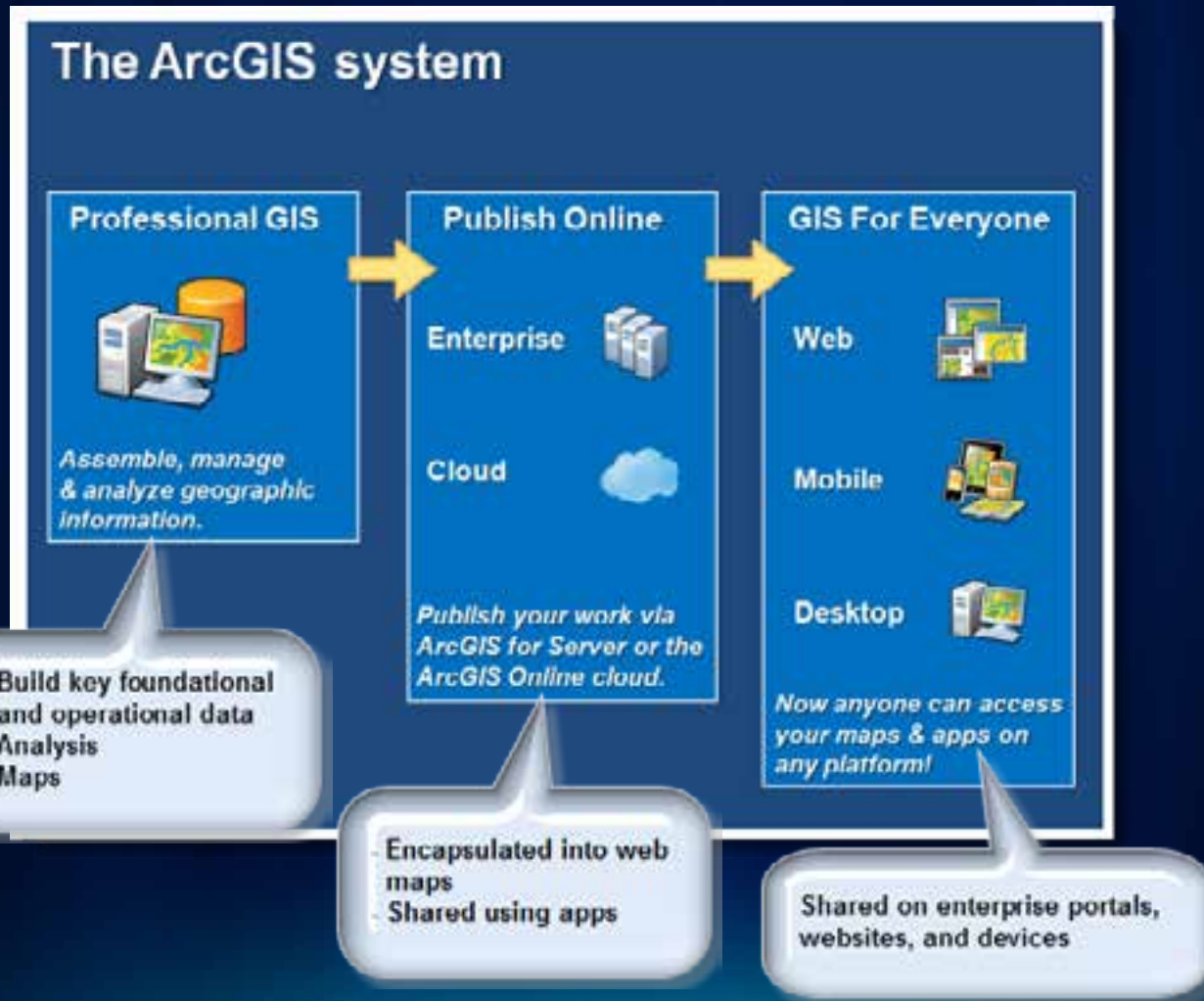


ArcGIS for Petroleum

Adam Pittman, Mark Smithgall, and Clint Brown (Esri)
Robert White (Whitestar),



The ArcGIS System at 10.1



Five Common Business Patterns

Asset
Management

Planning &
Analysis

Field
Mobility

Operational
Awareness

Citizen
Engagement

Your Organization . . .

Managing and
distributing authoritative
GIS data

Transforming data
into actionable
information

Getting information
into and out of the
field

Providing information
on operations and
organizational status

Communicating directly
with stakeholders
and enlisting their
participation



ArcGIS for Petroleum

A mix of on premise and hosted services -- all cataloged and accessed through ArcGIS.com



Petroleum Information Model

More than a geodatabase

- A file geodatabase
- Imagery and sensor information
- Processing tools for preparing petroleum information
- Supporting map documents and corresponding map services
 - Organized as layers and scale-based properties
- Web Map designs (for mashups and popups)



The Petroleum Basemap

- **A map designed to represent your digital oilfield.**
- **Supporting Workflows**
 - **Contour/Surface Harvester**
 - **GP model helps you create the surface and contour information used in the petroleum basemap**
- **ArcMap document and geodatabase (portions of the Petro Information Model)**
- **Tiled Map Service publishing**

Land Lease Mapping and Information Management

- **An ArcMap document representing land information.**
- **This map contains new tools for the visualization of land information over space and time**
- **This map can be shared as a map package or as an online map service**
- **Python Lease Viewer Add-In**

The Land Lease Viewer

- **A web application designed to represent land information. This application is intended to provide a simple and intuitive interface for visualizing land maps.**

Robert White – Whitestar

Partner Teaming: Land Lease Management

- **Specialized skills and discipline for compiling accurate land lease representation and foundational information**
- **Enable your internal operations and management**

HSE Incident Map



- **This web application is designed to represent Health, Safety and Environment operations. It reads incident and event feeds to represent dynamic information on a map**

Geo-Events Dashboard

The screenshot shows the 'Health Safety Environment' section of the ConocoPhillips website. At the top, there is a navigation bar with the company logo and a search bar. Below the navigation bar, the main heading 'Health Safety Environment' is displayed in large white text against a background image of an oil pumpjack in a green field. A sub-heading reads 'Conoco Phillips cares the health and safety of its employees at the highest level.' Below this is a 'Learn More' button. The 'Featured HSE Maps' section contains four map thumbnails: 'Design & Build', 'HSE COP', 'Fuel Server Tracking', and 'Global Monitoring'. Below the maps are three columns of content: 'Latest News', 'Presentations', and 'Announcements'. Each column lists recent updates with titles and brief descriptions.

Health Safety Environment

Conoco Phillips cares the health and safety of its employees at the highest level.

[Learn More](#)

Featured HSE Maps

- Design & Build
- HSE COP
- Fuel Server Tracking
- Global Monitoring

Latest News

Sign up Now for the Spring Picnic

Bring your family to the spring picnic. We have reserved The Club Plaza Resort in New Braunfels Texas. Working towards to Substantiate Water Park.

Conoco Announces Successful Appraisal Well Encountering High-Quality Oil

Learn more about our great operational planning and success in Texas. Click ahead to learn more about this important oil-related activity.

[View >](#)

Presentations

Matthew Davis Showcases Conoco HSE

Conoco works hard to help business units collaborate and leverage corporate knowledge rapidly. Watch this video to learn more.

Conoco Announces Successful Appraisal Well Encountering High-Quality Oil

Learn more about our great operational planning and success in Texas. Click ahead to learn more about this important oil-related activity.

[View >](#)

Announcements

Conoco Announces Successful Appraisal Well Encountering High-Quality Oil

Learn more about our great operational planning and success in Texas. Click ahead to learn more about this important oil-related activity.

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[View >](#)

What's next?

- **Publish and share these examples with the Petroleum Community**
 - **Petroleum Resource Center**
- **New Work**
 - **Pipeline operations and activities**
 - **Health, Safety, and Environment (HSE)**

Sharing with the Petroleum Community

<http://resources.arcgis.com>



The screenshot shows the ArcGIS Resource Center website for the Petroleum community. The page features a navigation bar with links to ArcGIS.com, Support.esri.com, Esri.com, and Sign In. Below the navigation bar is a search bar and a breadcrumb trail: Home > Petroleum. The main content area is titled "Petroleum" and contains a sidebar with a list of categories: Petroleum (expanded), Basemaps, Exploration, Production, Pipeline, Health, Safety and Environment, Blog, Forum, Gallery, and Videos. A "Get Support" button is located at the bottom of the sidebar. The main content area includes a paragraph about downloading ArcGIS maps and applications, a paragraph about using the Petroleum Discussion Forum, and a paragraph about reading the Petroleum Blog or contacting support. An image of an oil pumpjack is displayed on the right side of the page.

ArcGIS.com Support.esri.com Esri.com Sign In

ArcGIS Resource Center Help Blogs Forums

Home > Petroleum

Petroleum

From the Petroleum Resource Center you can download [ArcGIS maps and applications](#) for the petroleum industry to help you implement GIS in your organization. The resources you will find here are organized around the work done on a daily basis by oil and gas companies to explore for new resources, manage assets, increase operational awareness, visualize trends, and enhance field mobility.

You can also use the [Petroleum Discussion Forum](#) to communicate with other oil and gas users, Esri business partners, and the teams within Esri supporting the Oil and Gas industry. When you participate within this community, you can collaborate with us and each other on the [ArcGIS maps, apps, and GIS best practices](#) for the oil and gas industry.

For more information, read the regularly updated [Petroleum Blog](#) or contact us by [email](#).

Petroleum

- Basemaps
- Exploration
- Production
- Pipeline
- Health, Safety and Environment

Blog

Forum

Gallery

Videos

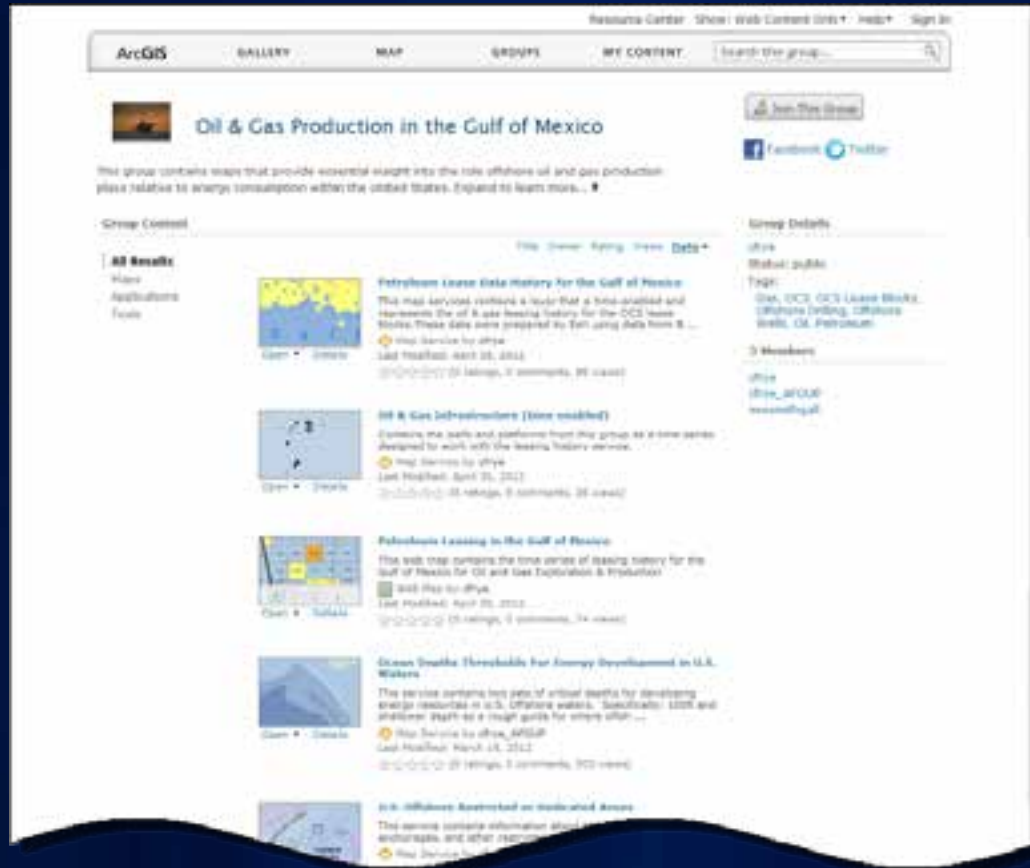
[Get Support](#)



Community Information Model

- **Foundational Layers**
 - **Schema**
 - **Best Practices to Compiling and Maintaining**
 - **Topographic & Marine Features, Lease Boundaries, Oil Field Facilities & Operations, Pipelines, etc.**
- **Key Operational Layers**
- **GIS services**
- **Map designs (online and printed)**
- **Repeatable, Re-usable**
- **Portions of schema can be shared across other communities**
 - **Example: Public Land Survey is also part of cadastral fabric in other industries**

Offshore Production Gallery for Gulf of Mexico



- ArcGIS Online gallery of datasets from the U.S. government (NOAA, BOEM, etc.)
- <http://www.arcgis.com/home/group.html?owner=cfrye&title=Oil%20%26%20Gas%20Production%20in%20the%20Gulf%20of%20Mexico>