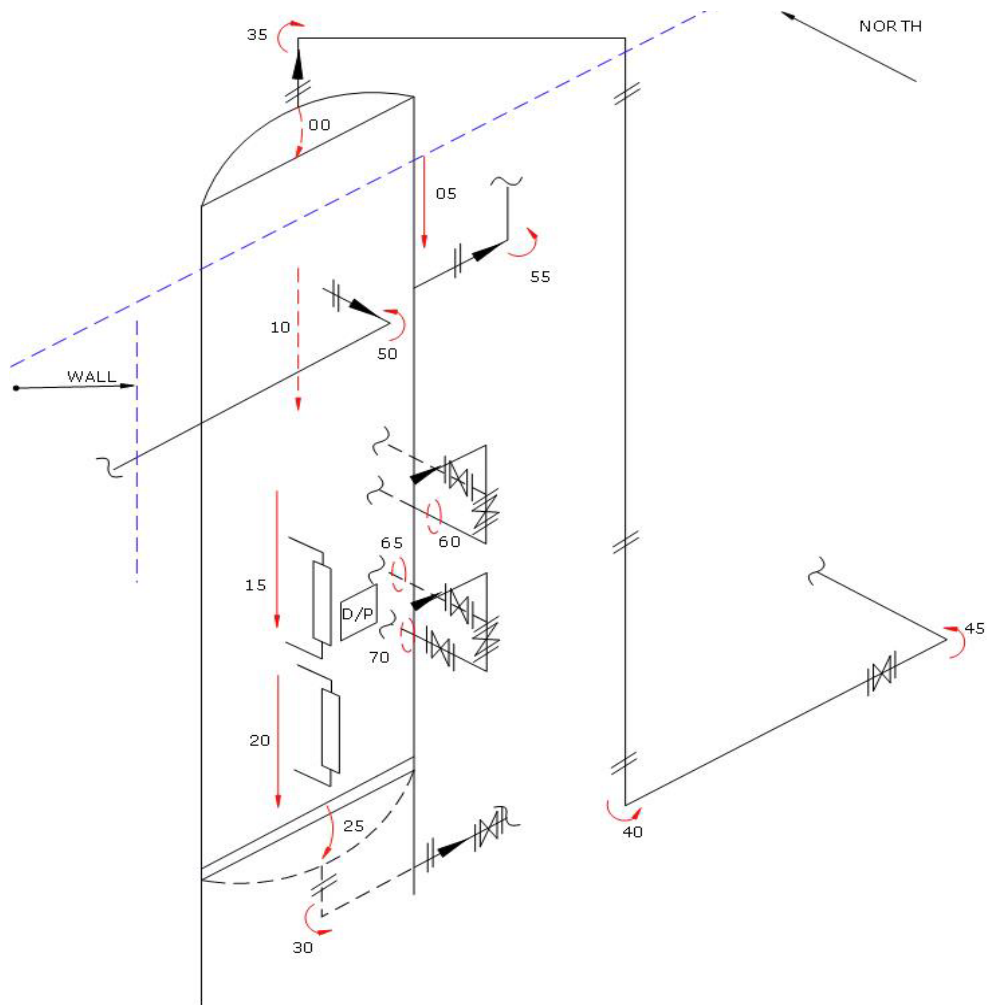


Location Name:	EDSON	LSD:	
A#:	483109	Equipment/Tag No.	V-100
Equipment Description:	VERTICAL SEPARATOR		
Manufacturer:	NATCO CANADA LTD.		
Serial Number:	7758-03	CRN:	P7624.2
Shell MAWP:	2020	PSI	Shell Design Temp: 200 °F
Tube MAWP:		PSI	Tube Design Temp: °F
Shell Material:	SA-516-70N	Head Material:	SA-516-70N
Shell Thickness:	50.80	mm	Head Thickness: 48.26 mm
Corrosion Allowance:	3.1750	mm	Date Built: 2002
Size:	914	mm	Pipe / Rolled Plate: PLATE
RT:	1		

NOTES: SAP # 66172336. S/N 7758-03. LOCATED AT CARREY SHOP OUTSIDE OF EDSON.









Ultrasonic Corrosion Survey

*All values are in millimeters unless otherwise stated.

Survey Name: Husky Energy

Date: Mar 27, 2015

Inspector: W. Gill

LSD:	Area:	EDSON	Location:	CAR REY YARD.					
A #:	Tag Number:	V-100	Vessel Name:	VERTICAL SEPARATOR					
CRN:	Year Built:	2002	Serial Number:	7758-03					
RT:	Vessel CA:	3.175 mm	Manufacturer:	NATCO CANADA LTD.					
	Shell MAWP:	2020 PSI	MAWTF:	200 °F	Tube MAWP:		MAWTF:		Pipe/Plate
									PLATE
TML Description		Baseline				Material:	SA-516-70N		
00	HEAD	2015	Flag	CA	Nominal	T Min	STCR mm/yr	LTCR mm/yr	
Shape:	Ellipsoidal	Min	49.23	45.085	3.175	48.260	0.000	0.000	
OD:	914	Avg	49.81				Remaining Life:		
Spec:	ASME VIII Div.1	Comments:					Retirement Date:		
TML Description		Baseline				Material:	SA-516-70N		
05	SHELL	2015	Flag	CA	Nominal	T Min	STCR mm/yr	LTCR mm/yr	
Shape:	Cylindrical	Min	51.94	47.625	3.175	50.800	0.000	0.000	
OD:	914	Avg	52.12				Remaining Life:		
Spec:	ASME VIII Div.1	Comments:					Retirement Date:		
TML Description		Baseline				Material:	SA-516-70N		
10	SHELL	2015	Flag	CA	Nominal	T Min	STCR mm/yr	LTCR mm/yr	
Shape:	Cylindrical	Min	52.04	47.625	3.175	50.800	0.000	0.000	
OD:	914	Avg	52.17				Remaining Life:		
Spec:	ASME VIII Div.1	Comments:					Retirement Date:		
TML Description		Baseline				Material:	SA-516-70N		
15	SHELL	2015	Flag	CA	Nominal	T Min	STCR mm/yr	LTCR mm/yr	
Shape:	Cylindrical	Min	51.64	47.625	3.175	50.800	0.000	0.000	
OD:	914	Avg	52.04				Remaining Life:		
Spec:	ASME VIII Div.1	Comments:					Retirement Date:		



Ultrasonic Corrosion Survey

*All values are in inches unless otherwise stated.

Survey Name: Canadian Natural

Date: Mar 27, 2015

Inspector: W. Gill

LSD:	Area:	EDSON	Location:	CAR REY YARD.
A #: 483109	Tag Number:	V-100	Vessel Name:	VERTICAL SEPARATOR
CRN: P7624.2	Year Built:	2002	Serial Number:	7758-03
RT: 1	Vessel CA:	3.175 mm	Manufacturer:	NATCO CANADA LTD.
	Shell MAWP:	2020 PSI	Tube MAWP:	MAWTF: °F
		MAWTF: 200 °F		Pipe/Plate PLATE
TML Description		Baseline		Material: SA-516-70N
20 SHELL		2015	Flag	CA
Shape: Cylindrical	Min	51.74	47.625	3.175
OD: 914	Avg	52.02		50.800
Spec: ASME VIII Div.1	Comments:			STCR mm/yr 0.000
				LTCCR mm/yr 0.000
				Remaining Life:
				Retirement Date:
TML Description		Baseline		Material: SA-516-70N
25 HEAD		2015	Flag	CA
Shape: Ellipsoidal	Min	49.35	45.085	3.175
OD: 914	Avg	49.83		48.260
Spec: ASME VIII Div.1	Comments:			STCR mm/yr 0.000
				LTCCR mm/yr 0.000
				Remaining Life:
				Retirement Date:
TML Description		Baseline		Material: A-234-WPB
30 PIPING		2015	Flag	CA
Shape: 90° Elbow	Min	8.51	7.623	1.089
OD: 60	Avg	8.64		8.712
Spec: ASME B31.3	Comments:	ASSUMED NOM.		STCR mm/yr 0.000
				LTCCR mm/yr 0.016
				Remaining Life:
				Retirement Date:
TML Description		Baseline		Material: A-234-WPB
35 PIPING		2015	Flag	CA
Shape: 90° Elbow	Min	8.13	7.490	1.070
OD: 114	Avg	8.46		8.560
Spec: ASME B31.3	Comments:			STCR mm/yr 0.000
				LTCCR mm/yr 0.033
				Remaining Life:
				Retirement Date:



Ultrasonic Corrosion Survey

*All values are in inches unless otherwise stated.

Survey Name: Canadian Natural

Date: Mar 27, 2015

Inspector: W. Gill

LSD:		Area:	EDSON	Location:	CAR REY YARD.			
A #:	483109	Tag Number:	V-100	Vessel Name:	VERTICAL SEPARATOR			
CRN:	P7624.2	Year Built:	2002	Serial Number:	7758-03			
RT:	1	Vessel CA:	3.175 mm	Manufacturer:	NATCO CANADA LTD.			
		Shell MAWP:	2020 PSI	Tube MAWP:	MAWTF: °F			
TML Description		Baseline		Material:	A-234-WPB			
40	PIPING	2015	Flag	CA	Nominal	T Min	STCR mm/yr	LTCR mm/yr
Shape:	90° Elbow	Min	8.18	7.490	1.070	8.560	0.000	0.029
OD:	114	Avg	8.61				Remaining Life:	
Spec:	ASME B31.3	Comments:	ASSUMED NOM.				Retirement Date:	
TML Description		Baseline		Material:	A-234-WPB			
45	PIPING	2015	Flag	CA	Nominal	T Min	STCR mm/yr	LTCR mm/yr
Shape:	90° Elbow	Min	7.87	7.490	1.070	8.560	0.000	0.053
OD:	114	Avg	8.31				Remaining Life:	
Spec:	ASME B31.3	Comments:	ASSUMED NOM.				Retirement Date:	
TML Description		Baseline		Material:	A-234-WPB			
50	PIPING	2015	Flag	CA	Nominal	T Min	STCR mm/yr	LTCR mm/yr
Shape:	90° Elbow	Min	7.92	7.490	1.070	8.560	0.000	0.049
OD:	114	Avg	8.31				Remaining Life:	
Spec:	ASME B31.3	Comments:					Retirement Date:	
TML Description		Baseline		Material:	A-234-WPB			
55	PIPING	2015	Flag	CA	Nominal	T Min	STCR mm/yr	LTCR mm/yr
Shape:	90° Elbow	Min	4.67	4.445	0.635	5.080	0.000	0.031
OD:	48	Avg	4.98				Remaining Life:	
Spec:	ASME B31.3	Comments:					Retirement Date:	



Ultrasonic Corrosion Survey

*All values are in inches unless otherwise stated.

Survey Name: Canadian Natural

Date: Mar 27, 2015

Inspector: W. Gill

LSD:	Area:	EDSON	Location:	CAR REY YARD.					
A #:	483109	Tag Number:	V-100	Vessel Name:	VERTICAL SEPARATOR				
CRN:	P7624.2	Year Built:	2002	Serial Number:	7758-03				
RT:	1	Vessel CA:	3.175 mm	Manufacturer:	NATCO CANADA LTD.				
		Shell MAWP:	2020 PSI	MAWTF:	200 °F	Tube MAWP:	PSI	MAWTF:	°F
								Pipe/Plate	PLATE
TML Description		Baseline				Material:	SA-106-B		
60	PIPING	2015	Flag	CA	Nominal	T Min	STCR mm/yr	LTCR mm/yr	
Shape:	360° Circ	Min	6.27	5.556	0.794	6.350	0.000	0.006	
OD:	33	Avg	6.45						
Spec:	ASME B31.3	Comments:	ASSUMED NOM.				Remaining Life:	Retirement Date:	
TML Description		Baseline				Material:	SA-106-B		
65	PIPING	2015	Flag	CA	Nominal	T Min	STCR mm/yr	LTCR mm/yr	
Shape:	360° Circ	Min	6.27	5.556	0.794	6.350	0.000	0.006	
OD:	33	Avg	6.40						
Spec:	ASME B31.3	Comments:	ASSUMED NOM.				Remaining Life:	Retirement Date:	
TML Description		Baseline				Material:	SA-106-B		
70	PIPING	2015	Flag	CA	Nominal	T Min	STCR mm/yr	LTCR mm/yr	
Shape:	360° Circ	Min	6.25	5.556	0.794	6.350	0.000	0.008	
OD:	33	Avg	6.60						
Spec:	ASME B31.3	Comments:	ASSUMED NOM.				Remaining Life:	Retirement Date:	

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 483109

1. Manufactured and certified by NATCO CANADA LTD. 9423 SHEPARD RD. SE CALGARY, AB T2H 1X6
(Name and address of manufacturer)

2. Manufactured for EXXON MOBIL CANADA 201, 1100 - 8 AVE SW, CALGARY, AB T2P 3T9
(Name and address of purchaser)

3. Location of installation MOBIL STCCK
(Name and address)

4. Type VERTICAL 7758-03 P7624 2 CVRD-036SX-2020-200-00 REV 0 2002
(Horiz. or Vert. Tank) (Mfr.'s Serial No.) (CRN) (Design 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 1998
Year

to 00 N/A N/A
Addenda (Date) Code Case Nos. Special Service per UG-120(d)

6. Shell SA 516-70N 2.000" 0.125" 2'-8" 7'-6"
Mat'l. (Spec. No., Grade) Nom. Thk. (in.) Cor. Allow. (in.) Diam. I.D. (ft & in.) Length (overall) (ft & in.)

7. Seams TYPE 1 FULL 100% 1150 2
Long (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot or Full) Eff. (%) H.T. Temp. (°F) Time (hr)

TYPE 1 FULL 1
Girth (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot, Partial or Full) No. of Courses

8. Heads (a) Matl.		SA 516-70N (Spec. No., Grade)					(b) Matl.		SA 516-70N (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	1.900"	0.125"			2:1 SE				CONCAVE	
b)	BOTTOM	1.900"	0.125"			2:1 SE				CONCAVE	

If removable, bolts used (describe other fastenings) _____
(Mat'l., Spec. No., Gr., Size, No.)

9. MAWP 2020 psi at max. temp. 200 °F
 Min. design metal temp. -20 °F at 2020 psi. Hydro, pneum., or comb. test pressure 2626 psi.

10. Nozzles, inspection and safety valve openings:

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

11. Supports: Skirt YES Lugs NIL Legs NIL Other N/A Attached BOTTOM HEAD 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:

(Name of part, item number, Mfr.'s name and identifying stamp)

V-100 3-PHASE VERTICAL SEPARATOR VOLUME: 48.71 Cu.Ft.

SHELLS & HEADS TO BE CIT TESTED @ -20 F PER UG-84(c). REMAINDER OF VESSEL IMPACT TEST EXEMPT PER UG-20(f)1-5 & UCS-66(a)(c)(g)

DWG. NO. D-7758-03 REV 0

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. 11313 Expires SEPT 9, 2004

Date: Jan 16, 2002 Co. Name: NATCO CANADA LTD. Signed: _____
(Manufacturer) (Representative)

CERTIFICATE OF SHOP INSPECTION

Vessel constructed by NATCO CANADA LTD. at CALGARY, ALBERTA

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 Boiler Safety Association, have inspected the component described in this Manufacturer's Data Report on JAN 16 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 JAN 16 2002 Signed: _____ Commissions: ALBERTA #11
(Authorized Inspector) (Nat'l Board (incl. endorsements), State, Prov. and No.)

- [illegible]

Certificate of Authorization: Type: "U" No. 11,313 Expires: SEPT. 9, 2004.
 Date: Jan 16, 2002 Name: Natco Canada Ltd. Signed: _____

 _____ (Manufacturer)
 Date: 16 JAN 2002 Name:  Commission _____ (Representative)
 _____ (Authorized Inspector) _____
 _____ (Natl. Board incl. endorsements, State, Prov. and No.)
 Shop Order #: 7758-13