The *Exxon Valdez* Trustee Hydrocarbon Database
A Successful Long-term Data Management System

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This Dataset Contains:

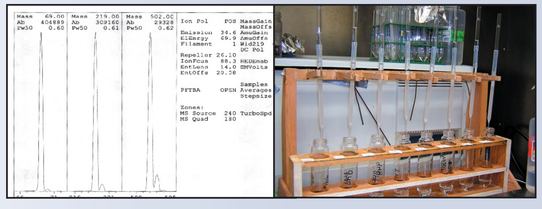
50,000
Samples Collected

500 Locations

50 Projects

100 PIs From
Trustee Agencies
& Contractors

20,000 Samples
Analyzed for
63 Hydrocarbons



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Sampling Seasons

Long-term Dataset Dilemma

Is metadata enough? Perhaps not...

This database is the complete record of samples collected for hydrocarbon analysis for Trustee funded projects. It was initiated within days of the spill and is updated annually. Sample and analytical data are monitored by a strict chain of custody documentation process. Analytical data adhere to a strict QA/QC protocol before being released from the chemistry laboratory. Although the basic structure of the sample collection information and analytical results have remained constant over the years, much has changed with this database besides software.

1. The emphasis of the database structure was placed on data input rather than data extraction. Over time, data collection methodology was standardized, the number of PIs and projects became less each year while data requesters started to include non-researchers, non-chemists & students.

2.The authors and the early custodians of the database as well as many PI's and the lead analytical chemist have all retired. Institutional knowlege has diminished. Users who regularily work with hydrocarbon analytical data have not had problems extracting data. Other user's, particularily those requesting data via Freedom of Information Requests (FOIA) inquiries, have required an inordinate amount of time in responding to their questions because the metadata alone has not been enough. Often original field data sheets must be consulted.

3. FOIA requests often require PI's field notebooks including photographs.

Lessons Learned

A simple paper trail is analogous to the Rosetta Stone for future interpretation

1. Institutional memory provides valuable & sometimes necessary information that is not contained in the metadata but it still relevant to understanding the data. Before principle researchers leave a project, a review of the metadata and database should occur.

2. In lieu of institutional knowledge, narrative explantions of conceptual changes and evolution of the dataset should be included with metadata.

3. The database custodian must be able to view the database objectively, as a new user would (several years after the data were collected) in order to find inconsistencies and incomplete information.

4. Paper copies of sample collection information can be as as important as the electronic copies.

5. Metadata is just one more task that researchers have to do to meet funding requirements. Many don't realize that it is truly the only key to the longevity of their data for future researchers.