

resource

Online Monthly RPSEA Member Resource

Table of Contents

- President's Perspective
- 2008 Unconventional Resources and Small Producer RFPs Released
- 2008 Contracting Process Overview: Improvements, Changes & Revisions from 2007
 - RPSEA Welcomes Wiley Wells to the Team
 - RPSEA and NETL Working Toward the Same Goal
 - Fellowship/Scholarship Program Recipient Spotlight
 - Unconventional Resources Project Highlight
 - Small Producer Project Highlight
 - Calendar of Events

President's Perspective

What a difference a few months makes. Since late summer, we've seen a global economic crisis, drastically falling oil and gas commodity prices, and tightening (or disappearing) credit markets, all resulting in reduced 2009 industry budgets and activity. Universities have not been spared either as market declines have reduced their endowment values creating their own budget problems. But the need for energy, a workforce capable of producing it, and a research community to address short and long-term needs has not gone away. Decreased drilling activity could undermine the impressive recent gains in domestic natural gas production. With a falling rig count and Wall Street pressure for earnings, it is more important than ever to continue our research efforts to reduce costs and increase efficiency in order to increase domestic production in a safe and environmentally responsible manner.

We at RPSEA are especially pleased to see most of our 2007 research projects underway. We are especially pleased to have our 2008 RFPs released for our Unconventional Resources and Small Producer programs to build on these efforts, with our Ultra-Deepwater RFPs not far behind. These integrated projects will maximize the value of domestic resources for years to come. And, our 2009 draft Annual Plan continues the focus on targeted resources and technology gaps. I encourage you to view our [current projects](#) and [abstracts](#) on our website. Several of these projects now have their own websites which we've linked for you to see.

RPSEA is still pursuing other activities to leverage the valuable nucleus enabled by Section 999. One of these is our sponsorship of the [Oil & Gas Innovation Center](#) which just held its first Innovation Showcase. This unique endeavor will help move valuable technology developed for other industries into the oil and gas business.

We are actively planning many 2009 events, including an impressive slate of member forums, ultra-deepwater technology advisory committee (TAC) meetings, and exhibitions. One especially productive member forum was held recently on long-term environmental vision for ultra-deepwater. This forum brought together a diversity of folks that don't normally gather together and helped frame needs for our 2010 efforts. Our website calendar is continually updating as these new dates confirm.

In closing, we appreciate your support and involvement of what we feel is a revolutionary model for U.S. oil and gas research and development. The support of hundreds of experts from many organizations makes this collaborative open innovation design a success. As we have moved from "what we're going to do" to "what we're doing," this is an exciting time despite the current challenges facing our economy. We look forward to continuing our efforts and soon to receiving another round of exciting project proposals.



Mike Ming
President

[Back to Table of Contents](#)

2008 Unconventional Resources and Small Producer RFPs Released

RPSEA is pleased to announce that it has released its 2008 requests for proposals for the Unconventional Resources Program and the Small Producer Program on November 11. You are encouraged to submit a proposal in response to these RFPs well in advance of the due date, January 12, 2009, 4 p.m., Central Time, for electronic receipt processing. You can find this and all current RFP information on RPSEA's website on the [Current Request for Proposals page](#). RFPs for the Ultra-Deepwater Program will be released in the near future.

[Back to Table of Contents](#)

2008 Contracting Process Overview: Improvements, Changes & Revisions from 2007

Following the ultra-deepwater forum held at the Houston Advanced Research Center in The Woodlands on November 20, RPSEA Vice President for Operations Russ Fray and RPSEA Contracts Director Wiley Wells presented an overview of the 2008 RPSEA contracting process and the differences from the 2007 process. The overview included a review of eligibility requirements, technical proposal and cost volume content, format requirements, and the specific terms and conditions associated with federally funded research awards. Click here to view the presentation on [RPSEA's homepage](#).

[Back to Table of Contents](#)

RPSEA Welcomes Wiley Wells to the Team

RPSEA welcomes Wiley Wells to the team as our new Contracts Director. Wiley's position will oversee the contracting process that includes request for proposals for all three RPSEA programs, project proposals, requirements, etc. Prior to joining RPSEA, Wiley held several different positions with SAIC in Las Vegas including Consultant, Global Commercial Contracts Manager, and Vice President of Administration. To contact Wiley, please e-mail him at wwells@rpsea.org.



[Back to Table of Contents](#)

RPSEA and NETL Working Toward the Same Goal

Pursuant to Title IX, Subtitle J, Section 999, of the Energy Policy Act of 2005 (EPAAct), the Department of Energy competitively selected RPSEA to administer three program elements, ultra-deepwater architecture and technology, unconventional natural gas and other petroleum resources exploration and production technology, and technology challenges of small producers. A fourth program element for complementary research is being performed by the National Energy Technology Laboratory (NETL). NETL is tasked also with primary oversight of the RPSEA program.

RPSEA and NETL have coordinated efforts since January 2007 in developing RPSEA's 2007, 2008 and 2009 Draft Annual Plans (DAP). The 2007 DAP framed RPSEA's goals for the first two years of the program. Since this time, 43 projects have been selected from the first year's solicitations. The advisory committee process is functioning well and results in input that continues to enhance the program. A number of program-level activities ([see press releases for project details](#)) have been initiated, including the development of a coordinated technology transfer program for a Knowledge Management Database in addition to RPSEA's project and program technology transfer activities, and a coordinated benefits assessment methodology. A required independent audit of RPSEA, a required report to Congress on the program's impact on federal oil and gas royalties, and a required review of NETL's complementary program by a technical committee made up of external experts have all been completed.

One significant development has been the negotiation of a firm fixed rate option for commercial entities to simplify the accounting process for companies that do not have accounting systems that support federal cost reimbursable contracts. This should measurably decrease the time from selection to award for these types of companies. Details of this can be found in the [RPSEA 2008 Contracting Process Overview presentation](#).

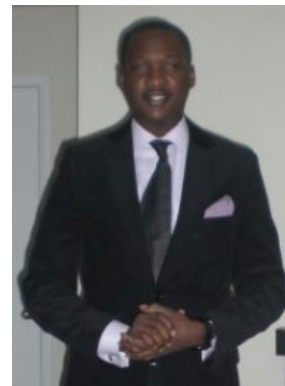
These accomplishments by both entities is a continued effort towards meeting the more specific goal in EPAAct of "[maximizing] the value of natural gas and other petroleum resources of the United States, by increasing the supply of such resources, through reducing the cost and increasing the efficiency of exploration for and production of such resources, while improving safety and minimizing environmental impacts."

[Back to Table of Contents](#)

Fellowship/Scholarship Program Recipient Spotlight

RPSEA created the Fellowship/Scholarship Program to establish long-term industry/education partnerships. RPSEA members Schlumberger and Strata Production designate financial resources through RPSEA to award multiple scholarships to the following member universities: Colorado School of Mines, Louisiana State University, New Mexico Institute of Mining and Technology, Stanford University, Texas A&M University, The University of Texas at Austin, The University of Oklahoma, and West Virginia University. The most promising students with studies relevant to the oil and gas industry are competitively awarded fellowships to help with their education and/or research activities. Through private funding from these two members, \$240,000 is established for these member universities to provide much needed support for 16 students per year for three years.

Current University of Oklahoma graduate student Oyetunde (Tunde) Oyewole Oyewo was awarded a fellowship through the Fellowship/Scholarship Program for the 2007-08 school year. RPSEA spotlights Oyewo this month in the following interview, while wishing him success in his final year of school and in his new position at ONEOK.



1. What was the title of your dissertation?

The Viability of Compressed Natural Gas (CNG) as an alternative mode of Natural Gas transportation to Pipeline transportation. (Thesis)

2. Where did your project take place?

The University of Oklahoma, Norman, Oklahoma

3. What school were you attending during the fellowship?

The University of Oklahoma

4. What was your degree and major when you graduated while working on the fellowship?

I am a graduate student at the Mewbourne School of Petroleum and Geological Engineering, studying for a master's degree in Natural Gas Engineering and Management. I will graduate in May 2009.

5. What was the time frame spent on the entire project?

I started in June 2008, and it is in progress. I expect to have it done by May 2009.

6. Why did you pick this focus for your project?

The ongoing world energy situation and the fact that a significant amount of the world's natural gas reserves is termed "stranded," because they are in remote locations and the transportation of these resources to markets is uneconomical.

7. What were the major accomplishments of your project?

It is still in progress, but I intend to further prove the viability of compressed natural gas as a gas transportation option and, also, to ascertain the limits of its viability in comparison with pipeline gas.

8. How did RPSEA help you achieve your project goals?

It helped me focus on what is really important to me, my academics and eventual thesis. I left Nigeria to study for a degree in the U.S. with some level of uncertainty as to how I would fund myself through school. I had a passion for natural gas and I knew it was something I wanted to pursue. I had a good job in Nigeria working as a Production Engineer with an international oil company. But I had only worked with the company for about six months when I resigned my appointment to pursue the degree. I met some opposition because it was a good job, but I opted to follow my passion. I had not worked long enough to save enough money to afford the tenure of a master's degree, but I just went for it! The fellowship, as well as Graduate Teaching Assistant job, has helped me focus and my work is going well.

9. How have you grown both personally and professionally from your fellowship with RPSEA?

I have met and talked with people in the industry from Schlumberger, and I have also had the opportunity of meeting Mr. C. Michael Ming (RPSEA President) at the S.P.E. Annual Technical Conference and Exhibition in Denver, Colorado in September 2008.

10. What is your role today?

I am still working on my thesis. I have interned with ONEOK (a natural gas company in Oklahoma). I will resume working with ONEOK in June 2009 as an Engineer in Tulsa, Oklahoma.

Unconventional Resources Project Highlight

Novel Concepts for Unconventional Gas Development in Shales, Tight Sands and Coalbeds

Principal Investigator Ernie Carter

Partners: Carter Technologies Co., The University of Oklahoma, University of Houston, M-I LLC

Well stimulation is an important process for all unconventional gas resources. In fact, the success or failure of an individual well and overall play is often related directly to the ability to effectively stimulate a well.

The hydraulic fracturing process used most frequently for stimulation purposes remains a challenging process to control. As a substitute or replacement for this process, RPSEA is funding a research project to explore the possibility of utilizing a mechanical methodology that would provide the needed process control. This is a preliminary study of novel concepts for the development of a process that differs significantly from the traditional drilling and stimulation methodologies.

Methods of mechanically or hydraulically cutting large infiltration galleries connected to the well bore will be evaluated and numerically modeled. These slots are similar to steerable fractures only larger. The best concepts will be integrated with advanced fracture propagation and propping concepts to form a hybrid stimulation technique. Concept and design drawings will be prepared and cost estimates developed.

The project will perform new creative design work based on Carter Technologies' work in cutting underground pathways and modifying formation permeability. The work will utilize patented and public domain concepts, as well as, novel methods developed by the principal investigator.

The project covers early-stage conceptual studies and does not involve field or laboratory work in the current phase.

The proposed methods do not rely on detailed knowledge of the natural fracture systems, and, therefore, may be applicable to formations with limited data. If successful, this project will allow more efficient drainage fields with higher recovery rates.

[Back to Table of Contents](#)



Small Producer Project Highlight

Reducing Impacts of New Pit Rules on Small Producers

Principal Investigator Robert Balch

Partners: Petroleum Recovery Research Center – New Mexico Institute of Mining and Technology, Independent Petroleum Association of New Mexico and New Mexico Oil Conservation Division

GIS layers are being prepared for subsurface water depth, surface geology, soil maps, flowing and intermittent watercourses, water wells, subsurface mineral rights, municipal boundaries, 100-year floodplains and relevant engineering data like ground stability and surface slope. The information is coupled with satellite and aerial maps to determine locations of buildings.

Software is under development to examine user-specified locations to provide specific permitting requirements and to generate maps showing optimal, allowed, or prohibited locations of pits/tanks. Ultimately, forms and attachments will be catalogued and filled in by the software and then uploaded for online permit applications.

The project focuses on producing regions of New Mexico, but provides a template for other states/regions.

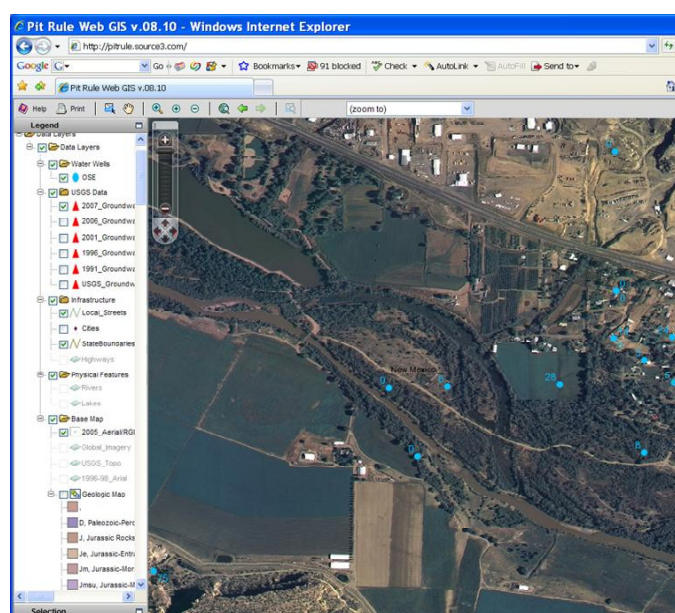


Fig 1. Screenshot of the GIS showing water well locations overlain on aerial photo data near Farmington, N.M. The left hand bar shows currently available layers.

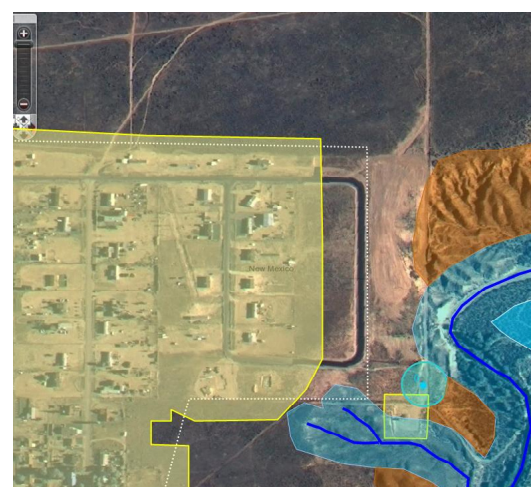


Fig 2. Conceptual diagram showing areas with potential restrictions. On this cartoon, the white dashed line represents a municipal boundary and would flag the application for local ordinances, Yellow represents areas too close to residences, blue represents protected areas around water wells and rivers, and orange represents areas with unsuitable slope for pits or below grade tanks.

Calendar of Events

12.11-12 2008 CO₂ Flooding Conference, Midland, Texas

Click here for more information, to register and the [complete calendar](#).

[Back to Table of Contents](#)