

# **BLM – DOE Federal Lands Technology Partnership**



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# National Lab Discovers New Element

- ❖ **Governmentium (Gv)**
- ❖ **Heaviest element known to science**
  - 1 neutron
  - 12 assistant neutrons
  - 75 deputy neutrons
  - And 11 assistant deputy neutrons
- ❖ **Atomic mass of 312**

# Structure of Governmentium

- ❖ **Particles held together by forces called Morons**
- ❖ **Surrounded by vast quantities of lepton-like particles called Peons**
- ❖ **Gv has no electrons and is inert**
  - **Is detected as it impedes every reaction with which it comes into contact**
    - **Normal reaction takes  $< 1$  second**
    - **Gv-catalyzed reaction takes  $> 4$  days**

# Fate of Governmentium

- ❖ Normal half life of 2 to 6 years
  - But does not decay
- ❖ Undergoes reorganization
  - Portion of assistant neutrons and deputy neutrons change places
- ❖ Actually increases in mass over time
  - In each reorganization, some morons become neutrons
    - These are known as isodopes

# How Is It Formed?

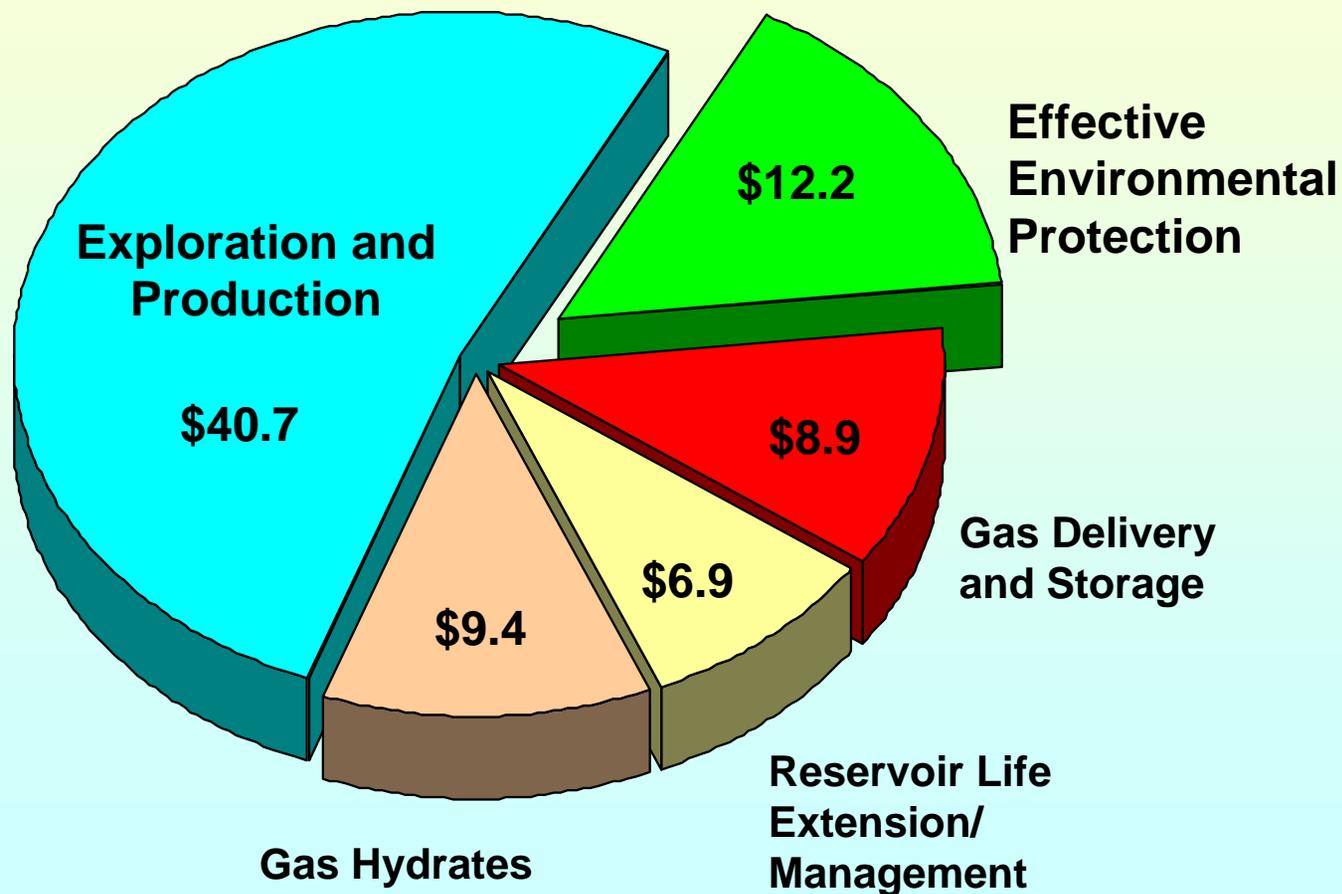
- ❖ **Whenever the concentration of morons exceeds a critical threshold, some become neutrons**
  - **Threshold is called the “Critical Morass”**

# DOE Oil and Gas Environmental Program



- ❖ **Mission:** Promote cost-effective environmental protection and improve environmental performance to encourage maximum recovery of U.S. oil and natural gas resources.

# DOE Oil and Gas Program Budget FY 2004: \$78.1 Million



# Environmental Research Program Activity Area

## ❖ Water Management

- Treatment
- Beneficial Use
- Minimization



## ❖ Federal Lands Access

## ❖ Data Management

## ❖ Air Quality

## ❖ Regulatory Streamlining

## ❖ Surface Impacts

## ❖ Remediation

## ❖ Drilling Waste/Associated Waste

## ❖ Arctic Development



# Federal Lands Activities - Research

- ❖ Produced water treatment, management, and disposal
- ❖ Visibility modeling, monitoring, emissions inventory
- ❖ Site remediation
- ❖ Reduced footprint
- ❖ Best management practices
- ❖ Data management and decision tools
- ❖ New competitive procurement
- ❖ BLM partnership

# Federal Lands Activities – Interagency Cooperation

- ❖ Federal Leadership Forum
- ❖ NPR-A Research and Monitoring Team
- ❖ Montana Coal-Bed EIS
- ❖ CBNG Analysis for EPA
- ❖ EPCA Inventory
- ❖ Federal Energy Resources Network
- ❖ Rocky Mountain Energy Council follow-up

# History of the BLM – DOE Partnership

- ❖ MOU between BLM and DOE
  - Technology transfer
  - Data sharing and modeling
- ❖ Established Federal Lands Technology Partnership
- ❖ First projects funded in 1998
  - One year projects limited to \$75K each
- ❖ Expanded in FY03 to 3 years and \$300K
- ❖ Focused topics:
  - NEPA/Planning streamlining
  - Science to support stipulations/COAs
  - Analyze impacts of O&G development

Holy Federal  
Lands Batman!





# The Partnership Process

- ❖ Call for proposals
- ❖ Receive proposals from BLM field offices
- ❖ Joint BLM/DOE evaluation
- ❖ Fund highest ranked projects to limit of funding
- ❖ DOE transfers funds and tracks projects
- ❖ BLM manages projects; reports on progress and results



# Guidelines for Projects

- ❖ **Research projects**
  - Not equipment purchase
  - Not performing BLM's job
- ❖ **Environmental issues that affect access to oil and gas**
- ❖ **Up to three years/\$300,000**
- ❖ **Produce a useful product**

# Previously Funded Projects

## ❖ Wildlife

- Impacts on sage grouse – GRB & PRB – WY
- Impacts on big game/wildlife – MT/WY
- Impacts on mountain plover -- WY

## ❖ Surface Impacts/Visual Impacts/Noise

- Impact of seismic activities on soils – UT
- Erosion study – NM
- Impact of compressor noise – NM
- Reducing visual impacts – WY

# Previously Funded Projects (cont.)

## ❖ Water Management

- CBNG Water impacts on soils – WY
- Water mapping, modeling, monitoring – CO
- Brine impact on aquifers – OK
- CBNG water quality – WY
- Site evaluation for CBNG water disposal – MT

## ❖ Air Quality

- Air monitoring in the NPR-A – AK
- Ammonia inventory -- WY

## ❖ Data Management/Decision Tools/Streamlining

- Grass Creek RMP – WY
- Comprehensive COAs – WY
- GIS data base/analytical system -- WY

# Projects Funded in FY2003

## ❖ NEPA

- NEPA toolkit – CO

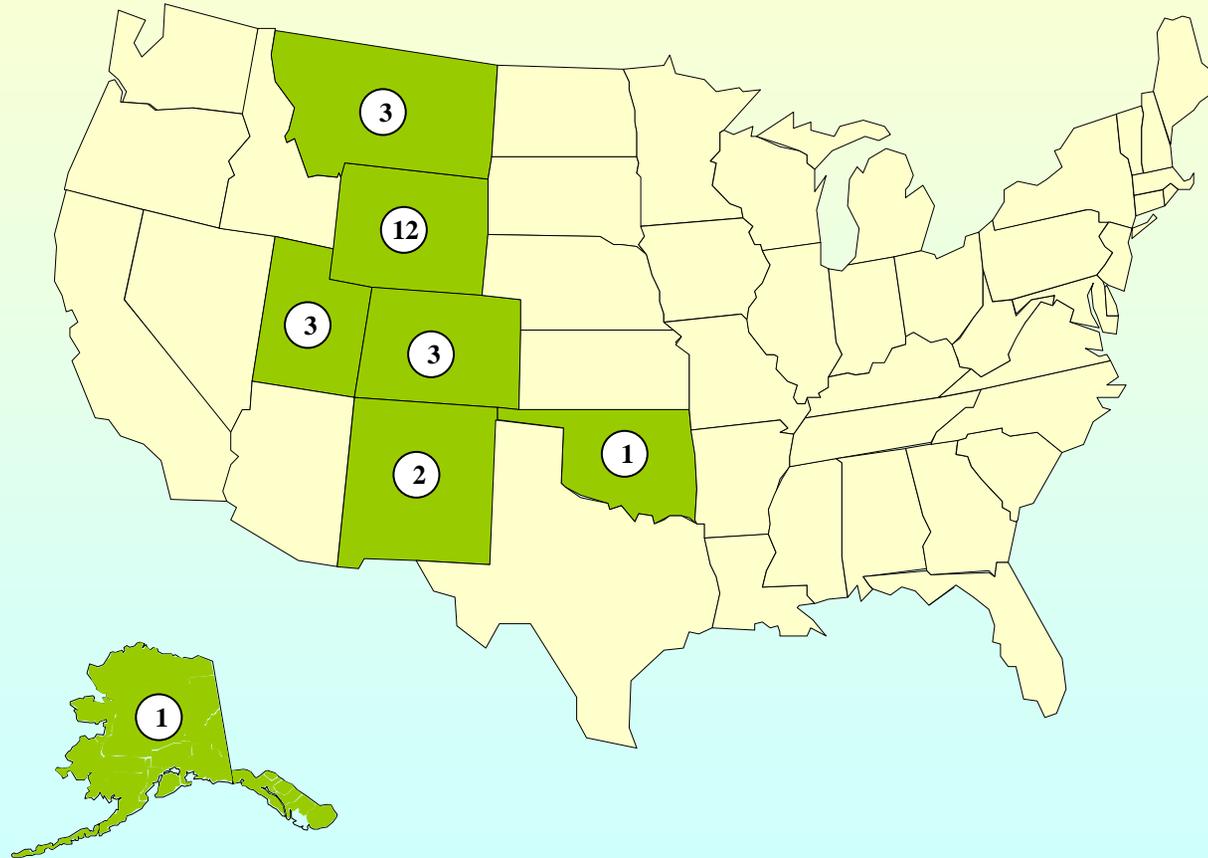
## ❖ Science for stipulations/COAs

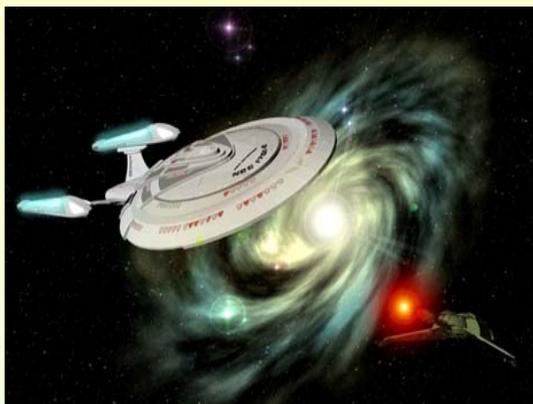
- Soil Surveys – WY
- Environmental enhancement and monitoring – CO
- Vegetative recovery after seismic -- UT

## ❖ Impact studies

- Annotated bibliography of impact studies – WY
- Impacts of habitat loss/fragmentation – UT
- Conservation planning for sage grouse – MT

# States With Partnership Projects





# Plans for the Future

- ❖ **Combine FY04 and FY05 funding into the next call**
  - To be issued early in FY05
- ❖ **Continue to assess priorities for research**
- ❖ **Track and evaluate projects for impact**
- ❖ **Include the Forest Service**

# The DOE Environmental Program Team

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