

# **Consortium for Petroleum & Natural Gas Stripper Wells**

Technical Quarterly Progress Report for  
November 1, 2006 – January 31, 2007

By

Joel L. Morrison  
and  
Sharon L. Elder

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## ***Submitting Organization:***

The Pennsylvania State University  
The Energy Institute  
C211 Coal Utilization Lab  
University Park, PA 16802

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## **ABSTRACT**

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The Pennsylvania State University, under contract to the U.S. Department of Energy (DOE), National Energy Technology Laboratory (NETL), established a national industry-driven Stripper Well Consortium (SWC) that is focused on improving the production performance of domestic petroleum and/or natural gas stripper wells. The SWC represents a partnership between U.S. petroleum and natural gas producers, trade associations, state funding agencies, academia, and the NETL.

This document serves as the eleventh quarterly technical progress report for the SWC. Key activities for this reporting period included:

- Organizing and hosting the Fall SWC Technology Transfer Workshop for the northeastern U.S., in Pittsburgh, PA, on November 9, 2006, and organizing and identifying projects to exhibit during the SWC/Gas Storage Technology Consortium (GSTC) joint reception on November 8, 2006;
- Distributing a paper copy of the Texas Tech 2004 Final Report and a revised, complete compact disc of all 2004 final reports;
- Invoicing current and potential members for FY2007;
- Soliciting nominations for the 2007-2008 Executive Council seats; and
- Communications and outreach.

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## **INTRODUCTION**

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The Pennsylvania State University, under contract to the U.S. Department of Energy (DOE), National Energy Technology Laboratory (NETL), established an industry-driven Stripper Well Consortium (SWC) that is focused on improving the production performance of domestic petroleum and/or natural gas stripper wells. Industry-driven consortia provide cost-efficient vehicles for developing, transferring, and deploying new technologies in the private sector. The SWC represents a partnership between the U.S. petroleum and natural gas industries and trade associations, state funding agencies, academia, the NETL, and the National Petroleum Technology Office.

The SWC technology development research is conducted in the areas of reservoir remediation, wellbore cleanup, and surface system optimization. Projects are funded on an annual basis. SWC members elect an Executive Council that is charged with reviewing projects for co-funding. Proposals must address improving the production performance of stripper wells and provide significant cost sharing. The process of having industry members develop, review, and select projects for funding ensures the SWC conducts research that is relevant and timely to the industry. Co-funding of projects using external sources of funding is sought to ensure that SWC funds are highly leveraged.

## **EXECUTIVE SUMMARY**

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This report summarizes important accomplishments during the period of November 1, 2006, through January 31, 2007. This is the eleventh quarterly report since the inception of the SWC on September 30, 2000. The SWC was established under contract to The Pennsylvania State University from the U.S. Department of Energy (DOE), National Energy Technology Laboratory (NETL). The agreement provides The Pennsylvania State University with the overarching management responsibilities for the SWC.

Key activities for this reporting period included:

### *Technology Transfer Meeting*

The SWC organized and hosted the northeastern U.S. Fall SWC Technology Transfer Workshop in Pittsburgh, PA, on November 9, 2006. In addition to technical presentations, the meeting featured a workforce issues panel, a roundtable discussion of the new 2006 projects, and a “road to commercialization” panel featuring speakers on creating business plans, patent considerations, and various issues encountered in moving technology toward commercialization. The SWC also hosted a SWC/Gas Storage Technology Consortium (GSTC) joint reception, exhibit, and poster session on November 8, 2006. Ten SWC and GSTC projects were showcased during the exhibit session.

### *Executive Council Candidate Solicitation*

The SWC solicited nominations for candidates to serve on the Executive Council for 2007-2008. During the next quarter the Technical Advisory Committee will vote to elect four (4) representatives to replace the outgoing representatives.

### *Membership Invoicing for 2007*

Invoices for 2007 membership renewals were sent in December 2006 to current members and potential members.

### *Communications/Outreach*

Two projects have been identified to appear in the next issue of *GasTIPS*, volume 1, 2007 edition. Distribution of the public broadcast documentary video, “Independent Oil: Rediscovering America’s Forgotten Wells,” continues. The “members only” portion of the SWC web page has been completed, and project quarterly and final reports are posted as received.

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## **EXPERIMENTAL**

A description of experimental methods is required by the DOE for all quarterly technical progress reports. In this program, Penn State is responsible for establishing and managing the industry-driven SWC. Technology development research awards are made on a competitive basis. Therefore, this section is not applicable to Penn State’s contracted activities. Technical reports from the individual researchers are required to contain experimental discussion sections and are submitted to SWC members and the DOE for review.

## **RESULTS AND DISCUSSION**

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This report addresses the activities for the reporting period from November 1, 2006, through January 31, 2007. During this time period SWC efforts were directed toward the following activities:

- Organizing and hosting the Fall SWC Technology Transfer Workshop in Pittsburgh, PA, on November 9, 2006, and organizing and identifying projects to exhibit during the SWC/GSTC joint reception;
- Distributing the revised CD and a paper copy of the 2004 report from Texas Tech for the SWC final project reports to all 2004 full members;
- Soliciting nominations for four (4) Executive Council seats;
- Recruiting and invoicing membership for FY2007; and
- Communications/outreach.

### **SWC Technology Transfer Workshop**

The Fall SWC Technology Transfer Workshop for the northeastern region of the U.S. was held at the Embassy Suites Pittsburgh International Airport Hotel in Pittsburgh, PA, on November 9, 2006. The meeting featured six full presentations, as well as a workforce issues and education panel, a roundtable discussion for the new 2006 projects, and a success panel focused on the issues encountered in moving technology toward commercialization. The success panel featured speakers on creating business plans, patent considerations, and past and current project participants discussing various issues encountered in research and commercialization. Fifty-two people attended the workshop. The agenda is attached as Appendix A. The SWC also hosted a SWC/GSTC joint reception, exhibit, and poster session on November 8, 2006, following the close of the formal GSTC meeting. Ten SWC and GSTC projects were showcased during the exhibit session. Participants in the poster/exhibit showcase from SWC were:

- BEDCO
- Hydroslotter
- James Engineering
- PAAL, LLC
- The Pennsylvania State University
- Texas A&M University
- W&W Vacuum

### **Revised 2004 SWC Final Project Report Distribution**

The 2004 report for the project entitled Resolving Discrepancies in Predicting Critical Rate in Low-Pressure Gas Stripper Wells (Texas Tech) was received during this quarter. This report was completed too late to be included with those that were distributed last quarter. A paper copy of the report, along with a revised electronic version on a CD including all the 2004 final project reports was distributed to all 2004 full members.

### **Executive Council Candidate Solicitation**

The SWC solicited nominations for four (4) candidates to serve on the Executive Council for 2007-2008. The outgoing representatives are:

- Donald Lambert, Energytec, Inc.
- Kenneth Oglesby, Oak Resources, Inc.
- Paul Herzing, Texas Keystone, Inc.
- William Stoner, Universal Well Services, Inc.

The Executive Council members who will continue to serve until the end of 2007 are:

- Len Paugh, Great Lakes Energy Partners, LLC
- Robert Metzgar, North Penn Pipe & Supply, Inc.
- Paul Willhite, University of Kansas

### **Membership Invoicing for 2007**

Invoices for 2007 membership renewals were sent in December 2006 to current members and potential members. The SWC will continue to grow and broaden in diversity by recruiting additional members throughout 2007.

## **Communications/Outreach**

The SWC continues to promote itself in many ways via electronic news, magazine articles, sponsoring technical sessions, distributing Public Broadcasting Corporation documentary videos, promotional packets, telephone follow-up to inquiries, presentations, and participating in trade shows and expositions.

Two projects have been identified to appear in the next issue of *GasTIPS*: the Pumper/Well Tender PDA Program for Small Producing Companies (Oklahoma Marginal Well Commission) and Uncovering Bypassed Pay in Central Oklahoma Using Statistical Analysis and Field Tests (Schlumberger Consulting Services).

Interest in the PBS documentary video, “Independent Oil: Rediscovering America’s Forgotten Wells” continues. In this quarter, 52 DVDs were distributed.

The SWC web site (<http://www.energy.psu.edu/swc>) continues to be updated. The “members only” portion of the Web site is now operational; and houses all information not available for public viewing, including all project quarterly and final reports, the ballot for executive council elections, project abstracts, etc.

The electronic newsletter, the *SWC Insider*, is being drafted for distribution. When completed the newsletter will be sent to everyone on the SWC listserv and posted to the SWC Web site.

## **Planned Activities for Next Reporting Period**

During the next quarter the SWC will:

- Draft and release the request for proposals (RFP) for 2007;
- Identify the location and meeting date, and secure the facility, for the 2007 spring proposal meeting;
- Announce election results for the four Executive Council seats for 2007-2008;
- Continue new member recruitment;
- Draft and release another online newsletter; and
- Continue to update and improve the SWC Web site.

## **CONCLUSIONS**

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During this reporting period, the SWC organized and hosted the northeastern U.S. regional Fall SWC Technology Transfer Workshop in Pittsburgh, PA. A revised CD and paper copy of the Texas Tech 2004 full report was distributed. Current and potential members for 2007 were invoiced. The SWC also solicited candidates to serve on the Executive Council for 2007-2008. Two articles on SWC research activities were identified to appear in the next edition of *GasTIPS*. Through these efforts, the SWC has laid a solid foundation for continued membership growth and industry-relevant technology transfer.

## **REFERENCES**

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A listing of referenced materials is required by the DOE for each quarterly technical progress report. However, this technical progress report for the SWC did not utilize any reference materials.

## **APPENDIX A**

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The agenda for the SWC Technology Transfer Workshop held in Pittsburgh, PA on November 9, 2006 is presented in Appendix A.



## **SWC TECHNOLOGY TRANSFER WORKSHOP AGENDA** **Embassy Suites Pittsburgh International Airport Hotel**

550 Cherrington Parkway  
Coraopolis, PA 15108

<b>November 8, 2006</b>	
<b>6:15 – 9:00PM</b>	<b>SWC / GSTC Buffet Dinner / Exhibits</b>
<b>November 9, 2006</b>	
<b>7:15 – 8:00AM</b>	<b>Continental Breakfast and Meeting Registration</b>
<b>8:00 – 8:30</b>	<b>Opening Comments</b>
<b>8:30 – 10:00</b>	<b>Panel 1 – Technical Project Reviews</b>
	<b>Extended Application of a Proven Low Cost Water Mitigation Treatment/Novel Single Stage Water Mitigation Treatment</b> <i>Presenter: Impact Technologies</i>
	<b>Control of Water Production Using Disproportionate Permeability Reduction in Gelled Polymer Systems/Reducing Water Production in Mississippian Reservoirs Using Gelled Polymer Systems</b> <i>Presenter: University of Kansas</i>
	<b>Economic Pumping Technology for Shallow Stripper Wells, Gas Wells and Coalbed Methane Wells</b> <i>Presenter: SmithLift</i>
	<b>New Technology for Unloading Gas Wells</b> <i>Presenter: Colorado School of Mines</i>
<b>10:00 – 10:15</b>	<b>Break</b>
<b>10:15 – 11:15</b>	<b>Roundtable Discussion - Workforce Issues</b>
	<b>Development of an Industry/Academic Education Project</b> <i>Universal Well Services</i>
	<b>Oil and Gas Workforce Needs in PA</b> <i>POGAM</i>

11:15-12:00	<b>Panel 2 - Technical Project Reviews</b>
	<b>Evaluating Casing Plunger Cup Design/Modify &amp; Extend Casing Plunger Technology to Tubing</b> Presenter: PAAL, LLC.
	<b>Demonstration of Hydroslotter Technology of New York Stripper Wells</b> Presenter: Hydroslotter Corp.
12:00 – 1:00	<b>Lunch</b>
1: 00 – 3:00	<b>Roundtable Discussion - The Road to Commercialization, Issues to Consider</b>
	<b>Business Development and Financing Considerations</b> <i>The Gemstone Group</i>
	<b>Patent Considerations</b> <i>Michael A. Ervin, Esq. , M.A. Ervin &amp; Associates, LLC.</i>
	<b>Experiences from Project Participants</b> <i>Brandywine Energy and Development Company</i> <i>Oak Resources</i> <i>SmithLift</i> <i>Tubel Technologies</i> <i>W&amp;W Vacuum</i>
3:00 – 3:20	<b>Break</b>
3:20 – 4:30	<b>Roundtable Discussion - 2006 Projects</b>
	<b>Increased Pumping Capacity and Depth for Airlift System</b> <i>Airlift Services International</i>
	<b>Best Practice Guide to Optimizing Multizone Coalbed Natural Gas Well Completions</b> <i>WellDog, Inc.</i>
	<b>Foam Control for Natural Gas Wells</b> <i>Composite Engineers, Inc.</i>
	<b>Pumper/Well Tender PDA Program for Small Producing Companies</b> <i>Cook Contracting</i>
4:30 – 5:00	<b>Closing Comments/Meeting Adjourned</b>