

# United States of America Department of Homeland Security United States Coast Guard

Certification Date: 31 Oct 2019 Expiration Date: 31 Oct 2020

Temporary Certificate of Inspection

For ships on international voyages this certificate fulfills the requirements of SOLAS 74 as amended, regulation V/14, for a SAFE MANNING DOCUMENT.

This Temporary Certificate of Inspection is issued under the provision of Title 46 United States Code, Section 399, in lieu of the regular certificate of inspection, and shall be in force only until the receipt on board said vessel of the original certificate of inspection, this certificate in no case to be valid after one year from the date of inspection.

Call Sign IMO Number Official Number Vessel Name Tank Barge 969429 KIRBY 30800 Hailing Port Propulsion Hull Material Horsenower MEMPHIS, TN Unknown Steel UNITED STATES Place Built Net Tons DWT Length Gross Tons Delivery Date Keel Laid Date R-364.8 R-1305 HARVEY, LA R-2677 28Nov1990 27Oct1989 1-0 1-UNITED STATES KIRBY INLAND MARINE LP KIRBY INLAND MARINE LP 18350 MARKET STREET 55 WAUGH DRIVE SUITE 1000 CHANNELVIEW, TX 77530 HOUSTON, TX 77007 UNITED STATES UNITED STATES

This vessel must be manned with the following licensed and unlicensed Personnel. Included in which there must be 0 Certified Lifeboatmen, 0 Certified Tankermen, 0 HSC Type Rating, and 0 GMDSS Operators.

0 Chief Engineers 0 Licensed Mates 0 Masters 0 First Class Pilots **0 First Assistant Engineers** O Chief Mates 0 Radio Officers 0 Second Assistant Engineers 0 Second Mates 0 Third Assistant Engineers 0 Able Seamen 0 Third Mates 0 Licensed Engineers 0 Master First Class Pilot 0 Ordinary Seamen 0 Qualified Member Engineer 0 Deckhands 0 Mate First Class Pilots

In addition, this vessel may carry 0 Passengers, 0 Other Persons in crew, 0 Persons in addition to crew, and no Others. Total Persons allowed: 0

Route Permitted And Conditions Of Operation:

## --- Lakes, Bays, and Sounds plus Limited Coastwise---

Also, in fair weather only, not more than twelve (12) miles from shore between St. Marks and Carrabelle, Florida.

This vessel has been granted a fresh water service examination interval in accordance with 46 CFR Table 31.10-21(a)(2). If this vessel is operated in salt water more than six (6) months in any twelve (12) month period, the vessel must be inspected using salt water intervals and the cognizant OCMI notified in writing as soon as this change occurs.

This tank barge is participating in the Eigth Coast Guard District's Tank Barge Streamline Inspection Program.

### \*\*\*SEE NEXT PAGE FOR ADDITIONAL CERTIFICATE INFORMATION\*\*\*

With this Inspection for Certification having been completed at Port Arthur, TX, UNITED STATES, the Officer in Charge, Marine Inspection, Marine Safety Unit Port Arthur certified the vessel, in all respects, is in conformity with the applicable vessel inspection laws and the rules and regulations prescribed thereunder.

|      | Annual/Peri | odic/Re-Inspe | ction     | This certificate issued by:          |
|------|-------------|---------------|-----------|--------------------------------------|
| Date | Zone        | A/P/R         | Signature | J.J. ANDREW, CDR, USCG, By direction |
|      |             |               |           | Officer in Charge, Marine Inspection |
|      |             |               |           | Marine Safety Unit Port Arthur       |
|      |             | _             |           | Inspection Zone                      |



## United States of America Department of Homeland Security **United States Coast Guard**

Certification Date: 31 Oct 2019 **Expiration Date:** 31 Oct 2020

## Temporary Certificate of Inspection

Vessel Name: KIRBY 30800

---Hull Exams---

Exam Type

Next Exam

Last Exam

Prior Exam

DryDock

30Jun2029

31Oct2019

09Jun2009

Internal Structure

31May2024

31Oct2019

26May2015

## --- Liquid/Gas/Solid Cargo Authority/Conditions ---

Authorization:

LIQUEFIED FLAMMABLE GASES

**Total Capacity** 

Highest Grade Type

Part151 Regulated Part153 Regulated Part154 Regulated

30534

Barrels

**LFG** 

No

No

No

## \*Hazardous Bulk Solids Authority\*

Not Authorized

### \*Loading Constraints - Structural\*

| Tank Number    | Max Cargo Weight per Tank (short tons) | Maximum Density (lbs/gal) |
|----------------|----------------------------------------|---------------------------|
| 1 thru 3 (BTN) | 945                                    | 5.0                       |
| 1 thru 3 (BMX) | 945                                    | 4.8                       |
| 1 thru 3 (PPL) | 836                                    | 4.3                       |
| 1 thru 3 (PRP) | 801                                    | 4.2                       |

### \*Loading Constraints - Stability\*

| Hull Type | Maximum Load (short tons) | Maximum Draft (ft/in) | Max Density (lbs/gal) | Route Description |
|-----------|---------------------------|-----------------------|-----------------------|-------------------|
| III       | 2835                      | 8ft 11in              | 5.0                   | BTN               |
| III       | 2835                      | 8ft 11in              | 4.8                   | BMX               |
| 111       | 2508                      | 8ft 9in               | 4.3                   | PPL               |
| 101       | 2403                      | 8ft 8in               | 4.2                   | PRP               |

#### \*Conditions Of Carriage\*

Inspected and approved for the carriage of Liquefied Flammable Gases at a pressure not to exceed 266 psig and at a temperature not less than ambient.

Mixtures of Subchapter D liquefied flammable gas cargoes listed above are also authorized for carriage subject to the loading and stability constraints of the least dense cargo in the mixture.

Per D8 (dp) policy letter 01-2007 dated March 5, 2007, this tank barge is participating in the Eighth Coast Guard District's Tank Barge Streamlined Inspection Program (TBSIP). Inspection activities aboard this barge shall be conducted in accordance with its Tank Barge Action Plan (TAP). Inspection issues concerning this barge should be directed to Sector New Orleans OCMI.

## --- Inspection Status ---

\*Cargo Tanks\*

Internal Exam

External Exam

Tank Id

Previous

Last

Next

Previous

Last

Next

1 thru 3 (BTN)

03Dec2010

31Oct2019

31Oct2029

26May2015

31Oct2019

31May2024

Dept. Of Home Sec., USCG - CG-854 (Rev. 06-04)

Page 2 of 3

OMB Approved No. 1625-0057



## United States of America Department of Homeland Security United States Coast Guard

Certification Date: 31 Oct 2019 Expiration Date: 31 Oct 2020

## Temporary Certificate of Inspection

Vessel Name: KIRBY 30800

| -1 |                |               |           |            |           |           |           |
|----|----------------|---------------|-----------|------------|-----------|-----------|-----------|
|    | 1 thru 3 (BMX) | 03Dec2010     | 31Oct2019 | 31Oct2029  | 26May2015 | 31Oct2019 | 31May2024 |
|    | 1 thru 3 (PPL) | 03Dec2010     | 31Oct2019 | 31Oct2029  | 26May2015 | 31Oct2019 | 31May2024 |
|    | 1 thru 3 (PRP) | 03Dec2010     | 31Oct2019 | 31Oct2029  | 26May2015 | 31Oct2019 | 31May2024 |
|    |                |               |           | Hydro Test |           |           |           |
|    | Tank Id        | Safety Valves |           | Previous   | Last      | Next      |           |
|    | 1 thru 3 (BTN) | 01Oct2019     |           | -          | -         | -         |           |
|    | 1 thru 3 (BMX) | 01Oct2019     |           | =          | · =       | -         |           |
|    | 1 thru 3 (PPL) | 01Oct2019     |           | -          | =         | Ē         |           |
|    | 1 thru 3 (PRP) | 01Oct2019     |           | :=         | _         |           |           |
|    |                |               |           |            |           |           |           |

## ---Lifesaving Equipment---

Total Equipment for 0 Persons

| 1                |                         |          |          |                          |          |
|------------------|-------------------------|----------|----------|--------------------------|----------|
| Primary I        | Lifesaving Equipment    | Quantity | Capacity |                          | Required |
| Lifet            | ooats (Total)           | 0        | 0        | Life Preservers (Adult)  | 0        |
| Lifet            | poats (Port)            | 0        | 0        | Life Preservers (Child)  | 0        |
| Lifet            | ooats (Starboard)       | 0        | 0        | Ring Buoys (Total)       | 0        |
| Moto             | or Lifeboats            | 0        | 0        | With Lights              | 0        |
| Lifet            | ooats With Radio        | 0        | 0        | With Line Attached       | 0        |
| Rescue B         | Boats/Platforms         | 0        | 0        | Other                    | 0        |
| Inflatable Rafts |                         | 0        | 0        | Immersion Suits          | 0        |
| Life Floa        | ts/Buoyant App          | 0        | 0        | Portable Lifeboat Radios | 0        |
| Inflatable       | Buoyant Apparatus (IBA) | 0        | 0        | Equipped With EPIRB?     | NO       |

## --- Conditional Portable Fire Extinguisher Requirements---

Required Only During Transfer of Cargo or Operation of Barge Machinery

## --- Fire Fighting Equipment ---

\*Fire Extinguishers - Hand portable and semi-portable\*

Quantity

Class Type

Guaritie

B-II

\*\*\*END\*\*\*

#### Safety valve inspection report Certificate nr 437 LV-4007-SO Job no. Date Kirby Client Valve data Set pressure (cold) 266 psi Size 6XRx10 Tag. No. Rating 600x150 Serial No. TB91325 Nozzle / Orifice R Manufacturer Consolidated Fluid Air Type / Model 1912R Barge # COMANCHE/K30800 Test data Seat tightness test Set pressure test Found set pressure 267 psi Leakage 0 bubbles/min. Reseat pressure (indication) Test pressure 263 psi 251 psl Passed Result Passed Result Test method Air Manual Back Pressure test Law Valve of Texa **BP Pressure** 30 psi BP Result Passed 300 250 200 Pressure [psi] 150 100 50 05 10 15 20 25 Time [s] Tested by Inspected by USCG Name Javier Gutierrez Date Date Signature Signature

## Safety valve inspection report

Certificate nr Date

431

Job no. Client

LV-4007-SO

Kirby

Valve data

Set pressure (cold)

Size

6xRx10

Tag. No.

TK78118

266 psi

Rating

600x150

Serial No.

Nozzle / Orifice

R

Manufacturer

Consolidated

Fluid

Air

Type / Model

1912R

Barge #

COMANCHE/K30800

Test data

Set pressure test

Found set pressure

Reseat pressure (indication) Result

Test method

266 psi

263 psi Passed

Seat tightness test

Leakage

0 bubbles/min.

Test pressure

254 psi

Result

Passed

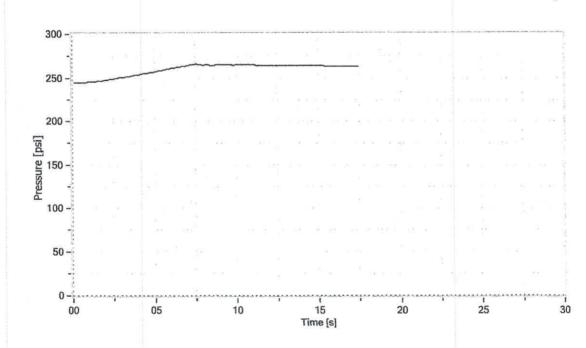
Manual Back Pressure test

**BP Pressure BP Result** 

30 psi

Passed

Law Valve of Texa.



Tested by

Name

Javier Gutierrez

Signature

Date 10 Signature

Inspected by USCG

Name LT Dulgon

#### Safety valve inspection report LV-4007-SO Certificate nr 432 Job no. Date Client Kirby Valve data Size 6xRx10 Set pressure (cold) 266 psi 600x150 Rating Tag. No. TE56764 Nozzle / Orifice Serial No. Air Manufacturer Consolidated Fluid 1912R Barge # COMANCHE/K30800 Type / Model Test data Seat tightness test Set pressure test Leakage 0 bubbles/min. 266 psi Found set pressure Test pressure 246 psi Reseat pressure (Indication) 259 psi Result Passed Passed Result Test method Air Manual Back Pressure test Law Valve of Texa 30 psi **BP Pressure BP Result** Passed 300 -250 -200 Pressure [psi] 150 100 -50 -0-15 20 25 30 10 00 05 Time [s] Tested by Inspected by USCG

Name (

Date 10

Signature

Javier Gutierrez

10-1-2019

Name

Date

Signature

## Safety valve inspection report

Certificate nr Date

435

Job no.

LV-4007-SO

Client

Kirby

Valve data

Set pressure (cold)

Tag. No.

266 psi

Size

6xRx10

Serial No.

TH22598

Rating

600x150

Manufacturer

Consolidated

Nozzle / Orifice Fluid

Air

Type / Model

1912R

Barge #

COMANCHE/K30800

Test data

Set pressure test

Found set pressure

Reseat pressure (indication) Result

Test method

265 psi

263 psi Passed

Air

Seat tightness test

Leakage

0 bubbles/min.

Test pressure

252 psi

Result

Passed

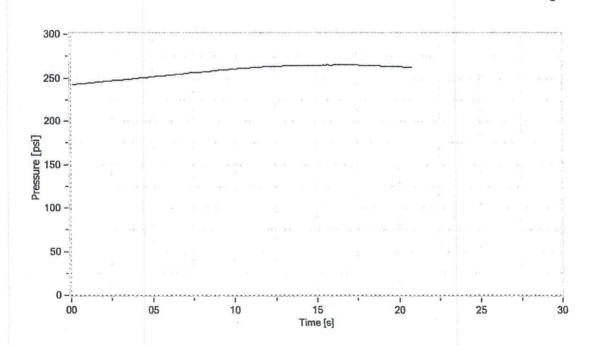
Manual Back Pressure test

**BP Pressure BP Result** 

30 psi

Passed

Law Valve of Text



Tested by

Name

Javier Gutierrez

Date

Signature

Inspected by USCG Date 10-1-2019

Signature Y

## Safety valve inspection report

Certificate nr

Date

434

Job no.

LV-4007-50

Client

Kirby

Valve data

Set pressure (cold)

Tag. No.

266 psi

Size Rating 6xRx10

Serial No.

TE64985

Nozzle / Orifice

600x150

Manufacturer

Consolidated

Fluid

R Air

Type / Model

1912R

Barge #

COMANCHE/K30800

Test data

Set pressure test

Found set pressure Reseat pressure (indication)

Result

Test method

266 psi

262 psi Passed

Air

Seat tightness test

Leakage

0 bubbles/min.

Test pressure

244 psi

Result

Passed

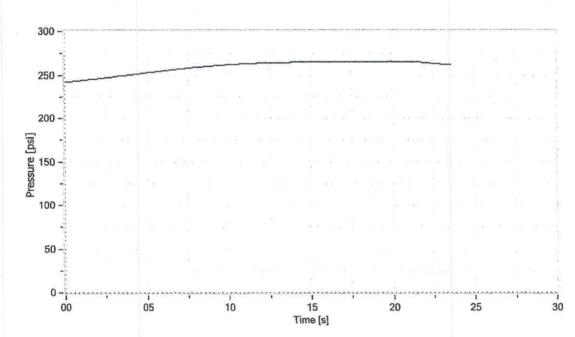
Manual Back Pressure test

**BP Pressure BP Result** 

30 psi

Passed

Law Valve of Text



Tested by

Name

Javier Gutierrez

Date

Signature

Inspected by USCG Name UT DELLIEN Date 10-1-2019

Signature \( \int \)

#### Safety valve inspection report LV-4007-SO Certificate nr 433 Job no. Date Kirby Client Valve data Size 6xRx10 Set pressure (cold) 266 psi 600x150 Rating Tag. No. TH22594 Nozzle / Orifice R Serial No. Fluid Air Manufacturer Consolidated COMANCHE/K30800 Type / Model 1912R Barge # Test data Seat tightness test Set pressure test Leakage 0 bubbles/min. Found set pressure 266 psi Test pressure 262 psl Reseat pressure (indication) 265 psi Result Passed Passed Result Test method Air Manual Back Pressure test Law Valve of Tex **BP Pressure** 30 psi BP Result Passed 300 250 200 Pressure [psi] 100 -50 0-; 20 25 15 05 00 Time [s] Inspected by USCG Tested by Name LT Davide Javier Gutierrez Name Date 10-1-2019 Date Signature v Signature

#### Safety valve inspection report Certificate nr LV-4007-SO 450 Job no. Date Kirby 10-08-2019 Client Valve data Set pressure (cold) 480 psi Size 1x1 Tag. No. Rating K191028-10 Nozzle / Orifice 1 Serial No. Air Manufacturer Aquatrol Fluid Type / Model 742DG1V2K1 COMANCHE/K30800 Barge # Test data Seat tightness test Set pressure test Leakage Found set pressure 479 psi Test pressure Reseat pressure (indication) 385 psi Result Result Passed Test method Air Manual Back Pressure test Law Valve of T **BP Pressure** 30 psi **BP** Result Passed 600 -500 -400 -Pressure [psi] 300 -200 100 00 05 15 20 25 Time [s] Tested by Inspected by Name Javier Gutierrez Name Date Date Signature Signature 16-8-2019

#### Safety valve inspection report Certificate nr LV-4007-SO 449 Job no. Date Kirby 10-08-2019 Client Valve data 480 psi Size 1x1 Set pressure (cold) Tag. No. Rating K191028-12 Nozzle / Orifice 1 Serial No. Air Manufacturer Aquatrol Fluid COMANCHE/K30800 Type / Model 742DG1V2K1 Barge # Test data Seat tightness test Set pressure test Found set pressure 486 psi Leakage Test pressure Reseat pressure (indication) 368 psi Result Result Passed Test method Air Manual Back Pressure test Law Valve of Ta **BP Pressure** 30 psi **BP** Result Passed 600 -500 -400 Pressure [psi] 300 200 100 25 00 05 10 15 20 Time [s] Tested by Inspected by Javier Gutierrez Name Name Date Date Signature Signature 10-8-2019

|                                              | Safety valve inspect | are referre                 |                |
|----------------------------------------------|----------------------|-----------------------------|----------------|
| Certificate nr                               | 448                  | Job no. LV-4007-SO          |                |
| Date                                         | 10-08-2019           | Client Kirby                |                |
|                                              | Valve data           |                             |                |
| Set pressure (cold)                          | 480 psi              | Size 1x1                    |                |
| Tag, No.                                     |                      | Rating                      |                |
| Serial No.                                   | K191028-9            | Nozzle / Orifice 1          |                |
| Manufacturer                                 | Aquatrol             | Fluid Air                   |                |
| Type / Model                                 | 742DG1V2K1           | Barge # COMANCHE/           | <b>&lt;308</b> |
|                                              | Test data            |                             |                |
| Set pressure test                            |                      | Seat tightness test         |                |
| Found set pressure                           | 482 psi              | Leakage -                   |                |
| Reseat pressure (Indication)                 |                      | Test pressure -             |                |
| Result                                       | Passed               | Result -                    |                |
| Test method                                  | Air                  |                             |                |
| Manual Back Pressure test                    |                      |                             |                |
| BP Pressure                                  | 30 psi               | Harry Walter - 4.3          |                |
| BP Result                                    | Passed               | Law Valve of Texas          |                |
| 600 -                                        |                      |                             |                |
| EW -                                         |                      |                             |                |
| 500                                          |                      |                             |                |
| 500 -                                        |                      |                             |                |
| -                                            |                      |                             |                |
| 400 -                                        |                      |                             |                |
| 400 -                                        |                      |                             |                |
| 400 -                                        |                      |                             |                |
| 400 -                                        |                      |                             |                |
| 400 -                                        |                      |                             |                |
| Pressure [psi]                               |                      |                             |                |
| 400 -<br>[Sd] -<br>300 -<br>200 -            |                      |                             |                |
| Pressure [psi] 000                           |                      |                             |                |
| 400 -<br>[ISO] 200 -<br>200 -                |                      |                             |                |
| 400 -<br>[Sd] -<br>300 -<br>200 -            | 05 10 15<br>Time [s  | 20 25 30                    |                |
| 400 -<br>[80] 300 -<br>200 -<br>100 -        | 05 10 15             | 20 25 30                    |                |
| 400 -<br>IISA<br>200 -<br>100 -<br>0 -<br>00 | 05 10 15<br>Time [s  | 20 25 30 Inspected by       |                |
| 400 - 196                                    | 05 10 15             | 20 25 30  Inspected by Name |                |
| 400 -<br>IISA<br>200 -<br>100 -<br>0 -<br>00 | 05 10 15<br>Time [s  | 20 25 30 Inspected by       |                |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Sarety \               | alve inspec      | tion report                |                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------|----------------------------|-------------------|
| Certificate nr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 447                    |                  | Job no.                    | LV-4007-SO        |
| Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 10-08-2019             |                  | Client                     | Kirby             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                        | Valve data       |                            |                   |
| Cab museum (anld)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 400 1                  | valve uata       |                            | W. C.             |
| Set pressure (cold) Tag. No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 480 psi                |                  | Size                       | 1×1               |
| Serial No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | K191028-11             |                  | Rating<br>Nozzle / Orifice | 1                 |
| Manufacturer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Aquatrol               |                  | Fluid                      | Air               |
| Type / Model                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 742DG1V2K1             |                  | Barge #                    | COMANCHE/K3080    |
| A Mariana III propagations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                        | " w              | barge #                    | COMMICIE/RS000    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                        | Test data        |                            |                   |
| Set pressure test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |                  | Seat tightne               | ss test           |
| Found set pressure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 472 psi                |                  | Leakage                    | (4                |
| Reseat pressure (indication                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | n) 393 psi             |                  | Test pressure              | ·•                |
| Result                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Passed                 |                  | Result                     | Ä                 |
| Test method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Air                    |                  |                            |                   |
| Manual Back Pressure tes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                        |                  |                            |                   |
| BP Pressure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 30 psi                 |                  | Harry Walls                | e of Texas        |
| BP Result                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Passed                 |                  | Lävv väjv                  | e ul lekas        |
| · · ·                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |                  | A TERMINE MANAGEMENT       |                   |
| 500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                        |                  |                            |                   |
| 500 –                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |                  | 0 1 1 3 4 1 0              | ters on the world |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                        |                  |                            |                   |
| 400 -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |                  |                            |                   |
| 400 -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |                  |                            |                   |
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| Pressure [psi] - 300                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                        |                  |                            |                   |
| 400 -<br><u>\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tin}\ext{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tin}\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tin}\tint{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\texi}\tint{\text{\text{\text{\text{\text{\text{\text{\texi}\text{\ti}\tint{\text{\text{\text{\text{\texi}\tint{\text{\texi}\text{\ti}\text{\text{\text{\text{\text{\texi}\text{\texi}\text{\texit{\ti}\tint{\text{\tin}\tint{\tin}\tint{\text{\texi}\text{\tex</u> |                        |                  |                            |                   |
| 400 -<br>[ <u>isd</u> -<br>300 -<br>200 -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                        |                  |                            |                   |
| Pressure [psi] - 300 400 -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                        |                  |                            |                   |
| 400 -<br>158<br>-<br>200 -<br>100 -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                        |                  |                            |                   |
| 400 -<br>156<br>200 -<br>100 -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | OF                     |                  |                            |                   |
| 400 -<br>158<br>-<br>200 -<br>100 -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 05                     | 10 15<br>Time [s | 20                         | 25 30             |
| 400 -<br>156<br>200 -<br>100 -<br>0 -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 05                     | 10 15            | 20                         | 25 30             |
| 400 -<br>100 -<br>100 -<br>100 -<br>100 -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                        | 10 15            | 20<br>Inspected by         | 25 30             |
| 400 -<br>155<br>200 -<br>100 -<br>00  Tested by Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 05<br>Javier Gutierrez | 10 15            | 20<br>Inspected by<br>Name | 25 30             |
| 400 -<br>100 -<br>100 -<br>100 -<br>100 -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                        | 10 15            | 20<br>Inspected by         | 25 30             |