
CASE STUDY



Solutions for Premium Quality Data

Acquiring New Drilling Assets: Profiling Well Drilling Data

There is a lot of uncertainty of the quality of information when data assets are purchased as part of a corporate acquisition. This large American Oil and Gas company purchased the well drilling data and wanted to know its quality issues after converting the information into their corporate data standard.

THE CHALLENGE

After an acquisition and subsequent data conversion to a new well drilling and completions system, an independent audit was deemed appropriate to ensure the well drilling data assets were at an appropriate level of quality.

THE SOLUTION

Expertise and tools to assess the accuracy, completeness and quality of the well drilling data repository.

RESULT

A qualitative and quantitative analysis which confirmed that the data was complete and adequate for use.

TOOLKIT

Professional Services and HealthCheck™

Setting the Stage

Our client is one of the world's largest independent oil and gas exploration and production companies and a major North American chemical manufacturer. Our client completed a multi-billion acquisition of the United States government's interest in a oil and gas field. As part of the acquisition, our client adopted legacy data which was converted into a Landmark solution. The client completed an initial conversion of the acquired data into their well drilling and completions system — Landmark's DIMS™ v2003.0.

The Challenge

In this case study, our client wanted to reduced the uncertainty and risks of inheriting invalid and incomplete data. Without this certainty, users were spending time validating and questioning the data instead of trusting it. As a result, our client wanted to assess the potential data quality before they leveraged their investment in the new assets.

After the data conversion, there was uncertainty about the quality of the drilling data and the usability of the new application. Understanding in detail the quality and the level of existing standards of the converted data was a critical first step in assessing the situation. This is especially true for a mission critical data asset such as drilling data within the E&P company.

The Solution

HealthCheck™ is a service that provides a comprehensive look at a client's data listings to evaluate the quality of the information. The package of reports is a thorough analysis used to determine scope of the problem and rate the quality of the original data.

Without manipulating the original data sets, these automated reports provided well drilling and completions quality metrics for all the relevant data. The following is a small example of some of the metrics used:



Generic Metrics

- ✓ Consistent Use of Standards
- ✓ Database Integrity
- ✓ Company Name Spellings
- ✓ Consistent Unit of Measures
- ✓ Unprintable Characters
- ✓ Consistent Date Formats

Well Drilling Specific Metrics (sample extract)

- ✓ Unique Well Identifier Conventions
- ✓ Complete Well Depth Validation
- ✓ Valid Geospatial Data
- ✓ Correct Wells attached to Wellbores
- ✓ Acceptable Elevations
- ✓ Cost of Errors & Omissions
- ✓ Well Header Consistency
- ✓ Owner / Partnership Consistency
- ✓ Correct Reports attached to Events, and Events to Wells
- ✓ Completeness of Cost Records
- ✓ Possible Well Duplication and orphan data
- ✓ Mineral Land Rights

The first series of reports provided high-level analytical assessments and comparisons of the data base. Over 200 metrics were used to identify how compliant the detailed data was to generally accepted well data conventions. Over 1000 tolerances were validated and reported. Finally, the HealthCheck™ suite of comprehensive reports was presented to the stakeholders in a user friendly format so that they could determine the best approach for fixing the data.

The Result

Our client was relieved to discover minimal data issues and knew that the data they inherited was complete and accuracy for their needs. User time spent questioning or validating the data was no longer required.

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About DataVera

DataVera is the most sophisticated and complete set of data quality services within the Oil and Gas digital data management market. The repository of solutions is built from years of experience and many data transformations.

The service leverages an automated suite of tools enables exploration & producing firms to accomplish data quality transformations at a fraction of the cost in a fraction of the time often associated with manual projects.

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