



DBI, Inc. Quality Inspection and Consulting Services

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

Williams Field Services

Stewart Dew Point Hickory, PA

7-23-2012

A-Scan Baseline Inspection

Vessel No.: V-330

Vessel Name: Propane Compressor Discharge Scrubber

P&ID No: STWT-P01-015



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



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Summary Report

Report Reviewed By:

API 510 #30888

Client: Williams Field Services

Location: Stewart Dew Point Hickory, PA

Vessel No.: V-330

Vessel Name: Propane Compressor Discharge Scrubber

Inspection Date: 7-23-2012

Type of Inspection: A-Scan Baseline Inspection

Note: An A-Scan baseline inspection was performed on the V-330 Propane Compressor Discharge Scrubber. The V-330 Propane Compressor Discharge Scrubber 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	Long Term	Remaining
								Corrosion	Corrosion	Life
	TNom	Top	Bottom	North	South	East	West	Rate	Rate	(Years)
North Head				0.508						
South Head					0.520					
TML 1	0.375	0.383	0.382			0.383	0.384	<1 mil	<1 mil	20+



Client: Williams Field Services

Location: Stewart Dew Point Hickory, PA

Vessel No.: V-330

Vessel Name: Propane Compressor Discharge Scrubber

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:	167 F	Joint Efficiency:	1.0
Diameter: I.D or O.D	30" OD	South Head Material:	SA-516-70
Length S/S:	7'- 6"	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



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Client: Williams Field Services

Location: Stewart Dew Point Hickory, PA

Vessel No.: V-330

Vessel Name: Propane Compressor Discharge Scrubber

Vessel Data

Vessel Class:	2	Date Manufactured:	2008
Manufactures Serial #:	MW138-08	In Service Date:	2008
Product in Vessel:	Process Gas	Date of ASME VIII Vessel	2007
		Mfg. under:	
P&ID Drawing #:	015	Code Cases:	None
P&ID Prepared By:	Laurel Mountain Midstream, LLC	Addenda:	A-07
Manufacturer:	Max Welders, Inc.	National Board Number:	67
Vessel Length S/S:	7'- 6"	Vessel Insulated:	Yes
Diameter I.D or O.D:	30" OD	Describe openings (if any):	1 3/4" Ports
No. of Shell Sections:	1	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:	167 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:	330	Relief Valve Pressure Setting:	300 psi
Relief Valve Test Date:	9-15-2010	Relief Valve Size:	1" x 1"

**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-330
Vessel Name: Propane Compressor Discharge Scrubber

Signature:

NAME PLATE

Item Inspected Yes No NA = Not Applicable

Item Inspected	Yes	No	NA	Comments:
Name Plate present & legible	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good condition
National Board #	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	67
Manufacturer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Max Welders, Inc.
Serial #/ Year Built	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MW138-08/ 2008
Repair or Rerate Name Plate	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A

FOUNDATION

Concrete condition (spalling, cracks)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None noted
Foundation settling	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appears level
Coating condition	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A
Cradle supports (moisture, cracks)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None noted

SUPPORTS

Describe type (legs, saddle, etc.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Saddle
Corrosion, pitting (describe)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None noted
Weld condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good condition
Paint condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No paint failure noted
Anchor bolts (tightness & corrosion)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appears tight
Insulation deterioration	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A

SHELL

Corrosion, pitting (describe)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None noted
Bulges/ Blisters/ Deformations	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A
Weld condition	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A
Paint condition	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A
Insulation deterioration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None noted
Biological growth	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None noted
UT Measurements	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See autocad drawing



HEADS

Item Inspected	Yes	No	NA = Not Applicable	Yes	No	N/A	Comments:
Corrosion, pitting (describe)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				None noted
Bulges/ Blisters/ Deformations	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				N/A
Weld condition	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				N/A
Paint condition	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				N/A
Insulation deterioration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				None noted
UT Measurements	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				See autocad drawing

MANWAYS & NOZZLES

Corrosion, pitting (describe)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				None noted
Weld condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				Good condition
Flange condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				Good condition
Bolting condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				Good condition
Repad condition	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				N/A
Insulation deterioration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				None noted
UT Measurements	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				See autocad drawing

APPURTENANCES

Grounding (tightness & corrosion)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				Ground connection is tight
Gauges, Sight glass (damage)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				No damage noted
Relief Valve #/ Size/ Set Pressure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				330/ 1" x 1"/ 300 psi

LADDERS, STAIRS, PLATFORMS

Corroded, Broken Parts	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				N/A
Paint condition	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				N/A
Wear (ladder rungs, stair treads)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				N/A
Handrails secure	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				N/A
Flooring condition	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				N/A
Tightness (bolts, tie down clips)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				N/A
Attachment welds	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				N/A
Corrosion, pitting (describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				N/A

ADDITIONAL COMMENTS:



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V-330 Propane Discharge Scrubber

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

CORRECTED COPY

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 MW139-08 None 8PR160FBN-C2 Rev. 0 68 2008
(Horiz. or vert. tank) (Mfr's serial No.) (CRN) (Drawing 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 2007
to A-07 None None 2007
(Addenda (Date)) (Code Case Nos.) (Special Service per UG 120 (d))
6. Shell: SA 516-70 .375" .125" 29.25" 7'-6"
(Mat'l. spec. no., grade) (Nominal thickness) (Corr. allowance) (Inner diameter) (Length (overall))
7. Seams: Type 1 Full 100 None NA Type 1 Full 100% 1
(Long, welded, dbl., (R.T. (spot or full)) (Eff. %) (H.T. temp.) (Time, hr) (Girth (welded, dbl., (R.T. (spot, partial, or full)) (Eff. %) No. of courses
sngl., lap, butt))
8. Heads: (a) Mat'l. SA 516-70 (b) Mat'l. SA 516-70
(Spec no., grade) (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	.4081"	.125"	—	—	2:1	—	—	—	Concave
(b)	End	.4081"	.125"	—	—	2:1	—	—	—	Concave

If removable, bolts used (describe other fastenings) None
9. MAWP 300 (Mat'l. spec. no., gr., size, no.)
(Internal) None psi at max. temp. 225 °F None
(External) 300 (Internal) (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	6"	300# RFLWN	SA 105	1.06"	Weld Metal	* (e)	Head
Outlet	1	6"	300# RFLWN	SA 105	1.06"	Weld Metal	* (e)	Shell
PSV	1	2"	300# RFLWN	SA 105	.66"	Weld Metal	* (e)	Shell
See attached U-4 Form								

11. Supports: Skirt No Lugs 2 Legs NA Other (2) Saddles Attached Shell/welded
(Yes or no) (No.) (No.) (Describe) (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. Mfr'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. Signed [Signature]
(Manufacturer) (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 10-28-08 have inspected the component described in this Manufacturer's Data Report on 10-28-08, 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 [Signature] Commissions NB9475A LA841
(Authorized Inspector) (Nat'l Board. (incl. endorsements) State, Prov. And No.)

DBI, Inc. Quality Inspection and Consulting Services

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✓-330 Propane Discharge Scrubber

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:	<u>Horizontal</u> (Horiz, vert, or sphere)	<u>Scrubber</u> (Tank, separator, heat exh., etc)	<u>MW139-08</u> (Mfg's serial no.)
	<u>None</u> (CRN)	<u>8PR160FBN-C2 Rev. 0</u> (Drawing no.)	<u>68</u> (Natl Bd. No.)
			<u>2008</u> (Year built)

Data Report	
Item Number	

Remarks

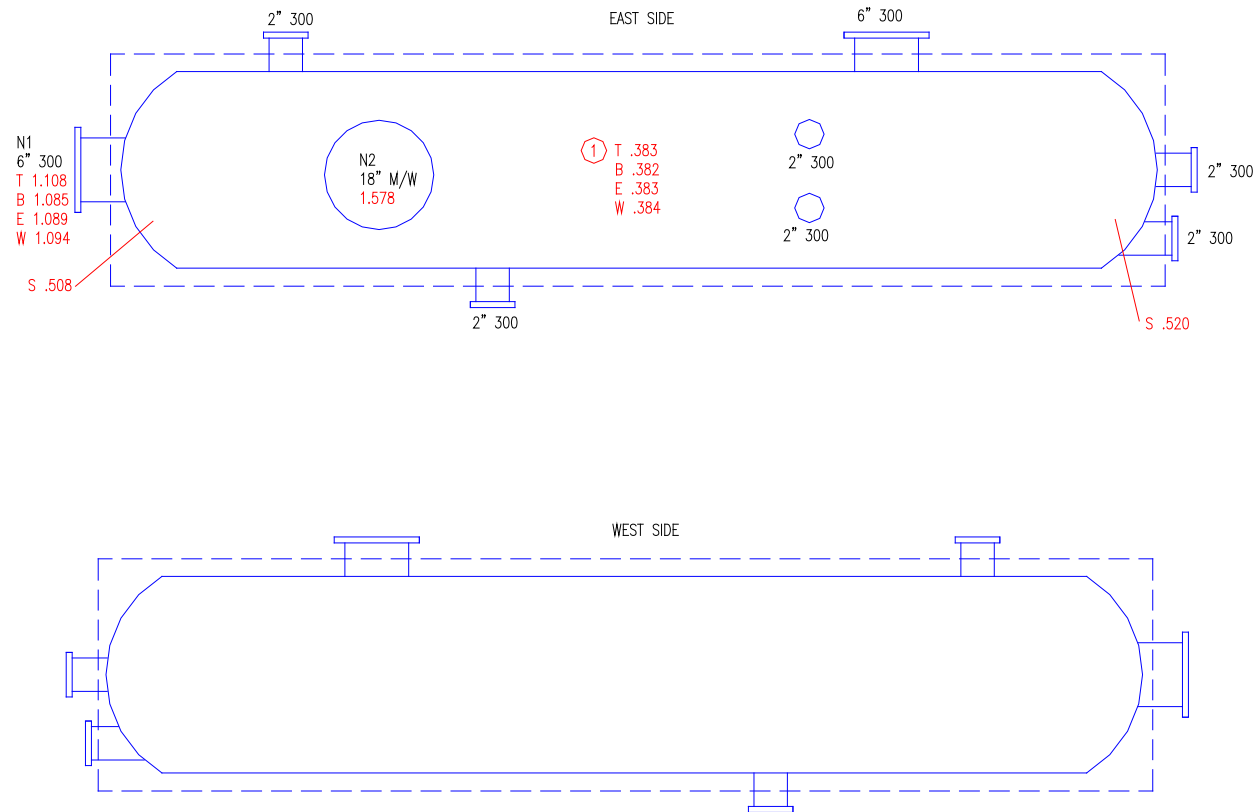
Item 10 Continued
from U1A

Outlet	1	2"	300# RFLWN	SA105	.66"	Weld metal	*(e)	Shell
Bridle/Drain	3	2"	300# RFLWN	SA105	.66"	Weld metal	*(e)	Shell
L.C.	2	2"	300# RFLWN	SA105	.66"	Weld metal	*(e)	Head
T.I.	1	.750"	6M CPLG	SA105	.350"	Weld metal	*(y1)	Shell
PT/Spare	2	.500"	6M CPLG	SA105	.330"	Weld metal	*(y1)	Shell
MW	1	1 1/8"	300# RFL	SA105	1.5"	Weld metal	*(y1)	Shell

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

Date 10-28-08 Name Max Welders, Inc. Signed [Signature]
(Manufacturer) (Representative)

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



NOTES

1. P&ID NO: STWT-P01-015
- 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-330	
VESSEL No: V-330		DWN BY: MCS	CKD BY:
VESSEL ID: Propane Compressor Discharge Scrubber		MECHANICAL INTEGRITY INSPECTION	