

# Well Test Optimizer

## Optimizing utilization of limited well test resources

The Well Test Optimizer (WTO) is a unique offering from Haimo Integrated Production Optimization Services as part of the Well Testing Platform (WTP). WTP is a suite of tools which can be used by engineers to transfer data efficiently from measurement through to optimization proposal.

WTO has been developed to assist clients in maximizing the utilization of real-time multiphase metering data and improving the acquisition of well test data. Through statistical methods & with access to historical databases, the WTO determines the point at which the accuracy and precision of the data collected is aligned with the operator's expectations.

Where a number of wells are being tested the WTO will optimize the time spent at each well based on the value of extra information being recorded compared to other wells. Any form of measureable data can be used as criteria to determine well test stability and historical data is used to help determine the change in performance of tricky slugging or intermittent wells.

### Applications:

- Well Stability
- Well Test Data Quality
- Optimum Well Testing Time & Frequency
- Effective Utilization of Well Testing Facilities
- Testing more wells with limited testing resources

### Benefits:

- Save Time and Money - testing the wells to the point where the incremental cost of testing the well exceeds the value of the information obtained.
- Optimizing Surface Testing Facilities - testing more wells with limited facilities.
- Well Test Period-decision making in real time rather than retrospective

- Well Test Transparency - statistical methods defines well test end point clearly
- Minimum Human Intervention - does not rely on engineer following period specified in procedure
- Well Candidate Selection - testing the right wells at the right time
- Well Performance Optimization - well behaviors changing in real-time
- Trade off between cost and value of test

## Features:

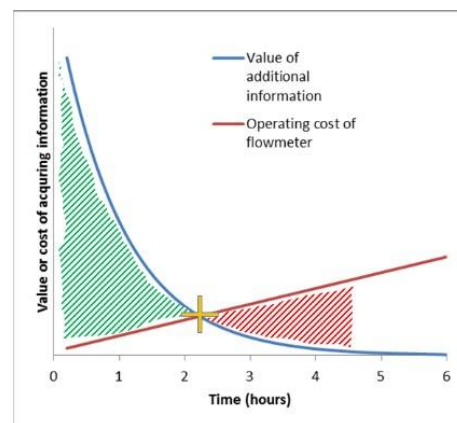
Considers any form of well test parameter as input, standard or specific to client - Flowrates, temperature, pressure, etc.

User can define absolute or percentage error for each parameter based on level of precision desired

Well Test Period - decision making in real time rather than retrospective

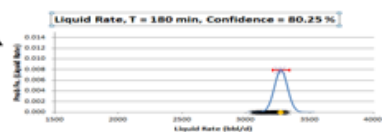
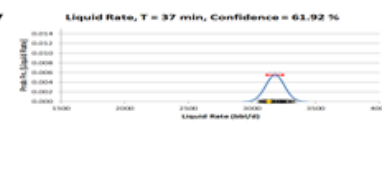
User can define overall level of confidence in well test values based on crossing a suggested threshold of accuracy

Trade off between cost and value of test



User Defined Confidence Bounds						
% certainty of results required					95%	
Start Well Allowed Error Bounds						
Liquid Rate	±	1	%	±	35	bbld
Gas Rate	±	1	%	±	50	M scf/d
B&W	±	1	%	±	1	%
Pressure	±	1	%	±	4	psi
Temperature	±	1	%	±	1	degC

Real Time Test Data



Time

Well Test Optimizer

<http://www.haimotech.com/Products-and-Services/IPOS/Well-Test-Optimizer.html>

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