

GOMOIL

GULF OF MEXICO OIL
STUDY & DATABASE

GEOMARK RESEARCH

PROSPECTUS

GOMOIL

PETROLEUM SYSTEMS OF THE GULF OF MEXICO

Introduction

In 1995, GeoMark Research performed the Gulf of Mexico Oil Study which represented the first comprehensive evaluation of the petroleum systems of the Gulf of Mexico. Since that time, GeoMark has continued the program as the GOMOIL database. With the release of GOMOIL2006 participating companies have access to over 1600 samples, and are permitted to contribute oil samples to GeoMark for analysis at no additional charge. The results of these analyses are held confidential by GeoMark for one to two years and are then added to the database. This provides a consistent analytical source for Gulf of Mexico exploration groups, and populates the database with new samples.

The GOMOIL database is now accessible via the web at www.RFDbase.com. Data can be downloaded in Excel™ or Access™ formats and is displayed via the ArcView™ geographic information system (GIS). This software assembly enables full mapping and onscreen interpretation of the results, and the oil data is linked to gas, PVT, and Flow Assurance modules of the Database.

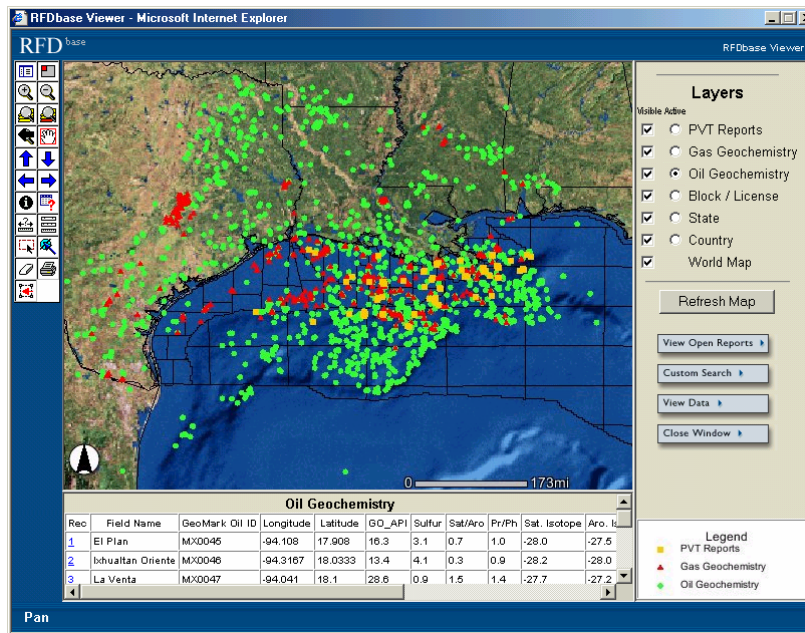


Figure 1. Distribution RFDbase samples in the Gulf of Mexico.

The GOMOIL database is an exciting concept and we invite you to consider participation. Companies joining the Database will receive the interpretive volumes, interpretive Montages, and digital access to all analytical data.

The cost for the Gulf of Mexico Petroleum System Study, and all GOMOIL updates is (US) \$125,000.00.

OBJECTIVES

Each oil in the GOMOIL Database was characterized by a detailed analytical program which included quantitative biomarker analysis of terpanes and steranes and the determination of the stable carbon isotopic composition of both saturate and aromatic hydrocarbon fractions. This information, integrated with the available source rock data, allowed the following:

- Determined the number of distinct oil families within the Gulf, and determine the age of the source rocks for each of these families.
- Mapped the stratigraphic and geographic distribution of the oil families and distinguish areas with a) single oil families (single source areas) b) multiple families and c) regions with mixing and oils with biodegraded polyhistories.
- Investigated the nature, distribution and abundance of the oil family(s) having high sulfur and heavy metal content, and the high-end wax characteristic.
- Compared the less known regions of the Gulf (i.e. west and south) with the more explored northern Gulf.
- Identified distinct “kitchen” areas and estimate migrational directions by comparing oil family distributions with the location of the known oil kitchens.
- Utilized the geographic, stratigraphic, and structural distribution of oils to identify, map, and rank petroleum systems in each basin and in the region as a whole.

A synthesis and interpretation of all information is presented in a comprehensive Final Report. The Final Report included sections for:

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| • regional geology | • inferred oil/source correlations |
| • differentiation of oil families | • oil generation and migration |
| • by multivariate statistics | • interpretation of oil characteristics |
| • production histories | • overall exploration potential |

Delivering the Gulf of Mexico data via the RFDbase website provides a number of useful advantages. All data modules are contained in an integrated location. The detailed search function can identify data for all types, and the mapping interface may be used to search for specific oil analyses or to locate similar fluids (based on geochemical and bulk characteristic classifications) in different geographic regions. These “similar” fluids may be further utilized in estimating fluid properties or parameters, and in linking to commercial or in-house simulation programs

Some of the specific functions of RFDbase are listed below.

- Electronic or hardcopy reports can be generated directly from the database. The reports are exported into standard Excel or Access files.
- Geographical searches can identify all types of data (oil, seep, gas, PVT, solids, etc.) available in an area of choice.
- Raw HP data files can be downloaded for any oil sample.

- An important feature allows for extensive data searching by fluid properties, field information, etc. Additionally, a web enabled Geographical Information System (GIS) mapping application provides for data searching and comparative analyses in a more visual environment.
- The program allows for real time plotting of selected summary data sheets.
- With the mapping interface, comparisons of multiple fluids on a geographical basis can be made.
- GC and GC/MS plots are easily viewable online.

The broadband capabilities of RFDbase handle multiple simulations users, and there is unlimited password access to any/all users within a company. All web based functions are straightforward and easy to follow, and a user manual is provided that can be downloaded in PDF format.

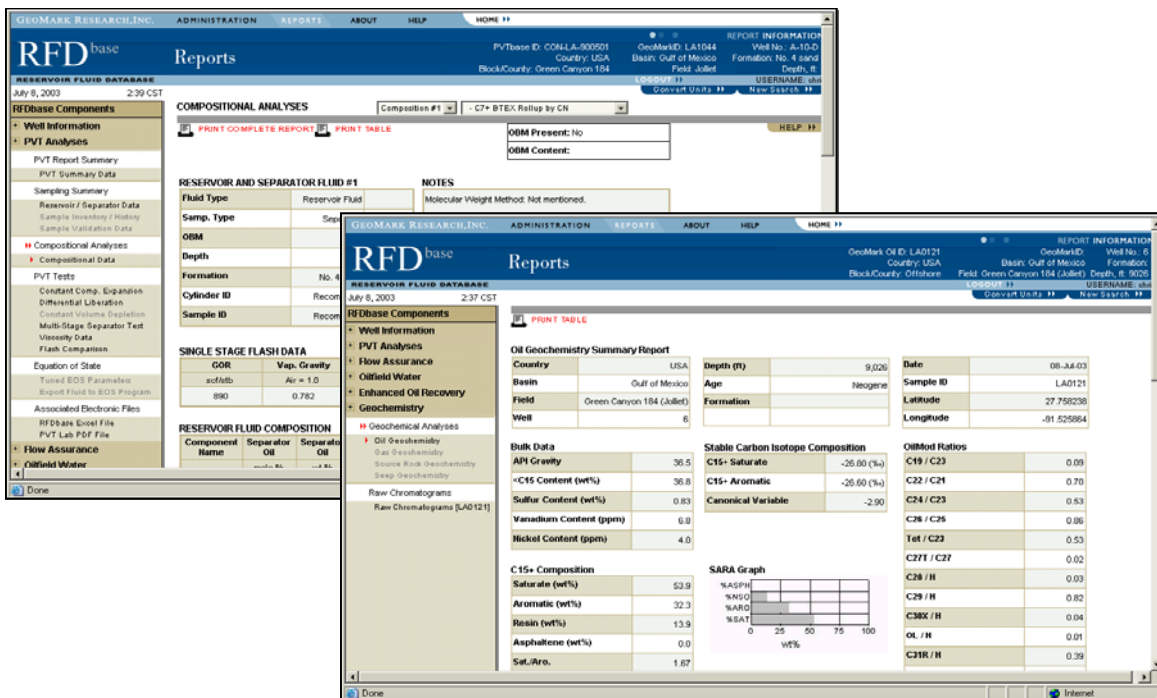


Figure 2. Typical headliner report compilation pages.

DATABASE DESIGN

RFDbase has been developed as an interactive web interface overlaying a Microsoft SQL Server database populated with the petroleum fluid data. The database applications are hosted off-site offering electronic and physical security, as well as broadband access for member companies.

DATA SEARCH & MAPPING FUNCTIONS

All types of data can be identified by multiple search functions. A “Quick Search” function allows a user to search on a series of common sample identifiers such as Country, Basin, or Well Name. A more comprehensive “Custom” Search can be accomplished applying a user-defined attributes search within a single module (oils only), or within multiple modules (oils plus gases). Since all samples in RFDbase are coded with latitude and longitude values for placement on the internet-enabled map, a Geographical Information System (GIS) mapping application provides for a “Map Search” function identifying samples in a more visual environment.

DATA INTEGRATION

All types of reservoir fluid data are to be stored in the RFDbase Database. The Database currently holds modules for oil, oil seep, gas, gas seep, and PVT results. Soon, we will add flow assurance (wax and asphaltene) and water modules. Users have a number of options for printing and/or downloading data. GeoMark’s standard Geochemical Summary sheet can be viewed on screen or printed. Data tables can be downloaded in several format types, including Microsoft Excel or Microsoft Access. Graphical data can be viewed on screen, or downloaded in report format. Raw GC and GC/MS files are also downloadable from the website.

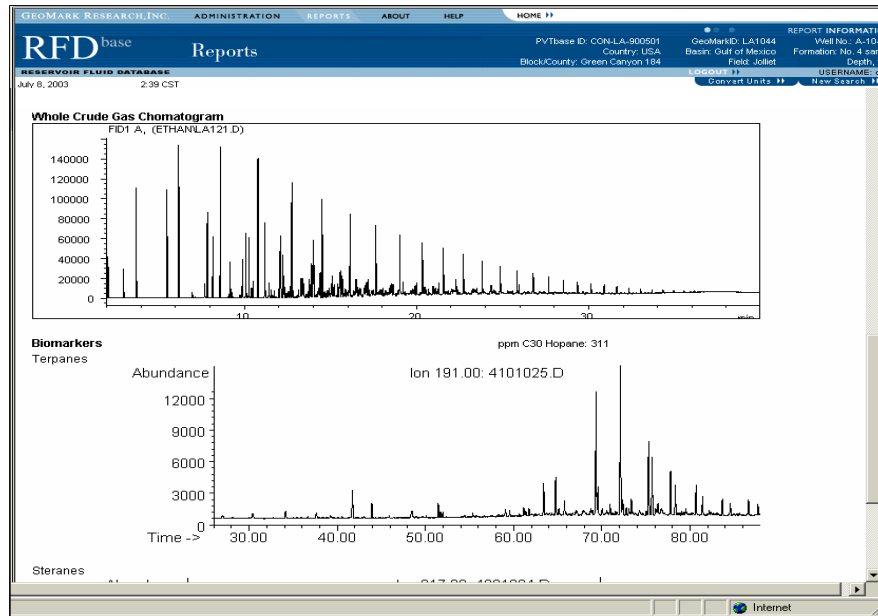


Figure 3. Graphical data can be viewed on screen or downloaded.

ANALYTICAL PROGRAM

The GOMOIL database contains a variety of analytical results, but all samples are subjected to the following basic analytical program when possible:

- API Gravity
- % sulfur
- ppm Nickel/Vanadium
- %C15+
- Deasphalting
- Liquid Chromatography
- Capillary GC of Whole Crude
- Stable Carbon Isotope Composition (Sat and Aro Fractions)
- Quantitative GC/MS of Branched/cyclics (Terpanes/Steranes)
- Qualitative GC/MS of aromatic Fraction

In addition to the analytical program outlined above we may also include the following analytical results on selected samples:

- Stable Hydrogen Isotope Composition of Whole Crudes or Fractions
- Stable Carbon Isotope composition of specific n-Paraffins and Isoprenoids
- Biomarker Distributions using GC/MS/MS techniques
- C7 Isomer Distributions

SAMPLE SELECTION

With the release of GOMOIL2006 there are over 1600 oil samples populating the GOMOIL database. A list of all samples in the GOMOIL Database will be supplied upon request.

PARTICIPATION

The licensing fee is for the original Gulf of Mexico Study plus all GOMOIL updates is USD \$ 125,000.00.

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