

Report Title/Type: Seventh Quarterly Technical Progress Report for project entitled "Establishment of an Industry-Driven Consortium Focused on Improving the Production Performance of Domestic Stripper Wells"

Reporting Period: November 1, 2005 – January 31, 2006

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Report Issue Date: April 21, 2006

DOE Award Number: DE-FC26-04NT42098

Submitting Organization: The Pennsylvania State University  
The Energy Institute  
C-211 Coal Utilization Laboratory  
University Park, Pennsylvania 16802-2323

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## ABSTRACT

The Pennsylvania State University, under contract to the U.S. Department of Energy (DOE), National Energy Technology Laboratory (NETL) has 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 consortium creates a partnership with the U.S. petroleum and natural gas industries and trade associations, state funding agencies, academia, and the National Energy Technology Laboratory.

This report serves as the seventh quarterly technical progress report for the SWC. Key activities for this reporting period include:

- Nomination and election of the Executive Council members for the 2006-07 term,
- Finalize and release the 2006 Request for Proposals (RFP),
- Invoice and recruit members,
- Plan for the spring meeting,
- Improving communication efforts, and
- Continue distribution of the DVD entitled: “Independent Oil: Rediscovering American’s Forgotten Wells”.

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## **1.0 INTRODUCTION**

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

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

## **2.0 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 an industry-driven stripper well consortium. Technology development research awards are made on a competitive basis. Therefore, this section is not applicable to the Penn State contracted activities. Technical reports from the individual researchers are required to contain an experimental discussion section and are submitted to consortium members and DOE for their review.

### **3.0 RESULTS AND DISCUSSION**

This report addresses the activities for the reporting period from November 1, 2005 through January 31, 2006. During this time period efforts were directed toward the following activities:

- Nomination and election of the Executive Council members for the 2006-07 term
- Finalize and release the 2006 Request for Proposals (RFP)
- Recruit and invoice membership
- Plan for the spring meeting
- Improving communication efforts
- Continue distribution of the DVD entitled: "Independent Oil: Rediscovering American's Forgotten Wells".

#### **3.1 SWC Executive Council**

In compliance with the SWC by-laws, the nomination and election of Executive Council members were completed. Three new members were elected for a two-year term (2006-2007). The election form is attached as Appendix A. The Council members review incoming proposals, evaluate applicant's technical presentations, and collectively determine the proposals which the SWC will co-fund. The Executive Council members are:

<b>Company</b>	<b>Name</b>	<b>Term</b>
North Penn Pipe & Supply Corporation	Robert Metzger	2006-07
Great Lakes Energy Partners, LLC	Len Paugh	2006-07
University of Kansas	G. Paul Willhite	2006-07
Universal Well Services	William Stoner	2005-06
Energytec	Don Lambert	2005-06
Oak Resources	Ken Oglesby	2005-06
Texas Keystone	Paul Herzing	2005-06
NETL, Gas Technology Management Division	Gary Covatch	standing
NETL, Petroleum Technology Management Division	Daniel Ferguson	standing
New York State Energy Research and Development Authority	John Martin	standing
The Energy Institute The Pennsylvania State University	Joel Morrison	standing

### **3.2 Request for Proposals (RFP)**

The SWC 2006 RFP was drafted and released with proposals due April 4, 2006. The RFP was provided to the SWC membership, posted on the SWC web site, sent to several trade organizations, and sent to a wide variety of companies on the SWC listserv. Proposals were requested in the following focus areas (RFP is provided in Appendix B):

1. Reservoir remediation, characterization, and operations
2. Well-bore clean-up, and
3. Surface and collection optimization

### **3.3 Invoice and Recruit Members**

The SWC continues to expand the awareness of the SWC and the benefits of the consortium. Invoices for the 2006 membership renewals were sent to present members and to those who requested to become a member in December 2005. The SWC is now in dialogue with several potential new or past members. These recruiting efforts will continue throughout 2006.

### **3.4 Spring Meeting**

The spring meeting will be held on April 18-19, 2006 at the Nittany Lion Inn, State College, PA. In addition to hearing presentations from the RFP applicants, a roundtable discussion from professional organizations is planned. Invitations have been issued to the National Stripper Well Association (NSWA), Interstate Oil & Gas Compact Commission (IOGCC), and Independent Petroleum Association of America (IPAA) to address issues such as the needs and trends of the SW industry, promotion of appropriate technology, and how the SWC can address these issues.

### **3.5 Communications**

To add value and create a more user-friendly site, the SWC website has undergone a major redesign and continues to be updated (<http://www.energy.psu.edu/swc>). An electronic newsletter template has also been developed to improve communication between the spring and fall meetings. It is anticipated this newsletter will be distributed 3-5 times per year, in addition to being available on the website.

### **3.6 Independent Oil: Rediscovering America's Forgotten Wells**

The public documentary on the U.S. stripper well industry entitled: "Independent Oil: Rediscovering American's Forgotten Wells" continues to be distributed. A total of 3,500 copies of the documentary were produced on a DVD format. Penn State's Public Broadcast (WPSU) produced this educational documentary and that aired in early 2006. In addition to the WPSU broadcast, numerous SWC members have distributed the DVD in local schools and civic groups. The SWC has received many requests for copies and have almost completely distributed the initial order.

### **3.7 Finalizing the 2006 Calendar**

The SWC continues to finalize the calendar for the upcoming year. Plans are being made for the two fall technology transfer meetings. Expanding the awareness of the Consortium is a priority; therefore the SWC is considering participating in several conferences during the upcoming year.

### **3.8 Upcoming Activities**

During the next quarter the SWC will:

- Organize and host the SWC spring project meeting,
- Finalize the 2006 meeting calendar,
- Begin an e-newsletter,
- Continue web redesign and updates, and
- Continue to build the membership base.

## **4.0 CONCLUSIONS**

The SWC continues to participate in industry related conferences to increase awareness of the SWC and grow the membership. The SWC has laid a solid foundation for technology development and membership growth for the upcoming year.

## **5.0 REFERENCES**

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

## **6.0 APPENDICES**

6.1 Executive Council Election Form - Appendix A

6.2 Request for Proposals - Appendix B

**APPENDIX A:**  
**Executive Council Election Form**



Please complete the following information:

Member Company: \_\_\_\_\_

Contact Name: \_\_\_\_\_

**Indicate your selection of three (3).**

**SWC Executive Council Election Form**

*See the following pages for a brief description of each nominee's experience and/or credentials.*

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

**Return Deadline:** January 10, 2006 (5 PM EST)

**Fax completed form to:** Joel L. Morrison, SWC Director at (814) 863-7432

## **SWC Executive Council Nominees**

### ***Robert Metzgar (North Penn Pipe & Supply, Inc.)***

North Penn Pipe & Supply, Inc. is a wholesale supplier of oil & gas materials in western PA & western NY with 14 employees.

Robert has been in business for 27 years serving the gas fields in western PA & western NY. He is President of North Penn Pipe & Supply with a focus of bringing innovative materials & techniques to the oil & gas fields.

### ***Len Paugh (Great Lakes Energy Partners, LLC)***

Great Lakes Energy Partners, LLC, a subsidiary of Range Resources Corporation, employees over 500 personnel which operate approximately 12,000 stripper wells throughout Appalachia, mid-Continent, Permian and Gulf Coast regions.

Len has 15 years of experience and currently serves as the Operations Manager for PA/WV for Great Lakes Energy Partners, L.L.C. Currently, his responsibilities include all operational matters for over 5,000 stripper wells located in Pennsylvania and West Virginia. In addition, Len is responsible for a \$80M/ yr drilling program in the northeast. Great Lakes Energy Partners operate a wide variety of stripper wells and constantly seeks to identify and implement new technologies to improve the production performance. Len's operational experience will provide the SWC membership with a practical assessment of proposed technologies.

### ***Malcolm Pitts (Surtek, Inc.)***

Surtek has 10 employees that serve 18 countries throughout the world. Mainly it is in US, but country emphasis shifts throughout the year. The main focus is chemical enhanced oil recovery.

Malcolm has been in the industry for 26 years, designing systems for chemical enhanced floods. He has been involved in projects in the U.S., China, Venezuela, essentially throughout the world. He is responsible for managing reservoir evaluation for taking chemical flood to the field and monitoring field performance.

### ***Paul Willhite (University of Kansas)***

The University of Kansas is involved in education of students, research and development and technology transfer in selected areas of emphasis. In petroleum engineering B.S., M.S. and PhD programs are offered. Energy research is conducted by several organizations (Tertiary Oil Recovery Project, Kansas Geological Survey) through the KU Energy Research Center. Technology transfer is done in collaboration with the North Mid-Continent Regional Resource Center of PTTC, jointly sponsored by TORP and KGS.

Paul has been a faculty member of the Department of Chemical and Petroleum Engineering at the University of Kansas for 36 years. As Co-Director of the Tertiary Oil Recovery Project, he has directed research, technology transfer and field demonstration projects involving improved oil recovery processes for over 30 years. He serves as Co-Director of the KU Energy Research Center, which is responsible for developing energy related research at KU. Paul has spent seven years in the Production Research Division of Continental Oil Company involved in thermal recovery research projects. He has served on OTA and NPC studies of the Enhanced Oil Recovery Potential for the U.S. He has also provided occasional technical evaluation on U.S. Department of Energy projects. Paul has a perspective of applied research and development, as well as technology transfer in the area of improved oil recovery processes.

**APPENDIX B:**  
**Request for Proposals**



# THE STRIPPER WELL CONSORTIUM



**Request for Proposals  
For 2006**



**Submission Deadline:  
April 4, 2006 4 pm EST**

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## 2006 REQUEST FOR PROPOSALS FOR THE STRIPPER WELL CONSORTIUM

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### **APPLICANT ELIGIBILITY**

Competition for the Stripper Well Consortium (SWC) funding is open to all current Full and Supporting Members. Proposals submitted by parties not having a current Consortium membership agreement in place will be returned without review.

### **INSTITUTION COMMITMENT**

Each proposal must be signed by an official of the company or university who is authorized to commit the company/institutional resources to the project. The name of the Applicant's authorized official shall be entered in the appropriate space shown on the cover page (Attachment B).

### **RESEARCH FOCUS AREAS**

The mission of the SWC is to assist in the development, demonstration, and commercialization of technologies to improve the production performance of the nation's natural gas and petroleum stripper wells. Proposals are being solicited from the SWC Full and Supporting Members in the following three focus areas:

#### ***Reservoir remediation, characterization, and operations***

Examples include, but are not limited to, the identification of by-passed reservoirs/ zones, stimulation/ recompletion of existing wells, and mitigation/ reduction of water production

#### ***Well-bore clean-up***

Examples include, but are not limited to, dewatering, down hole separation and injection, and removal of solids such as salts, scale, and hydrocarbon precipitation.

#### ***Surface and collection optimization***

Examples include, but are not limited to, disposal/ utilization of solid-liquid waste streams (e.g. brine), surface treatment/ measurement of gas, and pipeline usage/ maintenance and compression.

In 2006, the SWC is seeking to identify new technologies that will have the potential to significantly improve the production from domestic petroleum and natural gas stripper wells or fields, significantly reduce operator costs, or improve the environmental issues typically associated with stripper well operations. Such technologies should have broad applicability to large regions of the U.S. rather than benefit any one single operator.

## **AWARDS**

Awards will be made on an annual basis. Subcontracts will be issued from The Pennsylvania State University to the successful applicant. The period of performance for the 2006 funding cycle will be from July 1, 2006 to June 30, 2007. Members will be permitted to submit future proposals to extend the proposed work; however, this must be performed on an annual basis.

If additional documentation is required prior to issuance of a subcontract, a delay in submission of the July 1 start date may occur.

## **SUBMISSION**

The deadline for receipt of SWC proposals is **April 4, 2006 by 4 PM (Eastern Standard Time)**. Proposals submitted after the deadline will be returned to the applicant without being reviewed. Applicants are to refer to Appendix A (Proposal Checklist) to ensure that their proposal packet is complete. The proposal packet should be submitted to the following address:

Mr. Joel L. Morrison  
Director, Stripper Well Consortium  
The Pennsylvania State University  
C-211 Coal Utilization Laboratory  
University Park, PA 16802-2323

In addition to the proposal, each applicant is required to provide the SWC membership with a nominal fifteen (15) minute presentation on the proposed project at the SWC Spring Meeting. The SWC will hold its 2006 Spring Meeting in State College, Pennsylvania on April 18-19, 2006. Applicants are required to provide their presentation with the submittal of their proposal.

## **PROPOSAL FORMAT**

The format for your SWC proposal follows. The proposal should be on standard 8 1/2" x 11" letter size paper with 1" margins, each copy to be three hole punched and clipped. Please do not staple the proposal. Each page of the proposal should be numbered at the bottom. The type size must be clear and legible, in standard size, 12 points. No smaller than 10 point font size will be accepted with double line spacing.

## **SECTIONS OF THE PROPOSAL**

The proposal shall consist of the following sections in order.

***Proposal Checklist*** See Attachment A

The proposal checklist is required to ensure the proposal submittal is complete and that the applicant is eligible for Consortium funding consideration.

***Cover Sheet*** See Attachment B

The cover sheet along with the executive summary will be distributed to the SWC membership as part of the proposal evaluation process.

***Table of Contents*** One (1) page maximum

***Executive Summary*** One (1) page maximum

Provide a one-page summary of the proposed research. The executive summary should not contain any propriety or business sensitive data because summary will be distributed to the SWC membership along with the proposal cover sheet. An electronic copy of the executive summary is required. The summary will be posted to the SWC and/or program sponsor websites if the Consortium funds the proposal. The summary should be written in the third person and include a statement of objectives and methods to be employed. It should be informative to other persons working in related fields and understandable to a scientifically or technically literate lay reader.

***Technology Overview*** One (1) page maximum

The technology overview section of the proposal enables the applicant to discuss how their proposed technology is different from existing technology that may be available within the industry. At a minimum the following should be discussed:

- Is the technology covered by existing patents, and if so, what are they; and
- How does the proposed technology differ from existing technology?

***Project Description*** Five (5) page maximum

The main body of the proposal should outline the plan of work, including the broad design of activities to be undertaken. At a minimum, the following should be discussed:

- Statement of the problem;
- Has the proposed work, or a portion of the proposed work, been funded elsewhere;
- Objectives and expected significance of the research;
- Statement of the work plan;
- Relation of the proposed work to comparable work in progress;
- Description of available facilities and major items of equipment available for the work; and reference citations.

**Project Schedule** One (1) page maximum  
 A plan that establishes the time schedule for accomplishing the proposed work. The plan should include major milestones of the project in bar chart format and should cover the complete period of performance.

**Anticipated Results** Two (2) page maximum  
 Discuss how the proposed work will help the U.S. stripper well industry and the eventual adoption of the proposed work by industry. At a minimum, the following should be discussed:

- How will the proposed technology significantly improve the production of a given well or region, significantly reduce operating costs, or improve the environmental issues associated with stripper wells;
- What is the commercialization viability of the proposed research; and
- Identify any specific groups that will use the projected results.

**Budget** See Attachment C  
 The submission of a reasonable budget is an important part of the proposal. Your budget may request funds under any of the categories listed on Attachment C provided that the item and amount are considered necessary to perform the work. Proposed equipment expenditures must be justified and are subject to program sponsor approval.

**Cost-Share Commitments**  
 A minimum of 30% cost-share is required. Applicants are encouraged to provide more than 30% cost share. The Executive Council will be tracking the level of cost share provided in each project. Cost share, which may be in the form of cash and third party in-kind, are acceptable as part of the matching if they meet the following criteria:

- Are verifiable, necessary and reasonable for proper and efficient accomplishment of the project;
- Are incurred within the project performance period, previously expended research, development, or exploration costs are unallowable.
- Are not included as contributions for any other federal project, are not paid by the Federal Government under another award, and be otherwise allowable in accordance with applicable Federal cost principles and DOE regulations governing cost sharing.
- The value of patents and data contributed to the project is unallowable as cost sharing.

All cost-sharing commitments must be supported by appropriate documentation. Failure to provide appropriate documentation can result in the proposal being returned without review.

**Biographical Sketches** One (1) page per person maximum  
 Each vitae should include educational background, professional experience, research interest, honors and professional activities.

**Project Team** One (1) maximum  
All collaborations with individuals not included in the budget should be described and documented with a letter from each collaborator.

**Letters of Support**  
Letters of support from outside sources are encouraged.

### **TREATMENT OF PROPRIETARY INFORMATION**

Privileged or confidential commercial or financial information that the applicant does not want disclosed to the public or used by the Government for any purpose other than application evaluation, should be specifically identified by page on the proposal cover sheet.

### **PROPOSAL EVALUATION PROCESS**

The SWC Executive Council will review and select projects for SWC funding. The SWC Director will notify all applicants within thirty (30) days of the SWC Executive Council meeting, by letter, of the final decision regarding their proposals. The decision of the Executive Council is final and not subject to reconsideration or appeal.

### **REALLOCATION OF FUNDS/ PROJECT MODIFICATIONS**

Recipients of SWC Awards will have substantial discretion to reallocate funds should changing conditions demand it. Requests for budget revisions and/or project extensions shall be submitted in writing to the SWC Director.

### **ADDITIONAL INFORMATION**

Additional questions should be forwarded to the SWC Director. Questions should be submitted via e-mail to [swc@ems.psu.edu](mailto:swc@ems.psu.edu) or contact Mr. Joel Morrison at (814) 865-4802.

**ATTACHMENT A – PROPOSAL PACKET CHECKLIST**

I certify that:

- I am a current Full member of the Stripper Well Consortium
- I am a current Supporting member of the Stripper Well Consortium

Project Title: \_\_\_\_\_

Principal Investigator (PI): \_\_\_\_\_

To assure that your application is complete, please complete and paper clip (one copy only) the proposal packet checklist to the cover sheet of the original (signed) copy of the proposal. Be sure the following items are included in the following order.

- \_\_\_\_\_ Cover page completed and signed by PI and authorized representative
- \_\_\_\_\_ Executive Summary (one page maximum)
- \_\_\_\_\_ Technology Overview (one page maximum)
- \_\_\_\_\_ Project Description (five page maximum)
- \_\_\_\_\_ Project Schedule (one page maximum)
- \_\_\_\_\_ Anticipated Results (two page maximum)
- \_\_\_\_\_ Budget (Using Attachment C budget template)
- \_\_\_\_\_ Cost-Share Commitments
- \_\_\_\_\_ Biographical Sketches (one page/ person maximum)
- \_\_\_\_\_ Project Team (one page maximum)
- \_\_\_\_\_ Letters of Support
- \_\_\_\_\_ Required number of copies (original + 12)
- \_\_\_\_\_ Electronic copy of proposal (pdf, if possible)
- \_\_\_\_\_ Electronic copy of the Executive Summary (pdf, if possible)
- \_\_\_\_\_ Proposal presentation (15 minute presentation, PowerPoint encouraged)

*Visit the SWC web site - <http://www.energy.psu.edu/swc> to download this and other SWC documents.  
Last modified on January 18, 2006*

**ATTACHMENT B – PROPOSAL COVER SHEET**

Proposal Submitted to: Mr. Joel Morrison  
Director, Stripper Well Consortium  
The Pennsylvania State University  
C-211 Coal Utilization Laboratory  
University Park, PA 16802-2308

Proposal Deadline: April 4, 2006 (4:00 PM EST)

Date of Submission \_\_\_\_\_

Title of Proposal: \_\_\_\_\_  
\_\_\_\_\_

Company Name: \_\_\_\_\_

Principal Investigator: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Other Participants: \_\_\_\_\_

Amount Requested from SWC \$\_\_\_\_\_

Cost Share Commitments \$\_\_\_\_\_  
(Minimum 30% Required)  
Cash \$\_\_\_\_\_  
In-Kind \$\_\_\_\_\_

Total Project Costs \$\_\_\_\_\_

*Visit the SWC web site - <http://www.energy.psu.edu/swc> to download this and other SWC documents.*  
*Last modified on January 18, 2006*

PROPRIETARY INFORMATION: Does this proposal contain Proprietary or Confidential Information?

NO       YES (if yes, complete box below)

***Notice of Restrictions on Disclosure and Use of Data***

The data contained on pages \_\_\_\_\_ of this proposal are submitted in confidence and contain privileged or confidential commercial and/or financial information. Such data may be used or disclosed only for evaluation purposes. If funded, the Government would have the right or use or disclose data from this project to the extent provided the DOE/PSU Cooperative Agreement. This restriction does not limit the Government's right to use or disclose data obtained without restrictions from any source, including the proposer.

Submitted by:

Approved by:

---

Signature of PI

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Authorized Representative

## **ATTACHMENT C – BUDGET**

### Salaries and Wages

List individually all personnel identified in the proposal.

Include title and percent of effort

NOTE: The use of undergraduate and graduate students is encouraged, and appropriate.

The basis for proposed percent of effort or labor hours should be identified (historical hours, engineering estimates).

Name of PI: \_\_\_\_\_

### REQUESTED SWC

### COST-SHARE

\$ \_\_\_\_\_ \$ \_\_\_\_\_

### Fringe Benefits

\$ \_\_\_\_\_ \$ \_\_\_\_\_

### Materials and Supplies

List types required and estimated costs.

NOTE: State whether amounts proposed are based on catalog prices or other cost estimating.

\$ \_\_\_\_\_ \$ \_\_\_\_\_

### Equipment

Items exceeding \$5,000 and 1 year's useful life are defined as permanent equipment. List item and dollar amount for each amount. Justify and/or provide quotation.

\$ \_\_\_\_\_ \$ \_\_\_\_\_

### Travel (see Note 4)

State the type and extent of travel and its relation to the project. Itemize by destination and estimated costs.

\$ \_\_\_\_\_ \$ \_\_\_\_\_

### Publication/Information Dissemination

Estimate costs of documenting, preparing, publishing and sharing research findings. Show estimates.

\$ \_\_\_\_\_ \$ \_\_\_\_\_

### Other Direct Costs

Itemize and justify. (\*See note below)

\_\_\_\_\_

\$ \_\_\_\_\_ \$ \_\_\_\_\_

\$ \_\_\_\_\_

\$ \_\_\_\_\_

### Facilities and Administration (F&A)

Specify current rate(s) and base.

Note: A copy of the negotiated agreement should be included with the proposal. If none exists, a disclosure of the contents of the rate should be made.

\$ \_\_\_\_\_ \$ \_\_\_\_\_

TOTALS

\$ \_\_\_\_\_ \$ \_\_\_\_\_

**Attach up to two additional pages of justification covering all items.**

**\*NOTES:**

- 1) If more than 5% of project cost is from SWC funding the contracting organization must be a Full or Supporting Member of the SWC.
- 2) Subcontracts to current consortium members must be less than 50% of the requested SWC funding. Budgets and work statements from each subcontractor, in the format above, should be included.
- 3) Fees or profits will not be paid on any award resulting from this solicitation. Nor can fee or profit be considered as cost-sharing.
- 4) The Stripper Well Consortium will host two technology transfer workshops during the last quarter of 2006. The workshops will be held in the eastern (Pennsylvania/ New York/ West Virginia region) and southern US (Oklahoma City, OK). Recipients of SWC funding are required to provide a presentation on the status of their project at both the eastern and southern technology transfer meetings if requested. The costs of attending these SWC technology transfer meeting are to be included in the travel budget. Supporting members are required to pay a meeting registration fee for these meetings.