

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 Code Rules, Section VIII, Division 1

1. Manufactured and certified by NUSCO SUPPLY & MANUFACTURING INC. 1604 - 8TH STREET NISKU, ALBERTA CANADA T9E 7S6
(Name and address of manufacturer)

2. Manufactured for Husky Oil Operations Ltd. 707-8th Avenue SW Calgary, Alberta T2P 1H5
(Name and address of purchaser)

3. Location of installation Husky Oil Operations Ltd. 12-27-49-19 W5M
(Name and address)

4. Type: Vertical Separator 005740-200 K-9276.23 D1227-200 Rev.0 2002
(Horiz. or vert. tank) (Mfr's serial No.) (CRN) (Drawing no.) (Nat'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
VESSEL CODE. The design, construction, and workmanship conform to ASME Rules, Section VIII, Division 1
2001
Year

6. Shell: SA-106-B 1.031" 0.0625" 16" OD 6' - 6"
Addenda (Date) Code Case Nos. Special Service per UG 120(d)

7. Seams: Type-S Seamless 100% Type-1 * Spot
Matl. (Spec No., Grade) Nom. Thk. (in.) Corr. Allow. (in.) Diam. I.D. (ft. & in.) Length (overall) (ft. & in.)
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) Matl. SA-516-70N (b) Matl. 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)	TOP	0.813"	0.0625"	-	-	2:1	-	-	-	Concave
(b)	BOTTOM	0.813"	0.0625"	-	-	2:1	-	-	-	Concave

If removable, bolts used (describe other fastenings)

9. MAWP 1440 (Matl. Spec. No., Gr., Size, No.)
Min. design metal temp. -20 °F at 1440 psi. Hydro. 100° test pressure 2160 psi.

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Matl.	Nom. Thk.	Reinforcement Matl.	How Attached	Location
N1 Inlet	1	3"	600# RFWN	SA-105N / SA-106-B	XXH	N/A	UW-16.1(c)	Shell
Gas Outlet	1	3"	600# RFWN	SA-105N / SA-106-B	XXH	N/A	UW-16.1(c)	Top Head
Outlet (HCL)	1	1"	TOL	SA-105N	3000#	N/A	UW-16.1(a)	Shell
C2 Water Outlet	1	1"	TOL	SA-105N	3000#	N/A	UW-16.1(a)	Shell
C3 Drain	1	2"	3000# CPLG	SA-106 B	SCH 160	N/A	UW-16.1(c)	Btm Head
C4 LC (HCL)	1	2"	TOL	SA-105N	3000#	N/A	UW-16.1(a)	Shell
C5 LC (Water)	1	2"	TOL	SA-105N	3000#	N/A	UW-16.1(a)	Shell
SEE U4 FORM	-	-	-	-	-	-	-	-

11. Supports: Skirt Yes Lugs - Legs - Other - Attached Welded to Bottom Head
(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: -

(Name of part, item number, Mfr's name and identifying stamp)
-Construction Drawing No. D1317-200 Rev.0
-Radiography - as per UW-11(a)5(b)
-Customers responsibility to install adequate pressure relief valve.
-Vessel is Impact Test Exempt per UG-20(f) & UCS-66(a)
-Hydrotested Vertically
-Capacity 7.5 Cu. Ft.

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 Code for Pressure Vessels, Section VIII, Division 1. "U" Certificate of Authorization No. 24,778 expires March 27, 2005
Date Jul 29 2002 Co. Name NUSCO SUPPLY & MANUFACTURING INC Signed [Signature]
(Manufacturer) (Representative)

CERTIFICATE OF SHOP / FIELD INSPECTION

Vessel constructed by NUSCO SUPPLY & MANUFACTURING INC. at 1604 - 8TH STREET NISKU, ALBERTA CANADA T9E 7S6
I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and 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 Jul 29 2002 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 Jul 29 2002 Signed [Signature] Commissions AB #132
(Authorized Inspector) (Nat'l Board (incl. endorsements) State Prov. and No.)

MENTARY SHEET

ection VIII, Division 1

Manufactured and certified by NUSCO SUPPLY & MANUFACTURING INC. 1604

2. Manufactured for Husky Oil Operations Ltd. 707-8th Avenue SW Calgary, Alberta T2C 1V9

3. Location of installation Husky Oil Operations Ltd. 12-27-49-19 W5M

4. Type: Vertical Sec
(horiz., vert., or sphere) (tank, separator)
K-9276.23 D1227-200 R
(CRN) (drawing no.)

Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Flange Type	Material	
				Nozzle	Flange
C6 A/B LG (HCL)	2	3/4"	TOL	SA-105N	-
C7 A/B LG (Water)	2	3/4"	TOL	SA-105N	-
C8 PI	1	1/2"	TOL	SA-105N	-
C9 TI	1	3/4"	TOL	SA-105N	-
C10 PSHL	1	1"	TOL	SA-105N	-
C11 HLSD	1	2"	TOL	SA-105N	-
C12 PSV	1	1"	TOL	SA-105N	-
C13 A Inspection	1	2"	TOL	SA-105N	-
C13 B Inspection	1	1 1/2"	TOL	SA-105N	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

Data Report
Item Number

Construction Drawing No: D1317-200 Rev.0

Certificate of Authorization: Type U No. _____
Date 09 29 2002 Name NUSCO SUPPLY & MANUFACTURING INC
(manufacturer)
Date 09 29 2002 Name M. Kenyon
(Authorized Inspector)

RTA CANADA T9E 7S6
(Manufacturer)

005740-200

(mfg's serial no.)

2002

(Nat'l. Bd. no.)

(year built)

Reinforcement Material	How Attached		Location (Insp. Open.)
	Nozzle	Flange	
-	UW-16.1a	-	Shell
-	UW-16.1a	-	Shell
-	UW-16.1a	-	Shell
-	UW-16.1a	-	Shell
-	UW-16.1a	-	Shell
-	UW-16.1a	-	Shell
-	UW-16.1a	-	Shell
-	UW-16.1a	-	Shell
-	UW-16.1a	-	Top Head
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

March 27 2005
[Signature]
 (representative)

Board incl. endorsement, state, province and no)

CERTIFIED BY
Onusco
NORFOLK, VA

W
RT

MAX ALLOW
WORK PRESS

2400

PSI

MIN DESIGN
METAL TEMP

-20

F

SERIAL
NO.

2005710200

YEAR

2022

DESIGN
PRESS.

PSI

100

PSI

2005710200

KPA

38

PSI

2005710200

HEAD
MTRL.

PSI

THK

2005710200

SHELL
MTRL.

PSI

THK

2005710200

CRN.

PSI

THK

2005710200

(A) 488072

W
RT-2



MAX. ALLOW
WORK. PRESS.

1440

PSI

AT

100

°F

MIN. DESIGN
METAL TEMP.

-20

°F

AT

1440

PSI

SERIAL
NO.

005740-200

YEAR BUILT

2002

DESIGN
PRESS.

1440

PSI

AT

100

°F

CORR
ALLOW

0.0625

IN.

9929

KPA

AT

38

°C

CORR
ALLOW

1.59

MM.

HEAD
MTRL.

SA-516-70N

THK.

0.813

IN.

20.65

MM.

SHELL
MTRL.

SA-106-B

THK.

1.031

IN.

26.19

MM.

CRN.

K-9276.23

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

1. Manufactured and certified by NUSCO SUPPLY & MANUFACTURING INC., 1604 - 8TH STREET NISKU, ALBERTA CANADA T9E 7S6
(name and address of manufacturer)
2. Manufactured for Husky Oil Operations Ltd. 707-8th Avenue SW Calgary, Alberta T2P 1H5
(name and address of purchaser)
3. Location of installation Husky Oil Operations Ltd. 12-27-49-19 WSM
(name and address)
4. Type: Vertical Separator 005740-200
(horiz., vert., or sphere) (tank, separator, heat exch., etc.) (mtg's serial no.)
K-9276.23 D1227-200 Rev.0 2002
(CRN) (drawing no.) (Nat'l. Bd. no.) (year built)

Nozzles, inspection, and safety valve openings:

[illegible]Data Report
Item Number

Remarks

Construction Drawing No: D1317-200 Rev.0

Certificate of Authorization: Type U No. 24,776 Expires March 27 2005
 Date JUL 29 2002 Name NUSCO SUPPLY & MANUFACTURING INC. Signed [Signature]
 (manufacturer) (representative)
 Date JUL 29 2002 Name [Signature] Commission AB#132
 (Authorized Inspector) (Nat'l. Board incl. endorsement, state, province and no.)