



KIRBY INLAND MARINE, LP
 MAINTENANCE DEPARTMENT
 18350 MARKET ST.
 CHANNELVIEW, TX 77530

OFFICE (713) 435-1730

FAX (713) 435-1714

VAPOR TIGHTNESS TEST

Note: Test Results are Valid for (1) One Year from Date of Test!

Vessel Name: WTC-3002 Test Date: 6-14-19
 Testing Location: Tubal-Cain Maximum Load Rate: (BPH) 5,000
 Tanks Tested: All Pressure Indicator: Gauge

TEST RESULTS

Test Duration: 30 Minutes Beginning Pressure: 28 Inches H2O
 Ending Pressure: 27.5 Inches H2O
 Total Pressure Loss: .5 Inches H2O
 Allowable Pressure Loss: 2.56 Inches H2O

Barge is Vapor Tight if "Total Pressure Loss" is LESS than "Allowable Pressure Loss"
 This vessel has been tested in accordance with Section 61.304F and has been found to be vapor tight.

Jimmy Ortega
 Tester: (Print)

Randy Nelson
 Witness: (Print)

Jimmy Ortega
 Tester: (Signature)

Randy Nelson
 Witness: (Signature)

Kirby M&L
 Affiliation of Witness:

- (P1) - Beginning Pressure
- (Delta P) - Total Pressure Loss
- (TP) - 14.7 plus Barge Test Pressure in PSI
- (V) - Volume of Tank (s)
- .861 - PIA @ (P1)

- (P2) - Ending Pressure
- (Delta PM) - Allowable Pressure Loss
- (L) - Maximum Load Rate in BPH
- (Delta T) = Test Duration

$$.861 \times \frac{15.7}{(TP)} \times \left(\frac{5,000}{(L)} / \frac{30.446}{(V)} \right) = \frac{2.56}{(Delta PM)}$$