Husky Energy

400 PSI

Location Name: ANSELL GAS PLANT LSD: 7-27-51-19W5

A#: 0555954 Equipment/Tag No. V-2

Equipment Description: OIL SEPARATOR Serial Number: 80417401

CRN: (or other ID#) R9944.213
Design Temp: 250°F
Head Material: SA-516-70N

Shell Material:SA-516-70NHead Material:SA-516-70Shell Thickness:0.750"Head Thickness:0.6875"Corrosion Allowance:0.0625"Date Built:2006

Size: INS Manufacturer: TOROMONT PROCESS

SYSTEMS

RT: Pipe / Rolled Plate: ROLLED PLATE

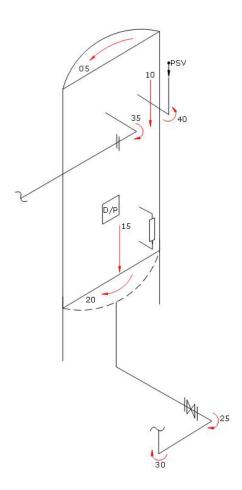
Notes:

MAWP:



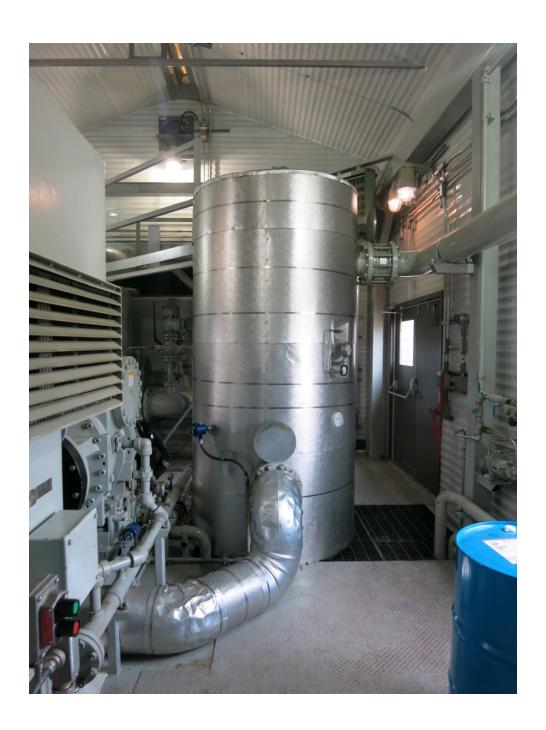


Husky Energy





Husky Energy







Spec: ASME VIII Div.1

Comments:

Ultrasonic Corrosion Survey

Survey Name: Husky Energy Date: Jun 8, 2014

Inspector: W. Gill

Retirement Date:

LSD:	07-27-051-19W5	Area:	Ansell	Location:	Gas Plant
A #:	A0555954	Tag Number:	V-2	Vessel Name:	Oil Separator
CRN:	R9944.213	Year Built:	2006	Serial Number:	80417401

Vessel CA: 1.5875 mm **Manufacturer:** Toromont Process Systems

Shell MAWP: 400psi MAWTF: 250°F Tube MAWP: MAWTF:

	escription		Baseline				Material:	SA-516-70N
05	Head		2014	Flag	CA	Nominal	T Min	Corr. Rate
Shape:	Ellipsoidal	Min	20.070	15.875	1.588	17.463		
OD:		Avg	20.420					Remaining Life:
Spec:	ASME VIII Div.1	Comments:						Retirement Date:
TML D	escription		Baseline				Material:	SA-516-70N
10	Shell		2014	Flag	CA	Nominal	T Min	Corr. Rate
Shape:	Cylindrical	Min	19.580	17.463	1.588	19.050		
OD:		Avg	19.710					Remaining Life:
Spec:	ASME VIII Div.1	Comments:						Retirement Date:
TML D	escription		Baseline				Material:	SA-516-70N
15	Shell		2014	Flag	CA	Nominal	T Min	Corr. Rate
Shape:	Cylindrical	Min	19.430	17.463	1.588	19.050		
OD:		Avg	19.860					Remaining Life:
Spec:	ASME VIII Div.1	Comments:						Retirement Date:
TML Description			Baseline				Material:	SA-516-70N
20	Head		2014	Flag	CA	Nominal	T Min	Corr. Rate
Shape:	Ellipsoidal	Min	18.850	15.876	1.588	17.463		
OD:	•	Avg	19.200					Remaining Life:



Ultrasonic Corrosion Survey

Survey Name: Husky Energy Date: Jun 8, 2014

Inspector: W. Gill

Location: **Gas Plant** LSD: 07-27-051-19W5 Area: Ansell A0555954 Tag Number: V-2 Oil Separator A #: **Vessel Name:** Year Built: Serial Number: 80417401 CRN: R9944.213 2006

Vessel CA: 1.5875 mm **Manufacturer:** Toromont Process Systems

Shell MAWP: 400psi MAWTF: 250°F Tube MAWP: MAWTF:

TML De	escription		Baseline				Material:	A-234-WPB	
25 Piping		2014	Flag	CA	Nominal	T Min	Corr. Rate		
Shape:	90° Elbow	Min	4.720	4.801	0.686	5.486	2.540	0.096	
OD:	3.5"	Avg	5.160			Assumed		Remaining Life:	24.17 Years
Spec:	ASME B31.3	Comments:	No corrosion found					Retirement Date:	8/10/2038
TML De	escription		Baseline				Material:	A-234-WPB	
30	Piping		2014	Flag	CA	Nominal	T Min	Corr. Rate	
Shape:	90° Elbow	Min	4.830	4.800	0.686	5.486			
OD:	3.5"	Avg	5.330			Assumed		Remaining Life:	
Spec:	ASME B31.3	Comments:						Retirement Date:	
TML De	escription		Baseline				Material:	A-234-WPB	
35 Piping			2014	Flag	CA	Nominal	T Min	Corr. Rate	
Shape:	90° Elbow	Min	8.530	7.156	1.022	8.179			
OD:	8.625"	Avg	9.090			Assumed		Remaining Life:	
Spec:	ASME B31.3	Comments:						Retirement Date:	
TML De	escription		Baseline				Material:	A-234-WPB	
40 Nozzle			2014	Flag	CA	Nominal	T Min	Corr. Rate	
Shape:	90° Elbow	Min	8.080	6.668	0.953	7.620			
OD:	3.5"	Avg	8.280			Assumed		Remaining Life:	
Spec:	ASME VIII Div.1	Comments:						Retirement Date:	

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 Toromont Process Systems , 10121 Barlow Trail NE, Calgary, Alberta, Canada, T3J 3C6 (Name and address of manufacturer)										
2.	Manufactured for		Toromont P	Process Syste		21 Barlov	v Trail NI	<u>E, Cal</u>	gary, Albe	erta, Canada.	T3J 3C6
3.	Location of installa	ation					Stock				
4.	Type <u>Ve</u>		8041740		<u> 19944.213</u>	and address) OSV	V-480-03-CS		•v0		2006
5.				rts meet the re	-		•	ations ((Year built) PRESSURE VESSEL
				Iship comonn	I TO ASIVIL IN	Mies, Jech	1011 VIII, U	MISION		ZU(
	to	, Addenda (D	Date)			Code Case N					e per UG-120(d)
6.		SA-516-701 tl. (Spec. No., Gra	<u>/\</u> ade)	0.750" Nom. Thk. (in.)		0.0625' Corr. Allow. (ir			<mark>3' - 10 1/2</mark> ' n. I.D. (ft. & in		8' - 6" ngth (overall) (ft. & in.)
7.	Seams:		Spot		H.T. Temp.		ie (hr)	Gir	Type 1 th,(Welded,	Spot R.T. (Spot	.70 1 Eff.(%) No. of
8.	Heads: (a) Mati.			16-70N o., Grade)		(b) Ma	atl	Dbi.,5	Singl.,Lap,Butt)	or Full) SA-516-70N (Spec. No., Grade)	Courses
	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio		nical Angle	Hemispheri Radius	ical Flat	Side to Pressure (Convex or Concave)
(a)		0.6875"	0.0625"	-	- naulus	SE 2:1		Arigie	Fidulus	Diameter	Concave
(b)	Bottom	0.6875"	0.0625"	-	-	SE 2:1		-	-	-	Concave
	If removable, bolts	s used (descr					(Mat'	'I Snec	- No., Gr., Size,	No.1	
9.	MAWP	400 (internal)		(external)	psi at i	max. temp	114161	2	50		- °F.
	Min. design metal				Psi. H						20 psi.
10.	Nozzles, inspection	on and safety	valve openings			\$					
(la	Purpose nlet, Outlet, Drain)	No.	Diam. or Size	Туре	Mat	tl.	Nom. Thk.		forcement Mati.	How Attached	Location
				SEE	ATTAC	CHED	U4	 	ORM		
					/	71.22			01111		
								<u> </u>			
1.	Supports: Skirt	No (Yes or no)	Lugs <u>3</u>	Legs	Oth	her	(Describe)	^	ttached _	Shell	& Welded
2.	Remarks: Manufact	turer's Partia	Il Data Reports	properly identi	ified and sig	ned by Co	mmissione	ed Insp	ectors have	e been furnished	for the following
	items of the reports	: <u>-</u>			(Name of part,	item number,	Mfor's, nam	e and ide	entifyina stamp	n)	<u> </u>
-			pe: Oil Separ	rator (Constructi	ion Drawi				<i>"</i>	
-	Volume: 120 Cu	ıbic Feet	Impact 7	Testing: No,	per UG-2	<u>20(f)</u>					
Г				CERTIFICAT	TE OF SHO	P/FIELD C	OMPLIAN	CE			
	e certify that the st nform to the ASN										nship of this vessel 3.658
	pires <u>Novemb</u>	oer 26, 2008		00.07	,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	••••				3,000
Da	ite <u>23iloook</u>	<u>></u> Co.	. name	Toror	mont Process			:	Signed	10 J. Rei	presentative)
				CERTIFIC	CATE OF SH		INSPECT	TION		1110	resentative,
	essel constructed by			promont Process				at .		ary, Alberta, Ca	
I, t	the undersigned, ho Alberta	lding a valid	commission iss	•	ational Board employed by			ure Ves	ssel Inspect	tors and/or the	State or Province of
ha	ve inspected the co	omponent de	scribed in this N			· —			23/	100	and state that,
	the best of my kno										
	vision 1. By signin essure vessel descr									· ·	concerning the ble in any manner for
an	y personal injury or	r property dan	mage or a loss o			r connecte	d with this	s inspe	-		
Da	te 6/ //	Sign	ned	(Authorized Ins	spector)	 C	ommission	is A	[Nat'l Roard	(incl. endorsements)	State Prov. and No I

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



1. Manufact	tured and certified by	Torc	mont Proces	s Systems , 1012	1 Barlow Trail NE, Calgary, Alberta, Can	ada, T3J 3C	6						
2. Manufactured for		(Name and address of manufacturer) Toromont Process Systems, 10121 Barlow Trail NE, Calgary, Alberta, Canada, T3J 3C6 (Name and address of purchaser)											
3. Location	of Installation	•	(Name and address of purchaser) Stock										
4. Type:	Vertical (Horiz., vert., or sphere)		- -	(Tank,	Oil Separator 8041740 (Tank, separator, heat exh., etc.) (Mfg's. serial No								
	R9944.213			3-CS-002 Rev0 (N			2006 (Year built)						
Remarks													
Data Report	Purpose (Inlet,	No	Diam. or Size	Туре	Matl.	Nom. Thk	Reinforcement	How Attached	Location				
10 M1	Manway	1	14" x 18"	Elliptical	SA-106-C	1.00"	_	UW16.1(c)	Head				
10 N1	Inlet	1	8"	CL 300 RFSO	SA-105N / SA-234-WPB / SA-106-B	0.593"	-	UW16.1(c)	Shell				
10 N2	Outlet	1	8"	CL 300 RFSO	SA-105N / SA-106-B	0.593"	_	UW16.1(c)	Shell				
10 N3	Oil Outlet	1	3"	CL 300 RFWN	SA-105N / SA-234-WPB / SA-106-B	0.300"	-	UW16.1(c)	Head				
10 N4	PSV	1	3"	CL 300 RFWN	SA-105N / SA-234-WPB / SA-106-B	0.437"	-	UW16.1(c)	Shell				
10 C1	Drain	1	1"	Cplg	SA-105N	CL6000	-	UW16.1(c)	Head				
10 C2A	LG	1	3/4"	Cplg	SA-105N	CL6000	-	UW16.1(c)	Shell				
10 C2B	LG	1	3/4"	Cplg	SA-105N	CL6000	-	UW16.1(c)	Head				
10 C3	Oil Fill	1	1"	Cplg	SA-105N	CL6000	-	UW16.1(c)	Shell				
10 C4	LSLL	1	1 1/2"	Cplg	SA-105N	CL6000	-	UW16.1(c)	Shell				
10 C5	Oil Return	1	3/4"	Cplg	SA-105N	CL6000	-	UW16.1(c)	Shell				
10 C6	TE	1	3/4"	Cplg	SA-105N	CL6000	_	UW16.1(c)	Shell				
10 C7	LSHH (Opt)	1	1 1/2"	Cplg	SA-105N	CL6000	-	UW16.1(c)	Shell				
10 C8	Oil Pump Return	1	1 1/2"	Cplg	SA-105N	CL6000	-	UW16.1(c)	Shell				
10 C9	PI/PDI (Opt.)	1	3/4"	Cplg	SA-105N CL6000			UW16.1(c)	Shell				
10 C10	TI (Opt.)	1	3/4"	Cplg	SA-105N	CL6000		UW16.1(c)	Shell				
10 C11	PDI (Opt.)	1	3/4"	Cplg	SA-105N	CL6000		UW16.1(c)	Shell				
				-			<u> </u>		-				
									 				
		-							-				
		-	-						ļ <u>.</u>				
		-											

									-				
													
	·	\vdash							-				
						<u> </u>							
Certificate of A	uthorization: Type		"Џ"	No	33,658 Expires Nov	ember 26,	2008	<u> </u>	<u> </u>				
Date 23A	OUCL Name			Toromont Pro		gned	-tou)					
<u> </u>			<u> </u>	(Manufactur	er)		(Representat	ive)					
Date	14/23		Name	Authorities (Authorities)	Commission		t'l Board (incl. endorsem	ents), State, Prov. a	ınd No.)				