



Basic Open Hole Log Interpretation *and* Gas Well Deliquification Options for the Marcellus Shale

Presented by Weatherford International, Inc., Wireline Division and Artificial Lift System Division

Co-hosted AGS/PTTC Workshop – September 24 & 25, 2008
Lakeview Golf Resort and Spa, Morgantown, WV
8:00 a.m. - 4:00 p.m. each day

Overview

PTTC is pleased to announce that experts from Weatherford International will offer two one-day workshops on September 24 and 25 at Lakeview Golf Resort and Spa, ten miles east of Morgantown. Furthermore, **both workshops will be offered on both days**, so registrants can not only choose to take one or both, but also on which days to take them.

Registration will be **limited to 50 students** in each classroom, each day, so register early.

Schedule

Sign-in and workshop material distribution will begin at 7:15 a.m. on both days. The workshops will begin at 8:00 a.m. and conclude at 4:00 p.m. each day.

Cost & Registration Information

The fee for each workshop is \$150.00 (\$300 for both) which includes the workshop material, lunch and all breaks. **Please make checks payable to “PTTC”** and return with the registration form to: Douglas Patchen, P. O. Box 6064, Morgantown, WV 26506-6064. **Registration will be limited to the first 50 paid registrants for each workshop, each day.**

Hotel Information:

A small block of rooms has been set aside at Lakeview for the 23rd and 24th. Registrants will be responsible for making their own room reservations at Lakeview. Call 304-594-1111 before September 10 and ask for the PTTC block rate of \$89.

Lakeview is located off Exit 10 on Interstate 68, east of Morgantown.

Registration Form

NAME: _____

COMPANY: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP CODE: _____

PHONE: _____ FAX: _____

EMAIL: _____

Workshop Choices (indicate 1st and 2nd choice of days):

Basic Open Hole Log Interpretation _____ 24th _____ 25th

Gas Well Deliquification Options _____ 24th _____ 25th

Basic Open Hole Log Interpretation

This one-day introductory level course concentrates on the essential background knowledge and theory that a new engineer/geologist/geoscientist must possess in order to effectively analyze and interpret OH data. The course provides classroom instruction in basic OH sensor theory, application, interpretation, and quality control. A base level of petroleum geology is helpful in understanding the materials.

The agenda will include basic tool theory and “log reading” per tool and will end with Log interpretation, focusing mostly on Sw, Sh, Vshale, and porosity calculations. Sensors to be covered include gamma ray, photo density, compensated neutron, dual induction, dual laterolog, micro laterolog, sonic and audio/temperature.

Please bring a calculator to work through one or two short examples, if time permits.

Gas Well Deliquification Options for the Marcellus Shale

This one-day seminar highlights the importance of Artificial Lift technologies in the overall portfolio of an oil and gas producers operation. This presentation includes an overview of each of the eight conventional Artificial Lift systems including: Electric Submersibles, Reciprocating Rod Lift, Progressive Cavity Pump, Plunger Lift, Gas Lift, Capillary Injection and Foamers, Hydraulic Piston and Jet Pump Systems. This presentation includes a review of new artificial lift technology and combinations of conventional lift options to enhance production. This presentation also includes a “Logical Artificial Lift Application Selection Process” to optimize production and reduce operating expenses. When possible, the presenter provides design software calculations and examples to compare and contrast different lift options and costs with the same well data. Attendees will leave this class with a solid understanding of Artificial Lift methods, best practices and a logical approach to selecting the best type of lift for a well’s condition.

8:00 – 8:10	Introductions, Explanation of Course and Objectives, Safety Briefing
8:10 – 8:40	USA / World Perspective of Gas Wells and Natural Gas Industry
8:40 – 8:55	Why do we need artificial Lift?
8:55 – 9:30	Progressing Cavity Pumps
9:30 – 9:45	Break
9:45 – 10:20	Reciprocating Rod Pump Systems
10:20 – 10:55	Electric Submersible Pumps
10:55 – 11:45	Hydraulic Lift Systems
11:45 – 12:30	Lunch
12:30 – 1:10	Gas Lift
1:10 – 1:50	Plunger Lift
1:50 – 2:30	Capillary Injection Systems
2:30 – 2:45	Break
2:45 – 3:20	New Technology / Hybrid Systems
3:20 – 4:00	Weatherford Artificial Lift Selector



Lakeview Golf Resort & Spa
 One Lakeview Drive,
 Morgantown, WV 26508
 800.624.8300 304.594.1111
 email info@lakeviewresort.com

Located off exit 10 of Interstate 68, 10 miles east of the intersection of Interstates 79 and 68 on scenic Cheat Lake in Morgantown, West Virginia.

Note: Follow the detours for Rt 857 (Cheat Rd) once you are off the Exit 10 ramp. Go to the light at 857, turn left. Go past Ashbrooke Plaza (Exxon Station) and Sunset Beach Road. Lakeview's entrance will be on the left.