

Providing Information to the Water Well, Underground Injection Control (UIC) & Underground Hydrocarbon Storage (UHS) Industries in Kansas and other Partners Interested in these Operations, the Environment and Energy

Fall 2015

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GWTS Fall 2005 Seminar and Workshop

by Mike Cochran, P.G.

The Geology and Well Technology Section sponsored a Well Logging and Testing workshop on September 3, 2015, in Wichita at the Sedgwick County Extension Education Center for injection well operators, underground hydrocarbon storage well operators, water well contractors and environmental consultants. Well logs covered by logging experts included formation pressure fall off test, gamma – density log, cement bond log, casing inspection log and sonar survey. There were 98 participants.

Then, the next day at the same location, the Geology and Well Technology Section conducted its annual fall technical seminar which consisted of a variety of presentations by a number of experts; in-



Above, participants at Wednesday, September 2 GWTS Well Logging Workshop

cluding an overview of current environmental issues by KDHE Deputy Secretary of Environment Gary Mason, brine contaminated soil and groundwater remediation, CO₂ geosequestration, identification of contaminants and contamination pathways utilizing logging technology, update on injection induced seismicity by Rex Buchanan, Interim Director of the Kansas Geological Survey, reclamation of former Coastal Refinery, and KDHE program and EPA Underground Injection Control Program updates. There were 138 participants. (continued on Page 2)



Left, participants at Thursday, September 3, GWTS Fall Seminar

GWTS Fall 2005 Seminar and Workshop (continued)

Many compliments were received by KDHE staff on the quality of the presenters and the presentations and that the workshop and seminar were well organized. The Geology and Well Technology Section staff worked very hard and succeeded in providing useful information to its regulated community and those interested in the Section's programs. These seminars provide an excellent networking event for the attendees. The workshop and seminar also provided an opportunity to earn 12 professional development hours.

Geology & Well Technology Staff Changes in 2015

by Deb Biester

RESIGNATIONS:

JEFFREY HAND, UHS

CYNTHIA KHAN, UIC

BAILY HOCKETT, TEMPORARY ADMINISTRATIVE ASSISTANT

RETIREMENTS:

RICK BEAN, UHS

RICHARD HARPER, WATER WELL

NEW EMPLOYEES:

JESSICA COSSMAN, UNIT CHIEF, UNDERGROUND HYDROCARBON STORAGE

PAM CHAFFEE, UNIT CHIEF, WATER WELL AND TECHNICAL SUPPORT

DOUG DOUBEK, UNIT CHIEF, FIELD OPERATIONS, PERMITTING & COMPLIANCE

GEOLOGY AND WELL TECHNOLOGY SECTION

10-5-2015



Pam Chaffee – New to the Water Well Program

by Pam Chaffee, PG

The Water Well & Technical Support Unit in KDHE's Bureau of Water, Geology & Well Technology Section, underwent some changes in 2015. Richard Harper, who formerly headed up the Water Well Program, retired in March and I was hired to replace him in June.

Coming out of the Remedial Section of KDHE's Bureau of Environmental Remediation, Pam worked for 25 years in the Site Assessment, State Cooperative, State Water Plan, and Brownfields programs, where she conducted project management, oversight of field investigations, site monitoring, and preparation/review of technical documents for contaminated or potentially contaminated sites in Kansas. These activities resulted in gaining considerable experience with coordinating and interacting with other KDHE staff, environmental consultants, water well contractors, members of the public, and officials of industry and government.

My early work experience included the Kansas Geological Survey in Lawrence, Kansas (1980-1988), where I worked primarily with Howard O'Connor inspecting and sampling more than 100 domestic water supply wells in Marion County. Their subsequent time-series study of groundwater quality and effects of water well construction in three small towns in Marion County provided me not only an interest in the topic but also research for her master's thesis (University of Kansas). After the study concluded in the mid-1980's they were able to share the study results with KDHE, drilling contractors, and members of the public. Subsequently, in joint effort with KDHE and the Kansas Legislative Research Department they were able to prepare a legislative bill, secure a sponsor, and present to the Kansas Legislature where it passed in 1987. The bill resulted in revision of Article 30 of the Kansas Annotated Regulations, requiring an increase in the minimum grouted interval of water wells based on site-specific geology.

Since joining the Bureau of Water and with the help of Mike Cochran and Deb Biester, I have been revising or updating many important components of the Water Well Program and its webpage at <http://www.kdheks.gov/waterwell/index.html>, and revising the Kansas Water Well Contractor Licensure Examination and facilitating numerous exams for former or aspiring water well contractors. In addition, she has been responding to inquiries from the public, water well contractors and other members of the Kansas Ground Water Association (KGWA), and staff of various government offices. As part of the public outreach responsibilities for the water well program, I have been and will be making presentations to and visiting with KGWA members, and staff of KDHE district offices and Local Environmental Protection Programs. I will also be a technical representative in the new Drinking Water Protection Program.

Some issues I am working on include alleged and known water well construction and reconstruction activities being conducted by unlicensed individuals and contractors, improper wells being constructed by uninformed landowners, less than minimum required distances and grouted intervals being used at some well locations, and encouraging needed improvements in reporting lithologic descriptions and well locations using the Public Land Survey System.

Water Well Testing

KDHE Certified Laboratories Listing can be found at the following website:

<http://www.kdheks.gov/envlab/disclaimer.html>



New Chief of Field Operations, Permitting, and Compliance Unit

by Doug Doubek, PG

I have taken the Unit Chief position for the Field Operations, Permitting, and Compliance Unit as of August 31, 2015. I have served as a Professional Geologist for KDHE for over 25 years. Beginning my KDHE career in the Dodge City District office, I worked Bureau of Environmental Remediation (BER) programs conducting underground storage tank compliance inspections, buried tank leak assessments, spill response, and investigating complaints. While working in the district office, I gained valuable knowledge and experience working with the regulated community and also worked closely with GWTS on several projects. After serving 16 years in Dodge City, in 2006 I accepted the Unit Manager position for the BER Orphan Sites and Brownfields unit in the KDHE central office in Topeka, investigating and remediating contaminated orphan sites and overseeing Brownfield Targeted Assessments on property redevelopment projects.

As the new Unit Chief of the Field Operations, Permitting, and Compliance Unit, I will be handling compliance for the UIC and UHS programs, managing the brine spill prevention and response program, coordinating field activities for the Section, as well as assisting with technical reviews for the UIC and UHS programs.

I look forward to the challenges associated with my new position and working with facility operators, managers and others that I cross paths with in the future.

Inadvertent Growth in Underground Hydrocarbon Storage Caverns

By Jessica Crossman, PG

Salt caverns used to store LPG in Kansas, ideally, should not be increasing significantly in volume capacity. The regulations governing the operation of these caverns stipulate that only saturated brine may be used to operate the caverns. Saturated brine is defined as saline water with a sodium chloride concentration that is equal to or greater than 90 percent. The salinity of the brine is monitored at a minimum of weekly, to ensure that this requirement is being met. While the majority of the time the salinity is within the required range, occasionally, due to heavy rain the sodium chloride concentrations do fall below 90 percent and KDHE is notified of the measures taken by the facility to correct this.

With the regulatory parameters being followed, one would expect very little growth of these caverns, however, KDHE is seeing growth of over 4% per year in some caverns. KDHE considers an annual cavern growth rate of greater than 1% to be of concern. For future sonar reports, KDHE will be requesting operators to evaluate the growth rate of the cavern and if excessive, formulate a plan to minimize growth in the cavern. This may entail cycling the cavern less or monitoring the salinity more closely. KDHE looks forward to working with industry to minimize inadvertent growth of storage caverns in Kansas.

Water Well Contractor License Renewal Process (Things to Remember for 2016-2017)

By Deb Biester

Water Well Contractor License Renewals are handled by Kansas Department of Health and Environment (KDHE), Bureau of Water (BOW), Geology & Well Technology Section (GWTS) located at 1000 SW Jackson Street, Ste. 420, Topeka, KS 66612, 785-296-5524, dbiester@kdehks.gov. The Water Well Program Web page is located at: <http://kdehks.gov/waterwell/index.html>.

About May 15th of each year, a renewal letter, Renewal Application (Form WWC-1R), and a Rig Application (Form WWC-3), are mailed out by KDHE informing water well contractors it is time to renew their license(s).

KDHE regulations K.A.R. 28-30-3(b) require the following:

- (1) Each licensee shall submit an application for renewal of license and drill rig registrations before July 1 of each year by filing the proper renewal forms provided by the department and by meeting the following requirements:
 - (A) Paying the annual license fee (\$100) and a drill rig registration fee (\$25.00) for each drill rig to be operated in the state;
 - (B) filing all records for each water well constructed, reconstructed, or plugged by the licensee in accordance with K.A.R. 28-30-4 during the previous licensure period; (first page of WWC-1R)
 - (C) filing a report, on a form approved by the department, of all approved continuing education units earned by the licensee or designated person during the previous licensure period;
 - (D) meeting the continuing education requirements in subsection (c); and
 - (E) providing any remaining outstanding information or records requested that existed before the issuance or revocation of a license.
- (2) Failure to comply with the requirements of this subsection shall be grounds to revoke the existing license and terminate the license renewal process.

KDHE regulations K.A.R. 28-30-3(c) and (d) further require: Continuing education requirements. Each water well contractor or the contractor's designated person shall earn at least eight units of continuing education approved by the secretary. This requirement shall apply each year beginning with the first full year of licensure [July 1 – June 30] or the renewal period. One unit of continuing education shall equal 50 minutes of approved instruction except for trade shows and exhibitions, which shall be counted as one unit for each approved trade show or exhibition attended. Employment requirements. If the designated person who has passed the water well contractor examination under paragraph (a)(3)(A) leaves the contractor's employment, the contractor shall employ a designated person who shall take, within 90 days, and be required to pass the water well contractor examination.

CEU's are handled by the Kansas Ground Water Association (KGWA). Executive Director, Dale Hayse, can be reached at Hayse Management Services, P.O. Box 107, Mullinville, KS 67109, phone 620-548-2669, email Haysemgt@Havilandtelco.com. KGWA web site: <http://kqwa.org>.

In mid-June, the KGWA provides KDHE a list of water well contractors who have completed the required 8 CEUs. Upon receipt of the CEU list, the Renewal Application and fee (\$100.00) and the Rig Renewal Application and fee(s) (\$25.00 per each rig), a license will be issued and mailed out as soon as possible.

If KDHE does not receive the required items by July 1, your license will be subject to revocation.

Events where CEUs can be earned are posted on the KGWA web site and the KDHE Water Well Program web page, both shown above. Contact Dale Hayse, for information on qualifying and reporting CEUs.

Note: Please be sure to sign the Renewal Application and list your drillers on Form WWC-1R, complete the Drilling Rig License Application, and attach your signed check. Otherwise they will be returned to you causing a delay in issuing your license(s). Mail to KDHE/BOW at the address above.

Do not mail your CEUs and CEU fees to KDHE. Mail to Dale Hayse at the above address for Hayse Management Services.

If you need further help with renewing your Kansas Water Well Contractor license, please contact Deb Biester at 785-296-5524.

KDHE OFFICE CLOSINGS FOR THE REMAINING 2015 CALENDAR YEAR**Thursday, November 26—Thanksgiving****Friday, November 27—Thanksgiving****Thursday, December 24—Christmas****Friday, December 25—Christmas**

Web News

The following changes have recently been made to the Geology and Well Technology Section Web site:

Geology (<http://kdheks.gov/geo>)

Updated Index Page
Updated Organizational Chart
Seminar and Training Presentations

UHS (<http://kdheks.gov/uhs>)

Updated Index Page
New Procedure UHS-30

UIC (<http://kdheks.gov/uic>)

Updated Index Page

Water Well (<http://kdheks.gov/waterwell>)

Updated Water Well Contractor List

Did You Know... ???

Where did the 42 gallon oil barrel come from?

According to the American Oil and Gas Historical Society, the 42 gallon barrel (tierce) resulted from a meeting in 1866 of oilmen in the northwestern Pennsylvania who decided that the 42 gallon barrel would be best for transporting oil. The 42 gallon barrel when filled with oil weighed about 300 pounds. So, why a 42 gallon barrel? By the early 1700s in Pennsylvania, the 42 gallon tierce was a standard container for shipping many commodities such as molasses, soap, butter, wine and whale oil. The 42 gallon barrel container was a very familiar shipping container at that time. Then, in the mid 1800s, the oil boom used the wooden tierce which was the common shipping container in use at the time. The oil tierce weighed about 300 pounds when filled with oil which was about as much as a man move around by hand. The wide use of the 42 gallon tierce for shipping oil then naturally became the industry standard of measurement for oil. The 42 gallon barrel was officially adopted as the official standard of measurement by the Petroleum Producers Association in 1872 and the U.S. Geological Survey in 1882.

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HEALTH AND
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MEMBER:



**KDHE's Mission is to Protect and Improve the
Health and Environment of all Kansans**