EORI Interactive Data Platform (IDP)

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The mission of EORI is to facilitate a meaningful and measurable increase in recoverable reserves and production of oil and natural gas in Wyoming that may otherwise not be realized. Key to this is the effective and efficient transfer of relevant technology, information, and knowledge to Wyoming producers. EORI believes that its mission is being met when the producers consider EORI as a vital source of relevant technology, information, expertise, and knowledge for Wyoming fields.
Overview

Oil and Gas recovery phases, Life of the Field

Discovery

Primary Recovery: (Produces from original Reservoir energy)
Examples: natural water drive, pressure depletion, gravity drainage

Improved oil recovery: 
down-spacing, reperforating, pumps, engineering and facilities improvements

Secondary Recovery: (Production enhancement with no chemical changes in rock induced)
Examples: Pressure maintenance by nitrogen injection, waterflood

Enhanced oil recovery (EOR – Tertiary): (using processes that change the chemistry of the system).
Examples: CO2, polymer, methane, ASP, microbial, thermal (steam)

Abandonment
Background

- Wyoming Oil & Gas Reservoir Information
  - Database development
  - Using relational database design
  - Geospatial perspective
  - Data sharing and collaboration
- Reservoir Screening
- Data Dissemination
- Web Application
  - Interactive Data Platform (IDP)
Collaboration is Key

Enhanced Oil Recovery Institute (EORI)
Wyoming Geographic Information Science Center (WyGISC)
***Wyoming Oil & Gas Conservation Commission (WOGCC)
***Wyoming Geological Association (WGA)
Wyoming Pipeline Authority (WPA)
***Seismic Exchange (SE)
The IDP Web Application

http://eori.wygisc.org
Enhanced Search and Query Tools

- Expandable legend
- Field and EOR search tool
- Extractable layers
- Search tools
- Reservoir Screening tools
- Extract wells tool
Available Thematic Data Sets

EORI/WGA
- Enhanced Oil Recovery Institute
- Gas EOR Targets
- Cored Wells
- Drill Stem Tests
- Well Perforations
- Well Deviations
- Well Locations
- Core Analysis
- CO2 Projects and Targets
- WOGCC Reported Production
- Field Locations
- Field Areas

WOGCC
- Oil and Gas Conservation Commission
- Permits
- Conventional
- CoalBed
- InjectionWells
- DisposalWells
- Units
- Horizontal
- Water Analysis
- Stimulation

WyGISC
- Base Layers
- City & Town Boundaries
- State Parks
- Wind River Reservation
- National Parks and Monuments
- National Recreation Areas
- National Wildlife Refuges
- National Forests
- Wilderness Areas
- Wilderness Study Areas
- Areas of Critical Environmental Concern
- County Boundaries
- Township/Range
- Section
- Quarter Sections
- Surface Land Management
- Federal Mineral Estate
- Bedrock Geology
- Elevation

WPA
- Pipeline Authority
- Carbon Dioxide
- Condensate
- Product
- Natural Gas Liquid
- Crude
- Natural Gas

SE
- Seismic Exchange
- 2D Seismic
- 3D Seismic
Data Analysis Tools and Output

Buffer/Select Wells

Annual Production graphs

Core analysis charts (in press)

Tables

Cumulative production graphs
Search and Query by Geologic Formation
Search and Query by Field Name

Elk Petroleum, Inc.
Grieve Field, Natrona County, WY
CO₂ Potential

Case studies and technical reports

General field information

Annual Production graphs
Search and Query Available Well Data

Units and well distribution

Well attributes and link to WOGCC

Reservoir and perforation thickness
Links to External Data Providers

Seismic attributes and links to SEI

Well attributes and links to WOGCC
Acknowledgements and Credits

- Enhanced Oil Recovery Commission
- Wyoming Geographic Information Science Center
- Wyoming Oil & Gas Conservation Commission
- Wyoming Geological Association
- Wyoming Pipeline Authority
- Seismic Exchange
- University of Wyoming School of Energy Resources
- End users and beta testers

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Questions?

http://eori.wygisc.org

Thank you!

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