

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

1. Manufactured and certified by RNG PRO-TECH INC. 800 rue Cabana Sherbrooke QC J1K 3C3  
(Name and address of Manufacturer)

2. Manufactured for SABLE OFFSHORE ENERGY PROJECT 1100, Monenco Place, 801-6th Ave. S.W. Calgary, Alberta T2P 3W3  
(Name and address of Purchaser)

3. Location of installation Sable Offshore Energy Project, Sable Island N.S.  
(Name and address)

4. Type: Horizontal Tank 98-9 8124-8 980047-2R4 --- 1999  
(Horiz., vert., or sphere) (Tank, separator, jkt. vessel, heat exh., etc.) (Mfg's serial No.) (CRN) (Drawing No.) (Nat'l. Bd. No.) (Year built)

5. ASME Code, Section VIII, Div. 1: 1995 ED AD 97 --- ---  
Edition and Addenda (date) Code Case No. 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 multi-chamber vessels.

6. Shell (a) No. of course(s): 12 (b) Overall length (ft & in.): 119' 8"

Course(s)			Material	Thickness		Long Joint (Cat. A)			Circum. Joint (Cat. A, B & C)			Heat Treatment	
No.	Diameter, In.	Length (ft & in.)	Spec./Grade or Type	Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
11	144 I.D	10'	SA-516-70	1.125	.062"	1	Full	1	1	Full	1	---	---
1	144 I.D	9' 8"	SA-516-70	1.125	.062"	1	Full	1	1	Full	1	---	---

7. Heads: (a) SA-516-70 normalized (b) \_\_\_\_\_  
(Mat'l Spec. No., Grade or Type) H.T. - Time & Temp (Mat'l Spec. No., Grade or Type) H.T. - Time & 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)	ENDS	1.127"	.062"			2:1					concave	1	Full	1
(b)														

If removable, bolts used (describe other fastening) 9/1 98-02-19  
1/16 98-02-19  
(Mat'l Spec. No., Grade, size, No.)

8. Type of jacket \_\_\_\_\_ Jacket closure \_\_\_\_\_  
(Describe as ogee & weld, bar, etc.)

9. MAWP 250 11 psi at max. temp. 149 149 °F Min. design metal temp. -17 °F at 250 psi.  
(internal) (external) (internal) (external)

10. Impact test No, exempt per UG-20 (F) and UCS-66 (a)(1)(b)  
(Indicate yes or no and the component(s) impact tested)

11. Hydro. ~~pressure~~ test press. 375 psi Proof test \_\_\_\_\_  
items 12 and 13 to be completed for tube sections.

12. Tubesheet:  
Stationary (Mat'l Spec. No.) \_\_\_\_\_ Dia., in. (subject to press.) \_\_\_\_\_ Nom. thk., in. \_\_\_\_\_ Corr. Allow., in. \_\_\_\_\_ Attachment (welded or bolted) \_\_\_\_\_  
Floating (Mat'l Spec. No.) \_\_\_\_\_ Dia., in. \_\_\_\_\_ Nom. thk., in. \_\_\_\_\_ Corr. Allow., in. \_\_\_\_\_ Attachment \_\_\_\_\_

13. Tubes:  
Mat'l Spec. No., Grade or Type \_\_\_\_\_ O.D., in. \_\_\_\_\_ Nom. thk., in. or gauge \_\_\_\_\_ 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) No. of course(s): \_\_\_\_\_ (b) Overall length (ft & in.): \_\_\_\_\_

Course(s)			Material	Thickness		Long Joint (Cat. A)			Circum. Joint (Cat. A, B & C)			Heat Treatment	
No.	Diameter, In.	Length (ft & in.)	Spec./Grade or Type	Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time

15. Heads: (a) \_\_\_\_\_ (b) \_\_\_\_\_  
(Mat'l Spec. No., Grade or Type) H.T. - Time & Temp (Mat'l Spec. No., Grade or Type) H.T. - Time & 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)														

If removable, bolts used (describe other fastening) \_\_\_\_\_  
(Mat'l Spec. No., Grade, Size, No.)

16. MAWP \_\_\_\_\_ psi at max. temp. \_\_\_\_\_ °F Min. design metal temp. \_\_\_\_\_ °F at \_\_\_\_\_ psi.  
 (internal) (external) (internal) (external)

17. Impact test \_\_\_\_\_  
 (Indicate yes or no and the component(s) impact tested)

18. Hydro., pneu., or comb. test press. \_\_\_\_\_ Proof test \_\_\_\_\_

19. Nozzles, inspection, and safety valve openings:

Purpose (inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Flange Type	Material		Nozzle Thickness		Reinforcement Material	How Attached		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
MANWAY	1	24" I.D.	W.NECK	SA-105		4.00"	.062"	SA-516-70	JW.16.1(H)		SHELL
VENT	1	6" I.D.	W.NECK	SA-105		2.50"	.062"	INTEGRAL	JW.16.1(O)		
LEV. IND/PRES. VENT	3	2" I.D.	W.NECK	SA-105		.655"	.062"	INTEGRAL	JW.16.1(O)		
LEV. CTRL/PURGE	3	2.9" I.D.	W.NECK	SA-105		1.24"	.062"	INTEGRAL	JW.16.1(O)		
INL/TRANS/RELIEF	3	3.83" I.D.	W.NECK	SA-105		1.305"	.062"	INTEGRAL	JW.16.1(O)		
THERMO WELL	1	1.94" I.D.	W.NECK	SA-105		1.00"	.062"	INTEGRAL	JW.16.1(O)		
LIQUID OUTLET	1	9.56" I.D.	W.NECK	SA-105		3.25"	.062"	INTEGRAL	JW.16.1(O)		

20. Supports: Skirt NO Lugs --- Legs 2 Others PADS Attached WELDED TO SHELL  
 (Yes or No) (No.) (No.) (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, mfg's. name and identifying number)

FORM U-2A TYPE: TWO PIECES HEAD MEG'S SER. NO: 18451 HD#4 AND W.O 18451 HD#5

MANUFACTURED BY: CONREX STEEL LTD. SEE ATTACHED

22. Remarks: PROPANE STORAGE BULLETS

DIM'S: 144" I.D. x 1515" O/A (metric: 3.66 M I.D. x 38.48 M O/A)

CAPACITY: 104904 USWG

\* MAWP 1724/-76 kPa at 65°C

M.D.M.T. -27°C at 1724/-76 kPa

1/19/99-2-19

1/16/99-02-99

**CERTIFICATE OF SHOP 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. 30491 Expires august 26, 192001

Date 02/19/99 Name RNG PRO-TECH 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 the State or Province of QUEBEC and employed by REGIE DU BATIMENT of GOUV. DU QUEBEC have inspected the pressure vessel described in this Manufacturer's Data Report on FEB-17, 1999, 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 FEB-19-1999 Signed [Signature] Commissions Quebec 9456  
 (Authorized Inspector) (Nat'l Board incl. endorsement, State, Province and No.)

**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 Code, Section VIII, Division 1,

U Certificate of Authorization No. \_\_\_\_\_ Expires \_\_\_\_\_, 19 \_\_\_\_\_

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 the State or Province of \_\_\_\_\_ 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 ASME Code, Section VIII, Division 1. The described vessel was inspected and subjected to a hydrostatic test of \_\_\_\_\_ psi. 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 \_\_\_\_\_ Signed \_\_\_\_\_ Commissions \_\_\_\_\_  
 (Authorized Inspector) (Nat'l Board incl. endorsement, State, Province and No.)