

Certificate of Inspection Permit

CORSE ENERGY CORP

736 8 AVENUE SW SUITE 450

CALGARY, AB
T2P 1H4

COMPANY CODE:

DESCRIPTION: VERTICAL SEPARATOR

LOCATION: LSD 12-11-35-24 W4M

MANUFACTURER: NUSCO MANUFACTURING

Max. Inspection Interval: 5.00 Yr.

Year Built: 2007

CRN: R7723.2

Serial #: 21664-200

Volume: 0.742 M3

Heating Surface:

Surface Area:

Pressure Relief Valves

PART	MAX. ALLOWABLE PRESSURE	MAX. TEMP	MIN. TEMP	VALVE ID	SETTING	CAPACITY	LOCATION
VESSEL	9928 KPA	38 C	-29 C	SV1	6895 KPA	102 M3/MIN	ON VESSEL

Terms and Conditions:

Pressure relief device is to be serviced by an authorized servicing company every five years.

Permit issued by: FORBES, SCOTT

Signature: _____



NOTE: REQUIREMENTS OF THE SAFETY CODES ACT AND THE REGULATIONS ISSUED THEREUNDER:

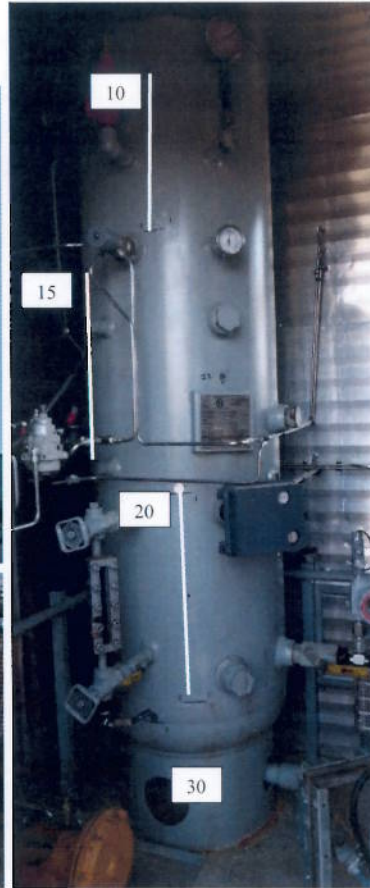
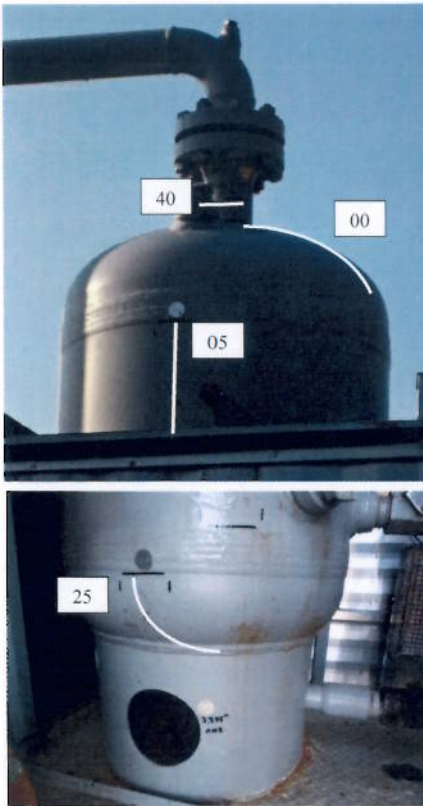
An owner or vendor must notify the Administrator in writing when the pressure equipment identified on this certificate is sold or otherwise disposed of.

The owner or person in charge shall report all accidents involving Pressure Equipment to the district Safety Codes Officer immediately and shall send a full report in writing to the Administrator as required by the Act. No repairs or alterations may be made unless authorized by a Safety Codes Officer.



Vessel Static Data:

Name:	Separator
A#:	577540
Serial Number:	21664-200
CRN:	R 7723.213
LSD:	12-11-35-24 W4M
Location:	Huxley
CA:	0.0625"
Size:	24.00" OD
MAWP:	1440psi
Temp:	100°F
Head Material:	SA-516-70
Head Nominal:	0.900"
Shell Material:	SA-516-70
Shell Nominal:	1.000"
Year Built:	2007
Manufacturer:	Nusco



Notes: *Band 30- 2" elbow off bottom head

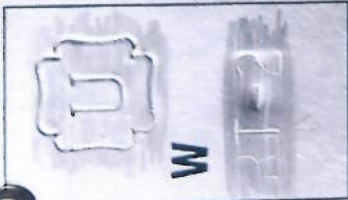
CERTIFIED BY



NISKU, ALBERTA, CANADA

S/N 2166A-200

YEAR 2007



MAWP	1440	PSI AT	100	°F
MAWP	9929	kPa AT	38	°C
MAWP EXTERNAL		PSI AT		°F
MDMT	-20	°F AT	1440	PSI
MDMT	-29	°C AT	9929	kPa

HEAD MTRL.	SA-316-70N	THK.	0.900	IN.	22.86	MM.
SHELL MTRL.	SA-316-70N	THK.	1.000	IN.	25.4	MM.
CRN.	R7723.213	C.A.	0.0625	IN.	1.59	MM.

A 577540

NUSCO - 9609

FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS
 (Alternative Form for Single Chamber, Completely Shop or Fabricated Vessels Only)
 As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

A 577540

1. Manufactured and certified by Nusco Manufacturing A Division of Altus Energy Services Ltd. 1604 - 8th Street Nisku, Alberta, Canada T9E 7S6
 (Name and address of manufacturer)

2. Manufactured for Nusco Manufacturing A Division of Altus Energy Services Ltd. 1604 - 8th Street Nisku, Alberta, Canada T9E 7S6
 (Name and address of purchaser)

3. Location of installation Stock
 (Name and address)

4. Type Vertical Separator 21664-200 R7723.231 SEP24-201 REV.0 2007
 (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 2004
 Year

to 2006
 Addenda (Date)

6. Shell: SA-516-70N 1.000" 0.0625" 24" OD 7' - 6"
 Mat'l. (Spec. No., Grade) Nom. Thk. (in.) Corr. Allow. (in.) (Diam. I.D. (ft. & in.)) Length (overall) (ft. & in.)

7. Seams: Type-1 Full 100% - - Type-1 Spot 70 1
 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 or Full) Eff. (%) 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)	TOP	0.900"	0.0625"	-	-	2:1	-	-	-	Concave
(b)	BOTTOM	0.900"	0.0625"	-	-	2:1	-	-	-	Concave

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

9. MAWP 1440 _____ psi. at max. temp. 100 _____ °F.
 (internal) (external) (internal) (external)

Min. design metal temp. -20 °F at 1440 psi. Hydro., pneu., or comb. test pressure 2160 psi.

10. Nozzles, inspection and safety valve openings:

Purposa (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Mat'l.	Nom. Thk.	Reinforcement Mat'l.	How Attached	Location
Inlet	1	3"	CL 600 RFWN	SA-105N / SA-106-B	0.600"	N/A	UW-16.1 (c)	Shell
Gas Outlet	1	3"	CL 6000 CPLG	SA-105-N / SA-106-B	0.600"	N/A	UW-16.1 (c)	Top Head
HC & Water Out	2	2"	TOL	SA-105-N	CL 3000	N/A	UW-16.1 (a)	Shell
Drain	1	2"	CL 3000 CPLG	SA-105-N / SA-106-B	0.344"	N/A	UW-16.1 (c)	Bottom Head
LC, HLSD, Insp.	5	2"	TOL	SA-105-N	CL 3000	N/A	UW-16.1 (a)	Shell
Level Gauge, TI	5	3/4"	TOL	SA-105-N	CL 3000	N/A	UW-16.1 (a)	Shell
PI	1	1/2"	TOL	SA-105-N	CL 3000	N/A	UW-16.1 (a)	Shell
PSV	1	1"	TOL	SA-105-N	CL 3000	N/A	UW-16.1 (a)	Shell

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. SEP24-202 Rev. 6 - Vessel is Impact Test Exempt per UG-20(f) (1to5), UCS-66(a), UCS-66(c)
- Radiography in accordance with UW-11(a)/5(b) - Hydrotest Vertically
- Customers responsibility to install adequate pressure relief valve - Capacity 26.2 Cu. Ft.

CERTIFICATE OF SHOP / FIELD COMPLIANCE

We certify that the statements made in this report are correct and that all the details of design, material, construction, and workmanship of this vessel conform to the ASME Code for the Pressure Vessels, Section VIII, Division 1. "U" Certificate of Authorization No. 24,776
 expires March 27, 2008
 Date May 22, 2007 Co. name NUSCO MANUFACTURING A Division of Altus Energy Services Ltd. Signed [Signature]
 (Manufacturer) (Representative)

CERTIFICATE OF SHOP / FIELD INSPECTION

Vessel constructed by NUSCO MANUFACTURING A Division of Altus Energy Services Ltd. 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/or the State or Province of Alberta and employed by ABSA the pressure equipment safety authority
 have inspected the component described in this Manufacturer's Data Report on May 22, 2007, 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 May 22, 2007 Signed [Signature] Commissions AB9SA
 (Authorized Inspector) (Nat'l Board, (incl. endorsements), State, Prov. and No.)



ULTRASONIC CORROSION SURVEY
Survey Name: CORSE ENERGY CORP.

Report No.: 23
 Survey Date: 12/28/2016

LSD: 12-11-035-24W4 Dwg: 23 Vessel Number: A0577540 Manufacturer: NUSCO Technician: J. COLEMAN
 Downhole LSD: Vessel Name: SEPARATOR Serial Number: 21664-200 Certification: CGSB / SNT-TC-1A
 District Unit: HUXLEY Year Built: 2007 Shell MAWP PSI: 1440 MAWT F: 100 UT I #18042
 Location: FIELD Tag Number: R 7723.231 Tube MAWP PSI: 0 MAWT F: 0
 Skid: CRN: Vessel CA: 0.0625

Band Description	Baseline		Previous		Current		Next Inspection Material	Nominal CA	TMIN	ST Loss MPY	LT Loss MPY	Recommended Retirement Date
	Ref	2012	2012	2012	2016	2016						
00 Top - Head	Ref	0.9730	0.9730	0.9730	0.9730	0.9720	2017	0.9000	0.8050	0.0000	0.0000	2036
Shape Ellipsoidal	Min	0.9540	0.9540	0.9540	0.9540	0.9620	SA 516 - 70	0.0625				
OD 24	Avg	0.9810	0.9810	0.9810	0.9810	0.9830						
Spec. VIII Div 1												

Comments:

05 Top - Shell	Ref	0.9940	0.9940	0.9940	0.9940	0.9940	2017	1.0000	0.8278	0.0000	0.0000	2036
Shape Cylindrical	Min	0.9920	0.9920	0.9920	0.9920	0.9920	SA 516 - 70	0.0625				
OD 24	Avg	0.9930	0.9930	0.9930	0.9930	0.9940						
Spec. VIII Div 1												

Comments:

10 Middle - Shell	Ref	0.9990	0.9990	0.9990	0.9990	1.0010	2017	1.0000	0.8278	0.0000	0.0000	2036
Shape Cylindrical	Min	0.9950	0.9950	0.9950	0.9950	0.9960	SA 516 - 70	0.0625				
OD 24	Avg	0.9970	0.9970	0.9970	0.9970	1.0050						
Spec. VIII Div 1												

Comments:

15 Middle - Shell	Ref	0.9980	0.9980	0.9980	0.9980	1.0020	2017	1.0000	0.8278	0.0000	0.0000	2036
Shape Cylindrical	Min	0.9940	0.9940	0.9940	0.9940	0.9950	SA 516 - 70	0.0625				
OD 24	Avg	0.9970	0.9970	0.9970	0.9970	1.0180						
Spec. VIII Div 1												

Comments:



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 Technician: J. COLEMAN
 Certification: CGSB / SNT-TC-1A
 UT I #18042

Manufacturer: NUSCO
 Serial Number: 21664-200
 Shell MAWP PSI: 1440 MAWT F: 100
 Tube MAWP PSI: 0 MAWT F: 0
 Vessel CA: 0.0625

Vessel Number: A0577540
 Vessel Name: SEPARATOR
 Year Built: 2007
 Tag Number: R 7723.231
 CRN: R 7723.231

LSD: 12-11-035-24W4 Dwg: 23
 Downhole LSD:
 District Unit: HUXLEY
 Location: FIELD
 Skid:

Band Description	Baseline		Previous		Current		Next Inspection Material	Nominal CA	TMIN	ST Loss MPY	LT Loss MPY	Recommended Retirement Date
	Ref	2012	2012	2012	2016	2016						
20 Bottom - Shell	Ref	0.9940	0.9940	0.9940	0.9970	0.9970	2017	1.0000	0.8278	0.0010	0.0010	2036
Shape Cylindrical	Min	0.9890	0.9890	0.9890	0.9840	0.9840	SA 516 - 70	0.0625				
OD 24	Avg	0.9820	0.9820	0.9820	0.9980	0.9980						
Spec. VIII Div 1												

Comments:

25 Bottom - Head	Ref	0.9770	0.9770	0.9770	0.9770	0.9770	2016	1.0240	0.8050	0.0000	0.0000	2036
Shape Ellipsoidal	Min	0.9740	0.9740	0.9740	0.9840	0.9840	SA 516 - 70	0.0625				
OD 24	Avg	0.9820	0.9820	0.9820	0.9890	0.9890						
Spec. VIII Div 1												

Comments:

30 Nozzle	Ref	0.3270	0.3270	0.3270	0.3200	0.3200	2017	0.3430	0.0749	0.0008	0.0008	2036
Shape 90° Elbow	Min	0.3120	0.3120	0.3120	0.3080	0.3080	SA 234 - WPB	0.1054				
OD 2.375	Avg	0.3210	0.3210	0.3210	0.3350	0.3350						
Spec. VIII Div 1												

Comments:

35 Nozzle	Ref	0.5940	0.5940	0.5940	0.6160	0.6160	2017	0.6000	0.1020	0.0000	0.0000	2036
Shape 360° Circ	Min	0.5740	0.5740	0.5740	0.5750	0.5750	SA 106 - B	0.1375				
OD 3.5	Avg	0.5860	0.5860	0.5860	0.6060	0.6060						
Spec. VIII Div 1												

Comments:



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 Location: FIELD Tag Number: CRN: R 7723.231 Tube MAWP PSI: 0 MAWT F: 0
 Skid: Vessel CA: 0.0625

Band Description	Ref	Baseline			Next Inspection			Nominal CA	TMIN	ST Loss MPY	LT Loss MPY	Recommended Retirement Date
		2012	2012	2012	2016	2017	2017					
40 Nozzle		0.6190	0.6190	0.6190	0.6190	0.6120	0.6000	0.1020	0.0006	0.0006	2036	
Shape 360° Circ	Min	0.5630	0.5630	0.5630	0.5600	SA 106 - B	0.1375					
OD 3.5	Avg	0.6250	0.6250	0.6240								
Spec. VIII Div 1												

Comments: