Petroleum Technology Transfer Council
Semi-Annual Technical Progress Report

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[See attached disclaimer and list of participating subcontractors]

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PETROLEUM TECHNOLOGY TRANSFER COUNCIL
SEMIANNUAL TECHNICAL PROGRESS REPORT
FIRST HALF OF FY99

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III. RESULTS AT THE REGIONAL LEVEL

I. INTRODUCTION

Following a series of studies in the early 1990s, industry and government energy experts recognized the urgent need for improved technology transfer processes for the U.S. upstream petroleum industry. As a result, domestic oil and natural gas producers established the Petroleum Technology Transfer Council (PTTC), a national non-profit organization, in 1994.

During its initial years, PTTC focused its efforts on building an effective, producer-driven national organization with strong regional resources for delivering technology to industry. During FY98, PTTC spent significant effort developing a business plan for the long-term that reflected market realities. During this reporting period, the 1st half of FY99, PTTC has been implementing and refining that plan.

Activity in the regions, as shown in Table 1, continues to increase. In addition, PTTC is developing technical information products and an active communications program exists. In the midst of this activity, PTTC developed and successfully implemented an Industry Crisis Action Plan to help independents through the recent oil price crisis. These efforts were mainly conceived and carried out by the ten Producer Advisory Groups (PAGs) and the Regional Lead Organizations (RLOs).

Table 1 – Continued Growth in PTTC's Regional Activities

Time Period	# of workshops	Attendance	Industry Contacts
FY96	46	3,801	
FY97	62	3,176	5,482
FY98	100	4,429	10,241
1 st Half FY99	64	2,926	5,201
% increase as compared to 1 st Half FY98	12%	30%	18%

This report covers PTTC's technical progress during the 1st half of FY99, and illustrates its increasing impact on the independent oil and gas producing industry. While PTTC is nationally-organized, its activities and programs are regionally-focused. Therefore, this report documents results in two parts. Chapter II presents PTTC's progress at the national level. Chapter III presents progress at the regional level, as reflected in PTTC's internal quarterly report for the 2nd Qtr of FY99 (with some updates to planned activities). Activity listings within Chapter III list both FY98 and the first half of FY99 activities, as well as plans for the remainder of FY99.

II. RESULTS AT THE NATIONAL LEVEL

The Petroleum Technology Transfer Council (PTTC) implements industry's directives through both its national and regional programs. The role of the national headquarters (HQ) organization includes planning and managing the PTTC program, conducting nation-wide technology transfer activities, and implementing a comprehensive communications effort.

A. Planning and Managing the PTTC Program

There are many aspects of planning and managing the overall program. The financial aspects are documented in a separate Financial Report to DOE, which is submitted quarterly. This section focuses on the role of the Board of Directors, oversight of regional programs, problem identification, and evaluating program effectiveness.

1. Board of Directors

Twenty industry volunteers serve on PTTC's Board of Directors representing the ten regions, various national organizations, and three technology-related professional societies. The Board also includes one representative each from the major companies and the petroleum service industry. During the first half of FY99, PTTC's Board met twice: (1) on December 8, 1998 in Salt Lake City, jointly with the RLO Directors and (2) on March 30, 1999 in Chicago.

In the December 1998 meeting, Bob Gallagher, Special Assistant to DOE Assistant Secretary of Fossil Energy updated the PTTC Board on DOE's efforts to take immediate action to help independents. The Board also: (1) approved the FY99 budget, (2) implemented an "Industry Crisis Action Plan" in response to the oil price crisis, and (3) discussed implementing PTTC's business plan. The major element of the Industry Crisis Action Plan required all PAGs to review FY99 activity plans, and, if necessary, refocus them on industry's survival needs. As a result, special activities were held in nine of 10 regions during early 1999.

The Board adopted a Guide for Professional and Ethical Conduct, providing guidance for all involved with PTTC and communicating to industry a commitment to unbiased interactions. Also, recognizing the need to further clarify and simplify the mission statement, the Board adopted the following revised mission statement.

"PTTC benefits the nation by helping U.S. independent oil and natural gas producers make timely, informed technology decisions."

During the March meeting, hosted by the Gas Research Institute, the Board: (1) ratified three new Board members and approved the slate of Officers and Committee Members recommended by the Nominating Committee, (2) adopted a conflict-of-interest policy that was recommended by PTTC auditors, and (3) reviewed staff updates on ongoing national and regional programs. In addition, Kathy Chapman, PTTC's Financial and Contracts Manager, noted that nine of 10 regional subcontracts had been extended through April 2003, and that more information was being solicited from the Texas PAG and RLO before proceeding with contract extension.

2. Oversight of Regional Programs

HQ has oversight responsibility of the regional programs, to ensure that they are effectively serving industry and implementing the annual plans approved by the PAGs and Board. During this reporting period, HQ staff worked with all regions, but especially with the Appalachian and Texas regions.

In the Appalachian Region, HQ staff coordinated discussions between the PAG, RLO Director, and with the New York State Energy Research and Development Authority (NYSERDA) about potential joint efforts that might help PTTC better achieve its mission, possibly through a regional newsletter. The PAG, RLO, and NYSERDA are evaluating the feasibility of this joint effort.

In the Texas Region, there have been certain unresolved issues concerning the program's effectiveness and the responsibilities and allocation of funds between the RLO (Bureau of Economic Geology) and its outreach subcontractor (TIPRO). Realizing that these issues must be addressed before extending the RLO subcontract through April 2003, PTTC's Management & Budget (M&B) Committee and HQ staff have been interacting with the Texas PAG and RLO to gather additional information. Progress is being made, but issues are not yet resolved at the end of the reporting period.

3. Problem Identification

From June to December 1998, PTTC conducted a national survey (through mailings, website, workshops, trade show booths) asking industry to rank their technology needs of high, medium, or low interest. PTTC is still analyzing the resulting trends compared to other industry problem identification and needs assessment efforts. The results, along with insights from related efforts, are expected to be released during June or July 1999.

Late in 1998, PTTC was approached by Concurrent Technology Corporation (CTC), a non-profit corporation funded under a Department of Defense grant, about transferring technology from the national labs to the independent producer segment of industry. CTC mainly transfers military technology to industry, focusing on technologies that exist now or could be easily adapted. PTTC solicited independents interested in being interviewed by telephone about their needs. CTC has completed over 20 extended phone interviews and is analyzing the responses. Insights will be considered as PTTC summarizes its problem identification survey findings. CTC is actively looking for technology matches, and finding encouraging possibilities in some areas. PTTC will continue to coordinate with CTC as their project progresses.

4. Evaluating Program Effectiveness

During this reporting period, PTTC took two actions which should enhance its ability to evaluate program effectiveness.

First, to improve the meaningfulness of website statistics, PTTC evaluated which parameters of industry usage are most important for its regions, as well as the national website, and, then selected a software package, WebTrends, that would provide those minimum statistics. Beginning with FY99, HQ requested that regions report website statistics using the WebTrends package.

Second, HQ developed “standardized questions” for workshop feedback forms that should enable PTTC to more effectively determine how its efforts are impacting industry. Regions began incorporating these standardized questions, along with questions of regional interest, in their workshop feedback forms in January 1999. HQ receives a copy of all the evaluation forms, which provide valuable feedback about the regional programs.

B. Conducting National-Level Technology Transfer Activities

Although most of PTTC’s technology transfer activities occur in the regions, the HQ staff has increasing opportunities and responsibilities in this area. There are several mechanisms that HQ uses for this function: (1) through technology alerts and field results articles in *PTTC Network News*, (2) by responding to inquiries received through the national level, (3) by developing and implementing the Emerging Technologies Energy Conference (ETEC), (4) by coordinating PTTC activities with DOE’s oil and gas R&D programs and those of other national organizations, and (5) by developing technology/case study products.

1. Newsletter Articles and Alerts

Technology information is received from multiple sources for *PTTC Network News*. About half of the material comes in response to solicitations that HQ sends quarterly to a group of technology providers who regularly contribute information. Jeff Lenard, PTTC Communications and Marketing Manager, and the other newsletter staff screen the submissions to decide which material will be of greatest interest to independent producers. Often, focus is on information/data products or recent reports describing R&D advances.

The 4th Quarter 1998 issue highlighted ETEC ’98 technology presentations, as well as PTTC’s new Software Sampler CD-ROM, and a foamed cement case study. The 1st Quarter 1999 issue featured various elements of DOE’s Emergency Action plan, insights from regional workshops conducted as part of PTTC’s Industry Crisis Action Plan, and a case study of a unique product for cleaning up small oil spills.

2. Answering National Inquiries

On average, the HQ office receives 3 to 5 technical inquiries per week. These are forwarded to the appropriate RLO staff when (1) the inquiry is specific to a given region or (2) specialized expertise is known to exist within the regional resource center. HQ staff responds directly to about two-thirds of the inquiries, in some cases, using information specialists within the regions to assist them. Many inquiries received through the website are from individuals located internationally. In most cases, referrals are made to other individuals or organizations with more expertise.

Often, vendors with new products/services contact HQ staff. If the technology is supported by field data and perceived to be of interest to independent producers, HQ staff develops technology alerts for *PTTC Network News* and encourages them to develop and submit case studies.

3. Emerging Technologies Energy Conference (ETEC)

ETEC ’97, co-sponsored by PTTC, Cambridge Energy Research Associates and the Independent Petroleum Association of America (IPAA), in Houston, Texas, was very well received by industry. In 1998, PTTC worked with IPAA to develop ETEC ’98, held November 12th in New Orleans. In addition to the information technology presentations

(organized by IPAA), ETEC '98 included four producer-service company case studies selected by PTTC, and a special presentation on technology trends by Halliburton Energy Services. Not unexpectedly, considering the industry crisis, ETEC '98 attendance was lower than for ETEC '97.

Due to several factors, an ETEC conference is not planned during 1999 or 2000. Travel to national meetings is becoming increasingly difficult for many producers. Also, IPAA has some concerns about scheduling ETEC around its annual meeting, since it makes the overall meeting longer. Consideration was given to holding ETEC around the North American Prospect Expo (NAPE), but the same concerns existed.

PTTC will pursue, for FY2000, cooperating with professional societies and other groups in holding regional meetings, technical sessions, or conferences. Maximum effort will be put forth to continue the uniqueness of the ETEC format in other settings. Longer-term, PTTC and IPAA may decide to hold periodic ETEC events depending on the level of interest in National conferences.

4. Coordinating with DOE and Others

When staff from DOE's oil and/or gas programs approach PTTC about featuring DOE-funded R&D advances in regional projects, it is the responsibility of PTTC National Project Manager, Lance Cole to serve in a coordinating role with the RLOs. During this reporting period, two series of workshops were developed.

Researchers involved in Hughes Eastern's microbial class project approached several regions about holding workshops featuring their project results. Sensing that independent producers needed a broader background, Cole worked with the researchers, DOE, and other microbial technology providers to develop a wider scope for the sessions. Workshops are being held in June 1999 in the Appalachian and Texas regions.

In another effort, three PTTC regions – Appalachian, Midwest, and Texas – are hosting workshops about deliverability enhancement techniques for gas storage wells. The program, developed by Advanced Resources International for DOE, presents results from a FETC multi-year project to advance stimulation technology. Workshops are planned during August.

In addition, PTTC actively coordinates with DOE's Natural Gas and Oil Technology Partnership (NGOTP). Lance Cole attended project review meetings held in Houston in November 1998. PTTC regularly seeks input from the national labs for *PTTC Network News*. In its March 1999 meeting, PTTC's Board created an unofficial liaison position to strengthen connections with the national labs and to serve as PTTC's official representative to the National Advisory Group of the Federal Lab Consortium. This position will be offered to Board members whose terms are ending as "immediate past chairs." Chris Hall recently accepted the responsibility of serving in this role.

PTTC actively promoted DOE's "Technology Development with Independents" program to industry, both through national communications and regional efforts. PTTC's active encouragement and explanation of the process is believed to be responsible for several proposals that were submitted to DOE. As awards are made and results become available, PTTC will work with DOE to leverage technology transfer results from these projects.

As part of PTTC's Industry Crisis Action response, HQ co-sponsored a seminar, "How to Build a Company as An Independent and Survive Difficult Times," held by the Society of Independent Professional Earth Scientists (SIPES) Foundation preceding the SIPES annual meeting in Wichita, Kansas, in March 1999. The personal connections with SIPES established through this effort should create future opportunities for cooperation.

5. Developing Technical Products

As part of its new marketing plan, PTTC is making every effort to identify and develop technical products that are useful to independents. At ETEC '98, PTTC released its first "Petroleum E&P Software Sampler" on CD-ROM. The national PTTC office subcontracted with Dr. Sandra Mark of the Rocky Mountain region to develop this unique product. It includes an overview of 50 upstream software packages of use to independents. PTTC is selling the sampler for \$10 per copy.

During ETEC '98, PTTC and the staff of Gulf Publishing began discussions that led to the announcement in January of an agreement to jointly develop a case study digest. Titled "Petroleum Technology Digest," it will be distributed to *World Oil's* North American readers as a supplement to its September 1999 issue. Working with industry, PTTC is developing the case studies. Gulf Publishing has responsibility for layout, advertising, publishing, and distribution. As part of the agreement, PTTC has begun a quarterly column in *World Oil* about technology issues of interest to independents.

Another product that will be released soon is an updated version of "The Best of PTTC Workshops" report, originally issued in May 1996. It will include summaries of 30 regional workshops held since 1996.

C. Implementing a Comprehensive Communications Program

There are various aspects to PTTC's communication program – ranging from newsletters and press releases to exhibits, brochures, websites, technical reports, etc.

PTTC's 16-page newsletter, *PTTC Network News*, is published quarterly. During this reporting period, the 4th Quarter 1998 issue was distributed in late December 1998, and the 1st Quarter 1999 issue was distributed in late March. The current distribution is approximately 8,500 copies, of which 7,000 are on PTTC's mailing list. (Approximately 53% of these mailing addresses are those of independents.) The remaining 1,500 copies are distributed at trade shows and through the RLOs.

From October 1998 through March 1999, a total of 38 PTTC press releases were issued by HQ, and posted on PTTC's national website. Of these, 7 were distributed nationally:

- "Case Studies to Highlight Producer/Vendor Success Stories" (10/16/98)
- "Handbook Updated for Louisiana, Mississippi Oil & Gas Producers" (10/29)
- "New CD-ROM Targets Independent Producers' Software Needs" (11/12)
- "Technology Is Key -- But Not the Only Driver -- in Petroleum Production" (11/13)
- "Industry Crisis Action Plan' Launched for U.S. Independent Producers" (12/7)
- "*World Oil* magazine and PTTC Form Alliance: Focus on Technologies for Independent Producers (1/27/99)

“Proven Strategies from Independent Oil & Gas Producers Is the Focus of Upcoming Seminar” (2/3 - a cosponsored meeting with SIPES Foundation on 3/3 in Wichita)

The other 31 press releases were distributed to regional media to promote upcoming workshops that were sponsored or cosponsored by PTTC’s regional resource centers. PTTC also worked with several reporters to pitch story ideas or provide contacts for articles that were under development, particularly for ETEC ’98

PTTC maintains a clipping file of newspaper and trade publication articles that were based on PTTC’s outreach efforts. An initial media report was developed to cover the period from July 1 to December 31, 1998. The next report will summarize media activities through June 30, 1999. A comparison and analysis of these reports will not be conducted until later this year. However, from January through May 1999, there already has been an increase (when compared to the prior six-month period) in the number of press releases distributed by PTTC, as well as the number of articles printed mentioning PTTC, and the number of publications reporting on PTTC activities.

A key part of PTTC’s communication program involves its 11 websites (the national and 10 regional sites). The HQ staff is working with the RLO Directors and their webmasters to analyze ways to integrate the system more effectively. An updated version is expected to be released by the end of the year.

Finally, PTTC updated its logo, slogan (Technology Connections), stationery, etc. A new tri-fold brochure was printed in November that has been widely distributed describing the PTTC program.

III. RESULTS AT THE REGIONAL LEVEL

Although nationally-organized, PTTC's ten regions are the primary delivery mechanism for technology transfer programs to industry. It is in the regions where PTTC reaches independent producers through workshops, resource centers, information resources, websites, newsletters, and personal contacts. Primary statistics illustrating the volume, and inferred impact, of PTTC activity are summarized below.

SUMMARY OF PTTC REGIONAL ACTIVITY (2nd QUARTER—FY99)

Region	Workshops		Industry Contacts	Website (mo. Avg.)		Newsletter Function
	No.	Attendance		User Session	Page Views	
Appalachian	2	65	111	747	1,278	Periodic columns in association newsletters
Central Gulf	3	144	160	1,793	3,581	Column in LIOGA newsletter (3/99)
Eastern Gulf	2	74	165	1,288	2,887	Quarterly Newsletter – circ. 600 (3/99)
Midwest	3	136	277	753	1,467	Semi-annual –circ. 2700—not this qtr
N. Midcontinent	4	347	873	5,674	27,151	Quarterly Newsletter –circ. 4600 (1/99)
Rocky Mountain	9	363	390	1,517	5,973	Quarterly Newsletter – circ. 950 (2/99) RMAG column (3/99)
S. Midcontinent	3	234	328	2,864	Not Avail.	Quarterly Newsletter—over 8000 (4/99)
Southwest	1	35	45	Damaged server log		Semi-annual newsletter w/ PRRC—not this qtr; On-line Regional Review
Texas	1	20	190	Not yet reported		Newsletter to start later this year
West Coast	5	235	308	505	8,308	Quarterly to 3,800—not this qtr; on-line technical column (Val's Tech Talk)
All Regions This Qtr	33	1,653	2,847			
All Regions 1st Half FY99	64	2,926	5,201	FY99 1st Half as Compared to FY98 1st Half No. of workshops 12% increase Workshop attendance 30% increase No. of contacts 18% increase		
All Regions 1st Half FY98	57	2,247	4,411			
All Regions Total Yr FY98	100	4,429	10,241			

PTTC 2 nd Qtr FY99 Industry Crisis Activities			
Region	Activity	Location	Date
West Coast	<i>Managing Oilfield Operations Under Adverse Economics</i>	Bakersfield, CA	1/21/99
Appalachian	<i>PTTC speaker at IOGA meeting</i>	Knoxville, TN	1/21/99
Midwest	<i>Low Oil Prices: Pricing, Legal Issues, Electrical Cost Reduction, Exchange Ideas</i>	Grayville, IL	1/22/99
West Coast	<i>**Managing Oilfield Operations Under Adverse Economics</i>	Long Beach, CA	1/22/99
Midwest	<i>Low Oil Prices: Pricing, Legal Issues, Electrical Cost Reduction, Exchange Ideas</i>	Mt. Vernon, IL	1/29/99
Texas	<i>Open discussion group following TIPRO Tuesday Luncheons</i>	Houston, TX	Start 2/2/99
Rocky Mountain	<i>Coal Bed Methane Opportunities (SPE/MT Geological Society)</i>	Billings, MT	2/16-17/99
North Midcontinent	<i>Best Practices for Production Shut-Down</i>	Wichita, KS	2/23/99
North Midcontinent	<i>**Best Practices for Production Shut-Down</i>	Iola, KS	2/25/99

North Midcontinent	<i>Best Practices for Production Shut-Down</i>	Hays, KS	3/2/99
National – Cosponsor seminar w/ SIPES)	<i>**How to Build a Company as an Independent and Survive Difficult Times</i>	Wichita, KS	3/10/99
Rocky Mountain	<i>Best Practices for Production Shut-Down (w IPAMS)</i>	Denver, CO	3/12/99
Appalachian	<i>**Optimizing Production and Operating Efficiency of Existing Wells (by Ohio Geological Survey, with Ohio O&G Assoc.)</i>	Columbus, OH	3/23/99
Central Gulf	<i>Power Cost Reduction Methods in Oil & gas Field Operations</i>	Lafayette, LA	3/24/99

****Attended by HQ staff for national perspective of impact.**

Information from Midwest, North Midcontinent, and West Coast crisis workshops developed in article for *PTTC Network News* (4/99) and column in *World Oil* (6/99).

Appalachian Region

FY98 History AND FY99 Attendance/Plans					
TECH, SOFT, or OTHER	PTTC or Cosponsor	Topic (cosponsors)	Location	Date	Total Attend.
SOFT	Cosponsor	Software Fair (w IOGA-PA)	Pittsburgh, PA	11/18-19/97	69
TECH	Cosponsor	Horizontal Drilling in Appalachian Hardrock (w SPE/DOE)	Pittsburgh, PA	11/20/97	42
TECH	PTTC	Advanced Technologies for Managing Produced Water in Wells (by Ohio Geologic Survey)	Columbus, OH	3/10/98	46
TECH	PTTC	Applications of Advanced Geophysical Technology in Appalachian Basin	Morgantown, WV	5/12/98	34
TECH	PTTC	Advanced Well Logging Techniques in the Appalachian Basin (KY Geologic Survey)	Lexington, KY	6/29/98	20
TECH	PTTC	Methods of Geographic Analysis	Morgantown, WV	7/8/98	18
TECH	PTTC	Coiled Tubing (by WVU Petroleum Engineering)	Morgantown, WV	8/20/98	27
TECH	PTTC	Geographic Information Systems (by KY Geologic Survey)	Lexington, KY	8/28/98	28
TECH	PTTC	Sequence Stratigraphic Analysis (by PA Geol S.)	Pittsburgh, PA	9/10/98	63
Total FY98 Attendance (78% or 270 of 346 from industry)					346
SOFT	PTTC	Generating Prospects Using a PC-Based Program	Morgantown, WV	11/12/98	
TECH	PTTC	Secondary Gas Recovery—A Case Study, Henderson Dome, Pennsylvania	Pittsburgh, PA	11/19/98	38
SOFT	Cosponsor	Geological/Geophysical Mapping for the 21 st Century	Morgantown, WV	3/2/99	15
TECH	PTTC	Optimizing Production and Operating Efficiency of Existing Wells (by Ohio Geol. Survey)	Columbus, OH (may hold in KY)	3/23/99	50
TECH	PTTC	Wireline Logging & New Technologies for the Appalachian Basin	Morgantown, WV	4/7-8/99	
TECH	PTTC	Affordable Geophysics for Tough Times	Morgantown, WV	5/18/99	
SOFT	PTTC	Creating Presentations and Protecting Your Investment in Hardware, Software, and Data	Morgantown, WV	5/25/99	Cancelled
TECH	PTTC	Microbial Options for Increasing Oil Recovery	Zanesville, OH	6/21/99	
SOFT	PTTC	Mining Data from the Worldwide Web and Useful Shortcuts (Kentucky Geological Survey)	Lexington, KY	6/26/99	
TECH	PTTC	Expanding the Petroleum Potential of the Appalachian Basin (PA Geological Survey)	Pittsburgh, PA	8/18/99	
TECH	Cosponsor	New and Novel Fracture Stimulation Technologies for Revitalization of Existing Underground Gas Storage Wells (ARI/DOE)	Pittsburgh, PA	8/23/99	
SOFT	PTTC	How to Make a Web Page	Morgantown, WV	9/28/99	
TECH	PTTC	Coal Bed Methane Production and Potential (by Kentucky Geological Survey)	Lexington, KY	9/99	

Contacts: 111 (20 PTTC-initiated) **Website:** 747 user sessions, 1278 page views, 10 min. avg

Outreach: SPE/AGS meeting (Bridgeport, WV on 2/9); AGS/PAPG meeting (Morgantown, WV on 3/2); OOGA meeting (Columbus, OH on 3/24); AAPG (Tulsa, OK in 3/99)

Workshops: Microbial (6/21) and gas storage stimulation (8/23) workshops feature DOE results.

Case Studies: The region's crisis workshop on 3/23 in Columbus focused on realizing upside potential, not dwelling on cutting costs or shutting-in wells. Topics included: moving domain analysis for identifying restimulation and infill drilling candidates; restimulation programs; identifying uphole/behind-pipe reserves and field results from an uphole recompletion program; experience with no-proppant fracturing and other production enhancement opportunities.

Central Gulf Region

FY98 History AND FY99 Attendance/Plans					
TECH, SOFT, Or OTHER	PTTC or Cosponsor	Topic (cosponsors)	Location	Date	Total Attend.
TECH	PTTC	Internet for the Petroleum Professional	Shreveport, LA	12/2/97	49
TECH	Cosponsor	Innovations in E&P (w LSU BRI)	New Orleans, LA	1/22/98	138
TECH	PTTC	Internet for the Petroleum Professional	Monroe, LA	2/10/98	38
TECH	PTTC	Enhanced Production Methods	Lafayette, LA	6/24/98	46
TECH	PTTC	Internet for the Petroleum Professional	Lafayette, LA	7/8/98	25
SOFT	PTTC	Boast 3-PC	Baton Rouge, LA	8/20/98	6
Total FY98 Attendance (89% or 269 of 302 from industry)					302
TECH	PTTC	Power Cost Reduction Methods in O&G Opns	Shreveport, LA	10/13/98	27
TECH	Cosponsor	Technology + Creativity=Winning Solutions in E&P (rescheduled for Houston on 10/7-8/99)	New Orleans, LA Rescheduled	1/14- 15/99	
OTHER	Cosponsor	Y2K Issues (w LIOGA)	Lafayette, LA	3/16/99	56
TECH	PTTC	Power Cost Reduction Methods in O&G Opns	Lafayette, LA	3/24/99	24
TECH	Cosponsor	Optimization of Gas Well Completion & Production Operations (w/SPE)	New Orleans, LA	3/30/99	64
TECH	Cosponsor	Optimization of Gas Well Completion & Production Operations (w/SPE)	Lafayette, LA	5/18/99	
TECH	PTTC	Coalbed Methane Conference	Baton Rouge, LA	6/3/99	
TECH	PTTC	Enhanced Production Methods	New Orleans, LA	6/99	
TECH	Cosponsor	Coiled Tubing Operations & Safety Practices (Westport/DOE)	Lafayette, LA	7/20/99	

Contacts: 160 (19 PTTC-initiated) **Website** (monthly average): 1793 user sessions, 3581 page views, 8 1/2 min.

Newsletter: Half-page Ad about Power Cost Reduction Methods in March 99 LIOGA newsletter

Products: Introduced 1999 Version of Louisiana Desktop Well Reference CD at LIOGA Annual Meeting; have sold 7 CDs, plus 8 Louisiana Environmental Handbook CDs

Outreach: Visits with operators—SMK Energy's Bayou Henry Field, Texaco's West Cote Blanche Bay Field, Breaux Bridge Gauging Services' Happytown Field. Exhibits at LIOGA Annual Meeting (3/14-16) and North American Prospect Expo (Houston, 1/28-29)

Significant Technical Contacts:

- Downhole Water Sink Consortium: Provided information to IPAA for newsletter; one-day meeting at LSU with six companies; invited presentations in Venezuela.
- Meetings with operators: (1) In Jena, LA about chemical treatments for scaling problems in four nearby fields; (2) LSU petroleum engineering with Pinnacle Operating Company to help them identify IOR methods for Cotton Valley reservoirs.

Crisis Spinoff (primarily LSU Center for Energy Studies role): (1) At Governor's request, reviewed 45 recommendations to him from industry for response to the oil price decline; (2) testimony before State Mineral Board on crisis action plan that Board could initiate; (3) met with eight operators regarding possible administrative changes; (4) met with legislators in regard to redefining stripper wells for tax purposes; (5) telephone consultation with Oklahoma Marginal Well Commission and some Oklahoma legislators relative to Louisiana Act 2 wells passed in Louisiana.

Eastern Gulf Region

FY98 History AND FY99 Attendance/Plans					
TECH, SOFT, Or OTHER	PTTC or Cosponsor	Topic (cosponsors)	Location	Date	Total Attend.
TECH	PTTC	Advanced Drilling Technologies	Jackson, MS	11/5/97	23
TECH	Cosponsor	Information and Computer Workshop on the Mississippi Interior Salt Basin (DOE NPTO)		11/6/97	11
TECH	Cosponsor	Appleton Field Case Study (ADECA)	Tuscaloosa, AL	3/3/98	29
TECH	PTTC	Carbonate Reservoir Characterization & Modeling	Jackson, MS	3/4/98	72
TECH	PTTC	Carbon Dioxide Flooding	Jackson, MS	3/13/98	25
SOFT	PTTC	Rodstar & Its Application to Coalbed Methane	Tuscaloosa, AL	4/29/98	7
TECH	Cosponsor	Reef Characterization: Key to Successful Petroleum Exploration & Production (ADECA)	Tuscaloosa, AL	5/7/98	86
TECH	PTTC	Advances in Heavy Oil Recovery	Jackson, MS	7/15/98	26
TECH	Cosponsor	Geology and Geologic Mapping (w Alabama Geological Society)	Tuscaloosa, AL	8/22/98	
TECH	PTTC	3-D Seismic Technology	Jackson, MS	9/18/98	41
TECH	Cosponsor	Smackover Carbonates of SW Alabama (ADECA)	Tuscaloosa, AL	9/23/98	46
		Total FY98 Attendance (56% or 243 of 435 from industry)			435
TECH	Cosponsor	Sequence Stratigraphy (w Alabama Geological Society)	Demopolis, AL	10/16-17/98	44
TECH	Cosponsor	Coalbed Reservoir Analysis (w GRI/SPE)	Tuscaloosa, AL	10/20-21/98	17
TECH	Cosponsor	Microbial EOR-N. Blowhorn Creek (DOE NPTO)	Jackson, MS	11/4/98	25
SOFT	Cosponsor	Modeling Petroleum Systems (PR)	Tuscaloosa, AL	12/2/98	9
TECH	Cosponsor	Surface Hydrocarbon Detection (MS Geological Society)	Jackson, MS	2/10/99	58
SOFT	Cosponsor	3-D Reservoir Modeling (Landmark Graphics)	Tuscaloosa, AL	3/17/99	16
TECH	PTTC	Eolian Reservoirs—Norphlet Formation, NE Gulf of Mexico	Jackson, MS	5/26/99	
SOFT	Cosponsor	Geographix Mapping (Halliburton)	Tuscaloosa, AL	6/2/99	
TECH	Cosponsor	Modeling in the Mississippi Interior Salt Basin	Jackson, MS	7/99	
TECH	Cosponsor	Miocene Gas Reservoirs (AL Geol. Society)	Mobile, AL	8/99	
SOFT	Cosponsor	Software demo @ resource center	Tuscaloosa, AL	9/99	
TECH	PTTC	James Limestone	Jackson, MS	TBD	

Contacts: 165 **Website** (monthly average): 1288 user sessions, 2887 page views, 11 ½ min.

Website additions: Subsurface geologic maps and burial and thermal history plots from a study of the Mississippi Interior Salt Basin have been added to the website.

Newsletter: March 1999 (circ. 600, 90% industry)

Success Stories: As a result of the Basin MOD^R software workshop on 12/2/98, Cedarhill Company has prepared a proposal to DOE (Research with Independents) to initiate lateral completion technology in chalk and sandstone reservoirs at Gilberton Field. As a result of the MEOR workshop on 11/4/98, the University of Alabama is preparing a proposal in cooperation with Pruet Production Company and Mississippi State University to DOE (Reservoir Class Revisited) to implement an immobilized enzyme technology project at Womack Hill Field Unit.

Case Studies. The case studies, involving the integration of unconventional geochemical detection methods with conventional 3-D seismic data, by W.L. Gore and Associates and Wyman and Associates at the Surface Hydrocarbon Detection workshop are quite compelling and worth documenting.

Midwest Region

FY98 History AND FY99 Attendance/Plans					
TECH, SOFT, Or OTHER	PTTC or Cosponsor	Topic (cosponsors)	Location	Date	Total Attend.
TECH	PTTC	Waterflood	Lansing, MI	10/27-31/97	10
TECH	Cosponsor	Geostatistics (w KY Geological Society/SPE)	Grayville, IL	11/20/97	11
TECH	PTTC	Unconventional Gas	Grayville, IL	12/5/97	41
TECH	PTTC	Horizontal Drilling	Mt. Pleasant, MI	12/8/97	38
TECH	Cosponsor	Pressure Transient Testing	Evansville, IN	1/26-30/98	18
TECH	Cosponsor	Aux Vases Play	Marion, IL	3/25-26/98	56
SOFT	Cosponsor	Internet for the Petroleum Professional (conducted by North Midcontinent Region)	Kalamazoo, MI	8/28/98	16
Total FY98 Attendance (90% or 171 of 190 from industry)					190
TECH	PTTC	Plugging Workshop	Evansville, IN	11/5/98	37
TECH	PTTC	Oilfield Water Technology	Grayville, IL	12/8/98	17
TECH	Cosponsor	Reservoir Engineering (5-day w SPE)	New Harmony, IN	1/25-30/99	Cancelled
TECH	PTTC	Low Oil Prices: Pricing, Legal Issues, Electrical Cost Reduction, Exchange of Ideas	Grayville, IL Mt. Vernon, IL	1/22/99 1/29/99	42 33
TECH	PTTC	Wireline Logging Applications for the Michigan Basin (North Midcontinent Region-PfEFFER)	Mt. Pleasant, MI	2/18/99	61
TECH	Cosponsor	New and Novel Fracture Stimulation Technologies for Revitalization of Existing Underground Gas Storage Wells (ARI/DOE)	Pontiac, IL	8/25/99	

Contacts: 277 **Website** (monthly average, IL only): 753 user sessions; 1470 page views; 12 min

Website: Michigan has placed 70 % of their well database on the Internet, while Indiana continues their efforts to do so. Internet traffic remains low for the Indiana and Michigan websites.

Outreach: Exhibit at Illinois O&G Association (Evansville, IN on 3/11-12); attend meetings--Illinois Geological Society/Horizontal Drilling in the Michigan Basin (Grayville, IL on 3/25); various meetings of Michigan O&G Association and Michigan Basin Geological Society. Two articles in Michigan Oil and Gas News. Regional newsletter is planned for June 1999 (circulation 2700). Subcontract with Michigan extended through 12/99.

Workshops: Planned gas storage stimulation workshop (8/25) features DOE R&D results. Workshop is also being conducted in other regions (Appalachia and Texas).

Products: Well development maps developed by PTTC/ISGS (and being sold for nominal fee) were of high interest at exhibit at Illinois O&G Association.

General Comment: Being a very mature basin, low oil prices overshadowed all industry activities in the Illinois Basin. Operators expressed appreciation for the crisis workshops, but know that technology alone is not enough.

North Midcontinent Region

		Well Log Analysis Using PfeFFER	Wichita, KS	11/7/98	
			Wichita, KS	11/14/98	6
			Wichita, KS	11/21/97	8
			Wichita, KS	2/24/98	37
TECH	PTTC	Environmental Issues Related to O&G Production	Hays, KS	3/3/98	26
TECH	PTTC	Environmental Issues Related to O&G Production	Iola, KS	3/12/98	20
TECH	PTTC	Horizontal Drilling Applications for Kansas	Wichita, KS	6/16/98	148
TECH	Cosponsor	Internet for the Petroleum Professional (for East Texas Geological Society)	Tyler, TX	6/24/98	32
TECH	Cosponsor	3-D Seismic (w KIOGA)	Wichita, KS	8/24/98	26
SOFT	Cosponsor	Internet for the Petroleum Professional (conducted for the Midwest Region's Michigan outreach)	Kalamazoo, MI	8/28/98	
		Total FY98 Attendance (87% or 267 of 308 from industry)			308
TECH	PTTC	Modern Techniques in Wireline Logging (exhibits/revenues from three vendor companies)	Wichita, KS	11/19/98	92
TECH	PTTC	Fundamentals of PfeFFER (for Midwest) Attendance—counted in Midwest Region	Mt. Pleasant, MI	2/18/99	Midwest
TECH	PTTC	Best Practices for Production Shut-Down	Wichita, KS	2/23/99	99
TECH	PTTC	Best Practices for Production Shut-Down	Iola, KS	2/25/99	72
TECH	PTTC	Best Practices for Production Shut-Down	Hays, KS	3/2/99	79
TECH	Cosponsor	TORP 13 th Oil Recovery Conference	Wichita, KS	3/17-18/99	97
TECH	PTTC	Coalbed Methane	Wichita, KS	6/3/99	
TECH	Cosponsor	Applied 3-D Seismic Interpretation (AAPG mtg)	Wichita, KS	8/21/99	
TECH	Cosponsor	Internet for the Petroleum Professional (KIOGA)	Wichita, KS	8/23/99	
TECH	Cosponsor	3-D Seismic for Independent Operators (KIOGA)	Wichita, KS	8/23/99	
TECH	PTTC	Play-Based Symposium	Wichita, KS	9/99	
TECH	PTTC	Designing, Implementing, Monitoring Waterfloods	Wichita, KS	9/99	

Contacts: 873 (172 PTTC-initiated)

Newsletter: January 1999 (4600+ circulation)

Website (monthly avg.): 5674 user sessions, 27151 page views; nearly 17 min.

Added two topical reports of high interest: "1998 Kansas Oil and Gas Production and Value" and "1998 Kansas Oil and Gas Production: An Examination of the Importance of Stripper Production." Expanded and improved navigation in on-line short courses: Internet; PfeFFER; Reservoir Simulation on a PC using DOE BOAST 3. Continually improving database content and access.

Problem Identification: PAG members, during March 1999 PAG meeting, encouraged continuing with the FY99 plans, incorporating when appropriate topics dealing with survival issues. Based on PAG input, workshop evaluation forms, and resource center inquiries, added workshops on "Coalbed Methane" and "Waterflooding."

Outreach: TORP, KGS, and PTTC exploring permanent exhibition booth (at industry's request) in recently completed Energy Education Center in Great Bend, KS. Rodney Reynolds interviewed by Hart's Oil & Gas World about technology transfer (April 99 issue). Rodney Reynolds presented paper about Stewart Field during SIPES Annual Meeting (March 10-12). Participated in Tech Team meeting with Shell CO2 at KU.

Workshops: Extensive RLO support for TORP conference—agenda/speakers, promotion, mailing.

Newsletter: Major theme of January issue was effects of oil price crisis on Kansas. KIOGA requested 168 additional copies for distribution to all Kansas legislators. Mailing list was updated with corrections from 1st class mailing of TORP brochure. At quarter's end, mailing list stands at 4,644 individuals, 85% from industry.

Products: Sold 10 PTTC Software Sampler CDs; 22 manuals for crisis workshop.

Crisis Action Plan. Half-day “Best Practices” workshops were well attended (free as an encouragement to operators) and feedback forms indicate operators appreciated the information and networking opportunities.

Success Stories/Case Studies: Feedback forms from crisis workshop attendees indicated many operators were willing to share success stories and, working with PTTC, document case studies.

Rocky Mountain Region

FY98 History AND FY99 Attendance/Plans					
TECH, SOFT, Or OTHER	PTTC or Cosponsor	Topic (cosponsors)	Location	Date	Total Attend.
TECH	Cosponsor	Structural & Stratigraphic Interpretation of Borehole Imaging Logs (w IPAMS)	Denver, CO	10/22/97	21
SOFT	Cosponsor	3-D Seismic—Data Loading, Beginning Interpretation, Advanced Interpretation (w SMT)	Golden, CO	10/29-31/97	30
TECH	Cosponsor	Red River Reservoir Study (w Luff/DOE)	Denver, CO	11/10/97	20
TECH	Cosponsor	Red River Reservoir Study (w Luff/DOE)	Billings, MT	11/14/97	22
TECH	Cosponsor	Re-Entering Petroleum Geology	Golden, CO	11/20/97	33
TECH	Cosponsor	Advanced Wireline Logging (DOE/BDM)	Denver, CO	1/13/98	33
TECH	PTTC	Internet Explored for Petr. Professional	Reno, NV	2/6/98	13
TECH	PTTC	Power Cost Reduction	Denver, CO	2/17/98	10
TECH	PTTC	Power Cost Reduction	Casper, WY	2/19/98	18
SOFT	Cosponsor	3-D Geologic Modeling (w Dynamic Graphics)	Denver, CO	3/26/98	28
TECH	Cosponsor	Internet Explored for Petr. Professional (AAPG)	Salt Lake City	5/16/98	13
TECH	Cosponsor	Practical Reservoir Characterization for the Independent Operator (w AAPG)	Denver, CO	7/21-22/98	12
Total FY98 Attendance (estimated 95% of attendees from industry)					253
TECH	PTTC	Waterflood (SPE/IPAMS)	Denver, CO	10/5-9/98	17
SOFT	PTTC	Integrated PC Applications—GeoGraphix	Golden, CO	10/6/98	7
TECH	Cosponsor	Fractured Reservoirs (w Utah Geological Survey)	Salt Lake City	10/23/98	62
SOFT	PTTC	3-D Seismic (Seismic Micro Technology)	Golden, CO	10/28/98	13
		Day One: Data Loading		10/29/98	16
		Day Two: Basic Interpretation		10/30/98	12
TECH	Cosponsor	Innovative Applications of New Technologies (w IPAMS/RMAG)	Denver, CO	11/12/98	99
TECH	Cosponsor	Compartmentalized Reservoirs in Rocky Mountain Basins (RMAG).	Denver, CO	11/13/98	92
SOFT	Cosponsor	GES Basic Training (GeoGraphix, AAPG)	Golden, CO	1/21/99	15
SOFT	Cosponsor	Rockware (Rockworks 98 & LogPlot 98)	Golden, CO	1/28-29/99	11
TECH	Cosponsor	Internet Guide for Petroleum Professionals	Golden, CO	2/6/99	4
TECH	Cosponsor	Coal Bed Methane Short Course (SPE)	Billings, MT	2/16-17/99	182
SOFT	Cosponsor	3-D Seismic Basic Interp. (Seismic Micro Tech)	Golden, CO	2/19/99	6
SOFT	Cosponsor	How to Prepare Multimedia Technical Reports	Golden, CO	3/6/99	
SOFT	Cosponsor	New Media Technologies for the Tech. Prof.	Golden, CO	3/6/99	
TECH	Cosponsor	Best Practices for Production Shut-Down (IPAMS)	Denver, CO	3/12/99	
TECH	Cosponsor	USGS NPR-Alaska Core Workshop	Denver, CO	3/24-26/99	
TECH	Cosponsor	Emerging Resources in the Greater Green River Basin (GRI, IPAMS)	Denver, CO	4/26/99	
TECH	Cosponsor	Internet Guide for Petroleum Professional	Golden, CO	5/8/99	
SOFT	Cosponsor	Paradigm SeisX Basic Training (6 sessions)	Golden, CO	5/11-27/99	
TECH	Cosponsor	Career Management for the Technical Professional	Denver, CO	5/14/99	
SOFT	Cosponsor	GES Basics (GeoGraphix)	Golden, CO	5/19/99	
SOFT	Cosponsor	GES Advanced Techniques (GeoGraphix)	Golden, CO	5/20/99	
SOFT	Cosponsor	3-D Pack Basic Training (Seismic Micro Tech)	Golden, CO	6/9/99	
SOFT	Cosponsor	Advanced Use of Seismic Micro Tech Software	Golden, CO	6/10-11/99	
SOFT	Cosponsor	3-D Visual. w Low-Cost Software (Slicer/Dicer)	Golden, CO	6/14/99	
SOFT	Cosponsor	Fundamentals of Geologic Data Management	Golden, CO	6/16-17/99	
TECH	Cosponsor	Future of Coalbed Methane in the Rockies (RMAG)	Denver, CO	6/22/99	
SOFT	Cosponsor	3-D Applications of Dynamic Graphics Earthvision	Golden, CO	6/24-25/99	
TECH	Cosponsor	Practical Reservoir Characterization for the Independent Operator ((RMS-AAPG)	Bozeman, MT	8/6-7/99	
TECH	Cosponsor	Internet Guide for Petroleum Professional	TBD	9/11/99	

Contacts: 390 **Website (monthly average):** 1517 user sessions, 5973 page views, nearly 8 min

Newsletter: February 1999 (950—tripled from 1st issue); column in RMAG newsletter (March 99)

Outreach: Sandra Mark will chair software applications workshop in DOE O&G Conference in Dallas on June 28, 1999, and also demonstrate PTTC's Software Sampler. Appreciation luncheon for financial supporters of software training center planned for May 20.

South Midcontinent Region

FY98 History AND FY99 Attendance/Plans					
TECH, SOFT, Or OTHER	PTTC or Cosponsor	Topic (cosponsors)	Location	Date	Total Attd.
TECH	Cosponsor	Bartlesville FDD Play (w OGS/DOE Class 1)	Tulsa, OK	10/29/97	80
TECH	Cosponsor	Bartlesville FDD Play (w OGS/DOE Class 1)	Bartlesville, OK	10/30/97	30
TECH	Cosponsor	Bartlesville FDD Play (w OGS/DOE Class 1)	Norman, OK	11/12/97	73
TECH	Cosponsor	Tonkawa FDD Play (w OGS/OC Geol. Soc.)	Oklahoma City, OK	3/30/98	48
TECH	Cosponsor	Pennsylvanian/Permian of S Midc. (OGS/DOE)	Norman, OK	4/7-8/98	213
TECH	PTTC	Geological Considerations of Waterflooding	Oklahoma City, OK	6/10/98	68
TECH	PTTC	Geological Considerations of Waterflooding	Oklahoma City, OK	6/11/98	57
TECH	Cosponsor	Red Fork FDD Play (w OGS/OC Geol. Soc.)	Oklahoma City, OK	6/25/98	42
TECH	Cosponsor	Morrow FDD Play (w OGS/OC Geol. Soc.)	Oklahoma City, OK	9/10/98	77
TECH	PTTC	Hartshorne Play	Oklahoma City, OK	9/30/98	---
Total FY98 Attendance (72% or 566 of 788 from industry)					
TECH	PTTC	Hartshorne Play-Based workshop (w OGS)	Muskogee, OK	10/4/98	64
TECH	Cosponsor	Hartshorne Field Trip (w OGS, 2-day fld trip)	McAlester, OK	10/10-11/98	38
TECH	Cosponsor	Hartshorne Field Trip (w OGS, 2-day fld trip)	McAlester, OK	10/12-13/98	49
TECH	PTTC	Waterflood workshop (w OGS)	Smackover, AR	11/19/98	18
TECH	Cosponsor	Layton/Osage-Layton Workshop (OCGS, OGS)	Oklahoma City, OK	12/8/98	27
TECH	Cosponsor	Booch Play-Based workshop (w OCGS & OGS)	Oklahoma City, OK	2/5/99	23
TECH	Cosponsor	Silurian, Devonian, and Mississippian Geology in Southern Midcontinent (OGS and DOE NPTO)	Norman, OK	3/23-24/99	193
TECH	Cosponsor	Hartshorne Field Trip (w OGS, 2-day fld trip)	McAlester, OK	3/31- 4/1/99	18
TECH	Cosponsor	Well Plugging (Marginal Well Commission)	Broken Arrow, OK	4/7/99	
TECH	Cosponsor	Well Plugging (Marginal Well Commission)	Oklahoma City, OK	4/15/99	
TECH	Cosponsor	Well Plugging (Marginal Well Commission)	Woodward, OK	4/21/99	
TECH	Cosponsor	Cleveland & Peru FDD Workshop (OCGS & OGS)	Oklahoma City, OK	4/30/99	
TECH	Cosponsor	Oklahoma Corporation Commission Forms (MWC)	Tulsa, OK	6/30/99	
TECH	PTTC	2-D and 3-D Seismic for Operators (w OGS)	Oklahoma City, OK	7/29/99	
TECH	PTTC	Due Diligence (w MWC)	Oklahoma City, OK	8/18/99	
TECH	Cosponsor	Bartlesville FDD Play Workshop (OCGS-OGS)	Oklahoma City, OK	9/29/99	
TECH	PTTC	Waterflood II (engineering) workshop (w OGS)	Oklahoma City, OK	9/99	

Contacts: 328 (27 PTTC-initiated) **Newsletter:** Quarterly newsletter (4/99—over 8000 distribution)

Website (monthly average): 2864 user sessions; current OU server cannot provide other statistics. Relocating server is an option, but decision is being deferred pending other OGS decisions.

Resource Center Activities: Monthly demonstrations by Geo Information Systems (GIS) at Resource Center.

1/8/99 9 attendees Software demo
 2/5/99 12 attendees Internet Access and Mapping with ArcExplorer
 3/5/99 12 attendees Petroleum Industry Web Sites
 First demo session in Tulsa planned on April 9 at Tulsa Community College Metro Campus.

Planned Exhibits: AAPG Annual Meeting (4/11-14 in San Antonio, TX); GIS day at the Capital (4/14 in Oklahoma City); MWC Trade Fair (5/13 in Ponca City); Midcontinent Section of AAPG (8/22-24 in Wichita, KS); Gulf Coast Association of Geological Societies (9/15-17 in Lafayette, LA); Geological Society of America (10/25-28 in Denver, CO).

Workshops: The Booch workshop, held on 2/5/99, was augmented with additional materials since the original play-based workshop. The remaining two workshops in the original series will be presented one each quarter. The 2-D and 3-D Seismic workshop, planned for June or July, is being supported solely by OGS with contributions from the principal presenter, who is donating much of her time. The Waterflood workshop, planned for September, is being developed by a consultant supported by the OGS. The Morrow Delta Front and Basin Sands workshop, planned for November, is being developed solely with OGS funds.

Success Stories: As a result of regional accomplishments, vendors and consultants wanting to give presentations in future workshops are now contacting PTTC. When relevant to future workshop topics and with PAG approval, they will be considered as speakers for future workshops or activities.

Southwest Region

FY98 History AND FY99 Attendance/Plans					
TECH, SOFT, Or OTHER	PTTC or Cosponsor	Topic (cosponsors)	Location	Date	Total Attend.
TECH	Cosponsor	Naturally Fractured Reservoirs (w PRRC)	Socorro, NM	10/28/97	66
	Cosponsor	CO ₂ Oil Recovery Forum (w PRRC)	Socorro, NM	10/29-30/97	
TECH	PTTC	Internet for the Petroleum Professional	Farmington, NM	5/7/98	38
TECH	PTTC	CO ₂ Flooding	Hobbs, NM	8/5/98	19
TECH	PTTC	Frontier Basins in New Mexico	Albuquerque, NM	9/10/98	142
		Total FY98 Attendance (75% or 283 of 376 from industry)			376
TECH	Cosponsor	CO ₂ Recovery	Socorro, NM	10/28/98	85
TECH	Cosponsor	Fractured Reservoirs	Socorro, NM	10/29/98	45
SOFT	PTTC	Excel Add-in Software (for filing OCD C-115) Several more planned during coming months.	Midland, TX	3/5/99	35
TECH	PTTC	Horizontal Drilling	Hobbs, NM	5/11/99	
TECH	Cosponsor	Morrow Gas Play (w Roswell Geol. Society)	Roswell, NM	9/16-18/99	
TECH	Cosponsor	Fractured Reservoirs	Farmington, NM	9/23-24/99	

Contacts: 45 **Newsletter:** Semi-annual PRRC newsletter. Monthly on-line newsletter (Regional Review).

Website: Server statistics not available. Because of Y2K testing, the server log lost its time-sequential order, and WebTrends software cannot process logs that are not in time-sequential order. Problem is not anticipated with future server logs. A major improvement to the New Mexico Bureau of Mines and Mineral Resources website is the GIS interface to the Bureau's cuttings and core collection. Major improvements and consolidation of the information in the PTTC website and GO-TECH website is planned during the next quarter.

Workshops: Planning meetings were held for the fall workshop--with members of the Roswell Geological Society for the Morrow Play workshop and with volunteers from the Four Corners Geological Society for the Fractured Reservoir workshop.

Outreach: Meetings concerning development of interfaces to currently existing databases have been held with representatives from various New Mexico state agencies and the Bureau of Land Management.

Problem Identification: Operators have expressed interest in: (1) how to bring wells back online after long shut-ins and (2) using modern logs to help characterize fractured reservoirs. The planned fall workshop in Farmington on fractured reservoirs will include a half-day for service company representatives to explain how modern logs can be used in the characterization effort.

Texas Region

FY98 History AND FY99 Attendance/Plans					
TECH, SOFT, Or OTHER	PTTC or Cosponsor	Topic (cosponsors)	Location	Date	Total Attend.
TECH	Cosponsor	Effect of Ellenburger Karsting and Collapse Structure on Reservoir Compartmentalization in Overlying Bend Conglomerate (Atoka Group), Boonsville Field, Jack and Wise Counties, TX	San Antonio, TX	10/24/97	11
TECH	Cosponsor	Advanced Applications of Wireline Logging (w DOE/BDM)	Midland, TX	11/13/97	30
TECH	Cosponsor	Reservoir Characterization of the Geraldine Ford Unit: Permian Bell Canyon Formation, Delaware Basin, West Texas	Midland, TX & Carlsbad, NM	11/21-23/97	
TECH		Nine, partial-day technology/incentive workshops with Texas RRC	Abilene, Tyler, San Angelo, Corpus Christi, San Antonio, Houston, Amarillo, Midland, Wichita Falls	Oct & Nov 97	756 (all events)
TECH	Cosponsor	Use of the Internet (w AAPG @ N. Harris)	Houston, TX	3/8/98	18
TECH	Cosponsor	Use of the Internet (w AAPG @ N. Harris)	Houston, TX	3/28/98	18
TECH	Cosponsor	Technology Workshops w Texas RRC	Houston, TX	4/8/98	59
TECH	Cosponsor	3-D Seismic (Waha/Lockridge)	Midland, TX	4/23/98	114
TECH	Cosponsor	Technology Workshops w Texas RRC	Midland, TX	5/13/98	60
TECH	Cosponsor	Technology Workshops w Texas RRC	Dallas, TX	5/20/98	48
TECH	Cosponsor	3-D Seismic (Waha/Lockridge)	Houston, TX	6/25/98	52
TECH	Cosponsor	Geospatial Information & Technology Assn.	Houston, TX	6/29/98	35
		Total FY98 Attendance (estimate 70% or 325 from industry)			464
TECH	Cosponsor	Advances in Fractured Reservoir Characterization (DOE/BDM)	Midland, TX	10/16/98	45
TECH	Cosponsor	Naturally Fractured Reservoirs	Tyler, TX	12/1/98	55
OTHER	Cosponsor	PTTC Discussions after monthly TIPRO Tuesday Luncheons in Houston, TX	Houston, TX	2/2/99 3 & 4/99	
TECH	Cosponsor	Use of the Internet (AAPG)	Midland, TX	3/6/99	20
TECH	PTTC	Microbial Options for Increased Oil Recovery	Midland, TX	6/3/99	
TECH	Cosponsor	New and Novel Fracture Stimulation Technologies for Revitalization of Existing Underground Gas Storage Wells (ARI/DOE)	Houston, TX	8/27/99	

Formal quarterly not yet received, so contact and website statistics not available

Contacts: 190

Website (monthly average):

Newsletter: Not yet implemented

Outreach: Working together, the PAG/RLO have retained Robert "Bob" Kiker as Mentor for the Permian Basin area. His initial focus will be to strengthen PTTC communication networks with local independents, identifying their specific needs, and helping coordinate activities meeting those needs.

Workshops: Planned microbial (6/21) and gas storage stimulation (8/27) workshops feature DOE R&D results. Workshops are also being conducted in other regions (Appalachian and Midwest).

Website: Changes in website structure and content are underway. When fully implemented, the changes are expected to add more content of direct interest to independent operators and be more consistent with other PTTC websites.

West Coast Region

FY98 History AND FY99 Attendance/Plans					
TECH, SOFT, Or OTHER	PTTC or Cosponsor	Topic (cosponsors)	Location	Date	Total Attend.
SOFT	Cosponsor	Boast 3 Hands-on Training (w DOE)	Los Angeles, CA	10/14/97	22
TECH	Cosponsor	Oil & gas Investments in California: Transactional, Environmental, and Abandonment Issues	Los Angeles, CA	10/24/97	60
			Bakersfield, CA	11/07/97	62
SOFT	Cosponsor	Introduction to GOCAD	Los Angeles, CA	11/14/97	17
TECH	Cosponsor	Turbidite Reservoirs in California, short course & field trip	Ventura, CA	11/24/97	71
TECH	Cosponsor	Economic Impact of Premature Abandonment on O&G Fields in California	Los Angeles, CA	12/5/97	90
TECH	Cosponsor	Troubleshooting Data Structure for History Matching (using Boast 3)	Los Angeles, CA	2/25/98	7
TECH		Power Cost Reduction	Bakersfield, CA	2/26/98	45
			Los Angeles, CA	2/27/98	52
TECH	Cosponsor	Horizontal & Multilateral Drilling & Completion	Bakersfield, CA	3/26/98	91
TECH	PTTC	Gas Production Management	Sacramento, CA	4/9/98	33
TECH	PTTC	Well Abandonment & Reabandonment: Problems, Solutions, and Regulatory Issues	Los Angeles, CA	4/23/98	55
			Bakersfield, CA	4/24/98	38
TECH	Cosponsor	California Production & Reservoir Database	Los Angeles, CA	7/16/98	26
TECH	Cosponsor	PTTC Oilfield Troubleshooters Forum	Bakersfield, CA	8/11/98	30
TECH	Cosponsor	Forum: Talk Back to Regulatory Agencies	Bakersfield, CA	9/17/98	52
		Total FY98 Attendance (62% or 601 of 967 from industry)			967
SOFT	PTTC	GeoGraphix Training	Los Angeles, CA	10/16/98	18
TECH	Cosponsor	OPEC Pricing & Independent Prod. (Webcast)	Los Angeles, CA	10/22/98	67
TECH	Cosponsor	Pipeline Integrity, Technology, Remedial Action	Ventura, CA	11/19-20	48
TECH	Cosponsor	Reservoir Management Showcase (Webcast)	Los Angeles, CA	12/11/98	79
TECH	Cosponsor	Managing Oilfield Under Adverse Economics	Bakersfield, CA	1/21/99	63
TECH	Cosponsor	Managing Oilfield Under Adverse Economics	Long Beach, CA	1/22/99	65
TECH	Cosponsor	Water Cut Control	Long Beach, CA	2/25/99	49
TECH	Cosponsor	Water Cut Control	Bakersfield, CA	2/26/99	31
SOFT	Cosponsor	GeoQuest training (GeoQuest)	Bakersfield, CA	3/25/99	27
TECH	Cosponsor	Use of Well Logging in Reservoir Characterization and Management	Long Beach, CA	4/29/99	
			Bakersfield	4/30/99	
TECH	Cosponsor	Combustion for California Oilfields	Bakersfield, CA	5/17/99	
OTHER	Cosponsor	Field Trip-Monterey Reservoirs of California	Monterey, CA	6/4/99	
TECH	Cosponsor	Coiled Tubing Operations & Safety Practices (Westport, DOE)	Bakersfield, CA	6/10/99	
			Long Beach, CA	6/11/99	
OTHER	Cosponsor	COMET 99	Los Angeles, CA	6/28-7/2	
TECH	Cosponsor	3-D Seismic	Los Angeles, CA	7/8/99	
TECH	Cosponsor	3-D Seismic	Bakersfield, CA	7/9/99	
TECH	Cosponsor	Troubleshooters Forum	Bakersfield, CA	9/24/99	

Contacts: 308 (9 PTTC-initiated) **Newsletter:** Qtrly (last issue 11/98). Monthly Val's Tech Talk on website.

Website (monthly average): 505 user sessions, 8308 page views. Past presentations by selected workshop speakers are being posted on the website as Internet-based slide shows, as are some videotaped presentations.

Outreach (Troubleshooters): 20 companies were contacted by phone to explain the PTTC Trouble Shooting program. Several operators were contacted to discuss possible technological solutions to their production problems. RLO made a general announcement about the DOE "Technology Development with Independents" program, assisting those who responded with getting required information. Meetings were arranged with Signal Hill Petroleum, Patriot Resources, State Energy and Development, Naftex Holdings Corporation, and St. James Oil company to acquaint them with the program. Several proposals are believed to have resulted from the effort.

Other Outreach: Dr. Ershaghi spoke at Energy Day Conference in Ventura (3/10—100 people).

Case Studies: Presentations by Mark Kapelke (Tidelands, cost-cutting measures) and David Mercier (California State Lands Commission, price-based sliding royalty) during survival workshops (1/29-30) deserve special note.

To: DOE
From: Petroleum Technology Transfer Council
Re: Deliverables under DOE cooperative Agreement No.
DE-FC26-98BC15118

Attached, please find:

Appalachian Region workshop report: Affordable Geophysics in Tough Times, May 18, 1999

- Appalachian Region workshop report: Optimizing Production and Operating Efficiency, March 23, 1999

Central Gulf Region workshop report: Optimization of Gas Well Completion and Production Practices, May 18, 1999

Please note that we have already sent the following reports to be included as attachments with our semi-annual report. We will not be including another copy of these at this time:

- Appalachian Region workshop report: 3-D Software, May 11, 1998
- Appalachian Region workshop report: Advanced Well Logging Techniques, June 29, 1998
- Appalachian Region workshop report: Geological/Geophysical Mapping for the 21st Century, March 2, 1999
- Central Gulf region workshop report: Enhanced Production Methods, June 24, 1998
- Central Gulf Region workshop report: BOAST 3, August 10, 1998
- Central Gulf Region workshop report: Power Cost Reduction, March 24, 1999
- Central Gulf Region workshop report: Optimization of Gas Well Completion, March 30, 1999

PETROLEUM TECHNOLOGY TRANSFER COUNCIL

1101 16th Street, N.W., Suite 1-C, Washington, DC 20036-4803 ■ www.pttc.org
202-785-2225 ■ Toll Free 1-888-THE-PTTC ■ Fax 202-785-2240 ■ hq@pttc.org

- Eastern Gulf Region workshop report: Surface Hydrocarbon Detection, February 10, 1999
- Midwest Region workshop report: Surviving Low Oil Prices, January 22, 1999
- Midwest Region workshop report: Wireline Logging Applications for the Michigan Basin, February 18, 1999
- North Midcontinent Region workshop report: Horizontal Drilling Applications for Kansas, June 16, 1998
- North Midcontinent Region workshop report: Best Practices for Shut-down, February 23, 1999
- Rocky Mountains Region workshop report: Practical Reservoir Characterization for the Independent, July 21, 1998
- Rocky Mountains Region workshop report: Internet Guide for the Petroleum Professional, February 6, 1999
- Rocky Mountains Region workshop report: 3-D Pack Basic Training, February 19, 1999
- Rocky Mountains Region workshop report: How to Prepare Multimedia Technical Reports, March 6, 1999
- Rocky Mountains Region workshop report: New Media Technologies, March 6, 1999
- Rocky Mountains Region workshop report: Best Practices for Shut-down, March 12, 1999
- South Midcontinent Region workshop report: Red Fork Play, June 25, 1998
- South Midcontinent Region workshop report: Tonkawa Play, March 31, 1998
- South Midcontinent Region workshop report: Waterflooding, June 10 & 11, 1998
- Texas Region workshop report: Integrated Strategies for Reservoir Reserve Growth, June 25, 1998
- West Coast Region workshop report: Managing Oilfield Operations Under Adverse Economics, January 21, 1999
- West Coast Region workshop report: Water Cut Control, February 25, 1999

TECHNOLOGY CONNECTIONS

PETROLEUM TECHNOLOGY TRANSFER COUNCIL

1101 16th Street, NW
Suite 1-C
Washington, DC 20036

Phone: 202-785-2225
Fax: 202-785-2240
E-mail: drowell@pttc.org

DATE: June 1, 1999
TO: Mike Ray, NPTO
FROM: Deborah Rowell
RE: Deliverables for Federal Grant # DE-FC26-98BC15118
CC: Al Yost, FETC

Per the terms of the above referenced grant, enclosed are the following deliverables:

DOE F 4600.6, Federal Assistance Management Summary Report – Quarterly Report
(January 1 – March 31, 1999)

SF 269A, Financial Status Report -- Semi-Annual Report
(October 1, 1998 – March 31, 1999)

- **Technical Progress Report -- Semi-Annual Report, [Including attachments]**
(October 1, 1998 – March 31, 1999)

As instructed in our contract, we will be mailing 3 copies of the enclosed deliverables, to the following address:

AAD Document Control
US Department of Energy
Federal Energy Technology Center
PO Box 10940
MS 921-143
Pittsburgh, PA 15236-0940

Thanks for your continued support.

Deborah