KPE
Project No.
021-010-001
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 (Horizontal or vertical, tank) | 11392 (Manufacturer's serial number) | N/A (CRN) | 200-021-006-001-01 (Drawing number) | 106 (National Board number) | 2016 (Year built)

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

6. Shell: SA516 GR70N (Material spec. number, grade) | 1" (Nominal thickness) | 0.125 in (Corr. allow.) | 2' 10" (ID) (Inner diameter) | 13' [Length (overall)]

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

8. Heads: (a) Material SA516 GR70N (Spec. no., grade) (b) Material SA516 GR70N (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	1"	0.125"	N/A	N/A	2:1	N/A	N/A	N/A	CONCAVE
(b)	BOTTOM	1"	0.125"	N/A	N/A	2:1	N/A	N/A	N/A	CONCAVE

Body Flanges on Heads

No.	Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Bolting			
									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

9. MAWP 683 psi (Internal) | 14.7 psi (External) at max. temp. 725 °F (Internal) | 300 °F (External)

Min. design metal temp. -20 °F at 683 psi . Hydro, pneu., or comb. test pressure HYDRO at 1064 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	
GAUGE	3	2" - 600	RFLWN	SA105	SA105	0.655"	0.125"	INHERENT	UW-16.1c	N/A	N/A
GAUGE	3	3" - 600	RFLWN	SA105	SA105	0.81"	0.125"	INHERENT	UW-16.1c	N/A	N/A
INLET (A)	1	4" - 600	RFLWN	SA105	SA105	1"	0.125"	INHERENT	UW-16.1c	N/A	N/A
MANWAY (M)	1	20" - 600	RFLWN	SA105	SA105	2.97"	0.125"	SA105 70N	UW-16.1c	N/A	CYLINDER #1
LIQUID OUTLET (B)	1	5.76" - 600	RFLWN	SA105	N/A	0.432"	0.125"	INHERENT	UW-16.1c	N/A	N/A

11. Supports: Skirt YES (Yes or no) | Lugs N/A (Number) | Legs N/A (Number) | Other N/A (Describe) | Attached ELLIPSOIDAL HEAD #1 - 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 the report:

SHELL BY GREENS BAYOU PIPE MILL, HOUSTON, TX (CERT 42546) S/N 6256-002
(Name of part, item number, Manufacturer's name and identifying stamp)

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

FORM U-1A (Back)

NB Number 106

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 02/22/2016 Co. name **Summit Energy Equipment** (Manufacturer) Signed (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 28, 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 03/28/2016 Signed (Authorized Inspector) Commissions 11944AB [National Board (incl. endorsements)]

FORM U-2A MANUFACTURER'S PARTIAL DATA REPORT (ALTERNATIVE FORM)

NB-106

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 2 Shell (Description of vessel part (shell, two-piece head, tube bundle)) 6256-001 THRU 6256-002 (Manufacturer's serial number) (CRN)
(National Board number) (Drawing number) (Drawing prepared by) 2015 (Year built)
5. ASME Code, Section VIII, Div. 1 2013 (Edition and Addenda, if applicable (date)) (Code Case number) [Special service per UG-120(d)]
6. Shell: (a) Number of course(s) 2 (b) Overall length 13'-0"

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-N	1.00"	*	1	Full	*	1	Full	*		
1	36" OD	5'-0"	SA516-70-N	1.00"	*	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) (Material spec. number, grade or type) (H.T. — time and temp.) (b) (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 (Internal) (External) at max. temp. (Internal) (External). Min. design metal temp. at .
9. Impact test No (Indicate *yes* or *no* and the component(s) impact tested) at test temperature of .
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 (Yes or no) Lugs (Number) Legs (Number) Other (Describe) Attached (Where and how)
14. Remarks

*No Design Functions by Greens Bayou Pipe Mill; WPS is qualified with or 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 / 8 / 2015 Name Greens Bayou Pipe Mill (Manufacturer) Signed (Representetive)

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 / 8 / 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 / 8 / 2015 Signed (Authorized Inspector) Commissions NB13919A (National Board (incl. endorsements))

(07/13)

NB-106

Shell