FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS (Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only)
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

| 1. | Manufactured and certified by HAMMCO, INC.: 6901 N. 115 th EAST AVE.: OWASSO, OKLAHOMA 74055 (Name and address of manufacture) | | | | | | | | | | | | | |
|--|--|--|------------------------|----------------|---------------------------|---------------------------------|-------------------|----------------------|-----------------------|---|-----------------|-------------------------------|-------------|--|
| 2. | Manufactured for WILLIAMS – NORTHWEST GAS PIPELINE GROUP; TULSA, OKLAHOMA (Name and address of purchaser) | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | |
| 4. | Type HORIZONTAL 12-1131-1 (Mfgr's serial No.) | | | | 12-113 | | | | | 4814 | | | 2012 | |
| | (Horiz, or v | al No.) | (CRN.) (Drawi | | | | ring No.) | No.) (Nat'l Bd. No.) | | | Year built) | | | |
| 5. | | The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The design, construction, and workmanship conform to ASME Rules Section VIII, Division 1 2010 (Year) | | | | | | | | | | | | |
| | to | | NONE | | | | | N/A | | | | | | |
| | | Adden | da (Date) | | Code Case Nos. | | | | | (Special Service per UG-120 (d) | | | | |
| | Tube & Plug Shell SA-516-70N | | | | 4 4/477 | | 1/8" | | 5" X 8-3/4" | | 8'-10-1/2" | | | |
| 6. | : Matl. (Spec. No., Grade) | | | | 1-1/4" Nom. Thk. (in.) | | | Corr. Allow (in | | | | Length (overall) (ft. & Inch) | | |
| | CORNER | | | | | 1175 | 1. | 1-1/4 | | | | | | |
| 7. | Seams: Long, (V | | (%) | | | Girth (Welded, Dbl., R.T. (Spot | | | (%) | No. of | | | | |
| Sngl., Lap, Butt) R. T. (Spot or Full) Eff. (%) H.T. Temp (°F) Time (hr) Sngl., Lap, Butt) Or full) Fff. (%) Sngl., Lap, Butt) | | | | | | | | | | (70) | Courses | | | |
| 8. | Heads: (a) Ma | ıtl. —— | | SA-516-7 | | | | (b) Matl | | SA-516-70N (Spec. No., Grade) | | | | |
| | | | | | | | | | | | | ide to | Pressure | |
| | (Top, Bottom, | | Minimum Thicl | kness | Corrosion Allowance | Crown Radius | Knuckle Radius | Elliptical Ratio | Conical Apex Angle | Hemispherical Radius D | | | or Concave | |
| (a) | TOP, BOT. & | ENDS | 1" | | 1/8" | | * | | | | | | _AT | |
| (b) | STAY PLAT | ES | 5/8" | | 1/8" | | | | | | | FL | _AT | |
| | If removable, bolts used (describe other fastenings) HEADER PLUGS: SA-105, 1-3/8" DIA. X 1-1/4" LG.; QTY. 324 | | | | | | | | | | | | | |
| | (Matl., Spec. No., Gr., Size, No.) | | | | | | | | | | | | | |
| 9. | MAWP 852 N/A | | | I/A | | | psi at m | psi at max. temp. | | 300 | N/A | | °F | |
| | (internal) (External) | | | | | | | | | emal) | | (External) | | |
| | Min. design meta | • | 20 | | °Fat_ | | 852 | ps | i. Hydro. tes | t pressure | 1508 | | psi. | |
| 10. | Nozzles, inspecti | ion and s | afety valve opening | s: * | | | | | | | | | · · · · · · | |
| (In | Purpose | No. | Diam. | Туре | | M | aterial | | Nom. Thk. | Reinforcement Matl. | Hov Attach | | Location | |
| (11 | nlet, Outlet, Drain) | 3 | or size 10"-600# | RFWN | 1 8 | A 105 / 9 | SA-234-WF | OB. | .844 | WELD METAL | | | | |
| | OUTLET | 2 | 10"-600# | RFWN | _ | | SA-234-WF | | .844 | WELD METAL | | | | |
| AUX CONN. | | 5 | | 1"-6000# CPLG. | | | A-105 | .500 | | | | ED | | |
| | VENT CONN. | 2 | 1"-6000# | CPLG | | | A-105 | | | WELD METAL | | WELDED | | |
| | | | | | | | | | | | | | | |
| 11. | Supports: Skirt | | Luas | | | Legs | ******** | - Ot | he | At | tached | | | |
| | Supports: Simil | (Ye | Lugs | | (No) | | (No) | | (D | escribe) | | Where | and How) | |
| 12. | Remarks: Manut | facturer's | Partial Data Reports | Properly | identified ar | nd signed | by Commis | sioned Ins | ectors have | been furnished fo | or the followi | ng iter | ns of | |
| | the report: | | | | ******* | | | | | | | | | |
| | * CAEETV \/AL\/ | EC DV O | THER REPLIC 42 | E (=) (2) | - | | mber, Mfg's na | | | | | | | |
| - | | | THER, PER UG-12 | | | | | | | | | | | |
| - | (162) – 1-1/4" O. | D. X .135 | MW X 30'-0" LG. | TUBES; | MATERIA | L SPEC. | SA-214 W | VELDED C | ARBON ST | EEL TUBES | | | | |
| EXEMPT FROM IMPACT TESTING PER UCS-66 (CURVE B & D), UCS-66(c), UG-20(f) ITEM NO.: E-100C | | | | | | | | | | | | | | |
| CERTIFICATE OF SHOP / FIELD COMPLIANCE | | | | | | | | | | | | | | |
| \//e | certify that the state | monts m | ade in this report are | renort are | o correct and | d that all c | letails of de | sian matei | rial construct | ion and workma | nship of this | vesse | el con- | |
| We certify that the statements made in this report are report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1. "U" Certificate of Authorization No. 17343 Expires J FEB 12, 2015 | | | | | | | | | | | | | | |
| Date 8/2/12 Co. Name HAMMCO, INC. Signed Construct Value Val | | | | | | | | | | | | | | |
| (Manufacture) (Representative) | | | | | | | | | | | | | | |
| | | | | CERTI | FICATE OI | F SHOP | FIELD IN | SPECTION | V | | | | | |
| CERTIFICATE OF SHOP / FIELD INSPECTION Vessel constructed by HAMMCO, INC. at OWASSO, OKLAHOMA | | | | | | | | | | | | | | |
| I, the undersigned, holding a valid commission issued by the National Board of boiler and Pressure vessel Inspectors and/or the State or Province of | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| OKLAHOMA and employed by ONE BEACON AMERICA INSURANCE CO have inspected the component described in this Manufacturer's Data Report on 8/2/12 and state that, to the best of | | | | | | | | | | | | | | |
| | | | nufacture has constr | | | | | | | • | | | | |
| | | | or nor his employer i | | | | | | | | | nu- | | |
| fact | ure's Data Report. | Furthermo | ore, neither the Inspe | ctor, nor h | nis employer | | | | | | | | | |
| | () A | | or connected with th | is inspect | ion. | | _ | nla | 0000 | 20/21 | 0 | | | |
| Date | 7-2-1 | 12_ | Signed | (Alithori | ized Inspector) | | Commission | is <u>////</u> | (Nat'l Board | incl. endorsements), | State, Prov. an | d No 1 | | |
| | | | | וחטוווטוו | Lou mopeulul) | | | | (Taci Doela) | | , | | | |