



DBI, Inc. Quality Inspection and Consulting Services

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

Williams Field Services

Stewart Dew Point Hickory, PA

7-18-2012

A-Scan Baseline Inspection

Vessel No.: V-140

Vessel Name: Cold Separator

P&ID No: STWT-P01-007



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-140

Vessel Name: Cold Separator

Inspection Date: 7-18-2012

Type of Inspection: A-Scan Baseline Inspection

Note: An A-Scan baseline inspection was performed on the V-140 Cold Separator. The V-140 Cold Separator meets MAWP of 1000 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: 7/17/2017 API 510 para. 6.4

Next Visual Inspection: 7/17/2017

								Short Term	Long Term	Remaining
								Corrosion	Corrosion	Life
	TNom	Top	Bottom	North	South	East	West	Rate	Rate	(Years)
North Head						1.755				
South Head						1.769				
TML 1	1.625	1.632	1.637			1.639	1.651	<1 mil	<1 mil	20+
TML 2	1.625	1.638	1.654			1.683		<1 mil	<1 mil	20+



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

Vessel No.: V-140
Vessel Name: Cold Separator

Vessel Parameters

Design Pressure (MAWP):	1000 psi	North Head Material:	SA-516-70
Design Temperature:	100 F	North Head Type:	2:1 Ellipsoidal
Operating Pressure:	620 psi	Allowable Stress:	20,000
Operating Temperature:	-35 F	Joint Efficiency:	1.0
Diameter: I.D or O.D	60" OD	South Head Material:	SA-516-70
Length S/S:	25'	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-140

Vessel Name: Cold Separator

Vessel Data

Vessel Class:	2	Date Manufactured:	2008
Manufactures Serial #:	AL-1058-B-26	In Service Date:	2008
Product in Vessel:	Gas	Date of ASME VIII Vessel	2007
		Mfg. under:	
P&ID Drawing #:	007	Code Cases:	2007
P&ID Prepared By:	Laurel Mountain Midstream, LLC	Addenda:	None
Manufacturer:	Premier Industries, Inc.	National Board Number:	19
Vessel Length S/S:	25'	Vessel Insulated:	Yes
Diameter I.D or O.D:	60" OD	Describe openings (if any):	1 3/4" Ports
No. of Shell Sections:	3	ANSI Flange Rating:	600 #
No. of Nozzles:	21	Vessel Orientation:	Horizontal
Design Pressure (MAWP):	1000 psi	Operating Pressure:	620 psi
Design Temperature:	100 F	Operating Temperature:	-35 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:	Single Butt	South Head Weld Type:	Single Butt
Shell Material:	SA-516-70	Shell Weld Type:	Single Butt
Radiography:	Full	Hydrostatic:	1300 psi

Relief Valve Information

Relief Valve Tag Number:	140	Relief Valve Pressure Setting:	1000 psi
Relief Valve Test Date:	9/10	Relief Valve Size:	1 1/2" x 3"



DBI, Inc. Quality Inspection and Consulting Services

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

PRESSURE VESSEL EXTERNAL INSPECTION

Client: Williams Field Services Date Inspected: 7-18-2012
Location: Stewart Dew Point Hickory, PA Inspector(s): Mike Troyer
Vessel No.: V-140
Vessel Name: Cold Separator 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"/>	19
Manufacturer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Premier Industries, Inc.
Serial #/ Year Built	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AL-1058-B-26/ 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 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
Anchor bolts (tightness & corrosion)	<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

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 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"/>	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A
Weld condition	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A
Paint condition	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A
Insulation deterioration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None noted
UT Measurements	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<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"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None noted
Weld condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good condition
Flange condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good condition
Bolting condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good condition
Repad condition	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A
Insulation deterioration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None noted
UT Measurements	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<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"/>	<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"/>	<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"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	140/ 1 1/2" x 3"/ 1000 psi

LADDERS, STAIRS, PLATFORMS

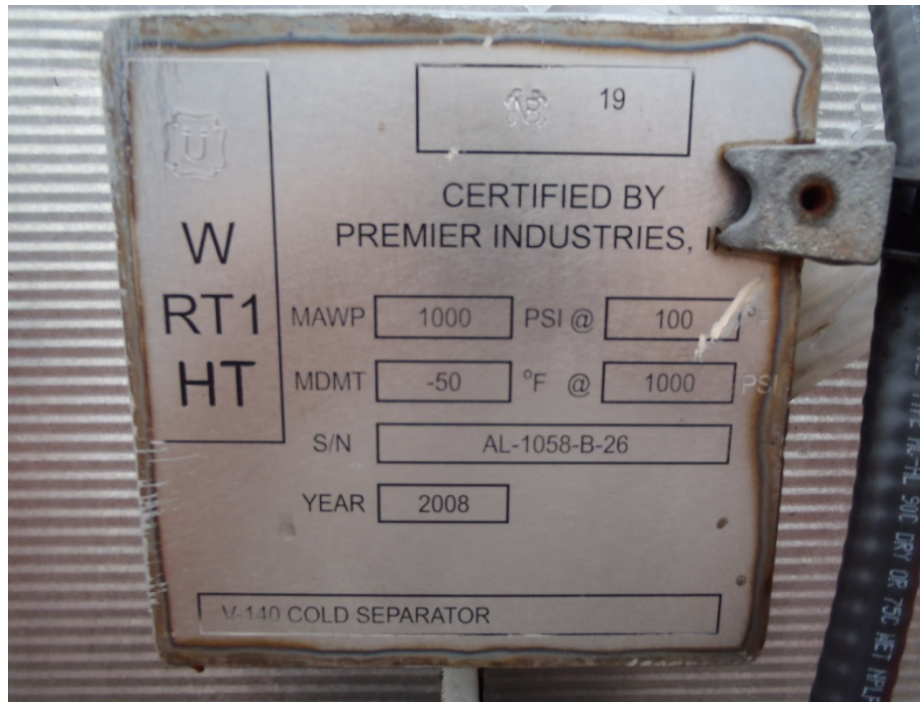
Corroded, Broken Parts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None noted
Paint condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No paint failure noted
Wear (ladder rungs, stair treads)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None noted
Handrails secure	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A
Flooring condition	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A
Attachment welds	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good condition
Corrosion, pitting (describe)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None noted

ADDITIONAL COMMENTS:



DBI, Inc. Quality Inspection and Consulting Services

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





DBI, Inc. Quality Inspection and Consulting Services

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

V-140
Cold Separator

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 Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

Manufactured and certified by PREMIER INDUSTRIES, INC. 3450 PETERS ROAD HARVEY LOUISIANA 70058 USA
(Name and address of Manufacturer)

2. Manufactured for STEWART DPC PLANT
(Name and address of Purchaser)

3. Location of installation PENNSYLVANIA
(Name and address)

4. Type HORIZONTAL AL-1058-B-26 AL-1058-B-26 Sht 1 - 6 19 2008
(Horizontal or vertical, tank) (Manufacturer's serial number) (CRN) (Drawing number) (National Board number) (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 Edition

6. Shell SA-516 70 NORMALIZED 1.625" .125" 5'-0" OD 25'-0" S/S
(Material spec. number, grade) (Nominal thickness) (Corr. allow.) (Inner diameter) (Length overall)

7. Seams SINGLE V BUTT Full 100 1100 F 1.75 SINGLE V BUTT Full 100 3
(Long. welded, dbl., singl., lap, butt) (R. T. (spot or full)) (Eff. %) (H. T. temp.) (Time, hr) (Sirt (welded, dbl., singl., lap, butt)) (R. T. (spot or full)) (Eff. %) (No. of courses)

8. Heads: (a) Material SA-516 70 NORMALIZED (b) Material SA-516 70 NORMALIZED

	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	1.6747"	.125"	----	----	2:1	----	----	----	CONCAVE
(b)	BOTTOM	1.6747"	.125"	----	----	2:1	----	----	----	CONCAVE

If removable, bolts used (describe other fastenings) N.A.

9. MAWP 1000 PSIG 0 Psig at max. temp. 100 F
(Internal) (External)

Min. design metal temp. -50 F at 1000 PSIG Hydro., PRELIM. OR WORKING test pressure 1300 PSIG
(Internal) (External)

10. Nozzles, inspection, and safety valve openings:

Purpose (let, Outlet, Drain)	Number	Diameter or Size	Type	Material	Nominal Thickness	Reinforcement Material	How Attached	Location
INLET	1	4" 600#	RFLWN	SA350 LF2 CI 1	1.00"	INTEGRAL	UW-16.1(c)	SHELL
GAS OUTLET	1	4" 600#	RFLWN	SA350 LF2 CI 1	1.00"	INTEGRAL	UW-16.1(c)	SHELL
EG OUTLET	1	2" 600#	RFLWN	SA350 LF2 CI 1	1.00"	INTEGRAL	UW-16.1(c)	SHELL
DRAINS	2	2" 600#	RFLWN	SA350 LF2 CI 1	.66"	INTEGRAL	UW-16.1(c)	SUMP HEAD

11. Supports: Skirt NO Lugs NONE Legs NONE Other SADDLES Attached WELDED TO SHELL
(Yes or no) (Number) (Number) (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 the report: Shell: Part No. TF14414 A Form U-2A TEX-FAB INC., "U" Certificate No. 12.031
(Name of part, item number, Manufacturer's name and identifying stamp)

Ref. remarks on U-4 Design loading per UG-22(a)(b)(d)(f). Relief protection per UG-125 provided by others. Vessel hydrostatically tested in horizontal position.

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 Number 33159
expires 3/22/2011
Date 08-22-09 Co. name PREMIER INDUSTRIES, INC. Signed Charles W. Brown
(Manufacturer) (Representative)

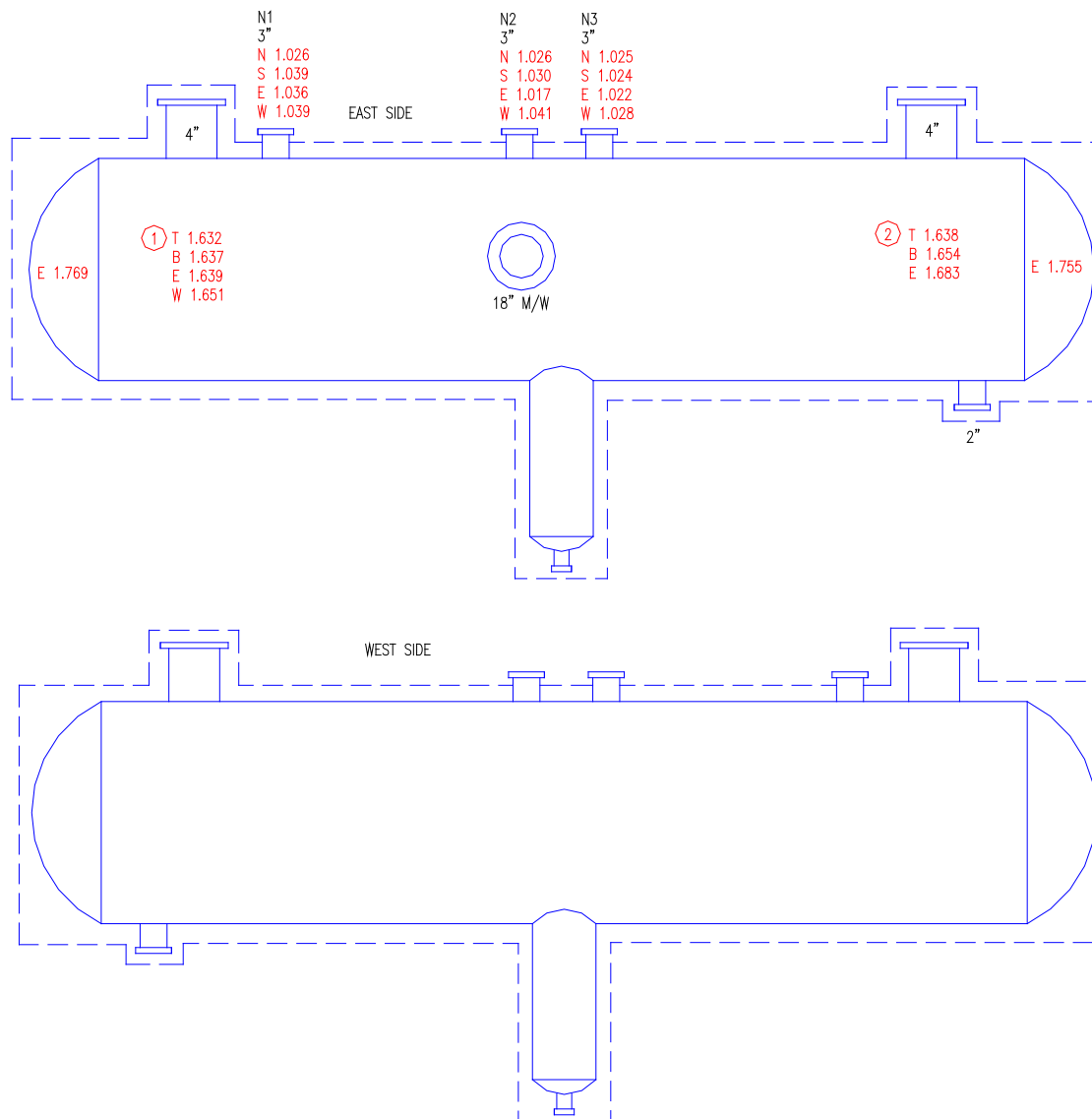
CERTIFICATE OF SHOP / FIELD INSPECTION

Vessel constructed by PREMIER INDUSTRIES, INC. at 3450 PETERS ROAD HARVEY, LOUISIANA 70058 USA
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 LOUISIANA and employed by ONE BEACON AMERICA INSURANCE COMPANY
have inspected the component described in this Manufacturer's Data Report on 12-22-08, and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. By Signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her 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 8-22-09 Signed Frank F. Brown Commissions NB121141
(Authorized Inspector) (National Board (incl. endorsements), State, Province, and number)

DBI, Inc. Quality Inspection and Consulting Services

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

[illegible]



NOTES

1. P&ID NO: STWT-P01-007
- 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: 7-18-2012		ACAD DWG. FILE: V-140	
VESSEL No: V-140		DWN BY: MCS	CKD BY:
VESSEL ID: Cold Separator		MECHANICAL INTEGRITY INSPECTION	