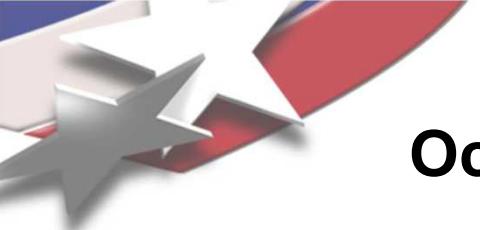


# **Southwest Partnership C02 Sequestration**

## **Risk Assessment of Field Experimentation**

**July 25, 2007**

**Randy Everett  
Senior Technologist  
Org. 6316 - Geochemistry**



# US Department of Labor Occupational Safety & Health Administration (OSHA)

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- Must Comply with Code of Federal Regulations (CFR)
- 29 CFR 1910 OSHA Standards
  - 724 page document
  - Web – [www.osha.gov](http://www.osha.gov)
- You MUST perform and document a Hazard Assessment Survey before starting a job!
- Get “HELP” from your Organization management, compliance and safety Departments.



# Project Management & Safety Planning

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1. Plan Work
2. Analyze Hazards
3. Control Hazards
4. Perform Work
5. Feedback & Improve



# Key Hazard Assessment Areas

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- Radiological
- Explosives
- Lasers
- Hazardous Chemicals
- Energized Electrical Work
- Mechanical Hazards
- Thermal
- Pressure
- Noise
- Environmental
- Numerous work related conditions such as; construction like activities, ladders, confined space, respiratory, etc...



# Basic “Out in the Field” Survival Common Sense!

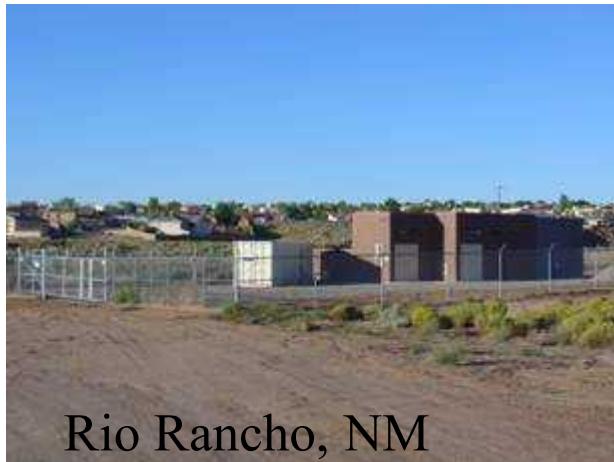
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- Adopt Two-Man Rule
- Communications
- Weather
- Water – Food – Facilities
- Transportation



# Where & What is your “Pilot Site” like?

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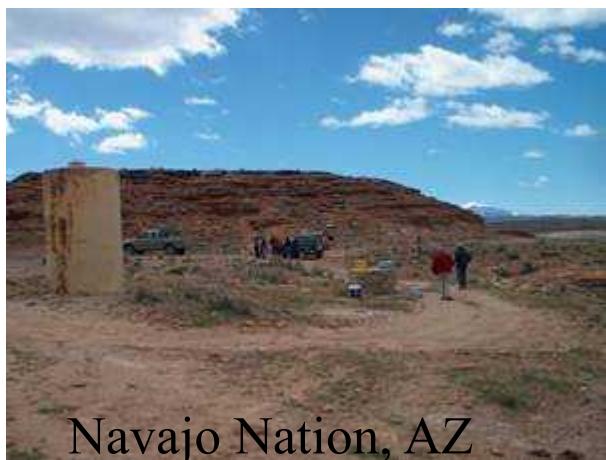
Rio Rancho, NM



Socorro, NM



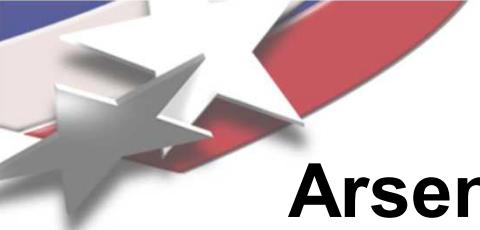
Artesia, NM



Navajo Nation, AZ



El Paso, TX



# Rio Rancho, NM

## Arsenic Removal from Drinking Water

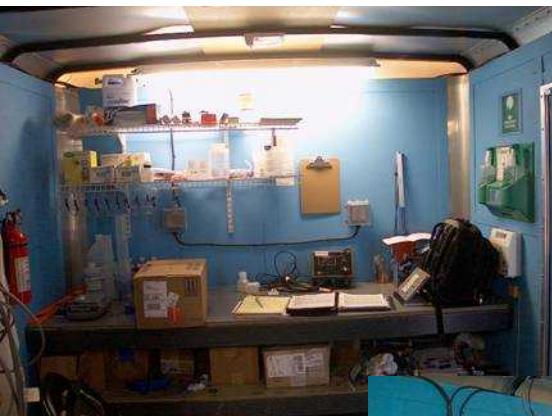
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# Zero Liquid Discharge Project using Reverse Osmosis – Electrodialysis-Methasis

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El Paso, TX



# Socorro Springs Arsenic Removal Pilot for Drinking Water

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# Coal Bed Natural Gas Produced Water Desalination Pilot (CBNG)

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**ConocoPhillips  
SAN JUAN 32-8 #237A  
Pilot Site**

**Sandia National Laboratories  
Pilot Transportainer**





# (CBNG)

# Pilot Operation Notebook

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- **ConocoPhillips Safety & Site Requirements**
- **List of Contacts & Phone Numbers**
- **Site Specific Safety & Emergency Information**
- **Pilot Procedures for System Operations**
- **Primary Hazard Screening (PHS)**
- **National Environmental Policy Act (NEPA)**
- **Pressure Package**
- **Electrical Operating Procedure (OP)**
- **MSDS**
- **Signed Forms for Authorized Users & Visitors**



# Acknowledgements

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- **OSHA Web Site:** [www.osha.gov](http://www.osha.gov)
- **ConocoPhillips:**
  - Health, Safety & Environmental (HSE) Orientation
  - Job Safety Analysis Worksheet (JSAW)
- **Sandia National Laboratories:**
  - Integrated Safety Management System (ISMS)
  - Environmental Safety & Health System (ES&H)
  - Arsenic Water Treatment Program ([www.sandia.gov/water/arsenic](http://www.sandia.gov/water/arsenic))
  - Coal Bed Natural Gas Produced Water (CBNG) Desalination Pilot
  - Zero Liquid Discharge – RO/EDM (ZDD-Dow-SNL)



## Conclusions

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**If the job is worth doing!**

**It is worth doing SAFELY!**

**and as always ...  
with its “proper documentation”**

\* Emily, Thanks for the motto!