



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

Certification Date: 13 Feb 2026

Expiration Date: 13 Feb 2031

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.

| | | | | |
|-------------|-----------------|------------|-----------|------------|
| Vessel Name | Official Number | IMO Number | Call Sign | Service |
| CCL 419-L | 1306897 | | | Tank Barge |

| | | | |
|-----------------|---------------|------------|------------|
| Hailing Port | Hull Material | Horsepower | Propulsion |
| NEW ORLEANS, LA | Steel | | |
| UNITED STATES | | | |

| | | | | | | |
|---------------|---------------|----------------|------------|----------|-----|---------|
| Place Built | Delivery Date | Keel Laid Date | Gross Tons | Net Tons | DWT | Length |
| ORANGE, TX | 23Dec2020 | 20Jul2020 | R-1619 | R-1619 | | R-297.6 |
| UNITED STATES | | | I- | I- | | I-0 |

| | |
|---|---|
| Owner | Operator |
| CHEM CARRIERS LLC 1237 HIGHWAY 75 SUNSHINE, LA 70780 UNITED STATES | CHEM CARRIERS LLC 1237 HIGHWAY 75 SUNSHINE, LA 70780 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 Masters | 0 Licensed Mates | 0 Chief Engineers | 0 Oilers |
| 0 Chief Mates | 0 First Class Pilots | 0 First Assistant Engineers | |
| 0 Second Mates | 0 Radio Officers | 0 Second Assistant Engineers | |
| 0 Third Mates | 0 Able Seamen | 0 Third Assistant Engineers | |
| 0 Master First Class Pilot | 0 Ordinary Seamen | 0 Licensed Engineers | |
| 0 Mate First Class Pilots | 0 Deckhands | 0 Qualified Member Engineer | |

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---

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

This vessel has been granted a fresh water service examination in accordance with 46 CFR 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 must be notified in writing as soon as this change in status occurs.

SEE NEXT PAGE FOR ADDITIONAL CERTIFICATE INFORMATION

With this Inspection for Certification having been completed at New Orleans, LA, UNITED STATES, the Officer in Charge, Marine Inspection, Sector New Orleans certified the vessel, in all respects, is in conformity with the applicable vessel inspection laws and the rules and regulations prescribed thereunder.

| | | | | |
|-------------------------------|------|-------|-----------|--|
| Annual/Periodic/Re-Inspection | | | | This certificate issued by: D. VELEZ COMMANDER, By direction <hr/> Officer in Charge, Marine Inspection <hr/> Sector New Orleans <hr/> Inspection Zone |
| Date | Zone | A/P/R | Signature | |
| | | | | |
| | | | | |
| | | | | |



Certificate of Inspection

Vessel Name: CCL 419-L

---Hull Exams---

| Exam Type | Next Exam | Last Exam | Prior Exam |
|--------------------|-----------|-----------|------------|
| DryDock | 31Dec2030 | 23Dec2020 | |
| Internal Structure | 28Feb2031 | 11Feb2026 | |

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

Authorization: FLAMMABLE/COMBUSTIBLE LIQUIDS AND SPECIFIED HAZARDOUS CARGOES

| Total Capacity | Units | Highest Grade Type | Part151 Regulated | Part153 Regulated | Part154 Regulated |
|----------------|---------|--------------------|-------------------|-------------------|-------------------|
| 29855 | Barrels | A | Yes | 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 | 820 | 12.91 |
| 2 | 817 | 12.91 |
| 3 | 684 | 12.91 |

Loading Constraints - Stability

| Hull Type | Maximum Load (short tons) | Maximum Draft (ft/in) | Max Density (lbs/gal) | Route Description |
|-----------|---------------------------|-----------------------|-----------------------|-------------------|
| II | 3732 | 9ft 7in | 12.91 | R/LBS |
| III | 4401 | 10ft 11in | 12.91 | R/LBS |

Conditions Of Carriage

Only those specified hazardous cargoes named in the vessel's Cargo Authority Attachment (CAA), serial NO. C2-2003756, dated November 19, 2020, may be carried. The specified hazardous cargoes may be carried only in the tanks indicated.

Per 46 CFR 150.130, the person in charge of the vessel is responsible for ensuring the compatibility requirements of 46 CFR 150 are met. Cargoes must be checked for compatibility using figures, tables, and appendices of 46 CFR 150 in conjunction with the reactive group number from the "Compat Group No" column is listed in the vessel's CAA.

When the vessel is carrying cargoes containing 0.5% or greater benzene by volume, the person in charge is responsible for ensuring the provisions of 46 CFR 197, Subpart C, are applied.

Per 46 CFR 39, excluding Part 39.4000, this vessel's vapor control system (VCS) has been inspected to the plans approved by Marine Safety Center letter serial # C2-2003756, dated November 19, 2020 and found acceptable for collection of bulk liquid cargo vapors annotated with "Yes" in the CAA's VCS column.

Per 46 CFR 39.5000, this vessel's VCS has been evaluated and approved for multi-breasted tandem loading with other vessels specifically approved to tandem load with this vessel.

--- Inspection Status ---

Cargo Tanks

| Tank Id | Internal Exam | | | External Exam | | |
|---------|---------------|-----------|-----------|---------------|------|------|
| | Previous | Last | Next | Previous | Last | Next |
| 1 | - | 23Dec2020 | 31Dec2030 | - | - | - |



Certificate of Inspection

Vessel Name: CCL 419-L

| | | | | | | |
|------------|---------------|-----------|-----------|------|---|---|
| 2 | - | 23Dec2020 | 31Dec2030 | - | - | - |
| 3 | - | 23Dec2020 | 31Dec2030 | - | - | - |
| Hydro Test | | | | | | |
| Tank Id | Safety Valves | Previous | Last | Next | | |
| 1 | - | - | - | - | | |
| 2 | - | - | - | - | | |
| 3 | - | - | - | - | | |

---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 |
|----------|------------|
| 2 | 40-B |

END



Certificate of Inspection

Cargo Authority Attachment

Vessel Name: CCL 419-L
Official #: 1306897

Shipyard: Conrad Orange
Hull #: H526

46 CFR 151 Tank Group Characteristics

| Tank Group Information | | Cargo Identification | | | Tanks | | | Cargo Transfer | | Environmental Control | | Fire Protection | | Special Requirements | | Elec Haz | Temp Cont | |
|------------------------|----------------|----------------------|--------|-------|----------|----------------|------------------|----------------|--------|-----------------------|------|-----------------|----------------|----------------------|---|---|-----------|---------------------------|
| Tnk Grp | Tanks in Group | Density | Press. | Temp. | Hull Typ | Cargo Seg Tank | Type | Vent | Gauge | Pipe Class | Cont | Tanks | Handling Space | Protection Provided | General | | | Materials of Construction |
| A | ALL | 12.9 | Atmos. | Amb. | II | 1ii 2ii | Integral Gravity | PV | Closed | II | G-1 | NR | NA | Portable | .50-5, .50-5(d), .50-60, .50-70(a), .50-70(b), .50-73, .50-81(a), .50-81(b) | 55-1(b), (c), (e), (f), (h), (j), 56-1(a), (b), (c), (d), (e), (f), (g) | I-C | No |

- Notes: 1. Under Environmental Control, Tanks, NR means that the tank group is suitable only for those cargoes which require no environmental control in the cargo tanks.
2. Under Environmental Control, Handling Space, NR means that the tank group is suitable only for those cargoes which require no environmental control in the cargo handling space. NA means that the vessel does not have a cargo control space, and this requirement is not applied.
3. Under Electrical Hazard Class, NA means that the tank group is suitable only for those cargoes which have no electrical hazard class requirement. NR means that the vessel has no electrical equipment located in a hazardous location.

List of Authorized Cargoes

| Cargo Identification | | | | | | | Conditions of Carriage | | | | |
|----------------------|-----------|-----------------|-------------|-------|-----------|------------|------------------------|--------------|--|--------------|--|
| Name | Chem Code | Compat Group No | Sub Chapter | Grade | Hull Type | Tank Group | Vapor Recovery | | Special Requirements in 46 CFR 151 General and Mat'ls of | Insp. Period | |
| | | | | | | | App'd (Y or N) | VCS Category | | | |

Authorized Subchapter O Cargoes

| | | | | | | | | | | |
|--|-----|----|-----|-----|-----|-----|-----|-----|------------------------------|---------------------------------|
| Nitriiotriacetic acid, trisodium salt solution | NCA | 34 | D/O | 3 | | A | No | N/A | | |
| Olefins (C13+, all isomers) | OFZ | 30 | D/O | E | III | A | Yes | 1 | | G |
| Orange juice (concentrated) | OJC | 0 | D/O | 3 | | A | No | N/A | | |
| Sodium acetate solution | SAN | 34 | D/O | 3 | # | A | No | N/A | | |
| Vegetable protein solution (hydrolyzed) (if non-flammable and non-combustible) | VPS | 43 | D/O | 3 | NA | A | No | N/A | | |
| Acetonitrile | ATN | 37 | O | C | III | A | Yes | 3 | No | G |
| Acrylonitrile | ACN | 15 | 2 | O | C | II | A | Yes | 4 | .50-70(a), .55-1(e) |
| Adiponitrile | ADN | 37 | O | E | II | A | Yes | 1 | No | G |
| Alkyl (C7-C9) nitrates | AKN | 34 | 2 | O | NA | III | A | No | N/A | .50-81, .50-86 |
| Aminoethyl ethanolamine | AEE | 8 | O | E | III | A | Yes | 1 | .55-1(b) | G |
| Ammonium bisulfite solution (70% or less) | ABX | 43 | 2 | O | NA | III | A | No | N/A | .50-73, .56-1(a), (b), (c) |
| Ammonium hydroxide (28% or less NH3) | AMH | 6 | O | NA | III | A | No | N/A | .56-1(a), (b), (c), (f), (g) | G |
| Anthracene oil (Coal tar fraction) | AHO | 33 | O | NA | II | A | No | N/A | No | G |
| Benzene | BNZ | 32 | O | C | III | A | Yes | 1 | .50-60 | G |
| Benzene or hydrocarbon mixtures (having 10% Benzene or more) | BHB | 32 | 2 | O | C | III | A | Yes | 1 | .50-60 |
| Benzene or hydrocarbon mixtures (containing Acetylene and 10% Benzene or more) | BHA | 32 | 2 | O | C | III | A | Yes | 1 | .50-60, .56-1(b), (d), (f), (g) |
| Benzene, Toluene, Xylene mixtures (10% Benzene or more) | BTX | 32 | O | B/C | III | A | Yes | 1 | .50-60 | G |
| Butyl acrylate (all isomers) | BAR | 14 | O | D | III | A | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| Butyl methacrylate | BMH | 14 | O | D | III | A | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| Butyraldehyde (all isomers) | BAE | 19 | O | C | III | A | Yes | 1 | .55-1(h) | G |
| Camphor oil (light) | CPO | 18 | O | D | II | A | No | N/A | No | G |
| Caustic potash solution | CPS | 5 | 2 | O | NA | III | A | No | N/A | .50-73, .55-1(f) |
| Caustic soda solution | CSS | 5 | 2 | O | NA | III | A | No | N/A | .50-73, .55-1(f) |
| Chlorobenzene | CRB | 36 | O | D | III | A | Yes | 1 | No | G |
| Chloroform | CRF | 36 | O | NA | III | A | Yes | 3 | No | G |
| Coal tar naphtha solvent | NCT | 33 | O | D | III | A | Yes | 1 | .50-73 | G |
| Creosote | CCW | 21 | 2 | O | E | III | A | Yes | 1 | No |
| Cresols (all isomers) | CRS | 21 | O | E | III | A | Yes | 1 | No | G |
| Cresylate spent caustic | CSC | 5 | O | NA | III | A | No | N/A | .50-73, .55-1(b) | G |
| Cresylic acid tar | CRX | 21 | O | E | III | A | Yes | 1 | .55-1(f) | G |
| Crotonaldehyde | CTA | 19 | 2 | O | C | II | A | Yes | 4 | .55-1(h) |

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Certificate of Inspection

Cargo Authority Attachment

Vessel Name: CCL 419-L
Official #: 1306897

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Shipyard: Conrad Orange
Hull #: H526

| Cargo Identification | | | | | | Conditions of Carriage | | | | |
|--|-----------|------------------|-------------|-------|-----------|------------------------|-------------------------------|--------------|---|--------------|
| Name | Chem Code | Compat Group No | Sub Chapter | Grade | Hull Type | Tank Group | Vapor Recovery App'd (Y or N) | VCS Category | Special Requirements in 46 CFR 151 General and Mat'ls of Construction | Insp. Period |
| Crude hydrocarbon feedstock (containing Butylaldehydes and Ethylpropyl acrolein) | CHG | 19 ² | O | C | III | A | Yes | 1 | No | G |
| Cyclohexanone | CCH | 18 | O | D | III | A | Yes | 1 | .56-1(a), (b) | G |
| Cyclohexanone, Cyclohexanol mixture | CYX | 18 ² | O | E | III | A | Yes | 1 | .56-1 (b) | G |
| Cyclohexylamine | CHA | 7 | O | D | III | A | Yes | 1 | .56-1(a), (b), (c), (g) | G |
| Cyclopentadiene, Styrene, Benzene mixture | CSB | 30 | O | D | III | A | Yes | 1 | .50-60, .56-1(b) | G |
| iso-Decyl acrylate | IAI | 14 | O | E | III | A | Yes | 2 | .50-70(a), .50-81(a), (b), .55-1(c) | G |
| Dichlorobenzene (all isomers) | DBX | 36 | O | E | III | A | Yes | 3 | .56-1(a), (b) | G |
| 1,1-Dichloroethane | DCH | 36 | O | C | III | A | Yes | 1 | No | G |
| 2,2'-Dichloroethyl ether | DEE | 41 | O | D | II | A | Yes | 1 | .55-1(f) | G |
| Dichloromethane | DCM | 36 | O | NA | III | A | Yes | 5 | No | G |
| 2,4-Dichlorophenoxyacetic acid, diethanolamine salt solution | DDE | 43 | O | E | III | A | No | N/A | .56-1(a), (b), (c), (g) | G |
| 2,4-Dichlorophenoxyacetic acid, dimethylamine salt solution | DAD | 0 ^{1,2} | O | A | III | A | No | N/A | .56-1(a), (b), (c), (g) | G |
| 2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt solution | DTI | 43 ² | O | E | III | A | No | N/A | .56-1(a), (b), (c), (g) | G |
| 1,1-Dichloropropane | DPB | 36 | O | C | III | A | Yes | 3 | No | G |
| 1,2-Dichloropropane | DPP | 36 | O | C | III | A | Yes | 3 | No | G |
| 1,3-Dichloropropane | DPC | 36 | O | C | III | A | Yes | 3 | No | G |
| 1,3-Dichloropropene | DPU | 15 | O | D | II | A | Yes | 4 | No | G |
| Dichloropropene, Dichloropropane mixtures | DMX | 15 | O | C | II | A | Yes | 1 | No | G |
| Diethanolamine | DEA | 8 | O | E | III | A | Yes | 1 | .55-1(c) | G |
| Diethylamine | DEN | 7 | O | C | III | A | Yes | 3 | .55-1(c) | G |
| Diethylenetriamine | DET | 7 ² | O | E | III | A | Yes | 1 | .55-1(c) | G |
| Diisobutylamine | DBU | 7 | O | D | III | A | Yes | 3 | .55-1(c) | G |
| Diisopropanolamine | DIP | 8 | O | E | III | A | Yes | 1 | .55-1(c) | G |
| Diisopropylamine | DIA | 7 | O | C | II | A | Yes | 3 | .55-1(c) | G |
| N,N-Dimethylacetamide | DAC | 10 | O | E | III | A | Yes | 3 | .56-1(b) | G |
| Dimethylethanolamine | DMB | 8 | O | D | III | A | Yes | 1 | .56-1(b), (c) | G |
| Dimethylformamide | DMF | 10 | O | D | III | A | Yes | 1 | .55-1(e) | G |
| Di-n-propylamine | DNA | 7 | O | C | II | A | Yes | 3 | .55-1(c) | G |
| Dodecyl dimethylamine, Tetradecyldimethylamine mixture | DOT | 7 | O | E | III | A | No | N/A | .56-1(b) | G |
| Dodecyl diphenyl ether disulfonate solution | DOS | 43 | O | # | II | A | No | N/A | No | G |
| EE Glycol Ether Mixture | EEG | 40 | O | D | III | A | No | N/A | No | G |
| Ethanolamine | MEA | 8 | O | E | III | A | Yes | 1 | .55-1(c) | G |
| Ethyl acrylate | EAC | 14 | O | C | III | A | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| Ethylamine solutions (72% or less) | EAN | 7 | O | A | II | A | No | N/A | .55-1(b) | G |
| N-Ethylbutylamine | EBA | 7 | O | D | III | A | Yes | 3 | .55-1(b) | G |
| N-Ethylcyclohexylamine | ECC | 7 | O | D | III | A | Yes | 1 | .55-1(b) | G |
| Ethylene cyanohydrin | ETC | 20 | O | E | III | A | Yes | 1 | No | G |
| Ethylenediamine | EDA | 7 ² | O | D | III | A | Yes | 1 | .55-1(c) | G |
| Ethylene dichloride | EDC | 36 ² | O | C | III | A | Yes | 1 | No | G |
| Ethylene glycol hexyl ether | EGH | 40 | O | E | III | A | No | N/A | No | G |
| Ethylene glycol monoalkyl ethers | EGC | 40 | O | D/E | III | A | Yes | 1 | No | G |
| Ethylene glycol propyl ether | EGP | 40 | O | E | III | A | Yes | 1 | No | G |
| 2-Ethylhexyl acrylate | EAI | 14 | O | E | III | A | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| Ethyl methacrylate | ETM | 14 | O | D/E | III | A | Yes | 2 | .50-70(a) | G |
| 2-Ethyl-3-propylacrolein | EPA | 19 ² | O | E | III | A | Yes | 1 | No | G |
| Furfural | FFA | 19 | O | D | III | A | Yes | 1 | .55-1(h) | G |
| Glutaraldehyde solutions (50% or less) | GTA | 19 | O | NA | III | A | No | N/A | No | G |

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Certificate of Inspection

Cargo Authority Attachment

Vessel Name: CCL 419-L

Shipyard: Conrad Orange

Official #: 1306897

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Hull #: H526

| Cargo Identification | | | | | | Conditions of Carriage | | | | |
|--|-----------|------------------|----------------|-------|-----------|------------------------|-------------------------------|--------------|---|--------------|
| Name | Chem Code | Compat Group No | Sub Chapter | Grade | Hull Type | Tank Group | Vapor Recovery App'd (Y or N) | VCS Category | Special Requirements in 46 CFR 151 General and Mat'ls of Construction | Insp. Period |
| Hexamethylenediamine solution | HMC | 7 | O | E | III | A | Yes | 1 | .55-1(c) | G |
| Hexamethyleneimine | HMI | 7 | O | C | II | A | Yes | 1 | .56-1(b), (c) | G |
| Isoprene | IPR | 30 | O | A | III | A | No | N/A | .50-70(a), .50-81(a), (b) | G |
| Isoprene, Pentadiene mixture | IPN | 30 | O | B | III | A | No | N/A | .50-70(a), .55-1(c) | G |
| Kraft pulping liquors (free alkali content 3% or more)(including: Black, Green, or White liquor) | KPL | 5 | O | NA | III | A | No | N/A | .50-73, .56-1(a), (c), (g) | G |
| Mesityl oxide | MSO | 18 ² | O | D | III | A | Yes | 1 | No | G |
| Methyl acrylate | MAM | 14 | O | C | III | A | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| Methyl diethanolamine | MDE | 8 | O | E | III | A | Yes | 1 | .56-1(b), (c) | G |
| 2-Methyl-5-ethyl pyridine | MEP | 9 | O | E | III | A | Yes | 1 | .55-1(e) | G |
| Methyl methacrylate | MMM | 14 | O | C | III | A | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| 2-Methylpyridine | MPR | 9 | O | D | III | A | Yes | 3 | .55-1(c) | G |
| alpha-Methylstyrene | MSR | 30 | O | D | III | A | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| Morpholine | MPL | 7 ² | O | D | III | A | Yes | 1 | .55-1(c) | G |
| Nitroethane | NTE | 42 | O | D | II | A | No | N/A | .50-81, .56-1(b) | G |
| 1- or 2-Nitropropane | NPM | 42 | O | D | III | A | Yes | 1 | .50-81 | G |
| 1,3-Pentadiene | PDE | 30 | O | A | III | A | No | N/A | .50-70(a), .50-81 | G |
| Polyethylene polyamines | PEB | 7 ² | O | E | III | A | Yes | 1 | .55-1(e) | G |
| Potassium chloride solution (brine) | PCSB | 0 | O | NA | III | A | No | N/A | | G |
| iso-Propanolamine | MPA | 8 | O | E | III | A | Yes | 1 | .55-1(c) | G |
| Propanolamine (iso-, n-) | PAX | 8 | O | E | III | A | Yes | 1 | .56-1(b), (c) | G |
| Isopropylamine | IPP | 7 | O | A | II | A | Yes | 5 | .55-1(c) | G |
| Pyridine | PRD | 9 | O | C | III | A | Yes | 1 | .55-1(e) | G |
| Pyrolysis Gasoline (containing benzene) | PYG | 32 | O | C | II | A | No | N/A | .50-60 | G |
| Sodium acetate, Glycol, Water mixture (3% or more Sodium Hydroxide) | SAP | 5 | O | | III | A | No | N/A | .50-73, .55-1(f) | G |
| Sodium aluminate solution (45% or less) | SAU | 5 | O | NA | III | A | No | N/A | .50-73, .56-1(a), (b), (c) | G |
| Sodium chlorate solution (50% or less) | SDD | 0 ^{1,2} | O | NA | III | A | No | N/A | .50-73 | G |
| Sodium hypochlorite solution (20% or less) | SHQ | 5 | O | NA | III | A | No | N/A | .50-73, .56-1(a), (b) | G |
| Sodium sulfide, hydrosulfide solution (H2S 15 ppm or less) | SSH | 0 ^{1,2} | O | NA | III | A | Yes | 1 | .50-73, .55-1(b) | G |
| Sodium sulfide, hydrosulfide solution (H2S greater than 15 ppm but less than 200 ppm) | SSI | 0 ^{1,2} | O | NA | III | A | No | N/A | .50-73, .55-1(b) | G |
| Sodium sulfide, hydrosulfide solution (H2S greater than 200 ppm) | SSJ | 0 ^{1,2} | O | NA | II | A | No | N/A | .50-73, .55-1(b) | G |
| Styrene monomer | STY | 30 | O | D | III | A | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| Tetraethylene pentamine | TTP | 7 | O | E | III | A | Yes | 1 | .55-1(c) | G |
| Tetrahydrofuran | THF | 41 | O | C | III | A | Yes | 1 | .50-70(b) | G |
| o-Toluidine | TLI | 9 | O | E | II | A | Yes | 3 | .50-5, .50-73 | G |
| 1,2,4-Trichlorobenzene | TCB | 36 | O | E | III | A | Yes | 1 | No | G |
| 1,1,1-Trichloroethane | TCE | 36 ² | O ³ | NA | II | A | No | N/A | .50-73, .56-1(a) | G |
| 1,1,2-Trichloroethane | TCM | 36 | O | NA | III | A | Yes | 1 | .50-73, .56-1(a) | G |
| Trichloroethylene | TCL | 36 ² | O | NA | III | A | Yes | 1 | No | G |
| 1,2,3-Trichloropropane | TCN | 36 | O | E | II | A | Yes | 3 | .50-73, .56-1(a) | G |
| Triethanolamine | TEA | 8 ² | O | E | III | A | Yes | 1 | .55-1(b) | G |
| Triethylamine | TEN | 7 | O | C | II | A | Yes | 3 | .55-1(a) | G |
| Triethylenetetramine | TET | 7 ² | O | E | III | A | Yes | 1 | .55-1(b) | G |
| Triphenylborane (10% or less), caustic soda solution | TPB | 5 | O | NA | III | A | No | N/A | .56-1(a), (b), (c) | G |
| Trisodium phosphate solution | TSP | 5 | O | NA | III | A | No | N/A | .50-73, .56-1(a), (c) | G |
| Urea, Ammonium nitrate solution (containing more than 2% NH3) | UAS | 6 | O | NA | III | A | No | N/A | .56-1(b) | G |



Certificate of Inspection

Cargo Authority Attachment

Vessel Name: CCL 419-L
Official #: 1306897

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Shipyard: Conrad Orange
Hull #: H526

| Cargo Identification | | | | | | Conditions of Carriage | | | | |
|--|-----------|-----------------|-------------|-------|-----------|------------------------|----------------|--------------|---|--------------|
| Name | Chem Code | Compat Group No | Sub Chapter | Grade | Hull Type | Tank Group | Vapor Recovery | | Special Requirements in 46 CFR 151 General and Mat'ls of Construction | Insp. Period |
| | | | | | | | App'd (Y or N) | VCS Category | | |
| Vanillin black liquor (free alkali content, 3% or more). | VBL | 5 | O | NA | III | A | No | N/A | .50-73, .56-1(a), (c), (g) | G |
| Vinyl acetate | VAM | 13 | O | C | III | A | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| Vinyl neodecanoate | VND | 13 | O | E | III | A | No | N/A | .50-70(a), .50-81(a), (b) | G |
| Vinyltoluene | VNT | 13 | O | D | III | A | Yes | 2 | .50-70(a), .50-81, .56-1(a), (b), (c), (| G |

Subchapter D Cargoes Authorized for Vapor Control

| | | | | | | | | | | |
|---|-----|-----------------|---|-----|--|---|-----|---|--|--|
| Acetone | ACT | 18 ² | D | C | | A | Yes | 1 | | |
| Acetophenone | ACP | 18 | D | E | | A | Yes | 1 | | |
| Alcohol (C12-C16) poly(20+) ethoxylates | APW | 20 | D | E | | A | Yes | 1 | | |
| Alcohol (C6-C17) (secondary) poly(3-6) ethoxylates | AEA | 20 | D | E | | A | Yes | 1 | | |
| Alcohol (C6-C17) (secondary) poly(7-12) ethoxylates | AEB | 20 | D | E | | A | Yes | 1 | | |
| Amyl acetate (all isomers) | AEC | 34 | D | D | | A | Yes | 1 | | |
| Amyl alcohol (iso-, n-, sec-, primary) | AAI | 20 | D | D | | A | Yes | 1 | | |
| Benzyl acetate | BZE | 34 | D | E | | A | Yes | 1 | | |
| Benzyl alcohol | BAL | 21 | D | E | | A | Yes | 1 | | |
| Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters) | BFY | 20 | D | E | | A | Yes | 1 | | |
| Butyl acetate (all isomers) | BAX | 34 | D | D | | A | Yes | 1 | | |
| Isobutyl alcohol | IAL | 20 ² | D | D | | A | Yes | 1 | | |
| Butyl alcohol (n-) | BAN | 20 ² | D | D | | A | Yes | 1 | | |
| Butyl alcohol (sec-) | BAS | 20 ² | D | C | | A | Yes | 1 | | |
| Butyl alcohol (tert-) | BAT | 20 ² | D | C | | A | Yes | 1 | | |
| Butyl benzyl phthalate | BPH | 34 | D | E | | A | Yes | 1 | | |
| Butyl toluene | BUE | 32 | D | D | | A | Yes | 1 | | |
| Caprolactam solutions | CLS | 22 | D | E | | A | Yes | 1 | | |
| Cycloheptane | CYE | 31 | D | C | | A | Yes | 1 | | |
| Cyclohexane | CHX | 31 | D | C | | A | Yes | 1 | | |
| Cyclohexanol | CHN | 20 | D | E | | A | Yes | 1 | | |
| Cyclohexyl acetate | CYC | 34 | D | D | | A | Yes | 1 | | |
| 1,3-Cyclopentadiene dimer (molten) | CPD | 30 | D | D/E | | A | Yes | 2 | | |
| Cyclopentane | CYP | 31 | D | B | | A | Yes | 1 | | |
| p-Cymene | CMP | 32 | D | D | | A | Yes | 1 | | |
| iso-Decaldehyde | IDA | 19 | D | E | | A | Yes | 1 | | |
| n-Decaldehyde | DAL | 19 | D | E | | A | Yes | 1 | | |
| Decanoic acid | DCO | 4 | D | # | | A | Yes | 1 | | |
| Decene | DCE | 30 | D | D | | A | Yes | 1 | | |
| Decyl alcohol (all isomers) | DAX | 20 ² | D | E | | A | Yes | 1 | | |
| n-Decylbenzene, see Alkyl(C9+)benzenes | DBZ | 32 | D | E | | A | Yes | 1 | | |
| Diacetone alcohol | DAA | 20 ² | D | D | | A | Yes | 1 | | |
| Dibutyl phthalate | DPA | 34 | D | E | | A | Yes | 1 | | |
| Diethylbenzene | DEB | 32 | D | D | | A | Yes | 1 | | |

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Certificate of Inspection

Cargo Authority Attachment

Vessel Name: CCL 419-L

Shipyard: Conrad Orange

Official #: 1306897

Page 5 of 9

Hull #: H526

| Cargo Identification | | | | | | Conditions of Carriage | | | | |
|---|-----------|-----------------|-------------|-------|-----------|------------------------|-------------------------------|--------------|---|--------------|
| Name | Chem Code | Compat Group No | Sub Chapter | Grade | Hull Type | Tank Group | Vapor Recovery App'd (Y or N) | VCS Category | Special Requirements in 46 CFR 151 General and Mat'ls of Construction | Insp. Period |
| Diethylene glycol | DEG | 40 ² | D | E | | A | Yes | 1 | | |
| Diisobutylene | DBL | 30 | D | C | | A | Yes | 1 | | |
| Diisobutyl ketone | DIK | 18 | D | D | | A | Yes | 1 | | |
| Diisopropylbenzene (all isomers) | DIX | 32 | D | E | | A | Yes | 1 | | |
| Dimethyl phthalate | DTL | 34 | D | E | | A | Yes | 1 | | |
| Diocetyl phthalate | DOP | 34 | D | E | | A | Yes | 1 | | |
| Dipentene | DPN | 30 | D | D | | A | Yes | 1 | | |
| Diphenyl | DIL | 32 | D | D/E | | A | Yes | 1 | | |
| Diphenyl, Diphenyl ether mixtures | DDO | 33 | D | E | | A | Yes | 1 | | |
| Diphenyl ether | DPE | 41 | D | {E} | | A | Yes | 1 | | |
| Dipropylene glycol | DPG | 40 | D | E | | A | Yes | 1 | | |
| Distillates: Flashed feed stocks | DFF | 33 | D | E | | A | Yes | 1 | | |
| Distillates: Straight run | DSR | 33 | D | E | | A | Yes | 1 | | |
| Dodecene (all isomers) | DOZ | 30 | D | D | | A | Yes | 1 | | |
| Dodecylbenzene, see Alkyl(C9+)benzenes | DDB | 32 | D | E | | A | Yes | 1 | | |
| 2-Ethoxyethyl acetate | EEA | 34 | D | D | | A | Yes | 1 | | |
| Ethoxy triglycol (crude) | ETG | 40 | D | E | | A | Yes | 1 | | |
| Ethyl acetate | ETA | 34 | D | C | | A | Yes | 1 | | |
| Ethyl acetoacetate | EAA | 34 | D | E | | A | Yes | 1 | | |
| Ethyl alcohol | EAL | 20 ² | D | C | | A | Yes | 1 | | |
| Ethylbenzene | ETB | 32 | D | C | | A | Yes | 1 | | |
| Ethyl butanol | EBT | 20 | D | D | | A | Yes | 1 | | |
| Ethyl tert-butyl ether | EBE | 41 | D | C | | A | Yes | 1 | | |
| Ethyl butyrate | EBR | 34 | D | D | | A | Yes | 1 | | |
| Ethyl cyclohexane | ECY | 31 | D | D | | A | Yes | 1 | | |
| Ethylene glycol | EGL | 20 ² | D | E | | A | Yes | 1 | | |
| Ethylene glycol butyl ether acetate | EMA | 34 | D | E | | A | Yes | 1 | | |
| Ethylene glycol diacetate | EGY | 34 | D | E | | A | Yes | 1 | | |
| Ethylene glycol phenyl ether | EPE | 40 | D | E | | A | Yes | 1 | | |
| Ethyl-3-ethoxypropionate | EEP | 34 | D | D | | A | Yes | 1 | | |
| 2-Ethylhexanol | EHX | 20 | D | E | | A | Yes | 1 | | |
| Ethyl propionate | EPR | 34 | D | C | | A | Yes | 1 | | |
| Ethyl toluene | ETE | 32 | D | D | | A | Yes | 1 | | |
| Formamide | FAM | 10 | D | E | | A | Yes | 1 | | |
| Furfuryl alcohol | FAL | 20 ² | D | E | | A | Yes | 1 | | |
| Gasoline blending stocks: Alkylates | GAK | 33 | D | A/C | | A | Yes | 1 | | |
| Gasoline blending stocks: Reformates | GRF | 33 | D | A/C | | A | Yes | 1 | | |
| Gasolines: Automotive (containing not over 4.23 grams lead per gallon) | GAT | 33 | D | C | | A | Yes | 1 | | |
| Gasolines: Aviation (containing not over 4.86 grams of lead per gallon) | GAV | 33 | D | C | | A | Yes | 1 | | |
| Gasolines: Casinghead (natural) | GCS | 33 | D | A/C | | A | Yes | 1 | | |

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Certificate of Inspection

Cargo Authority Attachment

Vessel Name: CCL 419-L
 Official #: 1306897

Shipyard: Conrad Orange
 Hull #: H526

| Cargo Identification | | | | | | Conditions of Carriage | | | | |
|--|-----------|-----------------|-------------|-------|-----------|------------------------|----------------|--------------|---|--------------|
| Name | Chem Code | Compat Group No | Sub Chapter | Grade | Hull Type | Tank Group | Vapor Recovery | | Special Requirements in 46 CFR 151 General and Mat'ls of Construction | Insp. Period |
| | | | | | | | App'd (Y or N) | VCS Category | | |
| Gasolines: Polymer | GPL | 33 | D | A/C | | A | Yes | 1 | | |
| Gasolines: Straight run | GSR | 33 | D | A/C | | A | Yes | 1 | | |
| Glycerine | GCR | 20 ² | D | E | | A | Yes | 1 | | |
| Heptane (all isomers), see Alkanes (C6-C9) (all isomers) | HMX | 31 | D | C | | A | Yes | 1 | | |
| n-Heptanoic acid | HEN | 4 | D | E | | A | Yes | 1 | | |
| Heptanol (all isomers) | HTX | 20 | D | D/E | | A | Yes | 1 | | |
| Heptene (all isomers) | HPX | 30 | D | C | | A | Yes | 2 | | |
| Heptyl acetate | HPE | 34 | D | E | | A | Yes | 1 | | |
| Hexane (all isomers), see Alkanes (C6-C9) | HXS | 31 ² | D | B/C | | A | Yes | 1 | | |
| Hexanoic acid | HXO | 4 | D | E | | A | Yes | 1 | | |
| Hexanol | HXN | 20 | D | D | | A | Yes | 1 | | |
| Hexene (all isomers) | HEX | 30 | D | C | | A | Yes | 2 | | |
| Hexylene glycol | HXG | 20 | D | E | | A | Yes | 1 | | |
| Isophorone | IPH | 18 ² | D | E | | A | Yes | 1 | | |
| Jet fuel: JP-4 | JPF | 33 | D | E | | A | Yes | 1 | | |
| Jet fuel: JP-5 (kerosene, heavy) | JPV | 33 | D | D | | A | Yes | 1 | | |
| Kerosene | KRS | 33 | D | D | | A | Yes | 1 | | |
| Lauric acid | LRA | 34 | D | # | | A | Yes | 1 | | |
| Methyl acetate | MTT | 34 | D | D | | A | Yes | 1 | | |
| Methyl alcohol | MAL | 20 ² | D | C | | A | Yes | 1 | | |
| Methylamyl acetate | MAC | 34 | D | D | | A | Yes | 1 | | |
| Methylamyl alcohol | MAA | 20 | D | D | | A | Yes | 1 | | |
| Methyl amyl ketone | MAK | 18 | D | D | | A | Yes | 1 | | |
| Methyl tert-butyl ether | MBE | 41 ² | D | C | | A | Yes | 1 | | |
| Methyl butyl ketone | MBK | 18 | D | C | | A | Yes | 1 | | |
| Methyl butyrate | MBU | 34 | D | C | | A | Yes | 1 | | |
| Methylcyclohexane | MCY | 31 | D | C | | A | Yes | 1 | | |
| Methyl ethyl ketone | MEK | 18 ² | D | C | | A | Yes | 1 | | |
| Methyl heptyl ketone | MHK | 18 | D | D | | A | Yes | 1 | | |
| 2-Methyl-2-hydroxy-3-butyne | MHB | 20 | D | C | | A | Yes | 1 | | |
| Methyl isobutyl ketone | MIK | 18 ² | D | C | | A | Yes | 1 | | |
| Mineral spirits | MNS | 33 | D | D | | A | Yes | 1 | | |
| Myrcene | MRE | 30 | D | D | | A | Yes | 1 | | |
| Naphtha: Heavy | NAG | 33 | D | # | | A | Yes | 1 | | |
| Naphtha: Petroleum | PTN | 33 | D | # | | A | Yes | 1 | | |
| Naphtha: Solvent | NSV | 33 | D | D | | A | Yes | 1 | | |
| Naphtha: Stoddard solvent | NSS | 33 | D | D | | A | Yes | 1 | | |
| Naphtha: Varnish makers and painters (75%) | NVM | 33 | D | C | | A | Yes | 1 | | |
| Neodecanoic acid | NEA | 4 | D | E | | A | Yes | 1 | | |
| Nonane (all isomers), see Alkanes (C6-C9) | NAX | 31 | D | D | | A | Yes | 1 | | |



Certificate of Inspection

Cargo Authority Attachment

Vessel Name: CCL 419-L

Shipyard: Conrad Orange

Official #: 1306897

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Hull #: H526

| Cargo Identification | | | | | | Conditions of Carriage | | | | |
|--|-----------|-------------------|-------------|-------|-----------|------------------------|-------------------------------|--------------|---|--------------|
| Name | Chem Code | Compat Group No | Sub Chapter | Grade | Hull Type | Tank Group | Vapor Recovery App'd (Y or N) | VCS Category | Special Requirements in 46 CFR 151 General and Mat'ls of Construction | Insp. Period |
| Nonene (all isomers) | NON | 30 | D | D | | A | Yes | 2 | | |
| Nonyl alcohol (all isomers) | NNS | 20 ² | D | E | | A | Yes | 1 | | |
| Nonyl phenol | NNP | 21 | D | E | | A | Yes | 1 | | |
| Nonyl phenol poly(4+)ethoxylates | NPE | 40 | D | E | | A | Yes | 1 | | |
| Octane (all isomers), see Alkanes (C6-C9) | OAX | 31 | D | C | | A | Yes | 1 | | |
| Octanoic acid (all isomers) | OAY | 4 | D | E | | A | Yes | 1 | | |
| Octanol (all isomers) | OCX | 20 ² | D | E | | A | Yes | 1 | | |
| Octene (all isomers) | OTX | 30 | D | C | | A | Yes | 2 | | |
| Oil, fuel: No. 2 | OTW | 33 | D | D/E | | A | Yes | 1 | | |
| Oil, fuel: No. 2-D | OTD | 33 | D | D | | A | Yes | 1 | | |
| Oil, fuel: No. 4 | OFR | 33 | D | D/E | | A | Yes | 1 | | |
| Oil, fuel: No. 6 | OSX | 33 | D | E | | A | Yes | 1 | | |
| Oil, misc: Crude | OIL | 33 | D | A/D | | A | Yes | 1 | | |
| Oil, misc: Diesel | ODS | 33 | D | D/E | | A | Yes | 1 | | |
| Oil, misc: Gas, high pour | OGP | 33 | D | E | | A | Yes | 1 | | |
| Oil, misc: Lubricating | OLB | 33 | D | E | | A | Yes | 1 | | |
| Oil, misc: Residual | ORL | 33 | D | E | | A | Yes | 1 | | |
| Oil, misc: Turbine | OTB | 33 | D | E | | A | Yes | 1 | | |
| alpha-Olefins (C6-C18) mixtures | OAM | 30 | D | E | | A | Yes | 1 | | |
| Pentane (all isomers) | PTY | 31 | D | A | | A | Yes | 5 | | |
| Pentene (all isomers) | PTX | 30 | D | A | | A | Yes | 5 | | |
| n-Pentyl propionate | PPE | 34 | D | D | | A | Yes | 1 | | |
| alpha-Pinene | PIO | 30 | D | D | | A | Yes | 1 | | |
| beta-Pinene | PIP | 30 | D | D | | A | Yes | 1 | | |
| Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether | PAG | 40 | D | E | | A | Yes | 1 | | |
| Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether acetate | PAF | 34 | D | E | | A | Yes | 1 | | |
| Polybutene | PLB | 30 | D | E | | A | Yes | 1 | | |
| Polypropylene glycol | PGC | 40 | D | E | | A | Yes | 1 | | |
| Propionaldehyde | PAD | 19 | D | C | | A | Yes | 2 | | |
| Isopropyl acetate | IAC | 34 | D | C | | A | Yes | 1 | | |
| n-Propyl acetate | PAT | 34 | D | C | | A | Yes | 1 | | |
| Isopropyl alcohol | IPA | 20 ^{2,3} | D | C | | A | Yes | 1 | | |
| n-Propyl alcohol | PAL | 20 ² | D | C | | A | Yes | 1 | | |
| Propylbenzene (all isomers) | PBY | 32 | D | D | | A | Yes | 1 | | |
| Isopropylcyclohexane | IPX | 31 | D | D | | A | Yes | 1 | | |
| Propylene glycol | PPG | 20 ² | D | E | | A | Yes | 1 | | |
| Propylene glycol methyl ether acetate | PGN | 34 | D | D | | A | Yes | 1 | | |
| Propylene tetramer | PTT | 30 | D | D | | A | Yes | 1 | | |
| Sulfolane | SFL | 39 | D | E | | A | Yes | 1 | | |
| Tetraethylene glycol | TTG | 40 | D | E | | A | Yes | 1 | | |

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Certificate of Inspection

Cargo Authority Attachment

Vessel Name: CCL 419-L

Shipyard: Conrad Orange

Official #: 1306897

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Hull #: H526

| Cargo Identification | | | | | | Conditions of Carriage | | | | |
|--|-----------|-----------------|-------------|-------|-----------|------------------------|----------------|--------------|---|--------------|
| Name | Chem Code | Compat Group No | Sub Chapter | Grade | Hull Type | Tank Group | Vapor Recovery | | Special Requirements in 46 CFR 151 General and Mat'ls of Construction | Insp. Period |
| | | | | | | | App'd (Y or N) | VCS Category | | |
| Tetrahydronaphthalene | THN | 32 | D | E | | A | Yes | 1 | | |
| Tetramethylbenzene (all isomers) | TTC | 32 | D | # | | A | Yes | 1 | | |
| Toluene | TOL | 32 | D | C | | A | Yes | 1 | | |
| Tricresyl phosphate (containing less than 1% ortho isomer) | TCP | 34 | D | E | | A | Yes | 1 | | |
| Triethylbenzene | TEB | 32 | D | E | | A | Yes | 1 | | |
| Triethylene glycol | TEG | 40 | D | E | | A | Yes | 1 | | |
| Triethyl phosphate | TPS | 34 | D | E | | A | Yes | 1 | | |
| Trimethylbenzene (all isomers) | TRE | 32 | D | {D} | | A | Yes | 1 | | |
| 2,2,4-Trimethyl-1,3-pentanediol-1-isobutyrate | TMP | 34 | D | E | | A | Yes | 1 | | |
| Trixylyl phosphate | TRP | 34 | D | E | | A | Yes | 1 | | |
| 1-Undecene | UDC | 30 | D | D/E | | A | Yes | 1 | | |
| 1-Undecyl alcohol | UND | 20 | D | E | | A | Yes | 1 | | |
| Xylenes (ortho-, meta-, para-) | XLX | 32 | D | D | | A | Yes | 1 | | |



Certificate of Inspection

Cargo Authority Attachment

Vessel Name: CCL 419-L
Official #: 1306897

Shipyard: Conrad Orange
Hull #: H526

Explanation of terms & symbols used in the Table:

Cargo Identification

| | |
|--|--|
| Name | The proper shipping name as listed in 46 CFR Table 30.25-1, 46 CFR Table 151.05, and 46 CFR Part 153 Table 2. |
| Chem Code none | The three letter designation assigned to the cargo in the Chemical Hazards Response Information System (CHRIS) Manual. Certain mixtures of cargoes may not have a CHRIS Code assigned. |
| Compatability Group No. | The cargo reactive group number assigned for compatibility determinations in 46 CFR Part 150 Tables I and II. In accordance with 46 CFR 150.130, the Person-in-Charge of the barge is responsible for ensuring that the compatibility requirements of 46 CFR Part 150 are met. Cargoes must be checked for compatibility using the figures, tables, and appendices of 46 CFR 150 in conjunction with the assigned reactive group number. |
| Note 1 | Because of the very high reactivity or unusual conditions of carriage or potential compatibility problems, this product is not assigned to a specific group in the Compatibility Chart. For additional compatibility information, contact Commandant (CG-3PSO-3), U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593-0001. Telephone (202) 372-1425. |
| Note 2 | See Appendix I to 46 CFR Part 150 - exceptions to the compatibility chart. |
| Subchapter Subchapter D Subchapter O Note 3 | The subchapter in Title 46 Code of Federal Regulations under which the cargo has been classified. Those flammable and combustible liquids listed in 46 CFR Table 30.25-1. Those hazardous cargoes listed in 46 CFR Table 151.05 and 46 CFR Part 153 Table 2. Those cargoes listed in 46 CFR Part 153 Table 2 are non-regulated cargoes when carried in bulk on non-oceangoing barges. |
| Grade | The cargo classification assigned to each flammable or combustible liquid. Grades inside of "()" indicate a provisional assignment based upon literature sources which were not verified by manufacturers data. The Person-in-Charge shall verify the cargo grade based on Manufacturers data and ensure that the barge is authorized for carriage of that grade of cargo. |
| A, B, C D, E Note 4 | Flammable liquid cargoes, as defined in 46 CFR 30-10.22. Combustible liquid cargoes, as defined in 46 CFR 30-10.15. The flammability/combustibility grade of these cargoes may vary depending upon the flashpoint and Reid vapor pressure. The Person-in-Charge shall verify the cargo grade based on Manufacturers data and ensure that the barge is authorized for carriage of that grade of cargo. |
| NA # | Those subchapter O cargoes which are not classified as a flammable or combustible liquid. No flammability/combustibility grade has been assigned yet, as the necessary flash point/vapor pressure data for such assignments are presently not available. |
| Hull Type I II III NA | The required barge hull classification for carriage of the specified Subchapter O hazardous material cargo, see 46 CFR 151.10-1. Designed to carry products which require the maximum preventive measures to preclude the uncontrolled release of the cargo. See 46 CFR 151.10-1(b)(1). Designed to carry products which require significant preventive measures to preclude the uncontrolled release of cargo. See 46 CFR 151.10-1(b)(3). Designed to carry products of sufficient hazard to require a moderate degree of control. See 46 CFR 151.10-1(b)(4). Not applicable to barges certificated under Subchapter D. |

Conditions of Carriage

| | |
|-------------------------------------|--|
| Tank Group | The vessel's tank group (as defined in Section 4) which is authorized for carriage of the named cargo. |
| Vapor Recovery Approved (Y or N) | Yes: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified cargo. No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo. |

Conditions of Carriage

| | |
|-------------------------------------|--|
| Tank Group | The vessel's tank group (as defined under the "46 CFR Tank Group Characteristics" listed on page 1) which is authorized for carriage of the named cargo. |
| Vapor Recovery Approved (Y or N) | Yes: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified cargo. No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo. |
| VCS Category: | The specified cargo's provisional classification for vapor control systems. |
| Category 1 | (No additional VCS requirements above those for benzene, gasolines and crude oil) All requirements applying to the handling of oil and hazardous materials in Titles 33 and 46 Code of Federal Regulations (CFR) apply to these cargoes. Those specifically dealing with vapor control systems are in 33 CFR 155.750, 33 CFR 156.120, 33 CFR 156.170, 46 CFR 35.35 and 46 CFR 39. The cargo tank venting system calculations (46 CFR 39.2011) and the pressure drop calculations (46 CFR 39.3001) must use appropriate friction factors, vapor densities and vapor growth rates. |
| Category 2 | (Polymerizes) Polymerization and residue build-up of these cargoes can adversely affect the vessel by fouling safety components and restricting vapor flow which could lead to cargo tank overpressurization. The vessel's owner must develop a method of ensuring all VCS safety components are functional and polymer build-up is not causing an unsafe condition due to increased pressure in the vapor control piping and cargo tanks. The method shall be acceptable to the local Officer in Charge, Marine Inspection. This is in addition to the requirements of Category 1. Please note that a material not normally considered a monomer can be a problem in detonation arrester. |
| Category 3 | (Highly toxic) VCSs for these toxic cargoes cannot use a spill valve or rupture disk as the primary means to meet the overfill protection requirement of 46 CFR 39.2009. This requirement is in addition to the requirements of Category 1. |
| Category 4 | (Polymerizes and highly toxic) Must comply with requirements of Categories 1, 2 and 3. |
| Category 5 | (High vapor pressure) VCS pressure drop calculations for cargoes with a vapor pressure greater than 14.7 psia at 115 F must take into account increased vapor-air mixture densities and vapor growth rates as compared to Category 1 cargoes. Consult the Marine Safety Center's VCS Guidelines for further information. This requirement is in addition to the requirements of Category 1. |
| Category 6 | (High vapor pressure and highly toxic) Must comply with requirements of Categories 1, 3 and 5. |
| Category 7 | (High vapor pressure and polymerizes) Must comply with requirements of Categories 1, 2 and 5. |
| none | The cargo has not been evaluated/classified for use in vapor control systems. |

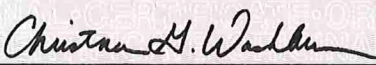


UNITED STATES OF AMERICA

DEPARTMENT OF HOMELAND SECURITY
UNITED STATES COAST GUARD

NATIONAL VESSEL DOCUMENTATION CENTER

CERTIFICATE OF DOCUMENTATION


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|--|-------------------------|---|---------------------------------------|-----------------------------|--|
| VESSEL NAME CCL 419-L | | OFFICIAL NUMBER 1306897 | IMO OR OTHER NUMBER H-526 | YEAR COMPLETED 2020 | |
| HAILING PORT NEW ORLEANS LA | | HULL MATERIAL STEEL | | MECHANICAL PROPULSION NO | |
| GROSS TONNAGE 1619 GRT | NET TONNAGE 1619 NRT | LENGTH 297.5 | BREADTH 54.0 | DEPTH 12.0 | |
| PLACE BUILT ORANGE TX | | | | | |
| OWNERS CHEM CARRIERS LLC COMPRISED OF ONE MEMBER | | | OPERATIONAL ENDORSEMENTS COASTWISE | | |
| MANAGING OWNER CHEM CARRIERS LLC 1237 HIGHWAY 75 SUNSHINE LA 70780 | | | | | |
| RESTRICTIONS NO RECREATION - BARGE, 79 FEET OR MORE IN LENGTH, MEASURED UNDER SIMPLIFIED SYSTEM | | | | | |
| ENTITLEMENTS NONE | | | | | |
| REMARKS NONE | | | | | |
| ISSUE DATE JANUARY 09, 2026 | |  DIRECTOR, NATIONAL VESSEL DOCUMENTATION CENTER | | | |
| THIS CERTIFICATE EXPIRES FEBRUARY 28, 2027 | | | | | |





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| VESSEL NAME | VESSEL TYPE | HULL TYPE | GROSS TONNAGE | COFR NUMBER | EFFECTIVE DATE | EXPIRATION DATE | COFR APPLICANT | VIN | INSURANCE CANCEL FLAG |
|---|-------------|-----------|---------------|-------------|----------------|-----------------|----------------------|----------|-----------------------|
|  CCL 419-L TANKBARGE D | | | 1619 | 841310 - 21 | 1/5/2024 | 1/5/2027 | CHEM CARRIERS, L.L.C | D1306897 | |

< Prev Next >

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Version 3.7 -- This version is designed for Internet Explorer, Edge, Chrome, Firefox and Safari.

C & C Marine and Repair, Inc.

Post Office Box 2253

Harvey, LA 70059

Phone (504) 433-2000

FAX (504) 433-2044

Vessel Cargo Piping Test Certificate

Barge: CCL 419L

This is to certify that on 2/9/2026, cargo piping on the tank barge CCL 419L was hydrostatically tested to 188 psi in accordance with 46 CFR 56.97-30. The cargo relief valve is set at 125 psi. Pump pressure gauge tested to within 10%.

Prior to the hydrostatic pipeline test, the test gauge was calibrated to ensure the correct pressure was applied to the pipeline.

Tester: Deaf Ar

C & C Marine and Repair, L.L.C.

Post Office Box 2253

Harvey, LA 70059

Phone (504) 433-2000

Fax (504) 433-2044

The following barge has been tested in accordance with 40 CFR 61.304(f) and has been found to be vapor tight.

BARGE NAME/ID NO:

CC 419L

BARGE OWNER:

CHEM CARRIERS

OWNER ADDRESS:

TESTING LOCATION:

C&C Marine and Repair

DATE OF TEST:

2/9/26

NAME OF TESTER:

DANIEL CRUZ

SIGNATURE OF TESTER:

Daniel Cruz

TEST RESULTS:

PASSED

TEST DURATION:

30 min

STARTING PRESSURE (PSI):

2.00

ENDING PRESSURE (PSI):

2.00

Handwritten: H-826

Type: SRV

Sales Order # 899449
Job # 3351293LUL

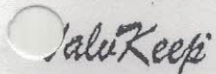
Birth #: 00JRN0
Date: Tuesday, March 31, 2020
Shipped Date:

Owner: W & O SUPPLY (VAC)
Plant: LaPorte, TX
Customer #:
PO #: 1503405

| Tag Number Most Recent | N/A Yes (Relief Valve) | Location Unit | N/A N/A | Other Tag Data Client/Asset # | N/A N/A | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|--|--------------------------|---|--|------------------------------|-----------------------------|--|----------------------|-----|------------------------|-----|---------------|-----|------------|-----|------------------------|-----|-------------------------------|-----|--------------------------------|-----|-----------------------|-----|------------------------|-----|------------------------|-----|---------------------------|-----|-----------------------|-----|
| Manufacturer Model Number | Consolidated 1905-00P-2-CC-MS-31-RF-LA-HP | Valve Size & Orifice S/N | 4 P 6 = 6.38 IN ² SE07470 | In/Outlet Rating Cap Type | 150# RF / 150# RF Screwed | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Soft Seat Mat'l | N/A | Soft Seat P/N | N/A | Special Cleaning? | No | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Service | Liquid | Product Name | LIQUID | Applicable Code | Sec VIII | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pilot Model | ****Pilot Information when applicable**** | | ****Pilot Information when applicable**** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Set Pressure | 125 PSIG | Pilot Model (Full) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating Temp | 72 F | Total Back Pressure | 0 PSIG | Cold Diff Test Press | 125 PSIG | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mfg Lift | 1.126 IN | BP Is / Constant | 0 | ASME Capacity | 2214 US G/MIN | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Req'd Spring | 0389CR | Restricted Lift | N/A | Orifice | P Bore Diam, 3.073 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hydro Verified? | P.BORDELON | Material | ALLOY STEEL | From / To | 124 to 138 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Checked-In By | P.BORDELON | Operating Pressure | PSIG | <table border="1"> <thead> <tr> <th colspan="2">Final Preparation Checklist</th> </tr> </thead> <tbody> <tr><td>Birth# Matches Valve</td><td>Yes</td></tr> <tr><td>Client Req'ments Check</td><td>Yes</td></tr> <tr><td>Valve Painted</td><td>Yes</td></tr> <tr><td>Valve Bore</td><td>Yes</td></tr> <tr><td>Client ID Tag Attached</td><td>N/A</td></tr> <tr><td>Nameplate/Req'd Tags Attached</td><td>Yes</td></tr> <tr><td>Replacement Parts Pres. Tested</td><td>N/A</td></tr> <tr><td>VR/Code Stamp Applied</td><td>Yes</td></tr> <tr><td>Ext Adjustments Sealed</td><td>Yes</td></tr> <tr><td>Lever Adj'd & Strapped</td><td>N/A</td></tr> <tr><td>Flg Cover/Plugs Installed</td><td>Yes</td></tr> <tr><td>Sp Clean Valve Bagged</td><td>N/A</td></tr> </tbody> </table> | | Final Preparation Checklist | | Birth# Matches Valve | Yes | Client Req'ments Check | Yes | Valve Painted | Yes | Valve Bore | Yes | Client ID Tag Attached | N/A | Nameplate/Req'd Tags Attached | Yes | Replacement Parts Pres. Tested | N/A | VR/Code Stamp Applied | Yes | Ext Adjustments Sealed | Yes | Lever Adj'd & Strapped | N/A | Flg Cover/Plugs Installed | Yes | Sp Clean Valve Bagged | N/A |
| Final Preparation Checklist | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Birth# Matches Valve | Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Client Req'ments Check | Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Valve Painted | Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Valve Bore | Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Client ID Tag Attached | N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nameplate/Req'd Tags Attached | Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Replacement Parts Pres. Tested | N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| VR/Code Stamp Applied | Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ext Adjustments Sealed | Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lever Adj'd & Strapped | N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flg Cover/Plugs Installed | Yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sp Clean Valve Bagged | N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dimensions By | J. WARD | Gage 2/EVT S/N | Lul00491 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Measured Lift | N/A | Final Test Press | 127 PSIG | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Disc Rock | IN | Result (Seats Tight)@ | Passed @ 115 PSIG | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Overlap Collar | N/A | BP Test @ | Passed @ 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Assembled By | J.ward | Date Tested | 2020/03/25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BD Ring-Up | N/A | Tested By | P.bordelon | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BD Ring-Low | 5 Notches | Witnessed By | J.ward | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test Media | Water | Final Inspected By | J.ward | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test Method | Bench | CI/QC Inspector | J. Rickenbacker | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

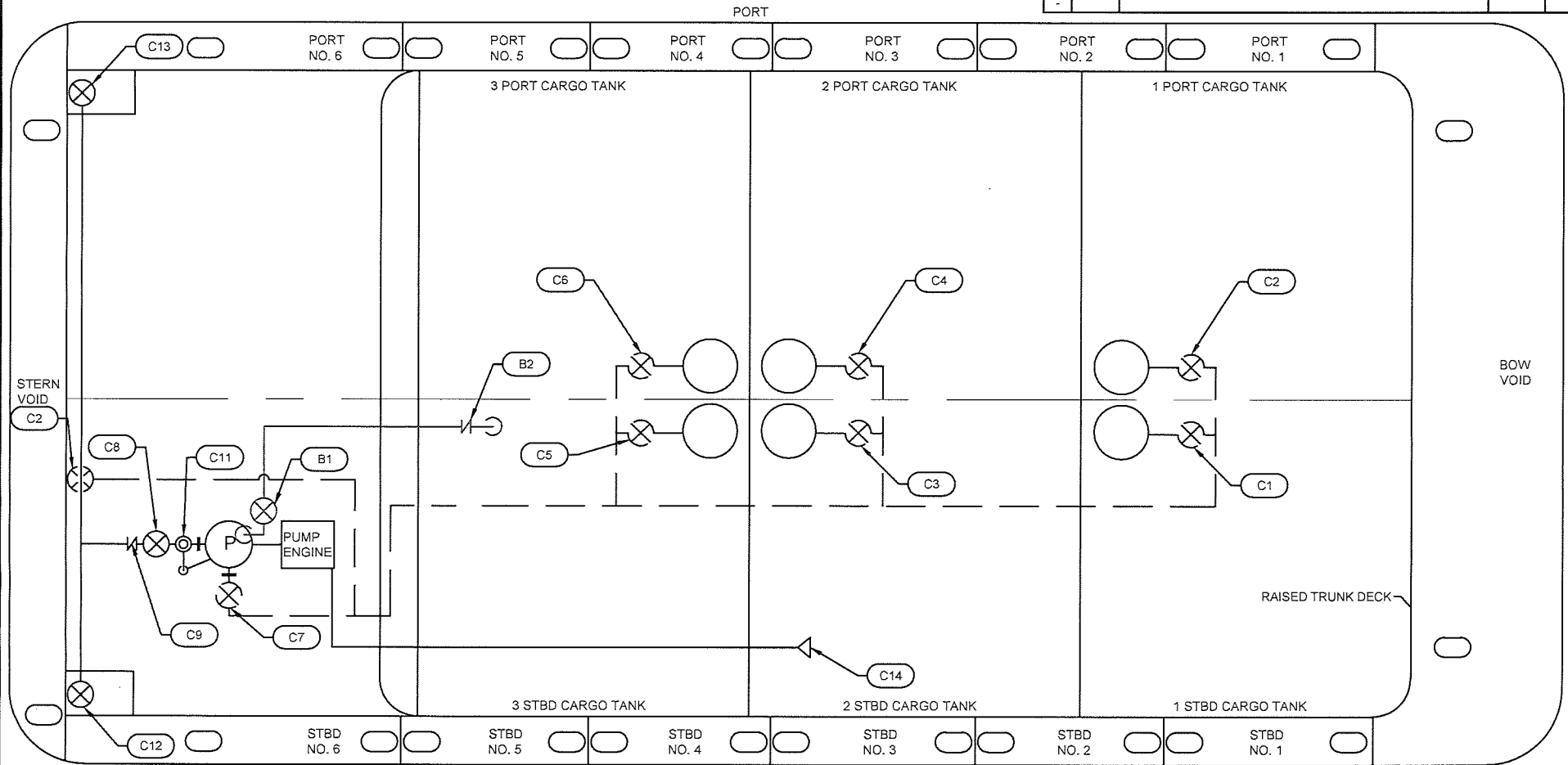
Comments
Valve Converted on Date: 2020/03/25 Authorized By: Elizabeth Bourgeois
Convert valve to Liquid Trim Design
Install: LTR12
AS070 Rev. 20 - Machine Spring Washers
USE SETPOINT STANDARD BUTTON UP AND SHIPPING PROCEDURE

Description



This historical record is stored in ValvKeep. For more information contact Setpoint Integrated Solutions 1-800-256-7373.

| REVISIONS | | | | |
|-----------|------|-------------|------|----|
| REV | ZONE | DESCRIPTION | DATE | BY |
| - | | | | |



LEGEND

- (C1) CARGO TANK 1 STBD VALVE
- (C2) CARGO TANK 1 PORT VALVE
- (C3) CARGO TANK 2 STBD VALVE
- (C4) CARGO TANK 2 PORT VALVE
- (C5) CARGO TANK 3 STBD VALVE
- (C6) CARGO TANK 3 PORT VALVE
- (C7) CARGO PUMP SUCTION VALVE
- (C8) CARGO PUMP DISCHARGE VALVE
- (C9) CARGO PUMP DISCHARGE CHECK VALVE

LEGEND

- (C10) NOT USED
- (C11) CARGO PUMP RELIEF VALVE
- (C12) CARGO STBD DISCHARGE VALVE
- (C13) CARGO PORT DISCHARGE VALVE
- (C14) EMERGENCY SHUTDOWN RECEPTACLE
- (B1) PUMP WELL BURP LINE VALVE
- (B2) PUMP WELL BURP LINE CHECK VALVE

STARBOARD

— ABOVE DECK CARGO PIPING
 - - - BELOW DECK CARGO PIPING

(P) PUMP

CCL 419-L

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297'-6" x 54' x 12'-0" DOUBLE SKIN TANK BARGE

CARGO FLOW DIAGRAM

| | | | |
|---------------|-----------------|------------------|-------------|
| HULL: | DWG NO.: | SHEET | REVISION |
| DRAWN BY: CCB | CHECKED BY: MCB | DATE: 07/06/2020 | SCALE: NONE |
| | | | 1 OF 1 |
| | | | 0 |

H 524

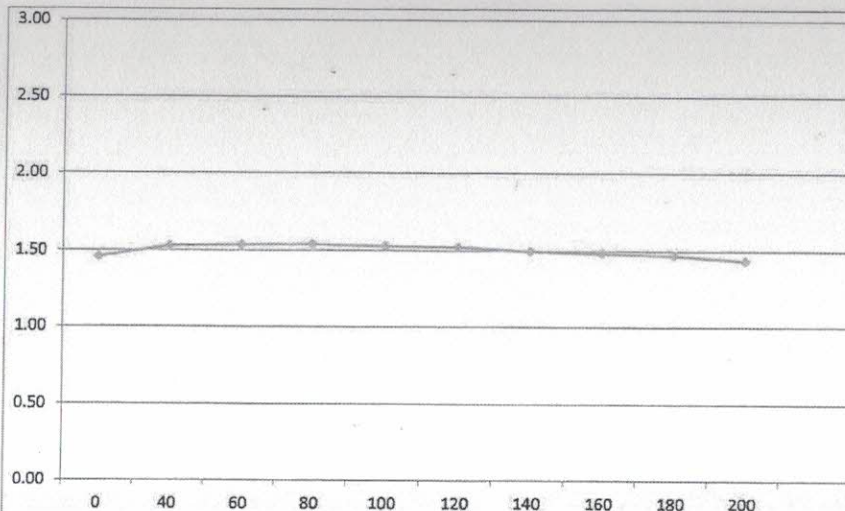
TEST RESULTS FOR ERL 6" PV VALVE

| | |
|---------------|-------------|
| Customer | Conrad |
| PO | MAR-4884-SO |
| Test date: | 5/29/2020 |
| Serial Number | 4435 |

| | | |
|----------------|----------|--------|
| VALVE SETTINGS | PRESSURE | VACUUM |
| | 1.5 | 0.5 |

| Opening Pressure Test | |
|-----------------------|------------------------------|
| Test Number | Valve Opening Pressure (PSI) |
| 1 | 1.47 |
| 2 | 1.48 |
| 3 | 1.43 |
| 4 | 1.47 |
| 5 | 1.45 |
| Average | 1.46 |
| Delta | 0.044 |

Pressure Curve



Airflow PRESSURE Test

| AIRFLOW (CFM) | 0 | 40 | 60 | 80 | 100 | 120 | 140 | 160 | 180 | 200 |
|---------------------------------|------|------|------|------|------|------|------|------|------|-------|
| Pressure | 1.46 | 1.53 | 1.54 | 1.54 | 1.53 | 1.52 | 1.50 | 1.49 | 1.47 | 1.44 |
| Differential from Opening Point | | 0.07 | 0.08 | 0.08 | 0.07 | 0.06 | 0.04 | 0.03 | 0.01 | -0.02 |

Inspected By Dallas Owens 2nd Inspector

Airflow VACUUM Test

| | 1 Blower Airflow (PSI) | 2 Blowers Airflow (PSI) |
|----------|------------------------|-------------------------|
| Pressure | -0.50 | -0.47 |

Dallas Owens *[Signature]*



Marine Safety Center Vapor Control System (VCS) Plan Review Information Sheet (PRIS)



| | | | |
|--------------------|---------|-------------|--------|
| Vessel Name | H-525 | Shipyard | Conrad |
| Coast Guard Number | 1306896 | Hull Number | H525 |

1. This sheet consolidates critical VCS parameters for MSC Staff Engineers and CG Field Inspectors dealing with Vapor Control Systems. CG Inspectors should verify the vessel's VCS design is consistent with the information listed in boxes 2, 6, 7 & 8 prior to updating the vapor control endorsement on the vessel's Certificate of Inspection. For cases where the information in the VCS PRIS does not reflect the vessel's design the CG Inspector should contact the MSC's Cargo Authority branch.

2. Tank Maximum Design Working Pressure Raised Trunk
3.00 psig Flush Deck

3. Authorized Maximum Cargo Transfer Rate(s)

| |
|---|
| 5,000 bbl/hr loading |
| 4,285 bbl/hr discharging |

4. Authorized Maximum Vapor-Air Mixture Density 0.350 lbm/ft³

5. Authorized VCS Categories 1 thru 5

6. Cargoes with the highest vapor density and/or pressure drop:

a. Cargo Name Pentane (all isomers) [PTY]

b. Cargo Name Pentane (all isomers) [PTY]

| | |
|---|--|
| <p>7. Pressure Vacuum Valve:</p> <p>Manufacturer ERL</p> <p>Size ERL SUPERAC Model II</p> <p>CG Approval 162.017/167/4</p> | <p>8. VCS Pipe Sizes:</p> <p>Approx. Inside Diameter</p> <p>Longitudinal Header (inches) 8</p> <p>Transverse Header (Inches) 8</p> |
| <p>Settings in psig:</p> <p>Pressure-side 1.5</p> <p>Vacuum-side 0.5</p> | <p>Required Venting Capacity of Pressure-Side of P/V valve 13339 bbl/hr (air)</p> <p>Required Venting Capacity of Vacuum-Side of P/V valve 4285 bbl/hr (air)</p> |

9. Tank Overfill Protection System (check appropriate box or boxes)

| | | | |
|-----------------------------------|-------------------------------------|------|--|
| a. High Level/Tank Overfill Alarm | <input checked="" type="checkbox"/> | Type | ERL |
| b. Overfill Control Shutdown | <input checked="" type="checkbox"/> | Type | ERL |
| c. Spill Valve | <input type="checkbox"/> | Type | N/A |
| d. Rupture Disk | <input type="checkbox"/> | Type | N/A |

Meets ASTM F1271 Setting in psig N/A

10. Closed Gauging Verify the vessel has closed gauging that satisfies 46 CFR 39.2003 and 151.15-10(c).

11. Instructions/Guidelines for the OCMI:

11a. The Marine Safety Center's recommended COI endorsements can be found in the following approval letters:
C2-2003454 dated October 27, 2020

11b. The MSC approval letters must be available at the OCMI's request.

11c. Verify isolation valve at the vapor connection flange is manually operable and designed in a way it is "clearly" open or closed.

11d. Verify the set-point of the overfill shutdown system. It shall be no higher than 6 inches (0.5 feet) below the tank tops of cargo tanks #1-2 P/S and 8.3 inches (0.69 feet) below the tank tops of cargo tanks #3 P/S.

11e. The tanks share a common vent header, which would allow mixing of various vapors and liquid cargoes. Note this configuration restricts the types of cargoes that can be carried simultaneously.

| | | | |
|-----------------------------|--|-------------------|---|
| Current VCS Approval Letter | C2-2003454 dated October 27, 2020 | MSC Plan Reviewer | LT J. D. MacArthur |
|-----------------------------|--|-------------------|---|

CARGO TRANSFER PROCEDURES

CHEM CARRIERS L.L.C.

TRANSFER FROM BARGE TO DOCK

PARTS

1. PRODUCTS TRANSFERRED
2. DESCRIPTION OF SYSTEM
3. PERSONS ON DUTY
4. PERSONS IN CHARGE
5. EMERGENCY SHUTDOWN
6. TOPPING OFF PROCEDURE
7. COMPLETION OF TRANSFER
8. REPORTING CARGO SPILLS
9. VESSEL CLOSURES
10. PRODUCT DATA
11. Vapor Control Procedures
Barge CCL 418-L

PARTS 1. PRODUCTS TRANSFERRED

33 CFR 155.750 (a) (1) (i)

This vessel is certificated for the carriage of grades "A" and lower Sub-Chapter (D) and (O) Products. It has also been certified to carry vapor products. Reference Certificate of Inspection.

PARTS 2. DESCRIPTION OF CARGO TRANSFER SYSTEM

33 CFR 155.750 (a) (2) (i) (ii)

The cargo transfer procedures apply to all Chem Carrier L.L.C. owned or leased tank barges. In most cases other than series built barges, the cargo piping arrangement is usually slightly different on every barge, and for this reason, the piping diagram must be studied before loading or discharging a barge. The basic concept for loading and discharging is fairly standard depending on the location of the pump.

A. (Reference the piping diagram for transfer system arrangement.)

B. PROCEDURES FOR THE CONTAINMENT SYSTEM

33 CFR 155.310 (a) (1) (iv)

33 CFR 155.750 (a) (2) (iii)

- 1). The containment pans are equipped with a drain for the removal of slops to shore facilities:
NEVER DRAIN THE CONTAINMENT TANKS ONTO THE DECK.
- 2). CCL 418-L is equipped with a separate containment area for

the cargo trunk top and the aft deck area. Each containment area is equipped with drains and scupper plugs. Plugs should be installed prior to cargo transfer and removed after the cargo transfer is complete. PIC should notify Chem Carriers when containment areas need cleaning or if scupper plugs need replacing. **Never Drain Product captured in containment area overboard.**

PARTS 3. PERSONS ON DUTY DURING TRANSFER

33 CFR 155.750 (a) (3)

Number of persons required on duty during transfer operations:

- A. At no time during the transfer operation will be less than one responsible person on duty. The certified tanker man assigned shall be in charge and responsible for the safe transfer of cargo.

PARTS 4. PERSONS IN CHARGE

The tanker man (person in charge) is responsible for transferring cargo and carrying out related operations on board in an efficient, safe, and pollution free manner. The tanker man whether employed by the towboat, owner, operator, a shore tanker man service, or Chem Carriers L.L.C., shall comply with all Coast Guard, State and local regulations. Tanker man's responsibility shall include but not be limited to the following:

- A. To have on his/her person a valid merchant marine document endorsed as tanker man, certified to handle the grade of cargo to be transferred.
- B. Make a thorough inspection of the barge prior to the start of transfer operation.
- C. To have proper connection of the grounding cable.
- D. The vessel's moorings are adequate to hold during all expected conditions of surge, current, wind, tide, ect., and lines are long enough to allow for surge, tide, wind, changes in draft etc.
- E. Proper hose sizes, lengths, support, and connections.
- F. The condition of fire extinguishers and required number.
- G. The person in charge of transfer operations on the transferring vessel or facility and the person in charge of transferring operations on the receiving vessel or facility agree to begin the transfer operations.
- H. The transfer operation between tank barges and dock facilities should be lighted between sunset and sunrise to comply with the U. S. Coast Guard regulation pertaining to the displaying of lights on barges as required by Title 33.
- I. The PIC (PERSON IN CHARGE) will be responsible for the DOI (declaration of inspection) and DOS (declaration of security).
- J. Always maintain communications with dock or shore personnel with an agreed upon approved system.

PARTS 5: EMERGENCY SHUTDOWN

33 CFR 155.750 (a) (6)

THE EMERGENCY SHUTDOWN IS LOCATED NEAR THE CENTER OF THE BARGE.

- A. In the event of an emergency, transfer operations can be stopped by pulling the remote shutdown cable.
- B. Familiarize yourself with its location and operation prior to transfer.

PARTS 6; TOPPING OFF PROCEDURES

33 CFR 155.750 (a) (7)

In the process of topping off, tanks should be loaded at different levels to top off one at a time. Extra care should be taken to avoid over pressuring the connections, and hoses by closing valves against the receiving line. Since barges and facilities vary in their systems, no standard for topping off exist, but the following should be considered:

- A. The closing of one tank increases the rate of flow to other tanks on the same line.
- B. Always consider temperature and cargo in accordance with the amount of expansion that should be allowed.
- C. Always maintain communications with dock or shore personnel.
- D. A set of dipstick overfill devices have been installed on the CCL 418-L. Dipsticks can be made operational by releasing the covers or caps. Dipsticks should be used as a visual aid for overfill protection.

PARTS 7: COMPLETION OF TRANSFER

33 CFR 155.750 (a) (8)

Upon the completion of the transfer all pipelines should be drained into cargo tanks. The header valve used during the operation should then be closed, sealed off with a blind flange and shore personnel should seal lines and hatches on vessel.

PARTS 8: REPORTING CARGO SPILLS

33 CFR 155.750 (a) (9)

Should an accidental discharge of product occur, you should consider the following:

- A. Locate the source of the spill and try to stop it, if possible, and safe to do so.

- B. Make an attempt to contain the product if possible.
- C. Notify the Coast Guard. The national Response Center at 1-800-424-8802.
- E. Notify Chem Carriers L.L.C. at (225) 642-0060
- F. If loading, transfer the cargo from the leaking tank to an adjacent tank or back to the dock if safe to do so.
- G. If discharging, pump the product from the leaking tank as quickly as possible if safe to do so.

***When reporting a spill, the tankerman should provide the following information:**

- A. Name (his or her)
- B. Name of Company: (employed by; (contracted by;
- C. Name of Barge.
- D. Spill Location
- E. Specify Product.
- F. Estimate Quantity of Spill
- G. Weather, Tide, Sea and Current Conditions.
- H. Cause of Spill.
- I. Action Being Taken to Contain and Stop Spill

PART 9

CLOSURES ON VESSELS

Upon completion of cargo transfer operations, all tank hatch covers, ullage covers, and gauging device covers shall be dogged down and secured. In addition, the vent drain valves, if installed, should be secured and left in the proper position. All drain valves should be closed, and drip pan covers, if installed, should be made up tight. Covers for void spaces, bow and stern compartments shall be secured at all times and checked for tightness. Closing devices on clean-out hatches and clean-out opening should be checked, especially when the barge is loaded.

PART 10

PRODUCT DATA

See specific MSDS sheets provided with these procedures.

In case of any other emergency, immediately shut down and notify the transferring facility, and Chem Carriers L.L.C. (225) 642-0060 24 Hour Line.

PART 11

VAPOR CONTROL PROCEDURES

This is a guide only and is not intended to replace experience, sound judgment, and a proper assessment of the task at hand.

The tanker man on duty is the acting Designated Person In Charge (PIC) and is responsible for cargo transfer operations and carrying out related operations on barges.

1. Vapor Recovery Transfer Maximum Rate is 5000 BBL/HR for

subchapter "D" Cargoes and 5000 BBLs/Hr for subchapter "O" Cargoes.

- 1.1 Transfer rates, which exceed these maximums, must be approved by Chem Carriers.
- 1.2 Transfer rates for each cargo tank should not exceed the maximum transfer rate.

2. Pre-transfer Inspection For Vapor Recovery Operations

2.1 Follow the procedures outlined below in addition to the procedures utilized during normal transfers:

2.1.1 Wear personal protective equipment (PPE) as needed for the cargo in the barge when testing P/V and, hooking up hoses, or draining low points.

2.1.2 Ensure that a Certificate of Vapor Tightness is onboard and valid.

2.1.3 Close the low point drain on the port/starboard vapor header, if applicable.

2.1.4 Close the low point drain near the vent stack, if applicable.

2.1.5 Close valve to the vent riser if applicable.

2.1.7 Blinds used for the vapor control manifold should have a hole to accommodate the ½" stud located in the vapor header.

2.1.8 Each cargo tank is fitted with a liquid level gauge stick. Remove the cap, raise the stick, this stick can be monitored visually to avoid overfilling.

2.1.9 Ensure that the last one meter (3.3 feet) of vapor piping before the vapor connection is painted red/yellow/red.

2.1.10 The cross-header should be stenciled with the word "VAPOR" in black letters at least 2" high.

2.1.11 The vapor connection flange should be fixed with a 1" long by ½" diameter stud projecting outward from the face of the flange, midway between bolt holes.

2.1.12 The high level alarms/shutdowns are installed near the center of each cargo tank. Dock alarm/shutdown should be connected prior to loading, and plugs located near the forward end of the barge Port and Starboard should be labeled "ALARM/SHUTDOWN SENSOR." High level alarms are set to alarm at 90% of the cargo tanks capacity and Shut downs are set to shut transfer down at 95% of each tanks capacity.

2.1.13 Ensure that the P/V relief valve flame screen, if required, is in place and in good condition prior to testing.

2.1.14 Ensure that the facility has a Letter of Adequacy endorsed as meeting the requirements of 33 CFR Subpart E.

3. Vapor Piping

3.1 The PIC checks the vapor piping diagram.

3.2 Characteristics of a vapor header:

3.2.1 The vapor collection piping system on tank barges is permanently installed and located as close as practical to the loading manifold. The piping system is electrically bonded to the hull and electrically continuous.

3.2.2 The last one meter (3.3 feet) of vapor piping prior to the valve before the vapor connection is painted red/yellow/red. The red bands are 4" wide and the yellow band is 32" wide.

3.2.3 The vapor header is stenciled with the word "VAPOR" in black letters at least 2" high.

3.2.4 The vapor connection flange is to be fixed with a 1" by 1/2" diameter stud projecting outward from the face of the flange. This stud is located at the top of the flange, midway between bolt holes.

3.2.5 When not in use, blank off the vapor headers using a blind flange with a bolt in every hole. Each blind flange used on the vapor piping has a hole drilled to accommodate the pin.

4. Inspection And Verification Of Vent Lines

4.1 The Person in Charge performs the following steps:

4.1.1 Checks the Certificate of Inspection on board the barge;

4.1.2 Locates polymerizing or inhibited cargoes in the section of the COI marked *Specific Hazardous Cargo Authority*;

4.1.3 Refers to the MSDS or Chemical Data Guide on board the vessel to determine what cargoes are subject to polymerization, or what cargoes are inhibited;

4.1.4 Locates the MSDS for the cargo and determines its toxicity and whether or not it is a polymerizing or inhibited cargo; and,

4.1.5 Notifies the Dispatcher and Field Supervisor when polymerization is suspected.

5. Any problems with the Vapor Control system must be reported immediately to the person in charge and Chem Carriers.

U.S. Department of
Homeland Security

United States
Coast Guard



Commandant
United States Coast Guard

2703 Martin Luther King Jr. Ave SE
Stop 7516
Washington, DC 20593-7516
Staff Symbol: CG-MER-4 (VRP)
Phone: (202) 372-1005
Fax: (202) 372-8376
Email: vrp@uscg.mil

16460
March 12, 2025

Chem Carriers, L.L.C.
C/O: FOREFRONT EMERGENCY MANAGEMENT, LP
ATTN: ALLIE MARTIN
1730 COTEAU ROAD
HOUMA, LA 70364

Dear Sir or Madam:

Your Shipboard Oil Pollution Emergency Plan (SOPEP), Control Number 56041, for CCL 419-L (1306897), has been reviewed and found to be in compliance with the requirements of Regulation 37 of Annex I of the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78).

This approval will remain valid until **March 21, 2030**. You must review your plan annually within one (1) month of the anniversary date of the plan's expiration date and submit a letter to this office certifying that the review has been completed. Any alteration or revision made to the plan, with the exception of those made to the appendices and non-mandatory provisions, must be submitted to this office for review and approval prior to the implementation of the revision. Further, the entire plan must be resubmitted to the Coast Guard for reapproval six (6) months before the end of the approval period of the plan.

I remind you that your plan is a vital working document and that implementing the plan will help ensure effective response and mitigation in the event of an oil pollution incident. Please be sure that all parties with responsibilities under the plan are familiar with the plan's procedures and requirements.

This letter shall be maintained onboard the vessel and placed in the front of the plan.

Sincerely,

A handwritten signature in blue ink that reads "Charron McCombs".

CHARRON MCCOMBS
Lieutenant Commander
Acting Chief, Domestic Preparedness & Planning Division
U.S. Coast Guard
By direction

U.S. Department of
Homeland Security

United States
Coast Guard



Commandant
United States Coast Guard

2703 Martin Luther King Jr. Ave SE
Stop 7516
Washington, DC 20593-7516
Staff Symbol: CG-MER-4 (VRP)
Phone: (202) 372-1005
Fax: (202) 372-8376
Email: vrp@uscg.mil

16460
March 12, 2025

Chem Carriers, L.L.C.
C/O: FOREFRONT EMERGENCY MANAGEMENT, LP
ATTN: ALLIE MARTIN
1730 COTEAU ROAD
HOUMA, LA 70364

Dear Sir or Madam:

Your Vessel Response Plan (Control Number 56041), submitted to meet the requirements of Title 33, Code of Federal Regulations (CFR), Part 155, Subparts D and I, is **approved**. Approval will remain valid until **March 21, 2030**.

The CCL 419-L (1306897) is authorized to operate only in the ports or geographic areas indicated in the Captain of the Port zones listed below. If carrying oil as cargo, the vessel is prohibited from handling, storing, transporting, transferring, or lightering oil unless it is operating in full compliance with this plan. Compliance includes ensuring that required resources have been identified and planned for or are in place and available through contract or other approved means. If applicable to your routes, this includes the dispersant and aerial observation requirements of 33 CFR 155.1050.

You are reminded that your chosen salvage and marine firefighting resource provider may have submitted waivers from meeting one or more of the specified response times in accordance with 33 CFR 155.4055. If so, this may be rescinded by the U.S. Coast Guard if the appropriate response resources are not available when the approved waiver expires. You shall continue to assess the adequacy of your chosen salvors and firefighters as required by 33 CFR 155.4050.

The vessel must keep a copy of this approval letter onboard in addition to the minimum sections of the plan as required by 33 CFR 155.1030. In accordance with 33 CFR 155.1070, you are required to review your plan annually and submit plan amendments for approval. As per 33 CFR 155.1070(b), the entire plan must be resubmitted for a comprehensive review and approval six (6) months prior to the expiration date.

APPROVED CAPTAIN OF THE PORT ZONES

CORPUS CHRISTI
HOUMA
HOUSTON-GALVESTON

LOWER MISSISSIPPI RIVER OHIO VALLEY
(MEMPHIS) PORT ARTHUR AND LAKE
MOBILE CHARLES
NEW ORLEANS

UPPER MISSISSIPPI RIVER
(ST. LOUIS)

Sincerely,



CHARRON MCCOMBS

Lieutenant Commander

Acting Chief, Domestic Preparedness & Planning Division

U.S. Coast Guard

By direction

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Marine Safety Center

US Coast Guard Stop 7430
2703 Martin Luther King Jr. Ave. SE
Washington, DC 20593-7430
Staff Symbol: MSC-5
Phone: (202) 795-6729
Email: securityplaninfo@uscg.mil

16710
VS-326893
December 3, 2024

Chem Carriers, LLC
Attn: Robert Banta
1237 Hwy 75
Sunshine, LA 70780
robert@chemcarriers.com

Subj: CHEM CARRIERS, LLC VESSELS
VESSEL SECURITY PLAN APPROVAL WITH AMENDMENTS

Ref: (a) Your correspondence dated November 6, 2024
(b) Title 33 Code of Federal Regulations (CFR) Part 104
(c) MSC Vessel Security Plan Approval letter dated October 16, 2024

Dear Mr. Banta:

We have conducted a review of the Vessel Security Plan (VSP) submitted with reference (a) in accordance with reference (b) and it is **“Approved.”**

Your vessel must operate in compliance with this approved VSP and the requirements contained in reference (b). You are reminded to immediately report any deviation from this approved plan to the local Captain of the Port (COTP)/Officer in Charge, Marine Inspection (OCMI).

This approval will remain valid until five years from the date of reference (c) unless rescinded in writing by the local COTP/OCMI. You must review your plan annually and submit any amendments to this office for approval. Please ensure that a copy of the VSP is maintained on board the vessel if manned, or, if unmanned, at a suitable secure location so that it is readily available during an emergency or security incident. You shall make available to the Coast Guard, upon request, this letter, the VSP and any information related to the implementation of the VSP. Our Case Number for this plan is 326893. Please ensure that all future correspondence includes this Case Number.

Sincerely,

K. C. WILLIAMS
Lieutenant Commander, U.S. Coast Guard
Chief, Vessel Security Division
By direction

Enclosures: (1) List of Vessel Security Plan Amendments
(2) List of Vessels Covered

List of Vessels Covered

| <u>Vessel Name</u> | <u>Official Number (O.N.)</u> |
|--------------------|-------------------------------|
| CCL-1 | 518612 |
| CCL 2 | 510107 |
| CCL-3 | 296363 |
| CCL 4 | 512519 |
| CCL-5 | 512520 |
| CCL-6 | 530996 |
| CCL7 | 551980 |
| CCL 8 | 551982 |
| CCL 9 | 551983 |
| CCL 10 | 551979 |
| CCL 11 | 551976 |
| CCL 14 | 1164451 |
| CCL 15 | 1164452 |
| CCL 16 | 1164666 |
| CCL 17 | 1166179 |
| CCL 18 | 1168981 |
| CCL 19 | 1168980 |
| CCL 20 | 1191598 |
| CCL 21 | 1191599 |
| CCL 22 | 1191600 |
| CCL 23 | 1191601 |
| CCL 24 | 1196547 |
| CCL 25 | 1196548 |
| CCL 26 | 1203816 |
| CCL 27 | 1203817 |
| CCL 28 | 1212828 |
| CCL 29 | 1212829 |
| CCL 30 | 1305871 |
| CCL 31 | 1305870 |
| CCL 32 | 1305869 |
| CCL 33 | 1305868 |
| CCL 401 | 1216671 |
| CCL 402 | 1219910 |
| CCL 403 | 1231311 |
| CCL 404 | 1231312 |
| CCL 405 | 1236867 |
| CCL 406 | 1236866 |
| CCL 407 | 1246320 |
| CCL 408 | 1246097 |
| CCL 409 | 1246098 |
| CCL 410 | 1255906 |
| CCL 411 | 1255907 |
| CCL 414-L | 1262941 |
| CCL 415-T | 1262942 |

| <u>Vessel Name</u> | <u>Official Number (O.N.)</u> |
|--------------------|-------------------------------|
| CCL 416-T | 1264691 |
| CCL 417 T | 1298307 |
| CCL 418-L | 1306896 |
| CCL 419-L | 1306897 |
| CCL 420-T | 1348560 |
| CCL 421-T | CG1843359 |
| CCL 3202 | 1089031 |
| HFL 413 | 1237482 |
| HFL 415 | 1237483 |
| HFL 435 | 1236563 |
| HFL 605 | 1237484 |



BARGE "CCL 419-L"

FUEL TANK INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 4'-00 1/2"

| 0 FT. | | 1 FT. | | 2 FT. | | 3 FT. | | 4 FT. | | 5 FT. | | 6 FT. | | 7 FT. | | 8 FT. | | 9 FT. | |
|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|
| IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | |
| 0 | 0 | 0 | 107 | 0 | 271 | 0 | 432 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1/4 | 1 | 1/4 | 110 | 1/4 | 275 | 1/4 | 435 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1 | 1/2 | 113 | 1/2 | 279 | 1/2 | 438 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 2 | 3/4 | 116 | 3/4 | 282 | 3/4 | 441 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 1 | 3 | 1 | 119 | 1 | 286 | 1 | 443 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1/4 | 4 | 1/4 | 123 | 1/4 | 289 | 1/4 | 446 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 5 | 1/2 | 126 | 1/2 | 293 | 1/2 | 449 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 7 | 3/4 | 129 | 3/4 | 296 | 3/4 | 452 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 2 | 8 | 2 | 132 | 2 | 300 | 2 | 454 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 1/4 | 9 | 1/4 | 136 | 1/4 | 303 | 1/4 | 457 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 11 | 1/2 | 139 | 1/2 | 307 | 1/2 | 460 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 13 | 3/4 | 142 | 3/4 | 310 | 3/4 | 462 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 3 | 14 | 3 | 146 | 3 | 314 | 3 | 465 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 1/4 | 16 | 1/4 | 149 | 1/4 | 317 | 1/4 | 467 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 18 | 1/2 | 152 | 1/2 | 321 | 1/2 | 470 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 20 | 3/4 | 156 | 3/4 | 324 | 3/4 | 472 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 4 | 22 | 4 | 159 | 4 | 328 | 4 | 475 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 1/4 | 24 | 1/4 | 163 | 1/4 | 331 | 1/4 | 477 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 26 | 1/2 | 166 | 1/2 | 335 | 1/2 | 480 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 28 | 3/4 | 169 | 3/4 | 338 | 3/4 | 482 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 5 | 30 | 5 | 173 | 5 | 342 | 5 | 484 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 1/4 | 33 | 1/4 | 176 | 1/4 | 345 | 1/4 | 486 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 35 | 1/2 | 180 | 1/2 | 348 | 1/2 | 488 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 37 | 3/4 | 183 | 3/4 | 352 | 3/4 | 490 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 6 | 39 | 6 | 187 | 6 | 355 | 6 | 493 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 1/4 | 42 | 1/4 | 190 | 1/4 | 359 | 1/4 | 494 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 44 | 1/2 | 194 | 1/2 | 362 | 1/2 | 496 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 47 | 3/4 | 197 | 3/4 | 365 | 3/4 | 498 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 7 | 49 | 7 | 201 | 7 | 369 | 7 | 500 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 1/4 | 52 | 1/4 | 204 | 1/4 | 372 | 1/4 | 502 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 55 | 1/2 | 208 | 1/2 | 375 | 1/2 | 503 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 57 | 3/4 | 211 | 3/4 | 379 | 3/4 | 505 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 8 | 60 | 8 | 215 | 8 | 382 | 8 | 507 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| 1/4 | 63 | 1/4 | 218 | 1/4 | 385 | 1/4 | 508 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 65 | 1/2 | 222 | 1/2 | 388 | 1/2 | 509 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 68 | 3/4 | 225 | 3/4 | 392 | 3/4 | 510 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 9 | 71 | 9 | 229 | 9 | 395 | 9 | 512 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 1/4 | 74 | 1/4 | 232 | 1/4 | 398 | 1/4 | 512 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 77 | 1/2 | 236 | 1/2 | 401 | 1/2 | 513 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 80 | 3/4 | 239 | 3/4 | 404 | 3/4 | 514 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 10 | 82 | 10 | 243 | 10 | 408 | 10 | 514 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 1/4 | 85 | 1/4 | 247 | 1/4 | 411 | 1/4 | | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 88 | 1/2 | 250 | 1/2 | 414 | 1/2 | | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 91 | 3/4 | 254 | 3/4 | 417 | 3/4 | | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 11 | 94 | 11 | 257 | 11 | 420 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 1/4 | 98 | 1/4 | 261 | 1/4 | 423 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 101 | 1/2 | 264 | 1/2 | 426 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 104 | 3/4 | 268 | 3/4 | 429 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.
CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.
CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK AT GAUGE POINT.

STRAPPED: 09/11/2020 JS
CALCULATED: 12/07/2020 CL
PRINTED: 12/07/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 12/2020

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

SLOP TANK INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 5'-05 1/4"

| IN | 0 FT. | IN | 1 FT. | IN | 2 FT. | IN | 3 FT. | IN | 4 FT. | IN | 5 FT. | IN | 6 FT. | IN | 7 FT. | IN | 8 FT. | IN | 9 FT. |
|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
| 0 | 0 | 0 | 571 | 0 | 1,143 | 0 | 1,714 | 0 | 2,285 | 0 | | 0 | | 0 | | 0 | | 0 | |
| 1/4 | 12 | 1/4 | 583 | 1/4 | 1,155 | 1/4 | 1,726 | 1/4 | 2,297 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 24 | 1/2 | 595 | 1/2 | 1,166 | 1/2 | 1,738 | 1/2 | 2,309 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 36 | 3/4 | 607 | 3/4 | 1,178 | 3/4 | 1,750 | 3/4 | 2,321 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 1 | 48 | 1 | 619 | 1 | 1,190 | 1 | 1,762 | 1 | 2,333 | 1 | | 1 | | 1 | | 1 | | 1 | |
| 1/4 | 60 | 1/4 | 631 | 1/4 | 1,202 | 1/4 | 1,773 | 1/4 | 2,345 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 71 | 1/2 | 643 | 1/2 | 1,214 | 1/2 | 1,785 | 1/2 | 2,357 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 83 | 3/4 | 655 | 3/4 | 1,226 | 3/4 | 1,797 | 3/4 | 2,369 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 2 | 95 | 2 | 667 | 2 | 1,238 | 2 | 1,809 | 2 | 2,381 | 2 | | 2 | | 2 | | 2 | | 2 | |
| 1/4 | 107 | 1/4 | 678 | 1/4 | 1,250 | 1/4 | 1,821 | 1/4 | 2,392 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 119 | 1/2 | 690 | 1/2 | 1,262 | 1/2 | 1,833 | 1/2 | 2,404 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 131 | 3/4 | 702 | 3/4 | 1,274 | 3/4 | 1,845 | 3/4 | 2,416 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 3 | 143 | 3 | 714 | 3 | 1,285 | 3 | 1,857 | 3 | 2,428 | 3 | | 3 | | 3 | | 3 | | 3 | |
| 1/4 | 155 | 1/4 | 726 | 1/4 | 1,297 | 1/4 | 1,869 | 1/4 | 2,440 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 167 | 1/2 | 738 | 1/2 | 1,309 | 1/2 | 1,881 | 1/2 | 2,452 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 179 | 3/4 | 750 | 3/4 | 1,321 | 3/4 | 1,893 | 3/4 | 2,464 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 4 | 190 | 4 | 762 | 4 | 1,333 | 4 | 1,904 | 4 | 2,476 | 4 | | 4 | | 4 | | 4 | | 4 | |
| 1/4 | 202 | 1/4 | 774 | 1/4 | 1,345 | 1/4 | 1,916 | 1/4 | 2,488 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 214 | 1/2 | 786 | 1/2 | 1,357 | 1/2 | 1,928 | 1/2 | 2,500 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 226 | 3/4 | 797 | 3/4 | 1,369 | 3/4 | 1,940 | 3/4 | 2,511 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 5 | 238 | 5 | 809 | 5 | 1,381 | 5 | 1,952 | 5 | 2,523 | 5 | | 5 | | 5 | | 5 | | 5 | |
| 1/4 | 250 | 1/4 | 821 | 1/4 | 1,393 | 1/4 | 1,964 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 262 | 1/2 | 833 | 1/2 | 1,405 | 1/2 | 1,976 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 274 | 3/4 | 845 | 3/4 | 1,416 | 3/4 | 1,988 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 6 | 286 | 6 | 857 | 6 | 1,428 | 6 | 2,000 | 6 | | 6 | | 6 | | 6 | | 6 | | 6 | |
| 1/4 | 298 | 1/4 | 869 | 1/4 | 1,440 | 1/4 | 2,012 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 309 | 1/2 | 881 | 1/2 | 1,452 | 1/2 | 2,023 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 321 | 3/4 | 893 | 3/4 | 1,464 | 3/4 | 2,035 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 7 | 333 | 7 | 905 | 7 | 1,476 | 7 | 2,047 | 7 | | 7 | | 7 | | 7 | | 7 | | 7 | |
| 1/4 | 345 | 1/4 | 917 | 1/4 | 1,488 | 1/4 | 2,059 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 357 | 1/2 | 928 | 1/2 | 1,500 | 1/2 | 2,071 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 369 | 3/4 | 940 | 3/4 | 1,512 | 3/4 | 2,083 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 8 | 381 | 8 | 952 | 8 | 1,524 | 8 | 2,095 | 8 | | 8 | | 8 | | 8 | | 8 | | 8 | |
| 1/4 | 393 | 1/4 | 964 | 1/4 | 1,535 | 1/4 | 2,107 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 405 | 1/2 | 976 | 1/2 | 1,547 | 1/2 | 2,119 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 417 | 3/4 | 988 | 3/4 | 1,559 | 3/4 | 2,131 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 9 | 428 | 9 | 1,000 | 9 | 1,571 | 9 | 2,142 | 9 | | 9 | | 9 | | 9 | | 9 | | 9 | |
| 1/4 | 440 | 1/4 | 1,012 | 1/4 | 1,583 | 1/4 | 2,154 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 452 | 1/2 | 1,024 | 1/2 | 1,595 | 1/2 | 2,166 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 464 | 3/4 | 1,036 | 3/4 | 1,607 | 3/4 | 2,178 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 10 | 476 | 10 | 1,047 | 10 | 1,619 | 10 | 2,190 | 10 | | 10 | | 10 | | 10 | | 10 | | 10 | |
| 1/4 | 488 | 1/4 | 1,059 | 1/4 | 1,631 | 1/4 | 2,202 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 500 | 1/2 | 1,071 | 1/2 | 1,643 | 1/2 | 2,214 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 512 | 3/4 | 1,083 | 3/4 | 1,654 | 3/4 | 2,226 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 11 | 524 | 11 | 1,095 | 11 | 1,666 | 11 | 2,238 | 11 | | 11 | | 11 | | 11 | | 11 | | 11 | |
| 1/4 | 536 | 1/4 | 1,107 | 1/4 | 1,678 | 1/4 | 2,250 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 548 | 1/2 | 1,119 | 1/2 | 1,690 | 1/2 | 2,261 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 559 | 3/4 | 1,131 | 3/4 | 1,702 | 3/4 | 2,273 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.
CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.
CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK AT GAUGE POINT.

STRAPPED: 09/11/2020 JS
CALCULATED: 12/07/2020 CL
PRINTED: 12/07/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 12/2020

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

INNAGE TRIM TABLE

| | 1 FT. | | 2 FT. | | 3 FT. | | 4 FT. | | 5 FT. | | 6 FT. | |
|--------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|
| | <u>BOW</u> | <u>STERN</u> | <u>BOW</u> | <u>STERN</u> | <u>BOW</u> | <u>STERN</u> | <u>BOW</u> | <u>STERN</u> | <u>BOW</u> | <u>STERN</u> | <u>BOW</u> | <u>STERN</u> |
| 1 PORT | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-1/8 | 00-1/8 | - 00-1/8 | 00-1/8 |
| 1 STBD | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-1/8 | 00-1/8 | - 00-1/8 | 00-1/8 |
| 2 PORT | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 |
| 2 STBD | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 |
| 3 PORT | - 00-5/8 | 00-5/8 | - 01-1/4 | 01-1/4 | - 01-7/8 | 01-7/8 | - 02-1/2 | 02-1/2 | - 03-1/4 | 03-1/4 | - 03-3/4 | 03-3/4 |
| 3 STBD | - 00-5/8 | 00-5/8 | - 01-1/4 | 01-1/4 | - 01-7/8 | 01-7/8 | - 02-1/2 | 02-1/2 | - 03-1/4 | 03-1/4 | - 03-3/4 | 03-3/4 |

(ALL MEASUREMENTS ABOVE ARE IN INCHES)

EXAMPLE FOR ABOVE TRIM CORRECTIONS:

FWD. DRAFT = 2'-00"
 AFT DRAFT = 4'-00"
 DIFF. = 2'-00" (DOWN BY STERN)

THE CORRECTION FOR 2'-00" TRIM DOWN BY STERN FOR 3 PORT IS 01-1/4"
 FOR A MEASURED INNAGE GAUGE OF 4'-00" ON 3 PORT, THE TRIM CORRECTED INNAGE IS 4'-01 1/4"

LENGTH BETWEEN DRAFT MARKS: 254'-00"

November 3, 2020

**PRECISION MEASUREMENT
& ANALYSIS, INC.**

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Pearland, Texas 77588

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BARGE "CCL 419-L"

1 PORT INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-09"

| IN | 0 FT. | IN | 1 FT. | IN | 2 FT. | IN | 3 FT. | IN | 4 FT. | IN | 5 FT. | IN | 6 FT. | IN | 7 FT. | IN | 8 FT. | IN | 9 FT. |
|-----|--------|-----|--------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|
| 0 | 21.40 | 0 | 359.38 | 0 | 722.25 | 0 | 1,084.88 | 0 | 1,447.51 | 0 | 1,810.40 | 0 | 2,173.28 | 0 | 2,536.17 | 0 | 2,898.94 | 0 | 3,261.69 |
| 1/4 | 25.66 | 1/4 | 366.94 | 1/4 | 729.81 | 1/4 | 1,092.43 | 1/4 | 1,455.07 | 1/4 | 1,817.96 | 1/4 | 2,180.84 | 1/4 | 2,543.73 | 1/4 | 2,906.50 | 1/4 | 3,269.25 |
| 1/2 | 29.91 | 1/2 | 374.50 | 1/2 | 737.37 | 1/2 | 1,099.98 | 1/2 | 1,462.63 | 1/2 | 1,825.52 | 1/2 | 2,188.40 | 1/2 | 2,551.29 | 1/2 | 2,914.06 | 1/2 | 3,276.81 |
| 3/4 | 34.16 | 3/4 | 382.06 | 3/4 | 744.93 | 3/4 | 1,107.53 | 3/4 | 1,470.19 | 3/4 | 1,833.08 | 3/4 | 2,195.96 | 3/4 | 2,558.85 | 3/4 | 2,921.61 | 3/4 | 3,284.36 |
| 1 | 38.41 | 1 | 389.62 | 1 | 752.49 | 1 | 1,115.07 | 1 | 1,477.75 | 1 | 1,840.64 | 1 | 2,203.52 | 1 | 2,566.41 | 1 | 2,929.17 | 1 | 3,291.92 |
| 1/4 | 43.92 | 1/4 | 397.18 | 1/4 | 760.05 | 1/4 | 1,122.62 | 1/4 | 1,485.31 | 1/4 | 1,848.20 | 1/4 | 2,211.08 | 1/4 | 2,573.97 | 1/4 | 2,936.73 | 1/4 | 3,299.48 |
| 1/2 | 49.43 | 1/2 | 404.74 | 1/2 | 767.61 | 1/2 | 1,130.17 | 1/2 | 1,492.87 | 1/2 | 1,855.76 | 1/2 | 2,218.64 | 1/2 | 2,581.53 | 1/2 | 2,944.29 | 1/2 | 3,307.04 |
| 3/4 | 54.94 | 3/4 | 412.30 | 3/4 | 775.17 | 3/4 | 1,137.72 | 3/4 | 1,500.43 | 3/4 | 1,863.32 | 3/4 | 2,226.20 | 3/4 | 2,589.09 | 3/4 | 2,951.84 | 3/4 | 3,314.59 |
| 2 | 60.46 | 2 | 419.86 | 2 | 782.73 | 2 | 1,145.26 | 2 | 1,507.99 | 2 | 1,870.88 | 2 | 2,233.76 | 2 | 2,596.65 | 2 | 2,959.40 | 2 | 3,322.15 |
| 1/4 | 67.23 | 1/4 | 427.42 | 1/4 | 790.29 | 1/4 | 1,152.81 | 1/4 | 1,515.55 | 1/4 | 1,878.44 | 1/4 | 2,241.32 | 1/4 | 2,604.21 | 1/4 | 2,966.96 | 1/4 | 3,329.71 |
| 1/2 | 74.00 | 1/2 | 434.98 | 1/2 | 797.85 | 1/2 | 1,160.36 | 1/2 | 1,523.11 | 1/2 | 1,886.00 | 1/2 | 2,248.88 | 1/2 | 2,611.77 | 1/2 | 2,974.52 | 1/2 | 3,337.27 |
| 3/4 | 80.77 | 3/4 | 442.54 | 3/4 | 805.41 | 3/4 | 1,167.91 | 3/4 | 1,530.67 | 3/4 | 1,893.56 | 3/4 | 2,256.44 | 3/4 | 2,619.33 | 3/4 | 2,982.07 | 3/4 | 3,344.82 |
| 3 | 87.54 | 3 | 450.10 | 3 | 812.97 | 3 | 1,175.46 | 3 | 1,538.23 | 3 | 1,901.12 | 3 | 2,264.00 | 3 | 2,626.89 | 3 | 2,989.63 | 3 | 3,352.38 |
| 1/4 | 95.02 | 1/4 | 457.66 | 1/4 | 820.53 | 1/4 | 1,183.00 | 1/4 | 1,545.79 | 1/4 | 1,908.68 | 1/4 | 2,271.56 | 1/4 | 2,634.44 | 1/4 | 2,997.19 | 1/4 | 3,359.94 |
| 1/2 | 102.51 | 1/2 | 465.22 | 1/2 | 828.09 | 1/2 | 1,190.55 | 1/2 | 1,553.35 | 1/2 | 1,916.24 | 1/2 | 2,279.12 | 1/2 | 2,642.00 | 1/2 | 3,004.74 | 1/2 | 3,367.49 |
| 3/4 | 109.99 | 3/4 | 472.78 | 3/4 | 835.65 | 3/4 | 1,198.10 | 3/4 | 1,560.91 | 3/4 | 1,923.80 | 3/4 | 2,286.68 | 3/4 | 2,649.55 | 3/4 | 3,012.30 | 3/4 | 3,375.05 |
| 4 | 117.47 | 4 | 480.34 | 4 | 843.21 | 4 | 1,205.65 | 4 | 1,568.47 | 4 | 1,931.36 | 4 | 2,294.24 | 4 | 2,657.11 | 4 | 3,019.86 | 4 | 3,382.61 |
| 1/4 | 125.03 | 1/4 | 487.90 | 1/4 | 850.77 | 1/4 | 1,213.19 | 1/4 | 1,576.03 | 1/4 | 1,938.92 | 1/4 | 2,301.80 | 1/4 | 2,664.67 | 1/4 | 3,027.42 | 1/4 | 3,390.17 |
| 1/2 | 132.59 | 1/2 | 495.46 | 1/2 | 858.33 | 1/2 | 1,220.74 | 1/2 | 1,583.59 | 1/2 | 1,946.48 | 1/2 | 2,309.36 | 1/2 | 2,672.22 | 1/2 | 3,034.97 | 1/2 | 3,397.72 |
| 3/4 | 140.15 | 3/4 | 503.02 | 3/4 | 865.89 | 3/4 | 1,228.29 | 3/4 | 1,591.15 | 3/4 | 1,954.04 | 3/4 | 2,316.92 | 3/4 | 2,679.78 | 3/4 | 3,042.53 | 3/4 | 3,405.28 |
| 5 | 147.71 | 5 | 510.58 | 5 | 873.45 | 5 | 1,235.84 | 5 | 1,598.71 | 5 | 1,961.60 | 5 | 2,324.48 | 5 | 2,687.34 | 5 | 3,050.09 | 5 | 3,412.84 |
| 1/4 | 155.27 | 1/4 | 518.14 | 1/4 | 881.01 | 1/4 | 1,243.40 | 1/4 | 1,606.27 | 1/4 | 1,969.16 | 1/4 | 2,332.04 | 1/4 | 2,694.90 | 1/4 | 3,057.65 | 1/4 | 3,420.40 |
| 1/2 | 162.83 | 1/2 | 525.70 | 1/2 | 888.57 | 1/2 | 1,250.95 | 1/2 | 1,613.83 | 1/2 | 1,976.72 | 1/2 | 2,339.60 | 1/2 | 2,702.45 | 1/2 | 3,065.20 | 1/2 | 3,427.95 |
| 3/4 | 170.39 | 3/4 | 533.26 | 3/4 | 896.13 | 3/4 | 1,258.51 | 3/4 | 1,621.39 | 3/4 | 1,984.28 | 3/4 | 2,347.16 | 3/4 | 2,710.01 | 3/4 | 3,072.76 | 3/4 | 3,435.51 |
| 6 | 177.95 | 6 | 540.82 | 6 | 903.69 | 6 | 1,266.07 | 6 | 1,628.95 | 6 | 1,991.84 | 6 | 2,354.72 | 6 | 2,717.57 | 6 | 3,080.32 | 6 | 3,443.07 |
| 1/4 | 185.51 | 1/4 | 548.38 | 1/4 | 911.25 | 1/4 | 1,273.63 | 1/4 | 1,636.52 | 1/4 | 1,999.40 | 1/4 | 2,362.28 | 1/4 | 2,725.12 | 1/4 | 3,087.87 | 1/4 | 3,450.63 |
| 1/2 | 193.07 | 1/2 | 555.94 | 1/2 | 918.81 | 1/2 | 1,281.19 | 1/2 | 1,644.08 | 1/2 | 2,006.96 | 1/2 | 2,369.84 | 1/2 | 2,732.68 | 1/2 | 3,095.43 | 1/2 | 3,458.18 |
| 3/4 | 200.63 | 3/4 | 563.50 | 3/4 | 926.37 | 3/4 | 1,288.75 | 3/4 | 1,651.64 | 3/4 | 2,014.52 | 3/4 | 2,377.40 | 3/4 | 2,740.24 | 3/4 | 3,102.99 | 3/4 | 3,465.74 |
| 7 | 208.18 | 7 | 571.06 | 7 | 933.93 | 7 | 1,296.31 | 7 | 1,659.20 | 7 | 2,022.08 | 7 | 2,384.96 | 7 | 2,747.80 | 7 | 3,110.55 | 7 | 3,473.30 |
| 1/4 | 215.74 | 1/4 | 578.62 | 1/4 | 941.47 | 1/4 | 1,303.87 | 1/4 | 1,666.76 | 1/4 | 2,029.64 | 1/4 | 2,392.53 | 1/4 | 2,755.35 | 1/4 | 3,118.10 | 1/4 | 3,480.85 |
| 1/2 | 223.30 | 1/2 | 586.17 | 1/2 | 949.02 | 1/2 | 1,311.43 | 1/2 | 1,674.32 | 1/2 | 2,037.20 | 1/2 | 2,400.09 | 1/2 | 2,762.91 | 1/2 | 3,125.66 | 1/2 | 3,488.41 |
| 3/4 | 230.86 | 3/4 | 593.73 | 3/4 | 956.57 | 3/4 | 1,318.99 | 3/4 | 1,681.88 | 3/4 | 2,044.76 | 3/4 | 2,407.65 | 3/4 | 2,770.47 | 3/4 | 3,133.22 | 3/4 | 3,495.97 |
| 8 | 238.42 | 8 | 601.29 | 8 | 964.12 | 8 | 1,326.55 | 8 | 1,689.44 | 8 | 2,052.32 | 8 | 2,415.21 | 8 | 2,778.03 | 8 | 3,140.78 | 8 | 3,503.53 |
| 1/4 | 245.98 | 1/4 | 608.85 | 1/4 | 971.66 | 1/4 | 1,334.11 | 1/4 | 1,697.00 | 1/4 | 2,059.88 | 1/4 | 2,422.77 | 1/4 | 2,785.58 | 1/4 | 3,148.33 | 1/4 | 3,511.08 |
| 1/2 | 253.54 | 1/2 | 616.41 | 1/2 | 979.21 | 1/2 | 1,341.67 | 1/2 | 1,704.56 | 1/2 | 2,067.44 | 1/2 | 2,430.33 | 1/2 | 2,793.14 | 1/2 | 3,155.89 | 1/2 | 3,518.64 |
| 3/4 | 261.10 | 3/4 | 623.97 | 3/4 | 986.76 | 3/4 | 1,349.23 | 3/4 | 1,712.12 | 3/4 | 2,075.00 | 3/4 | 2,437.89 | 3/4 | 2,800.70 | 3/4 | 3,163.45 | 3/4 | 3,526.20 |
| 9 | 268.66 | 9 | 631.53 | 9 | 994.31 | 9 | 1,356.79 | 9 | 1,719.68 | 9 | 2,082.56 | 9 | 2,445.45 | 9 | 2,808.25 | 9 | 3,171.00 | 9 | 3,533.76 |
| 1/4 | 276.22 | 1/4 | 639.09 | 1/4 | 1,001.86 | 1/4 | 1,364.35 | 1/4 | 1,727.24 | 1/4 | 2,090.12 | 1/4 | 2,453.01 | 1/4 | 2,815.81 | 1/4 | 3,178.56 | 1/4 | 3,541.31 |
| 1/2 | 283.78 | 1/2 | 646.65 | 1/2 | 1,009.40 | 1/2 | 1,371.91 | 1/2 | 1,734.80 | 1/2 | 2,097.68 | 1/2 | 2,460.57 | 1/2 | 2,823.37 | 1/2 | 3,186.12 | 1/2 | 3,548.87 |
| 3/4 | 291.34 | 3/4 | 654.21 | 3/4 | 1,016.95 | 3/4 | 1,379.47 | 3/4 | 1,742.36 | 3/4 | 2,105.24 | 3/4 | 2,468.13 | 3/4 | 2,830.93 | 3/4 | 3,193.68 | 3/4 | 3,556.43 |
| 10 | 298.90 | 10 | 661.77 | 10 | 1,024.50 | 10 | 1,387.03 | 10 | 1,749.92 | 10 | 2,112.80 | 10 | 2,475.69 | 10 | 2,838.48 | 10 | 3,201.23 | 10 | 3,563.98 |
| 1/4 | 306.46 | 1/4 | 669.33 | 1/4 | 1,032.05 | 1/4 | 1,394.59 | 1/4 | 1,757.48 | 1/4 | 2,120.36 | 1/4 | 2,483.25 | 1/4 | 2,846.04 | 1/4 | 3,208.79 | 1/4 | 3,571.54 |
| 1/2 | 314.02 | 1/2 | 676.89 | 1/2 | 1,039.59 | 1/2 | 1,402.15 | 1/2 | 1,765.04 | 1/2 | 2,127.92 | 1/2 | 2,490.81 | 1/2 | 2,853.60 | 1/2 | 3,216.35 | 1/2 | 3,579.10 |
| 3/4 | 321.58 | 3/4 | 684.45 | 3/4 | 1,047.14 | 3/4 | 1,409.71 | 3/4 | 1,772.60 | 3/4 | 2,135.48 | 3/4 | 2,498.37 | 3/4 | 2,861.16 | 3/4 | 3,223.91 | 3/4 | 3,586.66 |
| 11 | 329.14 | 11 | 692.01 | 11 | 1,054.69 | 11 | 1,417.27 | 11 | 1,780.16 | 11 | 2,143.04 | 11 | 2,505.93 | 11 | 2,868.71 | 11 | 3,231.46 | 11 | 3,594.21 |
| 1/4 | 336.70 | 1/4 | 699.57 | 1/4 | 1,062.24 | 1/4 | 1,424.83 | 1/4 | 1,787.72 | 1/4 | 2,150.60 | 1/4 | 2,513.49 | 1/4 | 2,876.27 | 1/4 | 3,239.02 | 1/4 | 3,601.77 |
| 1/2 | 344.26 | 1/2 | 707.13 | 1/2 | 1,069.79 | 1/2 | 1,432.39 | 1/2 | 1,795.28 | 1/2 | 2,158.16 | 1/2 | 2,521.05 | 1/2 | 2,883.83 | 1/2 | 3,246.58 | 1/2 | 3,609.33 |
| 3/4 | 351.82 | 3/4 | 714.69 | 3/4 | 1,077.33 | 3/4 | 1,439.95 | 3/4 | 1,802.84 | 3/4 | 2,165.72 | 3/4 | 2,528.61 | 3/4 | 2,891.38 | 3/4 | 3,254.14 | 3/4 | 3,616.89 |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.
 CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.
 CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.
 CAPACITY TABLE ONLY APPLIES TO INNAGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.
 GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 43'-09" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
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BARGE "CCL 419-L"

1 PORT INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-09"

| IN | 10 FT. | IN | 11 FT. | IN | 12 FT. | IN | 13 FT. | IN | 14 FT. | IN | 15 FT. | IN | 16 FT. | IN | 17 FT. | IN | 18 FT. | IN | 19 FT. |
|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0 | 3,624.44 | 0 | 3,987.15 | 0 | 4,342.31 | 0 | 4,684.21 | 0 | 5,011.38 | 0 | | 0 | | 0 | | 0 | | | |
| 1/4 | 3,632.00 | 1/4 | 3,994.67 | 1/4 | 4,349.56 | 1/4 | 4,691.19 | 1/4 | 5,017.98 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,639.56 | 1/2 | 4,002.20 | 1/2 | 4,356.80 | 1/2 | 4,698.16 | 1/2 | 5,024.58 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,647.11 | 3/4 | 4,009.72 | 3/4 | 4,364.05 | 3/4 | 4,705.13 | 3/4 | 5,031.18 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 1 | 3,654.67 | 1 | 4,017.25 | 1 | 4,371.30 | 1 | 4,712.11 | 1 | 5,037.78 | 1 | | 1 | | 1 | | 1 | | 1 | |
| 1 1/4 | 3,662.23 | 1 1/4 | 4,024.75 | 1 1/4 | 4,378.53 | 1 1/4 | 4,719.03 | 1 1/4 | 5,044.35 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 3,669.79 | 1 1/2 | 4,032.26 | 1 1/2 | 4,385.76 | 1 1/2 | 4,725.96 | 1 1/2 | 5,050.93 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 3,677.34 | 3/4 | 4,039.76 | 3/4 | 4,392.98 | 3/4 | 4,732.88 | 3/4 | 5,057.50 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 2 | 3,684.90 | 2 | 4,047.26 | 2 | 4,400.21 | 2 | 4,739.81 | 2 | 5,064.08 | 2 | | 2 | | 2 | | 2 | | 2 | |
| 2 1/4 | 3,692.46 | 2 1/4 | 4,054.74 | 2 1/4 | 4,407.41 | 2 1/4 | 4,746.71 | 2 1/4 | 5,070.63 | 2 1/4 | | 2 1/4 | | 2 1/4 | | 2 1/4 | | 2 1/4 | |
| 2 1/2 | 3,700.02 | 2 1/2 | 4,062.22 | 2 1/2 | 4,414.62 | 2 1/2 | 4,753.60 | 2 1/2 | 5,077.19 | 2 1/2 | | 2 1/2 | | 2 1/2 | | 2 1/2 | | 2 1/2 | |
| 3/4 | 3,707.57 | 3/4 | 4,069.70 | 3/4 | 4,421.82 | 3/4 | 4,760.50 | 3/4 | 5,083.74 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 3 | 3,715.13 | 3 | 4,077.18 | 3 | 4,429.02 | 3 | 4,767.40 | 3 | 5,090.29 | 3 | | 3 | | 3 | | 3 | | 3 | |
| 3 1/4 | 3,722.69 | 3 1/4 | 4,084.64 | 3 1/4 | 4,436.21 | 3 1/4 | 4,774.28 | 3 1/4 | 5,096.82 | 3 1/4 | | 3 1/4 | | 3 1/4 | | 3 1/4 | | 3 1/4 | |
| 3 1/2 | 3,730.25 | 3 1/2 | 4,092.09 | 3 1/2 | 4,443.39 | 3 1/2 | 4,781.15 | 3 1/2 | 5,103.35 | 3 1/2 | | 3 1/2 | | 3 1/2 | | 3 1/2 | | 3 1/2 | |
| 3/4 | 3,737.80 | 3/4 | 4,099.55 | 3/4 | 4,450.57 | 3/4 | 4,788.03 | 3/4 | 5,109.88 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 4 | 3,745.36 | 4 | 4,107.01 | 4 | 4,457.75 | 4 | 4,794.90 | 4 | 5,116.41 | 4 | | 4 | | 4 | | 4 | | 4 | |
| 4 1/4 | 3,752.92 | 4 1/4 | 4,114.44 | 4 1/4 | 4,464.90 | 4 1/4 | 4,801.76 | 4 1/4 | 5,122.92 | 4 1/4 | | 4 1/4 | | 4 1/4 | | 4 1/4 | | 4 1/4 | |
| 4 1/2 | 3,760.47 | 4 1/2 | 4,121.87 | 4 1/2 | 4,472.06 | 4 1/2 | 4,808.61 | 4 1/2 | 5,129.43 | 4 1/2 | | 4 1/2 | | 4 1/2 | | 4 1/2 | | 4 1/2 | |
| 3/4 | 3,768.03 | 3/4 | 4,129.31 | 3/4 | 4,479.22 | 3/4 | 4,815.46 | 3/4 | 5,135.93 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 5 | 3,775.59 | 5 | 4,136.74 | 5 | 4,486.38 | 5 | 4,822.31 | 5 | 5,142.44 | 5 | | 5 | | 5 | | 5 | | 5 | |
| 5 1/4 | 3,783.15 | 5 1/4 | 4,144.15 | 5 1/4 | 4,493.51 | 5 1/4 | 4,829.14 | 5 1/4 | 5,149.64 | 5 1/4 | | 5 1/4 | | 5 1/4 | | 5 1/4 | | 5 1/4 | |
| 5 1/2 | 3,790.70 | 5 1/2 | 4,151.56 | 5 1/2 | 4,500.65 | 5 1/2 | 4,835.97 | 5 1/2 | 5,156.84 | 5 1/2 | | 5 1/2 | | 5 1/2 | | 5 1/2 | | 5 1/2 | |
| 3/4 | 3,798.26 | 3/4 | 4,158.97 | 3/4 | 4,507.78 | 3/4 | 4,842.80 | 3/4 | 5,164.05 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 6 | 3,805.82 | 6 | 4,166.38 | 6 | 4,514.92 | 6 | 4,849.63 | 6 | 5,171.25 | 6 | | 6 | | 6 | | 6 | | 6 | |
| 6 1/4 | 3,813.38 | 6 1/4 | 4,173.77 | 6 1/4 | 4,522.03 | 6 1/4 | 4,856.44 | 6 1/4 | 5,177.58 | 6 1/4 | | 6 1/4 | | 6 1/4 | | 6 1/4 | | 6 1/4 | |
| 6 1/2 | 3,820.93 | 6 1/2 | 4,181.16 | 6 1/2 | 4,529.14 | 6 1/2 | 4,863.24 | 6 1/2 | 5,183.92 | 6 1/2 | | 6 1/2 | | 6 1/2 | | 6 1/2 | | 6 1/2 | |
| 3/4 | 3,828.49 | 3/4 | 4,188.55 | 3/4 | 4,536.25 | 3/4 | 4,870.05 | 3/4 | 5,190.26 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 7 | 3,836.05 | 7 | 4,195.93 | 7 | 4,543.36 | 7 | 4,876.86 | 7 | 5,196.59 | 7 | | 7 | | 7 | | 7 | | 7 | |
| 7 1/4 | 3,843.60 | 7 1/4 | 4,203.30 | 7 1/4 | 4,550.45 | 7 1/4 | 4,883.64 | 7 1/4 | 5,201.71 | 7 1/4 | | 7 1/4 | | 7 1/4 | | 7 1/4 | | 7 1/4 | |
| 7 1/2 | 3,851.16 | 7 1/2 | 4,210.66 | 7 1/2 | 4,557.54 | 7 1/2 | 4,890.42 | 7 1/2 | 5,206.84 | 7 1/2 | | 7 1/2 | | 7 1/2 | | 7 1/2 | | 7 1/2 | |
| 3/4 | 3,858.72 | 3/4 | 4,218.03 | 3/4 | 4,564.63 | 3/4 | 4,897.21 | 3/4 | 5,211.96 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 8 | 3,866.28 | 8 | 4,225.39 | 8 | 4,571.72 | 8 | 4,903.99 | 8 | 5,217.08 | 8 | | 8 | | 8 | | 8 | | 8 | |
| 8 1/4 | 3,873.83 | 8 1/4 | 4,232.73 | 8 1/4 | 4,578.78 | 8 1/4 | 4,910.75 | 8 1/4 | | 8 1/4 | | 8 1/4 | | 8 1/4 | | 8 1/4 | | 8 1/4 | |
| 8 1/2 | 3,881.39 | 8 1/2 | 4,240.07 | 8 1/2 | 4,585.85 | 8 1/2 | 4,917.51 | 8 1/2 | | 8 1/2 | | 8 1/2 | | 8 1/2 | | 8 1/2 | | 8 1/2 | |
| 3/4 | 3,888.95 | 3/4 | 4,247.42 | 3/4 | 4,592.91 | 3/4 | 4,924.27 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 9 | 3,896.51 | 9 | 4,254.76 | 9 | 4,599.98 | 9 | 4,931.03 | 9 | | 9 | | 9 | | 9 | | 9 | | 9 | |
| 9 1/4 | 3,904.06 | 9 1/4 | 4,262.08 | 9 1/4 | 4,607.02 | 9 1/4 | 4,937.77 | 9 1/4 | | 9 1/4 | | 9 1/4 | | 9 1/4 | | 9 1/4 | | 9 1/4 | |
| 9 1/2 | 3,911.62 | 9 1/2 | 4,269.40 | 9 1/2 | 4,614.06 | 9 1/2 | 4,944.51 | 9 1/2 | | 9 1/2 | | 9 1/2 | | 9 1/2 | | 9 1/2 | | 9 1/2 | |
| 3/4 | 3,919.18 | 3/4 | 4,276.71 | 3/4 | 4,621.11 | 3/4 | 4,951.25 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 10 | 3,926.73 | 10 | 4,284.03 | 10 | 4,628.15 | 10 | 4,957.99 | 10 | | 10 | | 10 | | 10 | | 10 | | 10 | |
| 10 1/4 | 3,934.29 | 10 1/4 | 4,291.33 | 10 1/4 | 4,635.17 | 10 1/4 | 4,964.71 | 10 1/4 | | 10 1/4 | | 10 1/4 | | 10 1/4 | | 10 1/4 | | 10 1/4 | |
| 10 1/2 | 3,941.85 | 10 1/2 | 4,298.62 | 10 1/2 | 4,642.19 | 10 1/2 | 4,971.42 | 10 1/2 | | 10 1/2 | | 10 1/2 | | 10 1/2 | | 10 1/2 | | 10 1/2 | |
| 3/4 | 3,949.41 | 3/4 | 4,305.92 | 3/4 | 4,649.21 | 3/4 | 4,978.14 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 11 | 3,956.96 | 11 | 4,313.21 | 11 | 4,656.23 | 11 | 4,984.86 | 11 | | 11 | | 11 | | 11 | | 11 | | 11 | |
| 11 1/4 | 3,964.51 | 11 1/4 | 4,320.49 | 11 1/4 | 4,663.22 | 11 1/4 | 4,991.49 | 11 1/4 | | 11 1/4 | | 11 1/4 | | 11 1/4 | | 11 1/4 | | 11 1/4 | |
| 11 1/2 | 3,972.06 | 11 1/2 | 4,327.76 | 11 1/2 | 4,670.22 | 11 1/2 | 4,998.12 | 11 1/2 | | 11 1/2 | | 11 1/2 | | 11 1/2 | | 11 1/2 | | 11 1/2 | |
| 3/4 | 3,979.60 | 3/4 | 4,335.03 | 3/4 | 4,677.22 | 3/4 | 5,004.75 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

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ALL PRIOR TO 11/2020

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& ANALYSIS, INC.
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BARGE "CCL 419-L"

1 STBD INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-09 1/4"

| IN | 0 FT. | IN | 1 FT. | IN | 2 FT. | IN | 3 FT. | IN | 4 FT. | IN | 5 FT. | IN | 6 FT. | IN | 7 FT. | IN | 8 FT. | IN | 9 FT. |
|-------|--------|-------|--------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|
| 0 | 21.39 | 0 | 359.21 | 0 | 721.90 | 0 | 1,083.43 | 0 | 1,444.92 | 0 | 1,807.63 | 0 | 2,170.34 | 0 | 2,533.04 | 0 | 2,895.66 | 0 | 3,258.24 |
| 1/4 | 25.64 | 1/4 | 366.76 | 1/4 | 729.45 | 1/4 | 1,090.94 | 1/4 | 1,452.48 | 1/4 | 1,815.19 | 1/4 | 2,177.89 | 1/4 | 2,540.60 | 1/4 | 2,903.21 | 1/4 | 3,265.79 |
| 1/2 | 29.89 | 1/2 | 374.32 | 1/2 | 737.01 | 1/2 | 1,098.44 | 1/2 | 1,460.04 | 1/2 | 1,822.74 | 1/2 | 2,185.45 | 1/2 | 2,548.16 | 1/2 | 2,910.77 | 1/2 | 3,273.34 |
| 3/4 | 34.14 | 3/4 | 381.87 | 3/4 | 744.57 | 3/4 | 1,105.95 | 3/4 | 1,467.59 | 3/4 | 1,830.30 | 3/4 | 2,193.01 | 3/4 | 2,555.71 | 3/4 | 2,918.32 | 3/4 | 3,280.90 |
| 1 | 38.39 | 1 | 389.43 | 1 | 752.12 | 1 | 1,113.45 | 1 | 1,475.15 | 1 | 1,837.86 | 1 | 2,200.56 | 1 | 2,563.27 | 1 | 2,925.87 | 1 | 3,288.45 |
| 1 1/4 | 43.90 | 1 1/4 | 396.99 | 1 1/4 | 759.68 | 1 1/4 | 1,120.96 | 1 1/4 | 1,482.70 | 1 1/4 | 1,845.41 | 1 1/4 | 2,208.12 | 1 1/4 | 2,570.83 | 1 1/4 | 2,933.43 | 1 1/4 | 3,296.01 |
| 1 1/2 | 49.41 | 1 1/2 | 404.54 | 1 1/2 | 767.24 | 1 1/2 | 1,128.46 | 1 1/2 | 1,490.26 | 1 1/2 | 1,852.97 | 1 1/2 | 2,215.68 | 1 1/2 | 2,578.38 | 1 1/2 | 2,940.98 | 1 1/2 | 3,303.56 |
| 2 1/4 | 54.92 | 2 1/4 | 412.10 | 2 1/4 | 774.79 | 2 1/4 | 1,135.97 | 2 1/4 | 1,497.82 | 2 1/4 | 1,860.52 | 2 1/4 | 2,223.23 | 2 1/4 | 2,585.94 | 2 1/4 | 2,948.54 | 2 1/4 | 3,311.11 |
| 2 | 60.43 | 2 | 419.65 | 2 | 782.35 | 2 | 1,143.47 | 2 | 1,505.37 | 2 | 1,868.08 | 2 | 2,230.79 | 2 | 2,593.50 | 2 | 2,956.09 | 2 | 3,318.67 |
| 1 3/4 | 67.20 | 1 3/4 | 427.21 | 1 3/4 | 789.90 | 1 3/4 | 1,150.98 | 1 3/4 | 1,512.93 | 1 3/4 | 1,875.64 | 1 3/4 | 2,238.34 | 1 3/4 | 2,601.05 | 1 3/4 | 2,963.64 | 1 3/4 | 3,326.22 |
| 1 1/2 | 73.96 | 1 1/2 | 434.77 | 1 1/2 | 797.46 | 1 1/2 | 1,158.48 | 1 1/2 | 1,520.49 | 1 1/2 | 1,883.19 | 1 1/2 | 2,245.90 | 1 1/2 | 2,608.61 | 1 1/2 | 2,971.20 | 1 1/2 | 3,333.77 |
| 3 1/4 | 80.73 | 3 1/4 | 442.32 | 3 1/4 | 805.02 | 3 1/4 | 1,165.99 | 3 1/4 | 1,528.04 | 3 1/4 | 1,890.75 | 3 1/4 | 2,253.46 | 3 1/4 | 2,616.16 | 3 1/4 | 2,978.75 | 3 1/4 | 3,341.33 |
| 3 | 87.50 | 3 | 449.88 | 3 | 812.57 | 3 | 1,173.49 | 3 | 1,535.60 | 3 | 1,898.31 | 3 | 2,261.01 | 3 | 2,623.72 | 3 | 2,986.30 | 3 | 3,348.88 |
| 1 1/4 | 94.98 | 1 1/4 | 457.44 | 1 1/4 | 820.13 | 1 1/4 | 1,181.00 | 1 1/4 | 1,543.16 | 1 1/4 | 1,905.86 | 1 1/4 | 2,268.57 | 1 1/4 | 2,631.28 | 1 1/4 | 2,993.86 | 1 1/4 | 3,356.44 |
| 1 1/2 | 102.46 | 1 1/2 | 464.99 | 1 1/2 | 827.68 | 1 1/2 | 1,188.50 | 1 1/2 | 1,550.71 | 1 1/2 | 1,913.42 | 1 1/2 | 2,276.13 | 1 1/2 | 2,638.83 | 1 1/2 | 3,001.41 | 1 1/2 | 3,363.99 |
| 3 1/4 | 109.93 | 3 1/4 | 472.55 | 3 1/4 | 835.24 | 3 1/4 | 1,196.00 | 3 1/4 | 1,558.27 | 3 1/4 | 1,920.98 | 3 1/4 | 2,283.68 | 3 1/4 | 2,646.39 | 3 1/4 | 3,008.96 | 3 1/4 | 3,371.54 |
| 4 | 117.41 | 4 | 480.10 | 4 | 842.80 | 4 | 1,203.51 | 4 | 1,565.82 | 4 | 1,928.53 | 4 | 2,291.24 | 4 | 2,653.94 | 4 | 3,016.52 | 4 | 3,379.10 |
| 1 3/4 | 124.97 | 1 3/4 | 487.66 | 1 3/4 | 850.35 | 1 3/4 | 1,211.01 | 1 3/4 | 1,573.38 | 1 3/4 | 1,936.09 | 1 3/4 | 2,298.80 | 1 3/4 | 2,661.49 | 1 3/4 | 3,024.07 | 1 3/4 | 3,386.65 |
| 1 1/2 | 132.52 | 1 1/2 | 495.22 | 1 1/2 | 857.91 | 1 1/2 | 1,218.52 | 1 1/2 | 1,580.94 | 1 1/2 | 1,943.64 | 1 1/2 | 2,306.35 | 1 1/2 | 2,669.05 | 1 1/2 | 3,031.63 | 1 1/2 | 3,394.20 |
| 3 1/4 | 140.08 | 3 1/4 | 502.77 | 3 1/4 | 865.46 | 3 1/4 | 1,226.02 | 3 1/4 | 1,588.49 | 3 1/4 | 1,951.20 | 3 1/4 | 2,313.91 | 3 1/4 | 2,676.60 | 3 1/4 | 3,039.18 | 3 1/4 | 3,401.76 |
| 5 | 147.64 | 5 | 510.33 | 5 | 873.02 | 5 | 1,233.53 | 5 | 1,596.05 | 5 | 1,958.76 | 5 | 2,321.46 | 5 | 2,684.16 | 5 | 3,046.73 | 5 | 3,409.31 |
| 1 1/4 | 155.19 | 1 1/4 | 517.88 | 1 1/4 | 880.58 | 1 1/4 | 1,241.04 | 1 1/4 | 1,603.61 | 1 1/4 | 1,966.31 | 1 1/4 | 2,329.02 | 1 1/4 | 2,691.71 | 1 1/4 | 3,054.29 | 1 1/4 | 3,416.86 |
| 1 1/2 | 162.75 | 1 1/2 | 525.44 | 1 1/2 | 888.13 | 1 1/2 | 1,248.56 | 1 1/2 | 1,611.16 | 1 1/2 | 1,973.87 | 1 1/2 | 2,336.58 | 1 1/2 | 2,699.26 | 1 1/2 | 3,061.84 | 1 1/2 | 3,424.42 |
| 3 1/4 | 170.30 | 3 1/4 | 533.00 | 3 1/4 | 895.69 | 3 1/4 | 1,256.07 | 3 1/4 | 1,618.72 | 3 1/4 | 1,981.43 | 3 1/4 | 2,344.13 | 3 1/4 | 2,706.82 | 3 1/4 | 3,069.39 | 3 1/4 | 3,431.97 |
| 6 | 177.86 | 6 | 540.55 | 6 | 903.25 | 6 | 1,263.59 | 6 | 1,626.28 | 6 | 1,988.98 | 6 | 2,351.69 | 6 | 2,714.37 | 6 | 3,076.95 | 6 | 3,439.53 |
| 1 1/4 | 185.42 | 1 1/4 | 548.11 | 1 1/4 | 910.77 | 1 1/4 | 1,271.14 | 1 1/4 | 1,633.83 | 1 1/4 | 1,996.54 | 1 1/4 | 2,359.25 | 1 1/4 | 2,721.92 | 1 1/4 | 3,084.50 | 1 1/4 | 3,447.08 |
| 1 1/2 | 192.97 | 1 1/2 | 555.66 | 1 1/2 | 918.29 | 1 1/2 | 1,278.69 | 1 1/2 | 1,641.39 | 1 1/2 | 2,004.10 | 1 1/2 | 2,366.80 | 1 1/2 | 2,729.48 | 1 1/2 | 3,092.06 | 1 1/2 | 3,454.63 |
| 3 1/4 | 200.53 | 3 1/4 | 563.22 | 3 1/4 | 925.81 | 3 1/4 | 1,286.24 | 3 1/4 | 1,648.95 | 3 1/4 | 2,011.65 | 3 1/4 | 2,374.36 | 3 1/4 | 2,737.03 | 3 1/4 | 3,099.61 | 3 1/4 | 3,462.19 |
| 7 | 208.08 | 7 | 570.78 | 7 | 933.33 | 7 | 1,293.79 | 7 | 1,656.50 | 7 | 2,019.21 | 7 | 2,381.92 | 7 | 2,744.59 | 7 | 3,107.16 | 7 | 3,469.74 |
| 1 1/4 | 215.64 | 1 1/4 | 578.33 | 1 1/4 | 940.84 | 1 1/4 | 1,301.35 | 1 1/4 | 1,664.06 | 1 1/4 | 2,026.77 | 1 1/4 | 2,389.47 | 1 1/4 | 2,752.14 | 1 1/4 | 3,114.72 | 1 1/4 | 3,477.29 |
| 1 1/2 | 223.20 | 1 1/2 | 585.89 | 1 1/2 | 948.35 | 1 1/2 | 1,308.91 | 1 1/2 | 1,671.61 | 1 1/2 | 2,034.32 | 1 1/2 | 2,397.03 | 1 1/2 | 2,759.69 | 1 1/2 | 3,122.27 | 1 1/2 | 3,484.85 |
| 3 1/4 | 230.75 | 3 1/4 | 593.45 | 3 1/4 | 955.85 | 3 1/4 | 1,316.46 | 3 1/4 | 1,679.17 | 3 1/4 | 2,041.88 | 3 1/4 | 2,404.59 | 3 1/4 | 2,767.25 | 3 1/4 | 3,129.82 | 3 1/4 | 3,492.40 |
| 8 | 238.31 | 8 | 601.00 | 8 | 963.36 | 8 | 1,324.02 | 8 | 1,686.73 | 8 | 2,049.43 | 8 | 2,412.14 | 8 | 2,774.80 | 8 | 3,137.38 | 8 | 3,499.96 |
| 1 1/4 | 245.86 | 1 1/4 | 608.56 | 1 1/4 | 970.86 | 1 1/4 | 1,331.58 | 1 1/4 | 1,694.28 | 1 1/4 | 2,056.99 | 1 1/4 | 2,419.70 | 1 1/4 | 2,782.35 | 1 1/4 | 3,144.93 | 1 1/4 | 3,507.51 |
| 1 1/2 | 253.42 | 1 1/2 | 616.11 | 1 1/2 | 978.37 | 1 1/2 | 1,339.13 | 1 1/2 | 1,701.84 | 1 1/2 | 2,064.55 | 1 1/2 | 2,427.25 | 1 1/2 | 2,789.91 | 1 1/2 | 3,152.49 | 1 1/2 | 3,515.06 |
| 3 1/4 | 260.98 | 3 1/4 | 623.67 | 3 1/4 | 985.87 | 3 1/4 | 1,346.69 | 3 1/4 | 1,709.40 | 3 1/4 | 2,072.10 | 3 1/4 | 2,434.81 | 3 1/4 | 2,797.46 | 3 1/4 | 3,160.04 | 3 1/4 | 3,522.62 |
| 9 | 268.53 | 9 | 631.23 | 9 | 993.38 | 9 | 1,354.25 | 9 | 1,716.95 | 9 | 2,079.66 | 9 | 2,442.37 | 9 | 2,805.02 | 9 | 3,167.59 | 9 | 3,530.17 |
| 1 1/4 | 276.09 | 1 1/4 | 638.78 | 1 1/4 | 1,000.88 | 1 1/4 | 1,361.80 | 1 1/4 | 1,724.51 | 1 1/4 | 2,087.22 | 1 1/4 | 2,449.92 | 1 1/4 | 2,812.57 | 1 1/4 | 3,175.15 | 1 1/4 | 3,537.72 |
| 1 1/2 | 283.64 | 1 1/2 | 646.34 | 1 1/2 | 1,008.39 | 1 1/2 | 1,369.36 | 1 1/2 | 1,732.07 | 1 1/2 | 2,094.77 | 1 1/2 | 2,457.48 | 1 1/2 | 2,820.12 | 1 1/2 | 3,182.70 | 1 1/2 | 3,545.28 |
| 3 1/4 | 291.20 | 3 1/4 | 653.89 | 3 1/4 | 1,015.89 | 3 1/4 | 1,376.91 | 3 1/4 | 1,739.62 | 3 1/4 | 2,102.33 | 3 1/4 | 2,465.04 | 3 1/4 | 2,827.68 | 3 1/4 | 3,190.25 | 3 1/4 | 3,552.83 |
| 10 | 298.76 | 10 | 661.45 | 10 | 1,023.40 | 10 | 1,384.47 | 10 | 1,747.18 | 10 | 2,109.89 | 10 | 2,472.59 | 10 | 2,835.23 | 10 | 3,197.81 | 10 | 3,560.39 |
| 1 1/4 | 306.31 | 1 1/4 | 669.01 | 1 1/4 | 1,030.90 | 1 1/4 | 1,392.03 | 1 1/4 | 1,754.73 | 1 1/4 | 2,117.44 | 1 1/4 | 2,480.15 | 1 1/4 | 2,842.78 | 1 1/4 | 3,205.36 | 1 1/4 | 3,567.94 |
| 1 1/2 | 313.87 | 1 1/2 | 676.56 | 1 1/2 | 1,038.41 | 1 1/2 | 1,399.58 | 1 1/2 | 1,762.29 | 1 1/2 | 2,125.00 | 1 1/2 | 2,487.71 | 1 1/2 | 2,850.34 | 1 1/2 | 3,212.91 | 1 1/2 | 3,575.49 |
| 3 1/4 | 321.43 | 3 1/4 | 684.12 | 3 1/4 | 1,045.91 | 3 1/4 | 1,407.14 | 3 1/4 | 1,769.85 | 3 1/4 | 2,132.55 | 3 1/4 | 2,495.26 | 3 1/4 | 2,857.89 | 3 1/4 | 3,220.47 | 3 1/4 | 3,583.05 |
| 11 | 328.98 | 11 | 691.67 | 11 | 1,053.42 | 11 | 1,414.70 | 11 | 1,777.40 | 11 | 2,140.11 | 11 | 2,502.82 | 11 | 2,865.44 | 11 | 3,228.02 | 11 | 3,590.60 |
| 1 1/4 | 336.54 | 1 1/4 | 699.23 | 1 1/4 | 1,060.92 | 1 1/4 | 1,422.25 | 1 1/4 | 1,784.96 | 1 1/4 | 2,147.67 | 1 1/4 | 2,510.37 | 1 1/4 | 2,873.00 | 1 1/4 | 3,235.58 | 1 1/4 | 3,598.15 |
| 1 1/2 | 344.09 | 1 1/2 | 706.79 | 1 1/2 | 1,068.42 | 1 1/2 | 1,429.81 | 1 1/2 | 1,792.52 | 1 1/2 | 2,155.22 | 1 1/2 | 2,517.93 | 1 1/2 | 2,880.55 | 1 1/2 | 3,243.13 | 1 1/2 | 3,605.71 |
| 3 1/4 | 351.65 | 3 1/4 | 714.34 | 3 1/4 | 1,075.93 | 3 1/4 | 1,437.37 | 3 1/4 | 1,800.07 | 3 1/4 | 2,162.78 | 3 1/4 | 2,525.49 | 3 1/4 | 2,888.11 | 3 1/4 | 3,250.68 | 3 1/4 | 3,613.26 |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.
 CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.
 CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.
 CAPACITY TABLE ONLY APPLIES TO INNAGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.
 GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 43'-09" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
 & ANALYSIS, INC.
 P.O. Box 2092
 Pearland, Texas 77588
 http://www.pmacorp.net



BARGE "CCL 419-L"

1 STBD
INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-09 1/4"

| IN | 10 FT. | IN | 11 FT. | IN | 12 FT. | IN | 13 FT. | IN | 14 FT. | IN | 15 FT. | IN | 16 FT. | IN | 17 FT. | IN | 18 FT. | IN | 19 FT. |
|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|
| 0 | 3,620.81 | 0 | 3,983.34 | 0 | 4,338.34 | 0 | 4,680.10 | 0 | 5,007.14 | 0 | | 0 | | 0 | | 0 | | 0 | |
| 1/4 | 3,628.37 | 1/4 | 3,990.87 | 1/4 | 4,345.58 | 1/4 | 4,687.07 | 1/4 | 5,013.74 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,635.92 | 1/2 | 3,998.39 | 1/2 | 4,352.83 | 1/2 | 4,694.04 | 1/2 | 5,020.33 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,643.48 | 3/4 | 4,005.91 | 3/4 | 4,360.08 | 3/4 | 4,701.01 | 3/4 | 5,026.93 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 1 | 3,651.03 | 1 | 4,013.43 | 1 | 4,367.32 | 1 | 4,707.98 | 1 | 5,033.53 | 1 | | 1 | | 1 | | 1 | | 1 | |
| 1/4 | 3,658.58 | 1/4 | 4,020.93 | 1/4 | 4,374.55 | 1/4 | 4,714.90 | 1/4 | 5,040.10 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,666.14 | 1/2 | 4,028.43 | 1/2 | 4,381.77 | 1/2 | 4,721.83 | 1/2 | 5,046.67 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,673.69 | 3/4 | 4,035.93 | 3/4 | 4,388.99 | 3/4 | 4,728.75 | 3/4 | 5,053.25 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 2 | 3,681.24 | 2 | 4,043.43 | 2 | 4,396.22 | 2 | 4,735.67 | 2 | 5,059.82 | 2 | | 2 | | 2 | | 2 | | 2 | |
| 1/4 | 3,688.80 | 1/4 | 4,050.90 | 1/4 | 4,403.42 | 1/4 | 4,742.57 | 1/4 | 5,066.37 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,696.35 | 1/2 | 4,058.38 | 1/2 | 4,410.62 | 1/2 | 4,749.46 | 1/2 | 5,072.92 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,703.91 | 3/4 | 4,065.86 | 3/4 | 4,417.82 | 3/4 | 4,756.36 | 3/4 | 5,079.47 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 3 | 3,711.46 | 3 | 4,073.33 | 3 | 4,425.02 | 3 | 4,763.25 | 3 | 5,086.02 | 3 | | 3 | | 3 | | 3 | | 3 | |
| 1/4 | 3,719.01 | 1/4 | 4,080.79 | 1/4 | 4,432.20 | 1/4 | 4,770.13 | 1/4 | 5,092.55 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,726.57 | 1/2 | 4,088.24 | 1/2 | 4,439.37 | 1/2 | 4,777.00 | 1/2 | 5,099.08 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,734.12 | 3/4 | 4,095.69 | 3/4 | 4,446.55 | 3/4 | 4,783.87 | 3/4 | 5,105.61 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 4 | 3,741.67 | 4 | 4,103.14 | 4 | 4,453.73 | 4 | 4,790.74 | 4 | 5,112.14 | 4 | | 4 | | 4 | | 4 | | 4 | |
| 1/4 | 3,749.23 | 1/4 | 4,110.57 | 1/4 | 4,460.88 | 1/4 | 4,797.59 | 1/4 | 5,118.64 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,756.78 | 1/2 | 4,118.01 | 1/2 | 4,468.04 | 1/2 | 4,804.44 | 1/2 | 5,125.15 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,764.33 | 3/4 | 4,125.44 | 3/4 | 4,475.19 | 3/4 | 4,811.29 | 3/4 | 5,131.65 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 5 | 3,771.89 | 5 | 4,132.87 | 5 | 4,482.35 | 5 | 4,818.14 | 5 | 5,138.15 | 5 | | 5 | | 5 | | 5 | | 5 | |
| 1/4 | 3,779.44 | 1/4 | 4,140.27 | 1/4 | 4,489.48 | 1/4 | 4,824.97 | 1/4 | 5,145.35 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,787.00 | 1/2 | 4,147.68 | 1/2 | 4,496.61 | 1/2 | 4,831.80 | 1/2 | 5,152.55 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,794.55 | 3/4 | 4,155.09 | 3/4 | 4,503.74 | 3/4 | 4,838.62 | 3/4 | 5,159.75 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 6 | 3,802.10 | 6 | 4,162.49 | 6 | 4,510.87 | 6 | 4,845.45 | 6 | 5,166.94 | 6 | | 6 | | 6 | | 6 | | 6 | |
| 1/4 | 3,809.66 | 1/4 | 4,169.88 | 1/4 | 4,517.98 | 1/4 | 4,852.25 | 1/4 | 5,173.28 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,817.21 | 1/2 | 4,177.26 | 1/2 | 4,525.09 | 1/2 | 4,859.06 | 1/2 | 5,179.61 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,824.76 | 3/4 | 4,184.65 | 3/4 | 4,532.20 | 3/4 | 4,865.86 | 3/4 | 5,185.94 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 7 | 3,832.32 | 7 | 4,192.03 | 7 | 4,539.31 | 7 | 4,872.67 | 7 | 5,192.28 | 7 | | 7 | | 7 | | 7 | | 7 | |
| 1/4 | 3,839.87 | 1/4 | 4,199.39 | 1/4 | 4,546.39 | 1/4 | 4,879.45 | 1/4 | 5,197.39 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,847.43 | 1/2 | 4,206.75 | 1/2 | 4,553.48 | 1/2 | 4,886.23 | 1/2 | 5,202.51 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,854.98 | 3/4 | 4,214.11 | 3/4 | 4,560.56 | 3/4 | 4,893.01 | 3/4 | 5,207.63 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 8 | 3,862.53 | 8 | 4,221.48 | 8 | 4,567.65 | 8 | 4,899.79 | 8 | 5,212.75 | 8 | | 8 | | 8 | | 8 | | 8 | |
| 1/4 | 3,870.09 | 1/4 | 4,228.81 | 1/4 | 4,574.71 | 1/4 | 4,906.55 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,877.64 | 1/2 | 4,236.15 | 1/2 | 4,581.77 | 1/2 | 4,913.30 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,885.19 | 3/4 | 4,243.49 | 3/4 | 4,588.84 | 3/4 | 4,920.06 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 9 | 3,892.75 | 9 | 4,250.83 | 9 | 4,595.90 | 9 | 4,926.82 | 9 | | 9 | | 9 | | 9 | | 9 | | 9 | |
| 1/4 | 3,900.30 | 1/4 | 4,258.14 | 1/4 | 4,602.94 | 1/4 | 4,933.56 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,907.86 | 1/2 | 4,265.46 | 1/2 | 4,609.98 | 1/2 | 4,940.29 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,915.41 | 3/4 | 4,272.78 | 3/4 | 4,617.02 | 3/4 | 4,947.03 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 10 | 3,922.96 | 10 | 4,280.09 | 10 | 4,624.06 | 10 | 4,953.77 | 10 | | 10 | | 10 | | 10 | | 10 | | 10 | |
| 1/4 | 3,930.52 | 1/4 | 4,287.38 | 1/4 | 4,631.07 | 1/4 | 4,960.48 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,938.07 | 1/2 | 4,294.68 | 1/2 | 4,638.09 | 1/2 | 4,967.20 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,945.62 | 3/4 | 4,301.97 | 3/4 | 4,645.11 | 3/4 | 4,973.91 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 11 | 3,953.18 | 11 | 4,309.26 | 11 | 4,652.12 | 11 | 4,980.62 | 11 | | 11 | | 11 | | 11 | | 11 | | 11 | |
| 1/4 | 3,960.72 | 1/4 | 4,316.53 | 1/4 | 4,659.12 | 1/4 | 4,987.25 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,968.26 | 1/2 | 4,323.80 | 1/2 | 4,666.11 | 1/2 | 4,993.88 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,975.80 | 3/4 | 4,331.07 | 3/4 | 4,673.11 | 3/4 | 5,000.51 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

PRECISION MEASUREMENT
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BARGE "CCL 419-L"

2 PORT INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

| | 0 FT. | | 1 FT. | | 2 FT. | | 3 FT. | | 4 FT. | | 5 FT. | | 6 FT. | | 7 FT. | | 8 FT. | | 9 FT. | |
|-----|--------|-----|--------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|--|
| 0 | 21.34 | 0 | 358.35 | 0 | 720.18 | 0 | 1,081.77 | 0 | 1,443.36 | 0 | 1,805.20 | 0 | 2,167.05 | 0 | 2,528.89 | 0 | 2,890.63 | 0 | 3,252.34 | |
| 1/4 | 25.58 | 1/4 | 365.89 | 1/4 | 727.72 | 1/4 | 1,089.30 | 1/4 | 1,450.90 | 1/4 | 1,812.74 | 1/4 | 2,174.59 | 1/4 | 2,536.43 | 1/4 | 2,898.17 | 1/4 | 3,259.87 | |
| 1/2 | 29.82 | 1/2 | 373.43 | 1/2 | 735.26 | 1/2 | 1,096.82 | 1/2 | 1,458.44 | 1/2 | 1,820.28 | 1/2 | 2,182.12 | 1/2 | 2,543.97 | 1/2 | 2,905.70 | 1/2 | 3,267.41 | |
| 3/4 | 34.06 | 3/4 | 380.96 | 3/4 | 742.79 | 3/4 | 1,104.35 | 3/4 | 1,465.98 | 3/4 | 1,827.82 | 3/4 | 2,189.66 | 3/4 | 2,551.51 | 3/4 | 2,913.24 | 3/4 | 3,274.95 | |
| 1 | 38.30 | 1 | 388.50 | 1 | 750.33 | 1 | 1,111.88 | 1 | 1,473.52 | 1 | 1,835.36 | 1 | 2,197.20 | 1 | 2,559.04 | 1 | 2,920.77 | 1 | 3,282.48 | |
| 1/4 | 43.80 | 1/4 | 396.04 | 1/4 | 757.87 | 1/4 | 1,119.40 | 1/4 | 1,481.05 | 1/4 | 1,842.90 | 1/4 | 2,204.74 | 1/4 | 2,566.58 | 1/4 | 2,928.31 | 1/4 | 3,290.02 | |
| 1/2 | 49.29 | 1/2 | 403.58 | 1/2 | 765.41 | 1/2 | 1,126.93 | 1/2 | 1,488.59 | 1/2 | 1,850.44 | 1/2 | 2,212.28 | 1/2 | 2,574.12 | 1/2 | 2,935.84 | 1/2 | 3,297.55 | |
| 3/4 | 54.79 | 3/4 | 411.12 | 3/4 | 772.95 | 3/4 | 1,134.45 | 3/4 | 1,496.13 | 3/4 | 1,857.97 | 3/4 | 2,219.82 | 3/4 | 2,581.66 | 3/4 | 2,943.38 | 3/4 | 3,305.09 | |
| 2 | 60.28 | 2 | 418.65 | 2 | 780.48 | 2 | 1,141.98 | 2 | 1,503.67 | 2 | 1,865.51 | 2 | 2,227.36 | 2 | 2,589.20 | 2 | 2,950.91 | 2 | 3,312.62 | |
| 1/4 | 67.04 | 1/4 | 426.19 | 1/4 | 788.02 | 1/4 | 1,149.51 | 1/4 | 1,511.21 | 1/4 | 1,873.05 | 1/4 | 2,234.89 | 1/4 | 2,596.74 | 1/4 | 2,958.45 | 1/4 | 3,320.16 | |
| 1/2 | 73.79 | 1/2 | 433.73 | 1/2 | 795.56 | 1/2 | 1,157.03 | 1/2 | 1,518.75 | 1/2 | 1,880.59 | 1/2 | 2,242.43 | 1/2 | 2,604.28 | 1/2 | 2,965.99 | 1/2 | 3,327.69 | |
| 3/4 | 80.54 | 3/4 | 441.27 | 3/4 | 803.10 | 3/4 | 1,164.56 | 3/4 | 1,526.28 | 3/4 | 1,888.13 | 3/4 | 2,249.97 | 3/4 | 2,611.81 | 3/4 | 2,973.52 | 3/4 | 3,335.23 | |
| 3 | 87.29 | 3 | 448.81 | 3 | 810.64 | 3 | 1,172.08 | 3 | 1,533.82 | 3 | 1,895.67 | 3 | 2,257.51 | 3 | 2,619.35 | 3 | 2,981.06 | 3 | 3,342.77 | |
| 1/4 | 94.75 | 1/4 | 456.35 | 1/4 | 818.17 | 1/4 | 1,179.61 | 1/4 | 1,541.36 | 1/4 | 1,903.20 | 1/4 | 2,265.05 | 1/4 | 2,626.89 | 1/4 | 2,988.59 | 1/4 | 3,350.30 | |
| 1/2 | 102.21 | 1/2 | 463.88 | 1/2 | 825.71 | 1/2 | 1,187.14 | 1/2 | 1,548.90 | 1/2 | 1,910.74 | 1/2 | 2,272.59 | 1/2 | 2,634.42 | 1/2 | 2,996.13 | 1/2 | 3,357.84 | |
| 3/4 | 109.67 | 3/4 | 471.42 | 3/4 | 833.25 | 3/4 | 1,194.66 | 3/4 | 1,556.44 | 3/4 | 1,918.28 | 3/4 | 2,280.12 | 3/4 | 2,641.96 | 3/4 | 3,003.66 | 3/4 | 3,365.37 | |
| 4 | 117.13 | 4 | 478.96 | 4 | 840.79 | 4 | 1,202.19 | 4 | 1,563.98 | 4 | 1,925.82 | 4 | 2,287.66 | 4 | 2,649.49 | 4 | 3,011.20 | 4 | 3,372.91 | |
| 1/4 | 124.67 | 1/4 | 486.50 | 1/4 | 848.33 | 1/4 | 1,209.72 | 1/4 | 1,571.51 | 1/4 | 1,933.36 | 1/4 | 2,295.20 | 1/4 | 2,657.03 | 1/4 | 3,018.74 | 1/4 | 3,380.44 | |
| 1/2 | 132.21 | 1/2 | 494.04 | 1/2 | 855.86 | 1/2 | 1,217.24 | 1/2 | 1,579.05 | 1/2 | 1,940.90 | 1/2 | 2,302.74 | 1/2 | 2,664.56 | 1/2 | 3,026.27 | 1/2 | 3,387.98 | |
| 3/4 | 139.75 | 3/4 | 501.57 | 3/4 | 863.40 | 3/4 | 1,224.77 | 3/4 | 1,586.59 | 3/4 | 1,948.43 | 3/4 | 2,310.28 | 3/4 | 2,672.10 | 3/4 | 3,033.81 | 3/4 | 3,395.52 | |
| 5 | 147.28 | 5 | 509.11 | 5 | 870.94 | 5 | 1,232.29 | 5 | 1,594.13 | 5 | 1,955.97 | 5 | 2,317.82 | 5 | 2,679.63 | 5 | 3,041.34 | 5 | 3,403.05 | |
| 1/4 | 154.82 | 1/4 | 516.65 | 1/4 | 878.48 | 1/4 | 1,239.83 | 1/4 | 1,601.67 | 1/4 | 1,963.51 | 1/4 | 2,325.35 | 1/4 | 2,687.17 | 1/4 | 3,048.88 | 1/4 | 3,410.59 | |
| 1/2 | 162.36 | 1/2 | 524.19 | 1/2 | 886.02 | 1/2 | 1,247.37 | 1/2 | 1,609.21 | 1/2 | 1,971.05 | 1/2 | 2,332.89 | 1/2 | 2,694.70 | 1/2 | 3,056.41 | 1/2 | 3,418.12 | |
| 3/4 | 169.90 | 3/4 | 531.73 | 3/4 | 893.56 | 3/4 | 1,254.90 | 3/4 | 1,616.74 | 3/4 | 1,978.59 | 3/4 | 2,340.43 | 3/4 | 2,702.24 | 3/4 | 3,063.95 | 3/4 | 3,425.66 | |
| 6 | 177.44 | 6 | 539.26 | 6 | 901.09 | 6 | 1,262.44 | 6 | 1,624.28 | 6 | 1,986.13 | 6 | 2,347.97 | 6 | 2,709.78 | 6 | 3,071.48 | 6 | 3,433.19 | |
| 1/4 | 184.97 | 1/4 | 546.80 | 1/4 | 908.63 | 1/4 | 1,269.98 | 1/4 | 1,631.82 | 1/4 | 1,993.66 | 1/4 | 2,355.51 | 1/4 | 2,717.31 | 1/4 | 3,079.02 | 1/4 | 3,440.73 | |
| 1/2 | 192.51 | 1/2 | 554.34 | 1/2 | 916.17 | 1/2 | 1,277.52 | 1/2 | 1,639.36 | 1/2 | 2,001.20 | 1/2 | 2,363.05 | 1/2 | 2,724.85 | 1/2 | 3,086.56 | 1/2 | 3,448.26 | |
| 3/4 | 200.05 | 3/4 | 561.88 | 3/4 | 923.71 | 3/4 | 1,285.06 | 3/4 | 1,646.90 | 3/4 | 2,008.74 | 3/4 | 2,370.58 | 3/4 | 2,732.38 | 3/4 | 3,094.09 | 3/4 | 3,455.80 | |
| 7 | 207.59 | 7 | 569.42 | 7 | 931.25 | 7 | 1,292.59 | 7 | 1,654.44 | 7 | 2,016.28 | 7 | 2,378.12 | 7 | 2,739.92 | 7 | 3,101.63 | 7 | 3,463.34 | |
| 1/4 | 215.13 | 1/4 | 576.95 | 1/4 | 938.77 | 1/4 | 1,300.13 | 1/4 | 1,661.98 | 1/4 | 2,023.82 | 1/4 | 2,385.66 | 1/4 | 2,747.45 | 1/4 | 3,109.16 | 1/4 | 3,470.87 | |
| 1/2 | 222.66 | 1/2 | 584.49 | 1/2 | 946.30 | 1/2 | 1,307.67 | 1/2 | 1,669.51 | 1/2 | 2,031.36 | 1/2 | 2,393.20 | 1/2 | 2,754.99 | 1/2 | 3,116.70 | 1/2 | 3,478.41 | |
| 3/4 | 230.20 | 3/4 | 592.03 | 3/4 | 953.83 | 3/4 | 1,315.21 | 3/4 | 1,677.05 | 3/4 | 2,038.90 | 3/4 | 2,400.74 | 3/4 | 2,762.52 | 3/4 | 3,124.23 | 3/4 | 3,485.94 | |
| 8 | 237.74 | 8 | 599.57 | 8 | 961.35 | 8 | 1,322.75 | 8 | 1,684.59 | 8 | 2,046.43 | 8 | 2,408.28 | 8 | 2,770.06 | 8 | 3,131.77 | 8 | 3,493.48 | |
| 1/4 | 245.28 | 1/4 | 607.11 | 1/4 | 968.88 | 1/4 | 1,330.29 | 1/4 | 1,692.13 | 1/4 | 2,053.97 | 1/4 | 2,415.82 | 1/4 | 2,777.60 | 1/4 | 3,139.30 | 1/4 | 3,501.01 | |
| 1/2 | 252.82 | 1/2 | 614.65 | 1/2 | 976.41 | 1/2 | 1,337.82 | 1/2 | 1,699.67 | 1/2 | 2,061.51 | 1/2 | 2,423.35 | 1/2 | 2,785.13 | 1/2 | 3,146.84 | 1/2 | 3,508.55 | |
| 3/4 | 260.35 | 3/4 | 622.18 | 3/4 | 983.93 | 3/4 | 1,345.36 | 3/4 | 1,707.21 | 3/4 | 2,069.05 | 3/4 | 2,430.89 | 3/4 | 2,792.67 | 3/4 | 3,154.38 | 3/4 | 3,516.08 | |
| 9 | 267.89 | 9 | 629.72 | 9 | 991.46 | 9 | 1,352.90 | 9 | 1,714.74 | 9 | 2,076.59 | 9 | 2,438.43 | 9 | 2,800.20 | 9 | 3,161.91 | 9 | 3,523.62 | |
| 1/4 | 275.43 | 1/4 | 637.26 | 1/4 | 998.98 | 1/4 | 1,360.44 | 1/4 | 1,722.28 | 1/4 | 2,084.13 | 1/4 | 2,445.97 | 1/4 | 2,807.74 | 1/4 | 3,169.45 | 1/4 | 3,531.16 | |
| 1/2 | 282.97 | 1/2 | 644.80 | 1/2 | 1,006.51 | 1/2 | 1,367.98 | 1/2 | 1,729.82 | 1/2 | 2,091.66 | 1/2 | 2,453.51 | 1/2 | 2,815.27 | 1/2 | 3,176.98 | 1/2 | 3,538.69 | |
| 3/4 | 290.51 | 3/4 | 652.34 | 3/4 | 1,014.04 | 3/4 | 1,375.52 | 3/4 | 1,737.36 | 3/4 | 2,099.20 | 3/4 | 2,461.05 | 3/4 | 2,822.81 | 3/4 | 3,184.52 | 3/4 | 3,546.23 | |
| 10 | 298.05 | 10 | 659.87 | 10 | 1,021.56 | 10 | 1,383.05 | 10 | 1,744.90 | 10 | 2,106.74 | 10 | 2,468.58 | 10 | 2,830.35 | 10 | 3,192.05 | 10 | 3,553.76 | |
| 1/4 | 305.58 | 1/4 | 667.41 | 1/4 | 1,029.09 | 1/4 | 1,390.59 | 1/4 | 1,752.44 | 1/4 | 2,114.28 | 1/4 | 2,476.12 | 1/4 | 2,837.88 | 1/4 | 3,199.59 | 1/4 | 3,561.30 | |
| 1/2 | 313.12 | 1/2 | 674.95 | 1/2 | 1,036.61 | 1/2 | 1,398.13 | 1/2 | 1,759.97 | 1/2 | 2,121.82 | 1/2 | 2,483.66 | 1/2 | 2,845.42 | 1/2 | 3,207.13 | 1/2 | 3,568.83 | |
| 3/4 | 320.66 | 3/4 | 682.49 | 3/4 | 1,044.14 | 3/4 | 1,405.67 | 3/4 | 1,767.51 | 3/4 | 2,129.36 | 3/4 | 2,491.20 | 3/4 | 2,852.95 | 3/4 | 3,214.66 | 3/4 | 3,576.37 | |
| 11 | 328.20 | 11 | 690.03 | 11 | 1,051.67 | 11 | 1,413.21 | 11 | 1,775.05 | 11 | 2,136.89 | 11 | 2,498.74 | 11 | 2,860.49 | 11 | 3,222.20 | 11 | 3,583.91 | |
| 1/4 | 335.74 | 1/4 | 697.56 | 1/4 | 1,059.19 | 1/4 | 1,420.75 | 1/4 | 1,782.59 | 1/4 | 2,144.43 | 1/4 | 2,506.28 | 1/4 | 2,868.02 | 1/4 | 3,229.73 | 1/4 | 3,591.44 | |
| 1/2 | 343.27 | 1/2 | 705.10 | 1/2 | 1,066.72 | 1/2 | 1,428.28 | 1/2 | 1,790.13 | 1/2 | 2,151.97 | 1/2 | 2,513.81 | 1/2 | 2,875.56 | 1/2 | 3,237.27 | 1/2 | 3,598.98 | |
| 3/4 | 350.81 | 3/4 | 712.64 | 3/4 | 1,074.25 | 3/4 | 1,435.82 | 3/4 | 1,797.67 | 3/4 | 2,159.51 | 3/4 | 2,521.35 | 3/4 | 2,883.09 | 3/4 | 3,244.80 | 3/4 | 3,606.51 | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO INNAGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 43'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

2 PORT INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

| IN | 10 FT. | IN | 11 FT. | IN | 12 FT. | IN | 13 FT. | IN | 14 FT. | IN | 15 FT. | IN | 16 FT. | IN | 17 FT. | IN | 18 FT. | IN | 19 FT. |
|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|
| 0 | 3,614.05 | 0 | 3,975.72 | 0 | 4,329.84 | 0 | 4,670.72 | 0 | 4,996.88 | 0 | | 0 | | 0 | | 0 | | 0 | |
| 1/4 | 3,621.58 | 1/4 | 3,983.22 | 1/4 | 4,337.07 | 1/4 | 4,677.68 | 1/4 | 5,003.46 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,629.12 | 1/2 | 3,990.72 | 1/2 | 4,344.30 | 1/2 | 4,684.63 | 1/2 | 5,010.04 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,636.65 | 3/4 | 3,998.23 | 3/4 | 4,351.52 | 3/4 | 4,691.58 | 3/4 | 5,016.62 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 1 | 3,644.19 | 1 | 4,005.73 | 1 | 4,358.75 | 1 | 4,698.53 | 1 | 5,023.19 | 1 | | 1 | | 1 | | 1 | | 1 | |
| 1/4 | 3,651.73 | 1/4 | 4,013.21 | 1/4 | 4,365.96 | 1/4 | 4,705.44 | 1/4 | 5,029.75 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,659.26 | 1/2 | 4,020.69 | 1/2 | 4,373.16 | 1/2 | 4,712.34 | 1/2 | 5,036.30 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,666.80 | 3/4 | 4,028.17 | 3/4 | 4,380.37 | 3/4 | 4,719.25 | 3/4 | 5,042.86 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 2 | 3,674.33 | 2 | 4,035.66 | 2 | 4,387.57 | 2 | 4,726.15 | 2 | 5,049.41 | 2 | | 2 | | 2 | | 2 | | 2 | |
| 1/4 | 3,681.87 | 1/4 | 4,043.11 | 1/4 | 4,394.76 | 1/4 | 4,733.03 | 1/4 | 5,055.95 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,689.40 | 1/2 | 4,050.57 | 1/2 | 4,401.94 | 1/2 | 4,739.90 | 1/2 | 5,062.48 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,696.94 | 3/4 | 4,058.03 | 3/4 | 4,409.12 | 3/4 | 4,746.78 | 3/4 | 5,069.01 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 3 | 3,704.47 | 3 | 4,065.49 | 3 | 4,416.30 | 3 | 4,753.66 | 3 | 5,075.54 | 3 | | 3 | | 3 | | 3 | | 3 | |
| 1/4 | 3,712.01 | 1/4 | 4,072.92 | 1/4 | 4,423.46 | 1/4 | 4,760.51 | 1/4 | 5,082.05 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,719.55 | 1/2 | 4,080.36 | 1/2 | 4,430.62 | 1/2 | 4,767.37 | 1/2 | 5,088.56 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,727.08 | 3/4 | 4,087.79 | 3/4 | 4,437.78 | 3/4 | 4,774.22 | 3/4 | 5,095.07 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 4 | 3,734.62 | 4 | 4,095.23 | 4 | 4,444.94 | 4 | 4,781.08 | 4 | 5,101.58 | 4 | | 4 | | 4 | | 4 | | 4 | |
| 1/4 | 3,742.15 | 1/4 | 4,102.64 | 1/4 | 4,452.08 | 1/4 | 4,787.91 | 1/4 | 5,108.07 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,749.69 | 1/2 | 4,110.05 | 1/2 | 4,459.21 | 1/2 | 4,794.74 | 1/2 | 5,114.55 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,757.22 | 3/4 | 4,117.46 | 3/4 | 4,466.35 | 3/4 | 4,801.57 | 3/4 | 5,121.04 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 5 | 3,764.76 | 5 | 4,124.88 | 5 | 4,473.48 | 5 | 4,808.40 | 5 | 5,127.53 | 5 | | 5 | | 5 | | 5 | | 5 | |
| 1/4 | 3,772.30 | 1/4 | 4,132.27 | 1/4 | 4,480.60 | 1/4 | 4,815.21 | 1/4 | 5,134.71 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,779.83 | 1/2 | 4,139.65 | 1/2 | 4,487.71 | 1/2 | 4,822.02 | 1/2 | 5,141.89 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,787.37 | 3/4 | 4,147.04 | 3/4 | 4,494.82 | 3/4 | 4,828.83 | 3/4 | 5,149.07 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 6 | 3,794.90 | 6 | 4,154.43 | 6 | 4,501.94 | 6 | 4,835.63 | 6 | 5,156.25 | 6 | | 6 | | 6 | | 6 | | 6 | |
| 1/4 | 3,802.44 | 1/4 | 4,161.80 | 1/4 | 4,509.03 | 1/4 | 4,842.42 | 1/4 | 5,162.57 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,809.97 | 1/2 | 4,169.16 | 1/2 | 4,516.12 | 1/2 | 4,849.21 | 1/2 | 5,168.88 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,817.51 | 3/4 | 4,176.53 | 3/4 | 4,523.21 | 3/4 | 4,855.99 | 3/4 | 5,175.20 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 7 | 3,825.04 | 7 | 4,183.90 | 7 | 4,530.30 | 7 | 4,862.78 | 7 | 5,181.52 | 7 | | 7 | | 7 | | 7 | | 7 | |
| 1/4 | 3,832.58 | 1/4 | 4,191.24 | 1/4 | 4,537.37 | 1/4 | 4,869.54 | 1/4 | 5,186.63 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,840.12 | 1/2 | 4,198.58 | 1/2 | 4,544.43 | 1/2 | 4,876.30 | 1/2 | 5,191.73 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,847.65 | 3/4 | 4,205.93 | 3/4 | 4,551.50 | 3/4 | 4,883.06 | 3/4 | 5,196.84 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 8 | 3,855.19 | 8 | 4,213.27 | 8 | 4,558.57 | 8 | 4,889.83 | 8 | 5,201.94 | 8 | | 8 | | 8 | | 8 | | 8 | |
| 1/4 | 3,862.72 | 1/4 | 4,220.59 | 1/4 | 4,565.61 | 1/4 | 4,896.57 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,870.26 | 1/2 | 4,227.91 | 1/2 | 4,572.66 | 1/2 | 4,903.30 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,877.79 | 3/4 | 4,235.23 | 3/4 | 4,579.70 | 3/4 | 4,910.04 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 9 | 3,885.33 | 9 | 4,242.55 | 9 | 4,586.74 | 9 | 4,916.78 | 9 | | 9 | | 9 | | 9 | | 9 | | 9 | |
| 1/4 | 3,892.86 | 1/4 | 4,249.85 | 1/4 | 4,593.77 | 1/4 | 4,923.50 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,900.40 | 1/2 | 4,257.14 | 1/2 | 4,600.79 | 1/2 | 4,930.22 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,907.94 | 3/4 | 4,264.44 | 3/4 | 4,607.81 | 3/4 | 4,936.94 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 10 | 3,915.47 | 10 | 4,271.74 | 10 | 4,614.83 | 10 | 4,943.66 | 10 | | 10 | | 10 | | 10 | | 10 | | 10 | |
| 1/4 | 3,923.01 | 1/4 | 4,279.01 | 1/4 | 4,621.83 | 1/4 | 4,950.35 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,930.54 | 1/2 | 4,286.29 | 1/2 | 4,628.83 | 1/2 | 4,957.05 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,938.08 | 3/4 | 4,293.56 | 3/4 | 4,635.82 | 3/4 | 4,963.74 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 11 | 3,945.61 | 11 | 4,300.84 | 11 | 4,642.82 | 11 | 4,970.44 | 11 | | 11 | | 11 | | 11 | | 11 | | 11 | |
| 1/4 | 3,953.14 | 1/4 | 4,308.09 | 1/4 | 4,649.80 | 1/4 | 4,977.05 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,960.67 | 1/2 | 4,315.34 | 1/2 | 4,656.77 | 1/2 | 4,983.66 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,968.19 | 3/4 | 4,322.59 | 3/4 | 4,663.75 | 3/4 | 4,990.27 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
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<http://www.pmacorp.net>



BARGE "CCL 419-L"

2 STBD INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08"

| IN | 0 FT. | IN | 1 FT. | IN | 2 FT. | IN | 3 FT. | IN | 4 FT. | IN | 5 FT. | IN | 6 FT. | IN | 7 FT. | IN | 8 FT. | IN | 9 FT. |
|-----|--------|-----|--------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|
| 0 | 21.35 | 0 | 358.39 | 0 | 720.27 | 0 | 1,074.11 | 0 | 1,427.62 | 0 | 1,789.50 | 0 | 2,151.38 | 0 | 2,513.26 | 0 | 2,875.06 | 0 | 3,236.81 |
| 1/4 | 25.59 | 1/4 | 365.93 | 1/4 | 727.80 | 1/4 | 1,081.30 | 1/4 | 1,435.16 | 1/4 | 1,797.04 | 1/4 | 2,158.92 | 1/4 | 2,520.80 | 1/4 | 2,882.60 | 1/4 | 3,244.35 |
| 1/2 | 29.83 | 1/2 | 373.47 | 1/2 | 735.34 | 1/2 | 1,088.50 | 1/2 | 1,442.70 | 1/2 | 1,804.58 | 1/2 | 2,166.46 | 1/2 | 2,528.34 | 1/2 | 2,890.13 | 1/2 | 3,251.89 |
| 3/4 | 34.06 | 3/4 | 381.01 | 3/4 | 742.88 | 3/4 | 1,095.70 | 3/4 | 1,450.23 | 3/4 | 1,812.12 | 3/4 | 2,174.00 | 3/4 | 2,535.88 | 3/4 | 2,897.67 | 3/4 | 3,259.42 |
| 1 | 38.30 | 1 | 388.55 | 1 | 750.42 | 1 | 1,102.89 | 1 | 1,457.77 | 1 | 1,819.66 | 1 | 2,181.54 | 1 | 2,543.42 | 1 | 2,905.21 | 1 | 3,266.96 |
| 1/4 | 43.80 | 1/4 | 396.09 | 1/4 | 757.96 | 1/4 | 1,110.09 | 1/4 | 1,465.31 | 1/4 | 1,827.19 | 1/4 | 2,189.08 | 1/4 | 2,550.96 | 1/4 | 2,912.74 | 1/4 | 3,274.49 |
| 1/2 | 49.30 | 1/2 | 403.63 | 1/2 | 765.50 | 1/2 | 1,117.28 | 1/2 | 1,472.85 | 1/2 | 1,834.73 | 1/2 | 2,196.62 | 1/2 | 2,558.50 | 1/2 | 2,920.28 | 1/2 | 3,282.03 |
| 3/4 | 54.79 | 3/4 | 411.17 | 3/4 | 773.04 | 3/4 | 1,124.48 | 3/4 | 1,480.39 | 3/4 | 1,842.27 | 3/4 | 2,204.15 | 3/4 | 2,566.04 | 3/4 | 2,927.82 | 3/4 | 3,289.57 |
| 2 | 60.29 | 2 | 418.71 | 2 | 780.58 | 2 | 1,131.67 | 2 | 1,487.93 | 2 | 1,849.81 | 2 | 2,211.69 | 2 | 2,573.58 | 2 | 2,935.35 | 2 | 3,297.10 |
| 1/4 | 67.04 | 1/4 | 426.24 | 1/4 | 788.12 | 1/4 | 1,138.87 | 1/4 | 1,495.47 | 1/4 | 1,857.35 | 1/4 | 2,219.23 | 1/4 | 2,581.11 | 1/4 | 2,942.89 | 1/4 | 3,304.64 |
| 1/2 | 73.80 | 1/2 | 433.78 | 1/2 | 795.66 | 1/2 | 1,146.06 | 1/2 | 1,503.01 | 1/2 | 1,864.89 | 1/2 | 2,226.77 | 1/2 | 2,588.65 | 1/2 | 2,950.43 | 1/2 | 3,312.18 |
| 3/4 | 80.55 | 3/4 | 441.32 | 3/4 | 803.19 | 3/4 | 1,153.26 | 3/4 | 1,510.55 | 3/4 | 1,872.43 | 3/4 | 2,234.31 | 3/4 | 2,596.19 | 3/4 | 2,957.96 | 3/4 | 3,319.71 |
| 3 | 87.30 | 3 | 448.86 | 3 | 810.73 | 3 | 1,160.46 | 3 | 1,518.09 | 3 | 1,879.97 | 3 | 2,241.85 | 3 | 2,603.73 | 3 | 2,965.50 | 3 | 3,327.25 |
| 1/4 | 94.76 | 1/4 | 456.40 | 1/4 | 818.27 | 1/4 | 1,167.65 | 1/4 | 1,525.63 | 1/4 | 1,887.51 | 1/4 | 2,249.39 | 1/4 | 2,611.27 | 1/4 | 2,973.03 | 1/4 | 3,334.79 |
| 1/2 | 102.22 | 1/2 | 463.94 | 1/2 | 825.81 | 1/2 | 1,174.85 | 1/2 | 1,533.17 | 1/2 | 1,895.05 | 1/2 | 2,256.93 | 1/2 | 2,618.81 | 1/2 | 2,980.57 | 1/2 | 3,342.32 |
| 3/4 | 109.68 | 3/4 | 471.48 | 3/4 | 833.35 | 3/4 | 1,182.04 | 3/4 | 1,540.70 | 3/4 | 1,902.59 | 3/4 | 2,264.47 | 3/4 | 2,626.35 | 3/4 | 2,988.11 | 3/4 | 3,349.86 |
| 4 | 117.15 | 4 | 479.02 | 4 | 840.89 | 4 | 1,189.24 | 4 | 1,548.24 | 4 | 1,910.13 | 4 | 2,272.01 | 4 | 2,633.89 | 4 | 2,995.64 | 4 | 3,357.40 |
| 1/4 | 124.68 | 1/4 | 486.56 | 1/4 | 848.43 | 1/4 | 1,196.43 | 1/4 | 1,555.78 | 1/4 | 1,917.66 | 1/4 | 2,279.55 | 1/4 | 2,641.43 | 1/4 | 3,003.18 | 1/4 | 3,364.93 |
| 1/2 | 132.22 | 1/2 | 494.10 | 1/2 | 855.97 | 1/2 | 1,203.63 | 1/2 | 1,563.32 | 1/2 | 1,925.20 | 1/2 | 2,287.09 | 1/2 | 2,648.97 | 1/2 | 3,010.72 | 1/2 | 3,372.47 |
| 3/4 | 139.76 | 3/4 | 501.63 | 3/4 | 863.51 | 3/4 | 1,210.82 | 3/4 | 1,570.86 | 3/4 | 1,932.74 | 3/4 | 2,294.62 | 3/4 | 2,656.50 | 3/4 | 3,018.25 | 3/4 | 3,380.01 |
| 5 | 147.30 | 5 | 509.17 | 5 | 871.05 | 5 | 1,218.02 | 5 | 1,578.40 | 5 | 1,940.28 | 5 | 2,302.16 | 5 | 2,664.04 | 5 | 3,025.79 | 5 | 3,387.54 |
| 1/4 | 154.84 | 1/4 | 516.71 | 1/4 | 878.58 | 1/4 | 1,225.22 | 1/4 | 1,585.94 | 1/4 | 1,947.82 | 1/4 | 2,309.70 | 1/4 | 2,671.57 | 1/4 | 3,033.33 | 1/4 | 3,395.08 |
| 1/2 | 162.38 | 1/2 | 524.25 | 1/2 | 886.12 | 1/2 | 1,232.43 | 1/2 | 1,593.48 | 1/2 | 1,955.36 | 1/2 | 2,317.24 | 1/2 | 2,679.11 | 1/2 | 3,040.86 | 1/2 | 3,402.62 |
| 3/4 | 169.92 | 3/4 | 531.79 | 3/4 | 893.66 | 3/4 | 1,239.64 | 3/4 | 1,601.02 | 3/4 | 1,962.90 | 3/4 | 2,324.78 | 3/4 | 2,686.65 | 3/4 | 3,048.40 | 3/4 | 3,410.15 |
| 6 | 177.46 | 6 | 539.33 | 6 | 901.20 | 6 | 1,246.84 | 6 | 1,608.56 | 6 | 1,970.44 | 6 | 2,332.32 | 6 | 2,694.18 | 6 | 3,055.94 | 6 | 3,417.69 |
| 1/4 | 185.00 | 1/4 | 546.87 | 1/4 | 908.45 | 1/4 | 1,254.34 | 1/4 | 1,616.10 | 1/4 | 1,977.98 | 1/4 | 2,339.86 | 1/4 | 2,701.72 | 1/4 | 3,063.47 | 1/4 | 3,425.22 |
| 1/2 | 192.54 | 1/2 | 554.41 | 1/2 | 915.70 | 1/2 | 1,261.84 | 1/2 | 1,623.64 | 1/2 | 1,985.52 | 1/2 | 2,347.40 | 1/2 | 2,709.26 | 1/2 | 3,071.01 | 1/2 | 3,432.76 |
| 3/4 | 200.07 | 3/4 | 561.95 | 3/4 | 922.95 | 3/4 | 1,269.33 | 3/4 | 1,631.18 | 3/4 | 1,993.06 | 3/4 | 2,354.94 | 3/4 | 2,716.79 | 3/4 | 3,078.55 | 3/4 | 3,440.30 |
| 7 | 207.61 | 7 | 569.49 | 7 | 930.19 | 7 | 1,276.83 | 7 | 1,638.71 | 7 | 2,000.60 | 7 | 2,362.48 | 7 | 2,724.33 | 7 | 3,086.08 | 7 | 3,447.83 |
| 1/4 | 215.15 | 1/4 | 577.02 | 1/4 | 937.39 | 1/4 | 1,284.37 | 1/4 | 1,646.25 | 1/4 | 2,008.14 | 1/4 | 2,370.02 | 1/4 | 2,731.87 | 1/4 | 3,093.62 | 1/4 | 3,455.37 |
| 1/2 | 222.69 | 1/2 | 584.56 | 1/2 | 944.59 | 1/2 | 1,291.91 | 1/2 | 1,653.79 | 1/2 | 2,015.67 | 1/2 | 2,377.56 | 1/2 | 2,739.40 | 1/2 | 3,101.16 | 1/2 | 3,462.91 |
| 3/4 | 230.23 | 3/4 | 592.10 | 3/4 | 951.78 | 3/4 | 1,299.45 | 3/4 | 1,661.33 | 3/4 | 2,023.21 | 3/4 | 2,385.10 | 3/4 | 2,746.94 | 3/4 | 3,108.69 | 3/4 | 3,470.44 |
| 8 | 237.77 | 8 | 599.64 | 8 | 958.98 | 8 | 1,306.99 | 8 | 1,668.87 | 8 | 2,030.75 | 8 | 2,392.63 | 8 | 2,754.48 | 8 | 3,116.23 | 8 | 3,477.98 |
| 1/4 | 245.31 | 1/4 | 607.18 | 1/4 | 966.18 | 1/4 | 1,314.53 | 1/4 | 1,676.41 | 1/4 | 2,038.29 | 1/4 | 2,400.17 | 1/4 | 2,762.01 | 1/4 | 3,123.76 | 1/4 | 3,485.52 |
| 1/2 | 252.85 | 1/2 | 614.72 | 1/2 | 973.37 | 1/2 | 1,322.07 | 1/2 | 1,683.95 | 1/2 | 2,045.83 | 1/2 | 2,407.71 | 1/2 | 2,769.55 | 1/2 | 3,131.30 | 1/2 | 3,493.05 |
| 3/4 | 260.39 | 3/4 | 622.26 | 3/4 | 980.57 | 3/4 | 1,329.61 | 3/4 | 1,691.49 | 3/4 | 2,053.37 | 3/4 | 2,415.25 | 3/4 | 2,777.09 | 3/4 | 3,138.84 | 3/4 | 3,500.59 |
| 9 | 267.93 | 9 | 629.80 | 9 | 987.76 | 9 | 1,337.15 | 9 | 1,699.03 | 9 | 2,060.91 | 9 | 2,422.79 | 9 | 2,784.62 | 9 | 3,146.37 | 9 | 3,508.13 |
| 1/4 | 275.46 | 1/4 | 637.34 | 1/4 | 994.96 | 1/4 | 1,344.69 | 1/4 | 1,706.57 | 1/4 | 2,068.45 | 1/4 | 2,430.33 | 1/4 | 2,792.16 | 1/4 | 3,153.91 | 1/4 | 3,515.66 |
| 1/2 | 283.00 | 1/2 | 644.88 | 1/2 | 1,002.15 | 1/2 | 1,352.22 | 1/2 | 1,714.11 | 1/2 | 2,075.99 | 1/2 | 2,437.87 | 1/2 | 2,799.70 | 1/2 | 3,161.45 | 1/2 | 3,523.20 |
| 3/4 | 290.54 | 3/4 | 652.41 | 3/4 | 1,009.35 | 3/4 | 1,359.76 | 3/4 | 1,721.65 | 3/4 | 2,083.53 | 3/4 | 2,445.41 | 3/4 | 2,807.23 | 3/4 | 3,168.98 | 3/4 | 3,530.74 |
| 10 | 298.08 | 10 | 659.95 | 10 | 1,016.55 | 10 | 1,367.30 | 10 | 1,729.18 | 10 | 2,091.07 | 10 | 2,452.95 | 10 | 2,814.77 | 10 | 3,176.52 | 10 | 3,538.27 |
| 1/4 | 305.62 | 1/4 | 667.49 | 1/4 | 1,023.74 | 1/4 | 1,374.84 | 1/4 | 1,736.72 | 1/4 | 2,098.61 | 1/4 | 2,460.49 | 1/4 | 2,822.30 | 1/4 | 3,184.06 | 1/4 | 3,545.81 |
| 1/2 | 313.16 | 1/2 | 675.03 | 1/2 | 1,030.94 | 1/2 | 1,382.38 | 1/2 | 1,744.26 | 1/2 | 2,106.14 | 1/2 | 2,468.03 | 1/2 | 2,829.84 | 1/2 | 3,191.59 | 1/2 | 3,553.35 |
| 3/4 | 320.70 | 3/4 | 682.57 | 3/4 | 1,038.13 | 3/4 | 1,389.92 | 3/4 | 1,751.80 | 3/4 | 2,113.68 | 3/4 | 2,475.57 | 3/4 | 2,837.38 | 3/4 | 3,199.13 | 3/4 | 3,560.88 |
| 11 | 328.24 | 11 | 690.11 | 11 | 1,045.33 | 11 | 1,397.46 | 11 | 1,759.34 | 11 | 2,121.22 | 11 | 2,483.10 | 11 | 2,844.91 | 11 | 3,206.67 | 11 | 3,568.42 |
| 1/4 | 335.78 | 1/4 | 697.65 | 1/4 | 1,052.52 | 1/4 | 1,405.00 | 1/4 | 1,766.88 | 1/4 | 2,128.76 | 1/4 | 2,490.64 | 1/4 | 2,852.45 | 1/4 | 3,214.20 | 1/4 | 3,575.95 |
| 1/2 | 343.32 | 1/2 | 705.19 | 1/2 | 1,059.72 | 1/2 | 1,412.54 | 1/2 | 1,774.42 | 1/2 | 2,136.30 | 1/2 | 2,498.18 | 1/2 | 2,859.99 | 1/2 | 3,221.74 | 1/2 | 3,583.49 |
| 3/4 | 350.85 | 3/4 | 712.73 | 3/4 | 1,066.91 | 3/4 | 1,420.08 | 3/4 | 1,781.96 | 3/4 | 2,143.84 | 3/4 | 2,505.72 | 3/4 | 2,867.52 | 3/4 | 3,229.28 | 3/4 | 3,591.03 |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO INNAGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 43'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

2 STBD INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08"

| IN | 10 FT. | IN | 11 FT. | IN | 12 FT. | IN | 13 FT. | IN | 14 FT. | IN | 15 FT. | IN | 16 FT. | IN | 17 FT. | IN | 18 FT. | IN | 19 FT. |
|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| 0 | 3,598.56 | 0 | 3,960.27 | 0 | 4,314.44 | 0 | 4,655.36 | 0 | 4,981.54 | 0 | | 0 | | 0 | | 0 | | 0 | |
| 1/4 | 3,606.10 | 1/4 | 3,967.78 | 1/4 | 4,321.67 | 1/4 | 4,662.31 | 1/4 | 4,988.12 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,613.64 | 1/2 | 3,975.28 | 1/2 | 4,328.90 | 1/2 | 4,669.26 | 1/2 | 4,994.70 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,621.17 | 3/4 | 3,982.79 | 3/4 | 4,336.13 | 3/4 | 4,676.22 | 3/4 | 5,001.27 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 1 | 3,628.71 | 1 | 3,990.29 | 1 | 4,343.35 | 1 | 4,683.17 | 1 | 5,007.85 | 1 | | 1 | | 1 | | 1 | | 1 | |
| 1 1/4 | 3,636.25 | 1 1/4 | 3,997.78 | 1 1/4 | 4,350.56 | 1 1/4 | 4,690.07 | 1 1/4 | 5,014.41 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 3,643.78 | 1 1/2 | 4,005.26 | 1 1/2 | 4,357.77 | 1 1/2 | 4,696.98 | 1 1/2 | 5,020.96 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 3,651.32 | 3/4 | 4,012.74 | 3/4 | 4,364.97 | 3/4 | 4,703.88 | 3/4 | 5,027.52 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 2 | 3,658.86 | 2 | 4,020.22 | 2 | 4,372.18 | 2 | 4,710.79 | 2 | 5,034.08 | 2 | | 2 | | 2 | | 2 | | 2 | |
| 1 1/4 | 3,666.39 | 1 1/4 | 4,027.68 | 1 1/4 | 4,379.36 | 1 1/4 | 4,717.66 | 1 1/4 | 5,040.61 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 3,673.93 | 1 1/2 | 4,035.14 | 1 1/2 | 4,386.54 | 1 1/2 | 4,724.54 | 1 1/2 | 5,047.14 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 3,681.47 | 3/4 | 4,042.60 | 3/4 | 4,393.73 | 3/4 | 4,731.42 | 3/4 | 5,053.67 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 3 | 3,689.00 | 3 | 4,050.06 | 3 | 4,400.91 | 3 | 4,738.30 | 3 | 5,060.21 | 3 | | 3 | | 3 | | 3 | | 3 | |
| 1 1/4 | 3,696.54 | 1 1/4 | 4,057.49 | 1 1/4 | 4,408.07 | 1 1/4 | 4,745.15 | 1 1/4 | 5,066.72 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 3,704.08 | 1 1/2 | 4,064.93 | 1 1/2 | 4,415.23 | 1 1/2 | 4,752.01 | 1 1/2 | 5,073.23 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 3,711.61 | 3/4 | 4,072.37 | 3/4 | 4,422.39 | 3/4 | 4,758.86 | 3/4 | 5,079.74 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 4 | 3,719.15 | 4 | 4,079.80 | 4 | 4,429.55 | 4 | 4,765.72 | 4 | 5,086.24 | 4 | | 4 | | 4 | | 4 | | 4 | |
| 1 1/4 | 3,726.68 | 1 1/4 | 4,087.21 | 1 1/4 | 4,436.69 | 1 1/4 | 4,772.55 | 1 1/4 | 5,092.73 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 3,734.22 | 1 1/2 | 4,094.63 | 1 1/2 | 4,443.82 | 1 1/2 | 4,779.38 | 1 1/2 | 5,099.22 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 3,741.76 | 3/4 | 4,102.04 | 3/4 | 4,450.96 | 3/4 | 4,786.21 | 3/4 | 5,105.70 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 5 | 3,749.29 | 5 | 4,109.45 | 5 | 4,458.10 | 5 | 4,793.04 | 5 | 5,112.19 | 5 | | 5 | | 5 | | 5 | | 5 | |
| 1 1/4 | 3,756.83 | 1 1/4 | 4,116.84 | 1 1/4 | 4,465.21 | 1 1/4 | 4,799.85 | 1 1/4 | 5,119.37 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 3,764.37 | 1 1/2 | 4,124.23 | 1 1/2 | 4,472.32 | 1 1/2 | 4,806.66 | 1 1/2 | 5,126.56 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 3,771.90 | 3/4 | 4,131.62 | 3/4 | 4,479.44 | 3/4 | 4,813.47 | 3/4 | 5,133.74 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 6 | 3,779.44 | 6 | 4,139.01 | 6 | 4,486.55 | 6 | 4,820.28 | 6 | 5,140.92 | 6 | | 6 | | 6 | | 6 | | 6 | |
| 1 1/4 | 3,786.98 | 1 1/4 | 4,146.38 | 1 1/4 | 4,493.64 | 1 1/4 | 4,827.07 | 1 1/4 | 5,147.24 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 3,794.51 | 1 1/2 | 4,153.75 | 1 1/2 | 4,500.73 | 1 1/2 | 4,833.85 | 1 1/2 | 5,153.56 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 3,802.05 | 3/4 | 4,161.11 | 3/4 | 4,507.83 | 3/4 | 4,840.64 | 3/4 | 5,159.88 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 7 | 3,809.59 | 7 | 4,168.48 | 7 | 4,514.92 | 7 | 4,847.42 | 7 | 5,166.20 | 7 | | 7 | | 7 | | 7 | | 7 | |
| 1 1/4 | 3,817.12 | 1 1/4 | 4,175.82 | 1 1/4 | 4,521.98 | 1 1/4 | 4,854.19 | 1 1/4 | 5,171.30 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 3,824.66 | 1 1/2 | 4,183.17 | 1 1/2 | 4,529.05 | 1 1/2 | 4,860.95 | 1 1/2 | 5,176.41 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 3,832.20 | 3/4 | 4,190.51 | 3/4 | 4,536.12 | 3/4 | 4,867.71 | 3/4 | 5,181.52 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 8 | 3,839.73 | 8 | 4,197.86 | 8 | 4,543.19 | 8 | 4,874.47 | 8 | 5,186.62 | 8 | | 8 | | 8 | | 8 | | 8 | |
| 1 1/4 | 3,847.27 | 1 1/4 | 4,205.18 | 1 1/4 | 4,550.23 | 1 1/4 | 4,881.21 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 3,854.81 | 1 1/2 | 4,212.50 | 1 1/2 | 4,557.28 | 1 1/2 | 4,887.95 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 3,862.34 | 3/4 | 4,219.82 | 3/4 | 4,564.32 | 3/4 | 4,894.69 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 9 | 3,869.88 | 9 | 4,227.14 | 9 | 4,571.37 | 9 | 4,901.43 | 9 | | 9 | | 9 | | 9 | | 9 | | 9 | |
| 1 1/4 | 3,877.41 | 1 1/4 | 4,234.44 | 1 1/4 | 4,578.39 | 1 1/4 | 4,908.15 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 3,884.95 | 1 1/2 | 4,241.73 | 1 1/2 | 4,585.41 | 1 1/2 | 4,914.87 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 3,892.49 | 3/4 | 4,249.03 | 3/4 | 4,592.43 | 3/4 | 4,921.59 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 10 | 3,900.02 | 10 | 4,256.33 | 10 | 4,599.46 | 10 | 4,928.31 | 10 | | 10 | | 10 | | 10 | | 10 | | 10 | |
| 1 1/4 | 3,907.56 | 1 1/4 | 4,263.61 | 1 1/4 | 4,606.46 | 1 1/4 | 4,935.01 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 3,915.10 | 1 1/2 | 4,270.88 | 1 1/2 | 4,613.45 | 1 1/2 | 4,941.70 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 3,922.63 | 3/4 | 4,278.16 | 3/4 | 4,620.45 | 3/4 | 4,948.40 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 11 | 3,930.17 | 11 | 4,285.43 | 11 | 4,627.45 | 11 | 4,955.10 | 11 | | 11 | | 11 | | 11 | | 11 | | 11 | |
| 1 1/4 | 3,937.70 | 1 1/4 | 4,292.68 | 1 1/4 | 4,634.43 | 1 1/4 | 4,961.71 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 3,945.22 | 1 1/2 | 4,299.93 | 1 1/2 | 4,641.40 | 1 1/2 | 4,968.32 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 3,952.75 | 3/4 | 4,307.19 | 3/4 | 4,648.38 | 3/4 | 4,974.93 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

PRECISION MEASUREMENT
& ANALYSIS, INC.
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Pearland, Texas 77588
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BARGE "CCL 419-L"

3 PORT INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

| IN | 0 FT. | IN | 1 FT. | IN | 2 FT. | IN | 3 FT. | IN | 4 FT. | IN | 5 FT. | IN | 6 FT. | IN | 7 FT. | IN | 8 FT. | IN | 9 FT. |
|-------|--------|-------|--------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|
| 0 | 21.24 | 0 | 356.61 | 0 | 716.67 | 0 | 1,076.54 | 0 | 1,436.45 | 0 | 1,796.52 | 0 | 2,156.58 | 0 | 2,516.58 | 0 | 2,876.38 | 0 | 3,235.30 |
| 1/4 | 25.46 | 1/4 | 364.11 | 1/4 | 724.17 | 1/4 | 1,084.03 | 1/4 | 1,443.95 | 1/4 | 1,804.03 | 1/4 | 2,164.08 | 1/4 | 2,524.08 | 1/4 | 2,883.87 | 1/4 | 3,242.75 |
| 1/2 | 29.68 | 1/2 | 371.61 | 1/2 | 731.67 | 1/2 | 1,091.52 | 1/2 | 1,451.45 | 1/2 | 1,811.53 | 1/2 | 2,171.58 | 1/2 | 2,531.58 | 1/2 | 2,891.35 | 1/2 | 3,250.20 |
| 3/4 | 33.90 | 3/4 | 379.11 | 3/4 | 739.17 | 3/4 | 1,099.01 | 3/4 | 1,458.95 | 3/4 | 1,819.03 | 3/4 | 2,179.08 | 3/4 | 2,539.08 | 3/4 | 2,898.84 | 3/4 | 3,257.66 |
| 1 | 38.12 | 1 | 386.61 | 1 | 746.67 | 1 | 1,106.51 | 1 | 1,466.45 | 1 | 1,826.53 | 1 | 2,186.58 | 1 | 2,546.58 | 1 | 2,906.32 | 1 | 3,265.11 |
| 1 1/4 | 43.59 | 1 1/4 | 394.11 | 1 1/4 | 754.18 | 1 1/4 | 1,114.00 | 1 1/4 | 1,473.96 | 1 1/4 | 1,834.03 | 1 1/4 | 2,194.08 | 1 1/4 | 2,554.08 | 1 1/4 | 2,913.81 | 1 1/4 | 3,272.56 |
| 1 1/2 | 49.05 | 1 1/2 | 401.61 | 1 1/2 | 761.68 | 1 1/2 | 1,121.49 | 1 1/2 | 1,481.46 | 1 1/2 | 1,841.53 | 1 1/2 | 2,201.58 | 1 1/2 | 2,561.58 | 1 1/2 | 2,921.29 | 1 1/2 | 3,280.01 |
| 3/4 | 54.52 | 3/4 | 409.12 | 3/4 | 769.18 | 3/4 | 1,128.98 | 3/4 | 1,488.96 | 3/4 | 1,849.04 | 3/4 | 2,209.08 | 3/4 | 2,569.08 | 3/4 | 2,928.78 | 3/4 | 3,287.46 |
| 2 | 59.99 | 2 | 416.62 | 2 | 776.68 | 2 | 1,136.47 | 2 | 1,496.46 | 2 | 1,856.54 | 2 | 2,216.58 | 2 | 2,576.58 | 2 | 2,936.27 | 2 | 3,294.91 |
| 1 1/4 | 66.71 | 1 1/4 | 424.12 | 1 1/4 | 784.18 | 1 1/4 | 1,143.97 | 1 1/4 | 1,503.96 | 1 1/4 | 1,864.04 | 1 1/4 | 2,224.08 | 1 1/4 | 2,584.08 | 1 1/4 | 2,943.75 | 1 1/4 | 3,302.37 |
| 1 1/2 | 73.43 | 1 1/2 | 431.62 | 1 1/2 | 791.68 | 1 1/2 | 1,151.46 | 1 1/2 | 1,511.46 | 1 1/2 | 1,871.54 | 1 1/2 | 2,231.58 | 1 1/2 | 2,591.58 | 1 1/2 | 2,951.24 | 1 1/2 | 3,309.82 |
| 3/4 | 80.15 | 3/4 | 439.12 | 3/4 | 799.18 | 3/4 | 1,158.95 | 3/4 | 1,518.96 | 3/4 | 1,879.04 | 3/4 | 2,239.08 | 3/4 | 2,599.08 | 3/4 | 2,958.72 | 3/4 | 3,317.27 |
| 3 | 86.87 | 3 | 446.62 | 3 | 806.68 | 3 | 1,166.44 | 3 | 1,526.47 | 3 | 1,886.54 | 3 | 2,246.58 | 3 | 2,606.58 | 3 | 2,966.21 | 3 | 3,324.72 |
| 1 1/4 | 94.30 | 1 1/4 | 454.12 | 1 1/4 | 814.19 | 1 1/4 | 1,173.94 | 1 1/4 | 1,533.97 | 1 1/4 | 1,894.04 | 1 1/4 | 2,254.08 | 1 1/4 | 2,614.07 | 1 1/4 | 2,973.69 | 1 1/4 | 3,332.18 |
| 1 1/2 | 101.72 | 1 1/2 | 461.62 | 1 1/2 | 821.69 | 1 1/2 | 1,181.43 | 1 1/2 | 1,541.47 | 1 1/2 | 1,901.55 | 1 1/2 | 2,261.58 | 1 1/2 | 2,621.57 | 1 1/2 | 2,981.18 | 1 1/2 | 3,339.65 |
| 3/4 | 109.14 | 3/4 | 469.13 | 3/4 | 829.19 | 3/4 | 1,188.92 | 3/4 | 1,548.97 | 3/4 | 1,909.05 | 3/4 | 2,269.08 | 3/4 | 2,629.07 | 3/4 | 2,988.67 | 3/4 | 3,347.12 |
| 4 | 116.56 | 4 | 476.63 | 4 | 836.69 | 4 | 1,196.41 | 4 | 1,556.47 | 4 | 1,916.55 | 4 | 2,276.58 | 4 | 2,636.57 | 4 | 2,996.15 | 4 | 3,354.58 |
| 1 1/4 | 124.07 | 1 1/4 | 484.13 | 1 1/4 | 844.19 | 1 1/4 | 1,203.91 | 1 1/4 | 1,563.97 | 1 1/4 | 1,924.05 | 1 1/4 | 2,284.08 | 1 1/4 | 2,644.07 | 1 1/4 | 3,003.64 | 1 1/4 | 3,362.05 |
| 1 1/2 | 131.57 | 1 1/2 | 491.63 | 1 1/2 | 851.69 | 1 1/2 | 1,211.41 | 1 1/2 | 1,571.48 | 1 1/2 | 1,931.55 | 1 1/2 | 2,291.58 | 1 1/2 | 2,651.57 | 1 1/2 | 3,011.12 | 1 1/2 | 3,369.51 |
| 3/4 | 139.07 | 3/4 | 499.13 | 3/4 | 859.19 | 3/4 | 1,218.91 | 3/4 | 1,578.98 | 3/4 | 1,939.05 | 3/4 | 2,299.08 | 3/4 | 2,659.06 | 3/4 | 3,018.61 | 3/4 | 3,376.98 |
| 5 | 146.57 | 5 | 506.63 | 5 | 866.69 | 5 | 1,226.40 | 5 | 1,586.48 | 5 | 1,946.56 | 5 | 2,306.58 | 5 | 2,666.56 | 5 | 3,026.09 | 5 | 3,384.45 |
| 1 1/4 | 154.07 | 1 1/4 | 514.13 | 1 1/4 | 874.20 | 1 1/4 | 1,233.91 | 1 1/4 | 1,593.98 | 1 1/4 | 1,954.06 | 1 1/4 | 2,314.08 | 1 1/4 | 2,674.06 | 1 1/4 | 3,033.58 | 1 1/4 | 3,391.92 |
| 1 1/2 | 161.57 | 1 1/2 | 521.64 | 1 1/2 | 881.70 | 1 1/2 | 1,241.41 | 1 1/2 | 1,601.48 | 1 1/2 | 1,961.56 | 1 1/2 | 2,321.58 | 1 1/2 | 2,681.56 | 1 1/2 | 3,041.07 | 1 1/2 | 3,399.38 |
| 3/4 | 169.07 | 3/4 | 529.14 | 3/4 | 889.20 | 3/4 | 1,248.91 | 3/4 | 1,608.98 | 3/4 | 1,969.06 | 3/4 | 2,329.08 | 3/4 | 2,689.06 | 3/4 | 3,048.55 | 3/4 | 3,406.85 |
| 6 | 176.58 | 6 | 536.64 | 6 | 896.70 | 6 | 1,256.41 | 6 | 1,616.49 | 6 | 1,976.56 | 6 | 2,336.58 | 6 | 2,696.56 | 6 | 3,056.04 | 6 | 3,414.32 |
| 1 1/4 | 184.08 | 1 1/4 | 544.14 | 1 1/4 | 904.20 | 1 1/4 | 1,263.91 | 1 1/4 | 1,623.99 | 1 1/4 | 1,984.06 | 1 1/4 | 2,344.08 | 1 1/4 | 2,704.05 | 1 1/4 | 3,063.52 | 1 1/4 | 3,421.78 |
| 1 1/2 | 191.58 | 1 1/2 | 551.64 | 1 1/2 | 911.70 | 1 1/2 | 1,271.41 | 1 1/2 | 1,631.49 | 1 1/2 | 1,991.57 | 1 1/2 | 2,351.58 | 1 1/2 | 2,711.55 | 1 1/2 | 3,071.01 | 1 1/2 | 3,429.25 |
| 3/4 | 199.08 | 3/4 | 559.14 | 3/4 | 919.19 | 3/4 | 1,278.91 | 3/4 | 1,638.99 | 3/4 | 1,999.07 | 3/4 | 2,359.08 | 3/4 | 2,719.05 | 3/4 | 3,078.49 | 3/4 | 3,436.72 |
| 7 | 206.58 | 7 | 566.64 | 7 | 926.69 | 7 | 1,286.42 | 7 | 1,646.49 | 7 | 2,006.57 | 7 | 2,366.58 | 7 | 2,726.55 | 7 | 3,085.98 | 7 | 3,444.18 |
| 1 1/4 | 214.08 | 1 1/4 | 574.14 | 1 1/4 | 934.18 | 1 1/4 | 1,293.92 | 1 1/4 | 1,653.99 | 1 1/4 | 2,014.07 | 1 1/4 | 2,374.08 | 1 1/4 | 2,734.05 | 1 1/4 | 3,093.47 | 1 1/4 | 3,451.65 |
| 1 1/2 | 221.58 | 1 1/2 | 581.65 | 1 1/2 | 941.68 | 1 1/2 | 1,301.42 | 1 1/2 | 1,661.50 | 1 1/2 | 2,021.57 | 1 1/2 | 2,381.58 | 1 1/2 | 2,741.55 | 1 1/2 | 3,100.95 | 1 1/2 | 3,459.12 |
| 3/4 | 229.08 | 3/4 | 589.15 | 3/4 | 949.17 | 3/4 | 1,308.92 | 3/4 | 1,669.00 | 3/4 | 2,029.07 | 3/4 | 2,389.08 | 3/4 | 2,749.04 | 3/4 | 3,108.44 | 3/4 | 3,466.59 |
| 8 | 236.59 | 8 | 596.65 | 8 | 956.66 | 8 | 1,316.42 | 8 | 1,676.50 | 8 | 2,036.58 | 8 | 2,396.58 | 8 | 2,756.54 | 8 | 3,115.92 | 8 | 3,474.05 |
| 1 1/4 | 244.09 | 1 1/4 | 604.15 | 1 1/4 | 964.15 | 1 1/4 | 1,323.92 | 1 1/4 | 1,684.00 | 1 1/4 | 2,044.08 | 1 1/4 | 2,404.08 | 1 1/4 | 2,764.04 | 1 1/4 | 3,123.41 | 1 1/4 | 3,481.52 |
| 1 1/2 | 251.59 | 1 1/2 | 611.65 | 1 1/2 | 971.65 | 1 1/2 | 1,331.42 | 1 1/2 | 1,691.50 | 1 1/2 | 2,051.58 | 1 1/2 | 2,411.58 | 1 1/2 | 2,771.54 | 1 1/2 | 3,130.89 | 1 1/2 | 3,488.99 |
| 3/4 | 259.09 | 3/4 | 619.15 | 3/4 | 979.14 | 3/4 | 1,338.93 | 3/4 | 1,699.00 | 3/4 | 2,059.08 | 3/4 | 2,419.08 | 3/4 | 2,779.04 | 3/4 | 3,138.38 | 3/4 | 3,496.45 |
| 9 | 266.59 | 9 | 626.65 | 9 | 986.63 | 9 | 1,346.43 | 9 | 1,706.50 | 9 | 2,066.58 | 9 | 2,426.58 | 9 | 2,786.54 | 9 | 3,145.87 | 9 | 3,503.92 |
| 1 1/4 | 274.09 | 1 1/4 | 634.15 | 1 1/4 | 994.12 | 1 1/4 | 1,353.93 | 1 1/4 | 1,714.01 | 1 1/4 | 2,074.08 | 1 1/4 | 2,434.08 | 1 1/4 | 2,794.03 | 1 1/4 | 3,153.32 | 1 1/4 | 3,508.39 |
| 1 1/2 | 281.59 | 1 1/2 | 641.66 | 1 1/2 | 1,001.61 | 1 1/2 | 1,361.43 | 1 1/2 | 1,721.51 | 1 1/2 | 2,081.58 | 1 1/2 | 2,441.58 | 1 1/2 | 2,801.52 | 1 1/2 | 3,160.78 | 1 1/2 | 3,512.85 |
| 3/4 | 289.09 | 3/4 | 649.16 | 3/4 | 1,009.11 | 3/4 | 1,368.93 | 3/4 | 1,729.01 | 3/4 | 2,089.08 | 3/4 | 2,449.08 | 3/4 | 2,809.01 | 3/4 | 3,168.23 | 3/4 | 3,517.32 |
| 10 | 296.60 | 10 | 656.66 | 10 | 1,016.60 | 10 | 1,376.43 | 10 | 1,736.51 | 10 | 2,096.58 | 10 | 2,456.58 | 10 | 2,816.49 | 10 | 3,175.69 | 10 | 3,521.78 |
| 1 1/4 | 304.10 | 1 1/4 | 664.16 | 1 1/4 | 1,024.09 | 1 1/4 | 1,383.94 | 1 1/4 | 1,744.01 | 1 1/4 | 2,104.08 | 1 1/4 | 2,464.08 | 1 1/4 | 2,823.98 | 1 1/4 | 3,183.14 | 1 1/4 | 3,525.82 |
| 1 1/2 | 311.60 | 1 1/2 | 671.66 | 1 1/2 | 1,031.58 | 1 1/2 | 1,391.44 | 1 1/2 | 1,751.51 | 1 1/2 | 2,111.58 | 1 1/2 | 2,471.58 | 1 1/2 | 2,831.47 | 1 1/2 | 3,190.59 | 1 1/2 | 3,529.86 |
| 3/4 | 319.10 | 3/4 | 679.16 | 3/4 | 1,039.08 | 3/4 | 1,398.94 | 3/4 | 1,759.02 | 3/4 | 2,119.08 | 3/4 | 2,479.08 | 3/4 | 2,838.95 | 3/4 | 3,198.04 | 3/4 | 3,533.89 |
| 11 | 326.60 | 11 | 686.66 | 11 | 1,046.57 | 11 | 1,406.44 | 11 | 1,766.52 | 11 | 2,126.58 | 11 | 2,486.58 | 11 | 2,846.44 | 11 | 3,205.50 | 11 | 3,537.93 |
| 1 1/4 | 334.10 | 1 1/4 | 694.17 | 1 1/4 | 1,054.06 | 1 1/4 | 1,413.94 | 1 1/4 | 1,774.02 | 1 1/4 | 2,134.08 | 1 1/4 | 2,494.08 | 1 1/4 | 2,853.92 | 1 1/4 | 3,212.95 | 1 1/4 | 3,541.97 |
| 1 1/2 | 341.60 | 1 1/2 | 701.67 | 1 1/2 | 1,061.55 | 1 1/2 | 1,421.44 | 1 1/2 | 1,781.52 | 1 1/2 | 2,141.58 | 1 1/2 | 2,501.58 | 1 1/2 | 2,861.41 | 1 1/2 | 3,220.40 | 1 1/2 | 3,546.00 |
| 3/4 | 349.11 | 3/4 | 709.17 | 3/4 | 1,069.04 | 3/4 | 1,428.95 | 3/4 | 1,789.02 | 3/4 | 2,149.08 | 3/4 | 2,509.08 | 3/4 | 2,868.89 | 3/4 | 3,227.85 | 3/4 | 3,550.04 |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.
 CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.
 CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.
 CAPACITY TABLE ONLY APPLIES TO INNAGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.
 GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 56'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.
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BARGE "CCL 419-L"

3 PORT INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

| IN | 10 FT. | IN | 11 FT. | IN | 12 FT. | IN | 13 FT. | IN | 14 FT. | IN | 15 FT. | IN | 16 FT. | IN | 17 FT. | IN | 18 FT. | IN | 19 FT. |
|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0 | 3,554.08 | 0 | 3,747.81 | 0 | 3,937.50 | 0 | 4,120.11 | 0 | 4,294.86 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1/4 | 3,558.11 | 1/4 | 3,751.83 | 1/4 | 3,941.37 | 1/4 | 4,123.83 | 1/4 | 4,298.38 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 3,562.15 | 1/2 | 3,755.85 | 1/2 | 3,945.24 | 1/2 | 4,127.56 | 1/2 | 4,301.91 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 3,566.19 | 3/4 | 3,759.87 | 3/4 | 3,949.12 | 3/4 | 4,131.28 | 3/4 | 4,305.43 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 1 | 3,570.22 | 1 | 3,763.89 | 1 | 3,952.99 | 1 | 4,135.00 | 1 | 4,308.95 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 1/4 | 3,574.26 | 1 1/4 | 3,767.89 | 1 1/4 | 3,956.85 | 1 1/4 | 4,138.70 | 1 1/4 | 4,312.46 | 1 1/4 | 1 1/4 | 1 1/4 | 1 1/4 | 1 1/4 | 1 1/4 | 1 1/4 | 1 1/4 | 1 1/4 | 1 1/4 |
| 1 1/2 | 3,578.30 | 1 1/2 | 3,771.90 | 1 1/2 | 3,960.71 | 1 1/2 | 4,142.40 | 1 1/2 | 4,315.97 | 1 1/2 | 1 1/2 | 1 1/2 | 1 1/2 | 1 1/2 | 1 1/2 | 1 1/2 | 1 1/2 | 1 1/2 | 1 1/2 |
| 3/4 | 3,582.33 | 3/4 | 3,775.91 | 3/4 | 3,964.57 | 3/4 | 4,146.10 | 3/4 | 4,319.49 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 2 | 3,586.37 | 2 | 3,779.92 | 2 | 3,968.43 | 2 | 4,149.80 | 2 | 4,323.00 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 2 1/4 | 3,590.41 | 2 1/4 | 3,783.91 | 2 1/4 | 3,972.28 | 2 1/4 | 4,153.49 | 2 1/4 | 4,326.50 | 2 1/4 | 2 1/4 | 2 1/4 | 2 1/4 | 2 1/4 | 2 1/4 | 2 1/4 | 2 1/4 | 2 1/4 | 2 1/4 |
| 2 1/2 | 3,594.44 | 2 1/2 | 3,787.91 | 2 1/2 | 3,976.12 | 2 1/2 | 4,157.17 | 2 1/2 | 4,330.00 | 2 1/2 | 2 1/2 | 2 1/2 | 2 1/2 | 2 1/2 | 2 1/2 | 2 1/2 | 2 1/2 | 2 1/2 | 2 1/2 |
| 3/4 | 3,598.48 | 3/4 | 3,791.90 | 3/4 | 3,979.97 | 3/4 | 4,160.86 | 3/4 | 4,333.49 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 3 | 3,602.52 | 3 | 3,795.90 | 3 | 3,983.82 | 3 | 4,164.54 | 3 | 4,336.99 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 3 1/4 | 3,606.55 | 3 1/4 | 3,799.88 | 3 1/4 | 3,987.65 | 3 1/4 | 4,168.21 | 3 1/4 | 4,340.48 | 3 1/4 | 3 1/4 | 3 1/4 | 3 1/4 | 3 1/4 | 3 1/4 | 3 1/4 | 3 1/4 | 3 1/4 | 3 1/4 |
| 3 1/2 | 3,610.59 | 3 1/2 | 3,803.86 | 3 1/2 | 3,991.49 | 3 1/2 | 4,171.89 | 3 1/2 | 4,343.97 | 3 1/2 | 3 1/2 | 3 1/2 | 3 1/2 | 3 1/2 | 3 1/2 | 3 1/2 | 3 1/2 | 3 1/2 | 3 1/2 |
| 3/4 | 3,614.63 | 3/4 | 3,807.84 | 3/4 | 3,995.32 | 3/4 | 4,175.56 | 3/4 | 4,347.45 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 4 | 3,618.66 | 4 | 3,811.83 | 4 | 3,999.16 | 4 | 4,179.23 | 4 | 4,350.94 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 4 1/4 | 3,622.70 | 4 1/4 | 3,815.80 | 4 1/4 | 4,002.98 | 4 1/4 | 4,182.89 | 4 1/4 | 4,354.41 | 4 1/4 | 4 1/4 | 4 1/4 | 4 1/4 | 4 1/4 | 4 1/4 | 4 1/4 | 4 1/4 | 4 1/4 | 4 1/4 |
| 4 1/2 | 3,626.74 | 4 1/2 | 3,819.77 | 4 1/2 | 4,006.80 | 4 1/2 | 4,186.55 | 4 1/2 | 4,357.89 | 4 1/2 | 4 1/2 | 4 1/2 | 4 1/2 | 4 1/2 | 4 1/2 | 4 1/2 | 4 1/2 | 4 1/2 | 4 1/2 |
| 3/4 | 3,630.77 | 3/4 | 3,823.74 | 3/4 | 4,010.63 | 3/4 | 4,190.21 | 3/4 | 4,361.36 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 5 | 3,634.81 | 5 | 3,827.71 | 5 | 4,014.45 | 5 | 4,193.88 | 5 | 4,364.84 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 5 1/4 | 3,638.85 | 5 1/4 | 3,831.67 | 5 1/4 | 4,018.26 | 5 1/4 | 4,197.52 | 5 1/4 | 4,368.62 | 5 1/4 | 5 1/4 | 5 1/4 | 5 1/4 | 5 1/4 | 5 1/4 | 5 1/4 | 5 1/4 | 5 1/4 | 5 1/4 |
| 5 1/2 | 3,642.88 | 5 1/2 | 3,835.62 | 5 1/2 | 4,022.07 | 5 1/2 | 4,201.17 | 5 1/2 | 4,372.41 | 5 1/2 | 5 1/2 | 5 1/2 | 5 1/2 | 5 1/2 | 5 1/2 | 5 1/2 | 5 1/2 | 5 1/2 | 5 1/2 |
| 3/4 | 3,646.92 | 3/4 | 3,839.58 | 3/4 | 4,025.88 | 3/4 | 4,204.82 | 3/4 | 4,376.19 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 6 | 3,650.95 | 6 | 3,843.54 | 6 | 4,029.69 | 6 | 4,208.47 | 6 | 4,379.98 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 6 1/4 | 3,654.99 | 6 1/4 | 3,847.49 | 6 1/4 | 4,033.49 | 6 1/4 | 4,212.10 | 6 1/4 | 4,382.85 | 6 1/4 | 6 1/4 | 6 1/4 | 6 1/4 | 6 1/4 | 6 1/4 | 6 1/4 | 6 1/4 | 6 1/4 | 6 1/4 |
| 6 1/2 | 3,659.03 | 6 1/2 | 3,851.43 | 6 1/2 | 4,037.29 | 6 1/2 | 4,215.74 | 6 1/2 | 4,385.72 | 6 1/2 | 6 1/2 | 6 1/2 | 6 1/2 | 6 1/2 | 6 1/2 | 6 1/2 | 6 1/2 | 6 1/2 | 6 1/2 |
| 3/4 | 3,663.06 | 3/4 | 3,855.38 | 3/4 | 4,041.08 | 3/4 | 4,219.38 | 3/4 | 4,388.59 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 7 | 3,667.10 | 7 | 3,859.32 | 7 | 4,044.88 | 7 | 4,223.01 | 7 | 4,391.46 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 7 1/4 | 3,671.14 | 7 1/4 | 3,863.26 | 7 1/4 | 4,048.67 | 7 1/4 | 4,226.64 | 7 1/4 | 4,393.11 | 7 1/4 | 7 1/4 | 7 1/4 | 7 1/4 | 7 1/4 | 7 1/4 | 7 1/4 | 7 1/4 | 7 1/4 | 7 1/4 |
| 7 1/2 | 3,675.17 | 7 1/2 | 3,867.19 | 7 1/2 | 4,052.45 | 7 1/2 | 4,230.26 | 7 1/2 | 4,394.77 | 7 1/2 | 7 1/2 | 7 1/2 | 7 1/2 | 7 1/2 | 7 1/2 | 7 1/2 | 7 1/2 | 7 1/2 | 7 1/2 |
| 3/4 | 3,679.21 | 3/4 | 3,871.12 | 3/4 | 4,056.24 | 3/4 | 4,233.88 | 3/4 | 4,396.42 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 8 | 3,683.25 | 8 | 3,875.06 | 8 | 4,060.03 | 8 | 4,237.51 | 8 | 4,398.07 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| 8 1/4 | 3,687.28 | 8 1/4 | 3,878.98 | 8 1/4 | 4,063.80 | 8 1/4 | 4,241.12 | 8 1/4 | 4,399.72 | 8 1/4 | 8 1/4 | 8 1/4 | 8 1/4 | 8 1/4 | 8 1/4 | 8 1/4 | 8 1/4 | 8 1/4 | 8 1/4 |
| 8 1/2 | 3,691.32 | 8 1/2 | 3,882.90 | 8 1/2 | 4,067.57 | 8 1/2 | 4,244.73 | 8 1/2 | 4,401.37 | 8 1/2 | 8 1/2 | 8 1/2 | 8 1/2 | 8 1/2 | 8 1/2 | 8 1/2 | 8 1/2 | 8 1/2 | 8 1/2 |
| 3/4 | 3,695.36 | 3/4 | 3,886.82 | 3/4 | 4,071.35 | 3/4 | 4,248.34 | 3/4 | 4,403.02 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 9 | 3,699.39 | 9 | 3,890.74 | 9 | 4,075.12 | 9 | 4,251.95 | 9 | 4,404.67 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 9 1/4 | 3,703.43 | 9 1/4 | 3,894.65 | 9 1/4 | 4,078.88 | 9 1/4 | 4,255.55 | 9 1/4 | 4,406.32 | 9 1/4 | 9 1/4 | 9 1/4 | 9 1/4 | 9 1/4 | 9 1/4 | 9 1/4 | 9 1/4 | 9 1/4 | 9 1/4 |
| 9 1/2 | 3,707.47 | 9 1/2 | 3,898.56 | 9 1/2 | 4,082.64 | 9 1/2 | 4,259.15 | 9 1/2 | 4,407.97 | 9 1/2 | 9 1/2 | 9 1/2 | 9 1/2 | 9 1/2 | 9 1/2 | 9 1/2 | 9 1/2 | 9 1/2 | 9 1/2 |
| 3/4 | 3,711.50 | 3/4 | 3,902.47 | 3/4 | 4,086.40 | 3/4 | 4,262.75 | 3/4 | 4,409.62 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 10 | 3,715.54 | 10 | 3,906.38 | 10 | 4,090.16 | 10 | 4,266.35 | 10 | 4,411.27 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 10 1/4 | 3,719.58 | 10 1/4 | 3,910.27 | 10 1/4 | 4,093.91 | 10 1/4 | 4,269.93 | 10 1/4 | 4,412.92 | 10 1/4 | 10 1/4 | 10 1/4 | 10 1/4 | 10 1/4 | 10 1/4 | 10 1/4 | 10 1/4 | 10 1/4 | 10 1/4 |
| 10 1/2 | 3,723.61 | 10 1/2 | 3,914.17 | 10 1/2 | 4,097.66 | 10 1/2 | 4,273.52 | 10 1/2 | 4,414.57 | 10 1/2 | 10 1/2 | 10 1/2 | 10 1/2 | 10 1/2 | 10 1/2 | 10 1/2 | 10 1/2 | 10 1/2 | 10 1/2 |
| 3/4 | 3,727.65 | 3/4 | 3,918.07 | 3/4 | 4,101.41 | 3/4 | 4,277.11 | 3/4 | 4,416.22 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 11 | 3,731.69 | 11 | 3,921.96 | 11 | 4,105.16 | 11 | 4,280.69 | 11 | 4,417.87 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 11 1/4 | 3,735.72 | 11 1/4 | 3,925.85 | 11 1/4 | 4,108.90 | 11 1/4 | 4,284.24 | 11 1/4 | 4,419.52 | 11 1/4 | 11 1/4 | 11 1/4 | 11 1/4 | 11 1/4 | 11 1/4 | 11 1/4 | 11 1/4 | 11 1/4 | 11 1/4 |
| 11 1/2 | 3,739.75 | 11 1/2 | 3,929.73 | 11 1/2 | 4,112.63 | 11 1/2 | 4,287.78 | 11 1/2 | 4,421.17 | 11 1/2 | 11 1/2 | 11 1/2 | 11 1/2 | 11 1/2 | 11 1/2 | 11 1/2 | 11 1/2 | 11 1/2 | 11 1/2 |
| 3/4 | 3,743.78 | 3/4 | 3,933.62 | 3/4 | 4,116.37 | 3/4 | 4,291.32 | 3/4 | 4,422.82 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

PRECISION MEASUREMENT
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BARGE "CCL 419-L"

3 STBD INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

| IN | 0 FT. | IN | 1 FT. | IN | 2 FT. | IN | 3 FT. | IN | 4 FT. | IN | 5 FT. | IN | 6 FT. | IN | 7 FT. | IN | 8 FT. | IN | 9 FT. |
|--------|--------|--------|--------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|
| 0 | 21.25 | 0 | 356.13 | 0 | 715.69 | 0 | 1,063.68 | 0 | 1,416.64 | 0 | 1,775.56 | 0 | 2,134.99 | 0 | 2,494.35 | 0 | 2,853.53 | 0 | 3,211.64 |
| 1/4 | 25.46 | 1/4 | 363.63 | 1/4 | 723.18 | 1/4 | 1,070.83 | 1/4 | 1,424.06 | 1/4 | 1,783.05 | 1/4 | 2,142.48 | 1/4 | 2,501.84 | 1/4 | 2,861.00 | 1/4 | 3,219.08 |
| 1/2 | 29.68 | 1/2 | 371.12 | 1/2 | 730.67 | 1/2 | 1,077.98 | 1/2 | 1,431.49 | 1/2 | 1,790.54 | 1/2 | 2,149.96 | 1/2 | 2,509.33 | 1/2 | 2,868.48 | 1/2 | 3,226.52 |
| 3/4 | 33.90 | 3/4 | 378.61 | 3/4 | 738.16 | 3/4 | 1,085.14 | 3/4 | 1,438.92 | 3/4 | 1,798.03 | 3/4 | 2,157.45 | 3/4 | 2,516.82 | 3/4 | 2,875.95 | 3/4 | 3,233.96 |
| 1 | 38.12 | 1 | 386.10 | 1 | 745.65 | 1 | 1,092.29 | 1 | 1,446.34 | 1 | 1,805.52 | 1 | 2,164.94 | 1 | 2,524.30 | 1 | 2,883.42 | 1 | 3,241.40 |
| 1 1/4 | 43.58 | 1 1/4 | 393.59 | 1 1/4 | 753.14 | 1 1/4 | 1,099.44 | 1 1/4 | 1,453.77 | 1 1/4 | 1,813.01 | 1 1/4 | 2,172.42 | 1 1/4 | 2,531.79 | 1 1/4 | 2,890.89 | 1 1/4 | 3,248.83 |
| 1 1/2 | 49.04 | 1 1/2 | 401.08 | 1 1/2 | 760.63 | 1 1/2 | 1,106.59 | 1 1/2 | 1,461.20 | 1 1/2 | 1,820.50 | 1 1/2 | 2,179.91 | 1 1/2 | 2,539.28 | 1 1/2 | 2,898.35 | 1 1/2 | 3,256.27 |
| 3/4 | 54.50 | 3/4 | 408.57 | 3/4 | 768.12 | 3/4 | 1,113.75 | 3/4 | 1,468.63 | 3/4 | 1,827.98 | 3/4 | 2,187.40 | 3/4 | 2,546.76 | 3/4 | 2,905.82 | 3/4 | 3,263.71 |
| 2 | 59.96 | 2 | 416.06 | 2 | 775.61 | 2 | 1,120.90 | 2 | 1,476.05 | 2 | 1,835.47 | 2 | 2,194.88 | 2 | 2,554.25 | 2 | 2,913.29 | 2 | 3,271.15 |
| 2 1/4 | 66.66 | 2 1/4 | 423.55 | 2 1/4 | 783.10 | 2 1/4 | 1,128.05 | 2 1/4 | 1,483.53 | 2 1/4 | 1,842.96 | 2 1/4 | 2,202.37 | 2 1/4 | 2,561.74 | 2 1/4 | 2,920.75 | 2 1/4 | 3,278.59 |
| 1 1/2 | 73.36 | 1 1/2 | 431.04 | 1 1/2 | 790.59 | 1 1/2 | 1,135.21 | 1 1/2 | 1,491.01 | 1 1/2 | 1,850.45 | 1 1/2 | 2,209.86 | 1 1/2 | 2,569.22 | 1 1/2 | 2,928.22 | 1 1/2 | 3,286.03 |
| 3/4 | 80.06 | 3/4 | 438.53 | 3/4 | 798.09 | 3/4 | 1,142.36 | 3/4 | 1,498.49 | 3/4 | 1,857.94 | 3/4 | 2,217.34 | 3/4 | 2,576.71 | 3/4 | 2,935.68 | 3/4 | 3,293.46 |
| 3 | 86.76 | 3 | 446.02 | 3 | 805.58 | 3 | 1,149.51 | 3 | 1,505.97 | 3 | 1,865.43 | 3 | 2,224.83 | 3 | 2,584.20 | 3 | 2,943.15 | 3 | 3,300.90 |
| 3 1/4 | 94.17 | 3 1/4 | 453.51 | 3 1/4 | 812.82 | 3 1/4 | 1,156.91 | 3 1/4 | 1,513.46 | 3 1/4 | 1,872.92 | 3 1/4 | 2,232.32 | 3 1/4 | 2,591.68 | 3 1/4 | 2,950.61 | 3 1/4 | 3,308.36 |
| 1 1/2 | 101.59 | 1 1/2 | 461.00 | 1 1/2 | 820.06 | 1 1/2 | 1,164.31 | 1 1/2 | 1,520.95 | 1 1/2 | 1,880.42 | 1 1/2 | 2,239.80 | 1 1/2 | 2,599.17 | 1 1/2 | 2,958.08 | 1 1/2 | 3,315.81 |
| 3/4 | 109.00 | 3/4 | 468.49 | 3/4 | 827.30 | 3/4 | 1,171.72 | 3/4 | 1,528.44 | 3/4 | 1,887.89 | 3/4 | 2,247.29 | 3/4 | 2,606.65 | 3/4 | 2,965.54 | 3/4 | 3,323.26 |
| 4 | 116.41 | 4 | 475.99 | 4 | 834.54 | 4 | 1,179.12 | 4 | 1,535.93 | 4 | 1,895.38 | 4 | 2,254.78 | 4 | 2,614.14 | 4 | 2,973.01 | 4 | 3,330.71 |
| 4 1/4 | 123.91 | 4 1/4 | 483.48 | 4 1/4 | 841.72 | 4 1/4 | 1,186.53 | 4 1/4 | 1,543.42 | 4 1/4 | 1,902.87 | 4 1/4 | 2,262.26 | 4 1/4 | 2,621.62 | 4 1/4 | 2,980.47 | 4 1/4 | 3,338.16 |
| 1 1/2 | 131.40 | 1 1/2 | 490.97 | 1 1/2 | 848.90 | 1 1/2 | 1,193.94 | 1 1/2 | 1,550.91 | 1 1/2 | 1,910.36 | 1 1/2 | 2,269.75 | 1 1/2 | 2,629.11 | 1 1/2 | 2,987.94 | 1 1/2 | 3,345.62 |
| 3/4 | 138.90 | 3/4 | 498.46 | 3/4 | 856.09 | 3/4 | 1,201.35 | 3/4 | 1,558.40 | 3/4 | 1,917.85 | 3/4 | 2,277.24 | 3/4 | 2,636.59 | 3/4 | 2,995.40 | 3/4 | 3,353.07 |
| 5 | 146.39 | 5 | 505.95 | 5 | 863.27 | 5 | 1,208.76 | 5 | 1,565.88 | 5 | 1,925.34 | 5 | 2,284.72 | 5 | 2,644.08 | 5 | 3,002.87 | 5 | 3,360.53 |
| 5 1/4 | 153.88 | 5 1/4 | 513.44 | 5 1/4 | 870.45 | 5 1/4 | 1,216.17 | 5 1/4 | 1,573.37 | 5 1/4 | 1,932.82 | 5 1/4 | 2,292.21 | 5 1/4 | 2,651.57 | 5 1/4 | 3,010.33 | 5 1/4 | 3,367.98 |
| 1 1/2 | 161.38 | 1 1/2 | 520.93 | 1 1/2 | 877.63 | 1 1/2 | 1,223.58 | 1 1/2 | 1,580.86 | 1 1/2 | 1,940.31 | 1 1/2 | 2,299.70 | 1 1/2 | 2,659.05 | 1 1/2 | 3,017.80 | 1 1/2 | 3,375.43 |
| 3/4 | 168.87 | 3/4 | 528.42 | 3/4 | 884.80 | 3/4 | 1,230.99 | 3/4 | 1,588.35 | 3/4 | 1,947.80 | 3/4 | 2,307.18 | 3/4 | 2,666.54 | 3/4 | 3,025.26 | 3/4 | 3,382.89 |
| 6 | 176.36 | 6 | 535.91 | 6 | 891.98 | 6 | 1,238.40 | 6 | 1,595.84 | 6 | 1,955.29 | 6 | 2,314.67 | 6 | 2,674.02 | 6 | 3,032.73 | 6 | 3,390.34 |
| 6 1/4 | 183.85 | 6 1/4 | 543.40 | 6 1/4 | 899.14 | 6 1/4 | 1,245.83 | 6 1/4 | 1,603.33 | 6 1/4 | 1,962.78 | 6 1/4 | 2,322.16 | 6 1/4 | 2,681.51 | 6 1/4 | 3,040.19 | 6 1/4 | 3,397.80 |
| 1 1/2 | 191.34 | 1 1/2 | 550.89 | 1 1/2 | 906.30 | 1 1/2 | 1,253.25 | 1 1/2 | 1,610.82 | 1 1/2 | 1,970.27 | 1 1/2 | 2,329.65 | 1 1/2 | 2,688.99 | 1 1/2 | 3,047.66 | 1 1/2 | 3,405.25 |
| 3/4 | 198.83 | 3/4 | 558.38 | 3/4 | 913.46 | 3/4 | 1,260.68 | 3/4 | 1,618.30 | 3/4 | 1,977.76 | 3/4 | 2,337.13 | 3/4 | 2,696.48 | 3/4 | 3,055.12 | 3/4 | 3,412.70 |
| 7 | 206.32 | 7 | 565.87 | 7 | 920.62 | 7 | 1,268.10 | 7 | 1,625.79 | 7 | 1,985.25 | 7 | 2,344.62 | 7 | 2,703.96 | 7 | 3,062.59 | 7 | 3,420.16 |
| 7 1/4 | 213.81 | 7 1/4 | 573.36 | 7 1/4 | 927.77 | 7 1/4 | 1,275.53 | 7 1/4 | 1,633.28 | 7 1/4 | 1,992.73 | 7 1/4 | 2,352.11 | 7 1/4 | 2,711.45 | 7 1/4 | 3,070.06 | 7 1/4 | 3,427.61 |
| 1 1/2 | 221.30 | 1 1/2 | 580.86 | 1 1/2 | 934.92 | 1 1/2 | 1,282.96 | 1 1/2 | 1,640.77 | 1 1/2 | 2,000.22 | 1 1/2 | 2,359.59 | 1 1/2 | 2,718.93 | 1 1/2 | 3,077.53 | 1 1/2 | 3,435.07 |
| 3/4 | 228.79 | 3/4 | 588.35 | 3/4 | 942.08 | 3/4 | 1,290.38 | 3/4 | 1,648.26 | 3/4 | 2,007.71 | 3/4 | 2,367.08 | 3/4 | 2,726.42 | 3/4 | 3,085.00 | 3/4 | 3,442.52 |
| 8 | 236.28 | 8 | 595.84 | 8 | 949.23 | 8 | 1,297.81 | 8 | 1,655.75 | 8 | 2,015.20 | 8 | 2,374.57 | 8 | 2,733.90 | 8 | 3,092.47 | 8 | 3,449.97 |
| 8 1/4 | 243.77 | 8 1/4 | 603.33 | 8 1/4 | 956.38 | 8 1/4 | 1,305.24 | 8 1/4 | 1,663.24 | 8 1/4 | 2,022.69 | 8 1/4 | 2,382.05 | 8 1/4 | 2,741.39 | 8 1/4 | 3,099.95 | 8 1/4 | 3,457.43 |
| 1 1/2 | 251.26 | 1 1/2 | 610.82 | 1 1/2 | 963.54 | 1 1/2 | 1,312.66 | 1 1/2 | 1,670.72 | 1 1/2 | 2,030.17 | 1 1/2 | 2,389.54 | 1 1/2 | 2,748.88 | 1 1/2 | 3,107.42 | 1 1/2 | 3,464.88 |
| 3/4 | 258.76 | 3/4 | 618.31 | 3/4 | 970.69 | 3/4 | 1,320.09 | 3/4 | 1,678.21 | 3/4 | 2,037.66 | 3/4 | 2,397.03 | 3/4 | 2,756.37 | 3/4 | 3,114.89 | 3/4 | 3,472.33 |
| 9 | 266.25 | 9 | 625.80 | 9 | 977.84 | 9 | 1,327.52 | 9 | 1,685.70 | 9 | 2,045.15 | 9 | 2,404.51 | 9 | 2,763.85 | 9 | 3,122.36 | 9 | 3,479.79 |
| 9 1/4 | 273.74 | 9 1/4 | 633.29 | 9 1/4 | 984.99 | 9 1/4 | 1,334.94 | 9 1/4 | 1,693.19 | 9 1/4 | 2,052.63 | 9 1/4 | 2,412.00 | 9 1/4 | 2,771.33 | 9 1/4 | 3,129.81 | 9 1/4 | 3,484.24 |
| 1 1/2 | 281.23 | 1 1/2 | 640.78 | 1 1/2 | 992.15 | 1 1/2 | 1,342.37 | 1 1/2 | 1,700.68 | 1 1/2 | 2,060.12 | 1 1/2 | 2,419.49 | 1 1/2 | 2,778.80 | 1 1/2 | 3,137.25 | 1 1/2 | 3,488.69 |
| 3/4 | 288.72 | 3/4 | 648.27 | 3/4 | 999.30 | 3/4 | 1,349.80 | 3/4 | 1,708.17 | 3/4 | 2,067.61 | 3/4 | 2,426.97 | 3/4 | 2,786.28 | 3/4 | 3,144.69 | 3/4 | 3,493.14 |
| 10 | 296.21 | 10 | 655.76 | 10 | 1,006.45 | 10 | 1,357.22 | 10 | 1,715.66 | 10 | 2,075.09 | 10 | 2,434.46 | 10 | 2,793.75 | 10 | 3,152.14 | 10 | 3,497.59 |
| 10 1/4 | 303.70 | 10 1/4 | 663.25 | 10 1/4 | 1,013.61 | 10 1/4 | 1,364.65 | 10 1/4 | 1,723.14 | 10 1/4 | 2,082.58 | 10 1/4 | 2,441.95 | 10 1/4 | 2,801.22 | 10 1/4 | 3,159.57 | 10 1/4 | 3,501.61 |
| 1 1/2 | 311.19 | 1 1/2 | 670.74 | 1 1/2 | 1,020.76 | 1 1/2 | 1,372.08 | 1 1/2 | 1,730.63 | 1 1/2 | 2,090.07 | 1 1/2 | 2,449.43 | 1 1/2 | 2,808.70 | 1 1/2 | 3,167.01 | 1 1/2 | 3,505.63 |
| 3/4 | 318.68 | 3/4 | 678.23 | 3/4 | 1,027.91 | 3/4 | 1,379.50 | 3/4 | 1,738.12 | 3/4 | 2,097.55 | 3/4 | 2,456.92 | 3/4 | 2,816.17 | 3/4 | 3,174.45 | 3/4 | 3,509.66 |
| 11 | 326.17 | 11 | 685.73 | 11 | 1,035.06 | 11 | 1,386.93 | 11 | 1,745.61 | 11 | 2,105.04 | 11 | 2,464.41 | 11 | 2,823.64 | 11 | 3,181.89 | 11 | 3,513.68 |
| 11 1/4 | 333.66 | 11 1/4 | 693.22 | 11 1/4 | 1,042.22 | 11 1/4 | 1,394.36 | 11 1/4 | 1,753.10 | 11 1/4 | 2,112.53 | 11 1/4 | 2,471.89 | 11 1/4 | 2,831.11 | 11 1/4 | 3,189.33 | 11 1/4 | 3,517.70 |
| 1 1/2 | 341.15 | 1 1/2 | 700.71 | 1 1/2 | 1,049.37 | 1 1/2 | 1,401.78 | 1 1/2 | 1,760.59 | 1 1/2 | 2,120.01 | 1 1/2 | 2,479.38 | 1 1/2 | 2,838.59 | 1 1/2 | 3,196.77 | 1 1/2 | 3,521.72 |
| 3/4 | 348.64 | 3/4 | 708.20 | 3/4 | 1,056.52 | 3/4 | 1,409.21 | 3/4 | 1,768.08 | 3/4 | 2,127.50 | 3/4 | 2,486.87 | 3/4 | 2,846.06 | 3/4 | 3,204.20 | 3/4 | 3,525.74 |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO INNAGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 56'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

3 STBD INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

| IN | 10 FT. | IN | 11 FT. | IN | 12 FT. | IN | 13 FT. | IN | 14 FT. | IN | 15 FT. | IN | 16 FT. | IN | 17 FT. | IN | 18 FT. | IN | 19 FT. |
|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|
| 0 | 3,529.76 | 0 | 3,722.77 | 0 | 3,911.73 | 0 | 4,093.60 | 0 | 4,267.61 | 0 | | 0 | | 0 | | 0 | | 0 | |
| 1/4 | 3,533.78 | 1/4 | 3,726.77 | 1/4 | 3,915.58 | 1/4 | 4,097.31 | 1/4 | 4,271.12 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,537.81 | 1/2 | 3,730.77 | 1/2 | 3,919.44 | 1/2 | 4,101.02 | 1/2 | 4,274.62 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,541.83 | 3/4 | 3,734.78 | 3/4 | 3,923.30 | 3/4 | 4,104.72 | 3/4 | 4,278.13 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 1 | 3,545.85 | 1 | 3,738.78 | 1 | 3,927.15 | 1 | 4,108.43 | 1 | 4,281.64 | 1 | | 1 | | 1 | | 1 | | 1 | |
| 1/4 | 3,549.87 | 1/4 | 3,742.78 | 1/4 | 3,931.00 | 1/4 | 4,112.12 | 1/4 | 4,285.14 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,553.89 | 1/2 | 3,746.77 | 1/2 | 3,934.84 | 1/2 | 4,115.80 | 1/2 | 4,288.63 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,557.91 | 3/4 | 3,750.76 | 3/4 | 3,938.69 | 3/4 | 4,119.48 | 3/4 | 4,292.13 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 2 | 3,561.93 | 2 | 3,754.75 | 2 | 3,942.53 | 2 | 4,123.17 | 2 | 4,295.62 | 2 | | 2 | | 2 | | 2 | | 2 | |
| 1/4 | 3,565.95 | 1/4 | 3,758.73 | 1/4 | 3,946.36 | 1/4 | 4,126.84 | 1/4 | 4,299.11 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,569.98 | 1/2 | 3,762.71 | 1/2 | 3,950.20 | 1/2 | 4,130.51 | 1/2 | 4,302.59 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,574.00 | 3/4 | 3,766.69 | 3/4 | 3,954.03 | 3/4 | 4,134.18 | 3/4 | 4,306.07 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 3 | 3,578.02 | 3 | 3,770.67 | 3 | 3,957.86 | 3 | 4,137.85 | 3 | 4,309.56 | 3 | | 3 | | 3 | | 3 | | 3 | |
| 1/4 | 3,582.04 | 1/4 | 3,774.64 | 1/4 | 3,961.68 | 1/4 | 4,141.50 | 1/4 | 4,313.03 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,586.06 | 1/2 | 3,778.61 | 1/2 | 3,965.50 | 1/2 | 4,145.16 | 1/2 | 4,316.50 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,590.08 | 3/4 | 3,782.57 | 3/4 | 3,969.32 | 3/4 | 4,148.82 | 3/4 | 4,319.97 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 4 | 3,594.10 | 4 | 3,786.54 | 4 | 3,973.14 | 4 | 4,152.48 | 4 | 4,323.44 | 4 | | 4 | | 4 | | 4 | | 4 | |
| 1/4 | 3,598.12 | 1/4 | 3,790.50 | 1/4 | 3,976.95 | 1/4 | 4,156.12 | 1/4 | 4,326.90 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,602.15 | 1/2 | 3,794.45 | 1/2 | 3,980.75 | 1/2 | 4,159.77 | 1/2 | 4,330.36 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,606.17 | 3/4 | 3,798.41 | 3/4 | 3,984.56 | 3/4 | 4,163.41 | 3/4 | 4,333.82 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 5 | 3,610.19 | 5 | 3,802.36 | 5 | 3,988.37 | 5 | 4,167.06 | 5 | 4,337.28 | 5 | | 5 | | 5 | | 5 | | 5 | |
| 1/4 | 3,614.21 | 1/4 | 3,806.30 | 1/4 | 3,992.16 | 1/4 | 4,170.69 | 1/4 | 4,341.05 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,618.23 | 1/2 | 3,810.25 | 1/2 | 3,995.96 | 1/2 | 4,174.32 | 1/2 | 4,344.82 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,622.25 | 3/4 | 3,814.19 | 3/4 | 3,999.75 | 3/4 | 4,177.95 | 3/4 | 4,348.59 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 6 | 3,626.27 | 6 | 3,818.13 | 6 | 4,003.55 | 6 | 4,181.59 | 6 | 4,352.36 | 6 | | 6 | | 6 | | 6 | | 6 | |
| 1/4 | 3,630.29 | 1/4 | 3,822.06 | 1/4 | 4,007.33 | 1/4 | 4,185.21 | 1/4 | 4,355.21 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,634.32 | 1/2 | 3,825.99 | 1/2 | 4,011.11 | 1/2 | 4,188.83 | 1/2 | 4,358.07 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,638.34 | 3/4 | 3,829.92 | 3/4 | 4,014.90 | 3/4 | 4,192.45 | 3/4 | 4,360.92 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 7 | 3,642.36 | 7 | 3,833.86 | 7 | 4,018.68 | 7 | 4,196.07 | 7 | 4,363.78 | 7 | | 7 | | 7 | | 7 | | 7 | |
| 1/4 | 3,646.38 | 1/4 | 3,837.77 | 1/4 | 4,022.45 | 1/4 | 4,199.68 | 1/4 | 4,365.42 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,650.40 | 1/2 | 3,841.69 | 1/2 | 4,026.22 | 1/2 | 4,203.29 | 1/2 | 4,367.05 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,654.42 | 3/4 | 3,845.61 | 3/4 | 4,029.99 | 3/4 | 4,206.90 | 3/4 | 4,368.69 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 8 | 3,658.44 | 8 | 3,849.53 | 8 | 4,033.76 | 8 | 4,210.50 | 8 | 4,370.33 | 8 | | 8 | | 8 | | 8 | | 8 | |
| 1/4 | 3,662.47 | 1/4 | 3,853.43 | 1/4 | 4,037.52 | 1/4 | 4,214.10 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,666.49 | 1/2 | 3,857.34 | 1/2 | 4,041.28 | 1/2 | 4,217.70 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,670.51 | 3/4 | 3,861.25 | 3/4 | 4,045.04 | 3/4 | 4,221.29 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 9 | 3,674.53 | 9 | 3,865.15 | 9 | 4,048.79 | 9 | 4,224.89 | 9 | | 9 | | 9 | | 9 | | 9 | | 9 | |
| 1/4 | 3,678.55 | 1/4 | 3,869.05 | 1/4 | 4,052.54 | 1/4 | 4,228.47 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,682.57 | 1/2 | 3,872.94 | 1/2 | 4,056.29 | 1/2 | 4,232.05 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,686.59 | 3/4 | 3,876.83 | 3/4 | 4,060.03 | 3/4 | 4,235.64 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 10 | 3,690.61 | 10 | 3,880.73 | 10 | 4,063.78 | 10 | 4,239.22 | 10 | | 10 | | 10 | | 10 | | 10 | | 10 | |
| 1/4 | 3,694.64 | 1/4 | 3,884.61 | 1/4 | 4,067.51 | 1/4 | 4,242.79 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,698.66 | 1/2 | 3,888.49 | 1/2 | 4,071.25 | 1/2 | 4,246.36 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,702.68 | 3/4 | 3,892.37 | 3/4 | 4,074.98 | 3/4 | 4,249.94 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 11 | 3,706.70 | 11 | 3,896.25 | 11 | 4,078.71 | 11 | 4,253.51 | 11 | | 11 | | 11 | | 11 | | 11 | | 11 | |
| 1/4 | 3,710.72 | 1/4 | 3,900.12 | 1/4 | 4,082.43 | 1/4 | 4,257.03 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 3,714.73 | 1/2 | 3,903.99 | 1/2 | 4,086.15 | 1/2 | 4,260.56 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 3,718.75 | 3/4 | 3,907.86 | 3/4 | 4,089.88 | 3/4 | 4,264.08 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

ULLAGE TRIM TABLE

| | 1 FT. | | 2 FT. | | 3 FT. | | 4 FT. | | 5 FT. | | 6 FT. | |
|--------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|
| | <u>BOW</u> | <u>STERN</u> | <u>BOW</u> | <u>STERN</u> | <u>BOW</u> | <u>STERN</u> | <u>BOW</u> | <u>STERN</u> | <u>BOW</u> | <u>STERN</u> | <u>BOW</u> | <u>STERN</u> |
| 1 PORT | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-1/8 | - 00-1/8 | 00-1/8 | - 00-1/8 |
| 1 STBD | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-1/8 | - 00-1/8 | 00-1/8 | - 00-1/8 |
| 2 PORT | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 |
| 2 STBD | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 |
| 3 PORT | 00-5/8 | - 00-5/8 | 01-1/4 | - 01-1/4 | 01-7/8 | - 01-7/8 | 02-1/2 | - 02-1/2 | 03-1/4 | - 03-1/4 | 03-3/4 | - 03-3/4 |
| 3 STBD | 00-5/8 | - 00-5/8 | 01-1/4 | - 01-1/4 | 01-7/8 | - 01-7/8 | 02-1/2 | - 02-1/2 | 03-1/4 | - 03-1/4 | 03-3/4 | - 03-3/4 |

(ALL MEASUREMENTS ABOVE ARE IN INCHES)

EXAMPLE FOR ABOVE TRIM CORRECTIONS:

FWD. DRAFT = 2'-00"
 AFT DRAFT = 4'-00"
 DIFF. = 2'-00" (DOWN BY STERN)

THE CORRECTION FOR 2'-00" TRIM DOWN BY STERN FOR 3 PORT IS - 01-1/4"
 FOR A MEASURED ULLAGE GAUGE OF 4'-00" ON 3 PORT, THE TRIM CORRECTED ULLAGE IS 3'-10 3/4"

LENGTH BETWEEN DRAFT MARKS: 254'-00"

November 3, 2020

PRECISION MEASUREMENT
 & ANALYSIS, INC.
 P.O. Box 2092
 Pearland, Texas 77588

<http://www.pmacorp.net>



BARGE "CCL 419-L"

1 PORT ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-09"

| IN | 0 FT. | IN | 1 FT. | IN | 2 FT. | IN | 3 FT. | IN | 4 FT. | IN | 5 FT. | IN | 6 FT. | IN | 7 FT. | IN | 8 FT. | IN | 9 FT. | | |
|-----|-------|-----|-------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|
| 0 | | 0 | | 0 | 4,931.03 | 0 | 4,599.98 | 0 | 4,254.76 | 0 | 3,896.51 | 0 | 3,533.76 | 0 | 3,171.01 | 0 | 2,808.26 | 0 | 2,445.45 | | |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 4,924.27 | 1/4 | 4,592.92 | 1/4 | 4,247.42 | 1/4 | 3,888.95 | 1/4 | 3,526.20 | 1/4 | 3,163.45 | 1/4 | 2,800.70 | 1/4 | 2,437.89 | | |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 4,917.51 | 1/2 | 4,585.85 | 1/2 | 4,240.08 | 1/2 | 3,881.39 | 1/2 | 3,518.64 | 1/2 | 3,155.89 | 1/2 | 2,793.14 | 1/2 | 2,430.33 | | |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 4,910.75 | 3/4 | 4,578.78 | 3/4 | 4,232.74 | 3/4 | 3,873.84 | 3/4 | 3,511.09 | 3/4 | 3,148.34 | 3/4 | 2,785.58 | 3/4 | 2,422.77 | | |
| 1 | 1 | 1 | 1 | 1 | 5,217.08 | 1 | 4,903.99 | 1 | 4,571.72 | 1 | 4,225.39 | 1 | 3,866.28 | 1 | 3,503.53 | 1 | 3,140.78 | 1 | 2,778.03 | 1 | 2,415.21 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 5,211.96 | 1/4 | 4,897.21 | 1/4 | 4,564.63 | 1/4 | 4,218.03 | 1/4 | 3,858.72 | 1/4 | 3,495.97 | 1/4 | 3,133.22 | 1/4 | 2,770.47 | 1/4 | 2,407.65 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 5,206.84 | 1/2 | 4,890.43 | 1/2 | 4,557.54 | 1/2 | 4,210.66 | 1/2 | 3,851.16 | 1/2 | 3,488.41 | 1/2 | 3,125.66 | 1/2 | 2,762.91 | 1/2 | 2,400.09 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 5,201.72 | 3/4 | 4,883.64 | 3/4 | 4,550.45 | 3/4 | 4,203.30 | 3/4 | 3,843.61 | 3/4 | 3,480.86 | 3/4 | 3,118.11 | 3/4 | 2,755.36 | 3/4 | 2,392.53 |
| 2 | 2 | 2 | 2 | 2 | 5,196.60 | 2 | 4,876.86 | 2 | 4,543.36 | 2 | 4,195.94 | 2 | 3,836.05 | 2 | 3,473.30 | 2 | 3,110.55 | 2 | 2,747.80 | 2 | 2,384.97 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 5,190.26 | 1/4 | 4,870.05 | 1/4 | 4,536.25 | 1/4 | 4,188.55 | 1/4 | 3,828.49 | 1/4 | 3,465.74 | 1/4 | 3,102.99 | 1/4 | 2,740.24 | 1/4 | 2,377.41 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 5,183.92 | 1/2 | 4,863.25 | 1/2 | 4,529.14 | 1/2 | 4,181.16 | 1/2 | 3,820.94 | 1/2 | 3,458.18 | 1/2 | 3,095.43 | 1/2 | 2,732.68 | 1/2 | 2,369.85 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 5,177.59 | 3/4 | 4,856.44 | 3/4 | 4,522.03 | 3/4 | 4,173.77 | 3/4 | 3,813.38 | 3/4 | 3,450.63 | 3/4 | 3,087.88 | 3/4 | 2,725.13 | 3/4 | 2,362.29 |
| 3 | 3 | 3 | 3 | 3 | 5,171.25 | 3 | 4,849.63 | 3 | 4,514.92 | 3 | 4,166.38 | 3 | 3,805.82 | 3 | 3,443.07 | 3 | 3,080.32 | 3 | 2,717.57 | 3 | 2,354.73 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 5,164.05 | 1/4 | 4,842.80 | 1/4 | 4,507.78 | 1/4 | 4,158.97 | 1/4 | 3,798.26 | 1/4 | 3,435.51 | 1/4 | 3,072.76 | 1/4 | 2,710.01 | 1/4 | 2,347.17 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 5,156.85 | 1/2 | 4,835.97 | 1/2 | 4,500.65 | 1/2 | 4,151.56 | 1/2 | 3,790.71 | 1/2 | 3,427.96 | 1/2 | 3,065.21 | 1/2 | 2,702.45 | 1/2 | 2,339.61 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 5,149.65 | 3/4 | 4,829.14 | 3/4 | 4,493.51 | 3/4 | 4,144.15 | 3/4 | 3,783.15 | 3/4 | 3,420.40 | 3/4 | 3,057.65 | 3/4 | 2,694.90 | 3/4 | 2,332.05 |
| 4 | 4 | 4 | 4 | 4 | 5,142.44 | 4 | 4,822.31 | 4 | 4,486.38 | 4 | 4,136.74 | 4 | 3,775.59 | 4 | 3,412.84 | 4 | 3,050.09 | 4 | 2,687.34 | 4 | 2,324.49 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 5,135.94 | 1/4 | 4,815.46 | 1/4 | 4,479.22 | 1/4 | 4,129.31 | 1/4 | 3,768.03 | 1/4 | 3,405.28 | 1/4 | 3,042.53 | 1/4 | 2,679.78 | 1/4 | 2,316.93 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 5,129.43 | 1/2 | 4,808.61 | 1/2 | 4,472.06 | 1/2 | 4,121.88 | 1/2 | 3,760.48 | 1/2 | 3,397.73 | 1/2 | 3,034.98 | 1/2 | 2,672.23 | 1/2 | 2,309.37 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 5,122.92 | 3/4 | 4,801.76 | 3/4 | 4,464.91 | 3/4 | 4,114.44 | 3/4 | 3,752.92 | 3/4 | 3,390.17 | 3/4 | 3,027.42 | 3/4 | 2,664.67 | 3/4 | 2,301.81 |
| 5 | 5 | 5 | 5 | 5 | 5,116.42 | 5 | 4,794.91 | 5 | 4,457.75 | 5 | 4,107.01 | 5 | 3,745.36 | 5 | 3,382.61 | 5 | 3,019.86 | 5 | 2,657.11 | 5 | 2,294.25 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 5,109.89 | 1/4 | 4,788.03 | 1/4 | 4,450.57 | 1/4 | 4,099.55 | 1/4 | 3,737.80 | 1/4 | 3,375.05 | 1/4 | 3,012.30 | 1/4 | 2,649.56 | 1/4 | 2,286.69 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 5,103.36 | 1/2 | 4,781.15 | 1/2 | 4,443.39 | 1/2 | 4,092.09 | 1/2 | 3,730.25 | 1/2 | 3,367.50 | 1/2 | 3,004.75 | 1/2 | 2,642.00 | 1/2 | 2,279.13 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 5,096.83 | 3/4 | 4,774.28 | 3/4 | 4,436.21 | 3/4 | 4,084.64 | 3/4 | 3,722.69 | 3/4 | 3,359.94 | 3/4 | 2,997.19 | 3/4 | 2,634.45 | 3/4 | 2,271.57 |
| 6 | 6 | 6 | 6 | 6 | 5,090.30 | 6 | 4,767.40 | 6 | 4,429.03 | 6 | 4,077.18 | 6 | 3,715.13 | 6 | 3,352.38 | 6 | 2,989.63 | 6 | 2,626.89 | 6 | 2,264.01 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 5,083.74 | 1/4 | 4,760.51 | 1/4 | 4,421.82 | 1/4 | 4,069.70 | 1/4 | 3,707.58 | 1/4 | 3,344.83 | 1/4 | 2,982.07 | 1/4 | 2,619.33 | 1/4 | 2,256.45 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 5,077.19 | 1/2 | 4,753.61 | 1/2 | 4,414.62 | 1/2 | 4,062.22 | 1/2 | 3,700.02 | 1/2 | 3,337.27 | 1/2 | 2,974.52 | 1/2 | 2,611.77 | 1/2 | 2,248.89 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 5,070.64 | 3/4 | 4,746.71 | 3/4 | 4,407.42 | 3/4 | 4,054.74 | 3/4 | 3,692.46 | 3/4 | 3,329.71 | 3/4 | 2,966.96 | 3/4 | 2,604.21 | 3/4 | 2,241.33 |
| 7 | 7 | 7 | 7 | 7 | 5,064.08 | 7 | 4,739.81 | 7 | 4,400.21 | 7 | 4,047.26 | 7 | 3,684.90 | 7 | 3,322.15 | 7 | 2,959.40 | 7 | 2,596.65 | 7 | 2,233.77 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 5,057.51 | 1/4 | 4,732.88 | 1/4 | 4,392.99 | 1/4 | 4,039.76 | 1/4 | 3,677.35 | 1/4 | 3,314.60 | 1/4 | 2,951.85 | 1/4 | 2,589.09 | 1/4 | 2,226.21 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 5,050.93 | 1/2 | 4,725.96 | 1/2 | 4,385.76 | 1/2 | 4,032.26 | 1/2 | 3,669.79 | 1/2 | 3,307.04 | 1/2 | 2,944.29 | 1/2 | 2,581.53 | 1/2 | 2,218.65 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 5,044.35 | 3/4 | 4,719.03 | 3/4 | 4,378.53 | 3/4 | 4,024.76 | 3/4 | 3,662.23 | 3/4 | 3,299.48 | 3/4 | 2,936.79 | 3/4 | 2,573.97 | 3/4 | 2,211.08 |
| 8 | 8 | 8 | 8 | 8 | 5,037.78 | 8 | 4,712.11 | 8 | 4,371.31 | 8 | 4,017.25 | 8 | 3,654.67 | 8 | 3,291.92 | 8 | 2,929.17 | 8 | 2,566.41 | 8 | 2,203.52 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 5,031.18 | 1/4 | 4,705.14 | 1/4 | 4,364.06 | 1/4 | 4,009.73 | 1/4 | 3,647.12 | 1/4 | 3,284.37 | 1/4 | 2,921.62 | 1/4 | 2,558.85 | 1/4 | 2,195.96 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 5,024.58 | 1/2 | 4,698.16 | 1/2 | 4,356.81 | 1/2 | 4,002.20 | 1/2 | 3,639.56 | 1/2 | 3,276.81 | 1/2 | 2,914.06 | 1/2 | 2,551.29 | 1/2 | 2,188.40 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 5,017.98 | 3/4 | 4,691.19 | 3/4 | 4,349.56 | 3/4 | 3,994.68 | 3/4 | 3,632.00 | 3/4 | 3,269.25 | 3/4 | 2,906.50 | 3/4 | 2,543.73 | 3/4 | 2,180.84 |
| 9 | 9 | 9 | 9 | 9 | 5,011.38 | 9 | 4,684.22 | 9 | 4,342.31 | 9 | 3,987.15 | 9 | 3,624.45 | 9 | 3,261.69 | 9 | 2,898.94 | 9 | 2,536.17 | 9 | 2,173.28 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 5,004.75 | 1/4 | 4,677.22 | 1/4 | 4,335.04 | 1/4 | 3,979.60 | 1/4 | 3,616.89 | 1/4 | 3,254.14 | 1/4 | 2,891.39 | 1/4 | 2,528.61 | 1/4 | 2,165.72 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 4,998.12 | 1/2 | 4,670.22 | 1/2 | 4,327.76 | 1/2 | 3,972.06 | 1/2 | 3,609.33 | 1/2 | 3,246.58 | 1/2 | 2,883.83 | 1/2 | 2,521.05 | 1/2 | 2,158.16 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 4,991.49 | 3/4 | 4,663.23 | 3/4 | 4,320.49 | 3/4 | 3,964.51 | 3/4 | 3,601.77 | 3/4 | 3,239.02 | 3/4 | 2,876.27 | 3/4 | 2,513.49 | 3/4 | 2,150.60 |
| 10 | 10 | 10 | 10 | 10 | 4,984.86 | 10 | 4,656.23 | 10 | 4,313.22 | 10 | 3,956.97 | 10 | 3,594.22 | 10 | 3,231.47 | 10 | 2,868.72 | 10 | 2,505.93 | 10 | 2,143.04 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 4,978.14 | 1/4 | 4,649.21 | 1/4 | 4,305.92 | 1/4 | 3,949.41 | 1/4 | 3,586.66 | 1/4 | 3,223.91 | 1/4 | 2,861.16 | 1/4 | 2,498.37 | 1/4 | 2,135.48 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 4,971.42 | 1/2 | 4,642.19 | 1/2 | 4,298.63 | 1/2 | 3,941.85 | 1/2 | 3,579.10 | 1/2 | 3,216.35 | 1/2 | 2,853.60 | 1/2 | 2,490.81 | 1/2 | 2,127.92 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 4,964.71 | 3/4 | 4,635.17 | 3/4 | 4,291.33 | 3/4 | 3,934.29 | 3/4 | 3,571.54 | 3/4 | 3,208.79 | 3/4 | 2,846.04 | 3/4 | 2,483.25 | 3/4 | 2,120.36 |
| 11 | 11 | 11 | 11 | 11 | 4,957.99 | 11 | 4,628.15 | 11 | 4,284.03 | 11 | 3,926.74 | 11 | 3,563.99 | 11 | 3,201.24 | 11 | 2,838.49 | 11 | 2,475.69 | 11 | 2,112.80 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 4,951.25 | 1/4 | 4,621.11 | 1/4 | 4,276.72 | 1/4 | 3,919.18 | 1/4 | 3,556.43 | 1/4 | 3,193.68 | 1/4 | 2,830.93 | 1/4 | 2,468.13 | 1/4 | 2,105.24 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 4,944.51 | 1/2 | 4,614.07 | 1/2 | 4,269.40 | 1/2 | 3,911.62 | 1/2 | 3,548.87 | 1/2 | 3,186.12 | 1/2 | 2,823.37 | 1/2 | 2,460.57 | 1/2 | 2,097.68 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 4,937.77 | 3/4 | 4,607.02 | 3/4 | 4,262.08 | 3/4 | 3,904.07 | 3/4 | 3,541.31 | 3/4 | 3,178.56 | 3/4 | 2,815.81 | 3/4 | 2,453.01 | 3/4 | 2,090.12 |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 43'-09" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

1 PORT
ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-09"

| IN | 10 FT. | IN | 11 FT. | IN | 12 FT. | IN | 13 FT. | IN | 14 FT. | IN | 15 FT. | IN | 16 FT. | IN | 17 FT. | IN | 18 FT. | IN | 19 FT. |
|-----|----------|-----|----------|-----|----------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|
| 0 | 2,082.56 | 0 | 1,719.68 | 0 | 1,356.79 | 0 | 994.31 | 0 | 631.54 | 0 | 268.67 | 0 | | 0 | | 0 | | 0 | |
| 1/4 | 2,075.00 | 1/4 | 1,712.12 | 1/4 | 1,349.23 | 1/4 | 986.76 | 1/4 | 623.98 | 1/4 | 261.11 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,067.44 | 1/2 | 1,704.56 | 1/2 | 1,341.67 | 1/2 | 979.21 | 1/2 | 616.42 | 1/2 | 253.55 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,059.88 | 3/4 | 1,697.00 | 3/4 | 1,334.11 | 3/4 | 971.67 | 3/4 | 608.86 | 3/4 | 245.99 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 1 | 2,052.32 | 1 | 1,689.44 | 1 | 1,326.55 | 1 | 964.12 | 1 | 601.30 | 1 | 238.43 | 1 | | 1 | | 1 | | 1 | |
| 1/4 | 2,044.76 | 1/4 | 1,681.88 | 1/4 | 1,318.99 | 1/4 | 956.57 | 1/4 | 593.74 | 1/4 | 230.87 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,037.20 | 1/2 | 1,674.32 | 1/2 | 1,311.43 | 1/2 | 949.02 | 1/2 | 586.18 | 1/2 | 223.31 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,029.64 | 3/4 | 1,666.76 | 3/4 | 1,303.87 | 3/4 | 941.48 | 3/4 | 578.62 | 3/4 | 215.75 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 2 | 2,022.08 | 2 | 1,659.20 | 2 | 1,296.31 | 2 | 933.93 | 2 | 571.06 | 2 | 208.19 | 2 | | 2 | | 2 | | 2 | |
| 1/4 | 2,014.52 | 1/4 | 1,651.64 | 1/4 | 1,288.75 | 1/4 | 926.37 | 1/4 | 563.50 | 1/4 | 200.63 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,006.96 | 1/2 | 1,644.08 | 1/2 | 1,281.19 | 1/2 | 918.81 | 1/2 | 555.94 | 1/2 | 193.07 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 1,999.40 | 3/4 | 1,636.52 | 3/4 | 1,273.63 | 3/4 | 911.25 | 3/4 | 548.38 | 3/4 | 185.51 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 3 | 1,991.84 | 3 | 1,628.96 | 3 | 1,266.07 | 3 | 903.69 | 3 | 540.82 | 3 | 177.95 | 3 | | 3 | | 3 | | 3 | |
| 1/4 | 1,984.28 | 1/4 | 1,621.40 | 1/4 | 1,258.51 | 1/4 | 896.13 | 1/4 | 533.26 | 1/4 | 170.39 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 1,976.72 | 1/2 | 1,613.84 | 1/2 | 1,250.96 | 1/2 | 888.57 | 1/2 | 525.70 | 1/2 | 162.83 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 1,969.16 | 3/4 | 1,606.28 | 3/4 | 1,243.40 | 3/4 | 881.01 | 3/4 | 518.14 | 3/4 | 155.27 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 4 | 1,961.60 | 4 | 1,598.72 | 4 | 1,235.84 | 4 | 873.45 | 4 | 510.58 | 4 | 147.71 | 4 | | 4 | | 4 | | 4 | |
| 1/4 | 1,954.04 | 1/4 | 1,591.16 | 1/4 | 1,228.29 | 1/4 | 865.89 | 1/4 | 503.02 | 1/4 | 140.15 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 1,946.48 | 1/2 | 1,583.60 | 1/2 | 1,220.74 | 1/2 | 858.33 | 1/2 | 495.46 | 1/2 | 132.59 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 1,938.92 | 3/4 | 1,576.04 | 3/4 | 1,213.20 | 3/4 | 850.77 | 3/4 | 487.90 | 3/4 | 125.03 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 5 | 1,931.36 | 5 | 1,568.48 | 5 | 1,205.65 | 5 | 843.21 | 5 | 480.34 | 5 | 117.47 | 5 | | 5 | | 5 | | 5 | |
| 1/4 | 1,923.80 | 1/4 | 1,560.92 | 1/4 | 1,198.10 | 1/4 | 835.65 | 1/4 | 472.78 | 1/4 | 109.99 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 1,916.24 | 1/2 | 1,553.36 | 1/2 | 1,190.55 | 1/2 | 828.09 | 1/2 | 465.22 | 1/2 | 102.51 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 1,908.68 | 3/4 | 1,545.80 | 3/4 | 1,183.01 | 3/4 | 820.53 | 3/4 | 457.66 | 3/4 | 95.03 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 6 | 1,901.12 | 6 | 1,538.24 | 6 | 1,175.46 | 6 | 812.97 | 6 | 450.10 | 6 | 87.55 | 6 | | 6 | | 6 | | 6 | |
| 1/4 | 1,893.56 | 1/4 | 1,530.68 | 1/4 | 1,167.91 | 1/4 | 805.41 | 1/4 | 442.54 | 1/4 | 80.77 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 1,886.00 | 1/2 | 1,523.12 | 1/2 | 1,160.36 | 1/2 | 797.85 | 1/2 | 434.98 | 1/2 | 74.00 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 1,878.44 | 3/4 | 1,515.56 | 3/4 | 1,152.81 | 3/4 | 790.29 | 3/4 | 427.42 | 3/4 | 67.23 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 7 | 1,870.88 | 7 | 1,508.00 | 7 | 1,145.27 | 7 | 782.73 | 7 | 419.86 | 7 | 60.46 | 7 | | 7 | | 7 | | 7 | |
| 1/4 | 1,863.32 | 1/4 | 1,500.44 | 1/4 | 1,137.72 | 1/4 | 775.17 | 1/4 | 412.30 | 1/4 | 54.95 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 1,855.76 | 1/2 | 1,492.88 | 1/2 | 1,130.17 | 1/2 | 767.61 | 1/2 | 404.74 | 1/2 | 49.43 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 1,848.20 | 3/4 | 1,485.32 | 3/4 | 1,122.62 | 3/4 | 760.05 | 3/4 | 397.18 | 3/4 | 43.92 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 8 | 1,840.64 | 8 | 1,477.76 | 8 | 1,115.08 | 8 | 752.49 | 8 | 389.62 | 8 | 38.41 | 8 | | 8 | | 8 | | 8 | |
| 1/4 | 1,833.08 | 1/4 | 1,470.20 | 1/4 | 1,107.53 | 1/4 | 744.93 | 1/4 | 382.06 | 1/4 | 34.16 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 1,825.52 | 1/2 | 1,462.64 | 1/2 | 1,099.98 | 1/2 | 737.37 | 1/2 | 374.50 | 1/2 | 29.91 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 1,817.96 | 3/4 | 1,455.07 | 3/4 | 1,092.43 | 3/4 | 729.81 | 3/4 | 366.94 | 3/4 | 25.66 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 9 | 1,810.40 | 9 | 1,447.51 | 9 | 1,084.88 | 9 | 722.25 | 9 | 359.38 | 9 | 21.40 | 9 | | 9 | | 9 | | 9 | |
| 1/4 | 1,802.84 | 1/4 | 1,439.95 | 1/4 | 1,077.34 | 1/4 | 714.69 | 1/4 | 351.82 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 1,795.28 | 1/2 | 1,432.39 | 1/2 | 1,069.79 | 1/2 | 707.13 | 1/2 | 344.26 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 1,787.72 | 3/4 | 1,424.83 | 3/4 | 1,062.24 | 3/4 | 699.57 | 3/4 | 336.70 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 10 | 1,780.16 | 10 | 1,417.27 | 10 | 1,054.69 | 10 | 692.01 | 10 | 329.14 | 10 | | 10 | | 10 | | 10 | | 10 | |
| 1/4 | 1,772.60 | 1/4 | 1,409.71 | 1/4 | 1,047.15 | 1/4 | 684.45 | 1/4 | 321.58 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 1,765.04 | 1/2 | 1,402.15 | 1/2 | 1,039.60 | 1/2 | 676.89 | 1/2 | 314.02 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 1,757.48 | 3/4 | 1,394.59 | 3/4 | 1,032.05 | 3/4 | 669.34 | 3/4 | 306.46 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 11 | 1,749.92 | 11 | 1,387.03 | 11 | 1,024.50 | 11 | 661.78 | 11 | 298.90 | 11 | | 11 | | 11 | | 11 | | 11 | |
| 1/4 | 1,742.36 | 1/4 | 1,379.47 | 1/4 | 1,016.95 | 1/4 | 654.22 | 1/4 | 291.35 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 1,734.80 | 1/2 | 1,371.91 | 1/2 | 1,009.41 | 1/2 | 646.66 | 1/2 | 283.79 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 1,727.24 | 3/4 | 1,364.35 | 3/4 | 1,001.86 | 3/4 | 639.10 | 3/4 | 276.23 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

1 STBD ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-09 1/4"

| 0 FT. | | 1 FT. | | 2 FT. | | 3 FT. | | 4 FT. | | 5 FT. | | 6 FT. | | 7 FT. | | 8 FT. | | 9 FT. | | | |
|-------|-----|-------|-----|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-----|----------|
| IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | | |
| 0 | | 0 | | 0 | 4,933.56 | 0 | 4,602.94 | 0 | 4,258.14 | 0 | 3,900.30 | 0 | 3,537.72 | 0 | 3,175.15 | 0 | 2,812.57 | 0 | 2,449.92 | | |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 4,926.82 | 1/4 | 4,595.90 | 1/4 | 4,250.83 | 1/4 | 3,892.75 | 1/4 | 3,530.17 | 1/4 | 3,167.59 | 1/4 | 2,805.01 | 1/4 | 2,442.37 | | |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 4,920.06 | 1/2 | 4,588.84 | 1/2 | 4,243.49 | 1/2 | 3,885.19 | 1/2 | 3,522.62 | 1/2 | 3,160.04 | 1/2 | 2,797.46 | 1/2 | 2,434.81 | | |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 4,913.30 | 3/4 | 4,581.77 | 3/4 | 4,236.15 | 3/4 | 3,877.64 | 3/4 | 3,515.06 | 3/4 | 3,152.49 | 3/4 | 2,789.91 | 3/4 | 2,427.25 | | |
| 1 | | 1 | | 1 | 4,906.55 | 1 | 4,574.71 | 1 | 4,228.81 | 1 | 3,870.09 | 1 | 3,507.51 | 1 | 3,144.93 | 1 | 2,782.35 | 1 | 2,419.70 | | |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 5,212.75 | 1/4 | 4,899.79 | 1/4 | 4,567.65 | 1/4 | 4,221.48 | 1/4 | 3,862.53 | 1/4 | 3,499.96 | 1/4 | 3,137.38 | 1/4 | 2,774.80 | 1/4 | 2,412.14 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 5,207.63 | 1/2 | 4,893.01 | 1/2 | 4,560.56 | 1/2 | 4,214.11 | 1/2 | 3,854.98 | 1/2 | 3,492.40 | 1/2 | 3,129.82 | 1/2 | 2,767.25 | 1/2 | 2,404.58 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 5,202.51 | 3/4 | 4,886.23 | 3/4 | 4,553.48 | 3/4 | 4,206.75 | 3/4 | 3,847.43 | 3/4 | 3,484.85 | 3/4 | 3,122.27 | 3/4 | 2,759.69 | 3/4 | 2,397.03 |
| 2 | | 2 | | 2 | 5,197.39 | 2 | 4,879.45 | 2 | 4,546.39 | 2 | 4,199.39 | 2 | 3,839.87 | 2 | 3,477.29 | 2 | 3,114.72 | 2 | 2,752.14 | 2 | 2,389.47 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 5,192.28 | 1/4 | 4,872.66 | 1/4 | 4,539.31 | 1/4 | 4,192.03 | 1/4 | 3,832.32 | 1/4 | 3,469.74 | 1/4 | 3,107.16 | 1/4 | 2,744.59 | 1/4 | 2,381.92 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 5,185.94 | 1/2 | 4,865.86 | 1/2 | 4,532.20 | 1/2 | 4,184.65 | 1/2 | 3,824.76 | 1/2 | 3,462.19 | 1/2 | 3,099.61 | 1/2 | 2,737.03 | 1/2 | 2,374.36 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 5,179.61 | 3/4 | 4,859.06 | 3/4 | 4,525.09 | 3/4 | 4,177.26 | 3/4 | 3,817.21 | 3/4 | 3,454.63 | 3/4 | 3,092.06 | 3/4 | 2,729.48 | 3/4 | 2,366.80 |
| 3 | | 3 | | 3 | 5,173.28 | 3 | 4,852.25 | 3 | 4,517.98 | 3 | 4,169.88 | 3 | 3,809.66 | 3 | 3,447.08 | 3 | 3,084.50 | 3 | 2,721.92 | 3 | 2,359.25 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 5,166.94 | 1/4 | 4,845.45 | 1/4 | 4,510.87 | 1/4 | 4,162.49 | 1/4 | 3,802.10 | 1/4 | 3,439.53 | 1/4 | 3,076.95 | 1/4 | 2,714.37 | 1/4 | 2,351.69 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 5,159.75 | 1/2 | 4,838.62 | 1/2 | 4,503.74 | 1/2 | 4,155.09 | 1/2 | 3,794.55 | 1/2 | 3,431.97 | 1/2 | 3,069.39 | 1/2 | 2,706.82 | 1/2 | 2,344.13 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 5,152.55 | 3/4 | 4,831.80 | 3/4 | 4,496.61 | 3/4 | 4,147.68 | 3/4 | 3,787.00 | 3/4 | 3,424.42 | 3/4 | 3,061.84 | 3/4 | 2,699.26 | 3/4 | 2,336.58 |
| 4 | | 4 | | 4 | 5,145.35 | 4 | 4,824.97 | 4 | 4,489.48 | 4 | 4,140.27 | 4 | 3,779.44 | 4 | 3,416.86 | 4 | 3,054.29 | 4 | 2,691.71 | 4 | 2,329.02 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 5,138.15 | 1/4 | 4,818.14 | 1/4 | 4,482.35 | 1/4 | 4,132.87 | 1/4 | 3,771.89 | 1/4 | 3,409.31 | 1/4 | 3,046.73 | 1/4 | 2,684.16 | 1/4 | 2,321.46 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 5,131.65 | 1/2 | 4,811.29 | 1/2 | 4,475.19 | 1/2 | 4,125.44 | 1/2 | 3,764.33 | 1/2 | 3,401.76 | 1/2 | 3,039.18 | 1/2 | 2,676.60 | 1/2 | 2,313.91 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 5,125.14 | 3/4 | 4,804.44 | 3/4 | 4,468.04 | 3/4 | 4,118.00 | 3/4 | 3,756.78 | 3/4 | 3,394.20 | 3/4 | 3,031.63 | 3/4 | 2,669.05 | 3/4 | 2,306.35 |
| 5 | | 5 | | 5 | 5,118.64 | 5 | 4,797.59 | 5 | 4,460.88 | 5 | 4,110.57 | 5 | 3,749.23 | 5 | 3,386.65 | 5 | 3,024.07 | 5 | 2,661.49 | 5 | 2,298.80 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 5,112.14 | 1/4 | 4,790.74 | 1/4 | 4,453.73 | 1/4 | 4,103.14 | 1/4 | 3,741.67 | 1/4 | 3,379.10 | 1/4 | 3,016.52 | 1/4 | 2,653.94 | 1/4 | 2,291.24 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 5,105.61 | 1/2 | 4,783.87 | 1/2 | 4,446.55 | 1/2 | 4,095.69 | 1/2 | 3,734.12 | 1/2 | 3,371.54 | 1/2 | 3,008.96 | 1/2 | 2,646.39 | 1/2 | 2,283.68 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 5,099.08 | 3/4 | 4,777.00 | 3/4 | 4,439.37 | 3/4 | 4,088.24 | 3/4 | 3,726.57 | 3/4 | 3,363.99 | 3/4 | 3,001.41 | 3/4 | 2,638.83 | 3/4 | 2,276.13 |
| 6 | | 6 | | 6 | 5,092.55 | 6 | 4,770.13 | 6 | 4,432.20 | 6 | 4,080.79 | 6 | 3,719.01 | 6 | 3,356.43 | 6 | 2,993.86 | 6 | 2,631.28 | 6 | 2,268.57 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 5,086.02 | 1/4 | 4,763.25 | 1/4 | 4,425.02 | 1/4 | 4,073.33 | 1/4 | 3,711.46 | 1/4 | 3,348.88 | 1/4 | 2,986.30 | 1/4 | 2,623.72 | 1/4 | 2,261.01 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 5,079.47 | 1/2 | 4,756.36 | 1/2 | 4,417.82 | 1/2 | 4,065.86 | 1/2 | 3,703.91 | 1/2 | 3,341.33 | 1/2 | 2,978.75 | 1/2 | 2,616.16 | 1/2 | 2,253.46 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 5,072.92 | 3/4 | 4,749.46 | 3/4 | 4,410.62 | 3/4 | 4,058.38 | 3/4 | 3,696.35 | 3/4 | 3,333.77 | 3/4 | 2,971.20 | 3/4 | 2,608.61 | 3/4 | 2,245.90 |
| 7 | | 7 | | 7 | 5,066.37 | 7 | 4,742.57 | 7 | 4,403.42 | 7 | 4,050.90 | 7 | 3,688.80 | 7 | 3,326.22 | 7 | 2,963.64 | 7 | 2,601.05 | 7 | 2,238.34 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 5,059.82 | 1/4 | 4,735.67 | 1/4 | 4,396.22 | 1/4 | 4,043.43 | 1/4 | 3,681.24 | 1/4 | 3,318.67 | 1/4 | 2,956.09 | 1/4 | 2,593.49 | 1/4 | 2,230.79 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 5,053.25 | 1/2 | 4,728.75 | 1/2 | 4,388.99 | 1/2 | 4,035.93 | 1/2 | 3,673.69 | 1/2 | 3,311.11 | 1/2 | 2,948.54 | 1/2 | 2,585.94 | 1/2 | 2,223.23 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 5,046.67 | 3/4 | 4,721.83 | 3/4 | 4,381.77 | 3/4 | 4,028.43 | 3/4 | 3,666.14 | 3/4 | 3,303.56 | 3/4 | 2,940.98 | 3/4 | 2,578.38 | 3/4 | 2,215.67 |
| 8 | | 8 | | 8 | 5,040.10 | 8 | 4,714.90 | 8 | 4,374.55 | 8 | 4,020.93 | 8 | 3,658.58 | 8 | 3,296.01 | 8 | 2,933.43 | 8 | 2,570.83 | 8 | 2,208.12 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 5,033.53 | 1/4 | 4,707.98 | 1/4 | 4,367.32 | 1/4 | 4,013.43 | 1/4 | 3,651.03 | 1/4 | 3,288.45 | 1/4 | 2,925.87 | 1/4 | 2,563.27 | 1/4 | 2,200.56 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 5,026.93 | 1/2 | 4,701.01 | 1/2 | 4,360.08 | 1/2 | 4,005.91 | 1/2 | 3,643.48 | 1/2 | 3,280.90 | 1/2 | 2,918.32 | 1/2 | 2,555.71 | 1/2 | 2,193.01 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 5,020.33 | 3/4 | 4,694.04 | 3/4 | 4,352.83 | 3/4 | 3,998.39 | 3/4 | 3,635.92 | 3/4 | 3,273.34 | 3/4 | 2,910.77 | 3/4 | 2,548.16 | 3/4 | 2,185.45 |
| 9 | | 9 | | 9 | 5,013.74 | 9 | 4,687.07 | 9 | 4,345.58 | 9 | 3,990.87 | 9 | 3,628.37 | 9 | 3,265.79 | 9 | 2,903.21 | 9 | 2,540.60 | 9 | 2,177.89 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 5,007.14 | 1/4 | 4,680.10 | 1/4 | 4,338.34 | 1/4 | 3,983.34 | 1/4 | 3,620.81 | 1/4 | 3,258.24 | 1/4 | 2,895.66 | 1/4 | 2,533.04 | 1/4 | 2,170.34 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 5,000.51 | 1/2 | 4,673.11 | 1/2 | 4,331.07 | 1/2 | 3,975.80 | 1/2 | 3,613.26 | 1/2 | 3,250.68 | 1/2 | 2,888.11 | 1/2 | 2,525.49 | 1/2 | 2,162.78 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 4,993.88 | 3/4 | 4,666.11 | 3/4 | 4,323.80 | 3/4 | 3,968.26 | 3/4 | 3,605.71 | 3/4 | 3,243.13 | 3/4 | 2,880.55 | 3/4 | 2,517.93 | 3/4 | 2,155.22 |
| 10 | | 10 | | 10 | 4,987.25 | 10 | 4,659.12 | 10 | 4,316.53 | 10 | 3,960.72 | 10 | 3,598.15 | 10 | 3,235.58 | 10 | 2,873.00 | 10 | 2,510.37 | 10 | 2,147.67 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 4,980.62 | 1/4 | 4,652.12 | 1/4 | 4,309.26 | 1/4 | 3,953.18 | 1/4 | 3,590.60 | 1/4 | 3,228.02 | 1/4 | 2,865.44 | 1/4 | 2,502.82 | 1/4 | 2,140.11 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 4,973.91 | 1/2 | 4,645.11 | 1/2 | 4,301.97 | 1/2 | 3,945.62 | 1/2 | 3,583.05 | 1/2 | 3,220.47 | 1/2 | 2,857.89 | 1/2 | 2,495.26 | 1/2 | 2,132.55 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 4,967.20 | 3/4 | 4,638.09 | 3/4 | 4,294.68 | 3/4 | 3,938.07 | 3/4 | 3,575.49 | 3/4 | 3,212.91 | 3/4 | 2,850.34 | 3/4 | 2,487.71 | 3/4 | 2,125.00 |
| 11 | | 11 | | 11 | 4,960.48 | 11 | 4,631.07 | 11 | 4,287.38 | 11 | 3,930.52 | 11 | 3,567.94 | 11 | 3,205.36 | 11 | 2,842.78 | 11 | 2,480.15 | 11 | 2,117.44 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 4,953.77 | 1/4 | 4,624.06 | 1/4 | 4,280.09 | 1/4 | 3,922.96 | 1/4 | 3,560.38 | 1/4 | 3,197.81 | 1/4 | 2,835.23 | 1/4 | 2,472.59 | 1/4 | 2,109.89 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 4,947.03 | 1/2 | 4,617.02 | 1/2 | 4,272.78 | 1/2 | 3,915.41 | 1/2 | 3,552.83 | 1/2 | 3,190.25 | 1/2 | 2,827.68 | 1/2 | 2,465.04 | 1/2 | 2,102.33 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 4,940.29 | 3/4 | 4,609.98 | 3/4 | 4,265.46 | 3/4 | 3,907.86 | 3/4 | 3,545.28 | 3/4 | 3,182.70 | 3/4 | 2,820.12 | 3/4 | 2,457.48 | 3/4 | 2,094.77 |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 43'-09" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

1 STBD
ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-09 1/4"

| IN | 10 FT. | IN | 11 FT. | IN | 12 FT. | IN | 13 FT. | IN | 14 FT. | IN | 15 FT. | IN | 16 FT. | IN | 17 FT. | IN | 18 FT. | IN | 19 FT. |
|-------|----------|-------|----------|-------|----------|-------|----------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| 0 | 2,087.22 | 0 | 1,724.51 | 0 | 1,361.80 | 0 | 1,000.88 | 0 | 638.78 | 0 | 276.09 | 0 | | 0 | | 0 | | 0 | |
| 1/4 | 2,079.66 | 1/4 | 1,716.95 | 1/4 | 1,354.25 | 1/4 | 993.38 | 1/4 | 631.23 | 1/4 | 268.53 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,072.10 | 1/2 | 1,709.40 | 1/2 | 1,346.69 | 1/2 | 985.87 | 1/2 | 623.67 | 1/2 | 260.98 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,064.55 | 3/4 | 1,701.84 | 3/4 | 1,339.13 | 3/4 | 978.37 | 3/4 | 616.11 | 3/4 | 253.42 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 1 | 2,056.99 | 1 | 1,694.28 | 1 | 1,331.58 | 1 | 970.86 | 1 | 608.56 | 1 | 245.86 | 1 | | 1 | | 1 | | 1 | |
| 1 1/4 | 2,049.43 | 1 1/4 | 1,686.73 | 1 1/4 | 1,324.02 | 1 1/4 | 963.36 | 1 1/4 | 601.00 | 1 1/4 | 238.31 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 2,041.88 | 1 1/2 | 1,679.17 | 1 1/2 | 1,316.46 | 1 1/2 | 955.85 | 1 1/2 | 593.44 | 1 1/2 | 230.75 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 2,034.32 | 3/4 | 1,671.61 | 3/4 | 1,308.91 | 3/4 | 948.35 | 3/4 | 585.89 | 3/4 | 223.20 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 2 | 2,026.76 | 2 | 1,664.06 | 2 | 1,301.35 | 2 | 940.84 | 2 | 578.33 | 2 | 215.64 | 2 | | 2 | | 2 | | 2 | |
| 1 1/4 | 2,019.21 | 1 1/4 | 1,656.50 | 1 1/4 | 1,293.79 | 1 1/4 | 933.33 | 1 1/4 | 570.78 | 1 1/4 | 208.08 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 2,011.65 | 1 1/2 | 1,648.94 | 1 1/2 | 1,286.24 | 1 1/2 | 925.81 | 1 1/2 | 563.22 | 1 1/2 | 200.53 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 2,004.10 | 3/4 | 1,641.39 | 3/4 | 1,278.69 | 3/4 | 918.29 | 3/4 | 555.66 | 3/4 | 192.97 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 3 | 1,996.54 | 3 | 1,633.83 | 3 | 1,271.14 | 3 | 910.77 | 3 | 548.11 | 3 | 185.42 | 3 | | 3 | | 3 | | 3 | |
| 1 1/4 | 1,988.98 | 1 1/4 | 1,626.28 | 1 1/4 | 1,263.59 | 1 1/4 | 903.24 | 1 1/4 | 540.55 | 1 1/4 | 177.86 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 1,981.43 | 1 1/2 | 1,618.72 | 1 1/2 | 1,256.07 | 1 1/2 | 895.69 | 1 1/2 | 533.00 | 1 1/2 | 170.30 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 1,973.87 | 3/4 | 1,611.16 | 3/4 | 1,248.56 | 3/4 | 888.13 | 3/4 | 525.44 | 3/4 | 162.75 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 4 | 1,966.31 | 4 | 1,603.61 | 4 | 1,241.04 | 4 | 880.58 | 4 | 517.88 | 4 | 155.19 | 4 | | 4 | | 4 | | 4 | |
| 1 1/4 | 1,958.76 | 1 1/4 | 1,596.05 | 1 1/4 | 1,233.53 | 1 1/4 | 873.02 | 1 1/4 | 510.33 | 1 1/4 | 147.63 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 1,951.20 | 1 1/2 | 1,588.49 | 1 1/2 | 1,226.02 | 1 1/2 | 865.46 | 1 1/2 | 502.77 | 1 1/2 | 140.08 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 1,943.64 | 3/4 | 1,580.94 | 3/4 | 1,218.52 | 3/4 | 857.91 | 3/4 | 495.22 | 3/4 | 132.52 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 5 | 1,936.09 | 5 | 1,573.38 | 5 | 1,211.01 | 5 | 850.35 | 5 | 487.66 | 5 | 124.97 | 5 | | 5 | | 5 | | 5 | |
| 1 1/4 | 1,928.53 | 1 1/4 | 1,565.82 | 1 1/4 | 1,203.51 | 1 1/4 | 842.80 | 1 1/4 | 480.10 | 1 1/4 | 117.41 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 1,920.98 | 1 1/2 | 1,558.27 | 1 1/2 | 1,196.00 | 1 1/2 | 835.24 | 1 1/2 | 472.55 | 1 1/2 | 109.93 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 1,913.42 | 3/4 | 1,550.71 | 3/4 | 1,188.50 | 3/4 | 827.68 | 3/4 | 464.99 | 3/4 | 102.46 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 6 | 1,905.86 | 6 | 1,543.16 | 6 | 1,180.99 | 6 | 820.13 | 6 | 457.43 | 6 | 94.98 | 6 | | 6 | | 6 | | 6 | |
| 1 1/4 | 1,898.31 | 1 1/4 | 1,535.60 | 1 1/4 | 1,173.49 | 1 1/4 | 812.57 | 1 1/4 | 449.88 | 1 1/4 | 87.50 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 1,890.75 | 1 1/2 | 1,528.04 | 1 1/2 | 1,165.99 | 1 1/2 | 805.02 | 1 1/2 | 442.32 | 1 1/2 | 80.73 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 1,883.19 | 3/4 | 1,520.49 | 3/4 | 1,158.48 | 3/4 | 797.46 | 3/4 | 434.77 | 3/4 | 73.96 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 7 | 1,875.64 | 7 | 1,512.93 | 7 | 1,150.98 | 7 | 789.90 | 7 | 427.21 | 7 | 67.19 | 7 | | 7 | | 7 | | 7 | |
| 1 1/4 | 1,868.08 | 1 1/4 | 1,505.37 | 1 1/4 | 1,143.47 | 1 1/4 | 782.35 | 1 1/4 | 419.65 | 1 1/4 | 60.43 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 1,860.52 | 1 1/2 | 1,497.82 | 1 1/2 | 1,135.97 | 1 1/2 | 774.79 | 1 1/2 | 412.10 | 1 1/2 | 54.92 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 1,852.97 | 3/4 | 1,490.26 | 3/4 | 1,128.46 | 3/4 | 767.24 | 3/4 | 404.54 | 3/4 | 49.41 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 8 | 1,845.41 | 8 | 1,482.70 | 8 | 1,120.96 | 8 | 759.68 | 8 | 396.99 | 8 | 43.90 | 8 | | 8 | | 8 | | 8 | |
| 1 1/4 | 1,837.85 | 1 1/4 | 1,475.15 | 1 1/4 | 1,113.45 | 1 1/4 | 752.12 | 1 1/4 | 389.43 | 1 1/4 | 38.39 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 1,830.30 | 1 1/2 | 1,467.59 | 1 1/2 | 1,105.95 | 1 1/2 | 744.57 | 1 1/2 | 381.87 | 1 1/2 | 34.14 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 1,822.74 | 3/4 | 1,460.03 | 3/4 | 1,098.44 | 3/4 | 737.01 | 3/4 | 374.32 | 3/4 | 29.89 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 9 | 1,815.19 | 9 | 1,452.48 | 9 | 1,090.94 | 9 | 729.45 | 9 | 366.76 | 9 | 25.64 | 9 | | 9 | | 9 | | 9 | |
| 1 1/4 | 1,807.63 | 1 1/4 | 1,444.92 | 1 1/4 | 1,083.43 | 1 1/4 | 721.90 | 1 1/4 | 359.21 | 1 1/4 | 21.39 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 1,800.07 | 1 1/2 | 1,437.37 | 1 1/2 | 1,075.93 | 1 1/2 | 714.34 | 1 1/2 | 351.65 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 1,792.52 | 3/4 | 1,429.81 | 3/4 | 1,068.42 | 3/4 | 706.79 | 3/4 | 344.09 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 10 | 1,784.96 | 10 | 1,422.25 | 10 | 1,060.92 | 10 | 699.23 | 10 | 336.54 | 10 | | 10 | | 10 | | 10 | | 10 | |
| 1 1/4 | 1,777.40 | 1 1/4 | 1,414.70 | 1 1/4 | 1,053.41 | 1 1/4 | 691.67 | 1 1/4 | 328.98 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 1,769.85 | 1 1/2 | 1,407.14 | 1 1/2 | 1,045.91 | 1 1/2 | 684.12 | 1 1/2 | 321.43 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 1,762.29 | 3/4 | 1,399.58 | 3/4 | 1,038.41 | 3/4 | 676.56 | 3/4 | 313.87 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 11 | 1,754.73 | 11 | 1,392.03 | 11 | 1,030.90 | 11 | 669.01 | 11 | 306.31 | 11 | | 11 | | 11 | | 11 | | 11 | |
| 1 1/4 | 1,747.18 | 1 1/4 | 1,384.47 | 1 1/4 | 1,023.40 | 1 1/4 | 661.45 | 1 1/4 | 298.76 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 1,739.62 | 1 1/2 | 1,376.91 | 1 1/2 | 1,015.89 | 1 1/2 | 653.89 | 1 1/2 | 291.20 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 1,732.07 | 3/4 | 1,369.36 | 3/4 | 1,008.39 | 3/4 | 646.34 | 3/4 | 283.64 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

2 PORT ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

| 0 FT. | | 1 FT. | | 2 FT. | | 3 FT. | | 4 FT. | | 5 FT. | | 6 FT. | | 7 FT. | | 8 FT. | | 9 FT. | |
|-------|--|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|
| IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | |
| 0 | | 0 | | 0 | 4,910.04 | 0 | 4,579.70 | 0 | 4,235.23 | 0 | 3,877.79 | 0 | 3,516.08 | 0 | 3,154.37 | 0 | 2,792.66 | 0 | 2,430.89 |
| 1/4 | | 1/4 | | 1/4 | 4,903.30 | 1/4 | 4,572.65 | 1/4 | 4,227.91 | 1/4 | 3,870.25 | 1/4 | 3,508.55 | 1/4 | 3,146.84 | 1/4 | 2,785.13 | 1/4 | 2,423.35 |
| 1/2 | | 1/2 | | 1/2 | 4,896.56 | 1/2 | 4,565.61 | 1/2 | 4,220.59 | 1/2 | 3,862.72 | 1/2 | 3,501.01 | 1/2 | 3,139.30 | 1/2 | 2,777.59 | 1/2 | 2,415.81 |
| 3/4 | | 3/4 | 5,201.94 | 3/4 | 4,889.82 | 3/4 | 4,558.56 | 3/4 | 4,213.27 | 3/4 | 3,855.18 | 3/4 | 3,493.47 | 3/4 | 3,131.77 | 3/4 | 2,770.06 | 3/4 | 2,408.27 |
| 1 | | 1 | 5,196.83 | 1 | 4,883.06 | 1 | 4,551.50 | 1 | 4,205.92 | 1 | 3,847.65 | 1 | 3,485.94 | 1 | 3,124.23 | 1 | 2,762.52 | 1 | 2,400.73 |
| 1/4 | | 1/4 | 5,191.73 | 1/4 | 4,876.30 | 1/4 | 4,544.43 | 1/4 | 4,198.58 | 1/4 | 3,840.11 | 1/4 | 3,478.40 | 1/4 | 3,116.69 | 1/4 | 2,754.99 | 1/4 | 2,393.20 |
| 1/2 | | 1/2 | 5,186.62 | 1/2 | 4,869.53 | 1/2 | 4,537.36 | 1/2 | 4,191.24 | 1/2 | 3,832.58 | 1/2 | 3,470.87 | 1/2 | 3,109.16 | 1/2 | 2,747.45 | 1/2 | 2,385.66 |
| 3/4 | | 3/4 | 5,181.52 | 3/4 | 4,862.77 | 3/4 | 4,530.29 | 3/4 | 4,183.89 | 3/4 | 3,825.04 | 3/4 | 3,463.33 | 3/4 | 3,101.62 | 3/4 | 2,739.91 | 3/4 | 2,378.12 |
| 2 | | 2 | 5,175.20 | 2 | 4,855.99 | 2 | 4,523.20 | 2 | 4,176.53 | 2 | 3,817.50 | 2 | 3,455.80 | 2 | 3,094.09 | 2 | 2,732.38 | 2 | 2,370.58 |
| 1/4 | | 1/4 | 5,168.88 | 1/4 | 4,849.20 | 1/4 | 4,516.11 | 1/4 | 4,169.16 | 1/4 | 3,809.97 | 1/4 | 3,448.26 | 1/4 | 3,086.55 | 1/4 | 2,724.84 | 1/4 | 2,363.04 |
| 1/2 | | 1/2 | 5,162.56 | 1/2 | 4,842.42 | 1/2 | 4,509.02 | 1/2 | 4,161.79 | 1/2 | 3,802.43 | 1/2 | 3,440.72 | 1/2 | 3,079.02 | 1/2 | 2,717.31 | 1/2 | 2,355.50 |
| 3/4 | | 3/4 | 5,156.24 | 3/4 | 4,835.63 | 3/4 | 4,501.93 | 3/4 | 4,154.43 | 3/4 | 3,794.90 | 3/4 | 3,433.19 | 3/4 | 3,071.48 | 3/4 | 2,709.77 | 3/4 | 2,347.97 |
| 3 | | 3 | 5,149.06 | 3 | 4,828.82 | 3 | 4,494.82 | 3 | 4,147.04 | 3 | 3,787.36 | 3 | 3,425.65 | 3 | 3,063.94 | 3 | 2,702.24 | 3 | 2,340.43 |
| 1/4 | | 1/4 | 5,141.88 | 1/4 | 4,822.01 | 1/4 | 4,487.71 | 1/4 | 4,139.65 | 1/4 | 3,779.83 | 1/4 | 3,418.12 | 1/4 | 3,056.41 | 1/4 | 2,694.70 | 1/4 | 2,332.89 |
| 1/2 | | 1/2 | 5,134.70 | 1/2 | 4,815.21 | 1/2 | 4,480.59 | 1/2 | 4,132.26 | 1/2 | 3,772.29 | 1/2 | 3,410.58 | 1/2 | 3,048.87 | 1/2 | 2,687.16 | 1/2 | 2,325.35 |
| 3/4 | | 3/4 | 5,127.52 | 3/4 | 4,808.40 | 3/4 | 4,473.48 | 3/4 | 4,124.87 | 3/4 | 3,764.76 | 3/4 | 3,403.05 | 3/4 | 3,041.34 | 3/4 | 2,679.63 | 3/4 | 2,317.81 |
| 4 | | 4 | 5,121.04 | 4 | 4,801.57 | 4 | 4,466.34 | 4 | 4,117.46 | 4 | 3,757.22 | 4 | 3,395.51 | 4 | 3,033.80 | 4 | 2,672.09 | 4 | 2,310.27 |
| 1/4 | | 1/4 | 5,114.55 | 1/4 | 4,794.73 | 1/4 | 4,459.21 | 1/4 | 4,110.05 | 1/4 | 3,749.68 | 1/4 | 3,387.98 | 1/4 | 3,026.27 | 1/4 | 2,664.56 | 1/4 | 2,302.74 |
| 1/2 | | 1/2 | 5,108.06 | 1/2 | 4,787.90 | 1/2 | 4,452.07 | 1/2 | 4,102.64 | 1/2 | 3,742.15 | 1/2 | 3,380.44 | 1/2 | 3,018.73 | 1/2 | 2,657.02 | 1/2 | 2,295.20 |
| 3/4 | | 3/4 | 5,101.58 | 3/4 | 4,781.07 | 3/4 | 4,444.93 | 3/4 | 4,095.22 | 3/4 | 3,734.61 | 3/4 | 3,372.90 | 3/4 | 3,011.20 | 3/4 | 2,649.49 | 3/4 | 2,287.66 |
| 5 | | 5 | 5,095.07 | 5 | 4,774.22 | 5 | 4,437.78 | 5 | 4,087.79 | 5 | 3,727.08 | 5 | 3,365.37 | 5 | 3,003.66 | 5 | 2,641.95 | 5 | 2,280.12 |
| 1/4 | | 1/4 | 5,088.56 | 1/4 | 4,767.36 | 1/4 | 4,430.62 | 1/4 | 4,080.35 | 1/4 | 3,719.54 | 1/4 | 3,357.83 | 1/4 | 2,996.12 | 1/4 | 2,634.42 | 1/4 | 2,272.58 |
| 1/2 | | 1/2 | 5,082.05 | 1/2 | 4,760.51 | 1/2 | 4,423.46 | 1/2 | 4,072.92 | 1/2 | 3,712.01 | 1/2 | 3,350.30 | 1/2 | 2,988.59 | 1/2 | 2,626.88 | 1/2 | 2,265.04 |
| 3/4 | | 3/4 | 5,075.54 | 3/4 | 4,753.65 | 3/4 | 4,416.30 | 3/4 | 4,065.48 | 3/4 | 3,704.47 | 3/4 | 3,342.76 | 3/4 | 2,981.05 | 3/4 | 2,619.35 | 3/4 | 2,257.50 |
| 6 | | 6 | 5,069.01 | 6 | 4,746.78 | 6 | 4,409.12 | 6 | 4,058.03 | 6 | 3,696.94 | 6 | 3,335.23 | 6 | 2,973.52 | 6 | 2,611.81 | 6 | 2,249.97 |
| 1/4 | | 1/4 | 5,062.48 | 1/4 | 4,739.90 | 1/4 | 4,401.93 | 1/4 | 4,050.57 | 1/4 | 3,689.40 | 1/4 | 3,327.69 | 1/4 | 2,965.98 | 1/4 | 2,604.27 | 1/4 | 2,242.43 |
| 1/2 | | 1/2 | 5,055.94 | 1/2 | 4,733.02 | 1/2 | 4,394.75 | 1/2 | 4,043.11 | 1/2 | 3,681.86 | 1/2 | 3,320.16 | 1/2 | 2,958.45 | 1/2 | 2,596.73 | 1/2 | 2,234.89 |
| 3/4 | | 3/4 | 5,049.41 | 3/4 | 4,726.15 | 3/4 | 4,387.57 | 3/4 | 4,035.65 | 3/4 | 3,674.33 | 3/4 | 3,312.62 | 3/4 | 2,950.91 | 3/4 | 2,589.19 | 3/4 | 2,227.35 |
| 7 | | 7 | 5,042.86 | 7 | 4,719.24 | 7 | 4,380.36 | 7 | 4,028.17 | 7 | 3,666.79 | 7 | 3,305.08 | 7 | 2,943.38 | 7 | 2,581.66 | 7 | 2,219.81 |
| 1/4 | | 1/4 | 5,036.30 | 1/4 | 4,712.34 | 1/4 | 4,373.16 | 1/4 | 4,020.69 | 1/4 | 3,659.26 | 1/4 | 3,297.55 | 1/4 | 2,935.84 | 1/4 | 2,574.12 | 1/4 | 2,212.27 |
| 1/2 | | 1/2 | 5,029.74 | 1/2 | 4,705.43 | 1/2 | 4,365.95 | 1/2 | 4,013.21 | 1/2 | 3,651.72 | 1/2 | 3,290.01 | 1/2 | 2,928.30 | 1/2 | 2,566.58 | 1/2 | 2,204.74 |
| 3/4 | | 3/4 | 5,023.19 | 3/4 | 4,698.53 | 3/4 | 4,358.75 | 3/4 | 4,005.73 | 3/4 | 3,644.19 | 3/4 | 3,282.48 | 3/4 | 2,920.77 | 3/4 | 2,559.04 | 3/4 | 2,197.20 |
| 8 | | 8 | 5,016.61 | 8 | 4,691.58 | 8 | 4,351.52 | 8 | 3,998.22 | 8 | 3,636.65 | 8 | 3,274.94 | 8 | 2,913.23 | 8 | 2,551.50 | 8 | 2,189.66 |
| 1/4 | | 1/4 | 5,010.03 | 1/4 | 4,684.63 | 1/4 | 4,344.29 | 1/4 | 3,990.72 | 1/4 | 3,629.11 | 1/4 | 3,267.41 | 1/4 | 2,905.70 | 1/4 | 2,543.96 | 1/4 | 2,182.12 |
| 1/2 | | 1/2 | 5,003.46 | 1/2 | 4,677.67 | 1/2 | 4,337.06 | 1/2 | 3,983.22 | 1/2 | 3,621.58 | 1/2 | 3,259.87 | 1/2 | 2,898.16 | 1/2 | 2,536.43 | 1/2 | 2,174.58 |
| 3/4 | | 3/4 | 4,996.88 | 3/4 | 4,670.72 | 3/4 | 4,329.84 | 3/4 | 3,975.71 | 3/4 | 3,614.04 | 3/4 | 3,252.33 | 3/4 | 2,890.63 | 3/4 | 2,528.89 | 3/4 | 2,167.04 |
| 9 | | 9 | 4,990.27 | 9 | 4,663.75 | 9 | 4,322.58 | 9 | 3,968.19 | 9 | 3,606.51 | 9 | 3,244.80 | 9 | 2,883.09 | 9 | 2,521.35 | 9 | 2,159.51 |
| 1/4 | | 1/4 | 4,983.66 | 1/4 | 4,656.77 | 1/4 | 4,315.33 | 1/4 | 3,960.66 | 1/4 | 3,598.97 | 1/4 | 3,237.26 | 1/4 | 2,875.55 | 1/4 | 2,513.81 | 1/4 | 2,151.97 |
| 1/2 | | 1/2 | 4,977.05 | 1/2 | 4,649.79 | 1/2 | 4,308.08 | 1/2 | 3,953.14 | 1/2 | 3,591.44 | 1/2 | 3,229.73 | 1/2 | 2,868.02 | 1/2 | 2,506.27 | 1/2 | 2,144.43 |
| 3/4 | | 3/4 | 4,970.44 | 3/4 | 4,642.82 | 3/4 | 4,300.83 | 3/4 | 3,945.61 | 3/4 | 3,583.90 | 3/4 | 3,222.19 | 3/4 | 2,860.48 | 3/4 | 2,498.73 | 3/4 | 2,136.89 |
| 10 | | 10 | 4,963.74 | 10 | 4,635.82 | 10 | 4,293.56 | 10 | 3,938.07 | 10 | 3,576.37 | 10 | 3,214.66 | 10 | 2,852.95 | 10 | 2,491.20 | 10 | 2,129.35 |
| 1/4 | | 1/4 | 4,957.04 | 1/4 | 4,628.82 | 1/4 | 4,286.28 | 1/4 | 3,930.54 | 1/4 | 3,568.83 | 1/4 | 3,207.12 | 1/4 | 2,845.41 | 1/4 | 2,483.66 | 1/4 | 2,121.81 |
| 1/2 | | 1/2 | 4,950.35 | 1/2 | 4,621.82 | 1/2 | 4,279.01 | 1/2 | 3,923.00 | 1/2 | 3,561.29 | 1/2 | 3,199.59 | 1/2 | 2,837.88 | 1/2 | 2,476.12 | 1/2 | 2,114.28 |
| 3/4 | | 3/4 | 4,943.65 | 3/4 | 4,614.83 | 3/4 | 4,271.73 | 3/4 | 3,915.47 | 3/4 | 3,553.76 | 3/4 | 3,192.05 | 3/4 | 2,830.34 | 3/4 | 2,468.58 | 3/4 | 2,106.74 |
| 11 | | 11 | 4,936.93 | 11 | 4,607.80 | 11 | 4,264.44 | 11 | 3,907.93 | 11 | 3,546.22 | 11 | 3,184.51 | 11 | 2,822.81 | 11 | 2,461.04 | 11 | 2,099.20 |
| 1/4 | | 1/4 | 4,930.22 | 1/4 | 4,600.78 | 1/4 | 4,257.14 | 1/4 | 3,900.40 | 1/4 | 3,538.69 | 1/4 | 3,176.98 | 1/4 | 2,815.27 | 1/4 | 2,453.50 | 1/4 | 2,091.66 |
| 1/2 | | 1/2 | 4,923.50 | 1/2 | 4,593.76 | 1/2 | 4,249.84 | 1/2 | 3,892.86 | 1/2 | 3,531.15 | 1/2 | 3,169.44 | 1/2 | 2,807.73 | 1/2 | 2,445.96 | 1/2 | 2,084.12 |
| 3/4 | | 3/4 | 4,916.78 | 3/4 | 4,586.74 | 3/4 | 4,242.55 | 3/4 | 3,885.33 | 3/4 | 3,523.62 | 3/4 | 3,161.91 | 3/4 | 2,800.20 | 3/4 | 2,438.43 | 3/4 | 2,076.58 |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 43'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

2 PORT ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

| IN | 10 FT. | IN | 11 FT. | IN | 12 FT. | IN | 13 FT. | IN | 14 FT. | IN | 15 FT. | IN | 16 FT. | IN | 17 FT. | IN | 18 FT. | IN | 19 FT. |
|-----|----------|-----|----------|-----|----------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|
| 0 | 2,069.04 | 0 | 1,707.20 | 0 | 1,345.36 | 0 | 983.93 | 0 | 622.18 | 0 | 260.35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1/4 | 2,061.51 | 1/4 | 1,699.66 | 1/4 | 1,337.82 | 1/4 | 976.40 | 1/4 | 614.64 | 1/4 | 252.81 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 2,053.97 | 1/2 | 1,692.12 | 1/2 | 1,330.28 | 1/2 | 968.88 | 1/2 | 607.10 | 1/2 | 245.27 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 2,046.43 | 3/4 | 1,684.59 | 3/4 | 1,322.74 | 3/4 | 961.35 | 3/4 | 599.57 | 3/4 | 237.74 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 1 | 2,038.89 | 1 | 1,677.05 | 1 | 1,315.20 | 1 | 953.82 | 1 | 592.03 | 1 | 230.20 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1/4 | 2,031.35 | 1/4 | 1,669.51 | 1/4 | 1,307.67 | 1/4 | 946.30 | 1/4 | 584.49 | 1/4 | 222.66 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 2,023.81 | 1/2 | 1,661.97 | 1/2 | 1,300.13 | 1/2 | 938.77 | 1/2 | 576.95 | 1/2 | 215.12 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 2,016.28 | 3/4 | 1,654.43 | 3/4 | 1,292.59 | 3/4 | 931.24 | 3/4 | 569.41 | 3/4 | 207.58 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 2 | 2,008.74 | 2 | 1,646.89 | 2 | 1,285.05 | 2 | 923.70 | 2 | 561.87 | 2 | 200.05 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 1/4 | 2,001.20 | 1/4 | 1,639.36 | 1/4 | 1,277.51 | 1/4 | 916.17 | 1/4 | 554.34 | 1/4 | 192.51 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1,993.66 | 1/2 | 1,631.82 | 1/2 | 1,269.97 | 1/2 | 908.63 | 1/2 | 546.80 | 1/2 | 184.97 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 1,986.12 | 3/4 | 1,624.28 | 3/4 | 1,262.44 | 3/4 | 901.09 | 3/4 | 539.26 | 3/4 | 177.43 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 3 | 1,978.58 | 3 | 1,616.74 | 3 | 1,254.90 | 3 | 893.55 | 3 | 531.72 | 3 | 169.89 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 1/4 | 1,971.05 | 1/4 | 1,609.20 | 1/4 | 1,247.36 | 1/4 | 886.01 | 1/4 | 524.18 | 1/4 | 162.36 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1,963.51 | 1/2 | 1,601.66 | 1/2 | 1,239.83 | 1/2 | 878.47 | 1/2 | 516.65 | 1/2 | 154.82 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 1,955.97 | 3/4 | 1,594.13 | 3/4 | 1,232.29 | 3/4 | 870.94 | 3/4 | 509.11 | 3/4 | 147.28 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 4 | 1,948.43 | 4 | 1,586.59 | 4 | 1,224.76 | 4 | 863.40 | 4 | 501.57 | 4 | 139.74 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 1/4 | 1,940.89 | 1/4 | 1,579.05 | 1/4 | 1,217.24 | 1/4 | 855.86 | 1/4 | 494.03 | 1/4 | 132.20 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1,933.35 | 1/2 | 1,571.51 | 1/2 | 1,209.71 | 1/2 | 848.32 | 1/2 | 486.49 | 1/2 | 124.66 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 1,925.82 | 3/4 | 1,563.97 | 3/4 | 1,202.18 | 3/4 | 840.78 | 3/4 | 478.96 | 3/4 | 117.13 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 5 | 1,918.28 | 5 | 1,556.43 | 5 | 1,194.66 | 5 | 833.25 | 5 | 471.42 | 5 | 109.67 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 1/4 | 1,910.74 | 1/4 | 1,548.90 | 1/4 | 1,187.13 | 1/4 | 825.71 | 1/4 | 463.88 | 1/4 | 102.21 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1,903.20 | 1/2 | 1,541.36 | 1/2 | 1,179.61 | 1/2 | 818.17 | 1/2 | 456.34 | 1/2 | 94.75 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 1,895.66 | 3/4 | 1,533.82 | 3/4 | 1,172.08 | 3/4 | 810.63 | 3/4 | 448.80 | 3/4 | 87.29 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 6 | 1,888.12 | 6 | 1,526.28 | 6 | 1,164.55 | 6 | 803.09 | 6 | 441.27 | 6 | 80.54 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 1/4 | 1,880.58 | 1/4 | 1,518.74 | 1/4 | 1,157.03 | 1/4 | 795.56 | 1/4 | 433.73 | 1/4 | 73.78 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1,873.05 | 1/2 | 1,511.20 | 1/2 | 1,149.50 | 1/2 | 788.02 | 1/2 | 426.19 | 1/2 | 67.02 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 1,865.51 | 3/4 | 1,503.66 | 3/4 | 1,141.98 | 3/4 | 780.48 | 3/4 | 418.65 | 3/4 | 60.28 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 7 | 1,857.97 | 7 | 1,496.13 | 7 | 1,134.45 | 7 | 772.94 | 7 | 411.11 | 7 | 54.78 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 1/4 | 1,850.43 | 1/4 | 1,488.59 | 1/4 | 1,126.92 | 1/4 | 765.40 | 1/4 | 403.57 | 1/4 | 49.29 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1,842.89 | 1/2 | 1,481.05 | 1/2 | 1,119.40 | 1/2 | 757.87 | 1/2 | 396.04 | 1/2 | 43.79 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 1,835.35 | 3/4 | 1,473.51 | 3/4 | 1,111.87 | 3/4 | 750.33 | 3/4 | 388.50 | 3/4 | 38.30 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 8 | 1,827.82 | 8 | 1,465.97 | 8 | 1,104.35 | 8 | 742.79 | 8 | 380.96 | 8 | 34.06 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| 1/4 | 1,820.28 | 1/4 | 1,458.43 | 1/4 | 1,096.82 | 1/4 | 735.25 | 1/4 | 373.42 | 1/4 | 29.82 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1,812.74 | 1/2 | 1,450.90 | 1/2 | 1,089.29 | 1/2 | 727.71 | 1/2 | 365.88 | 1/2 | 25.58 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 1,805.20 | 3/4 | 1,443.36 | 3/4 | 1,081.77 | 3/4 | 720.17 | 3/4 | 358.35 | 3/4 | 21.34 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 9 | 1,797.66 | 9 | 1,435.82 | 9 | 1,074.24 | 9 | 712.64 | 9 | 350.81 | 9 | 17.00 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 1/4 | 1,790.12 | 1/4 | 1,428.28 | 1/4 | 1,066.71 | 1/4 | 705.10 | 1/4 | 343.27 | 1/4 | 12.76 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1,782.59 | 1/2 | 1,420.74 | 1/2 | 1,059.19 | 1/2 | 697.56 | 1/2 | 335.73 | 1/2 | 8.51 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 1,775.05 | 3/4 | 1,413.20 | 3/4 | 1,051.66 | 3/4 | 690.02 | 3/4 | 328.19 | 3/4 | 4.27 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 10 | 1,767.51 | 10 | 1,405.67 | 10 | 1,044.14 | 10 | 682.48 | 10 | 320.66 | 10 | 0.00 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 1/4 | 1,759.97 | 1/4 | 1,398.13 | 1/4 | 1,036.61 | 1/4 | 674.95 | 1/4 | 313.12 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1,752.43 | 1/2 | 1,390.59 | 1/2 | 1,029.08 | 1/2 | 667.41 | 1/2 | 305.58 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 1,744.89 | 3/4 | 1,383.05 | 3/4 | 1,021.56 | 3/4 | 659.87 | 3/4 | 298.04 | 3/4 | 1/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 11 | 1,737.36 | 11 | 1,375.51 | 11 | 1,014.03 | 11 | 652.33 | 11 | 290.50 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 1/4 | 1,729.82 | 1/4 | 1,367.97 | 1/4 | 1,006.51 | 1/4 | 644.79 | 1/4 | 282.96 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1,722.28 | 1/2 | 1,360.44 | 1/2 | 998.98 | 1/2 | 637.26 | 1/2 | 275.43 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 1,714.74 | 3/4 | 1,352.90 | 3/4 | 991.45 | 3/4 | 629.72 | 3/4 | 267.89 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

PRECISION MEASUREMENT
& ANALYSIS, INC.
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<http://www.pmacorp.net>



BARGE "CCL 419-L"

2 STBD ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08"

| IN | 0 FT. | IN | 1 FT. | IN | 2 FT. | IN | 3 FT. | IN | 4 FT. | IN | 5 FT. | IN | 6 FT. | IN | 7 FT. | IN | 8 FT. | IN | 9 FT. |
|-------|-------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0 | | 0 | 5,186.62 | 0 | 4,874.47 | 0 | 4,543.19 | 0 | 4,197.85 | 0 | 3,839.73 | 0 | 3,477.98 | 0 | 3,116.23 | 0 | 2,754.47 | 0 | 2,392.63 |
| 1/4 | 1/4 | 5,181.51 | 1/4 | 4,867.71 | 1/4 | 4,536.12 | 1/4 | 4,190.51 | 1/4 | 3,832.19 | 1/4 | 3,470.44 | 1/4 | 3,108.69 | 1/4 | 2,746.94 | 1/4 | 2,385.09 | |
| 1/2 | 1/2 | 5,176.41 | 1/2 | 4,860.95 | 1/2 | 4,529.05 | 1/2 | 4,183.16 | 1/2 | 3,824.66 | 1/2 | 3,462.90 | 1/2 | 3,101.15 | 1/2 | 2,739.40 | 1/2 | 2,377.55 | |
| 3/4 | 3/4 | 5,171.30 | 3/4 | 4,854.18 | 3/4 | 4,521.98 | 3/4 | 4,175.82 | 3/4 | 3,817.12 | 3/4 | 3,455.37 | 3/4 | 3,093.62 | 3/4 | 2,731.86 | 3/4 | 2,370.01 | |
| 1 | 1 | 5,166.19 | 1 | 4,847.42 | 1 | 4,514.91 | 1 | 4,168.48 | 1 | 3,809.58 | 1 | 3,447.83 | 1 | 3,086.08 | 1 | 2,724.33 | 1 | 2,362.47 | |
| 1 1/4 | 1 1/4 | 5,159.87 | 1 1/4 | 4,840.63 | 1 1/4 | 4,507.82 | 1 1/4 | 4,161.11 | 1 1/4 | 3,802.05 | 1 1/4 | 3,440.29 | 1 1/4 | 3,078.54 | 1 1/4 | 2,716.79 | 1 1/4 | 2,354.94 | |
| 1 1/2 | 1 1/2 | 5,153.56 | 1 1/2 | 4,833.85 | 1 1/2 | 4,500.73 | 1 1/2 | 4,153.74 | 1 1/2 | 3,794.51 | 1 1/2 | 3,432.76 | 1 1/2 | 3,071.01 | 1 1/2 | 2,709.25 | 1 1/2 | 2,347.40 | |
| 3/4 | 3/4 | 5,147.24 | 3/4 | 4,827.06 | 3/4 | 4,493.64 | 3/4 | 4,146.38 | 3/4 | 3,786.97 | 3/4 | 3,425.22 | 3/4 | 3,063.47 | 3/4 | 2,701.72 | 3/4 | 2,339.86 | |
| 2 | 2 | 5,140.92 | 2 | 4,820.28 | 2 | 4,486.55 | 2 | 4,139.01 | 2 | 3,779.44 | 2 | 3,417.69 | 2 | 3,055.93 | 2 | 2,694.18 | 2 | 2,332.32 | |
| 1 1/4 | 1 1/4 | 5,133.74 | 1 1/4 | 4,813.47 | 1 1/4 | 4,479.44 | 1 1/4 | 4,131.62 | 1 1/4 | 3,771.90 | 1 1/4 | 3,410.15 | 1 1/4 | 3,048.40 | 1 1/4 | 2,686.64 | 1 1/4 | 2,324.78 | |
| 1 1/2 | 1 1/2 | 5,126.55 | 1 1/2 | 4,806.66 | 1 1/2 | 4,472.32 | 1 1/2 | 4,124.23 | 1 1/2 | 3,764.36 | 1 1/2 | 3,402.61 | 1 1/2 | 3,040.86 | 1 1/2 | 2,679.11 | 1 1/2 | 2,317.24 | |
| 3/4 | 3/4 | 5,119.37 | 3/4 | 4,799.85 | 3/4 | 4,465.21 | 3/4 | 4,116.84 | 3/4 | 3,756.83 | 3/4 | 3,395.08 | 3/4 | 3,033.32 | 3/4 | 2,671.57 | 3/4 | 2,309.70 | |
| 3 | 3 | 5,112.19 | 3 | 4,793.04 | 3 | 4,458.09 | 3 | 4,109.45 | 3 | 3,749.29 | 3 | 3,387.54 | 3 | 3,025.79 | 3 | 2,664.04 | 3 | 2,302.16 | |
| 1 1/4 | 1 1/4 | 5,105.70 | 1 1/4 | 4,786.21 | 1 1/4 | 4,450.96 | 1 1/4 | 4,102.04 | 1 1/4 | 3,741.75 | 1 1/4 | 3,380.00 | 1 1/4 | 3,018.25 | 1 1/4 | 2,656.50 | 1 1/4 | 2,294.62 | |
| 1 1/2 | 1 1/2 | 5,099.22 | 1 1/2 | 4,779.38 | 1 1/2 | 4,443.82 | 1 1/2 | 4,094.62 | 1 1/2 | 3,734.22 | 1 1/2 | 3,372.47 | 1 1/2 | 3,010.71 | 1 1/2 | 2,648.96 | 1 1/2 | 2,287.08 | |
| 3/4 | 3/4 | 5,092.73 | 3/4 | 4,772.55 | 3/4 | 4,436.68 | 3/4 | 4,087.21 | 3/4 | 3,726.68 | 3/4 | 3,364.93 | 3/4 | 3,003.18 | 3/4 | 2,641.43 | 3/4 | 2,279.54 | |
| 4 | 4 | 5,086.24 | 4 | 4,765.71 | 4 | 4,429.55 | 4 | 4,079.80 | 4 | 3,719.15 | 4 | 3,357.39 | 4 | 2,995.64 | 4 | 2,633.89 | 4 | 2,272.00 | |
| 1 1/4 | 1 1/4 | 5,079.73 | 1 1/4 | 4,758.86 | 1 1/4 | 4,422.39 | 1 1/4 | 4,072.36 | 1 1/4 | 3,711.61 | 1 1/4 | 3,349.86 | 1 1/4 | 2,988.10 | 1 1/4 | 2,626.35 | 1 1/4 | 2,264.47 | |
| 1 1/2 | 1 1/2 | 5,073.22 | 1 1/2 | 4,752.00 | 1 1/2 | 4,415.23 | 1 1/2 | 4,064.93 | 1 1/2 | 3,704.07 | 1 1/2 | 3,342.32 | 1 1/2 | 2,980.57 | 1 1/2 | 2,618.81 | 1 1/2 | 2,256.93 | |
| 3/4 | 3/4 | 5,066.71 | 3/4 | 4,745.15 | 3/4 | 4,408.07 | 3/4 | 4,057.49 | 3/4 | 3,696.54 | 3/4 | 3,334.78 | 3/4 | 2,973.03 | 3/4 | 2,611.27 | 3/4 | 2,249.39 | |
| 5 | 5 | 5,060.20 | 5 | 4,738.29 | 5 | 4,400.91 | 5 | 4,050.55 | 5 | 3,689.00 | 5 | 3,327.25 | 5 | 2,965.50 | 5 | 2,603.73 | 5 | 2,241.85 | |
| 1 1/4 | 1 1/4 | 5,053.67 | 1 1/4 | 4,731.42 | 1 1/4 | 4,393.72 | 1 1/4 | 4,042.60 | 1 1/4 | 3,681.46 | 1 1/4 | 3,319.71 | 1 1/4 | 2,957.96 | 1 1/4 | 2,596.19 | 1 1/4 | 2,234.31 | |
| 1 1/2 | 1 1/2 | 5,047.14 | 1 1/2 | 4,724.54 | 1 1/2 | 4,386.54 | 1 1/2 | 4,035.14 | 1 1/2 | 3,673.93 | 1 1/2 | 3,312.17 | 1 1/2 | 2,950.42 | 1 1/2 | 2,588.65 | 1 1/2 | 2,226.77 | |
| 3/4 | 3/4 | 5,040.61 | 3/4 | 4,717.66 | 3/4 | 4,379.36 | 3/4 | 4,027.68 | 3/4 | 3,666.39 | 3/4 | 3,304.64 | 3/4 | 2,942.89 | 3/4 | 2,581.11 | 3/4 | 2,219.23 | |
| 6 | 6 | 5,034.07 | 6 | 4,710.78 | 6 | 4,372.17 | 6 | 4,020.22 | 6 | 3,658.85 | 6 | 3,297.10 | 6 | 2,935.35 | 6 | 2,573.57 | 6 | 2,211.69 | |
| 1 1/4 | 1 1/4 | 5,027.52 | 1 1/4 | 4,703.88 | 1 1/4 | 4,364.97 | 1 1/4 | 4,012.74 | 1 1/4 | 3,651.32 | 1 1/4 | 3,289.56 | 1 1/4 | 2,927.81 | 1 1/4 | 2,566.03 | 1 1/4 | 2,204.15 | |
| 1 1/2 | 1 1/2 | 5,020.96 | 1 1/2 | 4,696.97 | 1 1/2 | 4,357.76 | 1 1/2 | 4,005.26 | 1 1/2 | 3,643.78 | 1 1/2 | 3,282.03 | 1 1/2 | 2,920.28 | 1 1/2 | 2,558.49 | 1 1/2 | 2,196.61 | |
| 3/4 | 3/4 | 5,014.41 | 3/4 | 4,690.07 | 3/4 | 4,350.56 | 3/4 | 3,997.77 | 3/4 | 3,636.24 | 3/4 | 3,274.49 | 3/4 | 2,912.74 | 3/4 | 2,550.95 | 3/4 | 2,189.07 | |
| 7 | 7 | 5,007.85 | 7 | 4,683.17 | 7 | 4,343.35 | 7 | 3,990.29 | 7 | 3,628.71 | 7 | 3,266.96 | 7 | 2,905.20 | 7 | 2,543.42 | 7 | 2,181.53 | |
| 1 1/4 | 1 1/4 | 5,001.27 | 1 1/4 | 4,676.21 | 1 1/4 | 4,336.12 | 1 1/4 | 3,982.79 | 1 1/4 | 3,621.17 | 1 1/4 | 3,259.42 | 1 1/4 | 2,897.67 | 1 1/4 | 2,535.88 | 1 1/4 | 2,173.99 | |
| 1 1/2 | 1 1/2 | 4,994.69 | 1 1/2 | 4,669.26 | 1 1/2 | 4,328.89 | 1 1/2 | 3,975.28 | 1 1/2 | 3,613.63 | 1 1/2 | 3,251.88 | 1 1/2 | 2,890.13 | 1 1/2 | 2,528.34 | 1 1/2 | 2,166.46 | |
| 3/4 | 3/4 | 4,988.11 | 3/4 | 4,662.31 | 3/4 | 4,321.66 | 3/4 | 3,967.78 | 3/4 | 3,606.10 | 3/4 | 3,244.35 | 3/4 | 2,882.59 | 3/4 | 2,520.80 | 3/4 | 2,158.92 | |
| 8 | 8 | 4,981.54 | 8 | 4,655.35 | 8 | 4,314.44 | 8 | 3,960.27 | 8 | 3,598.56 | 8 | 3,236.81 | 8 | 2,875.06 | 8 | 2,513.26 | 8 | 2,151.38 | |
| 1 1/4 | 1 1/4 | 4,974.93 | 1 1/4 | 4,648.38 | 1 1/4 | 4,307.18 | 1 1/4 | 3,952.75 | 1 1/4 | 3,591.02 | 1 1/4 | 3,229.27 | 1 1/4 | 2,867.52 | 1 1/4 | 2,505.72 | 1 1/4 | 2,143.84 | |
| 1 1/2 | 1 1/2 | 4,968.31 | 1 1/2 | 4,641.40 | 1 1/2 | 4,299.93 | 1 1/2 | 3,945.22 | 1 1/2 | 3,583.49 | 1 1/2 | 3,221.74 | 1 1/2 | 2,859.98 | 1 1/2 | 2,498.18 | 1 1/2 | 2,136.30 | |
| 3/4 | 3/4 | 4,961.70 | 3/4 | 4,634.43 | 3/4 | 4,292.68 | 3/4 | 3,937.69 | 3/4 | 3,575.95 | 3/4 | 3,214.20 | 3/4 | 2,852.45 | 3/4 | 2,490.64 | 3/4 | 2,128.76 | |
| 9 | 9 | 4,955.09 | 9 | 4,627.45 | 9 | 4,285.43 | 9 | 3,930.17 | 9 | 3,568.42 | 9 | 3,206.66 | 9 | 2,844.91 | 9 | 2,483.10 | 9 | 2,121.22 | |
| 1 1/4 | 1 1/4 | 4,948.40 | 1 1/4 | 4,620.45 | 1 1/4 | 4,278.15 | 1 1/4 | 3,922.63 | 1 1/4 | 3,560.88 | 1 1/4 | 3,199.13 | 1 1/4 | 2,837.37 | 1 1/4 | 2,475.56 | 1 1/4 | 2,113.68 | |
| 1 1/2 | 1 1/2 | 4,941.70 | 1 1/2 | 4,613.45 | 1 1/2 | 4,270.88 | 1 1/2 | 3,915.09 | 1 1/2 | 3,553.34 | 1 1/2 | 3,191.59 | 1 1/2 | 2,829.84 | 1 1/2 | 2,468.02 | 1 1/2 | 2,106.14 | |
| 3/4 | 3/4 | 4,935.00 | 3/4 | 4,606.45 | 3/4 | 4,263.60 | 3/4 | 3,907.56 | 3/4 | 3,545.81 | 3/4 | 3,184.05 | 3/4 | 2,822.30 | 3/4 | 2,460.48 | 3/4 | 2,098.60 | |
| 10 | 10 | 4,928.31 | 10 | 4,599.45 | 10 | 4,256.33 | 10 | 3,900.02 | 10 | 3,538.27 | 10 | 3,176.52 | 10 | 2,814.77 | 10 | 2,452.95 | 10 | 2,091.06 | |
| 1 1/4 | 1 1/4 | 4,921.59 | 1 1/4 | 4,592.43 | 1 1/4 | 4,249.03 | 1 1/4 | 3,892.48 | 1 1/4 | 3,530.73 | 1 1/4 | 3,168.98 | 1 1/4 | 2,807.23 | 1 1/4 | 2,445.41 | 1 1/4 | 2,083.52 | |
| 1 1/2 | 1 1/2 | 4,914.87 | 1 1/2 | 4,585.41 | 1 1/2 | 4,241.73 | 1 1/2 | 3,884.95 | 1 1/2 | 3,523.20 | 1 1/2 | 3,161.44 | 1 1/2 | 2,799.69 | 1 1/2 | 2,437.87 | 1 1/2 | 2,075.99 | |
| 3/4 | 3/4 | 4,908.15 | 3/4 | 4,578.39 | 3/4 | 4,234.43 | 3/4 | 3,877.41 | 3/4 | 3,515.66 | 3/4 | 3,153.91 | 3/4 | 2,792.16 | 3/4 | 2,430.33 | 3/4 | 2,068.45 | |
| 11 | 11 | 4,901.43 | 11 | 4,571.37 | 11 | 4,227.14 | 11 | 3,869.88 | 11 | 3,508.12 | 11 | 3,146.37 | 11 | 2,784.62 | 11 | 2,422.79 | 11 | 2,060.91 | |
| 1 1/4 | 1 1/4 | 4,894.69 | 1 1/4 | 4,564.32 | 1 1/4 | 4,219.82 | 1 1/4 | 3,862.34 | 1 1/4 | 3,500.59 | 1 1/4 | 3,138.83 | 1 1/4 | 2,777.08 | 1 1/4 | 2,415.25 | 1 1/4 | 2,053.37 | |
| 1 1/2 | 1 1/2 | 4,887.95 | 1 1/2 | 4,557.28 | 1 1/2 | 4,212.49 | 1 1/2 | 3,854.80 | 1 1/2 | 3,493.05 | 1 1/2 | 3,131.30 | 1 1/2 | 2,769.55 | 1 1/2 | 2,407.71 | 1 1/2 | 2,045.83 | |
| 3/4 | 3/4 | 4,881.21 | 3/4 | 4,550.23 | 3/4 | 4,205.17 | 3/4 | 3,847.27 | 3/4 | 3,485.51 | 3/4 | 3,123.76 | 3/4 | 2,762.01 | 3/4 | 2,400.17 | 3/4 | 2,038.29 | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 43'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

2 STBD ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08"

| IN | 10 FT. | IN | 11 FT. | IN | 12 FT. | IN | 13 FT. | IN | 14 FT. | IN | 15 FT. | IN | 16 FT. | IN | 17 FT. | IN | 18 FT. | IN | 19 FT. |
|-----|----------|-----|----------|-----|----------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|
| 0 | 2,030.75 | 0 | 1,668.87 | 0 | 1,306.99 | 0 | 958.98 | 0 | 599.64 | 0 | 237.77 | 0 | | 0 | | 0 | | 0 | |
| 1/4 | 2,023.21 | 1/4 | 1,661.33 | 1/4 | 1,299.45 | 1/4 | 951.78 | 1/4 | 592.10 | 1/4 | 230.23 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,015.67 | 1/2 | 1,653.79 | 1/2 | 1,291.91 | 1/2 | 944.58 | 1/2 | 584.56 | 1/2 | 222.69 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,008.13 | 3/4 | 1,646.25 | 3/4 | 1,284.37 | 3/4 | 937.39 | 3/4 | 577.02 | 3/4 | 215.15 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 1 | 2,000.59 | 1 | 1,638.71 | 1 | 1,276.83 | 1 | 930.19 | 1 | 569.48 | 1 | 207.61 | 1 | | 1 | | 1 | | 1 | |
| 1/4 | 1,993.05 | 1/4 | 1,631.17 | 1/4 | 1,269.33 | 1/4 | 922.94 | 1/4 | 561.94 | 1/4 | 200.07 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 1,985.51 | 1/2 | 1,623.63 | 1/2 | 1,261.83 | 1/2 | 915.69 | 1/2 | 554.40 | 1/2 | 192.53 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 1,977.98 | 3/4 | 1,616.09 | 3/4 | 1,254.34 | 3/4 | 908.45 | 3/4 | 546.87 | 3/4 | 184.99 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 2 | 1,970.44 | 2 | 1,608.55 | 2 | 1,246.84 | 2 | 901.20 | 2 | 539.33 | 2 | 177.45 | 2 | | 2 | | 2 | | 2 | |
| 1/4 | 1,962.90 | 1/4 | 1,601.02 | 1/4 | 1,239.63 | 1/4 | 893.66 | 1/4 | 531.79 | 1/4 | 169.92 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 1,955.36 | 1/2 | 1,593.48 | 1/2 | 1,232.43 | 1/2 | 886.12 | 1/2 | 524.25 | 1/2 | 162.38 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 1,947.82 | 3/4 | 1,585.94 | 3/4 | 1,225.22 | 3/4 | 878.58 | 3/4 | 516.71 | 3/4 | 154.84 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 3 | 1,940.28 | 3 | 1,578.40 | 3 | 1,218.02 | 3 | 871.04 | 3 | 509.17 | 3 | 147.30 | 3 | | 3 | | 3 | | 3 | |
| 1/4 | 1,932.74 | 1/4 | 1,570.86 | 1/4 | 1,210.82 | 1/4 | 863.50 | 1/4 | 501.63 | 1/4 | 139.76 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 1,925.20 | 1/2 | 1,563.32 | 1/2 | 1,203.63 | 1/2 | 855.96 | 1/2 | 494.09 | 1/2 | 132.22 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 1,917.66 | 3/4 | 1,555.78 | 3/4 | 1,196.43 | 3/4 | 848.43 | 3/4 | 486.55 | 3/4 | 124.68 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 4 | 1,910.12 | 4 | 1,548.24 | 4 | 1,189.23 | 4 | 840.89 | 4 | 479.01 | 4 | 117.14 | 4 | | 4 | | 4 | | 4 | |
| 1/4 | 1,902.58 | 1/4 | 1,540.70 | 1/4 | 1,182.04 | 1/4 | 833.35 | 1/4 | 471.48 | 1/4 | 109.68 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 1,895.04 | 1/2 | 1,533.16 | 1/2 | 1,174.84 | 1/2 | 825.81 | 1/2 | 463.94 | 1/2 | 102.22 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 1,887.51 | 3/4 | 1,525.62 | 3/4 | 1,167.65 | 3/4 | 818.27 | 3/4 | 456.40 | 3/4 | 94.76 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 5 | 1,879.97 | 5 | 1,518.08 | 5 | 1,160.45 | 5 | 810.73 | 5 | 448.86 | 5 | 87.30 | 5 | | 5 | | 5 | | 5 | |
| 1/4 | 1,872.43 | 1/4 | 1,510.55 | 1/4 | 1,153.26 | 1/4 | 803.19 | 1/4 | 441.32 | 1/4 | 80.55 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 1,864.89 | 1/2 | 1,503.01 | 1/2 | 1,146.06 | 1/2 | 795.65 | 1/2 | 433.78 | 1/2 | 73.79 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 1,857.35 | 3/4 | 1,495.47 | 3/4 | 1,138.87 | 3/4 | 788.11 | 3/4 | 426.24 | 3/4 | 67.04 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 6 | 1,849.81 | 6 | 1,487.93 | 6 | 1,131.67 | 6 | 780.57 | 6 | 418.70 | 6 | 60.29 | 6 | | 6 | | 6 | | 6 | |
| 1/4 | 1,842.27 | 1/4 | 1,480.39 | 1/4 | 1,124.47 | 1/4 | 773.04 | 1/4 | 411.16 | 1/4 | 54.79 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 1,834.73 | 1/2 | 1,472.85 | 1/2 | 1,117.28 | 1/2 | 765.50 | 1/2 | 403.62 | 1/2 | 49.29 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 1,827.19 | 3/4 | 1,465.31 | 3/4 | 1,110.08 | 3/4 | 757.96 | 3/4 | 396.09 | 3/4 | 43.80 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 7 | 1,819.65 | 7 | 1,457.77 | 7 | 1,102.89 | 7 | 750.42 | 7 | 388.55 | 7 | 38.30 | 7 | | 7 | | 7 | | 7 | |
| 1/4 | 1,812.11 | 1/4 | 1,450.23 | 1/4 | 1,095.69 | 1/4 | 742.88 | 1/4 | 381.01 | 1/4 | 34.06 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 1,804.57 | 1/2 | 1,442.69 | 1/2 | 1,088.50 | 1/2 | 735.34 | 1/2 | 373.47 | 1/2 | 29.82 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 1,797.03 | 3/4 | 1,435.15 | 3/4 | 1,081.30 | 3/4 | 727.80 | 3/4 | 365.93 | 3/4 | 25.58 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 8 | 1,789.50 | 8 | 1,427.61 | 8 | 1,074.11 | 8 | 720.26 | 8 | 358.39 | 8 | 21.35 | 8 | | 8 | | 8 | | 8 | |
| 1/4 | 1,781.96 | 1/4 | 1,420.07 | 1/4 | 1,066.91 | 1/4 | 712.72 | 1/4 | 350.85 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 1,774.42 | 1/2 | 1,412.54 | 1/2 | 1,059.72 | 1/2 | 705.18 | 1/2 | 343.31 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 1,766.88 | 3/4 | 1,405.00 | 3/4 | 1,052.52 | 3/4 | 697.65 | 3/4 | 335.77 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 9 | 1,759.34 | 9 | 1,397.46 | 9 | 1,045.32 | 9 | 690.11 | 9 | 328.23 | 9 | | 9 | | 9 | | 9 | | 9 | |
| 1/4 | 1,751.80 | 1/4 | 1,389.92 | 1/4 | 1,038.13 | 1/4 | 682.57 | 1/4 | 320.70 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 1,744.26 | 1/2 | 1,382.38 | 1/2 | 1,030.93 | 1/2 | 675.03 | 1/2 | 313.16 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 1,736.72 | 3/4 | 1,374.84 | 3/4 | 1,023.74 | 3/4 | 667.49 | 3/4 | 305.62 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 10 | 1,729.18 | 10 | 1,367.30 | 10 | 1,016.54 | 10 | 659.95 | 10 | 298.08 | 10 | | 10 | | 10 | | 10 | | 10 | |
| 1/4 | 1,721.64 | 1/4 | 1,359.76 | 1/4 | 1,009.35 | 1/4 | 652.41 | 1/4 | 290.54 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 1,714.10 | 1/2 | 1,352.22 | 1/2 | 1,002.15 | 1/2 | 644.87 | 1/2 | 283.00 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 1,706.56 | 3/4 | 1,344.68 | 3/4 | 994.96 | 3/4 | 637.33 | 3/4 | 275.46 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 11 | 1,699.03 | 11 | 1,337.14 | 11 | 987.76 | 11 | 629.79 | 11 | 267.92 | 11 | | 11 | | 11 | | 11 | | 11 | |
| 1/4 | 1,691.49 | 1/4 | 1,329.60 | 1/4 | 980.56 | 1/4 | 622.26 | 1/4 | 260.38 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 1,683.95 | 1/2 | 1,322.07 | 1/2 | 973.37 | 1/2 | 614.72 | 1/2 | 252.84 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 1,676.41 | 3/4 | 1,314.53 | 3/4 | 966.17 | 3/4 | 607.18 | 3/4 | 245.31 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

3 PORT ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

| 0 FT. | | 1 FT. | | 2 FT. | | 3 FT. | | 4 FT. | | 5 FT. | | 6 FT. | | 7 FT. | | 8 FT. | | 9 FT. | | | |
|-------|-----|-------|-----|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-----|----------|
| IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | | |
| 0 | | 0 | | 0 | 4,248.34 | 0 | 4,071.34 | 0 | 3,886.82 | 0 | 3,695.36 | 0 | 3,496.45 | 0 | 3,138.38 | 0 | 2,779.04 | 0 | 2,419.08 | | |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 4,244.73 | 1/4 | 4,067.57 | 1/4 | 3,882.90 | 1/4 | 3,691.32 | 1/4 | 3,488.99 | 1/4 | 3,130.89 | 1/4 | 2,771.54 | 1/4 | 2,411.58 | | |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 4,241.12 | 1/2 | 4,063.80 | 1/2 | 3,878.98 | 1/2 | 3,687.28 | 1/2 | 3,481.52 | 1/2 | 3,123.41 | 1/2 | 2,764.04 | 1/2 | 2,404.08 | | |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 4,398.07 | 3/4 | 4,237.51 | 3/4 | 4,060.02 | 3/4 | 3,875.06 | 3/4 | 3,683.25 | 3/4 | 3,474.05 | 3/4 | 3,115.92 | 3/4 | 2,756.54 | 3/4 | 2,396.58 |
| 1 | | 1 | | 1 | 4,396.42 | 1 | 4,233.88 | 1 | 4,056.24 | 1 | 3,871.12 | 1 | 3,679.21 | 1 | 3,466.58 | 1 | 3,108.44 | 1 | 2,749.04 | 1 | 2,389.08 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 4,394.77 | 1/4 | 4,230.26 | 1/4 | 4,052.45 | 1/4 | 3,867.19 | 1/4 | 3,675.17 | 1/4 | 3,459.12 | 1/4 | 3,100.95 | 1/4 | 2,741.55 | 1/4 | 2,381.58 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 4,393.11 | 1/2 | 4,226.63 | 1/2 | 4,048.67 | 1/2 | 3,863.32 | 1/2 | 3,671.14 | 1/2 | 3,451.65 | 1/2 | 3,093.46 | 1/2 | 2,734.05 | 1/2 | 2,374.08 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 4,391.46 | 3/4 | 4,223.01 | 3/4 | 4,044.88 | 3/4 | 3,859.32 | 3/4 | 3,667.10 | 3/4 | 3,444.18 | 3/4 | 3,085.98 | 3/4 | 2,726.55 | 3/4 | 2,366.58 |
| 2 | | 2 | | 2 | 4,388.59 | 2 | 4,219.37 | 2 | 4,041.08 | 2 | 3,855.38 | 2 | 3,663.06 | 2 | 3,436.72 | 2 | 3,078.49 | 2 | 2,719.05 | 2 | 2,359.08 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 4,385.72 | 1/4 | 4,215.74 | 1/4 | 4,037.28 | 1/4 | 3,851.43 | 1/4 | 3,659.03 | 1/4 | 3,429.25 | 1/4 | 3,071.01 | 1/4 | 2,711.55 | 1/4 | 2,351.58 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 4,382.85 | 1/2 | 4,212.10 | 1/2 | 4,033.49 | 1/2 | 3,847.48 | 1/2 | 3,654.99 | 1/2 | 3,421.78 | 1/2 | 3,063.52 | 1/2 | 2,704.05 | 1/2 | 2,344.08 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 4,379.98 | 3/4 | 4,208.47 | 3/4 | 4,029.69 | 3/4 | 3,843.54 | 3/4 | 3,650.95 | 3/4 | 3,414.32 | 3/4 | 3,056.04 | 3/4 | 2,696.55 | 3/4 | 2,336.58 |
| 3 | | 3 | | 3 | 4,376.19 | 3 | 4,204.82 | 3 | 4,025.88 | 3 | 3,839.58 | 3 | 3,646.92 | 3 | 3,406.85 | 3 | 3,048.55 | 3 | 2,689.06 | 3 | 2,329.08 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 4,372.41 | 1/4 | 4,201.17 | 1/4 | 4,022.07 | 1/4 | 3,835.62 | 1/4 | 3,642.88 | 1/4 | 3,399.38 | 1/4 | 3,041.06 | 1/4 | 2,681.56 | 1/4 | 2,321.58 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 4,368.62 | 1/2 | 4,197.52 | 1/2 | 4,018.26 | 1/2 | 3,831.66 | 1/2 | 3,638.84 | 1/2 | 3,391.91 | 1/2 | 3,033.58 | 1/2 | 2,674.06 | 1/2 | 2,314.08 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 4,364.84 | 3/4 | 4,193.87 | 3/4 | 4,014.45 | 3/4 | 3,827.71 | 3/4 | 3,634.81 | 3/4 | 3,384.45 | 3/4 | 3,026.09 | 3/4 | 2,666.56 | 3/4 | 2,306.58 |
| 4 | | 4 | | 4 | 4,361.36 | 4 | 4,190.21 | 4 | 4,010.62 | 4 | 3,823.74 | 4 | 3,630.77 | 4 | 3,376.98 | 4 | 3,018.61 | 4 | 2,659.06 | 4 | 2,299.08 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 4,357.89 | 1/4 | 4,186.55 | 1/4 | 4,006.80 | 1/4 | 3,819.77 | 1/4 | 3,626.73 | 1/4 | 3,369.51 | 1/4 | 3,011.12 | 1/4 | 2,651.56 | 1/4 | 2,291.58 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 4,354.41 | 1/2 | 4,182.89 | 1/2 | 4,002.98 | 1/2 | 3,815.80 | 1/2 | 3,622.70 | 1/2 | 3,362.05 | 1/2 | 3,003.64 | 1/2 | 2,644.07 | 1/2 | 2,284.08 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 4,350.94 | 3/4 | 4,179.23 | 3/4 | 3,999.16 | 3/4 | 3,811.83 | 3/4 | 3,618.66 | 3/4 | 3,354.58 | 3/4 | 2,996.15 | 3/4 | 2,636.57 | 3/4 | 2,276.58 |
| 5 | | 5 | | 5 | 4,347.45 | 5 | 4,175.56 | 5 | 3,995.32 | 5 | 3,807.84 | 5 | 3,614.62 | 5 | 3,347.11 | 5 | 2,988.66 | 5 | 2,629.07 | 5 | 2,269.08 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 4,343.97 | 1/4 | 4,171.89 | 1/4 | 3,991.49 | 1/4 | 3,803.86 | 1/4 | 3,610.59 | 1/4 | 3,339.65 | 1/4 | 2,981.18 | 1/4 | 2,621.57 | 1/4 | 2,261.58 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 4,340.48 | 1/2 | 4,168.21 | 1/2 | 3,987.65 | 1/2 | 3,799.88 | 1/2 | 3,606.55 | 1/2 | 3,332.18 | 1/2 | 2,973.69 | 1/2 | 2,614.07 | 1/2 | 2,254.08 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 4,336.99 | 3/4 | 4,164.54 | 3/4 | 3,983.82 | 3/4 | 3,795.89 | 3/4 | 3,602.51 | 3/4 | 3,324.72 | 3/4 | 2,966.21 | 3/4 | 2,606.57 | 3/4 | 2,246.58 |
| 6 | | 6 | | 6 | 4,333.49 | 6 | 4,160.86 | 6 | 3,979.97 | 6 | 3,791.90 | 6 | 3,598.48 | 6 | 3,317.27 | 6 | 2,958.72 | 6 | 2,599.07 | 6 | 2,239.08 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 4,329.99 | 1/4 | 4,157.17 | 1/4 | 3,976.12 | 1/4 | 3,787.90 | 1/4 | 3,594.44 | 1/4 | 3,309.82 | 1/4 | 2,951.24 | 1/4 | 2,591.57 | 1/4 | 2,231.58 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 4,326.50 | 1/2 | 4,153.49 | 1/2 | 3,972.27 | 1/2 | 3,783.91 | 1/2 | 3,590.40 | 1/2 | 3,302.36 | 1/2 | 2,943.75 | 1/2 | 2,584.08 | 1/2 | 2,224.08 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 4,323.00 | 3/4 | 4,149.80 | 3/4 | 3,968.43 | 3/4 | 3,779.91 | 3/4 | 3,586.37 | 3/4 | 3,294.91 | 3/4 | 2,936.26 | 3/4 | 2,576.58 | 3/4 | 2,216.58 |
| 7 | | 7 | | 7 | 4,319.48 | 7 | 4,146.10 | 7 | 3,964.57 | 7 | 3,775.91 | 7 | 3,582.33 | 7 | 3,287.46 | 7 | 2,928.78 | 7 | 2,569.08 | 7 | 2,209.08 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 4,315.97 | 1/4 | 4,142.40 | 1/4 | 3,960.71 | 1/4 | 3,771.90 | 1/4 | 3,578.29 | 1/4 | 3,280.01 | 1/4 | 2,921.29 | 1/4 | 2,561.58 | 1/4 | 2,201.58 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 4,312.46 | 1/2 | 4,138.70 | 1/2 | 3,956.85 | 1/2 | 3,767.89 | 1/2 | 3,574.26 | 1/2 | 3,272.56 | 1/2 | 2,913.81 | 1/2 | 2,554.08 | 1/2 | 2,194.08 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 4,308.95 | 3/4 | 4,135.00 | 3/4 | 3,952.99 | 3/4 | 3,763.88 | 3/4 | 3,570.22 | 3/4 | 3,265.11 | 3/4 | 2,906.32 | 3/4 | 2,546.58 | 3/4 | 2,186.58 |
| 8 | | 8 | | 8 | 4,305.43 | 8 | 4,131.28 | 8 | 3,949.12 | 8 | 3,759.87 | 8 | 3,566.19 | 8 | 3,257.65 | 8 | 2,898.84 | 8 | 2,539.08 | 8 | 2,179.08 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 4,301.90 | 1/4 | 4,127.55 | 1/4 | 3,945.24 | 1/4 | 3,755.85 | 1/4 | 3,562.15 | 1/4 | 3,250.20 | 1/4 | 2,891.35 | 1/4 | 2,531.58 | 1/4 | 2,171.58 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 4,298.38 | 1/2 | 4,123.83 | 1/2 | 3,941.37 | 1/2 | 3,751.83 | 1/2 | 3,558.11 | 1/2 | 3,242.75 | 1/2 | 2,883.86 | 1/2 | 2,524.08 | 1/2 | 2,164.08 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 4,294.86 | 3/4 | 4,120.11 | 3/4 | 3,937.50 | 3/4 | 3,747.81 | 3/4 | 3,554.08 | 3/4 | 3,235.30 | 3/4 | 2,876.38 | 3/4 | 2,516.58 | 3/4 | 2,156.58 |
| 9 | | 9 | | 9 | 4,291.32 | 9 | 4,116.37 | 9 | 3,933.62 | 9 | 3,743.78 | 9 | 3,550.04 | 9 | 3,227.85 | 9 | 2,868.89 | 9 | 2,509.08 | 9 | 2,149.08 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 4,287.77 | 1/4 | 4,112.63 | 1/4 | 3,929.73 | 1/4 | 3,739.75 | 1/4 | 3,546.00 | 1/4 | 3,220.40 | 1/4 | 2,861.41 | 1/4 | 2,501.58 | 1/4 | 2,141.58 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 4,284.23 | 1/2 | 4,108.90 | 1/2 | 3,925.85 | 1/2 | 3,735.72 | 1/2 | 3,541.97 | 1/2 | 3,212.95 | 1/2 | 2,853.92 | 1/2 | 2,494.08 | 1/2 | 2,134.08 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 4,280.69 | 3/4 | 4,105.16 | 3/4 | 3,921.96 | 3/4 | 3,731.69 | 3/4 | 3,537.93 | 3/4 | 3,205.49 | 3/4 | 2,846.44 | 3/4 | 2,486.58 | 3/4 | 2,126.58 |
| 10 | | 10 | | 10 | 4,277.11 | 10 | 4,101.41 | 10 | 3,918.07 | 10 | 3,727.65 | 10 | 3,533.89 | 10 | 3,198.04 | 10 | 2,838.95 | 10 | 2,479.08 | 10 | 2,119.08 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 4,273.52 | 1/4 | 4,097.66 | 1/4 | 3,914.17 | 1/4 | 3,723.61 | 1/4 | 3,529.86 | 1/4 | 3,190.59 | 1/4 | 2,831.46 | 1/4 | 2,471.58 | 1/4 | 2,111.58 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 4,269.93 | 1/2 | 4,093.91 | 1/2 | 3,910.27 | 1/2 | 3,719.58 | 1/2 | 3,525.82 | 1/2 | 3,183.14 | 1/2 | 2,823.98 | 1/2 | 2,464.08 | 1/2 | 2,104.08 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 4,266.35 | 3/4 | 4,090.16 | 3/4 | 3,906.38 | 3/4 | 3,715.54 | 3/4 | 3,521.78 | 3/4 | 3,175.69 | 3/4 | 2,816.49 | 3/4 | 2,456.58 | 3/4 | 2,096.58 |
| 11 | | 11 | | 11 | 4,262.75 | 11 | 4,086.40 | 11 | 3,902.47 | 11 | 3,711.50 | 11 | 3,517.32 | 11 | 3,168.23 | 11 | 2,809.01 | 11 | 2,449.08 | 11 | 2,089.08 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 4,259.15 | 1/4 | 4,082.64 | 1/4 | 3,898.56 | 1/4 | 3,707.47 | 1/4 | 3,512.85 | 1/4 | 3,160.78 | 1/4 | 2,801.52 | 1/4 | 2,441.58 | 1/4 | 2,081.58 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 4,255.55 | 1/2 | 4,078.88 | 1/2 | 3,894.65 | 1/2 | 3,703.43 | 1/2 | 3,508.39 | 1/2 | 3,153.32 | 1/2 | 2,794.03 | 1/2 | 2,434.08 | 1/2 | 2,074.08 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 4,251.95 | 3/4 | 4,075.12 | 3/4 | 3,890.74 | 3/4 | 3,699.39 | 3/4 | 3,503.92 | 3/4 | 3,145.86 | 3/4 | 2,786.54 | 3/4 | 2,426.58 | 3/4 | 2,066.58 |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 56'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

3 PORT ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

| IN | 10 FT. | IN | 11 FT. | IN | 12 FT. | IN | 13 FT. | IN | 14 FT. | IN | 15 FT. | IN | 16 FT. | IN | 17 FT. | IN | 18 FT. | IN | 19 FT. |
|--------|----------|--------|----------|--------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0 | 2,059.08 | 0 | 1,699.00 | 0 | 1,338.93 | 0 | 979.14 | 0 | 619.15 | 0 | 259.09 | 0 | | 0 | | 0 | | 0 | |
| 1/4 | 2,051.58 | 1/4 | 1,691.50 | 1/4 | 1,331.42 | 1/4 | 971.64 | 1/4 | 611.65 | 1/4 | 251.59 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,044.08 | 1/2 | 1,684.00 | 1/2 | 1,323.92 | 1/2 | 964.15 | 1/2 | 604.15 | 1/2 | 244.09 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,036.57 | 3/4 | 1,676.50 | 3/4 | 1,316.42 | 3/4 | 956.66 | 3/4 | 596.65 | 3/4 | 236.58 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 1 | 2,029.07 | 1 | 1,669.00 | 1 | 1,308.92 | 1 | 949.17 | 1 | 589.15 | 1 | 229.08 | 1 | | 1 | | 1 | | 1 | |
| 1 1/4 | 2,021.57 | 1 1/4 | 1,661.49 | 1 1/4 | 1,301.42 | 1 1/4 | 941.67 | 1 1/4 | 581.64 | 1 1/4 | 221.58 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 2,014.07 | 1 1/2 | 1,653.99 | 1 1/2 | 1,293.92 | 1 1/2 | 934.18 | 1 1/2 | 574.14 | 1 1/2 | 214.08 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 2,006.57 | 3/4 | 1,646.49 | 3/4 | 1,286.41 | 3/4 | 926.69 | 3/4 | 566.64 | 3/4 | 206.58 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 2 | 1,999.07 | 2 | 1,638.99 | 2 | 1,278.91 | 2 | 919.19 | 2 | 559.14 | 2 | 199.08 | 2 | | 2 | | 2 | | 2 | |
| 2 1/4 | 1,991.56 | 2 1/4 | 1,631.49 | 2 1/4 | 1,271.41 | 2 1/4 | 911.69 | 2 1/4 | 551.64 | 2 1/4 | 191.58 | 2 1/4 | | 2 1/4 | | 2 1/4 | | 2 1/4 | |
| 2 1/2 | 1,984.06 | 2 1/2 | 1,623.99 | 2 1/2 | 1,263.91 | 2 1/2 | 904.20 | 2 1/2 | 544.14 | 2 1/2 | 184.08 | 2 1/2 | | 2 1/2 | | 2 1/2 | | 2 1/2 | |
| 3 1/4 | 1,976.56 | 3 1/4 | 1,616.48 | 3 1/4 | 1,256.41 | 3 1/4 | 896.70 | 3 1/4 | 536.64 | 3 1/4 | 176.57 | 3 1/4 | | 3 1/4 | | 3 1/4 | | 3 1/4 | |
| 3 | 1,969.06 | 3 | 1,608.98 | 3 | 1,248.91 | 3 | 889.20 | 3 | 529.14 | 3 | 169.07 | 3 | | 3 | | 3 | | 3 | |
| 3 1/4 | 1,961.56 | 3 1/4 | 1,601.48 | 3 1/4 | 1,241.41 | 3 1/4 | 881.70 | 3 1/4 | 521.63 | 3 1/4 | 161.57 | 3 1/4 | | 3 1/4 | | 3 1/4 | | 3 1/4 | |
| 3 1/2 | 1,954.06 | 3 1/2 | 1,593.98 | 3 1/2 | 1,233.90 | 3 1/2 | 874.19 | 3 1/2 | 514.13 | 3 1/2 | 154.07 | 3 1/2 | | 3 1/2 | | 3 1/2 | | 3 1/2 | |
| 4 1/4 | 1,946.55 | 4 1/4 | 1,586.48 | 4 1/4 | 1,226.40 | 4 1/4 | 866.69 | 4 1/4 | 506.63 | 4 1/4 | 146.57 | 4 1/4 | | 4 1/4 | | 4 1/4 | | 4 1/4 | |
| 4 | 1,939.05 | 4 | 1,578.98 | 4 | 1,218.90 | 4 | 859.19 | 4 | 499.13 | 4 | 139.07 | 4 | | 4 | | 4 | | 4 | |
| 4 1/4 | 1,931.55 | 4 1/4 | 1,571.47 | 4 1/4 | 1,211.41 | 4 1/4 | 851.69 | 4 1/4 | 491.63 | 4 1/4 | 131.57 | 4 1/4 | | 4 1/4 | | 4 1/4 | | 4 1/4 | |
| 4 1/2 | 1,924.05 | 4 1/2 | 1,563.97 | 4 1/2 | 1,203.91 | 4 1/2 | 844.19 | 4 1/2 | 484.13 | 4 1/2 | 124.06 | 4 1/2 | | 4 1/2 | | 4 1/2 | | 4 1/2 | |
| 5 1/4 | 1,916.55 | 5 1/4 | 1,556.47 | 5 1/4 | 1,196.41 | 5 1/4 | 836.69 | 5 1/4 | 476.63 | 5 1/4 | 116.56 | 5 1/4 | | 5 1/4 | | 5 1/4 | | 5 1/4 | |
| 5 | 1,909.05 | 5 | 1,548.97 | 5 | 1,188.92 | 5 | 829.19 | 5 | 469.12 | 5 | 109.14 | 5 | | 5 | | 5 | | 5 | |
| 5 1/4 | 1,901.55 | 5 1/4 | 1,541.47 | 5 1/4 | 1,181.43 | 5 1/4 | 821.69 | 5 1/4 | 461.62 | 5 1/4 | 101.72 | 5 1/4 | | 5 1/4 | | 5 1/4 | | 5 1/4 | |
| 5 1/2 | 1,894.04 | 5 1/2 | 1,533.97 | 5 1/2 | 1,173.93 | 5 1/2 | 814.18 | 5 1/2 | 454.12 | 5 1/2 | 94.29 | 5 1/2 | | 5 1/2 | | 5 1/2 | | 5 1/2 | |
| 6 1/4 | 1,886.54 | 6 1/4 | 1,526.47 | 6 1/4 | 1,166.44 | 6 1/4 | 806.68 | 6 1/4 | 446.62 | 6 1/4 | 86.87 | 6 1/4 | | 6 1/4 | | 6 1/4 | | 6 1/4 | |
| 6 | 1,879.04 | 6 | 1,518.96 | 6 | 1,158.95 | 6 | 799.18 | 6 | 439.12 | 6 | 80.15 | 6 | | 6 | | 6 | | 6 | |
| 6 1/4 | 1,871.54 | 6 1/4 | 1,511.46 | 6 1/4 | 1,151.46 | 6 1/4 | 791.68 | 6 1/4 | 431.62 | 6 1/4 | 73.43 | 6 1/4 | | 6 1/4 | | 6 1/4 | | 6 1/4 | |
| 6 1/2 | 1,864.04 | 6 1/2 | 1,503.96 | 6 1/2 | 1,143.97 | 6 1/2 | 784.18 | 6 1/2 | 424.12 | 6 1/2 | 66.71 | 6 1/2 | | 6 1/2 | | 6 1/2 | | 6 1/2 | |
| 7 1/4 | 1,856.54 | 7 1/4 | 1,496.46 | 7 1/4 | 1,136.47 | 7 1/4 | 776.68 | 7 1/4 | 416.62 | 7 1/4 | 59.99 | 7 1/4 | | 7 1/4 | | 7 1/4 | | 7 1/4 | |
| 7 | 1,849.03 | 7 | 1,488.96 | 7 | 1,128.98 | 7 | 769.18 | 7 | 409.11 | 7 | 54.52 | 7 | | 7 | | 7 | | 7 | |
| 7 1/4 | 1,841.53 | 7 1/4 | 1,481.46 | 7 1/4 | 1,121.49 | 7 1/4 | 761.68 | 7 1/4 | 401.61 | 7 1/4 | 49.05 | 7 1/4 | | 7 1/4 | | 7 1/4 | | 7 1/4 | |
| 7 1/2 | 1,834.03 | 7 1/2 | 1,473.95 | 7 1/2 | 1,114.00 | 7 1/2 | 754.17 | 7 1/2 | 394.11 | 7 1/2 | 43.58 | 7 1/2 | | 7 1/2 | | 7 1/2 | | 7 1/2 | |
| 8 1/4 | 1,826.53 | 8 1/4 | 1,466.45 | 8 1/4 | 1,106.50 | 8 1/4 | 746.67 | 8 1/4 | 386.61 | 8 1/4 | 38.12 | 8 1/4 | | 8 1/4 | | 8 1/4 | | 8 1/4 | |
| 8 | 1,819.03 | 8 | 1,458.95 | 8 | 1,099.01 | 8 | 739.17 | 8 | 379.11 | 8 | 33.90 | 8 | | 8 | | 8 | | 8 | |
| 8 1/4 | 1,811.53 | 8 1/4 | 1,451.45 | 8 1/4 | 1,091.52 | 8 1/4 | 731.67 | 8 1/4 | 371.61 | 8 1/4 | 29.68 | 8 1/4 | | 8 1/4 | | 8 1/4 | | 8 1/4 | |
| 8 1/2 | 1,804.02 | 8 1/2 | 1,443.95 | 8 1/2 | 1,084.03 | 8 1/2 | 724.17 | 8 1/2 | 364.11 | 8 1/2 | 25.46 | 8 1/2 | | 8 1/2 | | 8 1/2 | | 8 1/2 | |
| 9 1/4 | 1,796.52 | 9 1/4 | 1,436.45 | 9 1/4 | 1,076.54 | 9 1/4 | 716.67 | 9 1/4 | 356.61 | 9 1/4 | 21.24 | 9 1/4 | | 9 1/4 | | 9 1/4 | | 9 1/4 | |
| 9 | 1,789.02 | 9 | 1,428.94 | 9 | 1,069.04 | 9 | 709.17 | 9 | 349.10 | 9 | | 9 | | 9 | | 9 | | 9 | |
| 9 1/4 | 1,781.52 | 9 1/4 | 1,421.44 | 9 1/4 | 1,061.55 | 9 1/4 | 701.67 | 9 1/4 | 341.60 | 9 1/4 | | 9 1/4 | | 9 1/4 | | 9 1/4 | | 9 1/4 | |
| 9 1/2 | 1,774.02 | 9 1/2 | 1,413.94 | 9 1/2 | 1,054.06 | 9 1/2 | 694.16 | 9 1/2 | 334.10 | 9 1/2 | | 9 1/2 | | 9 1/2 | | 9 1/2 | | 9 1/2 | |
| 10 1/4 | 1,766.52 | 10 1/4 | 1,406.44 | 10 1/4 | 1,046.57 | 10 1/4 | 686.66 | 10 1/4 | 326.60 | 10 1/4 | | 10 1/4 | | 10 1/4 | | 10 1/4 | | 10 1/4 | |
| 10 | 1,759.01 | 10 | 1,398.94 | 10 | 1,039.07 | 10 | 679.16 | 10 | 319.10 | 10 | | 10 | | 10 | | 10 | | 10 | |
| 10 1/4 | 1,751.51 | 10 1/4 | 1,391.44 | 10 1/4 | 1,031.58 | 10 1/4 | 671.66 | 10 1/4 | 311.60 | 10 1/4 | | 10 1/4 | | 10 1/4 | | 10 1/4 | | 10 1/4 | |
| 10 1/2 | 1,744.01 | 10 1/2 | 1,383.93 | 10 1/2 | 1,024.09 | 10 1/2 | 664.16 | 10 1/2 | 304.10 | 10 1/2 | | 10 1/2 | | 10 1/2 | | 10 1/2 | | 10 1/2 | |
| 11 1/4 | 1,736.51 | 11 1/4 | 1,376.43 | 11 1/4 | 1,016.60 | 11 1/4 | 656.66 | 11 1/4 | 296.59 | 11 1/4 | | 11 1/4 | | 11 1/4 | | 11 1/4 | | 11 1/4 | |
| 11 | 1,729.01 | 11 | 1,368.93 | 11 | 1,009.11 | 11 | 649.16 | 11 | 289.09 | 11 | | 11 | | 11 | | 11 | | 11 | |
| 11 1/4 | 1,721.51 | 11 1/4 | 1,361.43 | 11 1/4 | 1,001.61 | 11 1/4 | 641.65 | 11 1/4 | 281.59 | 11 1/4 | | 11 1/4 | | 11 1/4 | | 11 1/4 | | 11 1/4 | |
| 11 1/2 | 1,714.01 | 11 1/2 | 1,353.93 | 11 1/2 | 994.12 | 11 1/2 | 634.15 | 11 1/2 | 274.09 | 11 1/2 | | 11 1/2 | | 11 1/2 | | 11 1/2 | | 11 1/2 | |
| 12 1/4 | 1,706.50 | 12 1/4 | 1,346.43 | 12 1/4 | 986.63 | 12 1/4 | 626.65 | 12 1/4 | 266.59 | 12 1/4 | | 12 1/4 | | 12 1/4 | | 12 1/4 | | 12 1/4 | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

3 STBD ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

| 0 FT. | | 1 FT. | | 2 FT. | | 3 FT. | | 4 FT. | | 5 FT. | | 6 FT. | | 7 FT. | | 8 FT. | | 9 FT. | |
|-------|--|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|
| IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | |
| 0 | | 0 | | 0 | 4,221.29 | 0 | 4,045.04 | 0 | 3,861.25 | 0 | 3,670.51 | 0 | 3,472.34 | 0 | 3,114.89 | 0 | 2,756.37 | 0 | 2,397.03 |
| 1/4 | | 1/4 | | 1/4 | 4,217.70 | 1/4 | 4,041.28 | 1/4 | 3,857.34 | 1/4 | 3,666.49 | 1/4 | 3,464.88 | 1/4 | 3,107.42 | 1/4 | 2,748.88 | 1/4 | 2,389.54 |
| 1/2 | | 1/2 | | 1/2 | 4,214.10 | 1/2 | 4,037.52 | 1/2 | 3,853.44 | 1/2 | 3,662.47 | 1/2 | 3,457.43 | 1/2 | 3,099.95 | 1/2 | 2,741.39 | 1/2 | 2,382.06 |
| 3/4 | | 3/4 | 4,370.33 | 3/4 | 4,210.51 | 3/4 | 4,033.76 | 3/4 | 3,849.53 | 3/4 | 3,658.45 | 3/4 | 3,449.98 | 3/4 | 3,092.48 | 3/4 | 2,733.91 | 3/4 | 2,374.57 |
| 1 | | 1 | 4,368.69 | 1 | 4,206.90 | 1 | 4,029.99 | 1 | 3,845.61 | 1 | 3,654.43 | 1 | 3,442.52 | 1 | 3,085.00 | 1 | 2,726.42 | 1 | 2,367.08 |
| 1/4 | | 1/4 | 4,367.06 | 1/4 | 4,203.29 | 1/4 | 4,026.22 | 1/4 | 3,841.69 | 1/4 | 3,650.40 | 1/4 | 3,435.07 | 1/4 | 3,077.53 | 1/4 | 2,718.94 | 1/4 | 2,359.59 |
| 1/2 | | 1/2 | 4,365.42 | 1/2 | 4,199.68 | 1/2 | 4,022.45 | 1/2 | 3,837.78 | 1/2 | 3,646.38 | 1/2 | 3,427.61 | 1/2 | 3,070.06 | 1/2 | 2,711.45 | 1/2 | 2,352.11 |
| 3/4 | | 3/4 | 4,363.78 | 3/4 | 4,196.07 | 3/4 | 4,018.68 | 3/4 | 3,833.86 | 3/4 | 3,642.36 | 3/4 | 3,420.16 | 3/4 | 3,062.59 | 3/4 | 2,703.97 | 3/4 | 2,344.62 |
| 2 | | 2 | 4,360.93 | 2 | 4,192.45 | 2 | 4,014.90 | 2 | 3,829.93 | 2 | 3,638.34 | 2 | 3,412.71 | 2 | 3,055.12 | 2 | 2,696.48 | 2 | 2,337.13 |
| 1/4 | | 1/4 | 4,358.07 | 1/4 | 4,188.83 | 1/4 | 4,011.12 | 1/4 | 3,826.00 | 1/4 | 3,634.32 | 1/4 | 3,405.25 | 1/4 | 3,047.66 | 1/4 | 2,688.99 | 1/4 | 2,329.65 |
| 1/2 | | 1/2 | 4,355.22 | 1/2 | 4,185.21 | 1/2 | 4,007.33 | 1/2 | 3,822.07 | 1/2 | 3,630.30 | 1/2 | 3,397.80 | 1/2 | 3,040.19 | 1/2 | 2,681.51 | 1/2 | 2,322.16 |
| 3/4 | | 3/4 | 4,352.36 | 3/4 | 4,181.59 | 3/4 | 4,003.55 | 3/4 | 3,818.14 | 3/4 | 3,626.28 | 3/4 | 3,390.34 | 3/4 | 3,032.73 | 3/4 | 2,674.02 | 3/4 | 2,314.67 |
| 3 | | 3 | 4,348.59 | 3 | 4,177.96 | 3 | 3,999.76 | 3 | 3,814.19 | 3 | 3,622.25 | 3 | 3,382.89 | 3 | 3,025.26 | 3 | 2,666.54 | 3 | 2,307.19 |
| 1/4 | | 1/4 | 4,344.82 | 1/4 | 4,174.33 | 1/4 | 3,995.96 | 1/4 | 3,810.25 | 1/4 | 3,618.23 | 1/4 | 3,375.44 | 1/4 | 3,017.80 | 1/4 | 2,659.05 | 1/4 | 2,299.70 |
| 1/2 | | 1/2 | 4,341.05 | 1/2 | 4,170.69 | 1/2 | 3,992.17 | 1/2 | 3,806.31 | 1/2 | 3,614.21 | 1/2 | 3,367.98 | 1/2 | 3,010.33 | 1/2 | 2,651.57 | 1/2 | 2,292.21 |
| 3/4 | | 3/4 | 4,337.28 | 3/4 | 4,167.06 | 3/4 | 3,988.37 | 3/4 | 3,802.36 | 3/4 | 3,610.19 | 3/4 | 3,360.53 | 3/4 | 3,002.87 | 3/4 | 2,644.08 | 3/4 | 2,284.73 |
| 4 | | 4 | 4,333.82 | 4 | 4,163.42 | 4 | 3,984.56 | 4 | 3,798.41 | 4 | 3,606.17 | 4 | 3,353.07 | 4 | 2,995.40 | 4 | 2,636.60 | 4 | 2,277.24 |
| 1/4 | | 1/4 | 4,330.36 | 1/4 | 4,159.77 | 1/4 | 3,980.76 | 1/4 | 3,794.45 | 1/4 | 3,602.15 | 1/4 | 3,345.62 | 1/4 | 2,987.94 | 1/4 | 2,629.11 | 1/4 | 2,269.75 |
| 1/2 | | 1/2 | 4,326.90 | 1/2 | 4,156.12 | 1/2 | 3,976.95 | 1/2 | 3,790.50 | 1/2 | 3,598.13 | 1/2 | 3,338.17 | 1/2 | 2,980.47 | 1/2 | 2,621.63 | 1/2 | 2,262.27 |
| 3/4 | | 3/4 | 4,323.44 | 3/4 | 4,152.48 | 3/4 | 3,973.14 | 3/4 | 3,786.54 | 3/4 | 3,594.11 | 3/4 | 3,330.71 | 3/4 | 2,973.01 | 3/4 | 2,614.14 | 3/4 | 2,254.78 |
| 5 | | 5 | 4,319.97 | 5 | 4,148.82 | 5 | 3,969.32 | 5 | 3,782.58 | 5 | 3,590.08 | 5 | 3,323.26 | 5 | 2,965.54 | 5 | 2,606.66 | 5 | 2,247.29 |
| 1/4 | | 1/4 | 4,316.50 | 1/4 | 4,145.16 | 1/4 | 3,965.50 | 1/4 | 3,778.61 | 1/4 | 3,586.06 | 1/4 | 3,315.81 | 1/4 | 2,958.08 | 1/4 | 2,599.17 | 1/4 | 2,239.81 |
| 1/2 | | 1/2 | 4,313.03 | 1/2 | 4,141.51 | 1/2 | 3,961.68 | 1/2 | 3,774.64 | 1/2 | 3,582.04 | 1/2 | 3,308.36 | 1/2 | 2,950.61 | 1/2 | 2,591.68 | 1/2 | 2,232.32 |
| 3/4 | | 3/4 | 4,309.56 | 3/4 | 4,137.85 | 3/4 | 3,957.86 | 3/4 | 3,770.67 | 3/4 | 3,578.02 | 3/4 | 3,300.91 | 3/4 | 2,943.15 | 3/4 | 2,584.20 | 3/4 | 2,224.83 |
| 6 | | 6 | 4,306.08 | 6 | 4,134.18 | 6 | 3,954.03 | 6 | 3,766.69 | 6 | 3,574.00 | 6 | 3,293.47 | 6 | 2,935.68 | 6 | 2,576.71 | 6 | 2,217.35 |
| 1/4 | | 1/4 | 4,302.59 | 1/4 | 4,130.51 | 1/4 | 3,950.20 | 1/4 | 3,762.71 | 1/4 | 3,569.98 | 1/4 | 3,286.03 | 1/4 | 2,928.22 | 1/4 | 2,569.23 | 1/4 | 2,209.86 |
| 1/2 | | 1/2 | 4,299.11 | 1/2 | 4,126.84 | 1/2 | 3,946.37 | 1/2 | 3,758.73 | 1/2 | 3,565.96 | 1/2 | 3,278.59 | 1/2 | 2,920.75 | 1/2 | 2,561.74 | 1/2 | 2,202.37 |
| 3/4 | | 3/4 | 4,295.63 | 3/4 | 4,123.17 | 3/4 | 3,942.53 | 3/4 | 3,754.75 | 3/4 | 3,561.94 | 3/4 | 3,271.15 | 3/4 | 2,913.29 | 3/4 | 2,554.25 | 3/4 | 2,194.89 |
| 7 | | 7 | 4,292.13 | 7 | 4,119.49 | 7 | 3,938.69 | 7 | 3,750.76 | 7 | 3,557.91 | 7 | 3,263.71 | 7 | 2,905.82 | 7 | 2,546.76 | 7 | 2,187.40 |
| 1/4 | | 1/4 | 4,288.63 | 1/4 | 4,115.80 | 1/4 | 3,934.85 | 1/4 | 3,746.77 | 1/4 | 3,553.89 | 1/4 | 3,256.28 | 1/4 | 2,898.36 | 1/4 | 2,539.28 | 1/4 | 2,179.91 |
| 1/2 | | 1/2 | 4,285.14 | 1/2 | 4,112.12 | 1/2 | 3,931.00 | 1/2 | 3,742.78 | 1/2 | 3,549.87 | 1/2 | 3,248.84 | 1/2 | 2,890.89 | 1/2 | 2,531.79 | 1/2 | 2,172.42 |
| 3/4 | | 3/4 | 4,281.64 | 3/4 | 4,108.44 | 3/4 | 3,927.16 | 3/4 | 3,738.79 | 3/4 | 3,545.85 | 3/4 | 3,241.40 | 3/4 | 2,883.42 | 3/4 | 2,524.30 | 3/4 | 2,164.94 |
| 8 | | 8 | 4,278.13 | 8 | 4,104.73 | 8 | 3,923.30 | 8 | 3,734.78 | 8 | 3,541.83 | 8 | 3,233.96 | 8 | 2,875.95 | 8 | 2,516.82 | 8 | 2,157.45 |
| 1/4 | | 1/4 | 4,274.63 | 1/4 | 4,101.02 | 1/4 | 3,919.44 | 1/4 | 3,730.78 | 1/4 | 3,537.81 | 1/4 | 3,226.52 | 1/4 | 2,868.48 | 1/4 | 2,509.33 | 1/4 | 2,149.96 |
| 1/2 | | 1/2 | 4,271.12 | 1/2 | 4,097.31 | 1/2 | 3,915.59 | 1/2 | 3,726.77 | 1/2 | 3,533.79 | 1/2 | 3,219.08 | 1/2 | 2,861.01 | 1/2 | 2,501.84 | 1/2 | 2,142.48 |
| 3/4 | | 3/4 | 4,267.61 | 3/4 | 4,093.60 | 3/4 | 3,911.73 | 3/4 | 3,722.77 | 3/4 | 3,529.76 | 3/4 | 3,211.64 | 3/4 | 2,853.53 | 3/4 | 2,494.36 | 3/4 | 2,134.99 |
| 9 | | 9 | 4,264.09 | 9 | 4,089.88 | 9 | 3,907.86 | 9 | 3,718.75 | 9 | 3,525.74 | 9 | 3,204.21 | 9 | 2,846.06 | 9 | 2,486.87 | 9 | 2,127.50 |
| 1/4 | | 1/4 | 4,260.56 | 1/4 | 4,086.16 | 1/4 | 3,903.99 | 1/4 | 3,714.74 | 1/4 | 3,521.72 | 1/4 | 3,196.77 | 1/4 | 2,838.59 | 1/4 | 2,479.38 | 1/4 | 2,120.02 |
| 1/2 | | 1/2 | 4,257.03 | 1/2 | 4,082.44 | 1/2 | 3,900.12 | 1/2 | 3,710.72 | 1/2 | 3,517.70 | 1/2 | 3,189.33 | 1/2 | 2,831.12 | 1/2 | 2,471.90 | 1/2 | 2,112.53 |
| 3/4 | | 3/4 | 4,253.51 | 3/4 | 4,078.71 | 3/4 | 3,896.25 | 3/4 | 3,706.70 | 3/4 | 3,513.68 | 3/4 | 3,181.89 | 3/4 | 2,823.64 | 3/4 | 2,464.41 | 3/4 | 2,105.04 |
| 10 | | 10 | 4,249.94 | 10 | 4,074.98 | 10 | 3,892.37 | 10 | 3,702.68 | 10 | 3,509.66 | 10 | 3,174.45 | 10 | 2,816.17 | 10 | 2,456.92 | 10 | 2,097.56 |
| 1/4 | | 1/4 | 4,246.37 | 1/4 | 4,071.25 | 1/4 | 3,888.49 | 1/4 | 3,698.66 | 1/4 | 3,505.64 | 1/4 | 3,167.01 | 1/4 | 2,808.70 | 1/4 | 2,449.44 | 1/4 | 2,090.07 |
| 1/2 | | 1/2 | 4,242.80 | 1/2 | 4,067.51 | 1/2 | 3,884.61 | 1/2 | 3,694.64 | 1/2 | 3,501.62 | 1/2 | 3,159.58 | 1/2 | 2,801.22 | 1/2 | 2,441.95 | 1/2 | 2,082.58 |
| 3/4 | | 3/4 | 4,239.22 | 3/4 | 4,063.78 | 3/4 | 3,880.73 | 3/4 | 3,690.62 | 3/4 | 3,497.59 | 3/4 | 3,152.14 | 3/4 | 2,793.75 | 3/4 | 2,434.46 | 3/4 | 2,075.10 |
| 11 | | 11 | 4,235.64 | 11 | 4,060.03 | 11 | 3,876.83 | 11 | 3,686.60 | 11 | 3,493.14 | 11 | 3,144.69 | 11 | 2,786.28 | 11 | 2,426.98 | 11 | 2,067.61 |
| 1/4 | | 1/4 | 4,232.06 | 1/4 | 4,056.29 | 1/4 | 3,872.94 | 1/4 | 3,682.57 | 1/4 | 3,488.69 | 1/4 | 3,137.25 | 1/4 | 2,778.80 | 1/4 | 2,419.49 | 1/4 | 2,060.12 |
| 1/2 | | 1/2 | 4,228.47 | 1/2 | 4,052.54 | 1/2 | 3,869.05 | 1/2 | 3,678.55 | 1/2 | 3,484.24 | 1/2 | 3,129.81 | 1/2 | 2,771.33 | 1/2 | 2,412.00 | 1/2 | 2,052.64 |
| 3/4 | | 3/4 | 4,224.89 | 3/4 | 4,048.80 | 3/4 | 3,865.15 | 3/4 | 3,674.53 | 3/4 | 3,479.79 | 3/4 | 3,122.37 | 3/4 | 2,763.85 | 3/4 | 2,404.52 | 3/4 | 2,045.15 |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.
 CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.
 CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.
 CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN TO TOP LIP OF 2" DIAMETER "HERMETIC" VALVE.
 GAUGE POINT: (HERMETIC) LOCATED 10'-09" OFF CENTERLINE AND 56'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "CCL 419-L"

3 STBD ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 15'-08 3/4"

| 10 FT. | | 11 FT. | | 12 FT. | | 13 FT. | | 14 FT. | | 15 FT. | | 16 FT. | | 17 FT. | | 18 FT. | | 19 FT. | |
|--------|----------|--------|----------|--------|----------|--------|--------|--------|--------|--------|--------|--------|--|--------|--|--------|--|--------|--|
| IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | |
| 0 | 2,037.66 | 0 | 1,678.22 | 0 | 1,320.09 | 0 | 970.69 | 0 | 618.31 | 0 | 258.76 | 0 | | 0 | | 0 | | 0 | |
| 1/4 | 2,030.18 | 1/4 | 1,670.73 | 1/4 | 1,312.66 | 1/4 | 963.54 | 1/4 | 610.82 | 1/4 | 251.27 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,022.69 | 1/2 | 1,663.24 | 1/2 | 1,305.24 | 1/2 | 956.39 | 1/2 | 603.33 | 1/2 | 243.78 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,015.20 | 3/4 | 1,655.75 | 3/4 | 1,297.81 | 3/4 | 949.23 | 3/4 | 595.84 | 3/4 | 236.29 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 1 | 2,007.71 | 1 | 1,648.26 | 1 | 1,290.38 | 1 | 942.08 | 1 | 588.35 | 1 | 228.79 | 1 | | 1 | | 1 | | 1 | |
| 1 1/4 | 2,000.22 | 1 1/4 | 1,640.77 | 1 1/4 | 1,282.96 | 1 1/4 | 934.93 | 1 1/4 | 580.86 | 1 1/4 | 221.30 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 1,992.74 | 1 1/2 | 1,633.28 | 1 1/2 | 1,275.53 | 1 1/2 | 927.77 | 1 1/2 | 573.37 | 1 1/2 | 213.81 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 1,985.25 | 3/4 | 1,625.79 | 3/4 | 1,268.10 | 3/4 | 920.62 | 3/4 | 565.88 | 3/4 | 206.32 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 2 | 1,977.76 | 2 | 1,618.31 | 2 | 1,260.68 | 2 | 913.46 | 2 | 558.39 | 2 | 198.83 | 2 | | 2 | | 2 | | 2 | |
| 2 1/4 | 1,970.27 | 2 1/4 | 1,610.82 | 2 1/4 | 1,253.25 | 2 1/4 | 906.30 | 2 1/4 | 550.89 | 2 1/4 | 191.34 | 2 1/4 | | 2 1/4 | | 2 1/4 | | 2 1/4 | |
| 2 1/2 | 1,962.78 | 2 1/2 | 1,603.33 | 2 1/2 | 1,245.83 | 2 1/2 | 899.14 | 2 1/2 | 543.40 | 2 1/2 | 183.85 | 2 1/2 | | 2 1/2 | | 2 1/2 | | 2 1/2 | |
| 3/4 | 1,955.29 | 3/4 | 1,595.84 | 3/4 | 1,238.40 | 3/4 | 891.99 | 3/4 | 535.91 | 3/4 | 176.36 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 3 | 1,947.80 | 3 | 1,588.35 | 3 | 1,230.99 | 3 | 884.81 | 3 | 528.42 | 3 | 168.87 | 3 | | 3 | | 3 | | 3 | |
| 3 1/4 | 1,940.32 | 3 1/4 | 1,580.86 | 3 1/4 | 1,223.58 | 3 1/4 | 877.63 | 3 1/4 | 520.93 | 3 1/4 | 161.38 | 3 1/4 | | 3 1/4 | | 3 1/4 | | 3 1/4 | |
| 3 1/2 | 1,932.83 | 3 1/2 | 1,573.37 | 3 1/2 | 1,216.17 | 3 1/2 | 870.45 | 3 1/2 | 513.44 | 3 1/2 | 153.89 | 3 1/2 | | 3 1/2 | | 3 1/2 | | 3 1/2 | |
| 3/4 | 1,925.34 | 3/4 | 1,565.89 | 3/4 | 1,208.76 | 3/4 | 863.27 | 3/4 | 505.95 | 3/4 | 146.39 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 4 | 1,917.85 | 4 | 1,558.40 | 4 | 1,201.35 | 4 | 856.09 | 4 | 498.46 | 4 | 138.90 | 4 | | 4 | | 4 | | 4 | |
| 4 1/4 | 1,910.36 | 4 1/4 | 1,550.91 | 4 1/4 | 1,193.94 | 4 1/4 | 848.91 | 4 1/4 | 490.97 | 4 1/4 | 131.40 | 4 1/4 | | 4 1/4 | | 4 1/4 | | 4 1/4 | |
| 4 1/2 | 1,902.87 | 4 1/2 | 1,543.42 | 4 1/2 | 1,186.53 | 4 1/2 | 841.72 | 4 1/2 | 483.48 | 4 1/2 | 123.91 | 4 1/2 | | 4 1/2 | | 4 1/2 | | 4 1/2 | |
| 3/4 | 1,895.38 | 3/4 | 1,535.93 | 3/4 | 1,179.12 | 3/4 | 834.54 | 3/4 | 475.99 | 3/4 | 116.41 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 5 | 1,887.90 | 5 | 1,528.44 | 5 | 1,171.72 | 5 | 827.30 | 5 | 468.50 | 5 | 109.00 | 5 | | 5 | | 5 | | 5 | |
| 5 1/4 | 1,880.41 | 5 1/4 | 1,520.95 | 5 1/4 | 1,164.32 | 5 1/4 | 820.06 | 5 1/4 | 461.01 | 5 1/4 | 101.59 | 5 1/4 | | 5 1/4 | | 5 1/4 | | 5 1/4 | |
| 5 1/2 | 1,872.92 | 5 1/2 | 1,513.47 | 5 1/2 | 1,156.92 | 5 1/2 | 812.82 | 5 1/2 | 453.52 | 5 1/2 | 94.18 | 5 1/2 | | 5 1/2 | | 5 1/2 | | 5 1/2 | |
| 3/4 | 1,865.43 | 3/4 | 1,505.98 | 3/4 | 1,149.51 | 3/4 | 805.58 | 3/4 | 446.03 | 3/4 | 86.76 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 6 | 1,857.94 | 6 | 1,498.50 | 6 | 1,142.36 | 6 | 798.09 | 6 | 438.53 | 6 | 80.06 | 6 | | 6 | | 6 | | 6 | |
| 6 1/4 | 1,850.45 | 6 1/4 | 1,491.02 | 6 1/4 | 1,135.21 | 6 1/4 | 790.60 | 6 1/4 | 431.04 | 6 1/4 | 73.36 | 6 1/4 | | 6 1/4 | | 6 1/4 | | 6 1/4 | |
| 6 1/2 | 1,842.96 | 6 1/2 | 1,483.54 | 6 1/2 | 1,128.05 | 6 1/2 | 783.11 | 6 1/2 | 423.55 | 6 1/2 | 66.66 | 6 1/2 | | 6 1/2 | | 6 1/2 | | 6 1/2 | |
| 3/4 | 1,835.48 | 3/4 | 1,476.05 | 3/4 | 1,120.90 | 3/4 | 775.62 | 3/4 | 416.06 | 3/4 | 59.96 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 7 | 1,827.99 | 7 | 1,468.63 | 7 | 1,113.75 | 7 | 768.13 | 7 | 408.57 | 7 | 54.50 | 7 | | 7 | | 7 | | 7 | |
| 7 1/4 | 1,820.50 | 7 1/4 | 1,461.20 | 7 1/4 | 1,106.60 | 7 1/4 | 760.63 | 7 1/4 | 401.08 | 7 1/4 | 49.04 | 7 1/4 | | 7 1/4 | | 7 1/4 | | 7 1/4 | |
| 7 1/2 | 1,813.01 | 7 1/2 | 1,453.77 | 7 1/2 | 1,099.44 | 7 1/2 | 753.14 | 7 1/2 | 393.59 | 7 1/2 | 43.58 | 7 1/2 | | 7 1/2 | | 7 1/2 | | 7 1/2 | |
| 3/4 | 1,805.52 | 3/4 | 1,446.35 | 3/4 | 1,092.29 | 3/4 | 745.65 | 3/4 | 386.10 | 3/4 | 38.12 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 8 | 1,798.03 | 8 | 1,438.92 | 8 | 1,085.14 | 8 | 738.16 | 8 | 378.61 | 8 | 33.90 | 8 | | 8 | | 8 | | 8 | |
| 8 1/4 | 1,790.54 | 8 1/4 | 1,431.49 | 8 1/4 | 1,077.98 | 8 1/4 | 730.67 | 8 1/4 | 371.12 | 8 1/4 | 29.69 | 8 1/4 | | 8 1/4 | | 8 1/4 | | 8 1/4 | |
| 8 1/2 | 1,783.05 | 8 1/2 | 1,424.07 | 8 1/2 | 1,070.83 | 8 1/2 | 723.18 | 8 1/2 | 363.63 | 8 1/2 | 25.47 | 8 1/2 | | 8 1/2 | | 8 1/2 | | 8 1/2 | |
| 3/4 | 1,775.57 | 3/4 | 1,416.64 | 3/4 | 1,063.68 | 3/4 | 715.69 | 3/4 | 356.14 | 3/4 | 21.25 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 9 | 1,768.08 | 9 | 1,409.21 | 9 | 1,056.53 | 9 | 708.20 | 9 | 348.65 | 9 | | 9 | | 9 | | 9 | | 9 | |
| 9 1/4 | 1,760.59 | 9 1/4 | 1,401.79 | 9 1/4 | 1,049.37 | 9 1/4 | 700.71 | 9 1/4 | 341.16 | 9 1/4 | | 9 1/4 | | 9 1/4 | | 9 1/4 | | 9 1/4 | |
| 9 1/2 | 1,753.10 | 9 1/2 | 1,394.36 | 9 1/2 | 1,042.22 | 9 1/2 | 693.22 | 9 1/2 | 333.66 | 9 1/2 | | 9 1/2 | | 9 1/2 | | 9 1/2 | | 9 1/2 | |
| 3/4 | 1,745.61 | 3/4 | 1,386.93 | 3/4 | 1,035.07 | 3/4 | 685.73 | 3/4 | 326.17 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 10 | 1,738.12 | 10 | 1,379.51 | 10 | 1,027.91 | 10 | 678.24 | 10 | 318.68 | 10 | | 10 | | 10 | | 10 | | 10 | |
| 10 1/4 | 1,730.64 | 10 1/4 | 1,372.08 | 10 1/4 | 1,020.76 | 10 1/4 | 670.75 | 10 1/4 | 311.19 | 10 1/4 | | 10 1/4 | | 10 1/4 | | 10 1/4 | | 10 1/4 | |
| 10 1/2 | 1,723.15 | 10 1/2 | 1,364.65 | 10 1/2 | 1,013.61 | 10 1/2 | 663.26 | 10 1/2 | 303.70 | 10 1/2 | | 10 1/2 | | 10 1/2 | | 10 1/2 | | 10 1/2 | |
| 3/4 | 1,715.66 | 3/4 | 1,357.23 | 3/4 | 1,006.46 | 3/4 | 655.76 | 3/4 | 296.21 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 11 | 1,708.17 | 11 | 1,349.80 | 11 | 999.30 | 11 | 648.27 | 11 | 288.72 | 11 | | 11 | | 11 | | 11 | | 11 | |
| 11 1/4 | 1,700.68 | 11 1/4 | 1,342.37 | 11 1/4 | 992.15 | 11 1/4 | 640.78 | 11 1/4 | 281.23 | 11 1/4 | | 11 1/4 | | 11 1/4 | | 11 1/4 | | 11 1/4 | |
| 11 1/2 | 1,693.19 | 11 1/2 | 1,334.95 | 11 1/2 | 985.00 | 11 1/2 | 633.29 | 11 1/2 | 273.74 | 11 1/2 | | 11 1/2 | | 11 1/2 | | 11 1/2 | | 11 1/2 | |
| 3/4 | 1,685.70 | 3/4 | 1,327.52 | 3/4 | 977.84 | 3/4 | 625.80 | 3/4 | 266.25 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/03/2020 JS
CALCULATED: 11/03/2020 CL
PRINTED: 11/04/2020 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2020

PRECISION MEASUREMENT
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