A publication of the Coalbed Methane Outreach Program (CMOP)

www.epa.gov/coalbed



# **Environmental Group Sues to Overturn West Elk Decision Authorizing Mine Expansion**

An environmental group called on federal agencies to withdraw a permit for a Western Colorado coal mine expansion that they claim would waste 7 million cubic feet of methane daily and contribute to global warming. Methane – also known as natural gas – is over 20 times more potent than carbon dioxide at trapping heat in the atmosphere, yet is also a valuable energy source.

### **Lawsuit Challenges Federal Agencies**

In a lawsuit filed in federal court in Denver on October 7, 2008, WildEarth Guardians, represented by the public interest law firm Earthjustice, challenges the U.S. Forest Service and the Department of Interior for allegedly violating the National Environmental Policy Act by failing to consider alternatives to methane venting and to account for

the impacts of methane venting on global warming of expanded activities at the West Elk Coal Mine. The lawsuit aims to overturn the November 8, 2007, decision authorizing the mine to expand coal production and vent methane liberated from the mine's degasification system.

#### **West Elk Mine**

The West Elk Coal Mine, near Paonia in Gunnison County, Colorado, is operated by Mountain Coal Company, a subsidiary of Arch Coal, a multinational coal company based in St. Louis. Last July, the Forest Service and Interior Department permitted Arch Coal to expand the mine, drill 168 drainage wells to vent methane, and build nearly 23 miles

see WEST ELK, page 6

### In this issue...

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and register for our mailing list. You will be added within two weeks.



## **Methane to Markets Update**

## **U.S. EPA funds 20 methane projects to support Methane to Markets Partnership**

Through the Methane to Markets Partnership (M2M), EPA is funding 20 new projects that will help 12 countries increase their capture and use of methane from the landfill, coal, agriculture, and oil and natural gas sectors. These projects will receive more than \$4.5 million in M2M grants from EPA.

In the coal sector, six projects were awarded, located in China, India, Mongolia, and Poland. These projects are as follows:

- The Jackson Hole Center for Global Affairs, a U.S.-based NGO, will embark upon a project titled, "The Methane Connection: Coal Mining Safety and Clean Power Production in China." This project will promote the expansion of mine-mouth power-generating capacity in Shanxi Province.
- Virginia Tech University will conduct a project, "Development of Guidelines and Technical Evaluation for Degassing Coal Mine Methane in Advance of Mining to Reduce Methane Emissions in the Southern Shanxi Province of China."

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## **Methane to Markets Update**

continued from page 1

- The Central Institute of Mining and Fuel Research, based in India, will conduct a feasibility study for recovery and utilization of coal mine methane in Jharia, Bokaro, and Raniganj Coalfields in India.
- The Mongolian Nature & Environmental Consortium will conduct a pre-feasibility study on methane recovery and utilization in Nalaikh Coal Mine in Mongolia.
- The Poland-based Institute for Ecology of Industrial Areas (IETU) will undertake an abandoned mine feasibility study and coal mine methane to liquefied natural gas assessment at Zory Coal Mine in Poland.
- The Central Mining Institute of Katowice (Poland) will launch an investigation titled, "Detailed Characteristics of the Ventilation Air Methane Emissions from Gassy Underground Coal Mines in Poland."

For more information, please see the EPA press release: http://yosemite.epa.gov/opa/admpress.nsf/ d0cf6618525a9efb85257359003fb69d/ f456b356ab414269852574dd0056a59e!OpenDocument

For a full listing of the FY2008 grant recipients, see: <a href="http://www.epa.gov/methanetomarkets/grants08.htm">http://www.epa.gov/methanetomarkets/grants08.htm</a>

## Pre-feasibility study in Mongolia kicks off with workshop

The Mongolian Nature & Environment Consortium (MNEC) held a successful workshop in Ulaanbaatar, Mongolia, in September 2008 as the inaugural activity under its recently-awarded EPA grant (see above).

Under this grant, MNEC plans to conduct a pre-feasibility study for recovery and utilization of methane at the Nalaikh Coal Mine in Mongolia. Nalaikh was the country's only underground mine that officially closed in 1990 after a fatal mine accident caused by a methane explosion. The Nalaikh mine is slated to be re-opened as an underground mine.

As part of its efforts under the grant project, MNEC will explore the opportunities for degasifying the mine and recovering and using the methane gas, and will prepare a pre-feasibility study.

The workshop focused on the opportunities and challenges associated with methane recovery from coal mines in Mongolia. Participants included representatives

from the private sector, the government of Mongolia (Ministry of Fuel and Energy; Ministry of Nature and Environment), the city government of Ulaanbaatar, the World Bank, U.S. EPA, and U.S. consultants.

Presentations focused on the opportunities and benefits of conducting a coal mine methane (CMM) recovery and use project at Nalaikh coal mine; barriers to project development; steps in project development; and legal and policy issues related to coal mine methane project development in Mongolia.

In 2005, Mongolia produced 7.5 million metric tonnes of coal (nearly all from surface mines), ranking it 24<sup>th</sup> globally. However, Mongolia has extensive coal reserves (over 22 billion tonnes) that rank it ninth in the world. Future coal production is expected to rise sharply with demands for exports, especially from China.

Mongolia's coal mine methane emissions in 2005 were an estimated 3.5 million cubic meters. There are currently no degasification or recovery and utilization projects in place in Mongolia.

For more information on Mongolia's coal mine methane center, see its profile in the Methane to Markets Global Overview:

http://www.methanetomarkets.org/resources/coalmines/overview.htm



Dr. M. Badarch, General Director of the Mongolia Nature and Environment Consortium, visits the site of the Nalaikh Coal Mine near Ulaanbaatar, Mongolia. *Photo courtesy Ray Pilcher.* 





## **Methane to Markets Update**

continued from page 2

## U.S. EPA Announces Feasibility Studies at Chinese Coal Mines

U.S. EPA's Coalbed Methane Outreach Program (CMOP) is helping Chinese coal mines find ways to reduce greenhouse gas emissions by conducting three full-scale feasibility studies at the Liuzhuang mine in Anhui Province, a group of six mines in the Songzao coal basin in Chongqing, and a group of six mines in the Hebi region of Henan Province. The studies will assess the technical and economic viability of implementing methane recovery and utilization projects. The results will be summarized along with project implementation recommendations in three comprehensive final reports.



Methane escaping from Shihao Mine (Chongqing)

Photo courtesy Ray Pilcher

All three studies support the goals of the Methane to Markets Partnership, a public/private partnership launched in 2004 that reduces greenhouse gas emissions by promoting the cost-effective, near-term recovery and use of methane, while providing clean energy to markets around the world. Two of three sites under study were featured as project opportunities at the <a href="2007 Partnership Expo">2007 Partnership Expo</a> in <a href="Beijing, China">Beijing, China</a>.

China is the world's leading emitter of coal mine methane. EPA's assistance is part of the U.S. commitment to help develop up to 15 coal mine methane (CMM) projects under the second U.S.-China Strategic Economic Dialogue (SED). The feasibility study for the Hebi mines is also considered a flagship project of the Coal Mining Task Force under the Asia-Pacific Partnership on Clean Development and Climate.

A feasibility study is a critical step in the process of developing a coal mine methane recovery and use project. The analyses provided by CMOP technical contractors Advanced Resources International (ARI) and Raven Ridge Resources (RRR) will allow these sites to explore ways to capture and use their methane to benefit their local communities and the environment.

For more information, see EPA's press release: http://yosemite.epa.gov/opa/admpress.nsf/ dc57b08b5acd42bc852573c90044a9c4/8778f30a3b0eab89852574c6005 26ce2!OpenDocument

Or http://www.epa.gov/cmop/newsroom/releases.html#eight

## EPA joins forces with World Coal Institute and United Nations Economic Commission for Europe (UNECE) to develop best practices for methane degasification at coal mines

At the meeting of the Ad Hoc Group of Experts on Coal Mine Methane in October 2008 in Geneva, Switzerland, EPA, the World Coal Institute, and the UNECE announced the launching of a new initiative under the Methane to Markets Partnership. This joint effort aims to promote mine safety through more effective degasification and methane recovery and utilization. Through this project, a group of technical experts will develop a best practices guidance document related to mine methane degasification and methane recovery strategies. The document will be principles-based and will be peer reviewed before it is publicly launched, planned for 2010.

## What do you want to know about?

If you have suggestions or requests for future CBM Extra content, please drop us a line.





# Technical Workshops, Site Tours and Business Meetings

Hosted by: México's Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT), and the State Government of Nuevo Leon

> 27-29 January 2009 Monterrey México

## Join us for this exciting event!

#### 27 January

- Tours of Active Projects in All Four Sectors (Agriculture, Landfill, Coal, and Oil & Gas)
- Day One of Steering Committee Meeting

#### 28 January

- Technical Workshops Targeting All Sectors
- · Day Two of Steering Committee Meeting

#### 29 January

 Technical Subcommittee Meetings For All Sectors

The event will take place at the Centro Internacional de Negocios Monterrey (CINTERMEX).

Monterrey, México's third-largest city and home to several of México's top businesses, has abundant culture and nightlife, and countless attractions for out-of-town visitors.

### **Sponsorship Opportunities**

This event provides an excellent opportunity to increase your exposure to some of the world's most influential international methane policy makers.

Sponsorships are available for USD\$500.00 each. All sponsorship monies received will be used to help offset the cost of refreshments for these events, which cannot be paid using government funds.

Sponsors benefits include:

- FREE 3m x 3m exhibit booth space
- · Increased attendee exposure
- · Listing in the conference materials

### Contact:

Methane to Markets Administrative Support Group at asg@methanetomarkets.org.



For more information, log on to: www.methanetomarkets.org/events/2009/all/all-27jan09.htm



## **Exciting New Tool Available to CMOP Community!**

CMOP is proud to announce the launch of a *Coal Mine Methane Project Cash Flow Model*. The web-based tool allows coal mine operators and owners, project developers, equipment vendors, and other interested parties to evaluate the financial viability of recovering and utilizing CMM at a specific U.S. site in one of six ways:

- The Coal Drying Scenario is based on retrofitting of an existing coal dryer at an on-site coal preparation plant to burn methane drained from the mine instead of, or in addition, to burning coal.
- The Open-Flare and Closed-Flare Scenarios are based on installation of one or more flares to destroy drained methane.
- The Mine Boilers Scenario is based on replacement of coal with drained methane as fuel in on-site boilers that provide space and/or water heating for mine facilities.
- The On-Site Electricity Generation Scenario is based on use of drained methane to fire internal combustion engines that drive generators to make electricity for sale to the local power grid.
- The Pipeline Gas Scenario is based on drained methane that is stripped of contaminants, compressed, and injected into a nearby natural gas common carrier pipeline.

The *CMM Project Cash Flow Model* allows a user to analyze the costs and benefits of developing any of the above six projects. As many variables as possible have been included in the model as default values that can be overridden. Some variables are case-specific and must be entered by the user.

Examples of benefits considered include:

- Energy sold to grid or pipeline
- Avoided coal handling and use
- Carbon Emission Reduction (CER) credits

Examples of costs considered include:

- Gas gathering and delivery system, including compression
- End-use equipment capital cost
- End-use equipment operating and management (O&M) cost
- Interest, inflation, and discount rates
- Royalty, severance tax, and negotiation fees
- Optional part or all of the estimated drainage well and blower development costs

After making calculations based on the user inputs and preferences, the *CMM Project Cash Flow Model* displays its results on an attractive Preliminary Report that can be saved or printed for further reference. The report displays include:

- Cash flow bar graph
- Capital and operating costs
- Size of the project
- Sellable Carbon Emission Reduction (CER) credits
- Net Present Value (NPV) and Internal Rate of Return (IRR)

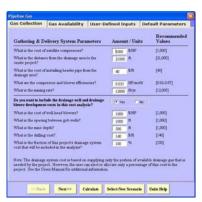
To try the *CMM Project Cash Flow Model*, visit the CMOP website. A detailed User's Guide accompanies the model to provide step-by-step instructions and to explain all assumptions. Assistance with operating and navigating the model is available for free!

Contact us today with your questions, feedback, or suggestions for future enhancements.

URL: <a href="http://www.epa.gov/cmop/resources/index.html">http://www.epa.gov/cmop/resources/index.html</a>

email: <u>Somers.Jayne@epa.gov</u> phone: (202) 343-9896









### West Elk from page 1

of new roads on the Grand Mesa, Uncompangre and Gunnison national forests.

Earlier this year, the Forest Service cited numerous legal and jurisdictional issues that make it difficult for the agency to ensure the methane is captured. Forest Service and Bureau of Land Management officials have cited safety and logistical concerns raised by having one company drilling gas wells on the surface, while the mining company is working underground (*Rocky Mountain News, January 21, 2008*).

#### "No Serious Review"

WildEarth Guardians acknowledges that methane needs to be vented from a coal seam to protect miners from explosions. But in a statement, the group said alternatives to capture the gas for use or, as a last resort, flaring "were not seriously reviewed by the agencies," even though some coal mines in the U.S. and the world safely capture and flare it. According to the U.S. Environmental Protection Agency, West Elk Mine was the third largest emitter of methane from an underground U.S. coal mine in 2006.

See the Spring 2008 and Summer 2008 editions of the CBM Extra for background on expansion and degasification plans at the West Elk Mine, available at

http://www.epa.gov/cmop/docs/summer\_2008.pdf and http://www.epa.gov/cmop/docs/spring\_2008.pdf

### To read the lawsuit visit:

http://www.wildearthguardians.org/Portals/0/downloads/lawsuit\_westelk-coal-mine\_10\_08.pdf

## **CMOP Contacts**

Address inquiries about the *Coalbed Methane Extra* or about the USEPA Coalbed Methane Outreach Program to:

#### Pamela Franklin

Phone: 202-343-9476

E-mail: franklin.pamela@epa.gov

#### **Jayne Somers**

Phone: 202-343-9896

E-mail: somers.jayne@epa.gov

#### Our mailing address is:

US Environmental Protection Agency Coalbed Methane Outreach Program, 6207J 1200 Pennsylvania Avenue, NW Washington, DC 20460

## Asia Pacific Partnership Coal Mining Task Force Meeting

CMOP staff represented EPA as part of the U.S. delegation to the Asia Pacific Partnership (APP) Coal Mining Task Force (CMTF) meeting, held September 20-21, 2008 in Las Vegas, Nevada.

The meeting was well-attended by six of the seven partner countries (India, China, Japan, Australia, the United States and new APP member Canada). At the meeting, India introduced two new APP projects, including a proposal for coal mine ventilation air methane activities.

The APP CMTF meeting was held in Las Vegas in order to give the delegations an opportunity to attend MINExpo 2008, which had a large number of exhibitors as well as technical sessions on mining and U.S. coal mine methane projects.

Coal India Ltd., the world's largest coal company, held a special reception at MINExpo to provide information on their ambitious underground coal mine expansion plans. For more information on the APP meeting, go to: http://www.asiapacificpartnership.org/mining\_expo.htm



Delegates to the Asia Pacific Partnership Coal Mining Task Force meeting visit the MinExpo exhibit in Las Vegas, Nevada, in September 2008.



### **Announcement and Call for Papers:**

The 8<sup>th</sup> International Symposium on CBM/CMM and Carbon Trading in China

### International Workshop on Mine Methane **Emission Reduction in China**

December 4 & 5, 2008 Kunlun Hotel in Beijing, China

Event hosted by The China Coal Information Institute (CCII)

Topics to be addressed include technologies for methane degasification and utilization, including ventilation air methane. The symposium is cosponsored by the China State Administration of Coal Mine Safety and the U.S. Environmental Protection Agency.

The one-day International Workshop on Mine Methane Emission Reduction in China on December 5 will be organized around a series of invited presentations on issues affecting CMM project development in China, including study results from three major research projects funded by the Australia-China Bilateral Climate Change Partnership. The workshop is being organized by CCII and Australia's CSIRO.

Registration for the Symposium is \$400; there is not a separate fee for the workshop.

For a full range of paper topics requested for submission to the Symposium, and for a registration form and to request a visa letter of invitation, please contact:

Ms. Liu Xin, Mr. Zhao Guoquan, Mr. Li Hongjun, Ms.

Huang Lan

China Coal Information Institute Tel: 0086-10-8465-7948, 8465-7850 Fax: 0086-10-8465-7948, 8465-7806

Email: cbmc@coalinfo.net.cn or cbmc@public.bta.net.cn

For more information about the workshop, please

contact:

Mr. Rhys Worrall

**CSIRO** Exploration and Mining

Tel: +61 7 3327 4176 Fax: +61 7 3327 4455 Email: <a href="mailto:rhys.worrall@csiro.au">rhys.worrall@csiro.au</a>

All papers should be submitted to the organizing committee via email or mail by October 30, 2008.

## India Coal Mine/Coalbed Methane (CMM/CBM) Clearinghouse Kick-Off Event

November 17-18, 2008

Indian Institute of Coal Management, Ranchi

Event hosted by Central Mine Planning & Design Institute

#### What is this event?

India ranks sixth globally in CMM/CBM emissions, presenting an enormous opportunity for CMM/CBM recovery and utilization.

This event will launch the CMM/CBM Clearinghouse in India, the first official establishment of its kind in the country. The Clearinghouse will help develop and promote this market, providing information on technical, economic, financial, and policy issues to potential investors and service providers.

The event will be attended by the CMM/CBM industry, financing organizations and business investors from the U.S. and India.

#### Why should you participate?

- Hear from high-level decision-makers from the Ministry of Coal and Ministry of Petroleum and Natural Gas, Government of India.
- Learn about financing opportunities, expertise and the latest CMM/CBM technologies available to help with developing the CMM/CBM market in India.
- Learn about emerging CMM/CBM markets, their challenges and success in other countries.
- Network and explore business prospects with service and technology providers from the CMM/ CBM industry in the U.S. and India.

For more information or to register, go to:

www.IndiaCBM-CMM.govtools.us or email: CMMIndia@bcs-hq.com

Sponsored by:

U.S. Trade and Development Agency U.S. Environmental Protection Agency India Ministry of Coal Coal India Ltd.



## **CBM/CMM News**

### Guizhou CMM Recovery and Utilization Initiative Publishes Autumn Newsletter

Please find below the link for the Autumn Issue 2008 of the "The Insider", the newsletter created by the Guizhou CMM Recovery and Utilization Initiative, an organization created to support the use of coal mine methane gas as a clean energy resource. This work is part of a project funded by the EPA under a Methane to Markets Partnership grant. This issue includes several features:

- Feature Article: Guizhou CMM
  Workshop Expands Spectrum for
  Localized CMM Development.
  This article contains summaries
  and main points of presentations
  at the workshop.
- Initiative Presents at CDM Asia 2008.
- CCII Symposium and Workshop Announcement.
- Registration of Three CMM Utilization Projects.

http://www.gzcmm.org/Newsletter/Fall 2008 Chinese.pdf

http://www.gzcmm.org/Newsletter/ Fall\_2008\_English.pdf

## New Abandoned Mine Methane Project at Cambria 33 Announced

Econergy International announced a new coal mine methane capture project at the Cambria 33 abandoned mine in Pennsylvania, commissioned with Vessels Coal Gas, Inc (VCG) in May. Operated by VCG, the project is now delivering natural gas into the Dominion Peoples local distribution

pipeline and will sell an estimated 300 million cubic feet of natural gas annually over the project's 12 year life. The project will generate revenue from the sale of natural gas and from carbon credits issued as verified emissions reductions (VERs).

At the time of the project announcement, Cambria 33 was a 50-50 joint venture between Econergy and VCG, with a total investment value of approximately \$6.5 million. Econergy has since been acquired by Suez Energy South America Participaes Ltda. (SESA).

MSHA records indicate that there has been no coal production at Cambria No. 33 since 1995. The Coalbed Methane Outreach Program (CMOP) listed this mine in its 2004 Abandoned Coal Mine Database.

(http://www.epa.gov/cmop/docs/amm\_final\_report.pdf).

Econergy Press Release, May 20, 2008

www.econergy.com/docs/CambriaFINAL.pdf

## Large CMM Power Project Planned for Ukraine

According to Business Wire, the JSC Coal Company Krasnoarmeiskaya Zapadnaya is the latest Ukrainian company to modernize its coal mining operations by signing a framework agreement with GE Energy.

Under the agreement, JSC plans to install up to 20 of GE's Jenbacher coal mine gas-fueled cogeneration units. The engines will use the active mine's own methane gas to generate about 129 MW in total power output, covering the mine's on-site power and heat requirements. The initiative will also reduce site emissions and support workplace safety initiatives. The privately owned mine is located near the town of Krasnoarmeisk, in the coal-rich

Donetsk region in eastern Ukraine.

One of Europe's leading coalproducing countries, Ukraine is a founding member of the Methane to Markets Partnership. When the Krasnoarmeiskaya Zapadnaya project reaches full operation, it is expected to potentially reduce the equivalent of more than two million tons CO<sub>2</sub> equivalent (MMTCO2e) emissions per year, compared to venting the gas into the atmosphere - qualifying the plant for carbon emission trading certificates.

"Generating nearly 129 MW of power with mine gas could save about 122 million cubic meters of natural gas a year," Alex Pavlov, GE's Jenbacher gas engine Sales Manager for the Ukraine, noted.

or visit GE's web site at <a href="http://www.ge.com">http://www.ge.com</a>.

### Jim Walter Resources Adds Second Longwall at Mine No. 7

Walter Industries, a leading producer and exporter of U.S. metallurgical coal, announced the successful start up of the second longwall at its Mine No. 7. This addition is expected to add approximately one million incremental coal tons of production output in 2008. Combined with recent acquisitions, Walter Industries expects to have approximately 11 million tons of total coal production capacity in 2010.

According to USEPA, Jim Walter Resources operates three of the gassiest underground coal mines in the U.S. Located in Tuscaloosa County, Alabama, JWR's Blue Creek Nos. 4, 5,

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### **CBM/CMM News**

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and 7 were the 11<sup>th</sup>, 29<sup>th</sup>, and 4<sup>th</sup>, gassiest underground coal mines in 2006. JWR has been a leader in the development of coal mine methane recovery projects in the United States. The company's Blue Creek mines recovered and sold approximately 46.5 million cubic feet of gas per day in 2006.

Walter Industries Press Release, September 8

2008, <a href="http://investorrelations.walterind.com/">http://investorrelations.walterind.com/</a> phoenix.zhtml?c=71978&p=irolnewsArticle&ID=1194637&highlight=

## Significant Potential for CBM in Southern Africa

Several significant coalbed methane (CBM) resources have been identified in southern Africa, as reported by *Mining Weekly*. South Africa's Waterberg area could contain up to one-trillion cubic feet (tcf) of CBM, which could provide for 5% of South Africa's liquid fuel needs for the next 15 years.

Another promising CBM deposit is located in the central Kgalagadi of Botswana, where the government has claimed 62 tcf of proven resources, with an additional 90 tcf of possible CBM resources discovered. However, private industry sources estimate that only 3 to 4 tcf of the Botswana resource is probable. Zimbabwe also has a probable CBM resource estimated between 1 to 2 tcf. Some infrastructure development is already being planned.

The southern African region is expected to need an additional 2-gigawatts of (GW) electricity generation capacity every year through 2030. A 250 MW peaking power plant – to be fired by CBM - is slated for construc-

tion in the first quarter of 2009, located near the village of Mmashoro, in central Botswana.

Mining Weekly, September 9, 2008, http://www.miningweekly.com/article.php? a\_id=142733

Engineering News, August 15, 2008, http://www.engineeringnews.co.za/article.php? a\_id=140026

## Illawarra Coal's WestVAMP Project is a Winner

Illawarra Coal's WestVAMP (ventilation air methane project) power plant in Appin, Australia, won an environmental award at the BHP Health, Safety, Environment and Community Awards. The awards recognize BHP Billiton employees who embody the company's values and go beyond what is required in their job to care for the health and safety of fellow employees, the environment, and the community.

WestVAMP was one of eight projects nominated in the environment category. This project uses the extremely dilute methane in the ventilation air from West Cliff mine to generate 6 MW of electricity.

Wollondilly Advertiser, September 30, 2008.

http://wollondilly.yourguide.com.au/news/local/news/general/clean-coal-operator-is-a-winner/1320450.aspx#

## MEGTEC, Equity Firm Buy Company from Owner

MEGTEC Systems managers and a private equity firm have bought the company from Sequa Corp. Hamilton Robinson LLC of Stamford, Connecticut, joined with management and coinvestors to buy the company, which provides printing, web coating, packaging, wood products and other process and energy market services.

The company, which reported \$250 million in revenue in 2007, will be a

stand-alone company with no major change in management structure or day-to-day operations.

In May 2008, the U.S. Environmental Protection Agency presented a Climate Protection Award to MEGTEC in recognition of its technology that enables coal mine ventilation air methane to be used as a primary energy-producing source and its efforts to promote recovery and mitigation of ventilation air methane.

MEGTEC helped develop the world's first power plant that generates electricity using coal mine ventilation-air methane as primary fuel at the West Cliff Colliery mine in Appin, New South Wales, Australia.

### MEGTEC Systems Press Release, September 24, 2008

http://www.megtec.com/documents/News% 20release Sequa%20sells%20MEGTEC% 20Systems%20to%20Hamilton%20Robinson% 20Capital%20Partners ENGLISH.pdf

## ConocoPhillips and Origin Agree on Coalbed Methane Venture

According to the Financial Times, ConocoPhillips plans to invest up to A\$9.6 billion (US\$7.8 bn) to jointly develop coal seam methane gas assets with Origin Energy, the Australian energy group. ConocoPhillips and Origin plan to convert the gas extracted from coal bed methane into LNG before it is exported from the Australian state of Queensland to Asia.

Financial Times, September 9, 2008 http://www.ft.com/cms/s/0/66d740f8-7e08-11dd-bdbd-000077b07658.html?nclick\_check=1

### CNX Gas Named 2008 Platts Global Energy Awards Finalist: Hydrocarbon Producer of the Year

CNX Gas has been named a finalist for the 2008 Platts Global Energy

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### **CBM/CMM News**

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Awards in the category "Hydrocarbon Producer of the Year." 2008 marks the 10<sup>th</sup> anniversary of the Platts Global Energy Awards which annually recognize outstanding achievement and vision in the global energy industry.

The company and individual winners will be announced and honored at an event to be held on December 3, 2008 in New York City. According to USEPA, CNX Gas Corporation recovers methane from two of the gassiest mines in the southwestern region of Virginia: Buchanan and VP 8.

Additionally, in early 2007, CNX Gas – in partnership with CONSOL Energy and Ingersoll Rand Energy Systems – successfully demonstrated electricity generation by a microturbine fueled by unprocessed CMM at Bailey mine in Pennsylvania.

For further information, see the Spring 2007 edition of the Coalbed Methane Extra at:

http://www.epa.gov/cmop/docs/spring\_2007.pdf

CNX Gas Corporation Press Release, October 2, 2008,

http://www.marketwatch.com/news/story/cnx-gas-named-2008-platts/story.aspx?guid=%7B95ACA2B5-29F3-4F3E-9895-0F023E6199EE%7D&dist=hppr

### 21<sup>st</sup> World Mining Congress & Expo

The 21st World Mining Congress & Expo was held September 7-12, 2008 in Crakow and Sosnowiec, Poland. The Congress was well-attended by approximately 900 participants from around the world and included technical sessions at Jagiellonian University and a large exposition at Expo Silesia.

Poland has a long mining tradition and was the organizer of the first Congress 50 years ago in Warsaw. The World Mining Congress takes place every 2-3 years and the next Congress will be held in Istanbul, Turkey during 2011.

For more information on the 21st Congress, go to:

http://www.wmc-expo2008.org/en/home



Participants at the 21st World Mining Congress & Expo, Poland

As part of the Congress technical program, CMOP staff chaired a session titled "Underground Mine Environment: Methane Treatment" and gave a presentation on Methane to Markets activities. In addition, CMOP met with the AGH University of Science and Technology, the Institute for Ecology of Industrial Areas (IETU) and Central Mining Institute.

#### **CMOP Exhibits at MINExpo 2008**

CMOP participated in MINExpo INTERNATIONAL® 2008, held Sept 22-24 in Las Vegas, Nevada. The event, sponsored by the National Mining Association (NMA), is one of the largest of its' kind in the world.

MINExpo hosted more than 1,200 exhibitors and 35,000 attendees, displaying the latest technology, equipment, parts and services used in the mining of coal, metallic ores, and other minerals. Technical presentations on coal mine methane were given by Jim Walter Resources, CONSOL Energy, and the Verdeo Group.

The presentations can be obtained from the website:

http://www.minexpo.com/sessions.shtm

CMOP displayed Methane to Market materials, U.S. CMM project opportunities, and answered questions from a diverse array of attendees including miners, equipment providers, government participants from the US and abroad, and those involved in the carbon market.

Countless contacts were made and a vast, unique audience was reached, providing an excellent outreach opportunity. MINExpo is held every four years and will take place again in 2012.

Additional information about MINExpo 2008 (including videos) can be found at <a href="https://www.minexpo.com">www.minexpo.com</a>



## **Upcoming CBM/CMM Events**

### **China Coal Expo 2008**

4 - 7 November 2008

National Agriculture Exhibition Center

Beijing, China

Phone: +852 2881 5889 Fax: +852 2890 2657

Email: info@together-expo.com Website: www.chinacoalexpo.com/

## 9<sup>th</sup> International Mine Ventilation Congress

10 - 13 November 2009 Hotel Crowne Plaza New Delhi, India

Contact: Prof. D.C. Panigrahi Phone: +91-326-2235235 / 2296628

Email: dc\_panigrahi@yahoo.co.in or info@9thimvc.org

Website: www.9thimvc.org

## 9<sup>th</sup> International Conference on Greenhouse Gas Control Technologies

16 - 20 November 2008 The Omni Shoreham Hotel

Phone: 617-258-0307 Fax: 617-253-8013 Email: ghgt9@mit.edu Website: mit.edu/ghgt9

Washington, DC

### India CMM/CBM Clearinghouse Kick-off Event

Sponsored by USTDA, USEPA, and the India Ministry of Coal 17 - 18 November 2008

17 - 10 November 2000

Indian Institute of Coal Management, Ranchi, India

Website: www.IndiaCBM-CMM.govtools.us

#### Coal Tech Asia 2008

18 - 20 November 2008

New Otani Chang Fu Gong Hotel

Beijing, China

Website: www.coaltechasia.com

## 10<sup>th</sup> Annual Unconventional Gas Conference

19 - 21 November 2008Telus Convention Centre

Calgary, Alberta

Website: www.csug.ca/dl/RegistrationBrochure2008.pdf

## 2008 Unconventional Gas and Coal Bed Methane Conference

20 - 21 November 2008

JW Marriot Denver at Cherry Creek

Denver, Colorado Contact: Miles Markovic Phone: 416-777-2020 ext. 6261

## The 8th International Symposium on CBM/CMM and Carbon Trading in China

4 December 2008 Kunlun Hotel Beijing, China

Contacts: Ms. Liu Xin, Mr. Zhao Guoquan, Mr. Li Hongjun, Ms.

Huang Lan

China Coal Information Institute Phone: 0086-10-84657948, 84657850

Email: cbmc@coalinfo.net.cn or cbmc@public.bta.net.cn

Website: <a href="https://www.coalinfo.net.cn/coalbed/meeting/20080902/20080902e.htm">www.coalinfo.net.cn/coalbed/meeting/20080902/20080902e.htm</a>

(See announcement on page 7.)

In conjunction with:

### International Workshop on Mine Methane Emission Reduction in China

5 December 2008 Kunlun Hotel Beijing, China

Contact information: see above

#### 2nd Annual China Coal Summit 2008

11 - 12 December 2008

Beijing China

Website: http://www.coalsummit.com/

### Methane to Markets Steering Committee, Subcommittee meeting, and technical workshops

26 – 30 January 2009 Guadalajara, Mexico

Website: www.methanetomarkets.org



## **Upcoming CBM/CMM Events**

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### Ventilation and Heat Management in Underground Mines

Professional Development Course Presented by Dr. Roy

9 – 13 February 2009 Laurentian University Sudbury, Ontario, Canada Email: info@mirarco.org

Website: <a href="https://www.mirarco.org/courses/2008/">www.mirarco.org/courses/2008/</a> Feb9thMineVentPoster%20latest2.pdf

#### Asia CBM Forum 2009

23 – 26 February 2009 Jakarta, Indonesia Contact: Rex Ian Sayson Phone: +65 6506 0984

Email: rex@alleventsgroup.com

Website: http://www.alleventsgroup.com/cbm/

### 2<sup>nd</sup> CBM/CMM Conference

10 - 11 March 2009

Hotel Mulia

Jakarta, Indonesia Contact: Li Ming Phone: 603-2162-7322 Email: liming@cmtsp.com.sq

## Power, Mineral Resources, and Sustainable Development

Organized by Academy of Mining Sciences of Russia and

**UNESCO** 

May 13 - 14, 2009

**UNESCO** 

7 Place Fontenoy, Hall IV

Paris, France

Contact: Mrs. Liudmila Silina Email: liudmila.silina@mail.ru

## Fifth International Symposium on Non-CO2 Greenhouse Gases (NCGG-5)

30 June – 3 July, 2009 Wageningen, The Netherlands Website: www.ncgg5.org

## **New Publications**

### **New and Updated EPA Publications**

Updated:

Identifying Opportunities for Methane Recovery at US Coal Mines: Profiles of Selected Gassy Underground Coal Mines, 2002 - 2006

http://www.epa.gov/cmop/docs/profiles\_2008\_final.pdf

New:

Abandoned Coal Mine Methane Opportunities Database

http://www.epa.gov/cmop/docs/amm\_opportunities\_database.pdf

### **Updated Methane to Markets Publications**

Coal Mine Methane Global Overview (Methane to Markets Partnership):

http://www.methanetomarkets.org/resources/coalmines/overview.htm

www.epa.gov/coalbed www.methanetomarkets.org