

FORM U-1 MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS
As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

147737-1

1. Manufactured and certified by TRANTER, INC. 1900 OLD BURK HIGHWAY WICHITA FALLS, TEXAS 76306
(Name and address of Manufacturer)

2. Manufactured for CENOVOUS ENERGY INC, CALGARY, AB, CANADA
(Name and address of Purchaser)

3. Location of installation CENOVOUS ENERGY INC, CALGARY, AB, CANADA
(Name and address)

4. Type Horizontal PLATE TYPE HEAT EXCHANGER SX852
(Horizontal, vertical, or sphere) (Tank, separator, jkt. vessel, heat exch., etc.) (Manufacturer's serial number)
W0640.2 D-6-147737-1 REV 5 60667 2013
(CRN) (Drawing number) (National Board number) (Year built)
5. ASME Code, Section VIII, Div. 1 2010 Edition, 2011a Addenda NA NA
[Edition and Addenda, if applicable (date)] (Code Case number) [Special service per UG-120(d)]

Items 6 - 11 incl. to be completed for single wall vessels, jackets of jacketed vessels, shell of heat exchangers, or chamber of multichamber vessels.

6. Shell: (a) Number of course(s) NA (b) Overall length NA

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	34 3/4"	65 3/16"	SA-516-70N	3 1/4"	-	-	-	-	-	-	-	-	-
2	34 3/4"	65 3/16"	SA-516-70N	3"	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-

7. Heads: (a) NA (b) NA
(Material spec. number, grade or type) (H.T. - time & temp.) (Material spec. number, grade or type) (H.T. - time & temp.)

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

If removable, bolts used (describe other fastening) (10) 2" DIA., SA-193-B7; NUTS SA194-2H

8. Type of jacket NA Jacket closure NA
(Material spec. number, grade, size, number) (Describe as ogee and weld, bar, etc.)

If bar, give dimensions NA If bolted, describe or sketch.

9. MAWP 218 PSI NA at max. temp. 302 F NA Min. design metal temp. -20 F at 218 PSI
(Internal) (External) (Internal) (External)

10. Impact test NO, UCS-66a & UNF-65 at test temperature of NA
[Indicate yes or no and the component(s) impact tested]

11. Hydro., ~~press. or temp.~~ test pressure 283 PSI Proof test NA

Items 12 and 13 to be completed for tube sections.

12. Tubesheet NA NA NA NA NA
[Stationary (material spec. no.)] [Diameter (subject to press.)] [Nominal thickness] [Corr. allow.] [Attachment (welded or bolted)]
NA NA NA NA NA

[Floating (material spec. no.)] (Diameter) (Nominal thickness) (Corr. allow.) (Attachment)
NA NA NA NA NA

13. Tubes NA NA NA NA NA
(Material spec. no., grade or type) (O.D.) (Nominal thickness) (Number) [Type (straight or U)]

Items 14 - 18 incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers.

14. Shell: (a) Number of course(s) NA (b) Overall length NA

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	NA	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-

15. 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	Conical	Hemispherical	Flat	Side to Pressure		Category A	
	Min.	Corr.	Crown	Knuckle	Ratio	Apex Angle	Radius	Diameter	Convex	Concave	Type	Full, Spot, None	Eff.	
(a)	NA	-	-	-	-	-	-	-	-	-	-	-	-	-
(b)	-	-	-	-	-	-	-	-	-	-	-	-	-	-

If removable, bolts used (describe other fastening) NA

(Material spec. number, grade, size, number)

Form U-1 (Back)

16. MAWP NA NA at max. temp. NA NA Min. design metal temp. NA at NA
 (Internal) (External) (Internal) (External)
 17. Impact test NA at test temperature of NA
 [Indicate yes or no and the component(s) impact tested]
 18. Hydro., ~~proof~~ test pressure NA Proof test NA

19. Nozzles, inspection, and safety valve openings:

Purpose		Diameter		Material		Nozzle Thickness		Reinforcement	Attachment Details		Location
(Inlet, Outlet, Drain, etc.)	No.	or Size	Type	Nozzle	Flange	Nom.	Corr.	Material	Nozzle	Flange	(Insp. Open.)
Inlet/Outlet	2	7.981	SPC'L	SB363-GR2	-	0.322	-	-	WLD	-	END FRAME
-	-	-	-	-	-	-	-	-	-	-	-
Inlet/Outlet	2	7.981	SPC'L	SB363-GR2	-	0.322	-	-	WLD	-	END FRAME
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

20. Supports: Skirt NA Lugs 4 Legs 3 Others (2) GROUND LUGS Attached WELDED TO END FRAME
 (Yes or no) (Number) (Number) (Describe) (Where and how)
 21. Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report (list the name of part, item number, Manufacturer's name, and identifying number):

22. Remarks O.A. LENGTH: 18.11 MODEL: GXD-060-P

SUPERCHARGER TO CARRY: ETHYLENE GLYCOL / PRODUCED WATER

PLATES: SB265-GR1 QUANTITY: 115 PLATE THK.: 0.0276

SEAL PLATES: SB265-GR2 #19: NOZZLES - 150# STUDDER PORT PER ASME B16.5 2009

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements 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 8698 Expires 12/14/15
 Date 5/29/13 Name TRANTER, INC. Signed [Signature]
 (Manufacturer) (Representative)

CERTIFICATE OF SHOP INSPECTION

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 TEXAS and employed by OneCIS INSURANCE COMPANY of LYNN, MA

have inspected the pressure vessel described in this Manufacturer's Data Report on 5-29-13, 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 5-29-13 Signed [Signature] Commissions NB12472AN
 (Authorized Inspector) [National Board (incl. endorsements), State, Province, and Number]

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the statements on this report are correct and that the field assembly construction of all parts of this vessel conforms with the requirements of ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. U Certificate of Authorization Number NA Expires _____

Date _____ Name _____ Signed _____
 (Assembler) (Representative)

CERTIFICATE OF FIELD ASSEMBLY INSPECTION

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 NA and employed by _____

of _____, have compared the statements in this Manufacturer's Data Report with the described pressure vessel and state that parts referred to as data items _____, not included in the certificate of shop inspection, have been inspected by me and to the best of my knowledge and belief, the Manufacturer has constructed and assembled this pressure vessel in accordance with the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. The described vessel was inspected and subjected to a

hydrostatic test of _____. 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 _____ Signed _____ Commissions _____
 (Authorized Inspector) [National Board (incl. endorsements), State, Province, and Number]