Incredibly User Friendly
XDIAG is very easy to use. It has expert context-sensitive help for every input field, and comes with an artificial lift glossary with definitions for hundreds of terms. Also, XDIAG's toolbar allows you to go to any input screen at any time with a single mouse click.

Outstanding Technical Support
Theta Oilfield Services is dedicated to your satisfaction. Our technical support, which is free for the first year, includes an emailed newsletter, upgrades, “bug” fixes and immediate response to problems or questions. XDIAG’s technical support includes customized updates to the pattern recognition database to make XDIAG even more effective in diagnosing problems with your wells. Program upgrades can be downloaded directly from our web site. When you have a problem, solving it becomes our highest priority.

System Requirements
Processor:
• 1.6 GHz or higher
Operating System:
• Windows XP/Vista/7/8/10
Memory:
• 1 GB of RAM or higher
Hard Disk:
• 125 MB available disk space
Display:
• 1024 x 768 or higher

30 Day Trial Available
Please contact Theta Oilfield Services for a low cost 30 day trial of XDIAG (USA and Canada only).
A Futuristic Tool for Expert Diagnosis of Existing Rod Pumping Systems

XDIAG is a revolutionary new software tool that combines state of the art expert system and pattern recognition technology with accurate wave equation diagnostic modeling. Also, it uses exact pumping unit kinematics that allow it to analyze any available pumping unit geometry.

XDIAG tells you with words what is the condition of the pump and calculates fluid level, pump intake pressure, pump friction, and net pump displacement from the downhole pump card shape. Also, it uses IPR data (if available) to calculate additional available production if you pump the well off, or if you reach a “target” pump intake pressure that you set.

XDIAG has a unique visual interface that makes changing data very easy. By simply clicking on any part of a picture of the pumping system, you can locate and change any variable associated with that part of the system.

XDIAG can animate the surface and downhole dynamometer card plots to show how the surface and downhole loads change as a function of position. This gives you a deeper understanding of what happens at the pump and how it affects the surface dynamometer card. You can “see” rod stretch effects, plunger load fluctuations, fluid pound severity (how fast the plunger hits the fluid) and a lot more.

Summary of Main Features:

• Diagnoses pump condition and calculates pump friction using built in expert knowledge and pattern recognition techniques.
• Detects and corrects input data errors such as a load cell that reads too low or too high or an incorrect fluid level.
• Lists recommendations for fixing downhole problems, for balancing the unit, etc.
• Prints an expert analysis report that is similar to a report written by a human expert. This report tells you with words what is wrong with the pump or other parts of the system. It also plots surface and downhole dynamometer cards and gearbox torque plots. XDIAG prints a one page output report that includes all the quantities calculated by the program, including the dynamometer and torque plots.
• Calculates gross pump stroke, pump volumetric efficiency, overall system efficiency, peak torque and gearbox loading for existing and balanced conditions, and the counterbalance you need to balance the unit. Also, it shows the difference between balancing the unit for minimum gearbox torque and for minimum energy usage.
• From the downhole pump card it automatically calculates fluid level, pump intake pressure, net stroke, fluid production from net stroke, and pump fillage.
• Its batch run option allows you to make unattended runs of as many XDIAG files as you want and automatically creates an Excel Spreadsheet that automatically loads into Excel.
• Calculates IPR plots and additional production potential with Vogel or Fetkovich methods.
• When using XDIAG with a centralized pump off control system you can do the following:
  • Automatically load and analyze cases with new dynamometer files.
  • Start analyzing wells with new dynamometer data at any time within a 24 hour period.
  • Or, use XSPOC, our state of the art smart automation software that has many more automation capabilities.

Huge Pumping Unit Database

XDIAG comes with a huge pumping unit database (with about 4000 units) that includes data for: Lufkin Conventional (new and old), Mark II, Reverse Mark, Low Profile and Air Balanced units, American, LS/Darco, Rotaflex, Bethlehem, Churchill, National, Oilwell, Rigmaster, Smaco, Lacy Air Balanced, Ampscot, Legrand, Jensen, Cabot, Emsco, Parkersburg, and many others. Also, you can easily enter your own pumping unit dimensions and you can customize XDIAG’s pumping unit list to only show the pumping units you have in your field.

Dynamometer Data Sources

XDIAG is compatible with all available dynamometer and pump off control hardware including Lufkin Automation, Echometer, CAC, Praxis, Intellution, and others. XDIAG for Windows is designed to maximize the usefulness of centralized pump off control systems. By allowing you to analyze hundreds of wells in a 24 hour period, it helps you locate problem wells faster than ever before. Also, XDIAG’s sophisticated expert knowledge allows it to detect problems faster and with more accuracy, especially when used with XSPOC.

Email Cases Directly from XDIAG

XDIAG now allows you to email a case directly from the program itself by simply clicking on the email icon on the toolbar. The file is automatically attached to your email. You can use this feature for technical support questions, or to send files to other users of XDIAG.