



## **Plains CO<sub>2</sub> Reduction (PCOR) Partnership Monthly Update July 1–31, 2010**

### **PHASE III ACTIVITIES**

#### **Task 1 – Regional Characterization (Wesley D. Peck)**

##### **Highlights**

- Initiated compilation of geographic information system (GIS) layers to create a map/poster portrayal of the PCOR Partnership region focusing on the relationship between Native American lands, CO<sub>2</sub> sources, and sink opportunities.
- Provided a Decision Support System (DSS, © 2007–2010 EERC Foundation) tutorial to visiting partners.
- Coordinated a preproposal effort for the characterization of the Basal Cambrian Formation located in the upper Great Plains of the United States and south-central Canada.
- Staff attended the Environmental Systems Research Institute, Inc. (Esri), International User Conference for GIS technology ([www.esri.com/events/user-conference/index.html](http://www.esri.com/events/user-conference/index.html)) in San Diego, California.

#### **Task 2 – Public Outreach and Education (Daniel J. Daly)**

##### **Highlights**

- Prepared a quarterly summary of outreach activity including presentations, television broadcasts, material distribution, and Web activity.
- Uploaded to the public Web site the updates approved by the U.S. Department of Energy (DOE) National Energy Technology Laboratory (NETL) Project Manager at the end of June.
- Contacted the consultants from the Regional Carbon Sequestration Partnership (RCSP) Outreach Working Group (OWG) workshop held in June for information toward planning the PCOR Partnership workshop scheduled for October 19, 2010.
- Held an in-house meeting to review progress with respect to landowner-related outreach activities.
- Held in-house meetings to review the wrap-up of the carbon footprint documentary for distribution at the PCOR Partnership annual meeting in October 2010 as well as to discuss documentary activities planned for the next project year.
- Initiated efforts on the Fort Nelson Carbon Capture and Storage (CCS) Feasibility Project public outreach poster due in September.

- Coordinated OWG efforts for the poster and paper to be presented at the upcoming 10th International Conference on Greenhouse Gas Technologies (GHGT-10) in Amsterdam, The Netherlands.

### **Task 3 – Permitting and NEPA (National Environmental Policy Act) Compliance (Lisa S. Botnen)**

#### Highlights

- Participated in conference calls of the Interstate Oil and Gas Compact Commission (IOGCC) Pipeline Transportation Task Force and submitted information for inclusion in its report.
- Held the second annual PCOR Partnership regulatory meeting on July 21–22, 2010, in Deadwood South Dakota. Highlights include the following:
  - There were 22 attendees, including representatives from North Dakota, South Dakota, Missouri, Nebraska, Wyoming, Alberta, British Columbia, and Saskatchewan and IOGCC, Melzer Consulting, and Carnegie Mellon University.
  - Updates were given on CCS and pipeline activities in each represented state and province.
  - An overview of NETL activities, including the RCSP Program, was also presented.
  - An overview of the status of federal legislation and proposed rules was given.
  - A review of the PCOR Partnership Phase II results and an update of Phase III activities were presented.
  - Plans for ongoing activities were discussed.
- Attended the 4th Annual Carbon Capture & Sequestration: The Business Summit ([www.infocastinc.com/index.php/conference/carbon10/agenda](http://www.infocastinc.com/index.php/conference/carbon10/agenda)) in Washington, D.C. In addition to relevant topics discussed, this conference provided an opportunity to meet and interact with partners and RCSP participants.
- Reviewed and commented on various IOGCC reports that are currently being finalized.
- Provided regulatory meeting attendees with follow-up information regarding the meeting outcomes.
- Began preparing the regulatory meeting summary.

### **Task 4 – Site Characterization and Modeling (James A. Sorensen)**

#### Highlights

- On July 1, 9, and 15, Lisa Botnen participated in RCSP Risk/Sim conference calls and submitted general information on the risk assessment prepared for the Fort Nelson CCS Feasibility Project.
- Lisa Botnen completed a draft poster and paper on the Fort Nelson CCS Feasibility Project risk assessment that will be presented at GHGT-10.
- Continued laboratory experiments on the effects of CO<sub>2</sub> and H<sub>2</sub>S on samples of potential reservoir and seal rock from the Fort Nelson location and samples from Powder River Basin outcrops that serve as analogs for the Bell Creek reservoir and seal.
- Toured the Bell Creek oil field in southeastern Montana. Tour highlights included the following:
  - Examined several water injection and oil production wells.

- Obtained a keen understanding of the surface features in the Bell Creek area that must be considered when developing monitoring, verification, and accounting strategies for CCS.
- Examined an outcrop of the Cretaceous Muddy Formation, the sandstone formation that serves as the reservoir rock in the Bell Creek oil field.

### **Task 5 – Well Drilling and Completion (Steven A. Smith)**

#### Highlights

- Nothing to note at this time.

### **Task 6 – Infrastructure Development (Melanie D. Jensen)**

#### Highlights

- Work continued on the capture technology overview update.
- The updated capture technology overview document was summarized for inclusion in the Energy & Environmental Research Center's (EERC's) Partnership for CO<sub>2</sub> Capture Phase I final report.
- Continued the 2010 update and quality assurance/quality control check of the CO<sub>2</sub> emission sources database. It is anticipated the effort will continue throughout the summer.
- Prepared a short document containing facts about CO<sub>2</sub> pipelines and compression for a visit by personnel from a partner pipeline company.

### **Task 7 – CO<sub>2</sub> Procurement (John A. Harju)**

#### Highlights

- Continued discussions with potential CO<sub>2</sub> suppliers. Because of the sensitive nature of negotiations, specifics cannot be shared at the present time.
- The task leader was appointed by U.S. Secretary of Energy Steven Chu to serve as a member of the National Petroleum Council for the 2010–2011 membership term.

### **Task 8 – Transportation and Injection Operations (Steven A. Smith)**

#### Highlights

- Nothing to note at this time.

### **Task 9 – Operational Monitoring and Modeling (Charles D. Gorecki)**

#### Highlights

- Attended and presented at Computer Modelling Group's (CMG's) technical symposium in Calgary, Alberta, Canada; the presentation was entitled "History Matching a CO<sub>2</sub> Huff'n'Puff EOR Project with CMG's GEM and CMOST." ([www.cmggroup.com/2010TS/CMG\\_Technical\\_Symposium\\_2010\\_Announcement.pdf](http://www.cmggroup.com/2010TS/CMG_Technical_Symposium_2010_Announcement.pdf))
- Discussed Fort Nelson modeling progress with Spectra Energy (by phone and in person while in Calgary).
- Continued development on the Fort Nelson June 2010 model.

- Discussed designing the computer cluster for use on the PCOR Partnership Phase III projects with CMG technical and management personnel.
- Continued efforts on the simulation portion of the RCSP Risk/Sim Best Practices Manual.

#### **Task 10 – Site Closure (to be announced [TBA])**

- This task is anticipated to be initiated in Quarter 1 – BP5, Year 9 (October 2015).

#### **Task 11 – Postinjection Monitoring and Modeling (TBA)**

- This task is anticipated to be initiated in Quarter 1 – BP5, Year 9 (October 2015).

#### **Task 12 – Project Assessment (Katherine K. Anagnost)**

##### Highlights

- Nothing to note at this time. The next project assessment report is due December 31, 2010.

#### **Task 13 – Project Management (Edward N. Steadman)**

##### Highlights

- Discussed future characterization activities within the PCOR Partnership region, specifically regarding the Forest City Basin and the Basal Cambrian Sandstone (Deadwood) Formation.
- A postcard announcing registration for the PCOR Partnership Annual Meeting and Workshop was mailed to all partner contacts, invited speakers, and regulatory meeting attendees on July 26. An e-mail blast to the same contacts was sent on July 27.
- Welcomed several partners to the EERC for visits on July 22, 26, and 30.
- Discussed progress on the Fort Nelson CCS project with the Spectra project manager.
- Continued participation in the Carbon Sequestration Leadership Forum (CSLF) Assessing the Progress in Closing the Gaps – Storage Working Group, including review of a technology road map document.
- Reviewed a summary and detailed record of the first U.S.-Canada Bilateral National Conference on Carbon Capture and Storage held on May 10, 2010, in Pittsburgh, Pennsylvania.
- Reviewed the DOE draft manual entitled “Site Screening, Site Selection, and Initial Characterization for Storage of CO<sub>2</sub> in Deep Geologic Formations.”
- Provided Phase II site photos for inclusion in the DOE NETL fact sheet that will be posted online.
- At the request of CSLF, provided CSLF-recognized project site photos, i.e., Zama and Fort Nelson, for use in several upcoming applications, including the CSLF Web site, the upcoming 2010 CSLF Annual Meeting, and the CSLF Technology Roadmap.
- Provided comments on a draft U.S. Carbon Sequestration Council paper entitled “Advances in Geologic CO<sub>2</sub> Storage.”
- Submitted an abstract on the PCOR Partnership for the EUEC 2011 Energy & Environment Conference scheduled for January 31 – February 2, 2011, in Phoenix, Arizona.
- Deliverables and milestones for July:

- June monthly update
- M23: Task 14 – monthly Water Working Group (WWG) conference call held
- D58/D59: Task 13 – quarterly progress report/milestone quarterly report

## **Task 14 – RCSP Water Working Group Coordination (Charles D. Gorecki)**

### Highlights

- Continued work on the development of the road-mapping document.
- Sent out an e-mail to the WWG soliciting availability for the July conference call.

### **Travel/Meetings**

- June 28 – July 1, 2010: Attended the 4th Annual Wyoming CO<sub>2</sub> Conference in Casper, Wyoming.
- June 28 – July 5, 2010: Traveled to Bueyeros, New Mexico, with PPB personnel to capture images of the Bravo Dome CO<sub>2</sub> production, regional setting, and geology.
- July 6–10, 2010: Attended and presented at CMG's Technical Symposium 2010 in Calgary, Alberta, Canada.
- July 11–16, 2010: Attended the Esri International User Conference held in San Diego, California.
- July 11–25, 2010: Attended Schlumberger Petrel seismic interpretation software training courses in Houston, Texas.
- July 13–15, 2010: Attended 4th Annual Carbon Capture & Sequestration: The Business Summit in Washington, D.C.
- July 18–28, 2010: Attended Schlumberger Techlog and Petrel software training courses in Houston, Texas.
- July 19–20, 2010: Traveled to the Bell Creek oil field in southeastern Montana.
- July 20–22, 2010: Hosted the second annual PCOR Partnership regulatory meeting in Deadwood, South Dakota.
- June 28 – July 5, 2010: Traveled with PPB to Pueblo, Colorado, to gather imagery for use in outreach materials and presentations.