STATE OF WYOMING

The Wyoming Oil and Gas Conservation Commission has 41 full-time employees.

The Commission is funded entirely from the Conservation Tax mil levy (currently set at 0.0004 mil) on net oil and gas sales revenue. In FY 2009-2010 and for FY 2011-2012 the Biennial Budget is $9.7 million.

The Commission is responsible for over 55,000 oil and gas wells (35,000 producing) and an additional 4,700 injection and disposal wells.
2009 Statistics: (as compared with 2008 Statistics)

**Drilling**
Conventional Oil and Gas: Spuds down 64.3% to 1,185
Coal Bed Methane: Spuds down 82.2% to 391

**Total Oil Production:** Down 3.1% to 51.33 million BO;
9,800 producers, 4,600 wells shut-in; reflects steep historic decline in mature fields and increasing condensate production from the Greater Green River Basin in southwestern Wyoming and increasing production from 5 CO2 projects.

**Enhanced Oil Recovery projects:** In 2009 produced just over 6,000,000 BO or 11.7% of Wyoming’s total oil production

**Total Gas Production:** Up 2.4% at 2.54 TCF;
11,800 producing wells, 1,900 shut-in; reflects continued activity in the Greater Green River Basin tight gas sands in southwestern Wyoming

**Total Coal Bed Methane:** Up 5.1% at 0.58 TCF;
14,400 producing wells and over 12,500 wells shut-in the Powder River Basin of northeastern Wyoming
Wyoming Oil and Gas Conservation Commission

WYOMING CO2 OIL PRODUCTION

YEAR

Million Barrels


Thomas E. Doll
State Oil and Gas Supervisor
Wyoming Oil and Gas Conservation Commission

Thomas E. Doll
State Oil and Gas Supervisor

WY MCF/month & $/MCF
Actual & Projected

Projection
Wyoming Oil and Gas Conservation Commission

Thomas E. Doll
State Oil and Gas Supervisor

Wyoming Total Shut-in Wells

Total Shut-in Wells

Jan-06 Apr-06 Jul-06 Oct-06 Jan-07 Apr-07 Jul-07 Oct-07 Jan-08 Apr-08 Jul-08 Oct-08 Jan-09 Apr-09 Jul-09 Oct-09 Jan-10 Apr-10 Jul-10 Oct-10 Jan-11

Wyoming Shut-in Natural Gas Wells

Number of Shut-in Wells

Jan-06 Apr-06 Jul-06 Oct-06 Jan-07 Apr-07 Jul-07 Oct-07 Jan-08 Apr-08 Jul-08 Oct-08 Jan-09 Apr-09 Jul-09 Oct-09 Jan-10 Apr-10 Jul-10 Oct-10 Jan-11
Horizontal APD’s Approved thru 23 June

WY Total Horizontal Well Spuds

- Horiz Oil
- Horiz Gas
- TOTAL HORIZ
For the **Well Stimulation Rules**, four major issues were addressed:

1. the identification of permitted water supply wells within ¼ mile of the drilling and spacing unit or Commission approved drilling unit;
2. clarification of requirements for well integrity, casing setting depths, casing design and cementing properties;
3. requirements for disclosure of well stimulation fluid chemical additives, compounds and concentrations or rates;
4. and requirements for the handling of the well stimulation load fluid recovered.

The final rules are posted on the web page, [http://wogcc.state.wy.us](http://wogcc.state.wy.us) under Proposed Rule Changes, 8June2010 Version. The Commission adopted the rules amendments 8 June 2010.

In 2009, 3,556 individual hydraulic fracturing well stimulations were performed in 12 oil wells, 570 natural gas wells, and 2 coalbed methane wells. To-date in 2010, the total individual well treatments is already approaching 1,500.
Activity

- **New shale oil and tight oil sands** exploration activities are starting in the eastern half of Wyoming. As an extension of **horizontal drilling and hydraulic fracture stimulation** development in northeastern Colorado in the Niobrara oil shale, seismic and drilling activity is expected to rapidly expand this summer. Many of these counties in eastern Wyoming have not seen exploration activity since the mid-1980’s.
- **Horizontal drilling** in D-J basin sands in western Nebraska has successfully expanded across the border into eastern Wyoming.
- **Seismic** and additional well drilling is planned for central Wyoming. A horizontal well was recently drilled and completed in the tight Frontier oil sand that resulted in initial production rates 10 times that of previously drilled vertical wells. A promising Niobrara oil shale was encountered in the Frontier well.
- Initially the majority of this activity will be on fee and state minerals. Shale oil production accounts for two-tenths of one percent of the state’s total oil production. In 2009 9 oil wells and 12 gas wells were drilled as horizontal wells. To date in 2010, 54 oil wells and 20 gas horizontal well drilling permits have been approved.
Activity (continued):

- Development continues with **directional drilling** in the tight gas sands of the Pinedale Anticline, Jonah and Wamsutter areas of southeastern Wyoming. The Commission has approved down spacing to 10-acre and in some pilot projects 5-acre drilling and spacing units. A horizontal well drilling and spacing unit has been approved in the Jonah Field.

- **Fit for purpose drilling rigs and simultaneous operations** on drilling pads has increased efficiencies with the overall spud to first production dramatically reduced. Simultaneous operations result in upwards of 60 personnel on the pad site 24 hours per day 7-days per week performing well drilling, casing and cementing; snubbing operations to log, perforate, stimulate in multiple stages, and flowback; and for production testing and final sales hook-up; and all materials and equipment and manpower safely coordinated for just-in-time execution.

  In **2009 19 oil wells and 674 gas wells were drilled directionally.** To date in 2010, over 35 oil and over 530 gas directionally drilled well permits have been issued.
Activity (continued):

- **Coalbed methane** activity has been dismal with no new activity outside of the Powder River Basin and little activity there in 2009 and to date in 2010. Coalbed methane gas production has not yet been impacted by the lack of drilling as Big George coal well production from the center of the basin is masking the steep decline in the Wyodak coal wells. Many operators have deferred drilling until 2011. Well plugging activities are anticipated increase this summer and fall.

- Although gas pricing contributes, the lack of drilling is tied directly to the lack of federal drilling permits being issued by the BLM over the past three years. Federal APDs processed by BLM in Wyoming decreased by 41.3% in 2009 from 2008 to 2,162 total APDs. Future negative impacts are anticipated as only a few of the 1,600 federal leases purchased in late 2008 and early 2009 have been released by the Wyoming BLM.

  With over 3,000 additional wells shut-in during 2009, to over 12,500 total, coalbed methane gas production has not decreased possibly due to increasing production in the Big George coal or that many of these wells were producing only water or not productive at all.
Activity (continued):

• Wyoming’s gas producers have benefited from the completion of the REX pipeline which has opened additional markets from the eastern states. The natural gas pricing differential has been dramatically reduced. The Ruby Pipeline project is anticipated to be completed from Opal in western Wyoming to Malin Oregon 1Q2011. Basin Pipeline from Gillette to North Dakota is also anticipated for 2011 start-up. Kern River and Questar are proposing expansion of their respective pipeline capacity to California through looping and additional compression by end of 2011.

• Wyoming Pipeline Authority is concern over mismatched CO2 specifications at 3% on some and at 2% or lower on other pipelines, rising CO2 content, inconsistent pipeline Btu specifications, and changes in pipeline flow paths may impact takeaway capacity if not addressed in the near future.

• The opposite is true for Wyoming’s oil producers who continue see high differentials in oil price due to a lack of pipeline takeaway capacity. With the Niobrara oil shale and tight oil sand development, additional oil pipeline capacity may finally be addressed.
QUESTIONS?