

Untitled - Predict

File Edit View Analysis Help

New Open Save Print Export English Metric Cost Convert Flow Profile About ReadMe

Temperature: 77 °F
Pressure: 100 psia
Fluid Velocity: 2.2 ft/s
Type of Flow: Horizontal Vertical

Gas to Oil: 5000 scf/bbl
Water to Gas: 2 bbl/MMscf
Water Cut: 0.001 percent
Oil Type: Not Persistent

H2S: 2 psia
CO2: 0 psia
Ionic Strength: 0.015 M
Sulfur:

Acetate: 0 ppm
HCO3: 0 ppm
Cl-: 15000 ppm
Oxygen: 100 ppb

Service Life: 10 yrs
Allowance: 50 mils
Measured pH: 7

Method of Inhibition:
Inhibition Efficiency: None (<25%)
Glycol Injection:

System Water
Liquid Fraction = 0.69
Liquid Water (bbl/MMscf) = 1.38
Vapor Fraction = 0.31

Results
The specified corrosion allowance translates to a corrosion rate less than the predicted corrosion rate. Hence the projected life of the steel will be less than the desired service life.

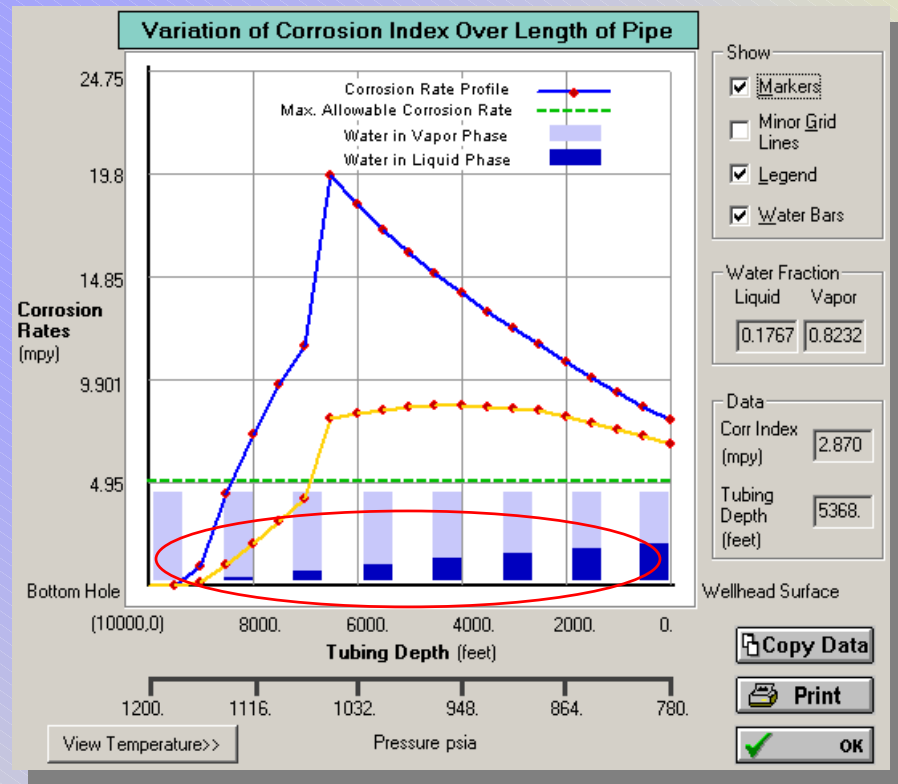
User Notes
Well 2B - Engineer - ABC

For Help, press F1

- Quantify prediction of worst case corrosion rate and pitting potential
- Correlate flow effects with corrosion rate based on extensive lab data and flow modeling
- Access real lab-data used to support system decision-making and analyses
- Flow modeling and wall shear stress computation
- Analyze Horizontal, Inclined and Vertical Flow in multiphase systems
- Share data across different programs (MS Excel, Word)
- Automatically convert data from Field Reports

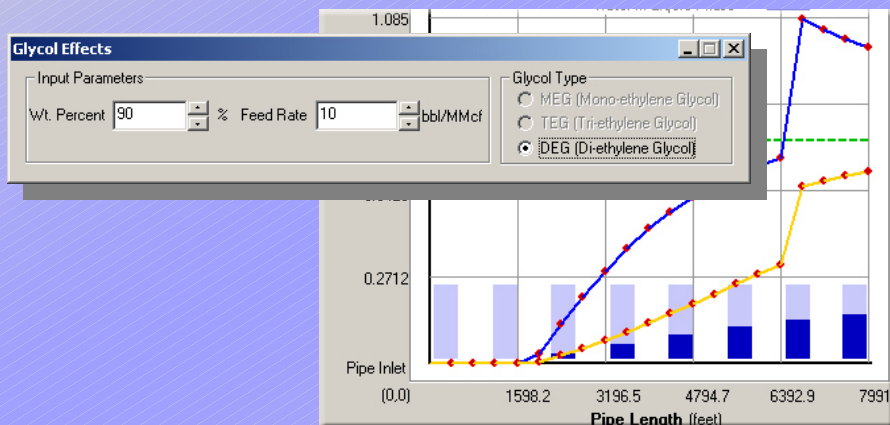
Determine water phase behavior and the volume of liquid water in the system

Instantaneous Bulk pH, Corrosion Index and System Dew Point Calculation



NEW FEATURES AND BENEFITS

- The only corrosion prediction system to provide a way to estimate possibility and severity of pitting corrosion
- State-of-the-art pH computation module which accounts for the effects of over 16 different anion and cation species, including organic and inorganic acid components
- Enhanced flow modeling module that provides key insights into understanding contribution of typical flow-induced corrosion parameters
- Rigorous water phase behavior calculations, coupled with the ability to account for the effects of glycol (MEG)
- Ability to accurately model momentum transfer effects (flow regimes, void fractions, pressure drops and shear stresses) en-route to improved corrosion prediction
- Ability to account for dew point variations with respect to corrosion rates
- Ability to accurately determine scaling effects due to formation of Iron carbonate and Iron sulfide scales as a function of temperature and pH
- Ability to accurately characterize role of oxygen concentration in corrosive systems
- Improved rules to account for variation of water content in oil and gas systems (production and transmission)
- Ability to handle different types of hydrocarbons and persistence effects
- Module to convert data from field production reports into parameters required for corrosion analysis



HIGHLIGHTS

- State-of-the-art interface (XP/2000 compatible) for enhanced efficacy and ease of use
- Enhanced, User friendly and Context Sensitive Help System
- Revised report generation module
- Improved file read and write capabilities
- Comprehensive analysis based on extensive lab data, literature and experience
- Complex corrosion prediction and assessment tasks accomplished in minutes
- Incorporates rigorous corrosion and flow modeling in an easy to use graphical interface
- Enhanced & more accurate corrosion prediction with rigorous characterization of water phase behavior and condensation effects

APPLICATIONS

- Evaluate and Predict corrosion for a variety of corrosive environments - production, pipelines, power plants, flow lines, gas processing plants
- Accurately compute operating system pH with data on system chemistry
- Evaluate CO₂/H₂S corrosion and other parametric interactions
- Predict phase behavior of water in aqueous systems
- Graphically view the corrosion profile over an entire pipe / tubing length
- Predict corrosive effects of systems with Chlorides, oxygen or sulfur
- Perform comprehensive corrosion and cost characterization for entire systems