

# Introducing Geofacets

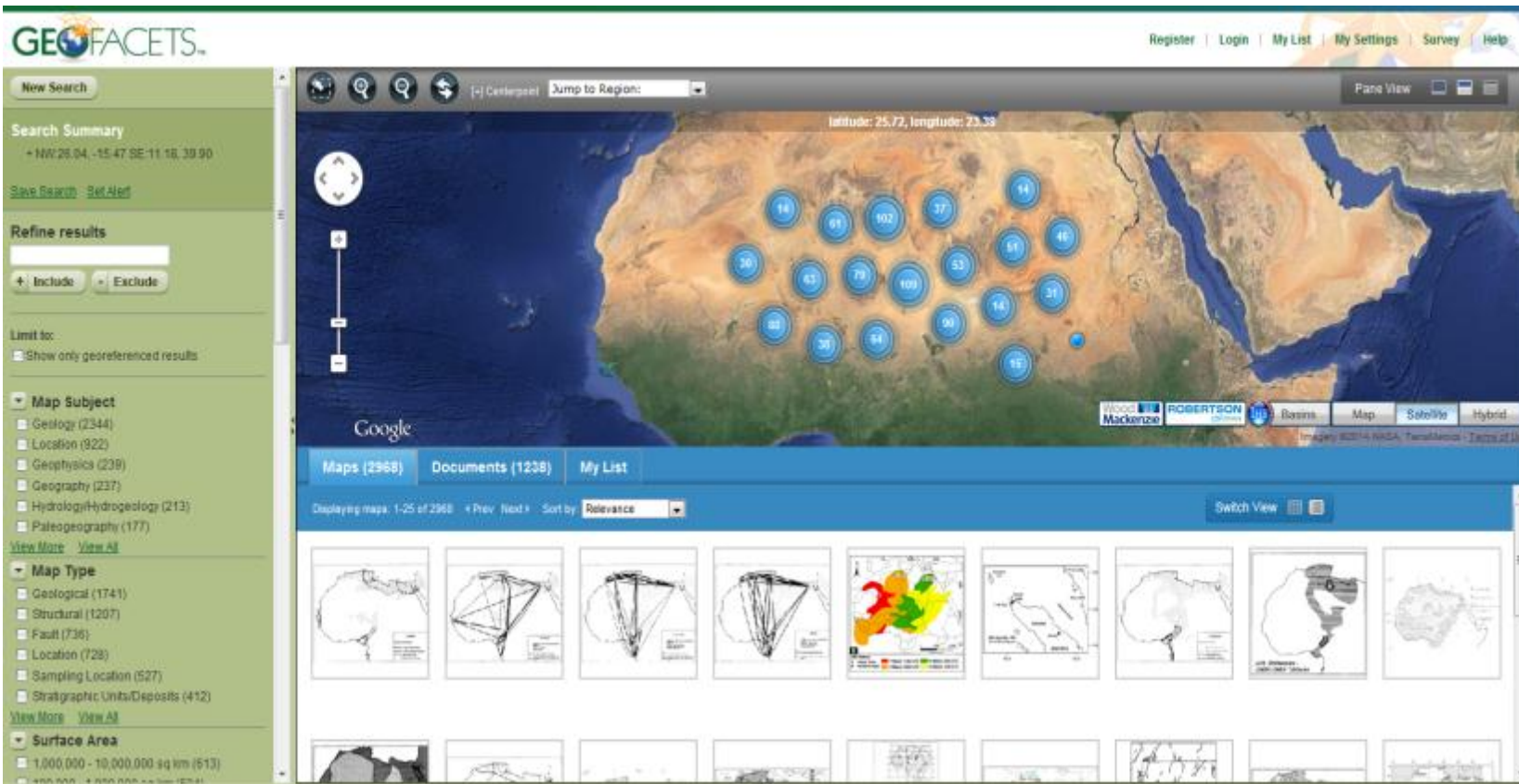
An innovative web-based application for geoscientists in upstream oil and gas



from ELSEVIER

# What is Geofacets?

A web-based application for geoscientists that combines advanced search features on a map-based interface and trusted scientific maps from peer-reviewed literature, including georeferenced maps that can be integrated into GIS software and presentations



***Geofacets has over 400,000 (over 295,000 georeferenced) geological maps from trusted publishers***



# What Makes Geofacets Unique?

1.

Aggregated, Curated  
Content

- **375,000+ maps** from across trusted diversified geoscience research providers in one platform, **updated weekly**

2.

Discoverability

- **Unique search capabilities**, such as geographic and keyword searches (enhanced by professionally classified metadata), developed for geoscientists to find relevant content quickly and efficiently

3.

Context & Insight

- Map details include source article information, and related maps
- Diverse content base offers petroleum or ore-specific geoscience alongside fundamental and specialized geologic research

4.

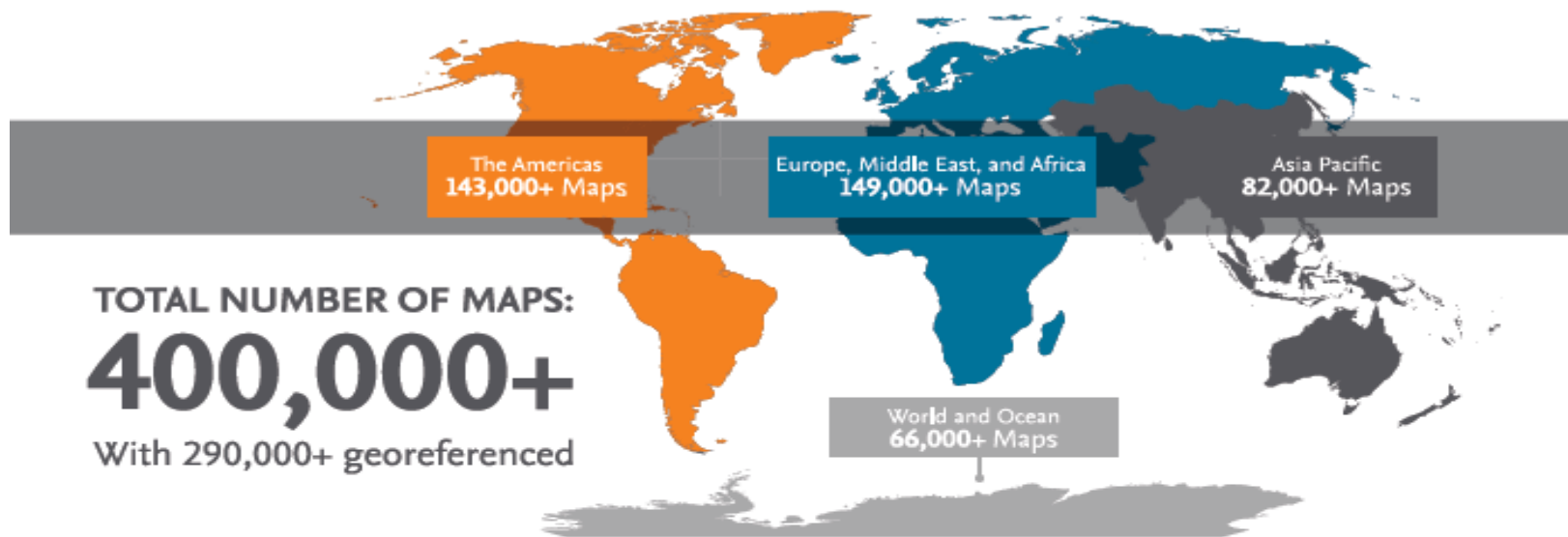
Integration

- Maps are downloadable in image and georeferenced formats for easy integration into GIS, modeling and presentation tools



### Seamless workflow Integration

Ability to download and integrate maps, most of which are georeferenced, into essential workflow tools like Petrel<sup>®</sup>, ArcGIS<sup>™</sup>, and more.



\*number of maps presented are reflective of the addition of Wiley content in Q2 2015



\*trademark of Schlumberger

Visit [www.elsevier.com/geofacets](http://www.elsevier.com/geofacets) for more information



Geofacets is also available in Petrel, via the Geofacets Connector for Petrel<sup>®</sup> and Studio<sup>®</sup>

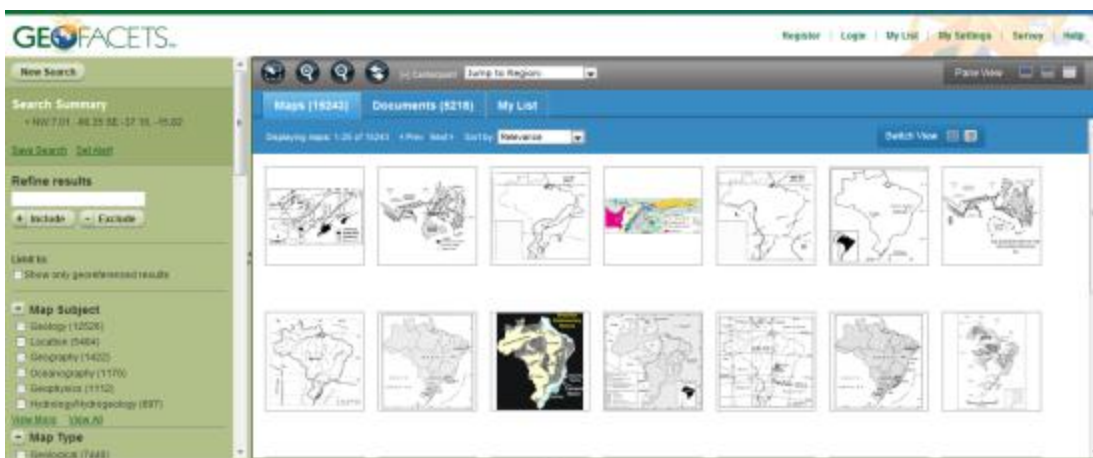
## EXTENSIVE CONTENT FROM TRUSTED GEOSCIENCE PUBLISHERS

# 400,000+ maps, worldwide\*

- More than **210,000** geological maps from Elsevier's top earth science journals
- More than **54,000** geological maps from The Geological Society of London's Lyell Collection
- More than **19,000** geological maps from the Society for Sedimentary Geology (SEPM)
- More than **15,000** geological maps from the Society of Economic Geologists
- More than **80,000** geological maps from the Geological Society of America



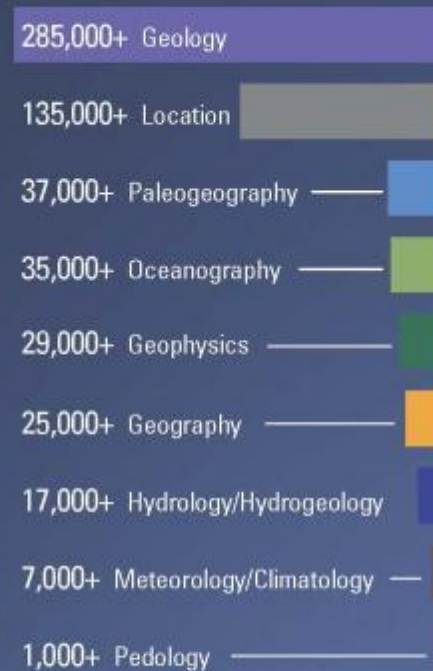
- \*New maps are added on a weekly basis
- \*Additional content partnerships are actively being pursued
- \*Content is curated based on what is most relevant for geoscientists focused on natural resource exploration



# About Geofacets' Content Base



## MAP SUBJECT AREA COVERAGE\*



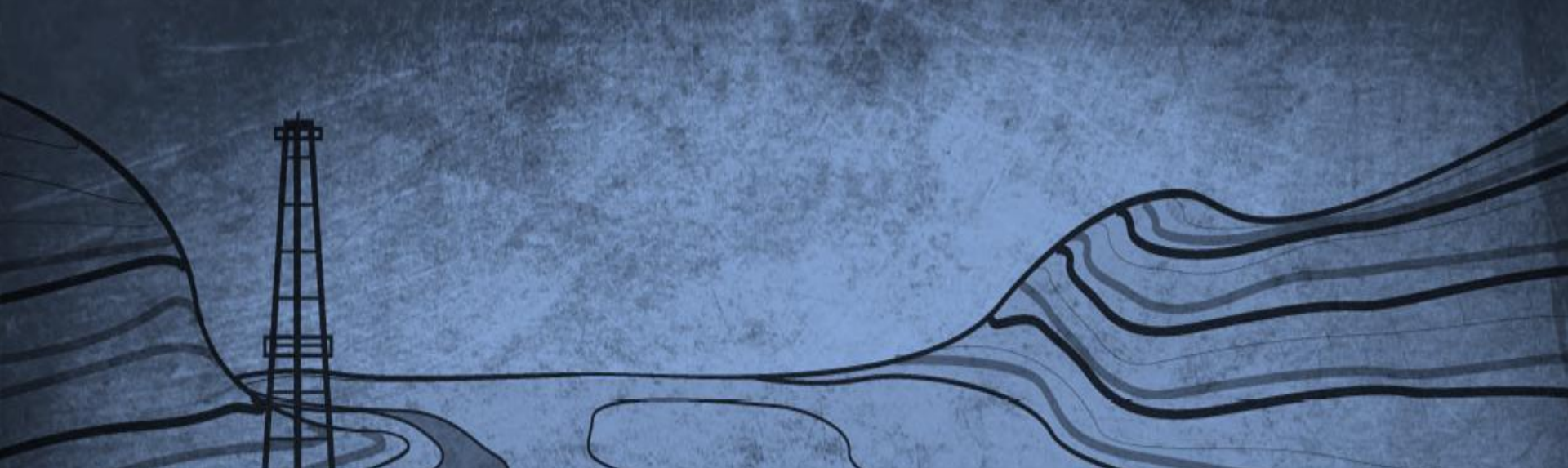
\*Categorization of maps by subject area are not mutually exclusive. Maps may fall under multiple categories.

**TOTAL NUMBER OF MAPS\*:**

**375,000+**

With 265,000+ georeferenced





# Live Product Demonstration





## How Does It Work?

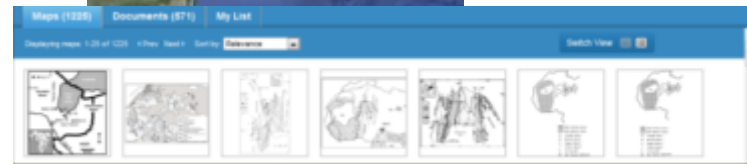
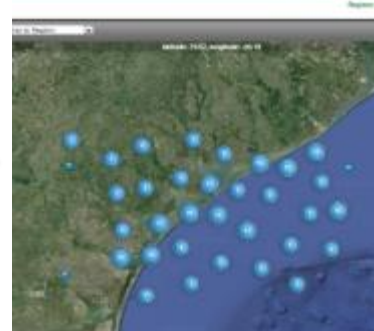




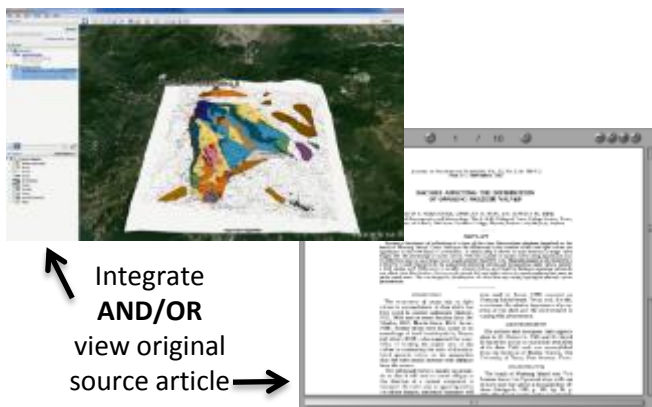
**1.** Search geographically or by keyword on an interactive map interface



**2.** Results displayed on an interactive map surface and in a thumbnail/list window



**4.** Download map image as a GeoTIFF, KMZ, TIF or JPEG file for integration into GIS, PowerPoint, Google Earth or other software OR view the original document in read-only PDF format or full view if user is a member of that society



**3.** Click on a cluster or on a thumbnail to view individual map details including metadata, source article information, and related maps

Traditional workflow for map extraction & analysis is tedious and time-consuming. Geofacets **simplifies the workflow from a five-step to a two-step process**

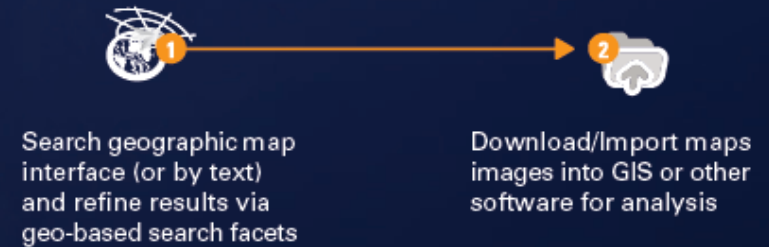
Interviews and product testing with over 200 geoscientists helped to shape Geofacets

## TRADITIONAL WORKFLOW



VS.

## GEOFACETS WORKFLOW





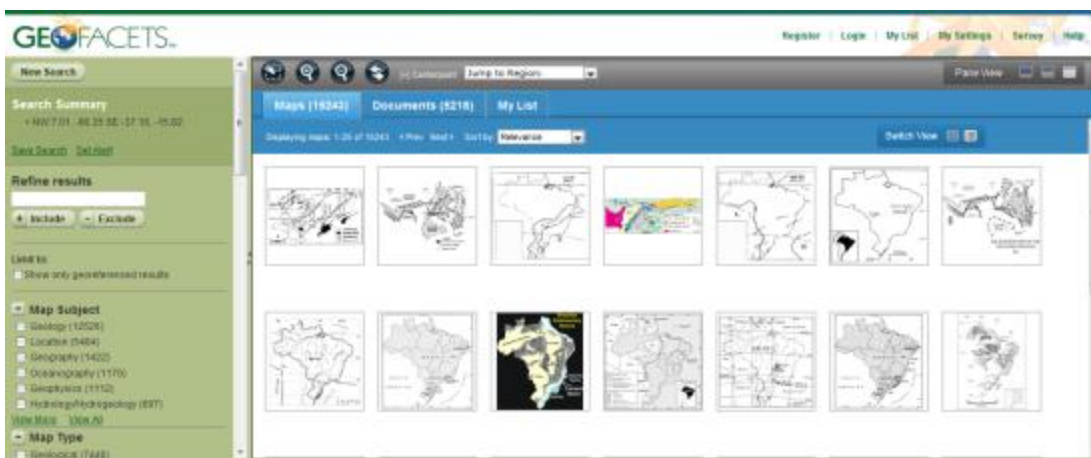
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**GEOFACETS™**

Search    Advanced Search

Search for:

in All Fields

AND

in All Fields

AND

in All Fields

---

Publisher/Content Source

Elsevier

SEPM Society for Sedimentary Geology

Society of Economic Geologists

The Geological Society of America

The Geological Society of London

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Date Range

1811 to 2014



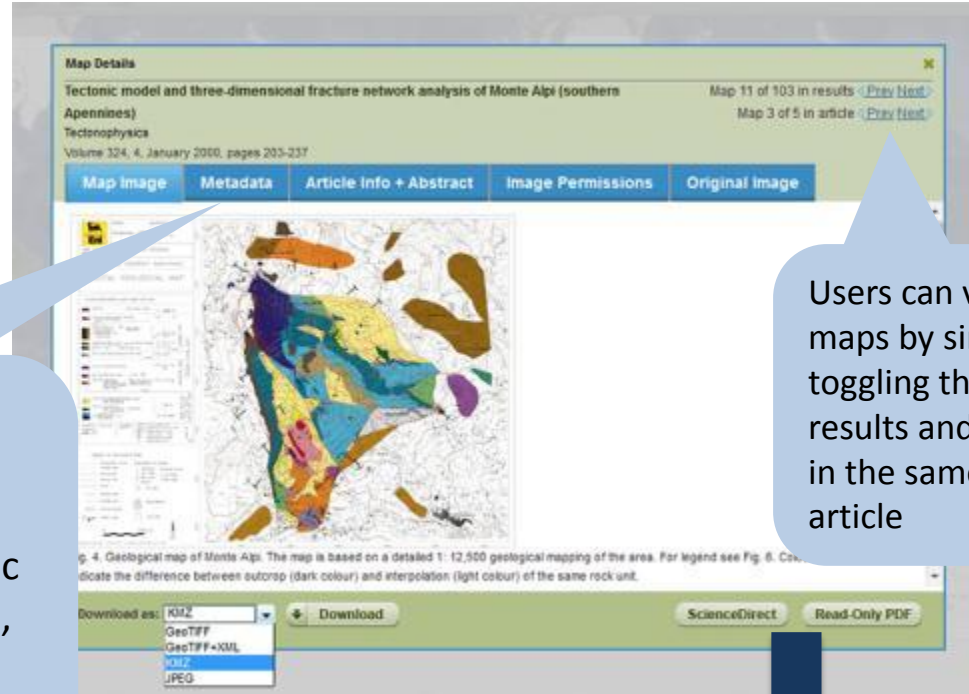
## INTUITIVE SEARCH FEATURES DESIGNED FOR GEOSCIENTISTS

- **Search geographically or by keyword** on an interactive map interface to help find relevant content within a particular region or subject area
- **Advanced search filters**, including map type and map subject, help users strategically narrow down results
- Results displayed on **interactive map interface**.

## MAPS ARE PROVIDED WITH METADATA AND INFORMATION ABOUT SOURCE ARTICLES

Each map is accompanied by professionally classified metadata and other information such as geographic coordinates, map surface area, datum and projection for georeferenced maps, and more

Each map is provided with information about its associated article, including the abstract, a link to a read-only PDF of the article, and a link to the article's page on the publisher's website

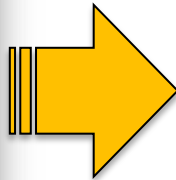


Users can view related maps by simply toggling through results and other maps in the same source article





# Integration



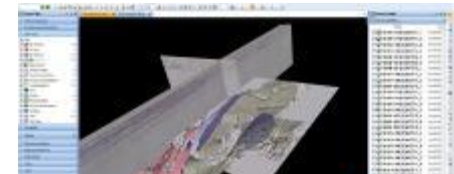
**ArcGIS** (GeoTIFF format, plus data in XML)



**PowerPoint and presentation programs** (JPEG, TIFF format)



**Google Earth** (KMZ format)



**Petrel\*** (with the Geofacets Connector for Petrel and Studio)

## INTEGRATION INTO WORKFLOW

Geoscientists value programs that integrate data into their current workflow. Geofacets is able to integrate content in the following ways:

1. **Google Earth:** Download KMZ files and overlay into Google Earth or other mapping software
2. **GIS software:** Download GeoTIFF files (georeferenced) for integration into GIS
3. **PowerPoint:** Download JPEG file for integration into PowerPoint or other presentation software
4. **Petrel:** The Geofacets Connector for Petrel\* and Studio\* integrates Geofacets into the Petrel E&P software platform

Identify maps from journal articles

Extract maps from the article; Assess the geological and geographical attributes of maps

Index and tag maps with attributes to create the metadata; Create downloadable formats of maps and data

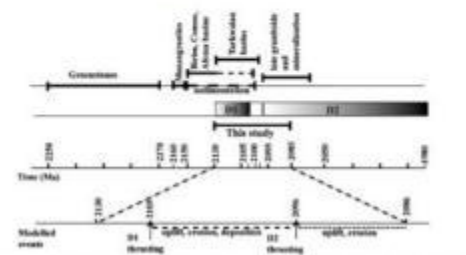
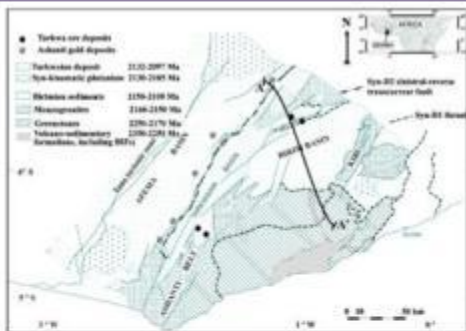
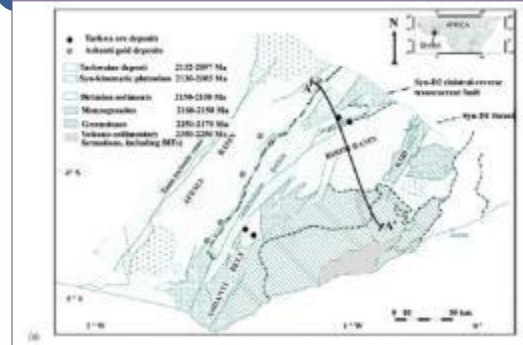


Fig. 1. Top: Simplified geological map of Ashanti, Ghana. Main lithological units are given with the age of their emplacement (Gyapong, Adibi et al., 1999; Dibi et al., 1999; Ofori et al., 2000; Eyiogbe et al., 2001; Gyapong et al., 2001). Neo-Archaean gneiss units are illustrated by dotted line. Locations of the main gold deposits are indicated by black and grey dots. Time window A–G is shown in Fig. 2. The Time chart illustrating the relationship of the events with their placement in the field (see text). The succession of the main tectonic phases related to the Ghanaian orogeny and the Ashanti orogen that were established in this study.



### Geological attributes include:

- Map type
- Surface area coverage
- Geological basin
- Key word

### Geographic attribute include:

- Coordinates
- Region, country
- Can the map be georeferenced
- Map Coordinate system
- Coordinate System of GeoTIFF

**Map Details**

Geological and thermal conditions before the major Palaeoproterozoic gold mineralization event at Ashanti, Ghana, as inferred from improved thermal modelling

Map 54 of 1405 in results [View Next](#)  
Map 1 of 1 in article [View Next](#)

Proterion Research  
Volume 156, 1–2, March 2007, pages 71–87

[Map Image](#) [Metadata](#) [Article Info + Abstract](#) [Image Permissions](#) [Original Image](#)

**Map Source Information**  
Map ID: S0301-9268(06)00277-4\_1  
Page of map in article: 73

**Map Information**  
Map Types:  
Fault  
Geological  
Mineral/Ore Deposit

**Bounding Geographic Coordinates:**  
Northwest: 7.142327 (lat), -3.345532 (lng)  
Southeast: 4.731008 (lat), 0.258836 (lng)

Estimated Surface Area: 100,000 - 1,000,000 sq km

Georeferenced: yes  
GeoTIFF available: yes  
Original Map Coordinate System: WGS-1984  
Recommended Coordinate System for displaying GeoTIFF: WGS-1984

**Areas covered by this map**  
Region: Sub-Saharan Africa  
Country: Ghana  
Basins: Cote Divoire Basin, Saltpond Basin, Voltaian Basin

Download as: [GeoTIFF](#) [Download](#) [ScienceDirect](#) [Read-Only PDF](#)

Elsevier invests heavily in skilled geology/GIS teams and quality assurance processes to make sure this is all done right, from start to finish.

## MAP OVERLAYS FROM LEADING INFORMATION PROVIDERS

- **Wood Mackenzie's commercial information overlays** allow users to view high level commercial metrics for oil and gas exploration, including unconventional gas plays around the world
- **IHS and Robertson geologic basin map overlays** can be easily viewed with a click of a button





## HOW GEOSCIENTISTS USE GEOFACETS

**Characterizing a geologic basin**, mineral deposit or geographic area's geology

**Formulating specific questions** and points for use in asset acquisition or joint ventures

**Providing scientific backup** for prioritizing exploration prospects

**Keeping internal knowledge** for a region of strategic importance up-to-date

**Integrating proprietary maps and data** with published information



## WHY COMPANIES/ORGANIZATIONS USE GEOFACETS

1. **MAKING MORE INFORMED EXPLORATION DECISIONS**
2. **BETTER ASSESSING RISKS IN DRILLING AND DEVELOPMENT ACTIVITIES**
3. **DOING MORE WITH LESS RESOURCES AND TIME**

## What Customers are Saying

“...if you are in the beginning of the exploration phase in an area, you are often struggling to find data and maps, and you need to find them quickly. **THIS IS THE TIME THAT GEOFACETS CAN HELP A LOT**, more than other sources.”

- Exploration Geologist, Integrated Oil Company

“**FINDING MAPS IS DOWNRIGHT EASY WITH GEOFACETS**, I found relevant maps from obscure publications with non-obvious article titles.”

- Technical Manager, Global Energy Company

“**[INTEGRATING] REGIONAL INFORMATION HAS BEEN SIMPLIFIED** by this tool. It’s a good tool for regional play-fairway mapping.”

- Development Geologist, Integrated Oil Company

“Geofacets provides the ability to **QUICKLY ACCESS GEOSCIENCE DATA** for active and potential exploration areas.”

- Information Specialist, Metals and Mining Company

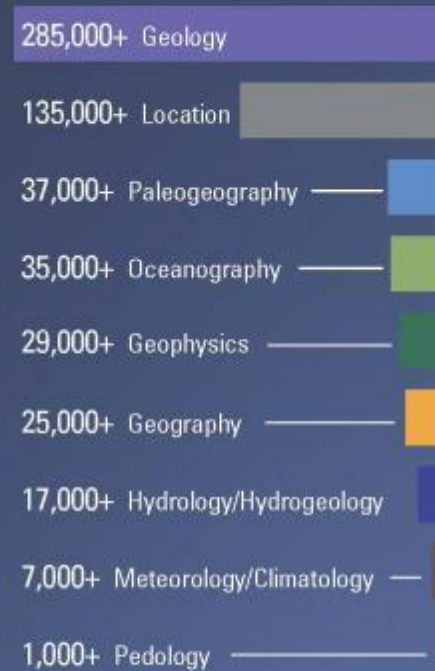
**Geofacets:**  
**Exploration has never been more *seamless*.**



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