Williams Field Services

Stewart Dew Point Hickory, PA

7-23-2012

A-Scan Baseline Inspection

Vessel No.: V-350
Vessel Name: Propaine Receiver

P&ID No: STWT-P01-016

DBI Incorporated
Lincoln Nebraska
4223 Progressive Avenue.Lincoln NE 68504.Telephone: 402-467-1818 Fax: 402-467-1766
Omaha Nebraska
2211 S. 156th Circle.Omaha NE 68130.Telephone:402-330-9612.Fax: 402-330-9640
Overland Park Kansas
11660 West 90th.Overland Park KS 66214.Telephone: 913-888-2321 Fax: 913-888-2351

Summary Report

Report Reviewed By: Mitchell Beres

API 510 #30888

Client: Williams Field Services
Location: Stewart Dew Point Hickory, PA

Vessel No.: V-350
Vessel Name: Propaine Receiver

Inspection Date: 7-23-2012

Type of Inspection: A-Scan Baseline Inspection

Note: An A-Scan baseline inspection was performed on the V-350 Propaine Receiver . The V-350 Propaine Receiver meets MAWP of 300 psi with a remaining service life of 20+ years. The long and short term corrosion rates were determined using the nominal thickness of the vessel.

Next UT Inspection: **7/22/2017** **API 510 para. 6.4**

Next Visual Inspection: **7/22/2017**

								Short Term Corrosion Rate	Long Term Corrosion Rate	Remaining Life (Years)
	TNom	**Top**	**Bottom**	**North**	**South**	**East**	**West**			
North Head		0.660	0.658			0.656	0.657			
South Head		0.644	0.645			0.643	0.652			
TML 1	0.625	0.630	0.628			0.630	0.630	<1 mil	<1 mil	20+
TML 2	0.625	0.632	0.629			0.629	0.630	<1 mil	<1 mil	20+

Client: Williams Field Services
Location: Stewart Dew Point Hickory, PA

Vessel No.: V-350
Vessel Name: Propaine Receiver

Vessel Parameters

Design Pressure (MAWP):	300 psi	North Head Material:	SA-516-70
Design Temperature:	225 F	North Head Type:	2:1 Ellipsoidal
Operating Pressure:	215 psi	Allowable Stress:	20,000
Operating Temperature:	110 F	Joint Efficiency:	1.0
Diameter: I.D or O.D	46.75" ID	South Head Material:	SA-516-70
Length S/S:	20'	South Head Type:	2:1 Ellipsoidal
Shell Material:	SA-516-70	Allowable Stress:	20,000
Allowable Stress:	20,000	Joint Efficiency:	1.0
Joint Efficiency:	1.0	Date Manufactured:	2008
Corrosion Allowance:	.125	In Service Date:	2008

ASME CODE EDITION USED FOR CALCULATIONS
ASME Section VIII, Division 1. 2007 Edition

Paint Information

Average paint coating thickness:	N/A	Thickness measured with paint:	N/A
Paint Multiplier:	N/A	Thickness measured without paint:	N/A

Name Plate Information

U1A Available:	Yes	ASME stamp present on vessel:	Yes
Name Plate present:	Yes	Rubbing taken:	Digital Photo

Client: Williams Field Services
Location: Stewart Dew Point Hickory, PA

Vessel No.: V-350
Vessel Name: Propaine Receiver

Vessel Data

Vessel Class:	2	Date Manufactured:	2008
Manufactures Serial #:	MW132-08	In Service Date:	2008
Product in Vessel:	Process Gas	Date of ASME VIII Vessel Mfg. under:	2007
P&ID Drawing #:	016	Code Cases:	None
P&ID Prepared By:	Laurel Mountain Midstream, LLC	Addenda:	None
Manufacturer:	Max Welders, Inc	National Board Number:	A-07
Vessel Length S/S:	20'	Vessel Insulated:	No
Diameter I.D or O.D:	46.75" ID	Describe openings (if any):	1 3/4" Ports
No. of Shell Sections:	2	ANSI Flange Rating:	300 #
No. of Nozzles:	13	Vessel Orientation:	Horizontal
Design Pressure (MAWP):	300 psi	Operating Pressure:	215 psi
Design Temperature:	225 F	Operating Temperature:	110 F
North Head Type:	2:1 Ellipsoidal	South Head Type:	2:1 Ellipsoidal
North Head Material:	SA-516-70	South Head Material:	SA-516-70
North Head Weld Type:	Type 1	South Head Weld Type:	Type 1
Shell Material:	SA-516-70	Shell Weld Type:	Type 1
Radiography:	Full	Hydrostatic:	390 psi

Relief Valve Information

Relief Valve Tag Number:	229	Relief Valve Pressure Setting:	300 psi
Relief Valve Test Date:	9-15-10	Relief Valve Size:	1 1/2" x 2"

DBI, Inc. Quality Inspection and Consulting Services

Reliable...Responsive...Resourceful...Proactive

PRESSURE VESSEL EXTERNAL INSPECTION

Client:	Williams Field Services	Date Inspected:	7-23-2012
Location:	Stewart Dew Point Hickory, PA	Inspector(s):	Mike Troyer
Vessel No.:	V-350		
Vessel Name:	Propaine Receiver	Signature:	

NAME PLATE

Item Inspected Yes No NA = Not Applicable	Yes	No	N/A	Comments:
Name Plate present & legible	☒	☐	☐	Good condition
National Board #	☒	☐	☐	A-07
Manufacturer	☒	☐	☐	Max Welders, Inc
Serial #/ Year Built	☒	☐	☐	MW132-08/ 2008
Repair or Rerate Name Plate	☐	☐	☒	N/A

FOUNDATION

Concrete condition (spalling, cracks)	☒	☐	☐	None noted
Foundation settling	☒	☐	☐	Appears level
Coating condition	☐	☐	☒	N/A
Cradle supports (moisture, cracks)	☒	☐	☐	None noted

SUPPORTS

Describe type (legs, saddle, etc.)	☒	☐	☐	Legs
Corrosion, pitting (describe)	☒	☐	☐	None noted
Weld condition	☒	☐	☐	Good condition
Paint condition	☒	☐	☐	No paint failure noted
Anchor bolts (tightness & corrosion	☒	☐	☐	Appears tight
Insulation deterioration	☐	☐	☒	N/A

SHELL

Corrosion, pitting (describe)	☒	☐	☐	None noted
Bulges/ Blisters/ Deformations	☒	☐	☐	None noted
Weld condition	☒	☐	☐	Good condition
Paint condition	☒	☐	☐	No paint failure noted
Insulation deterioration	☐	☐	☒	N/A
Biological growth	☒	☐	☐	None noted
UT Measurements	☒	☐	☐	See autocad drawing

HEADS

Item Inspected Yes No NA = Not Applicable	Yes	No	N/A	Comments:
Corrosion, pitting (describe)	☒	☐	☐	None noted
Bulges/ Blisters/ Deformations	☒	☐	☐	None noted
Weld condition	☒	☐	☐	Good condition
Paint condition	☒	☐	☐	No paint failure noted
Insulation deterioration	☐	☐	☒	N/A
UT Measurements	☒	☐	☐	See autocad drawing

MANWAYS & NOZZLES

Corrosion, pitting (describe)	☒	☐	☐	None noted
Weld condition	☒	☐	☐	Good condition
Flange condition	☒	☐	☐	Good condition
Bolting condition	☒	☐	☐	Good condition
Repad condition	☐	☐	☒	N/A
Insulation deterioration	☐	☐	☒	N/A
UT Measurements	☒	☐	☐	See autocad drawing

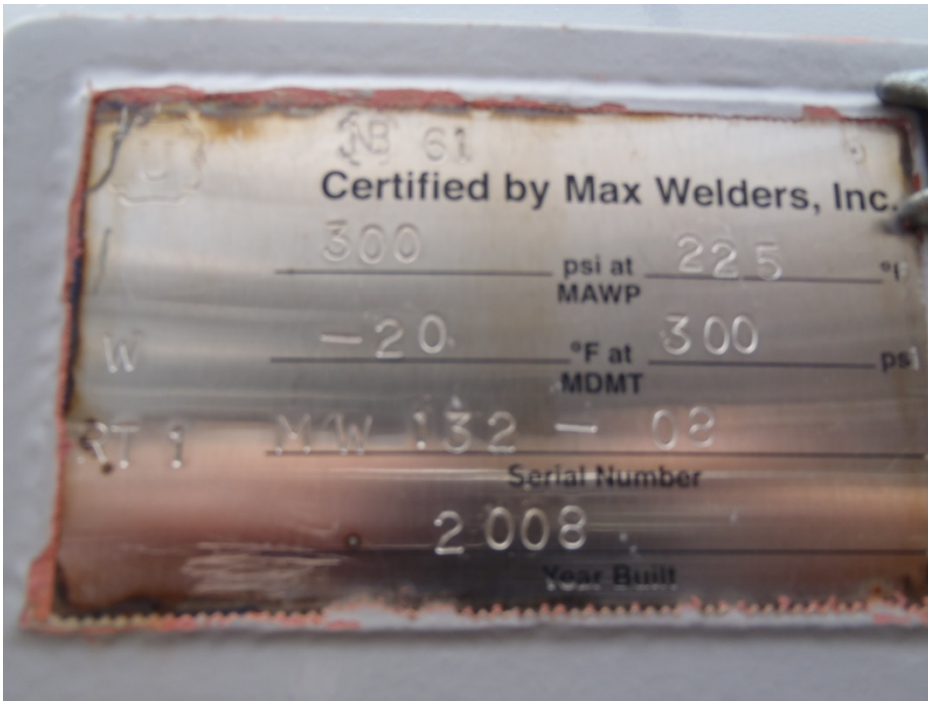
APPURTENANCES

Grounding (tightness & corrosion)	☒	☐	☐	Ground connection is tight
Gauges, Sight glass (damage)	☒	☐	☐	No damage noted
Relief Valve #/ Size/ Set Pressure	☒	☐	☐	229/ 1 1/2" x 2"/ 300 psi

LADDERS, STAIRS, PLATFORMS

Corroded, Broken Parts	☐	☐	☒	N/A
Paint condition	☐	☐	☒	N/A
Wear (ladder rungs, stair treads)	☐	☐	☒	N/A
Handrails secure	☐	☐	☒	N/A
Flooring condition	☐	☐	☒	N/A
Tightness (bolts, tie down clips)	☐	☐	☒	N/A
Attachment welds	☐	☐	☒	N/A
Corrosion, pitting (describe)	☐	☐	☒	N/A

ADDITIONAL COMMENTS:


NB 61
Certified by Max Welders, Inc.
300
psi at
MAWP
225
°F
-20
°F at
MDMT
300
psi
MW 132 - 02
Serial Number
2008
Year Built


STEWART D.P.C. PLANT
HYDROTEST PRESSURE: 390 PSIG
DRY WEIGHT: 9300 LBS
COR. ALLOW. 0.125
T-G-V-350

V-350 Propane Receiver

CORRECTED COPY

FORM U1A 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. anufactured and certified by Max Welders, Inc., 188 Blackwater Court, Gibson, Louisiana, 70356 (Name and address of Manufacturer)
2. anufactured for Premier Industries, 3450 Peters Road, Harvey, LA 70058 (Name and address of Purchaser)
3. Location of installation Standard DPC Plant, Unknown (Name and address)
4. Type Horizontal (Horiz. or vert. tank) | MW133-08 (Mfgr's serial No.) | None (CRN) | 8PR160FBN-A2 Rev. 0 (Drawing no.) | 62 (Nat'l Bd. No.) | 2008 (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 2007 (Year)
   to A-07 [Addenda (Date)] | None (Code Case Nos.) | None [Special Service per UG 120 (d)]
6. Shell: SA 516-70 (Matl. spec. no., grade) | .625" (Nominal thickness) | .125" (Corr. allowance.) | 46.75" (Inner diameter) | 20'-0" [Length (overall)]
7. Seams: Type 1 [Long. (welded, dbl., sngl., lap, butt)] | Full [R.T. (spot or full)] | 100 (Eff. %) | None (H.T. temp.) | NA (Time, hr) | Type 1 [Girth (welded, dbl., sngl., lap, butt)] | Full [R.T. (spot, partial, or full)] | 100% (Eff. %) | 2 No. of courses
8. Heads: (a) Matl. SA 516-70 (Spec no., grade) (b) Matl. SA 516-70 (Spec no., grade)

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)	End	.559"	.125"	—	—	2:1	—	—	—	Concave
(b)	End	.559"	.125"	—	—	2:1	—	—	—	Concave

If removable, bolts used (describe other fastenings) None (Matl., spec. no., gr., size, no.)

9. MAWP 300 (Internal) | None (External) psi at max. temp. 225 °F (Internal) | None. (External)
   Min. design metal temp. -20°F at 300 . Hydro., ~~pneu., or comb.~~ test pressure 390

zzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Matl.	Nom. Thk.	Reinforcement Matl.	How Attached	Location
Inlet	1	4"	300# RFLWN	SA 105	.88"	Weld Metal	* (e)	Shell
Outlet	1	3"	300# RFLWN	SA 105	.81"	Weld Metal	* (e)	Shell
Release	1	2"	300# RFLWN	SA 105	.66"	Weld Metal	* (e)	Shell
See attached U-4 Form								

11. Supports: Skirt No (Yes or no) | Lugs 2 (No.) | Legs NA (No.) | Other (2) Saddles (Describe) | Attached Shell/welded (Where and how)
12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of this report
    *Figure from UW16.1. Over pressure protection required by UG 125 to be provided by user. (Name of part, item number. Mfgr's name and identifying stamp)
    Exempt from impact testing per UG 20(f). Inspection openings per UG-46 (f)(3).

CERTIFICATE OF SHOP/FIELD COMPLIANCE

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. "U" Certificate of Authorization No. 28240 expires 3/9/2010 .

Date 10-28-08 Co. name Max Welders, Inc. (Manufacturer) Signed (Representative)

CERTIFICATE OF SHOP INSPECTION

Vessel constructed by Max Welders, Inc. at 188 Blackwater Court, Gibson, Louisiana
I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Louisiana and employed by HSB CT have inspected the component described in this Manufacturer's Data Report on 10-10, 2008, and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME Code, Section VIII, Division 1. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 10-28-08 Signed (Authorized Inspector) Commissions NB9475A LA841 (Nat'l Board. (incl. endorsements) State, Prov. And No.)

V-350 Propane Receiver

CORRECTED COPY

FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET
As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

Manufactured and certified by Max Welders, Inc., 188 Blackwater Court, Gibson, Louisiana, 70356
(Name and address of Manufacturer)

Manufactured for Premier Industries, 3450 Peters Road, Harvey, LA 70058
(Name and address of Purchaser)

3. Location of installation Standard DPC Plant, Unknown
(Name and address)

4. Type: Horizontal (Horiz., vert., or sphere) | Receiver (Tank, separator, heat exh., etc) | MW133-08 (Mfg's serial no.)

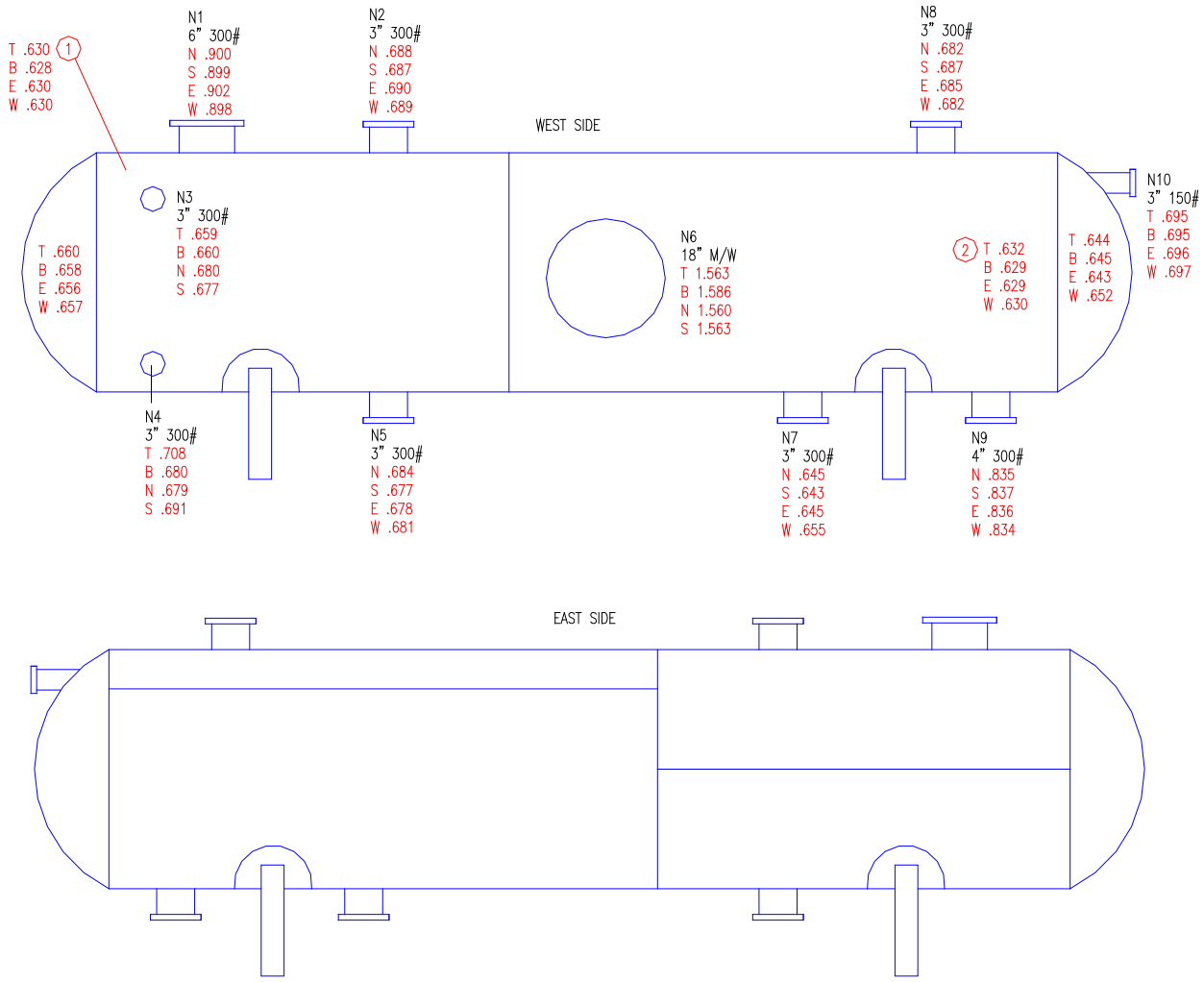
None (CRN) | 8PR160FBN-A2 Rev. 0 (Drawing no.) | 62 (Nat'l Bd. No.) | 2008 (Year built)

Data Report Item Number			Remarks					
Item 10 Continued from U1A								
PSV	1	2"	300# RFLWN	SA105	.66"	Weld metal	* (e)	Shell
Bridle/Drain	4	2"	300# RFLWN	SA105	.66"	Weld metal	* (e)	Shell
Fill	1	2"	300# RFLWN	SA105	.66"	Weld metal	* (e)	Head
TI	1	.750"	6M CPLG	SA105	.350"	Weld metal	* (y1)	Shell
PT/Spare	2	.500"	6M CPLG	SA105	.330"	Weld metal	* (y1)	Shell
MW	1	18"	300# RF	SA105	1.5"	Weld metal	* (y1)	Shell

Certificate of Authorization: Type "U" No. 28240 Expires 3/9, 20 10

Date 10-28-2008 Name Max Welders, Inc. (Manufacturer) Signed Michael Clark (Representative)

Date 10-28-08 Name (Authorized Inspector) Commission NB9475A LA841
[Nat'l Board (incl. endorsements), State, Province and no.]



NOTES

1. P&ID NO: STWT-P01-016
2.
3.
4.
5.
6.

CLIENT: Williams Field Services	**DBI, Incorporated** 5330 N. 57th Street Lincoln, Nebraska 68507	
LOCATION: Stewart Dew Point Hickory. PA		
INSPECTION DATE: 7-23-2012	ACAD DWG. FILE: V-350	
VESSEL No: V-350	DWN BY: MCS	CKD BY:
VESSEL ID: Propaine Receiver	MECHANICAL INTEGRITY INSPECTION	