

KPE
Project No.
021-009-001
PO No.

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

1. Manufactured and certified by Summit Energy Equipment, 41 HC Pioneer Pkwy., Sulphur Springs, Texas, 75482, USA
(Name and address of Manufacturer)

2. Manufactured for KP ENGINEERING, 5555 OLD JACKSONVILLE HWY, TYLER, Texas, 75703, USA
(Name and address of Purchaser)

3. Location of Installation NOT KNOWN
(Name and address)

4. Type VERTICAL 11398 N/A 200-021-006-001-01 105 2016
(Horizontal or vertical, tank) (Manufacturer's serial number) (CRN) (Drawing number) (National Board number) (Year built)

5. ASME Code, Section VIII, Division 1 2013/ N/A N/A N/A
[Edition and Addenda, if applicable (date)] (Code Case numbers) (Special service per UG-120(d))

6. Shell: SA516 GR70N 0.375" 0.125 in 2' 11.25" (ID) 12'
(Material spec. number, grade) (Nominal thickness) (Corr. allow.) (Inner diameter) (Length (overall))

Body Flanges on Shells										Bolting			
No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location		Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

7. Seams: TYPE 1 SPOT 85% N/A N/A TYPE 1 SPOT 85% 2
[Long. (welded, dbl., sngl., lap, butt)] [R.T. (spot or full)] (Eff., %) (H.T. temp) (Time, hr) [Girth. (welded, dbl., sngl., lap, butt)] [R.T. (spot or full)] (Eff., %) (No. of courses)

8. Heads: (a) Material SA516 GR70N (b) Material SA516 GR70N
(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	0.4375"	0.125"	N/A	N/A	2:1	N/A	N/A	N/A	CONCAVE
(b)	BOTTOM	0.4375"	0.125"	N/A	N/A	2:1	N/A	N/A	N/A	CONCAVE

Body Flanges on Heads										Bolting			
No.	Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached		Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material
(a)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A

9. MAWP 200 psi 14.7 psi at max. temp. 400 °F 300 °F
(Internal) (External) (Internal) (External)

Min. design metal temp. -20 °F at 200 psi . Hydro, pneu., or comb. test pressure HYDRO at 260 psi .

Proof test N/A .

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Type	Material		Nozzle Thickness		Reinforcement Material	Attachment Details		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
VAPOR OUTLET (C)	1	12"-150	RFLWN	SA105	SA105	1.19"	0.125"	INHERENT	UW-16.1c	N/A	N/A
EXT.	2	2" - 300	RFLWN	SA105	SA105	0.655"	0.125"	INHERENT	UW-16.1c	N/A	N/A
INLET (A)	1	14" -150	RFLWN	SA105	SA105	1"	0.125"	SA516 G70	UW-16.1h	N/A	N/A
EXT.	3	3"-300	RFLWN	SA105	SA105	0.81"	0.125"	INHERENT	UW-16.1c	N/A	N/A
HANDHOLE (H)	1	12"-150	RFLWN	SA105	SA105	1.19"	0.125"	INHERENT	UW-16.1c	N/A	CYLINDER #1
LIQUID OUTLET (B)	1	4"-150	RFLWN	SA106B	N/A	0.438"	0.125"	INHERENT	UW-16.1c	N/A	N/A

11. Supports: Skirt YES Lugs N/A Legs N/A Other N/A Attached ELLIPSOIDAL HEAD #1 - WELDED
(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 BY GREENS BAYOU PIPE MILL, HOUSTON, TX (CERT 42546) S/N 6251-001
(Name of part, item number, Manufacturer's name and identifying stamp)

IMPACT TESTING EXEMPT Ug-20 (f)
FOR NON-LETHAL SERVICE
OVER PRESSURE PROTECTION BY OTHERS

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 43067 expires May 14, 2018.

Date 03/11/2016 Co. name Summit Energy Equipment Signed 
(Manufacturer) (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

Vessel constructed by Summit Energy Equipment at 41 HC Pioneer Pkwy., Sulphur Springs, Texas, 75482, USA
I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and employed by OneCIS Insurance Company, of Lynn, MA

have inspected the component described in this Manufacturer's Data Report on March 11, 2016, 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 04/12/2016 Signed  Commissions 11944AB
(Authorized Inspector) [National Board (incl. endorsements)]

FORM U-2A MANUFACTURER'S PARTIAL DATA REPORT (ALTERNATIVE FORM)
A Part of a Pressure Vessel Fabricated by One Manufacturer for Another Manufacturer
As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

1. Manufactured and certified by Greens Bayou Pipe Mill 13935 Industrial Road Houston, Texas 77015
(Name and address of Manufacturer)

2. Manufactured for Northshore Supply 13935 Industrial Road Houston, Texas 77015
(Name and address of Purchaser)

3. Location of installation Unknown
(Name and address)

4. Type 1 Shell 6251-001 2015
(Description of vessel part (shell, two-piece head, tube bundle)) (Manufacturer's serial number) (CRN)

5. ASME Code, Section VIII, Div. 1 2013 2013 2015
(National Board number) (Drawing number) (Drawing prepared by) (Year built)

6. Shell: (a) Number of course(s) 2 (b) Overall length 12'-0"
(Edition and Addenda, if applicable (date)) (Code Case number) (Special service per UG-120(d))

Course(s)			Material		Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B & C)			Heat Treatment	
No.	Diameter	Length	Spec./Grade or Type		Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	36" OD	8'-0"	SA516-70		0.375"	*	1	Full	*	1	Full	*		
1	36" OD	4'-0"	SA516-70		0.375"	*	1	Full	*					

Body Flanges on Shells														
No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location	Bolting					
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material		

7. Heads: (a) _____ (b) _____
(Material spec. number, grade or type) (H.T. — time and temp.) (Material spec. number, grade or type) (H.T. — time and temp.)

	Location (Top, Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure		Category A		
		Min.	Corr.	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	Eff.
(a)														
(b)														

Body Flanges on Heads														
	Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Bolting					
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material		
(a)														
(b)														

8. MAWP at max. temp. Min. design metal temp. at
(Internal) (External) (Internal) (External)

9. Impact test No at test temperature of
(Indicate yes or no and the component(s) impact tested)

10. Hydro., pneu., or comb. test pressure None Proof test

11. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Type	Material		Nozzle Thickness		Reinforcement Material	Attachment Details		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	

12. Identification of part(s)

Name of Part	Quantity	Line No.	Mfr's. Identification No.	Mfr's. Drawing No.	CRN	National Board No.	Year Built

13. Supports: Skirt No Lugs Legs Other Attached
(Yes or no) (Number) (Number) (Describe) (Where and how)

14. Remarks

*No Design Functions by Greens Bayou Pipe Mill. WPS is qualified with and without PWHT. Formed in Accordance with UG 79, UG 80 and UCS 79.

FORM U-2A (Back)

CERTIFICATE OF SHOP/FIELD COMPLIANCE

We certify that the statements made in this report are correct and that all details of material, construction, and workmanship of this pressure vessel part conform to the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1.

U Certificate of Authorization No. 42,546 Expires 01/19/2018
Date 12/4/2015 Name Greens Bayou Pipe Mill Signed [Signature] (Manufacturer) (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by Authorized Inspection Associates, LLC of Houston, Texas

have inspected the pressure vessel part described in this Manufacturer's Data Report on 12/4/2015 and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel part 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 part 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 12/4/2015 Signed [Signature] Commissions NB13919A (Authorized Inspector) (National Board [incl. endorsements])

(07/13)

NB-105
Shell