



DBI, Inc. Quality Inspection and Consulting Services

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

Williams Field Services

Stewart Dew Point Hickory, PA

7-19-2012

A-Scan Baseline Inspection

Vessel No.: V-210

Vessel Name: Vent Scrubber

P&ID No: STWT-P01-011



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



DBI, Inc. Quality Inspection and Consulting Services

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

Summary Report

Report Reviewed By:

API 510 #30888

Client: Williams Field Services

Location: Stewart Dew Point Hickory, PA

Vessel No.: V-210

Vessel Name: Vent Scrubber

Inspection Date: 7-19-2012

Type of Inspection: A-Scan Baseline Inspection

Note: An A-Scan baseline inspection was performed on the V-210 Vent Scrubber. The V-210 Vent Scrubber meets MAWP of 150 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: 7/18/2017

API 510 para. 6.4

Next Visual Inspection: 7/18/2017

								Short Term	Long Term	Remaining
								Corrosion	Corrosion	Life
	TNom	Top	Bottom	North	South	East	West	Rate	Rate	(Years)
Top Head				0.610	0.612	0.610	0.614			
TML 1	0.625			0.620	0.622	0.622	0.622	0.001	0.001	20+
TML 2	0.625			0.620	0.622	0.621	0.623	0.001	0.001	20+
Knuckle				0.568	0.594	0.583	0.568			



Client: Williams Field Services

Location: Stewart Dew Point Hickory, PA

Vessel No.: V-210

Vessel Name: Vent Scrubber

Vessel Parameters

Design Pressure (MAWP):	150 psi	Top Head Material:	SA-516-70
Design Temperature:	140 F	Top Head Type:	2:1 Ellipsoidal
Operating Pressure:	.5 psi	Allowable Stress:	20,000
Operating Temperature:	-50 F	Joint Efficiency:	.85
Diameter: I.D or O.D	42" OD	Bottom Head Material:	SA-516-70
Length S/S:	7'- 6"	Bottom Head Type:	2:1 Ellipsoidal
Shell Material:	SA-516-70	Allowable Stress:	20,000
Allowable Stress:	20,000	Joint Efficiency:	.85
Joint Efficiency:	.85	Date Manufactured:	2008
Corrosion Allowance:	.125	In Service Date:	2008

ASME CODE EDITION USED FOR CALCULATIONS

ASME Section VIII, Division 1. 2001 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-210
Vessel Name: Vent Scrubber

Vessel Data

Vessel Class:	2	Date Manufactured:	2008
Manufactures Serial #:	G-2646-1	In Service Date:	2008
Product in Vessel:	Gas	Date of ASME VIII Vessel	2007
		Mfg. under:	
P&ID Drawing #:	011	Code Cases:	N/A
P&ID Prepared By:	Laurel Mountain Midstream, LLC	Addenda:	2008
Manufacturer:	Premier Ind. Inc.	National Board Number:	871
Vessel Length S/S:	7'- 6"	Vessel Insulated:	No
Diameter I.D or O.D:	42" OD	Describe openings (if any):	N/A
No. of Shell Sections:	1	ANSI Flange Rating:	150 #
No. of Nozzles:	6	Vessel Orientation:	Vertical
Design Pressure (MAWP):	150 psi	Operating Pressure:	.5 psi
Design Temperature:	140 F	Operating Temperature:	-50 F
Top Head Type:	2:1 Ellipsoidal	Bottom Head Type:	2:1 Ellipsoidal
Top Head Material:	SA-516-70	Bottom Head Material:	SA-516-70
Top Head Weld Type:	Type 1	Bottom Head Weld Type:	Type 1
Shell Material:	SA-516-70	Shell Weld Type:	Type 1
Radiography:	Spot	Hydrostatic:	195 psi

Relief Valve Information

Relief Valve Tag Number:	220 A/B	Relief Valve Pressure Setting:	125 psi
Relief Valve Test Date:	9/10	Relief Valve Size:	1" x 2"

**PRESSURE VESSEL EXTERNAL INSPECTION**

Client: Williams Field Services Date Inspected: 7-19-2012
Location: Stewart Dew Point Hickory, PA Inspector(s): Mike Troyer
Vessel No.: V-210
Vessel Name: Vent Scrubber Signature:

NAME PLATE

Item Inspected	Yes	No	NA = Not Applicable	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"/>	871
Manufacturer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Premier Ind. Inc.
Serial #/ Year Built	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	G-2646-1/ 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"/>	Skirt
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 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
Insulation deterioration	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A
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 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
Insulation deterioration	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				N/A
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"/>				Minor surface rust
Repad condition	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				N/A
Insulation deterioration	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				N/A
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"/>				220 A/B/ 1" x 2"/ 125 psi

LADDERS, STAIRS, PLATFORMS

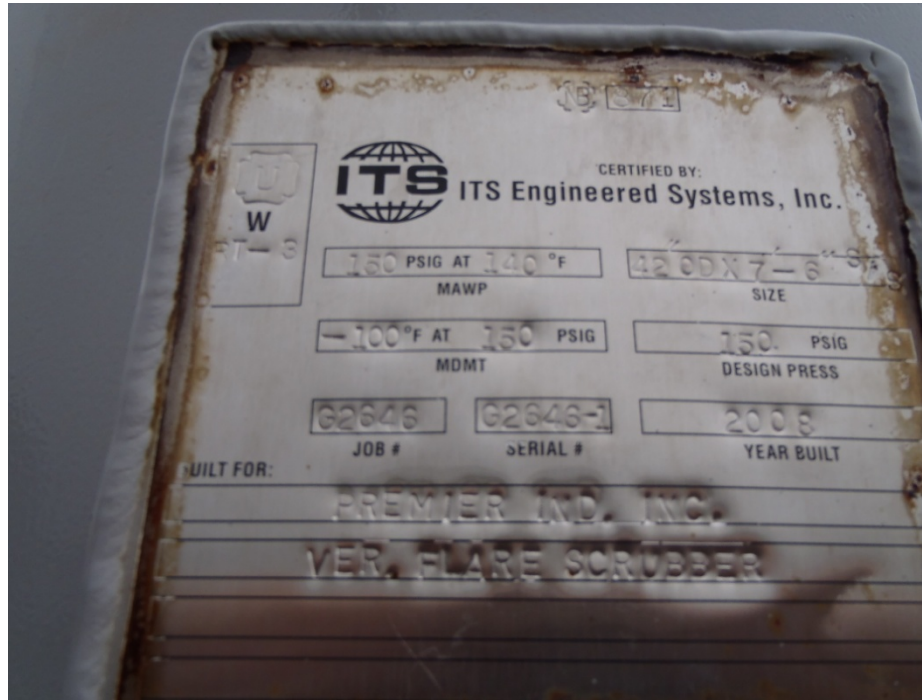
Corroded, Broken Parts	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				N/A
Paint condition	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				N/A
Wear (ladder rungs, stair treads)	<input type="checkbox"/>	<input type="checkbox"/>	<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:



DBI, Inc. Quality Inspection and Consulting Services

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



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

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

42" OD X 7'-6" S/S
VERTICAL

1. Manufactured and certified by ITS ENGINEERED SYSTEMS, INC. 4818 FM 2855 KATY, TEXAS 77493
(Name and address of manufacturer)

2. Manufactured for PREMIER INDUSTRIES, INC 3450 PETERS ROAD HARVEY, LA 70058
(Name and address of purchaser)

3. Location of installation UNKNOWN
(Name and address)

4. Type: VERTICAL G2646-1 - G2646-3-01-01 REV 0 871 2008
(Horiz. or vert. tank) (Mfr's serial No.) (CRN) (Drawing no.) (Natl 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
Year

to 2008 -
Addenda (Date) Code Case Nos. Special Service per UG 120(d)

6. Shell: SA-516-70N .6250" .1250" 42" OD 11'-11"
Matl. (Spec. No., Grade) Nom. Thk. (in.) Corr. Allow. (in.) Diam. I.D. (ft. & in.) Length (overall) (ft. & in.)

7. Seams: TYPE 1 SPOT .85 - TYPE 1 SPOT 1
Long. (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot or Full) Eff. (%) H.T. Temp. (°F) Time (hr) Girth (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot, Eff. (%) or Full) No. of Courses

8. Heads: (a) Matl. SA-516-70N (b) Matl. SA-516-70N
(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)	TOP	.5625"	.1250"	-	-	2:1	-	-	-	CONCAVE
(b)	BOTTOM	.5625"	.1250"	-	-	2:1	-	-	-	CONCAVE

If removable, bolts used (describe other fastenings) - (Matl., Spec. No., Gr., Size, No.)

9. MAWP 150 (internal) - (external) 140 (internal) - (external) 195 psi.
Min. design metal temp. -100 °F at 150 psi. Hydro., 140 psi. test pressure

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Matl.	Nom. Thk.	Reinforcement Matl.	How Attached	Location
INLET/OUTLET	2	10"	RFWN	SA-105/SA-106B	.365"	-	UW-16.1(a)	HEAD/SHELL
MANWAY	1	18"	RFWN	SA-105/SA-106B	.500"	-	UW-16.1(a)	SHELL
CURE/SAFETY HE	2	4"	RFWN	SA-105/SA-106B	.337"	-	UW-16.1(a)	HEAD
PUMP RETURN	1	1"	CPLT	SA-105	#6000	-	UW-16.1(a)	SHELL
TEMP IND.	1	3/4"	CPLT	SA-105	#6000	-	UW-16.1(a)	SHELL
AIN,OUTLET,LEV	4	2"	RFWN	SA-105/SA-106B	.344"	-	UW-16.1(a)	HEAD/SHELL
-	-	-	-	-	-	-	-	-

11. Supports: Skirt YES (Yes or no) Lugs - (No.) Legs - (No.) Other - (Describe) Attached WELDED TO HEAD (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 the report: -
MATERIAL IS EXEMPT FROM IMPACT TESTING PER UCS-66(b)(3).
(Name of part, item number, Mfr's name and identifying stamp)

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 Code for Pressure Vessels, Section VIII, Division 1. "U" Certificate of Authorization No. 20340

expires 12/01/2010

Date 11/18/08

8/10/18

Co. Name ITS ENGINEERED SYSTEMS, INC.

Signed

(Representative

CERTIFICATE OF SHOP / FIELD INSPECTION

Vessel constructed by ITS ENGINEERED SYSTEMS, INC. at 6818 FM 2855 KATY, TEXAS 77493

I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and the State or Province of _____

TEXAS and employed by ONE BEACON AMERICA INSURANCE CO

have inspected the component described in this Manufacturer's Data Report on 11-24-08, and state that,

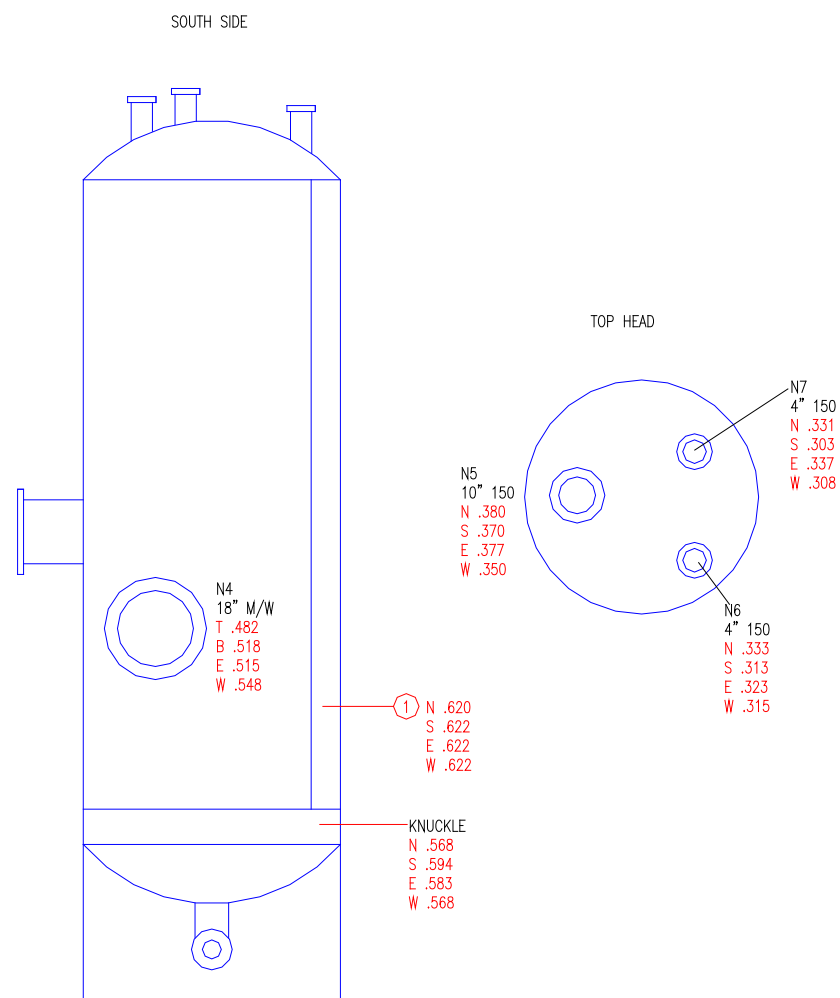
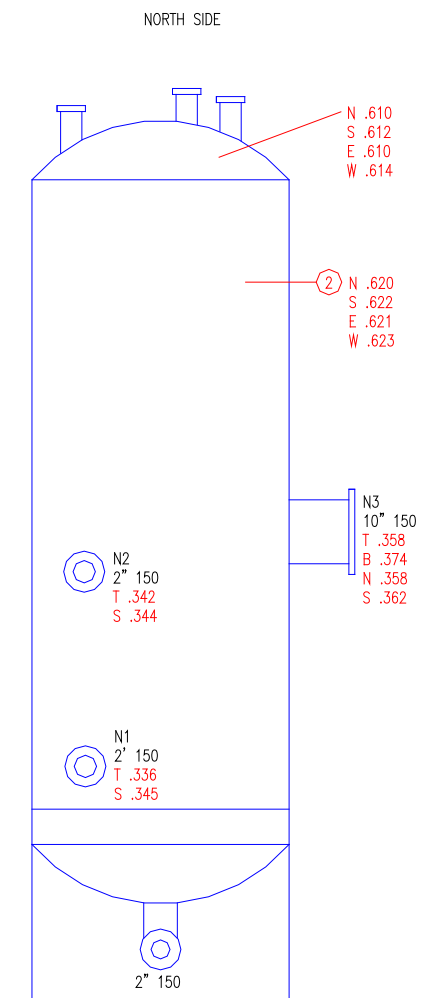
to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME Code, Section VIII, Division

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 11-3-78 Signed [Signature] Commissions NBA 173554 TD

Date 11-24-08 Signed [Signature] (Authorized Inspector) Commissions 10016122474 (Nat'l Board, (incl. endorsements) State)



NOTES

1. P&ID NO: STWT-P01-011
- 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: 7-19-2012	ACAD DWG. FILE: V-210	
VESSEL No: V-210	DWN BY: MCS	CKD BY:
VESSEL ID: Vent Scrubber	MECHANICAL INTEGRITY INSPECTION	