

A 3132951

FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS

(Alternative Form for Single Chamber, Completely Shop-Fabricated Vessels Only)

As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

A 3132951

1. Manufactured and certified by DACRO INDUSTRIES LTD. 9325-51 Avenue, EDMONTON, Alberta. T6E 4W8
(Name and address of manufacturer)
2. Manufactured for PEACE PIPE LINE LTD., 707-8 Avenue, S.W., Calgary, Alberta. T2P 2M7
(Name and address of purchaser)
3. Location of installation Fox Creek, Alberta.
(Name and address)
4. Type Horizontal 96-824-1B M-9234.2 A1-96-819-1-1 Rev.1 --- 1995
(Horiz. or vert., tank) (Mfg.'s serial No.) (CRN) (Drawing No.) (Mat'l. Bd. No.) (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 1992
to 1994
(Addenda (Date)) (Code Case Nos.) (Special Service per UG-120(d))
6. Shell: SA-516-70 .875(22.2) .06(1.5) 13'-1" (4000) S/S 100'-0" (30480)
(Mat'l. (Spec. No., Grade)) (Nom. Thk. (in.)) (Corr. Allow. (in.)) (Diam. I.D. (ft. & in.)) (Length (overall) (ft. & in.))
7. Seams: Dbl. Butt Full 100% --- --- Dbl. Butt Full 10
(Long. (Welded, Dbl., Sngl., Lap, Butt)) (R.T. (Spot or Full)) (Eff. (%)) (H.T. Temp. (°F)) (Time (hr)) (Girth (Welded, Dbl., Sngl., Lap, Butt)) (R.T. (Spot, Partial or Full)) (No. of Courses)
8. Heads: (a) Mat'l. SA-516-70N (b) Mat'l. SA-516-70N
(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)	Left	1.005(25.53)	.06(1.5)	--	--	2:1	--	--	--	Concave
(b)	Right	.995(25.27)	.06(1.5)	--	--	2:1	--	--	--	Concave

If removable, bolts used (describe other fastenings)

(Mat'l., Spec. No., Gr., Size, No.)

9. MAWP (1219 kPag) 177 psi at max. temp. (35°C) 95 °F
Min. design metal temp. (-28.8°C) 84 °F at 177 psi. Hydro., pneu., or comb. test pressure (1.963kPag) N&C 285 psi.
10. Nozzles, inspection and safety valve openings: (1219kPag)

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Mat'l.	Nom. Thk.	Reinforcement Mat'l.	How Attached	Location
SEE ATTACHED	U-4	FORM						

11. Supports: Skirt No Lugs -- Legs -- Other Saddles Attached Shell-Welded
(Yes or no) (No.) (No.) (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: Two Piece Welded Head, L10793-4/6, Edmonton Exchanger & Refinery Services Ltd.
(Name of part, item number, Mfg.'s name and identifying stamp)

C3+ STORAGE TANK (400M³), TAG: TK-6, VOLUME: 14126 Ft.³(400 M³), I.T. EXEMPT
PER UG-20/FIG. UCS-66, VESSEL BUILT TO REV.3,
CHANGE MADE TO VOLUME

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. 14379 expires March 7, 1998.
Date Dec. 12/95 Co. name DACRO INDUSTRIES LTD. Signed [Signature]
(Manufacturer) (Representative)

CERTIFICATE OF SHOP INSPECTION

Vessel constructed by DACRO INDUSTRIES LTD. at EDMONTON
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 Alberta and employed by Alberta Boilers Safety Association
have inspected the component described in this Manufacturer's Data Report on Dec. 12, 1995, 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 Dec. 12/95 Signed [Signature] Commissions Alberta
(Authorized Inspector) (National Board (incl. endorsements), State, Prov. and No.)

FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

(A) 3132951

1. Manufactured and certified by DACRO INDUSTRIES LTD., 9325-51 Avenue, EDMONTON, Alberta. T6E 4W8
(Name and address of Manufacturer)

2. Manufactured for PEACE PIPE LINE LTD., 707-8 Avenue, S.W., Calgary, Alberta. T2P 2M7
(Name and address of Purchaser)

3. Location of installation Fox Creek, Alberta.
(Name and address)

4. Type: Horizontal C3+ STORAGE TANK (400M3) 96-824-1B
(Horiz., vert., or sphere) (Tank, separator, heat exch., etc.) (Mfg's. serial No.)

M-9234.2 A1-96-819-1-1 Rev. 1 ---- 1995
(CRN) (Drawing No.) (Nat'l. Bd. No.) (Year built)

Data Report Item Number	Remarks							
	No.	Size	Type	Mat'l.	Nom. Thk.	Reinf't Mat'l.	How Attach.	Location
Sample Conn	1	3/4"	6000# CPLG.	SA-105	----	None	Welded	Head
Press Conn	1	3/4"	6000# CPLG.	SA-105	----	None	Welded	Head
Thermowell	1	1"	6000# CPLG.	SA-105	----	None	Welded	Head
Siphon Drain	1	1 1/2"	6000# CPLG.	SA-105	----	None	Welded	Head
Bridle Conn	1	2"	150# RFWN	SA-106-B	.436	None	Welded	Shell
Bridle Conn	1	2"	150# RFWN	SA-106-B	.436	None	Welded	Shell
Relief Valve	1	8"	150# RFWN	SA-106-B	.500	SA-516-70	Welded	Shell
Blowdown	1	2"	150# RFWN	SA-106-B	.500	None	Welded	Shell
Outlet Conn	1	10"	150# RFWN	SA-106-B	.500	SA-516-70	Welded	Shell
Fill Conn	1	8"	150# RFWN	SA-106-B	.500	SA-516-70	Welded	Shell
Manway	1	24"	150# RFWN	SA-516-70	.500	SA-516-70	Welded	Shell
Manway	1	24"	150# RFWN	SA-516-70	.500	SA-516-70	Welded	Shell
Vent	1	2"	150# RFWN	SA-106-B	.500	None	Welded	Shell
Manway	1	24"	150# RFWN	SA-516-70	.500	SA-516-70	Welded	Shell
Blind Flange	3	24"	150# ANSI RF	SA-105	----	None	Bolted	Flange
Studs & Nuts	60	1 1/2" x 6	3/4" 1g.	SA-193-B7	----	c/w 2 hex nuts each	Bolted	Flange
				SA-194-2H				
Condensate Return	1	1/2"	6000# CPLG.	SA-105	----	None	Welded	Shell

Certificate of Authorization: Type "U" No. 14379 Expires March 7, 1998

Date Nov. 21/95 Name DACRO INDUSTRIES LTD. Signed [Signature]
(Manufacturer) (Representative)

Date Nov. 21/95 Name [Signature] Commission Alberta #31
(Authorized Inspector) (Nat'l Board incl. endorsement, State, Province and No.)

(12/91) This form (E00118) may be obtained from the ASME Order Dept., 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300 **REPRINT 9/92**

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

(A) 3132951

1. Manufactured and certified by: EDMONTON EXCHANGER & REFINERY SERVICES LTD. 5545-89TH Street, Edmonton, AB T6E 5W9
 (Name and address of Manufacturer)
2. Manufactured for: DACRO INDUSTRIES LTD. 9325-51 AVE. EDMONTON, AB. T6E 4W
 (Name and address of Purchaser)
3. Location of installation: N/A
 (Name and address)
4. Type: TWO PIECE WELDED HEAD. L10793-3/4 N/A
 (Description of vessel part (shell, two-piece head, tube bundle)) (Mfg's serial No.) (CRN)
N/A N/A N/A AUG. 1995
 (Mat'l Bd. No.) (Drawing No.) (Drawing prepared by) (Year Built)
5. ASME Code, Section VIII, Div. 1 1992 December 1994 N/A N/A
 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): _____ (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

7. Heads: (a) No. of course(s) SA516-70 MT (N/A) (b) SA516-70 MT (N/A)
 (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)	-3	1.015				SE 2:1					CONCAVE	DBW	FULL	1.0
(b)	-4	.995				SE 2:1					CONCAVE	DBW	FULL	1.0

If removable, bolts used (describe other fastening) _____

8. (N/A) Type of jacket _____ (Mat'l Spec. No., Grade, Size, No.) Jacket Closure _____
 (Describe as ogee, & weld, bar etc.)
 If bar, give dimensions _____ If bolted, describe or sketch.

9. (N/A) MAWP _____ psi at max. temp. _____ °F. Min. design metal temp. _____ °F at _____ psi.
 (internal) (external) (internal) (external)

10. Impact test _____
 (Indicate yes or no and the component(s) impact tested)

11. (N/A) Hydro., pneu., or comb. test press. _____ Proof test _____

Items 12 and 13 to be completed for tube sections. N/A

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

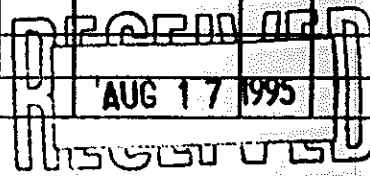
13. Tubes: _____
 Mat'l. Spec. No., Grade or Type O.D., in. Nom. thk., in or gauge Number Type (Straight or U)

Items 14-18 Incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers. -N/A-

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

PO # 83276 2 TAG # 824-1 STK # 2/19



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21. Remarks: No Engineering, drawing or design by Edmonton Exchanger
FULL RADIOGRAPHY ON LONG SEAM WELDS.
No P.W.H.T.
HYDRO BY OTHERS.
(2) TWO 1'8" x 157'2" I.D. HEADS.

Date Aug 15, 95 Signed [Signature] Commissions ALBERTA #64
(Authorized Inspector) (Nat'l Board incl. endorsement, State, Province and No.)

AUG 17 1995

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

④ 3132951

1. Manufactured and certified by: EDMONTON EXCHANGER & REFINERY SERVICES LTD. 5545-89TH Street, Edmonton, AB T6E 5W9
 (Name and address of Manufacturer)
2. Manufactured for: DACRO INDUSTRIES LTD. 9325-51 AVE EDMONTON, AB - T6E 4W8
 (Name and address of Purchaser)
3. Location of installation: N/A
 (Name and address)
4. Type: TWO PIECE WELDED HEADS L10793-5/6 N/A
 (Description of vessel part (shell, two-piece head, tube bundle)) (Mfg's serial No.) (CRN)
N/A N/A N/A AUG. 1995.
 (Natl. Br. No.) (Drawing No.) (Drawing prepared by) (Year Built)
5. ASME Code, Section VIII, Div. 1 1992 December 1994 N/A N/A
 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): _____ (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

7. Heads: (a) No. of course(s) SA516-70 HT (N/A) (b) SA516-70 HT (N/A)
 (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					Conver	Concave	Type	Full, Spot, None	Eff.
(a)	-5	1.015				SE 2:1					CONCAVE DBW		FULL	1.0
(b)	-6	1.005				SE 2:1					CONCAVE DBW		FULL	1.0

If removable, bolts used (describe other fastening) _____

8. (N/A) Type of jacket _____ Jacket Closure _____
 (Mat'l Spec. No., Grade, Size, No.)
 If bar, give dimensions _____ (Describe as ogee, & weld, bar etc.)
 If bolted, describe or sketch.

9. (N/A) MAWP _____ psi at max. temp. _____ °F. Min. design metal temp. _____ °F at _____ psi.
 (internal) (external) (internal) (external)

10. Impact test _____
 (Indicate yes or no and the component(s) impact tested)

11. (N/A) Hydro., pneu., or comb. test press. _____ Proof test _____

Items 12 and 13 to be completed for tube sections. N/A

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

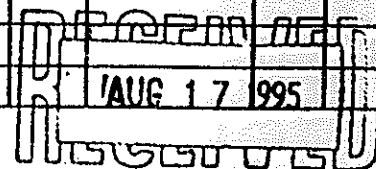
13. Tubes: _____
 Mat'l. Spec. No., Grade or Type O.D., in. Nom. thk., in or gauge Number Type (Straight or U)

Items 14-18 Incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers. -N/A-

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

PO # 8.24/0.2 TAG # 8.24-1 STK # 1/2



[illegible][illegible]

21. Remarks: No Engineering, drawing or design by Edmonton Exchanger
FULL RADIOGRAPHY ON LONG SEAM WELDS.
NO P.W.H.T.
HYDRO BY OTHERS.
(2) TWO 1 1/8" x 15 1/2" I.D. HEADS.

Date Aug 15, 95 Signed Sethom R. [Signature] Commissions ALBERTA #4
(Authorized Inspector) (Nat'l Board incl. endorsement, State, Provincial and No.)

AUG 17 1995