WATER WELL AND PUMP PERFORMANCE: THE ECONOMIC BASIS FOR WATER WELL OPERATION, REHABILITATION & MAINTENANCE DECISIONS

A one-day workshop on practical, cost-effective solutions to extend asset value by maximizing well and pump performance

Friday March 22nd 2013
Dallas/ Fort Worth, TX

Event venue
Holiday Inn Bedford DFW Airport Area West, 3005 Airport Freeway, Bedford, Texas 76021

PROGRAM PRESENTED BY AMERICAN GROUND WATER TRUST

CONTINUING EDUCATION

TX Operators 6.5 credit hours approved (provider code 0698) (Course code 0548 Ground Water Workshop)

TX Well Contractors approved 6.5 hours (Provider # 1701) (Course # 10071 Water Well & Pump Performance)

Certificate of Attendance: (Contact Hours: 6.5) will be provided to those attendees who sign-in and sign-out. These certificates may be used by attendees to obtain continuing education credit from professional organizations or licensing agencies. Attendance Certificates will be mailed after the event. (Sign-in, sign-out required)

EVENT SPONSORS

COTEY CHEMICAL CORP. Solving Water Well Production Problems Since 1949

GOULDS WATER TECHNOLOGY a xylem brand

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SHANNON & WILSON, INC. GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Preferred Pump

INDUSTRIAL DRILLING PRODUCTS BAROID HALLIBURTON

HoseSolutions Inc

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ROSCOE MOSS COMPANY

7:30 – 8:30 REGISTRATION (Coffee & donuts)

8:30 WELL & PUMP TECHNOLOGIES TO REDUCE COST AND MAXIMIZE GROUNDWATER POTENTIAL
Andrew Stone, Executive Director, American Ground Water Trust, Concord, NH

- Groundwater industry technology
- One size does not fit all for well design, construction, operation or maintenance

8:45 WATER WELL DESIGN, CONSTRUCTION AND REHABILITATION
Kevin McGillicuddy, Senior Hydrogeologist, Roscoe Moss Company, Los Angeles, CA

- Well drilling to obtain maximum yield from aquifers
- Design basics for high-yield wells (screen selection, gravel pack etc.)
- Water well construction & well development methods
- The importance of monitoring and maintenance
- Well redevelopment / rehabilitation techniques
- Case studies of improving well performance

9:45 ECONOMIC SIGNIFICANCE OF FLEXIBLE DROP PIPE FOR WATER WELLS
Tanner Tryon, General Manager, Hose Solutions, Inc., Scottsdale, AZ

- Physical properties of flexible hose (strength and durability of hose)
- Hydraulic performance capabilities (elasticity, pressure thresholds)
- Pump installation and removal methods (connectors, reels etc.)
- Cost savings for rapid “pump-in, pump-out” during pump maintenance or well rehabilitation

10:00 BREAK

10:15 WELL PERFORMANCE DECLINES: CAUSES AND CURES
Neil Mansuy, VP, Subsurface Technologies, Kansas City, MO

- Chemical, microbiological and physical reasons for well problems
- Understanding typical “declining yield” problems
- Case studies of well yield declines attributable to encrustation
- Case studies on cost-effective maintenance for high yield wells
- Preventive maintenance procedures

11:15 METHODS FOR IMPROVING WELL PERFORMANCE
Jim Bailey, National Well Services Director, Shannon & Wilson, Seattle, WA

- A practical approach to managing wells as an asset
- Why rehabilitate - Well inspection technology
- Key well performance indicators
- Prioritizing well condition factors
- How to decide on treatment options
- Theory behind particle movement during well development
- Simulations of well-aquifer / aquifer-well flow dynamics during rehabilitation

12:30 LUNCH (Provided)

1:30
PUMPS: OPERATION PRINCIPLES AND PROBLEM TROUBLE-SHOOTING
Ronnie Hensley, Director of Engineered Water, Gicon Pumps & Equipment, Abernathy, TX

- Purpose and operation of vertical pumps
- Basic principles of pump selection (matching the pump to the well)
- Information needed for deciding on pump specification for high-yield applications
- Which pump to choose for high-yield? (lineshaft or submersible?)
- Factors that impact the energy consumed by pumps
- Case studies of installation and O & M costs for different types of pump
- Pump replacement criteria, How to decide what to do and when
- Dollar return calculations on upgrading motor or bowls

2:30 WELL PERFORMANCE SOLUTIONS

Kevin McGinnis, President, Cotey Chemicals, Lubbock, TX

- Typical problems (mineral and biological blockage) that reduce well bore inflow)
- The arsenal of chemicals available to enhance/ restore well performance
- Matching the solution to the problem (How to decide on the "cocktail" to be used)
- The importance of a dual mechanical/ chemical approach
- Successful well-yield restoration case-studies

3:30 BREAK

3:45 SOLAR WATER PUMPING

Eric Macias, Director of Marketing, Gicon Pumps & Equipment, Abernathy, TX

- Types of solar pumps and their capabilities
- Basic principles for sizing solar water pumping systems
- Types of photovoltaic panels
- System troubleshooting
- Understanding return on investment vs. a/c powered pumping systems

4:30 ADJOURN

"A nation that fails to plan intelligently for the development and protection of its precious waters will be condemned to wither because of its shortsightedness. The hard lessons of history are written on the deserted sands and ruins of once proud civilizations"

Lyndon B. Johnson

The American Ground Water Trust is a national, non-profit public education organization that has been providing ground water information, awareness and education since 1986.

The Trust's programs:

☺ Promote efficient and effective ground water management
☺ Communicate the environmental and economic value of ground water
☺ Showcase ground water science and technology solutions
☺ Increase citizen, community and decision-maker awareness
☺ Facilitate stakeholder participation in water resource decisions

"Best one-day program on well & pump performance!"

At the end of the program please leave your badge holders and evaluation forms on the table. – Thanks!