MMS Historical Well Data Cleanup

Background

- Internal Customers.
 - Spending 30-40% of their time doing data management
 - Corrections made at project level only
 - Lost faith in corporate data/record stores
- Industry (DMWG)
 - Also spending too much time doing data management
 - High demand for improved data quality
 - Duplication of time, effort and \$\$\$

MMS Historical Well Data Cleanup

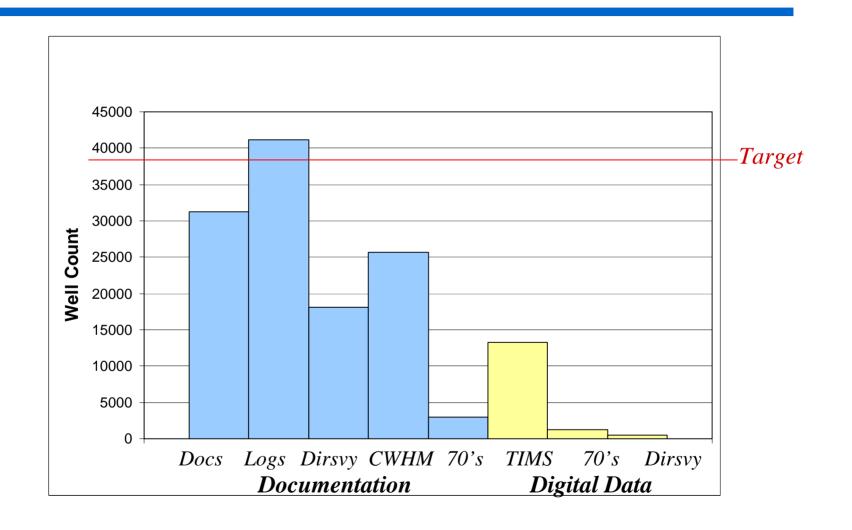
- Purpose & Scope
 - Reconciliation of paper and digital well records.
 - A complete and accurate digital record (missing wells)
 - An inventory of available data types
 - Linkage between all record/data stores
 - Review records and data for ~38,000 wells
 - Imaging of well file and related documents
 - Verify digital record against document contents
 - Correct, update or add information to digital record

MMS Historical Well Data Cleanup

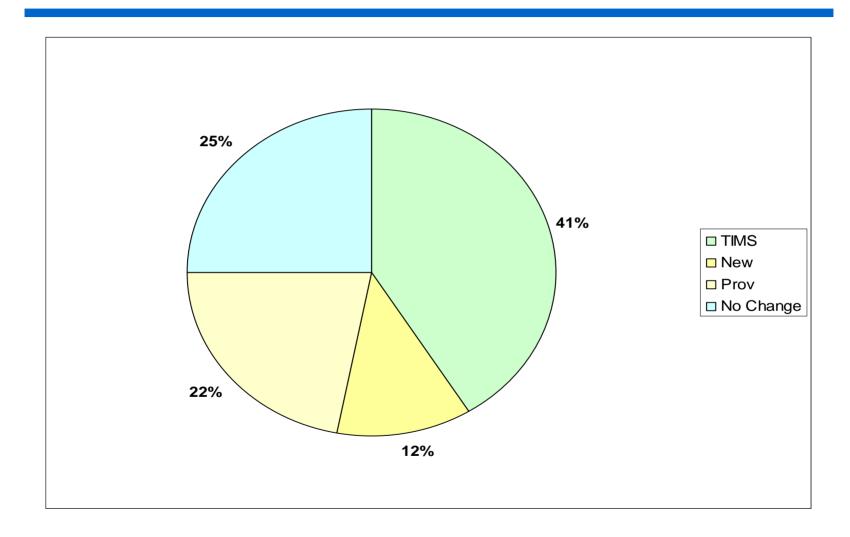
History

- Initial Project.
 - October 1999 April 2004
 - Cleanup, verification & integration of 12 key data types
 - Revised to 5 key data types in 2002
 - Cancelled in 2004
 - Taking too long for each well
 - Produced mixed results

MMS Historical Well Data Cleanup Overall Results



MMS Historical Well Data Cleanup CWHM Analysis (25,684 wells)



MMS Historical Well Data Cleanup Lessons Learned

- Review all material together at one time
 - too many discrepancies between data types
- Probably not necessary to review every well
 - 25% of wells had no changes
- Work with data in situ and use existing tools
 - significant overhead from extract/audit/load process
- Finding problems versus fixing problems
 - 22% of wells left as provisional

New Data Cleanup Initiatives Legacy Data Verification (LDV)

- MMS Data & Information Management Services
 - Contract awarded to General Dynamics June 2004
 - Includes data verification activities for TDMS
- Established priorities for LDV
 - Missing well bores
 - Well name suffixes
 - Document imaging
 - Missing data
 - Erroneous data

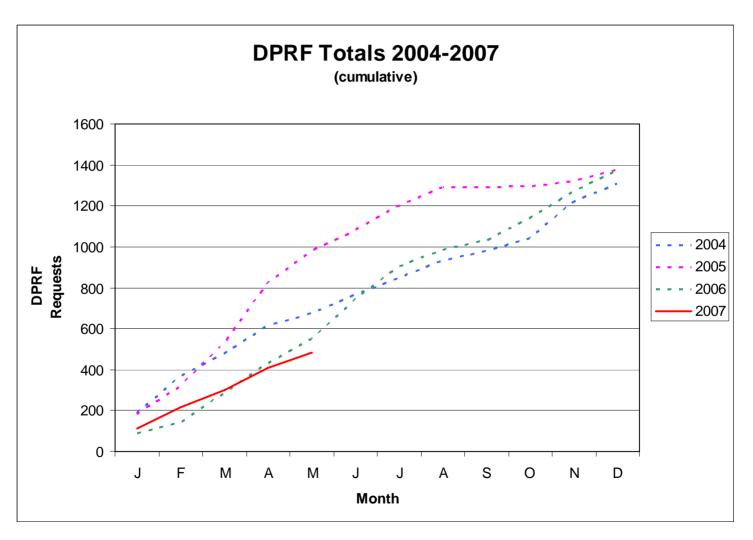
New Data Cleanup Initiatives Current Status

- Scanned well files and related documents
 - 816,000 images linked to TIMS wells
 - 47,000 directional surveys
- Scanned logs
 - 258,000 images linked to TIMS wells
- 70-series wells
 - 1,605 wells added to TIMS
- Other Data Problems (DPRF)
 - ~3000 data problems since October 2004

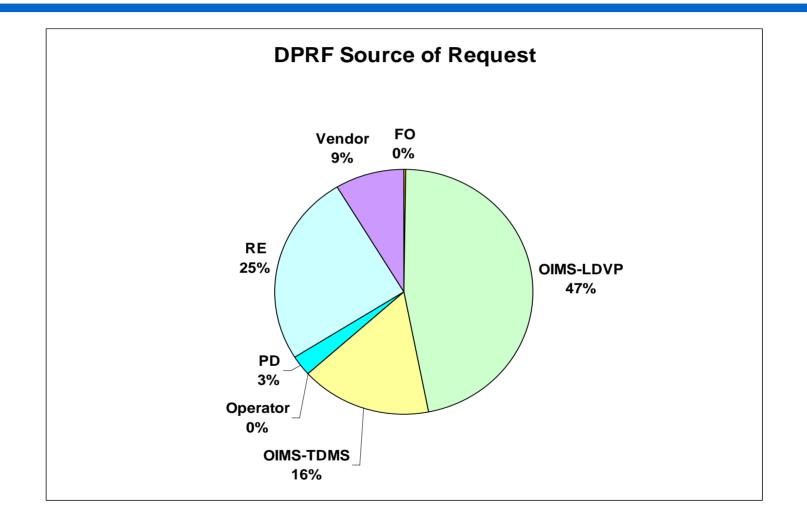
New Data Cleanup Initiatives Data Problem Reports

- An internal system for documenting and tracking data problems from initial report through to final solution.
- Accessible to all MMS users
 - Web form (DPRF)
- External/industry users
 - Email: TDMS@mms.gov
 - TDMS enter DPRF
- DPRF activity
 - 110 problems/month

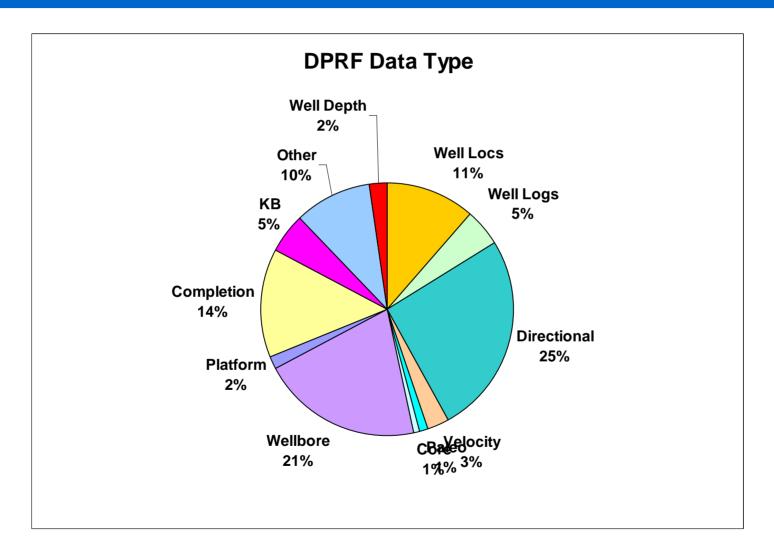
New Data Cleanup Initiatives DPRF Activity



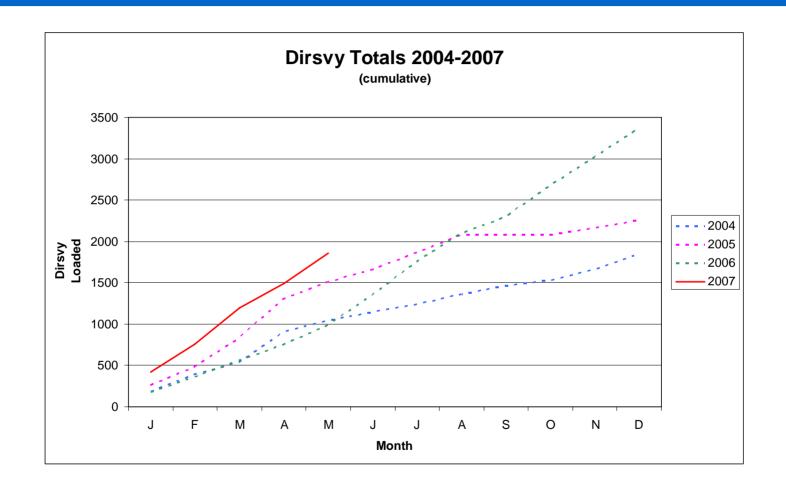
New Data Cleanup Initiatives DPRF Sources



New Data Cleanup Initiatives DPRF Data Types

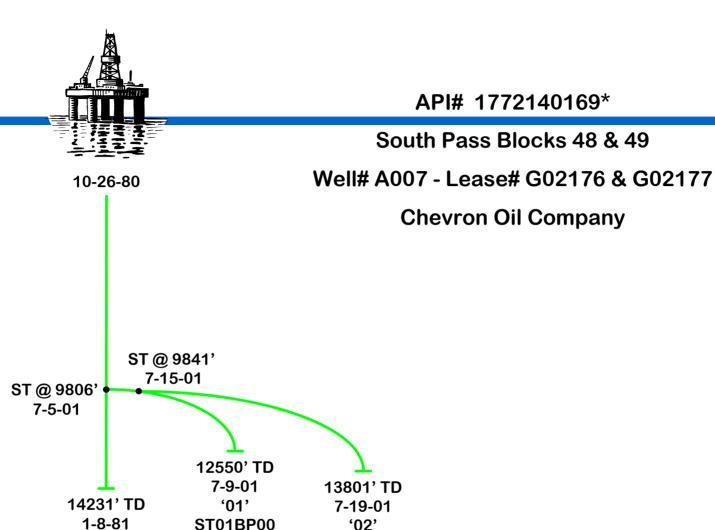


New Data Cleanup Initiatives Directional Surveys



New Data Cleanup Initiatives Gulf Wide Activities

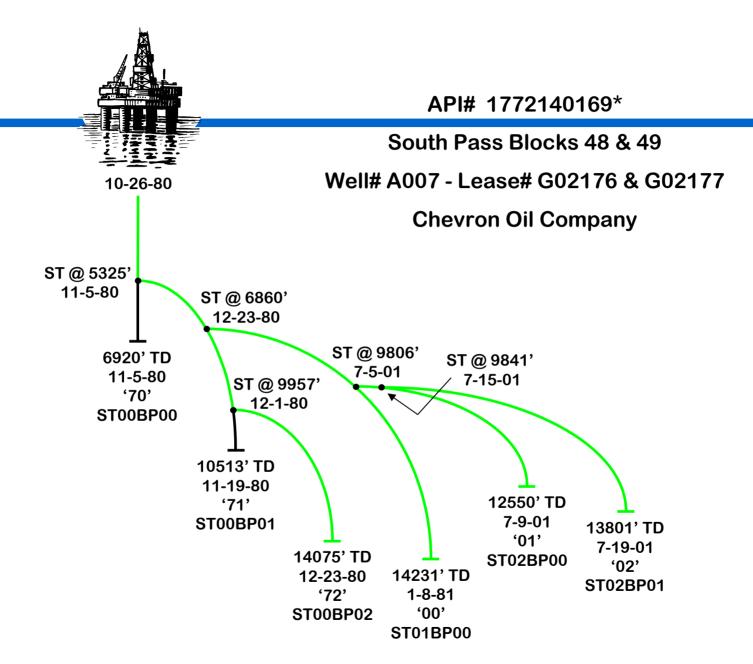
- Erroneous/invalid directional survey points.
 - Algorithm/program run against TIMS
- Wells missing from Sale 204 blocks
 - HWDC wells not in TIMS
- Velocity & Core Analysis compliance
 - Key word search of drilling narrative
- Harvest HWDC results
 - Missing wells
 - Linkage of available documentation



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API# 6081150097*

Green Canyon Block 248 Well# 002 - Lease# G15565 Shell Oil Company

