The well produced 900 gallons per minute (the capacity of the pump) with four feet of drawdown. Now, maybe not exactly a "well from heaven", but close to it, considering the positive results for the owner. The moral of this story? Obviously, skill and persistence paid off in this case.

Jeremy

Jeremy Wire may be contacted via e-mail to michele@worldwidedrillingresource.com

FROM OUR FAMILY
to Yours



Praying the One
who came for us
the very first Christmas
will come in a new way
to your hearts
& homes this year...

To all the **WWR** Team,
You guys are a bright spot in my life.
Calvin Scott
C & B Drilling
Douglas, AZ



Step Away From the Pack

Put the MARL advantage in your fleet and provide your clients with truly superior drilling results. Call or visit us or a MARL client to learn how the most advanced drills on the market give you a clear advantage over your competition. Dealer for MARL M Series auger drills and North American dealer for Fraste rotary drills.

Designed and built with meticulous attention to detail, our drills offer unrivalled performance and durability. And with enhancements such as our exclusive electronic SPT system and electronic safety curtain, you'll be light-years ahead of the rest of the pack.



marltechnologies.com

Fast delivery on
in-stock drills.
Excellent parts
availability!

1.800.404.4463

San Francisco's Leaning Tower

Compiled by the Editorial Staff of
WorldWide Drilling Resource®

Most people have heard of the Leaning Tower of Pisa, but have you ever heard of the "Leaning Tower of San Francisco"? The skyscraper in question is the Millennium Tower, which has developed a worsening slant since its construction in 2009. The tower has sunk 16 inches and tilted at least 2 inches northwest at its base, which translates into an alarming 15-inch tilt at the top of the building.

The Millennium has 58 floors and reaches an architectural height of 645 feet, making it the tallest residential building in the city. Though the glassy blue structure paints quite a splendid view in the downtown skyline, the focus has become its precarious lean and the possibility of sinking a total of 31 inches from its original foundation. Some settling is to be expected with very large structures like the Millennium. The problem engineers are trying to understand is why the tower is sinking more than the 4-6 inches it was expected to over the life of the building. Then, they can tackle the questions concerning what the building is going to do in the future, and how to stop further tilting and sinking.

The project developer, Millennium Partners, has proposed the structural problems were caused by dewatering at the construction site of the Transbay Transit Center next door. Pumping out millions of gallons of groundwater from the area is thought to have softened and compressed the soil under the tower. However, Transbay believes the structural problems are caused by an improper foundation design by Millennium Partners. The building rests on more than 900 "friction piles" driven into dense, old bay mud at a depth of 60-91 feet. Transbay thinks the developers should have used "end bearing piles", which would have reached down 200 feet into the bedrock. Prior to the Millennium project, no major building downtown had piles driven into bedrock, but since then, four projects by Transbay developers have used the method. Both techniques have worked in the area; however, Millennium Tower is five times heavier than other buildings with a similar foundation. Either dewatering or poor foundation design could be correct, or perhaps a mixture of both, but it will remain speculation until results are in from an independent investigation.

Soil experts have drilled a six-inch-wide hole using a rotary drill rig, which will eventually drill 260 feet into the ground. The

hole will allow experts to drop three instruments into the foundation, which will measure the buildings tilt, groundwater and soil conditions, and how much the soil under the building has settled. The plan is to use two holes along the front of the building, and a third around the corner, with the intent of finding out where the soil is compressing and where it is settling. If it turns out the building does need to be fixed, the easiest solution would be to reinforce the foundation by injecting material and adding additional support; a more serious scenario could involve radical solutions like taking 20 floors off the top of the building to make the structure lighter.



MICHIGAN GW A

89th Annual Convention and Trade Show

March 9 - 10, 2017

Grand Traverse Resort and Spa
Acme, MI



Thursday

Registration • McElhiney Lecture • Legislative Update "State of Lansing" • DEQ Update • DOT Update • Tips from Toastmasters "How to be a better speaker and make your business stand out" • Auxiliary Function • Cocktails • Banquet and Awards • Entertainment • Casino Night and Microbrew/Winery Judging

Friday

Registration • MGWA Annual Meeting • MGWA Lunch and Trade Show

For more information, call: (855) 225-6492
or visit us online: michigangroundwater.com



The Millennium Tower,
courtesy of Michael Gimbel.

Time for a Little Fun!

Congratulations to:

Toni Jean Unger
Gouldsboro, PA

Winner for January!

Win a prize! Send your completed puzzle to:
WDDR PO Box 660
Bonifay, FL 32425
or fax to: 850-547-0329

Can you identify which ads in this issue these two photos came from?

acity from



ISO 9001

January Puzzle Solution:
Infinity Tool Mfg.
Wyo-Ben, Inc.

T&T Carbide Inc. Est 1976



- HOLE OPENERS
- TRICONE BITS
- PDC BITS
- FLY CUTTERS
- BARREL REAMERS
- SUB ADAPTERS

WE SPECIALIZE IN CUSTOM BUILT
HOLE OPENERS AND BACK REAMERS
FROM 8 TO 60 INCHES
NO OUTSIDE CONTRACTING

17409 LOWRY AVE
LOGAN IL 62856
800.333.1816
618.439.7253
FAX 618.435.4347
EMAIL sales@tandtcarbide.com
www.tandtcarbide.com



The "Idiots" Corner

by "Billy Bob Smith"

"Refuse to accept the belief that your professional relevance, career success, or financial security turns on the next update on the latest technology. Sometimes it's good to put the paddle down and just let the canoe glide."
~Simon Mainwaring

As the new year starts to take shape, I'm sure many of you have already broken some of your New Year's Resolutions or have abandoned some challenging goals. As we head into what I believe will be a positive year in many ways, it is important to keep one thing in mind as you grow your business, increase your market share, service your customers, and improve your bottom line - and that one concept - staying relevant in your market with your customers and prospects. Hundreds of businesses fail every day in the U.S. Why? They have lost relevance and are still operating as if things haven't changed. Rel-

evance has nothing to do with your history, size, products/services, or market share. It has everything to do with offering what customers want, how they want it, and when they want it.

So let me share a few stupid things I have heard over the years by business owners and executives of failing companies. I won't mention the person who made the comments, since I hate lawyers who have nothing better to do than file useless suits on poor idiots like me. You may remember some of them.

Eastern Airlines - "People will always need to fly. As long as we keep our safety rate in line with expectations, we'll be okay."

Howard Johnsons - "We own the turnpikes in the U.S. There is no way any other food chain can replace us."

Borders Books - "We sell books. We are the largest bookseller in the U.S. There is no way we can ever fail."

Schwinn Bicycles - "We have a long history and thousands of loyal customers. We will be around forever."

Fruit of the Loom - "It's underwear, not rocket science. No worries about the future."

Bethlehem Steel - "The world will always need steel products. The idea that plastic can replace steel is just plain dumb."

Blockbuster - "We own the video rental market in the U.S., and always will."

Kodak - "Yes, cameras have improved and evolved, but people will always need them."

Ever said anything close to these? Make 2017 a year with fewer mistakes and stupid decisions.

Billy Bob

Contact him via e-mail to michele@worldwidedrillingresource.com

**HIGH-CAPACITY
GROUND
WATER
WELLS**
4" TO 36" Ø

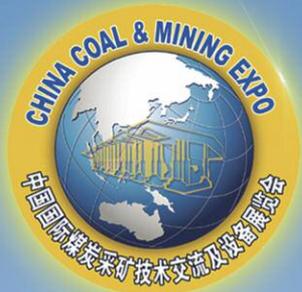
**AMERICAN
MADE**

Monitor

WE KNOW GROUNDWATER

800-356-5130 | WWW.BAKERWATERSYSTEMS.COM | MONITORSALES@BAKER-MFG.COM

BAKER®
WATER SYSTEMS DIVISION
Campbell Monitor MONOFLEX



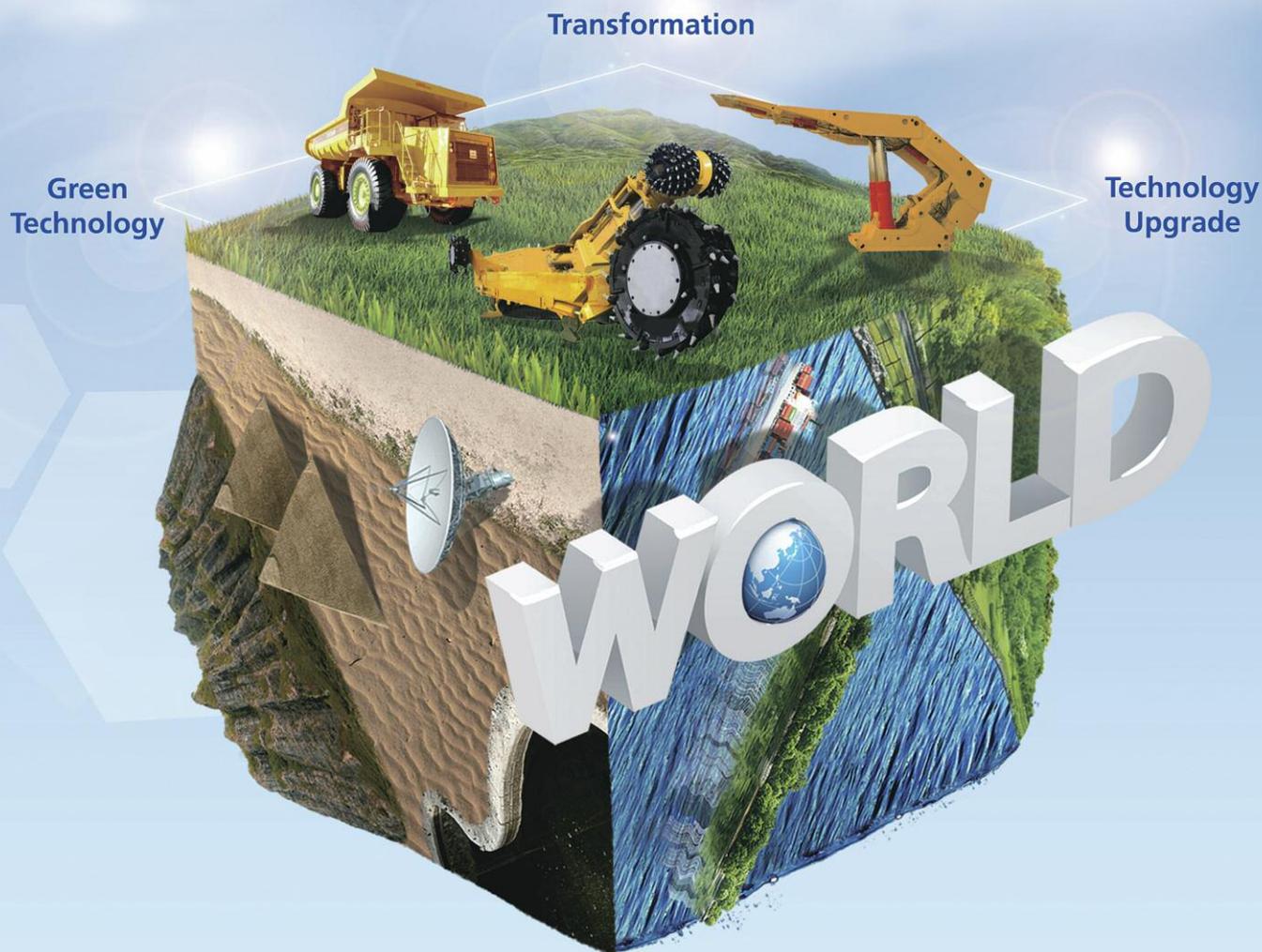
China Coal & Mining Expo 2017

China's 17th International Technology Exchange and
Equipment Exhibition on Coal & Mining

第十七届中国国际煤炭采矿技术交流及设备展览会

Date : 25-28 October 2017

Venue : New China International Exhibition Center, Beijing, P.R. China



www.chinaminingcoal.com

Worldwide Enquiries

TOGETHER EXPO LIMITED

Tel: +852 2881 5889

Email: info@together-expo.com

U.S.A. Pavilion

UNIVERSAL TRADE NETWORK, Inc.

Tel: +1 703-468-1093

E-mail: berta@utnevents.com

Berta Verastegui, International Project Manager



WorldWide Drilling Resource®



Jon and Chris Hansen helping with the container loading.

The 13th was a Thursday and the container was to be in-gated to the dock for loading on Friday, but it did not. A few days later, when I looked at the Mediterranean Shipping Company tracking information, it showed the container had missed the cut-off time for in-gating the container, and had missed the ship.

I called the trucking agent in Seattle and inquired why the container was still on the dock. She said the schedule for the ship had moved up and had caused the in-gate cut-off time to be earlier than they expected, so the container missed the ship. The next ship would load in two weeks.

I was able to learn the container had been in a secure yard at the trucking company, so I was a little relieved. There was nothing to be done.

The container did load on the next ship and headed south as scheduled. It made port in Balboa, Panama; then went across to the Caribbean side of Panama. The container was loaded on a small ship and headed for Costa Rica. From there, it was scheduled to go to Puerto Barrios in Guatemala, but it did not. A hurricane was circulating in the Caribbean. The captain decided the schedule did not matter as much as the ship and cargo, so he kept the ship in the port in Costa Rica and let the schedule slip.

Finally, the ship was scheduled to arrive and it did. It took the usual wrangling by Beryn to get the container through the customs process where there is no schedule, but finally the money was paid and the container released.

The container arrived at our shop in early December. What a relief!

It was unloaded with difficulty, but successfully. Just before the heavy pallets of donated bentonite were to be unloaded, hydraulic hoses on both forklifts burst. The bentonite had to be unloaded by hand. Some young men from the orphanage assisted with the unloading or it would not have happened. Finally it was complete. We had the precious supplies. Things did not happen on the schedule we chose, but the Good Lord had things on his schedule, and all was well.

If you would like to help, contact Gary Bartholomew at 509-466-5075 or 509-939-1941

Tim

Tim Rasmussen may be contacted via e-mail to michele@



by Tim Rasmussen

This year, we decided to try and schedule the container early to avoid the holiday work slowdown. With dock storage fees of \$125 per day, every day counted, so we settled on October 13, and scheduled the truck.

The day for loading the container came on schedule, and the truck came on schedule. We got it loaded on schedule, but this is where the schedule ended.



SKYREX ELEVATORS
Used Worldwide

Stock Sizes:

1" thru 24" for casing, column pipe, tubing and drill pipe.

*Load test certificates available
*Offered with or without base



We Support Our Troops!



Oilfield & Water Well Conventional Reverse Circulation Drill Pipe & Equipment

We have elevators of all sizes, types and weights
Can build to any special applications

- ◆ Drill Pipe
- ◆ Drill Collars
- ◆ Manual Tongs
- ◆ Spiders
- ◆ RC Swivels
- ◆ Stabilizers
- ◆ Bits
- ◆ Bowls
- ◆ Centrifugal Pumps
- ◆ Crossover Subs

New & Used Equipment



We look forward to serving you this coming year and the next!

Look for our expanded website.

Family Owned & Operated

office 806-791-3731 fax 806-791-3755

www.rexmcfadden.com



The Asset of Effective Marketing

Compiled by Caleb Whitaker, Associate Editor
WorldWide Drilling Resource®

Marketing is always at the forefront of every business, but it can also be one of the least understood and most undervalued aspects of growing a business. Many times, circumstances arise where cutting cost is needed and advertising seems to be the most logical place to start. While it may be good to cut costs, marketing might not be the best place to do it. More than anything, marketing is an investment which generates a financial return in terms of sales and customers.

When fewer people are buying products and services, it's easy to see only the money being spent on marketing and it seems natural to cut back on that important part of the investment in their company. However, a big budget isn't needed to make an impact and move the business forward through advertising. Even in the worst of economic times, the drilling industry still purchases products and services. While customers might be more selective over which products or services to buy, businesses can have success if they use a keen marketing prowess to effectively promote themselves.

When it comes to the marketing campaign itself, the message is almost always the hardest part to get right. Oftentimes, there simply is no message at all; instead, only a list of services and products are provided. People want to know what they are looking at when viewing an advertisement. If there is nothing being said, why should people listen? If used effectively, messages can be powerful tools. Keeping it simple is the key because an **advertisement, by nature, should be short and clearly expressed.** Complexity will add clutter and irrelevant noise, which will often just confuse people. It can sometimes be difficult for a business to look at what they have to offer and distill all the intricate parts down into one simple message, but it is an essential part to marketing effectively.

Targeting the market will also increase advertising success. It is important to be well informed of the latest industry trends and developments. If direct competition is a factor, keeping a file with competitive intelligence can be useful. Businesses should seek out new ways to talk about the products and services they offer and present a unique proposition, which should stand out from the competition. This will pique interest and aid in building the brand for the business. The goal is to

Effective Marketing cont'd on page 54.

OIL & GAS | MINING | WATER WELLS | CONSTRUCTION



CHECK OUT OUR NEW WEBSITE

CELEBRATING 70 YEARS



U.S. MANUFACTURED
 WITH AMERICAN STEEL
 & LABOR SINCE 1947

WWW.THROOPROCKBIT.COM

E: SALES@THROOPROCKBIT.COM | P: +1 (580) 628-3416

AN ISO 9001 / TS 29001 REGISTERED ORGANIZATION



Photo of the new solar facility at the

Solar Power in the Sunshine State Thanks to the Mining Industry

Adapted from Information by Duke Energy and Mining Facts

Hunting for camouflaged Mickey ears around Disney World is a popular game in sunny Florida. The most recent hidden Mickey isn't too hard to spot, as it is made from 48,000 solar panels on 22 acres near Epcot.

Duke Energy joined with Walt Disney World Resort and Reedy Creek Improvement District (RCID) to develop the five-megawatt solar facility operated by Duke Energy. The energy produced will be sold to RCID to help meet the power needs of Walt Disney World Resort, as well as other customers including the Four Seasons Resort and other hotels along Hotel Plaza Boulevard.

"We're committed to providing our customers with greater access to renewable energy, and the Walt Disney World Solar Facility is one example of how we're doing that," said Alex Glenn, Duke Energy state president - Florida. "We appreciate this unique opportunity to collaborate with Reedy Creek Improvement District and Walt Disney World Resort to expand the use of solar energy generation in Florida."

Disney, Duke Energy, and RCID representatives commemorated the opening of the new facility by flipping a giant light switch.

"As a company that cares about the environment, we continually take steps of varying sizes to benefit the environment and protect the planet," said Angie Renner, environmental integration director for Walt Disney World Resort. "This new solar facility will help us in our efforts to conserve natural resources."

With its Florida regional headquarters located in St. Petersburg, Florida, Duke Energy is one of the largest electric power holding companies in the United States. The new solar facility at Walt Disney World is one of several solar projects in development. By 2024, Duke Energy plans to add up to 500 megawatts of additional solar energy to Florida.

The increased demand for solar power is good news for the mining industry since arsenic, bauxite, boron, cadmium, coal, copper, gallium, indium, iron ore, molybdenum, lead, phosphate, selenium, silica, tellurium, and titanium dioxide are required to manufacture the solar panels.



20th Annual Drilling School

GEFCO, Inc. in conjunction with the Canadian School of Environmental & Natural Resources Sciences, Fleming College present:
The 20th Annual Resource Drilling Fundamentals Training Seminar,
May 8-12, 2017.

COURSE CURRICULUM

- TOPICS:**
- Drilling Fundamentals
 - Parts and Components
 - Geology & Cutting Actions
 - Mud Drilling
 - Grouting and Abandonment
 - Drill Bits & Subs
 - Geology and Well Development
 - Air Drilling Fundamentals

For additional information, log on to
www.gefco.com or call Daphne Schmidt:
Phone: 580.977.3214
Email: dschmidt@gefco.com

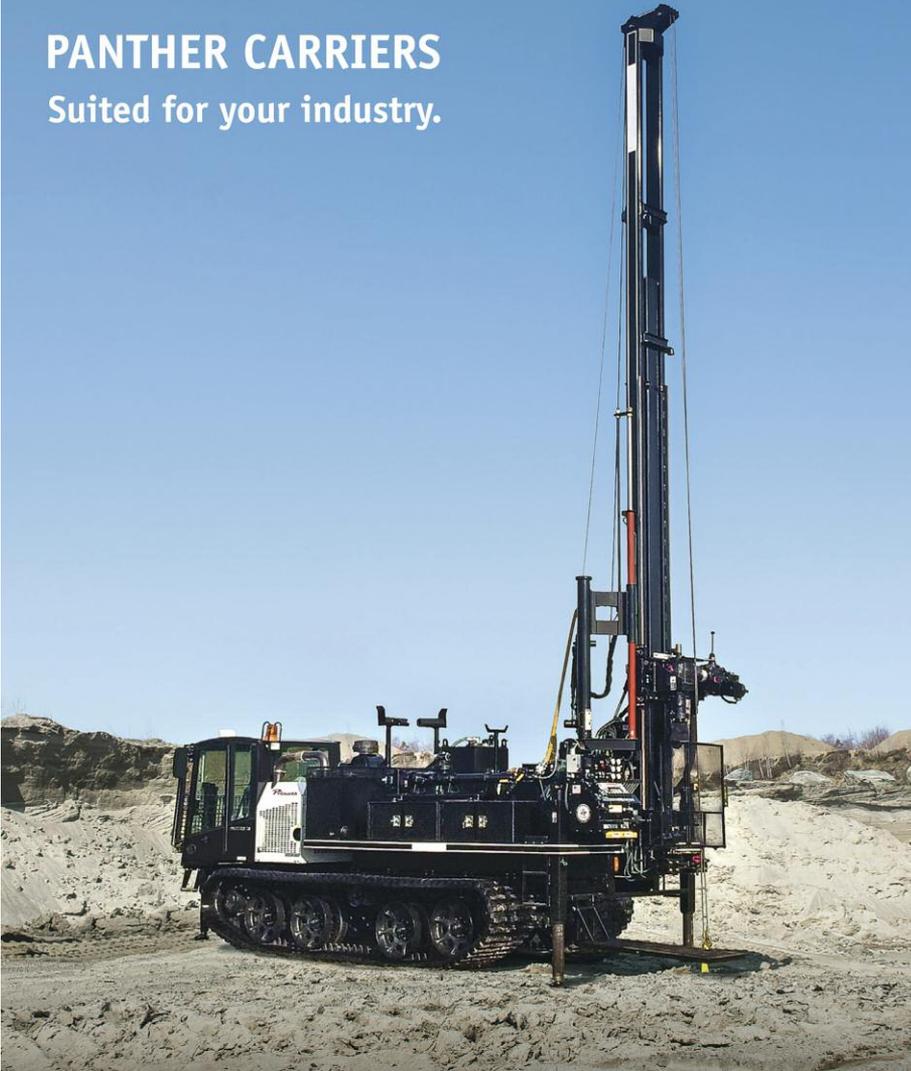


GEFCO, INC. an Astec Industries Company

2215 S. Van Buren · Enid, Oklahoma, USA 73703 · Phone 580.234.4141 · domsales@gefco.com · intsales@gefco.com · www.gefco.com



PANTHER CARRIERS Suited for your industry.



- ✓ Innovative chassis design provides easy implement installation
- ✓ Improved ROPS certification allows optimal payload
- ✓ State-of-the-art cab design provides comfort and visibility
- ✓ CLEAN MOTION: the first Stage IV/Tier 4 Final carrier line-up in the industry
- ✓ Undercarriage unit also available

The PANTHER crawler carrier from PRINOTH treads softly while carrying big payloads. Engineered for increased efficiency, the PANTHER provides fast, uninterrupted travel, optimal track performance, operator safety and reduced maintenance. All this and the ability to customize your vehicle according to your job's needs. Contact us to find out how PRINOTH's PANTHERS fit your needs for both mining exploration and exploitation.

PRINOTH Ltd - North America
Tel. +1 450 776 3683
www.prinoth.com



Danish Company Wins Heat City Contract

*Adapted from Information by
Ross Offshore*

The Danish company Ross Offshore has won a contract to provide well engineering and drilling management to WarmteStad Groningen in the Netherlands. The project is part of the development of Groningen transforming the city to accommodate district heating and cooling using geothermal energy as one of the city's core sources of heating energy. WarmteStad (Heat City) is a joint initiative of the Water Company Groningen and Groningen municipality.

The project has begun and is expected to stretch into 2018 with commissioning of the well system and heating grid. The geothermal system will draw heat from a reservoir located around 11,000 feet beneath the city, with temperatures hovering at nearly 250°F (120°C).

Lars Andersen, Ross CEO said, "WarmteStad Groningen is making a change - going from a natural gas based heating system to a district heating based system based on green geothermal energy as source. Together with WarmteStad and our project partner IF Technology BV, we will develop a sustainable supply of green energy for decades to come."

"The geothermal project will be developed and constructed in conjunction with the district heating grid" says Dick Janssen, managing director of WarmteStad Groningen. "We have a clear vision for the city of Groningen for going CO2 neutral and provide our citizens with the sustainable energy sources. As a vibrant city with a university and large student body, we have an obligation to set a path for others to follow. We envision geothermal energy to provide us with energy for years to come."

The main goal is to create an energy-neutral Groningen by 2035, and using geothermal energy as one of the city's core sources, is a key component to achieving this objective.



CONEXPO-CON/AGG® Announces Fundraising Efforts for Veterans

Adapted from Information by CONEXPO-CON/AGG and the Call of Duty™ Endowment

The Call of Duty™ Endowment, a nonprofit organization dedicated to helping veterans secure employment, has been named the official charitable partner for the 2017 CONEXPO-CON/AGG® & IFPE event. Terex Corporation has generously donated a benefit concert featuring the multiplatinum rock band Foreigner. The concert will be held on Wednesday,

March 8, 2017, in Las Vegas and is being hosted by Brooklyn Bowl on the Vegas strip. Show registrants may make a minimum donation of \$29 to the Endowment for admission to the concert.

The Call of Duty Endowment was cofounded by Activision Blizzard CEO Bobby Kotick, in 2007. It was during a veterans' initiative in Los Angeles, California, when he realized most veteran projects seemed to focus on things such as creating monuments and naming public parks. Few, however, provided the resource veterans needed the most - jobs. His concern led him to lay the groundwork for the Endowment. He cleverly coupled his project with the enormously popular Call of Duty video game brand and his vision came to fruition in November 2009.

Since then, the Endowment has placed more than 25,000 veterans in high quality careers. Despite research indicating veterans actually perform at higher levels and have a lower turnover rate, the unemployment rate for young post-9/11 veterans is 13%. Veterans are typically faced with employers who don't understand their skills and qualifications, and veterans struggle to explain how their military skills, training, and experience can benefit civilian jobs. To help achieve the lofty goal of placing 50,000 veterans back to work by 2019, the endowment supports groups which prepare veterans for the job market, in addition to raising awareness of the value our veterans bring to the workplace.

CONEXPO-CON/AGG & IFPE event will host additional fundraising events for the Endowment including online silent and live auctions with 100% of proceeds helping military veterans find jobs. The benefit auction will be presented with the support of J.J. Kane Auctioneers and anyone wishing to donate can contact **Grant Williams at 205-706-1389**. The online auction will run from January 1 through March 11, and the live auction will take place March 9 in the new Tech Experience at the event.



OVERPAYING FOR TIER 4?

TIER 3 PORTABLE AIR COMPRESSORS STILL AVAILABLE



When purchasing a Sullivan-Palatek portable air compressor, you acquire a machine expertly engineered for superior performance and power. With our Tier 3 Flex portable air compressors still available from 750-1800 CFM, why wait to save?

Discover More



www.sullivan-palatek.com



In the Eyes of a Rookie

by Betsy Willett, Public Relations Professional
Worldwide Drilling Resource®

Early morning flights to late-night dinners, warm welcomes, and a family-friendly environment was just the beginning as I walked into the Convention Center in Las Vegas for the Las Vegas Water Expo and Irrigation Show back in December with the *WWD*R Team. I was amazed by the diverse selection of vendors and equipment. This year's attendance was over 10,000 - I was in complete awe. Coming into this week, I was utterly clueless about the equipment and displays I was hearing about. Throughout this entire show, opportunities arose once my feet hit the ground, giving me the chance to jump in when the show kicked-off by being placed just inside the doors getting photos of the exhibit hall opening and the attendees entering. Many vendors took the opportunity to speak with me about various products, equipment, and services.

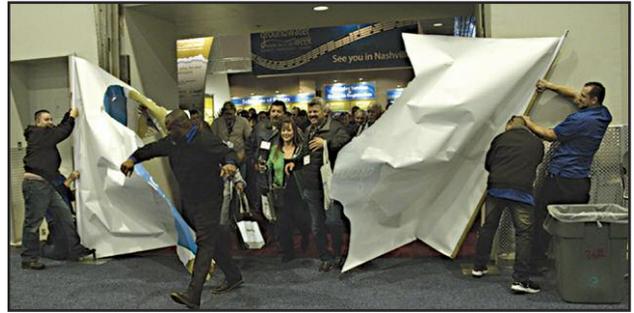


Exhibit hall opening to attendees.

They were extremely patient while answering countless questions and explaining the importance of everything they do. I had the utmost pleasure of photographing several vendor booths and their personnel, while also capturing action shots with potential clientele. Even though only a few people shied away from the camera, most were more than happy to strike a pose. One exhibitor in particular, was caught searching the center for Santa's sleigh. After numerous hours of walking around displays, equipment, and vendor booths with shots being captured, I began to notice how many people recognized the famous red blazer. It seemed as though everyone knew what I was there for without asking, and I only recall having to explain to a select few what I was doing, who I was with, and why I needed their booth picture.



*Schramm hoping to catch a glimpse of Santa's sleigh while at December's show. *WWD*R photos.*

Before this week, I had never heard of these vendors, products, and equipment much less seen them, but coming away from this show I feel more confident and informed about this industry. I have always been told the only dumb question was the one not asked . . . well, I asked every question that came to mind and there are more questions to follow. Never before have I had such a learning experience within any type of industry and I look forward to learning more about this one.

**Visit our Booth #52
at Mountain States
Groundwater
Expo**

“TOP TO BOTTOM DRILLING TOOLS & ACCESSORIES”
DTH HAMMERS & BITS • DRILL STEEL & SUBS • NEW & RERUN ROTARY BITS
BIT & PIPE HANDLING TOOLS • DRILLING FLUIDS & THREAD COMPOUNDS
NOW CARRYING A FULL LINE OF CORING TOOLS & ACCESSORIES

Serving the drilling industry throughout the west.
195 Ingenuity Avenue, Sparks, NV 89441 • Phone: 775-424-3045 • Fax: 775-424-3046
info@jentechdrillingsupply.com • jentechdrillingsupply.com

**1" plastic cycle valves
& they don't leak!**



**BARRETT
PUMP STOP**

**In-well couplings are available
for this valve.**

Proudly made in the USA



**For more info call: (800) 364-2124
or visit us online: www.barrettumpstop.com**

Good Ole Rock 'N' Soil

*Compiled by the Editorial Staff of
WorldWide Drilling Resource®*

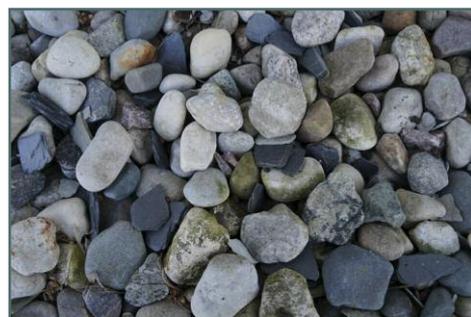
I just want to rock and soil all night; rock and soil sampling, that is. Sampling is the act of cutting small pieces of rock or soil from large rocks or soil. Rock sampling can be used to characterize a geothermal reservoir. It's sampling of exposed potentially mineral-bearing rocks. During this initial sampling, chips are taken and, if positive results are returned, a soil sampling survey is taken. The properties of rock samples provide information for determining whether a power generation or heat utilization facility can be established. Rock sampling is an effective way to characterize many important properties of a geothermal resource. Rock properties determine

chemistry, temperature, and volume of the fluids produced. Drilling wells and collecting drill cores are a common way to identify where a possible geothermal reservoir re-sides.

Soil sampling is also used in the beginning stages of mineral exploration. This sampling can be used to quickly establish the life of mineralization. Soil sampling can either stop a project dead in its tracks, or give the green light for further disbursement, like drilling. A successful soil sampling will result in a precise drill hole targeting. It is undertaken to define the location and shape of a hidden mineralized structure and to identify any high-grade sections within the structure. Both time and money could be wasted drilling alongside a section which does not have the highest grade zone. GPS technology makes this process a lot easier. The uncertainty of where the actual sample comes from is reduced.

It's not just an earthly project either. Rock and soil sampling has been done on the Moon and even on Mars. The study of rock and soil samples from the Moon continues to provide useful information about the early history of the Moon, Earth, and inner solar system. The National Aeronautics and Space Administration has been using the Curiosity Mars rover to drill formations in an effort to study the planet's past or present ability to sustain microbial life. Curiosity's hammering drill collects powdered sample materials from the interior of a rock, then prepares and delivers portions of the sample to onboard laboratory instruments.

No, we cannot use it to party every day, but rock and soil sampling is very useful and there is plenty of information contained in the samples.



GeoVISION™ Borehole Video Systems

**WorldWide Leader in Small-Diameter Cameras
World-Class Support for over 25 Years
Hand Reel Systems to 1000 Feet
Electric Winches to 2000 Feet
Interchangeable Cameras
Made in the U.S.A.**



AlleghenyInstruments.com
800-255-1353 or +1-802-626-5302
Sales@AlleghenyInstruments.com



**Exploration
Blasthole** drilling will be our editorial focus in April.

Have an article idea? Submit it to us today.

Call Bonnie at
850-547-0102

or e-mail bonnie@worldwidedrillingresource.com

Geoprobe® Sonic

Moving Things Forward



NEW

Indexing Rack for 10-ft. Sonic Tooling

www.geoprobe.com/index-rack



NEW

High-Speed Sonic Coring Head

www.geoprobe.com/core-head



NEW

Sonic Double Wall Sampling System

www.geoprobe.com/sdw45

There's no time to stand still, not if you want to stay in the lead, that is. Geoprobe® Engineers never stop working on product updates or new tooling that help you work more EFFICIENTLY, stay SAFE, and help increase PROFITS. Spend some time on our website ...

geoprobe.com/sonic-rigs

to see new sonic offerings for Geoprobe® Sonic Rigs and Tooling. Don't get left behind!

Geoprobe® 8150LS Rotary Sonic



"We chose the Geoprobe® 8150LS sonic rig because of the design and engineering of the rig, the quality and availability of the tooling, the knowledge and commitment of the Geoprobe® staff, the service department relationships, and the success we've had with the ten other Geoprobe® machines we've owned."Steve Taylor, Owner, Geologic Explorations, Statesville, NC

the Geoprobe® Family of Rotary Sonic Rigs

8250LS ... 8150LS ... 8140LS ... 8140LC

Full-Size Rotary Sonic
20 ft. Tooling
24 ft. 6 in. Head Travel

Full-Size Rotary Sonic
10 ft. Tooling
13 ft. 1 in. Head Travel

Mid-Size Rotary Sonic
Long Stroke Option
13 ft. 1 in. Head Travel

Mid-Size Rotary Sonic
Low Clearance Option
7 ft. 8 in. Head Travel

A Real Game Changer for the Sonic Industry

Moving things forward. That's what the sonic weighted wireline tooling from Geoprobe Systems® does. Call it raising the bar. Innovation. Game changer. Or outside the box. This method of sampling moves things forward in the sonic industry.

Day in and day out we hear from customers that there are three aspects of their day-to-day operations that require increased attention in order to be competitive and profitable. And our sonic weighted wireline tooling addresses them all!

Those aspects? **Safety. Efficiency. Profitability.**

SAFETY. It's safer because it requires far less tool handling.

Tool handling has a direct correlation to safety. The more tooling is handled the more likely an injury may occur. The weighted wireline (WWL) system eliminates the need to trip rods in and out of the cased hole.

EFFICIENCY. It's more efficient because it's faster than all other methods. When using the WWL, the sample barrel and weight assembly are tripped in and out together with only the use of the winch, so the speed and efficiency of the system becomes more and more evident the deeper you go. Geoprobe® engineers completed a time study on trip in and trip out times (right). Mike Carlin, Geoprobe® Tools Group Leader, says check the numbers regarding efficiency. **"The use of the winch with WWL significantly reduces the time to trip samplers and core barrels in and out of the casing,"** he said. **"The numbers don't lie!"**

"I'm turning 58 years old and I can run our 8150LS sonic all day long! It's easy on me. And I love that the weighted wireline system takes care of the physical aspect and safety concerns."

Robert Keyes • President
Associated Environmental Industries • Norman, OK

PROFITABILITY. It increases profitability because it requires few parts to operate. Overall efficiency correlates nicely to profitability. So does a clean safety record. But the overall cost to tool up for and maintain a weighted wireline system is quite low compared to conventional systems such as 4x6 since it requires so few parts.

Both weighted wireline systems ... SDT45 and SDT60 (for 4.5- and 6.0-in. casing) ... are simple to use. Jed Davis, Tools Engineer, said, **"During a customer training session, it only took one core run for the drill crew to understand the weighted wireline system, and just a few more runs to have it completely mastered. We didn't hit a home**

run this time; we think it was a grand slam!!"

Mike also said the weighted wireline system is not meant to replace conventional 4x6 or dual tube systems. "It has always been our recommendation that weighted wireline systems complement these other soil sampling systems," he said. "We don't suggest going to the field with one tool in your tool box, nor do we recommend that you limit yourself to one sampling system." There are formations where 4x6 works great. The same can be said for dual tube systems, **"But when you can incorporate a weighted wireline system into your project,"** Mike added, **"the benefits far outweigh any costs.** You can spend all day taking the back roads to Grandma's house, but why bother when the interstate will get you there twice as fast."

Probing Times articles on Geoprobe® Sonic Weighted Wireline are available at:
www.geoprobe.com/pt-spring2015 and www.geoprobe.com/pt-fall2015.



Rock core recovered using SDT60 Weighted Wireline Tooling.

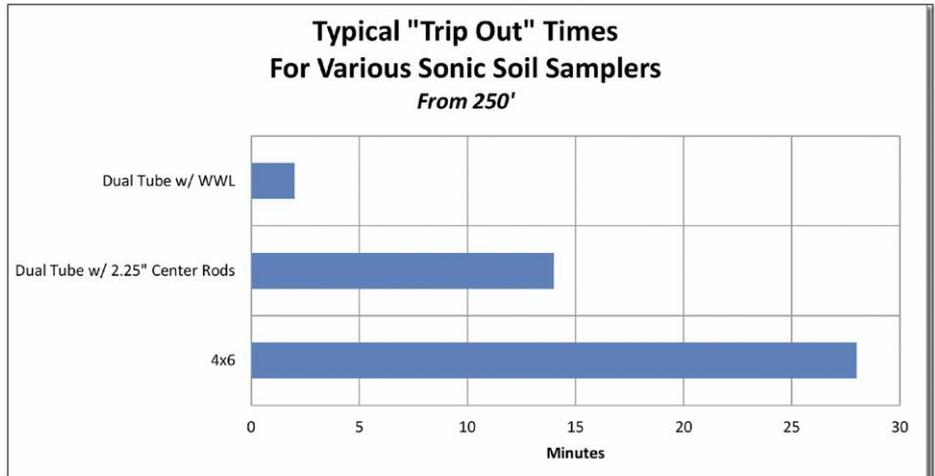


Sonic soil cores are examined in the field by an onsite geologist. The cores were retrieved by running SDT60 and an 8150LS.



Running sonic weighted wireline with SDT45 tooling. (above) Modular weight assembly, with the overshot 'spear' visible inside the weight head prior to being lowered downhole. The modular weight assembly consists of two, 150-lb. weight segments coupled together and a threaded head and overshot spear.

– Faster Tripping Times –



High-quality soil samples in less time! This graph was created by analyzing thousands of feet of various sonic drilling data collected by Geoprobe® engineers. At deeper depths, simple math indicates how much faster the sonic dual tube weighted wireline system can be.



An 8150LS Rotary Sonic, owned by Associated Environmental Industries in Norman, OK, is running SDT60 and a 6.0-in. Weighted Wireline system.

Helping OUR Sonic Customers BE Successful

me he could remove the entire engine from his Volkswagen Beetle in less than an hour. In later years, Volkswagen went away from

the all-encompassing philosophy and, in large part, their customers went away from them. There is a reason cars (and a lot of other things) have numerous gadgets, computers controlling everything (with limited success), and unique one-of-a-kind parts where standard, proven, off-the-shelf parts would work equally well. Various computer-controlled parts mean numerous electrical connections, which is the weakest point in any electrical system. Nonstandard parts mean lower production quantities, which mean higher prices. This is purposely building in unreliability and increased maintenance the car owners, in most cases, cannot do themselves.

An elderly widow I knew had an electrically adjustable seat in her car which had a flimsy plastic switch lever that broke off. The plastic switch lever cost the car manufacturer a few cents to buy, and a metal lever would have made much more sense given this lever would often "catch" clothing as people would get into and out of the car. This widow was told by the car dealer the lever could not be replaced and she would have to buy an entirely new seat for over \$200, plus installation. This, along with a few other similarly needed repairs, cost more than the car was worth at the time, so she had to look for another car.

Along those same lines, why do we need electric car windows? Hand cranks work equally as well moving the window up and down its track. The hand crank needs no power, is very reliable with no motors, switches, and wiring required. Some have maintained the hand-crank windows are safer if the car ends up in water, such as a flood, which could trap the occupants. Most new cars nowadays have electric windows.

Even though computers are a big mystery for many people, computers can be built to be very rugged and reliable, and the same principles apply. They are:

- Use only the components you need to get the job done, and nothing more.
- Use the proper components for the task, and test the finished product thoroughly before releasing it to the public.
- Adding unsuitable or unnecessary components has never been a substitute for diligent research.

Even with computers, almost always, simpler is better.

Britt

Britt Storkson may be contacted via e-mail to michele@worldwidedrillingresource.com



Looking for the Easy Way?
 Call our **Public Relations Professionals** today and put them to work for you.
 For the best coverage, distribution, and pricing, don't settle for less when we can give you more!
850-547-0102



TWWA's Annual Meeting & Trade Show
March 31 - April 1, 2017

The Park Vista Hotel in Gatlinburg, TN
Friday and Saturday Breakfast and Lunch
Trade Show
Technical Sessions
Friday Night Dinner
Scholarship Auction
Door Prizes





info@tnwaterwellassociation.org • (865) 761-4363

We still Make House Calls.

Call Baroid IDP...we have all the right remedies, equipment, and jobsite expertise.



High-performance products and service for the Water Well Industry

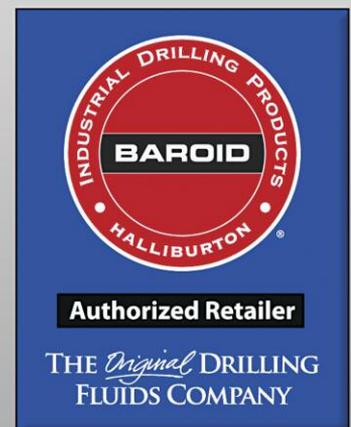
For over 85 years, Baroid IDP has built its reputation on quality products backed by the best in jobsite services. Whether in your office, at a **Water Well** jobsite, or in the lab, Baroid IDP engineers know your needs and they're always willing to get their hands dirty or boots muddy to help solve problems. Baroid IDP's international network of sales and service engineers, laboratory scientists, and support personnel are dedicated to providing industry-leading service and training (over 50 years strong!), while supplying engineered products to optimize performance and minimize end-user cost.

Baroid Industrial Drilling Products

Technical Service: 877.379.7412 281.871.4613

Customer Service: 800.735.6075 281.871.4612

www.baroididp.com



LOOK FOR THIS SIGN AT YOUR LOCAL AUTHORIZED RETAILER

2015 U.S. Proved Reserves Report

Adapted from a Press Release by the U.S. Energy Information Administration

According to the latest proved reserves report issued by the U.S. Energy Information Administration (EIA), U.S. crude oil proved reserves declined 4.7 billion barrels (11.8%) from year-end 2014 levels, while natural gas proved reserves witnessed a 16.6% decline to 64.5 trillion cubic feet (Tcf). This amounts to a decrease of more than 324 Tcf at year-end 2015. Proved reserves refers to the quantity of petroleum which can be commercially recovered from a known reservoir. Some factors which can affect the amount of proved reserves include current economic conditions, operating methods, and government regulations.

The report, *U.S. Crude Oil and Natural Gas Proved Reserves, Year-end 2015*, also indicated the significant reduction in the average price of both oil and natural gas between 2014 and 2015 resulted in more challenging economic and operating conditions, an important factor in determining proved reserves.

	Crude oil and lease condensate billion barrels	Natural gas trillion cubic feet
2014 U.S. proved reserves	39.9	388.8
Net additions to U.S. proved reserves	-4.7	-64.5
2015 U.S. proved reserves	35.2	324.3
Percentage change	-11.8%	-16.6%

West Texas Intermediate crude oil spot prices observed a nearly 50% decline from \$95 per barrel in 2014, to \$50 per barrel in 2015. The decrease for the natural gas spot price at the Louisiana Henry Hub was more than 40% at 2.62 per million British Thermal Units (Btu) in 2014, to \$4.55 per million Btu in 2015. These massive pricing issues

resulted in reduced drilling activity and ultimately, a downward revision in proved reserves across a broad range of U.S. producers in 2015.

Thanks largely to the development of the Wolfcamp Shale and Bone Spring Plays in the Delaware Basin, New Mexico had the largest net increase in proved reserves of crude oil and lease condensate (vapor in a formation which condenses to a liquid after being cooled) of all states in 2015.

Although crude oil and lease condensate extensions to existing fields were highest in Texas and North Dakota during 2015, the new revisions led to both states experiencing a net reduction in proved reserves.

In 2015, Ohio added more than 5 Tcf of natural gas proved reserves, due primarily to the Utica/Point Pleasant Shale play, and surpassed Arkansas and the Gulf of Mexico to become the ninth-largest natural gas reserves state.

Open the Doorway to all the Event Photos during Ohio Water Well Association Annual Convention and Trade Show.



To see all the pictures from this event, go to: www.worldwidedrillingresource.info/gallery/2016/OWWA2016, or just click [here](#).

Feel free to download at will and print the photo(s) of your choice.
Compliments of *WorldWide Drilling Resource*®.

Photos are copyrighted and released for personal use only - no commercial use permitted.



The Search for the World's Hottest Hole

Compiled by the Editorial Staff of *WorldWide Drilling Resource*®



View from the Reykjanes shore, courtesy of Statoil.

Where on earth would you imagine the hottest hole to be located? Iceland probably wouldn't come to mind just based on the name itself; however, the Iceland Deep Drilling Project's rig is currently drilling into an old lava flow at Reykjanes, with the hope of producing the hottest geothermal well in the world. The temperatures would range between 750-1800°F (400-1000°C), and experts believe it could lead to a revolution in the energy efficiency of high-temperature geothermal areas worldwide.

The project's main goal is to find out if it's feasible to extract energy and chemicals out of the hydrothermal systems at supercritical conditions. In 2009, the most powerful geothermal well on record resulted from the team accidentally discovering a magma reservoir after drilling a little more than a mile below the surface in Krafla, northeast Iceland. Their sensors indicated a temperature of about 1800°F (1000°C) caused by super-hot vents of steam.

Now the team is drilling a second well, but this time at the Reykjanes site with the plan of producing results on a larger scale. How large? A single well powers 5000 homes, but the team is looking to harness enough power for 50,000 homes.

To achieve this, the drilling will crack into a landward extension of the Mid Atlantic Ridge, where at the appropriate depth, magma driven by volcanic activity and moving from below will meet and heat seawater below the ocean bed. Energy companies and researchers behind the project think the water will be in the form of "supercritical steam", which would be neither liquid nor gas. This supercritical steam would hold much more heat energy, and a well which taps into this steam and brings it to the surface for use by a steam turbine could generate the power needed for 50,000 homes.

Since drilling began, it has progressed slowly but steadily. Valuable rock samples were found as more spot cores were drilled. Once the drill made it to a depth of 10,500 feet, they were unable to get any return of circulation fluid or drill cuttings. It only takes once to drill into a supercritical steam zone, so the team remains hopeful.

If the techniques being used in Iceland prove to be successful, it would open up potential sites for supercritical geothermal resources around the globe since young volcanoes occur worldwide. The geothermal well in Iceland is important not only to Iceland as a world leader in electricity production from geothermal energy, but also to the worldwide economic viability of the renewable energy source.

Editor's Note: In between our print issues, the *WDR* Team prepares an electronic newsletter called *E-News Flash*. Based on readership, this was the most popular *E-News Flash* article of the month. Get in on the action and subscribe today at: www.worldwidedrillingresource.com

SERVING THE CONSTRUCTION INDUSTRY

STAR IRON WORKS
Serving the Drilling Industry

Need something special?
Talk to us - we'll make it happen
faster than you think.

257 Caroline Street
Punxsutawney, PA 15767
800-927-0560 • 814-427-2555
Fax: 814-427-5164
www.starironworks.com

the next day randomly pull out another item and repeat the above process.

At the end of 30 days, put all the items back in the jar and begin the process again. I'm suggesting you spend just 30 minutes a day focusing on a single behavior. Yes, you will go about the rest of your day as usual. The only thing you have changed is you are spending 30 minutes during a 24-hour day on a specific action.

I also recommend you start a 30-minute journal and, at the end of each session, take just a minute and record something, anything you did, thought, felt, etc. during the session.

Just try it for one month and if something in your life hasn't improved - well, call me crazy. However, if something in your life is better or has improved, was it worth several hours a month of your life? By the way, you get a total of 720 hours each month - so it's .02% of your time you spend on this process.

Here are the 30 actions:

- | | | | | |
|---------------|-----------|------------------|---------------------|---------------------|
| Read | Think | Slow down | Believe | Feel |
| Practice | Plan | Learn | Evaluate | Be |
| Pray | Try | Help others | Smile more | Dream |
| Study | Question | Share | Examine | Laugh |
| Create | Relax | Connect | Listen | Forgive |
| | Give more | | Reach out to others | |
| Say thank you | | Build someone up | | Let go of something |

Try it for 30 days - what do you have to lose?

In His service,

Tim

To receive Tim's weekly FREE motivational booster articles, contact him at www.timconnor.com with "please add me to your free booster e-mail subscriber list" in the subject line. Or contact him via e-mail to michele@worldwidedrillingresource.com



BITCO

www.bitcoinc.us




New & Used Bits	Re-tipping
Hole Openers	Stabilizers
Drag Bits & Wings	Claw Bits
Hammers	Pipe Wipes
Hammer Bits	Bolt-on Teeth
Diverter	Subs

**12102 Vista Montana Dr
Bakersfield, CA 93306**

Office: (661) 834-4348

**Rod Henderson
(661) 201-6259**

**Eran Henderson
(661) 330-0790**

bitcoincrod@hotmail.com



Innovation. Excellence. Expertise.
Solutions for your business challenges

2017 Alliance Expo & Annual Meeting
April 25 & 26, 2017 Wichita Falls, Texas

Reserve your booth or sponsorship today

- ★ 350 Booths in Exhibit Hall & Outside Equipment Showcase
- ★ Energy professionals & exhibitors from all over the U.S.
- ★ Country & Western BBQ feeds over 2,000 people
- ★ Networking in a casual, professional environment
- ★ Sponsorships available at all levels

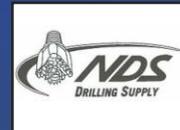
800-299-2998 | www.texasalliance.org | #AllianceExpo2017

Does your rig need help?

We can take care of your new or not so new rig.
Remounts • Rebuilds • Overhauls



Our distributors are:



Drilling Supply & Mfg.

7301 Hwy 183 South

Austin TX 78744

Tel: (512) 243-1986 Fax: (512) 243-1091

Check out our Web site for a list of units for sale.

www.dsm-mayhew.com

**HAVE YOU HUGGED
YOUR DRILLER TODAY?**
The Little Company with the Big Austin, Tx.

The banner features the DSM and Mayhew logos on the left, a small illustration of a drilling rig, and the text "HAVE YOU HUGGED YOUR DRILLER TODAY?" in large white letters on a red background. Below this is the tagline "The Little Company with the Big Austin, Tx." in white.

Product Spotlight



CLAY-DRILL™ is a polymer-based drilling fluid from **Baroid Industrial Drilling Products**. It is designed for short-length horizontal directional drilling applications to provide borehole stabilization, counteract the sticking tendencies of clay, and maximize clay/shale inhibition without the need for additional additives.



Service Wire's PTJ Series Round Jacketed Submersible Pump Cable is

now rated for direct burial. It is suitable

for use within the well casing to supply power to the pump, and where extra mechanical protection during installation and operation is required.



Effective Marketing cont'd from page 40.

keep things fresh so customers see progress and feel they're working with a leader in the market.

A plan with realistic short- and long-term marketing goals to attract new customers and grow the business can be a great way to keep the advertising focused. Always look to improve and think of new and unique ways to promote the business. Develop new advertising approaches such as creating a new logo or getting a memorable phone number. Keep a file of good ideas, direct mail samples, great ads, and other information, and use it to brainstorm periodically for new ways to gain visibility and drive in new business.

One of the easiest ways to gain visibility is by getting people to talk about what the business does. So, marketing through participation in appropriate industry associations, local and state businesses bureaus, city clubs, and other relevant groups will be a great tool. In the end, keep the message simple and clear while focusing on what the business can do best for its customers. Marketing takes work and resources, but it's an investment meant to grow the business and propel it into the future.

WATERWELL • ENVIRONMENTAL • CONSTRUCTION • GEOTHERMAL • MINING

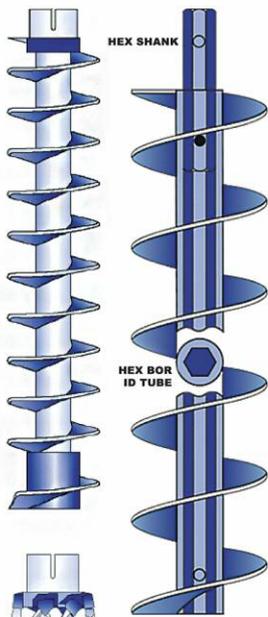
Earth Augers ROCK BOTTOM PRICES!

Auger types include Hollow Stem, Solid Flight Construction Augers, Hex Bor and Threaded Drill Rod Jet Augers for vertical or horizontal drilling applications.

Standard sizes and configurations include:

Hollow Stem Augers – 2 Key and 3 Key Standard and Heavy Duty 2 1/4" – 12 1/4" ID

Solid Construction Augers – Round Tube and Hex Bore 3 1/2" – 12" with 1 1/8", 1 5/8" and 2" hex Jet Augers in any size and thread



Hollow Stem Auger **Solid Hex Bor Auger**

Available in any size or length, and with the pitch or flighting thickness of your choice.

www.millsmachine.com

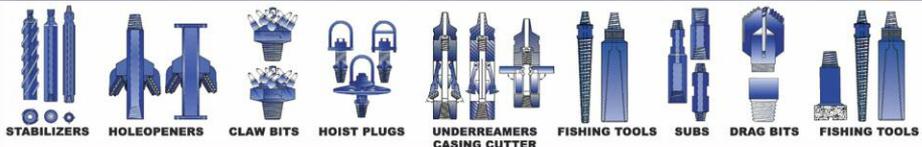
800-654-2703
405-273-4900



Scan this QR Code

Get VIP Flash Notices and the Mills App!

Click this QR reader for more details or text mills to 95577



PO Box 1514, Shawnee, OK 74802 • Fax: 405-273-4956 • sales@millsmachine.com



S.A.E. Pumps

by Bill Corey

I thought this month I might talk about what makes an S.A.E. pump different from a Close-Coupled Motor Drive (CCMD) pump. The most obvious thing is the driver. A CCMD pump has an electric motor for a driver, which has either a threaded or keyed shaft. So the impeller is directly mounted to the shaft of the driver. This is not the case with an S.A.E. pump.

An electric motor pump has certain limitations, the biggest is the rpm (revolutions per minute) at which it can spin. Unless you are using a variable speed drive/variable frequency drive (VFD), you have a two-pole, four-pole, six-pole, or eight-pole motor. Each set of poles decreases the speed at which the motor will turn; therefore, two-pole equals 3450-3550 rpm, four-pole is 1750 rpm, six-pole is 1170 rpm, and eight-pole is 870 rpm. Remember there is slip built into electric motors. With the use of a VFD you can change the speed of the motor and have the pump spin at whatever speed you require.

An S.A.E. pump is driven by an engine, usually a diesel engine, but it could of course be a gas engine if you wanted. Part of the difference between a motor and an engine is how rough it runs. A motor tends to be very smooth, whereas an engine, because of the explosions causing it to run, is rough. Because it is so rough, if you were to put the impeller on the end of the shaft, with the weight of the water moving through the impeller you would be more likely to snap the impeller off the shaft.

An engine is a variable speed device; the more fuel you give it, the faster it spins until it hits the speed which makes it fly apart. Of course, this is not what we are trying to do here; we are trying to run our pump with the engine. Most S.A.E. engine pumps run at about 1400-2400 rpm, some may do more.

Here is why the impeller is not directly connected to the shaft and may snap the shaft - weight. To be straightforward with this, we are looking at 8.334 pounds per gallon of water. If you do the math, 1000 gallons weighs 8334 pounds. What you are doing is pulling the water up to the pump, then changing direction by at least 90 degrees. This is a lot of weight, and if you are picking up the vibration from the engine, you're getting a lot of bounce. If the motor is in its sweet spot, the vibration is minimal. If you have someone who is inexperienced and has the rpm set wrong, it will cause the impeller to bounce and, with so much weight, snap the shaft at the impeller. This usually happens when the person in charge just stops the engine without slowing it down. It can also happen on start-up if you leave the engine in idle too long.



MODEL 512B
Hydraulic-Pneumatic tools in stock. Sizes 1" to 20".



Model 113HD

Sizes 1"-13"

Patent
U.S.: 6,065,372
Canada: Pending



2547 W Success Way
Emmett, ID 83617
(208) 365-3492 • Fax: (208) 365-3792
rauchmfg.com • rauchmfg@frontiernet.net



Control Switch

Pressure Switch and Control Box into ONE
(1/2 HP Thru 1-1/2 HP - 3 Wire Pumps)



Control Switch

Save Time
Save Money



Splice Heavy Wire to Pump Cable
(#4, #6 or #8) to (#10, #12 or #14)



MWC04124 Kit

Multi-Size Wire Connector



712-732-2760 • www.merrillmfg.com

So to protect the pump, there is something called a flywheel coupling which attaches the engine shaft to the pump shaft. I like to call it a sacrificial lamb, because it is designed to break should the vibration become too much. I've always told my students it is cheaper and easier to replace the flywheel coupling than to replace the pump shaft and impeller. There are a couple of different types of couplings - one mechanical which uses springs to hold the two couplings together and absorb the bounce, and the other has the two couplings vulcanized together by rubber. I don't want to tell you which one to use, but make sure you have them and you understand why they are so important. If you are a rental center and you rent these types of pumps, make sure your customers know why you use a flywheel coupling. And if you are a water truck company, your employees should understand how to use these types of pumps. Hope this helps, and let me know if you have a question.

Bill

Bill Corey may be contacted
via e-mail to michele@
worldwidedrillingresource.com

WorldWide Service Center™

BAKER®
WATER SYSTEMS DIVISION

Campbell Monitor MONOFLEX

(800) 356-5130

bakerwatersystems.com

BITCO Bitco, Inc.

(661) 201-6259

bitcoinc.us

D Diedrich Drill

(800) 348-8809

diedrichdrill.com

FLOMATIC® VALVES
Flomatic Corporation

(800) 833-2040

flomatic.com

JET-LUBE®

(800) 538-5823

jetlube.com



Rockmore
International

(503) 682-1001

rockmore-intl.com

SHAKTI
PUMPING LIFE

(407) 574-4001

shaktipumps.com

Simmons

Simmons
Mfg.

(800) 241-1935

simmonsmsg.com

These companies provide outstanding service!

To advertise yours here, call: (850) 547-0102 or e-mail: wwdr@worldwidedrillingresource.com

Serving the Water Well,
Environmental, Sonic,
HDD, Mining, and
Construction Industries

**A Manufacturer of: Inertia-Welded Drill Pipe,
Dual-Wall Drill Pipe, Wireline, Drill Rod/Casing,
Composite Wireline Drill Rods, Sonic Drill
Pipe/Casing/Bits, Percussion Casing/Bits, Drill
Collars, Fishing Tools, Subs, Starter Rods,
and Stabilizers.**

Threads: API, Mayhew, BECO, DCDMA, FEDP, 88.9mm-177.8mm
Other Industrial Threads and Custom Threads

DPI
Drill Pipe Inc.

We now accept:



Drill Pipe Inc.

550 S Third St. • Winsted, MN 55395

Phone: (866) 220-8342 • (763) 592-8670 • Fax: (763) 592-8661

tom@drillpipeinc.com • www.drillpipeinc.com



Brenda

WorldWide SUPER MART™



Kathy

Call Now!

850-547-0102

Appraisals

120

QUICK CASH MONEY
Paid for Drill Rigs, Pump Hoists,
Mud Pumps, Drill Pipe, & Bits.
RENE HENDON Tel: 281-260-0880
120-120

Auger Rigs

130



1987 B-53 drill rig mtd. on 1996 FL70,
Deutz diesel engine, Pullmaster main
winch 10-speed head, safety driver
winch rotation safety guard, new
hydraulic control valves and hoses,
new 2-speed 3L6 pump, 2J8 swivel
setup for mud & air rotary work, new
300 gal. water tank, new hydraulic oil
tank.....\$90,000

604-888-2206

130-529

Bits

220

**WorldWide Sales Of New &
Rebuilt Roller Cones and PDCs**
Complete Repair of PDCs



Call, Fax, or Email
For Quotes
P.O. Box 1067
Archer City, Texas 76351
940-574-4977 Fax
Abilene Sales: 713-254-8376
325-864-7075 Cell
e-mail: usabit@usarockbit.com
Visit Our Web Site At
<http://www.usarockbit.com>
We Accept Visa, Master Card & Discover

We Purchase New and Used Bits
OIL FIELD, WATER WELL & ENVIRONMENTAL
NEW BITS IN STOCK
CALL US FOR SIZES AND TYPES
1-800-451-2906 TOLL FREE

220-162

Moab Bit & Tool Co., Inc.



PDC's, tri-cones,
custom bits, hole
openers, drill pipe,
subs & stabilizers.

Doing business for over 50 years.

24 hr. service
PH 800-453-1052 • FX 435-259-2968
sales@moabbit.com • moabbit.com

220-822

Drill Bits

Water Well, Geotech, Exploration
Tricone - PDC - Drag Bits
Hammer Bits - DTH Hammers
Hole Openers (Cone & Blade Type)
Reamers & much more!

Call Us 24/7

helanbak.com / 601-441-6414

220-1213

HOFFMAN DIAMOND PRODUCTS

sales@hoffmandiamond.com
www.hoffmandiamond.com
800-444-4180



**Quality, Integrity,
and Customer Service**

- Diamond Core Bits
- Casing Shoes
- Reaming Shells
- Diamond Cup Grinders

220-712



K&T

Hammer and Bit

Start your business with K&T,
South Korea's leading
manufacturer
& exporter.

Sale on
Hammers
& Bits

20% Off



kandti@kandti.com
82-70-4221-1108
www.kandti.com



Visit
K&T at
Booth #B90828

220-1246

ROCK BITS!



Cable Tool
Air Hammer
Roller Cone
3" to 24"
"A Good Bit
Better"



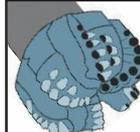
800-523-5760

540-635-7753 Fax 540-635-6352

TRIDENT TOOL INC.

tridenttool.com

220-1200



JERRY'S BIT SERVICE INC.

710 CR 3336
Paradise TX 76073 USA

(940) 683-2874 Fax: (940) 683-2874
Mobile: (940) 393-2394

Contact: Jerry Shoemaker
jerryshoemaker54@yahoo.com

Jerry's Bit Service Inc. will meet your
every drilling need. We service and sell
tricone, PDCs, as well as hole openers.
Rather rent a PDC? No problem. Got you
covered. Our company will repair your
PDC regardless if it is a rental or purchase.

220-919

Be pleasant until 10:00 in the morn-
ing and the rest of the day will take
care of itself.

INTERNATIONAL DRILL BIT SUPPLIER.



KS/BIT
KNOWLEDGEABLE · DEPENDABLE · GLOBAL

NEW
SURPLUS



RERUN
RETIP

OVER 15,000 BITS IN STOCK
MILL TOOTH TCI - SEALED OPEN BEARING

800.213.1389 SALES@KSBIT.COM

220-648

Boom Trucks
225

Terex 23½-ton boom truck on 2002 Peterbilt, 27,000 miles.....**\$98,000**
National 800D 23-ton crane, 8685 hrs, 4-section x 100' boom, on 2003 Peterbilt 330, Cummins ISC, 120,362 miles.....**\$99,000**
Call Alan Lang: 801-554-2419
 225-1027

Breakout Tools
238



BLACK DOG INDUSTRIES, LLC
 Richland, WA

CHECK OUT OUR UPDATED WEBSITE!

Specializing in Hydraulic Breakout Tools

- Models Ranging from: 1.5" - 10.75"
- Torque up to 21,000 Ft-Lbs
- Optional Rod Spinner
- Optional Control Panel



NEW MODELS ARE AVAILABLE!!!

(509)946-6400
 Email: sales@blackdogind.com
www.blackdogind.com

238-574

SEMCO, INC.
All-Hydraulic Hydrench
S112H in Stock
1-12" Four Rollers
Breaks Pipe, Makes Pipe to Torque Specs
800-541-1562

238-135

Cable Tool Rigs
305

We **Buy** and **Sell** All Makes & Models!
 For Sale - BE 24L, 60L, 28L, & 36L's
 Wanted - BE 24L, 60L, 28L, & 36L's
Schramm T64HB & SIMCO® 5000 Rotary Rigs
Reese Rig & Tool Co. LLC - 740-408-0725
neh810@yahoo.com reeserig.com
 305-982

36 Cyclone, good shape, (3) hydraulic jacks, derrick has been extended to 50 ft..... **\$28,000**
Also 22W with Atlas casing hammer, (2) 55 SpeedStars, and Alten 32A, 24A.
 Call for price on rigs.

269-963-2529 or
 E-mail: cablewelldriller41@yahoo.com
Ray Leonard, Battle Creek, MI USA
 305-170

Business Opportunity
245

KNOCK KNOCK!

Successful VT business owner wants to retire, offers you the chance of a lifetime ~ **You be the boss** by owning this outstanding water well & pump business, or start your own/increase your current drilling business with this drill and water truck combo, w/without extras.

EQUIPMENT



2003 Schramm T-555, tophead Cat® C-15 (9000 hrs.), Sullair 1050/350, 500' of 4½" rods, 7" stablizer (on mast), 6" and 8" hammers, Bean 20 gpm pump, BG-8 casing winch, Wilden M-8 mud pump, Gentec hyd. welder, concentric casing system, mtd on **2003 Western Star**, 6x4 Cat® C12 (2100 hrs.). Great Shape!



AND MORE ~ IMT 3816 lift crane on **1995 Kenworth Water Truck**, Cat® 3406 525 hp (15,000 hrs.), lined 2000 gal. tank raised in the middle to hold drill rods, casing, mud, etc. both sides, 220 gal. off-road fuel,
Call Rocky, 609-432-1780 (cell)

245-259

FOR SALE - OWNER RETIRING
Great Business Opportunity
Everything Goes!



2006 Int'l 4300 ext. cab, TranStar®, DT 466 eng., Allison trans., like new Michelin rubber, only 46,796 miles, (7) cameras, 3 w/zoom, (3) hyd. winches, 3-speed trans., (1) 5000' w/cable, (1) 10,000' w/cable, (1) 4500' w/new cable, Comprobe mech., digital measuring systems, various lightheads, weight bars, stabilizers, parts, (1) trailer rig elec. 1000' w/cable, new trailer, too many items too list. Call or e-mail for complete description of equip. **865-310-4421**
substratacamera@aol.com
A steal at \$200,000. Make Offer

245-545

Cable Tools
307

Hocker Drilling and Fishing Tools
Special Price on Cable Tools! We accept Visa & Master Card. New & Used Cable Tools, Rope Sockets, Stems and Bailers.
Call 270-926-2889

307-107

CABLE TOOLS!



ROPE SOCKETS
STEMS
BAILERS
JARS & SUBS
Combination Sockets

800-523-5760

540-635-7753 Fax 540-635-6352

TRIDENT TOOL INC.
tridenttool.com

307-1200

RAMPP COMPANY
CARBIDE BUTTON BITS
CABLE DRILLING & FISHING TOOLS
800-272-7886
www.RAMPPCO.COM

307-518

Cameras
309

CAMERAS!



GeoVISION™ Economy Camera System
GeoVISION™ Deluxe Camera System

800-523-5760

540-635-7753 Fax 540-635-6352

TRIDENT TOOL INC.
tridenttool.com

309-1200

Deadlines for April issue:
Space Reservation: February 25th
Display & Classified
Ad Copy: March 1st

Casing Tools
320



Torch Guides



Torch Guides 6" thru 16"
Mix & Match for a 20% discount
6" Sale Price.....\$59.00 • 8".....\$79.00

For all your drilling products and supplies,
visit us online:

www.americawestdrillingsupply.com

www.awds.com

(800) 800-8444 • (775) 355-1199

sales@awds.com

320-490

TekMark Industries



Internal Casing Lifter 35 Tons



Flush Joint Elevator



Casing Holder 35 Tons

PVC Cutoff & Torch Guide

DTH Spear - PVC Puller

Heavy Column Pipe Holder

Other Casing Tools

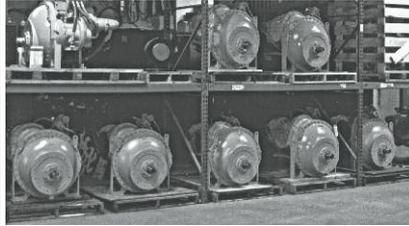
tekmarkwellcasingtools.com

800-747-2485 or 509-747-2485

320-254

Compressors
335

R & R DRILLING INC.
800-874-3907
PH. 423-626-5302 FAX. 423-626-1232
E-mail: airdocron1@gmail.com



SULLAIR

Distributor of
SULLAIR Compressors

INGERSOLL-RAND

AIR COMPRESSORS

NEW & REBUILT

HR2s - HR2.5

AIRENDS IN STOCK

SCHRAMM

Schramm Distributor

GHH - RAND

Distributor of Genuine GHH Rand Parts

Will Ship Worldwide!

**NEW & REBUILT SULLAIR
& GHH COMPRESSORS
SHIPPING WORLDWIDE**

Sullair 750/350 to 1350/500
GHH 204/128 and CF 1000
Excellent Exchange Prices!

335-183

Air Compressors for Sale

(17) 750 cfm x 100 psi, portables,
wheel mounted, Gardner Denver, Joy,
Sullivan, Ingersoll Rand, Atlas Copco,
package price.....\$4000 each
or just one.....\$6500

FOB Toronto 416-239-3058

Fax: 416-239-2918

335-222



**Air Compressor
750/350 HR2**
Air End, rebuilt
by Ingersoll Rand,
Thermal King
Edmonton.

\$30,000 CAN or \$25,000 US

780-712-1067

335-1244

Direct Push Drills
401



ECT is now a proud distributor of Genuine Geoprobe® products!



MC5, MC7, RS60, DT22, DT32, DT35, DT375, DT450

INJECTION TOOLS

MANUFACTURER OF PREPACKED WELL SCREENS

1/2" Up to 4" ID Pipe Size

Annular Bentonite Seals

JOHNSON SCREENS® DISTRIBUTOR

PROACTIVE PUMPS® MASTER DISTRIBUTOR

SCHUMAPROBE POROUS POLY SPARGE SCREENS

11 Black Forest Road, Hamilton, NJ 08691

609-631-8939 ~ 888-240-4328 (Toll-Free)

ectmfg@aol.com ~ ectmfg.com

proactivepumps.com ~ torquerplug.com

401-719

Drill Pipe
435

New & Used Drill Pipe

Water Well, Geotech, Exploration

Up to 6-1/2" OD Pipe

Mayhew Regular - Mayhew Jr

AWJ - NWJ - IF - API - FEDP

Call Us 24/7

helanbak.com / 601-441-6414

We Are The Manufacturer

435-1213

(30) joints of 4½" flush joint
drill pipe, 20 ft. long 3½ API
\$200 per joint
479-253-9418

435-237

Flush Joint & Bottleneck Drill Pipe IN STOCK - SURPLUS & USED

2-3/8", 2-7/8", 3-1/2", 4", 4-1/2", 5, 5-1/2"

Economy Drill Pipe, Tool Joints for
WELD-ON & SCREW-ON Applications.

RENE HENDON 281-260-0880

435-120

200+ pieces 4½ external flush drill pipe,
30-foot lengths, 2-7/8 reg joints, RD20 type,
some new, others like new...\$20 per foot

Call Alan Lang: 801-554-2419

435-1027

75 Joints (1500 ft) 3½" x 20'

\$6.00 per ft

903-714-1256

435-1219

Drilling Products
458

IES DRILLING SUPPLIES
THE MUD MEN

- Water Well - HDD - Geothermal - Env. & Remediation
- Drilling Mud •Polymers
- PVC and Stainless Screens
- Above Ground Protectors •Manholes

IES Exclusive Products

We deliver to all 50 states 7 days a week! Give us a call!



Cam-lock Manholes
Aluminum Anodized Procovers

104 E. DeVore St. Pearl City, IL 61062
Ph: 800-388-2906 Fax: 815-443-2893
E-mail: sales@iesdrillingsupplies.com
www.iesdrillingsupplies.com

458-814

Rock Drill Lube, Enviro-Friendly,
Made in USA, Buy Direct \$8 per Gal.
Pails, Drums, Totes www.jadelube.com
724-302-5233 sales@jadelube.com
458-1253

"We make the tools that make you money"

HM Heisey Machine
HOME OF THE HM FLOTATION SUB



It's Showtime!

Standard Duty
6" OD, 2 3/4" Float
70/80,000 lbs Holdback

Deep Hole
7" OD, 3" Float
110/120,000 lbs Holdback

Blue Max
8" OD, 3 1/2" Float
140/150,000 lbs Holdback

Ask About Specials!

www.heiseymachine.com
Toll Free 1-800-433-3677
717-293-1373 Fax: 717-293-1091

458-813

Home of Solid Gold Service™

Electric Motors
510

-WANTED-
20 to 300 hp vertical hollow shaft pump motors.
Good or Bad! Will pick up!!
800-541-1562

510-135

Elevators
515

ELEVATORS!



For 1/2" to 19" Casing
Steel and PVC
800-523-5760
540-635-7753 Fax 540-635-6352
TRIDENT TOOL INC.
tridenttool.com

515-1200

SEMCO INC.

1" Thru 16" Elevators
All steel with safety latch.
800-541-1562
Fax 719-336-2402
www.SEMCOoflamar.com

Ship by  same day

515-135

ELEVATOR SPECIAL

1", 1 1/4", & 2" Slip-type Elevator w/kwik-clamp
Package Special
All 4 pieces for \$1000

DRILLING EQUIPMENT SALES, INC.
2515 Highway 70 SW • Hickory, NC 28602



828-322-3056
www.drillingequip.com

515-121



- Kwik Klamps
- PVC Pipe Elevators
- Flush Joint PVC Pipe Clamps

J&K Tool Company, Inc.
www.jktool.com · sales@jktool.com
320-563-4967

515-187



Easy Lift Casing Elevators

6" and 8" easy lift casing elevators provide a positive grip on the casing without the need for weld-on tabs. Carbide teeth dig into casing on both sides.

Set casing FAST • Grab & Go
No slings included

For all your drilling products and supplies, visit us online:
www.americawestdrillingsupply.com
www.awds.com
(800) 800-8444 • (775) 355-1199
sales@awds.com

515-490

SkyRex

Water Well Elevators
1" to 24"
Also Lightweight PVC Elevators

SAME DAY SHIPPING!
Rex McFadden Co., Inc.
806-791-3731

See our ad on page 39.
www.rexmcfadden.com

REX MCFADDEN Co.
DRILLING EQUIPMENT

515-123

Fusion Equipment Repair
625

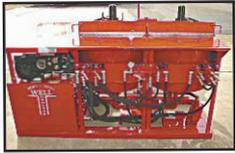
Fusion Equipment Recoating
▶ Socket Sets \$24 each ◀
fusionrecoating.com
Call 580-276-5432

625-986

WorldWide Drilling Resource®

Grouters
715

DES
DRILLING EQUIPMENT SALES, INC.



Single & Double hopper
Rose-Wall
grouters in
stock.

828-322-3056
jeffj@drillingequip.com
www.drillingequip.com

715-121

Hydro Frac Equipment
815

Hydro fracture unit with triplex pump
mtd. on 1992 IHC w/1100 gallon water
tank, pipe plus (2) Baski seals.
Call 715-498-7427

815-542

Injection Pumps
820

DU-ALL Injection Pumps



All parts in stock and available for shipment.
Overnight delivery available. Call your local
parts supplier or Fred's Water Service at
(440) 259-5436 with
your order or questions.

Fred's Water Service, Inc.

4390 Elberta Road Perry, Ohio 44081
Phone (440) 259-5436
www.fwservice.com
Fax: (440) 259-4795

820-610

Hammers
805

HAMMERS!

Made in U.S.A.



IR Style
Mission Style
Halco Style
3" to 24"

800-523-5760

540-635-7753
Fax 540-635-6352

TRIDENT TOOL INC.
tridenttool.com

805-1200

ATLAS
MANUFACTURING LTD.
EST. 1989



**Casing
Hammers**
Atlas "Pure Strike"
Casing Hammers

**Casing
Jacks**
Atlas "Yellow
Jacket"
Casing Jacks



Hydraulic Power Packs

Diesel and Electric
Hydraulic Power Packs

To see all our products,
visit us online:
www.casinghammer.com

Atlas Manufacturing Ltd
6524 North Island Hwy
Merville BC V0R 2M0
Canada

Phone: 250-337-5030
Fax: 250-337-5136
Toll-Free 866-338-5090
E-mail: atlas@casinghammer.com

805-313

Magnets
990

RETRIEVING MAGNETS!



3 1/2"
to
6 1/2" Dia.
100 to 600 Lbs.

800-523-5760
540-635-7753 Fax 540-635-6352
TRIDENT TOOL INC.
tridenttool.com

990-1200

Mud Systems
1125

MUDSLAYER MFG.



Where you
come for
Innovation

360-477-0251
www.mudslayermfg.com

Built for Drillers by Drillers



1125-576

Mud Pumps
1120

Gardner-Denver 4x5, 4 1/2x5, 5x6,
5x8, 5 1/2x8, 5x10, 5 1/2x10, 7 1/2x8, or
7 1/2x10 - several used/rebuilt bare pump
or skidded & diesel powered. Gaso Fig.
1743 7 1/2x10 skidded w/diesel power.
LeRoi 253S2 rebuilt compressor. New
American Mfg. 5x6. Stocking distributor
for American Mfg. pump parts.
Danny Stull: dannystull.jws@gmail.com
Ph: 405-794-3600

1120-784

C
A
L
L
8
5
0
-
5
4
7
-
0
1
0
2

Mud Pumps
1120

GD & Wheatley 4x5 to 7x12
Complete Pump, Gearend, Fluidend
RENE HENDON 281-260-0880
1120-120

Gardner Denver FXN mud pump with
3408 Cat®.....\$65,000
Call Alan Lang: 801-554-2419
1120-1027

Packers
1203



**Water Well
Hydrofracturing
Packers**

4.33" and 4.75" Standard OD Sizes
East and West Coast Locations
Replacement packer elements

IPI DuraFRAC@inflatable-packers.com
1-406-446-9940
www.inflatable-packers.com
Inflatable Packers International, LLC

1203-567



QSP Packers, LLC
Quality - Service - Price

Serving Your Complete Packer Needs

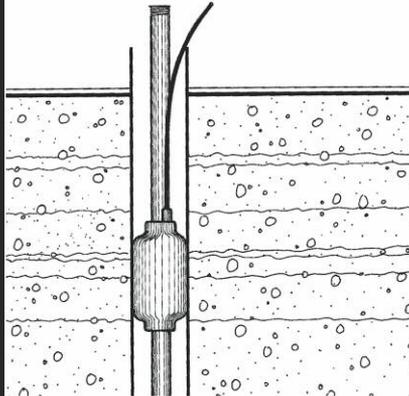
- ◆ **INFLATABLE PACKERS**
Pressure Grout, Wireline,
Water Well, Environmental,
For 1.5" I.D. to 19" I.D. + Hole Diameter
- ◆ **MECHANICAL PACKERS**

Call us with all your Packer questions!!
Phone: 253-770-0315
Fax: 253-770-0327
Email: info@QSPPackers.com
WebSite: www.QSPPackers.com

1203-409

lansas
PRODUCTS

**Inflatable
Well
Packers**



CUSTOM BUILT
PACKERS FOR ANY
APPLICATION

COMPETITIVE
PRICES

800-452-4902

Manufactured by Vanderlans & Sons
1320 S. Sacramento Street
Lodi CA 95240
209-334-4115
Fax: 209-339-8260
www.lansas.com

1203-1190

Baski, Inc.

PACKERS,
ASR FLOW
CONTROL
VALVES &
PITLESS
UNITS

1586 S. Robb Way
Denver, CO 80232
Ph: 303-789-1200
Fax: 303-789-0900
info@baski.com



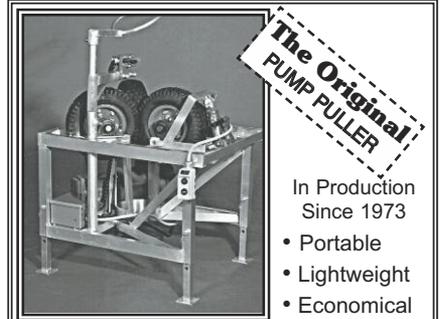
www.baski.com

1203-115

Perforators
1205

MILLS Knife Type Perforators
For Sale or Rent
4" thru 24"
Montana 406-580-2818
1205-1184

Pump Hoists
1230



- Welded aluminum frame.
 - Waterproof motor and electrical system.
 - Worm gearbox holds in any position.
 - Will handle up to 2" galvanized pipe @ 600 lb. capacity.
 - Pull or set 24' per minute.
 - Adjustable legs. Extends down to 7". (Optional)
- Wheel kit w/handles, winch, swing vise and overhead guide.

**Funk Manufacturing
Up-Z-Dazy, Inc.**
30 Myers Road
Newville, PA 17241
Phone: 717-776-3181
Fax: 717-423-5201

1230-371

**WANTED TO BUY
PULSTAR
SMEAL, SEMCO PUMP HOIST
RENE HENDON 281-260-0880**

1230-120



2017 \$15,000 SEMCO Pump Hoist, mounted on a 2017 Kenworth Allison automatic. Fully tooled and ready for the field. Available end of February, 2017.....\$230,000
Also available end of March, 2017 SEMCO \$12,000 on a 2017 Ford F-750, diesel, automatic. Tooled and ready for the field.....\$175,000
These are custom built rigs by Rick Dreiling: 970-567-7246

1230-130

Pump Hoists
1230

NEW and USED Smeal Pump Hoists For Sale: Smeal 3T, 4T, 5T, 6T, 8T, & 10T
WANTED Smeal pump hoists of all sizes
Reese Rig & Tool Co. LLC - 740-408-0725
neh810@yahoo.com reeserig.com
1230-982

1230-121

2017 Dodge & Ford Trucks Available

\$4,000 Pump Hoist, 8,000# cap., 35' telescoping mast, 30 gal. oil tank, hyd. pump, 5T safety hook, hyd. controls & variable speed engine control.. **\$15,665**
\$6,000 Pump Hoist, 16,000# 3L cap., 35' telescoping mast, 30 gal. oil tank, hyd. pump, 5T safety hook, hyd. controls & variable speed engine control..... **\$17,950**
\$8,000 Pump Hoist, 22,000# 3L cap., 36' telescoping mast, 30 gal. oil tank, hyd. pump, 7T safety hook, hyd. controls & variable speed engine control..... **\$22,950**
\$10,000 Pump Hoist, 30,000# 3L cap., 40' telescoping mast, 30 gal. oil tank, hyd. pump, 7T safety hook, hyd. controls & variable speed engine control..... **\$32,500**
\$12,000 Pump Hoist, 48,000# 4L cap., 44' telescoping mast, 6000# tail-out line, 72 gal. oil tank, hyd. pump, 11T safety hook, hyd. controls & variable speed engine control..... **\$36,250**
\$15,000 Pump Hoist, 60,000# 4L cap., 48' telescoping mast, 6000# tail-out line, 72 gal. oil tank, hyd. pump, 11T safety hook, hyd. controls & variable speed engine control..... **\$44,895**
\$20,000 Pump Hoist, 80,000# 4L cap., 40' telescoping mast, 6000# tail-out line, 72 gal. oil tank, hyd. pump, 11T safety hook, hyd. controls, & variable speed engine control..... **\$59,230**
\$25,000 Pump Hoist, 100,000# 4L

WorldWide Drilling Resource®

cap., 40' telescoping mast, 6000# tail-out line, 100 gal. oil tank, hyd. pump, 15T safety hook, hyd. control & variable speed engine control..... **\$82,545**
\$30,000 Pump Hoist, 120,000# 4L cap., 40' telescoping mast, 6000# tail-out line, 100 gal. oil tank, hyd. pump, 15T safety hook, hyd. control & variable speed engine control..... **\$96,945**

EQUIPMENT IN STOCK

\$25,000 SEMCO, 48' derrick, PTO air, 2-spd, PA, aux, oil cooler, sandreel, PT, LK, 16' bed, toolboxes, 2009 Int'l 4300. **\$145,905**
\$30,000 SEMCO, 50' derrick, PTO air, CH, 2-spd, sandreel, aux, oil cooler, PT, LK, 22' bed, toolboxes, 2009 Int'l 4400..... **\$177,680**
\$30,000 SEMCO, 50' derrick, HS PTO 2-spd, sandreel, oil cooler, aux, PA, HBOC, CH, remote, PT, LK, 24' bed, toolboxes, 2010 Frtlnr M106.. **\$203,816**

Contact us for a list of more used equipment.

SEMCO INC.

719-336-9006/800-541-1562
FAX 719-336-2402
See our Ad on page 71.
semcopumphoist@yahoo.com
www.SEMCOoflamar.com
1230-135

1230-511

Pumps
1240

ROBCO PUMPS INC

Manufacturer of Submersible & Lineshaft Pumps

806-749-7475
robcopumps.com
Idalou, Texas USA

1240-1112

Rig Parts
1320

5 1/4, 7 1/2, 8 1/2, 12, 17 1/2 Rotary Table, Hyd. Tubing Tongs, Air Slips, Type LF & C Tongs, Elevators
RENE HENDON 281-260-0880
1320-120

KELLY BARS

Fluted, Round, & Square

DRILL PIPE & COLLARS

IR 4-1/2" DP w/2-7/8" Conn 30' Joints
6" Drill Collars

ROTARY TABLES

18" SpeedStar with Bushing
8-1/2" Midway

SWIVELS

2" & 3" Little Giant
King 15XV
King 20GW
King 40KG

AIR COMPRESSOR

Screw 900/200 w/Volume Tank

GEARBOXES

Failing
Spicer
Cotta

For additional information and equipment go to our web site or give us a call.

325-653-3433

www.wichtex.com

1320-948

Your salary raise will become effective as soon as you do.

Rig Repair/Parts
1321

1321-510

C
A
L
L
8
5
0
-
5
4
7
-
0
1
0
2

Rig Service
1325

The **Rxq** Doctor's
317-839-7534

**Complete Rebuilding and Repair
of Drill Unit Components.**

31' - 6" long CF-15/1250 Failing mast,
excellent condition
Failing high-torque PTO
Rebuilt to New 4x5 Gardner Denver mud
pump
Gardner Denver/Failing fluid end casting 5x6,
excellent condition

Call or fax for listing.

PH: 317-839-7534 FAX: 317-838-9244
1325-117

Rigs
1330



Failing 2500SE Single drum drawworks
with air clutches, equipped with Foster
catheads, 18" Failing rotary table, powered
by Detroit 671 engine, 750 Allison
transmission, with telescoping mast
mounted on T/A trailer.

Call 325-653-3433

1330-948

2007 Schramm 130, SN J1300186, with
rod launcher, many extras.....**\$800,000**

2004 Schramm 130, SN J1300018,
4843 hours, 8000 miles, non-tilt
head, model 1350/350 - 1150/500
Sullair.....**\$450,000**

2006 Atlas Copco RD20, SN 21053,
6000 hours.....**\$700,000**

Call Alan Lang: 801-554-2419

1330-1027



1977 GD 15W, DSM drawworks, 5½x8,
10" table, WEJ air, pulldown, 4-axle
CCC, derrick extension w/board, new
tires, excellent condition, just painted.
GD 15WHP 1500, refurb., 4-axle CCC,
10" table, WEJ comp. w/ClycloBlower,
5½x8 pump, pulldown, new style 55'
derrick, motivated.....**\$124,000 OBO**

WANTED: Used 1500 derrick

Call Jim: 217-932-3000

1330-1243



Gardner Denver 1400, 5x6 GD, 7½
table, air clutches, 94 Int'l truck...**\$67,000**
903-714-1256

1330-1219

NE Drill Supply
northeastdrill.com

800-963-2466

**QUALITY NEW &
PRE-OWNED RIGS**

2016 REICHdrill T690-W

Mounted on 2007 Mack Granite, Cat®
C15 on deck, Sullair 1070/375 airpack.
(coming December 2016)

2010 Schramm 455 WS

Mounted on 2003 AWD Mack truck, Cat®
C15 on deck, Sullair 1050/350 airpack.

2013 VERSA-Drill V1540

1050/350 air, 3½" drill rod, 2815 hours.

"ONLY Authorized REICHdrill® sales,
service, and parts dealer in New England."



We stock
REICHdrill® and CP Parts.
New REICHdrill® style 4½" and 4" Drill Rod in Stock.

DENISON Hydraulics



Fan Pumps • Head Motors • Main Pumps
Hoist Pumps • Control Valves

We Ship Worldwide

NH: 603-878-0998

VT: 802-235-2466

www.northeastdrill.com

1330-204

DES
DRILLING EQUIPMENT SALES, INC.

Authorized
Distributor
for
REICHdrill



828-322-3056

jeffj@drillingequip.com

www.drillingequip.com

1330-121



435-259-7281 Moab, UT
BeemanEquipmentSales.com



2009 GEFCO SS 40T \$775K

P/B CAT C9 Acert, 60' Mast x 176K
Lbs Cap, HD Triple Drum Drwks,
(2) Blocks, (2) Winches, Mtd 3/A Trlr



Gardner Denver 2000 \$285K

P/B Cumm. N14, 58' Mast x 90K Lbs
Cap, DD Drwks, (2) Pumps, 10"
Retrac. Rot. Table, Mtd 4/A Carrier



2006 Pulstar P38HD \$189K

P/B CAT C7, 50' Mast x 45K Lbs.
Cap, Hydraulic Triple Drum Drwks,
Mtd on 4x4 '06 Pete 333 S/A Truck
1330-947

WANTED TO BUY FOR EXPORT

ATLAS COPCO/INGERSOLL-RAND DRILL
DM30E, DM45E, DML, T3W, T4W, T5W, RD10, RD20
DRILTECH DRILL T25K, D40K, T40K, DH1, DH2

WE WANT SURPLUS SPARE PARTS,
PIPES FOR ABOVE DRILLS

TEL: 818-956-5231 FAX: 818-956-5239

www.pacificcranes.com

1330-995

**Rigs
1330**

1987 Mobile B57 auger rig...\$15,000 OBO
Contact Sandy at:
954-775-4162
cm2drilling@earthlink.net
 1330-1229

2015 SIMCO 2800



1-800-338-9925

7-1/2 x 10 Centerline Piston Pump
 Ram 5500 Truck
 Turbo Diesel Deck Engine
 Tophead Drillhead 4,000 ft. lbs. / 200 rpm
 2 winches
 In/Out Slide Base
 10' Stroke Mast
 (Low hours and miles)

NEW DEMO RIG WARRANTY

1330-497

1999 & 2007 CME 550X, 1986 CME 550,
 1995 CME 750X. For price and photos,
 call: 770-633-4252
 or e-mail: idrill@bellsouth.net
 1330-369

EWWD
EAST WEST
 MACHINERY & DRILLING, INC.
 "Meeting Drillers Needs"
www.ewdrilling.com
 Email: sales@ewdrilling.com
 Ph (570)966-7312(PA yard/office)



We Buy & Sell Drill Rigs&Equip
 Water Well, Oil & Gas, Auger, Core,
 Blasthole & Mining, Exploration Drills.
 Air Compressor, Mud Pumps, Parts,
 Engines, Drill Pipe, Hammers & Bits



All Makes & Models Available
 IR / Atlas Copco, CAT, Cummins, MTU
 Schramm, Driltech, REICHdrill / CP,
 GD, Speedstar, Simco, Mobile, CME

1330-124

**Award-Winning
Patented Technology**



SONIC SONIC DRILL CORPORATION
 Suite 190#120, 119 N. Commercial St.
 Bellingham, WA 98225
www.sonic-drill.com 1-604-588-6081

1330-301

Tracks Carriers

For drills, water, tools, compressors,
 crew transport. For information call
 Bruce at Acheson Equipment.
 55 years in business.
Call 416-239-3058
Fax: 416-239-2918

1330-222

MAXIDRILL

2017 **HARDAB 7000 H-6** new track-mounted drill rig, rod handling system (patented) with angle package, 21' stroke.....**\$345,575**
 2011 **HARDAB 7000 H-3** track-mounted drill rig, 3500 hrs, rod handling system (patented) with angle package, 12' stroke, 550' of 3.5" drill pipe...**\$228,250**
 2011 **Atlas Copco XRVS 1000 CD6**, 1000 cfm/365 psi, trailer-mounted, 2165 hrs.....**\$120,000**
 2009 **Sullair** combo 900/1150, trailer-mounted, 1840 hrs.....**\$85,000**
 2008 **T3W** truck Int'l 7600, 4 axles, compressor IR 900-350, 3200 hrs, 400' of 4 1/2" drill pipe, hydrofrac.....**\$475,000**
 2005 **DB430** track-mounted drill, 5600 hrs, remote control station, multiposition and angle package, 500' of 10'x3.5" drill pipe.....**\$135,000**
 2004 **REICHdrill W-650** Sullair 1050-350, 2007 Kenworth T-800 truck...**\$185,500**
 1972 **CP-670** rebuild 2002 (new Sullair compressor 900-350, new engine 3406-E), Paystar 5000 truck, 12 wheel 2000.....**\$78,500**

mmailhot@maxidrill.com
www.maxidrill.com

1330-1234

2005 **CME** rubber tire ATV, high-speed rotary drive, quick disconnect spindle adapter, 84 gpm water pump, hydraulic rod holder, 140 lb hammer, 45" flotation tires, air compressor with dryer, angle drilling capability, 26' mast.
404-394-9469

1330-551



2008 **Deeprock 150**, mounted on 2008 F-550 4X4, 6.4 Power Stroke, 14,000 miles on truck, 12K pull down, 16K pullback, 330' pipe rack with auto loader, additional rack on truck to haul a total of 740', 800' of 2-3/8" Mayhew Jr .288 wall inertia-welded pipe, hydraulic mass extension with winch for setting 20' casing, Rupe 8" piston pump 240 gpm at 400 psi, lubricator and 9 gpm Bean pump for air option, bowl slip removable table, tophead slides out of way hydraulically, 2500 ft lbs of torque at 150 rpm, 5000 ft lbs of torque at 75 rpm, catwalk and side ladder for easy deck access, large heavy-duty, lockable toolbox, lots of spare parts. **2013 Mudslayer 400** with 2x3x13 downhole centrifugal pump, hydraulic outriggers, and mixing pump, this unit was designed to run hydraulically off the rig, it has no engine.....**\$124,900 package price**
E-mail: reg@pricelesswells.com
for more information or additional pics, or call: 817-480-2614

1330-1237



2008 **Ford F-550** with a 2008 Pulstar P10000 HD3L, 117,329 miles, new motor with 16,713 miles, and a new transmission with 4344 miles. Located in Grangeville, ID. **208-983-2356**

1330-463



36/TH60 Combination Rig, mfg. 1978, stored inside. GD 6" stroke duplex mud pump (completely rebuilt, never used), Mission cent. pump, new King swivel, rebuilt hyd. rot. motors, 320' of 2-7/8" HD pipe, stabilizer. Ready to drill!....**\$55,000**
Call (989) 539-3011

1330-1236

C
A
L
L
8
5
0
-
5
4
7
-
0
1
0
2

Rigs
1330

1985 Driltech D25K with 850/350 air, Gardner Denver 5x6 mud pump, Wilden grout pump; **BE 22** with 3 hydraulic jacks mtd. on 1986 GMC truck; **BE 20W** 1985 Ford F-600 with manual screwed on jacks; **Mobile Drill B50** auger machine; 1986 Ford F-500. Call 715-498-7427
1330-542

Screens
1408



Genuine Geoprobe

Johnson screens
CETCO
ALCONOX
WATER
Oatey

EMCO® WHEATON RETAIL
BUFFALO WELL PRODUCTS
Sempermed®
Koby
PROACTIVE Environmental Products®

11 Black Forest Road, Hamilton, NJ 08691
609-631-8939 ~ 888-240-4328 (Toll-Free)
ectmfg@aol.com ~ ectmfg.com
proactivepumps.com ~ torquerplug.com

1408-719

An acre of performance is worth a whole world of promise.

Stolen
1445

STOLEN DRILL RIG!!

S
T
O
L
E
N



S
T
O
L
E
N

1990 SpeedStar SS25K drilling rig, tophead drive, mtd. on 1990 Int'l VT100 w/Cummins 400, 10-spd. trans. TRUCK VIN #44KHM6488LWZ17237
If anyone has any information please call: 818-956-5231 or visit: www.pacificcranes.com
You may also contact: Crime Prevention Program @ 800-432-7257 ext. 823

1445-995

Trucks
1540

www.TRUCKS123.com

Knuckleboom Trucks

Single & Tandem Axle

4x4's

100+ units in stock

3-5 in Stock Everyday

OPDYKE INC. SPECIALIZED TRUCKS & EQUIPMENT SALES (877) 224-8834 3123 Bethlehem Pike Hatfield, PA 19440

1540-186

(30) Freightliner Trucks 6X6, 60 Series Detroit, HT740, Allison Trans., Rockwell Axle, 68KGWV, 315/80 R22.5 Michelin, Low Miles SEMCO, Inc. 800-541-1562

1540-135

Wanted
1705

QUICK CASH MONEY
Paid for Drill Rigs, Pump Hoists, Mud Pumps, Drill Pipe, & Bits.
RENE HENDON Tel: 281-260-0880
1705-120

Water Level Indicators
1710

CONTROL EVERYTHING

Plus... Leak HARWIL

CHEMICAL FEED PUMP CONTROL

Activates chemical feed pump with water flow.
Includes switched and always-on receptacles.
Available for most pipe sizes.



Tested - Proven - Best

WIRELESS CONTROL

Wireless Bridge between switch and device - Range 1000 feet.
Eliminates cost of wire, installation and maintenance.
Ideal for rainwater capture, tank level control or pump control.



HARWIL.COM
(805) 988-6800 sales@harwil.com

1710-1179

Reliable Water Level Indicators proudly made in the USA. Various lengths & scales available, selectable buzzer/light indication & sensitivity control. Economical repair service.
Waterline Envirotech Ltd.
www.waterlineusa.com
360-676-9635

1710-188

Water Trucks
1730



2003 International with International 530 engine and a 10-speed transmission, new 2017 service body, 2000 gallons of water and 200 gallons of fuel w/fuel transfer pump.....\$45,000

All service bodies are new with 1/4" construction baffled every 18", & coated.

Gordon Ballard
Ballard Drilling Co., Inc.
Wadley, Alabama
256-825-5871

E-mail: gballard501@msn.com

1730-785

Rose-Wall Mfg. Inc.



Rose-Wall puts a new "tilt" on the water tank business!



We can build any shape or size
Please call for a custom quote
1-800-321-1541
rose-wall.com

1730-390

Water Trucks
1730

1996 IHC tandem water truck with 1800 gallon tank and Grove knuckle crane.
Call 715-498-7427

1730-542

NORTHWEST FLATTANKS

Building and gaining trust by manufacturing quality flattanks, serving the water well, mining, mineral explorations, geothermal, directional boring, and sonic drilling industries.

We offer your company the satisfaction of a job well done. Check out our web site for more information on our products.

www.northwestflattanks.com

Call (406) 466-2146 or (406) 544-5914

(1) 2007 T800 Kenworth 450HP ISM Cummings, 46,000 rears 4 way lockers, Chalmers suspensions, new 2000 gallon Flattank with upright vertical cabinets.



(2) Flattanks in stock, mounted on 2007 T800 Kenworth, low-mileage, low-hour trucks.



Lots of information, pictures, and specs on our web site. We also have used drilling rigs, pump hoists, and used flattank support trucks.

www.northwestflattanks.com

1730-665

Look for our classified listings online:

Shop Now!

Check out our WorldWide Super Mart™ for all your drilling needs.

worldwidedrillingresource.com

Well Plugs
1753

TORQUER™
Professional Locking Well Plugs

Sched. 40/80

1/2", 3/4"

1", 1 1/4"

1 1/2", 2"

2 1/2", 3"

4", 5", 6"

coming soon: 8"



- Domed top
- No metal parts
- Padlocks or safety lock out tags
- Most sq. inch of gasket power
- Bright safety orange color
- Vapor extraction convertible
- Vented Plug Option
- Low Cost

U.S. Patent Protected

www.torquerplugs.com

1753-244

Well Screens
1760

Stainless Steel • Carbon Steel
Galvanized Steel • Wedge-Wire

Well Screens & Slotted Pipe

18102 East Hardy Road
Houston, Texas 77073 USA
Phone: 281.233.0214
Fax: 281.233.0487

Toll-free: 800.577.5068
info@alloyscreenworks.com
www.alloyscreenworks.com

ALLOY SCREEN WORKS
▲▲▲ A division of Alloy Machine Works, Inc.



1760-378

Environmental Manufacturing, Inc.

8887 Green Valley Drive
Manhattan, KS 66502

Flush Thread Pipe,
Fittings, and Supplies for
Monitoring/Remediation.
Custom Slotting & Perforating
PVC CPVC HDPE

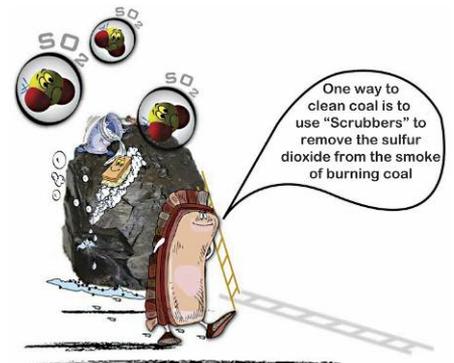
Toll Free 888-587-0807

Fax 785-539-1349

www.emipipe.com

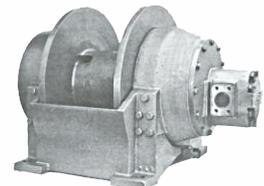


1760-156



Winches
1775

The Source of Force



Linepull: 1/2 Ton to 100 Ton plus!
In-Stock Now!



(800) Mr. Winch
Fax: (619) 474-6730
www.ryanhyd.com



RYAN Hydraulic Service, inc.

The People with Pull

1775-136

CALL 850-547-0102



America West Drilling Supply



Our friendly and knowledgeable staff is ready to help



Check out our Hammer Brands

Missile LXQ Series



Missile LX Series



For all your drilling products and supplies, visit us online:

www.americawestdrillingsupply.com

www.awds.com

(800) 800-8444 • (775) 355-1199 • sales@awds.com

A SURE THING



INFINITY[®] | TOOL MFG.



HAMMER BIT



PDC



REAMER



CASING RING



SLANT FACE



CONExpo-CON/AGG SHOW
LAS VEGAS CONVENTION CENTER
LAS VEGAS, NEVADA
7-11 MARCH

VISIT US AT
BOOTH B-90511 BRONZE HALL

DTH & PDC BITS
infinitytoolmfg.com
1-888-838-6657



SEMCO S25,000 Pump Hoist, 48' derrick, PTO air shift, 2-speed winch w/grooved drum, power arm, auxiliary hydro valve, 3,000' cap. sandreel, hydraulic oil cooler, behind-the-cab outriggers, power tong hook-up to rear, light kit for mast, 78" toolboxes, factory mounted on 2008 Navistar 4400 with 16' flatbed.



Allen's Inc.
323 NE 6th East
Guymon, OK 73942

SEMCO INC.

E-mail:
semcopumphoist@yahoo.com
www.SEMCOoflamar.com

CALL OUR TOLL-FREE
NUMBER: 800-541-1562

PO Box 1216 • 7595 US Hwy 50
Lamar CO 81052-1216
719-336-9006 • 719-336-2402 Fax



Reply to: **WORLDWIDE Drilling Resource**
PO Box 660 • Bonifay FL 32425-0660
850-547-0102

PRSR STD
US POSTAGE
PAID
ATLANTA GA
PERMIT
NO. 3592



DRILLMAX® 250

SUPERIOR QUALITY, RELIABILITY, AND SPEED IN A POWERFUL COMPACT PACKAGE

The DRILLMAX® 250 shown is mounted on a Ford F-550 4x4 with automatic transmission and equipped with 300/200 air, 3L6 Moyno pump, hammer lubricator, single rod loader, pipe rack, driller platforms, 6,000lb winch, helper side controls and hydraulic breakout wrench.

**Call for more details on this and other
DRILLMAX® rigs!**

800-342-0234 or 352-427-7787



www.drillmaxrigs.com