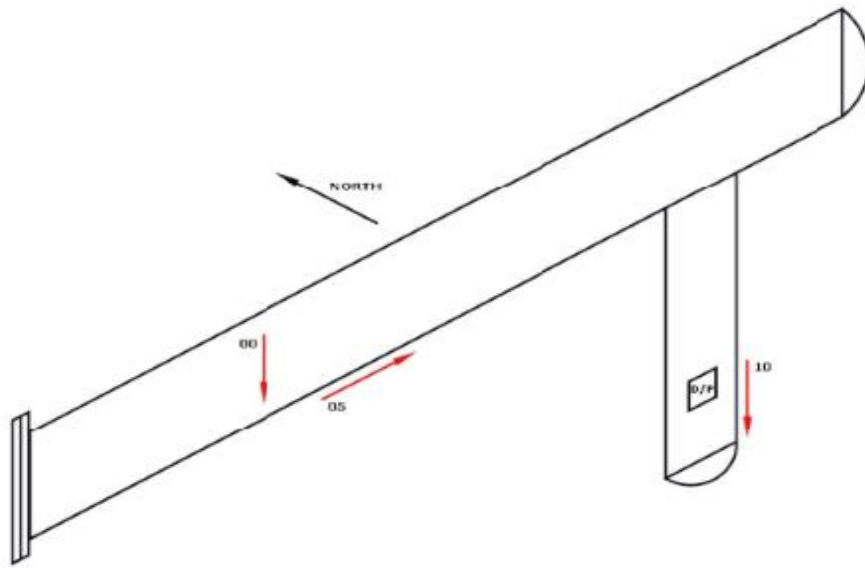




Location Name:	RAVEN CREEK	ISD:	02-20-050-18 W5M
Jur #:	A0636971	Equipment/Tag No.	287426
Equipment Description:	LUBE OIL CYCLONE SCRUBBER		
Manufacturer:	MOSS FABRICATION LTD.		
Serial Number:	4761-1	CRN:	W4426.2
Shell MAWP:	9928	KPA Shell Design Temp:	54 °C
Tube MAWP:		0 Tube Design Temp:	0
Shell Material:	SA-333-6	Head Material:	SA-516-70N
Shell Thickness:	17.48	mm Head Thickness:	9.60 mm
Corrosion Allowance:	1.588	mm Date Built:	2014
Size:	323.85	mm Pipe / Rolled Plate:	PIPE
RT:	1	Streamline Report #:	STL-190060-DMS 48

NOTES: INSULATED VESSEL - LIMITED ACCESS. NO PREVIOUS REPORT. SAP 66229945.







Ultrasonic Corrosion Survey

*All values are in millimeters unless otherwise stated.

Survey Name: **Husky Energy**

Date: **Jan 31, 2019**

Streamline Report #: **STL-190060-DMS 48**

Inspector: **Colin Davies**

ISD: 02-20-050-18 W5M	Area: RAVEN CREEK	Location: FIELD
Jur #: A0636971	Tag Number: 287426	Vessel Name: LUBE OIL CYCLONE SCRUBBER
CRN: W4426.2	Year Built: 2014	Serial Number: 4761-1
RT: 1	Vessel CA: 1.588 mm	Manufacturer: MOSS FABRICATION LTD.
	Shell MAWP: 9928 KPA	Tube MAWP: 0
	MAWT: 54 °C	MAWT: 0
		Pipe/Plate PIPE

CML Description	Baseline	Flange ANSE:	Material: SA-333-6
00 SHELL	2019	CA	T Min STCR mm/yr LICR mm/yr
Shape: Cylindrical	Min 16.74	Flag 15.887	Nominal 17.475
OD: 323.85	Avg 16.89		STCR mm/yr 0.000
Spec: ASME VIII Div.1	Comments:		Retirement Date:

CML Description	Baseline	Flange ANSE:	Material: SA-333-6
05 SHELL	2019	CA	T Min STCR mm/yr LICR mm/yr
Shape: Cylindrical	Min 17.37	Flag 15.887	Nominal 17.475
OD: 323.85	Avg 17.58		STCR mm/yr 0.000
Spec: ASME VIII Div.1	Comments:		Retirement Date:

CML Description	Baseline	Flange ANSE:	Material: SA-516-70N
10 HEAD	2019	CA	T Min STCR mm/yr LICR mm/yr
Shape: Boot	Min 10.82	Flag 8.401	Nominal 9.601
OD: 323.85	Avg 11.46		STCR mm/yr 0.000
Spec: ASME VIII Div.1	Comments:		Retirement Date:

t?R.i~tl~i~,Ma~iUF,~CTtJF~R'~t}AT,ARE~O~`t`~'flR~RESSiJE2 1/E3~.5~~t4 /~4~2.#
{,4ltern~ttve FBrrn for S[ngta Cham6~sr, Completely Shawp or F~ald ~abr~cate Vessels C?n ~~~~
As Rey,ufred by #~e Provislans of the ASM~ Bolterend Pre~s~ur~ Ct~c~ Ve~s~l~ides ,BecYlon VIII,Dtv~ton 4

:. ~~utaaiffia mv~ ~+Ioss Fabstte#~c~Lfd,,684988'~Avenue5.~.Cal~e+y,ABCaraadeT2C2S4

z. x+ weafor Flus Itl-70T814va8iN AB T2P 4HS
3, t.acaikm~ (wameetaIattdroaofmad ~.Si302~2tP*~tl~SQ~'[\$1~ff6bl

a. t' tiarizatta! 4761-1 W4d28.2 Ei4781-9 Revt n!a 2D14
f~+~M i ii8'~ tt~ (CALT) fEtrawkt:} (tl,Bsi.Na.) {Ye~ku~ty
s. Thach~nica~arnf ofa~p meeithe tegtadremste of ma'tertal of t~ASME0IIEtd,4Nt7 PRESSURE VESS~t CCYC?E.
Thed~#gn. ,aauwrostur~a~ship cunfi~m to A9~AE Rst~s, Ses~at~Vii, ~ivfision 7 2010
Year

w 2D11 M8 rdd
0~(q~j /~ (@pia) /~ p~--/ CodeCay~r~yt~om~t. 3 y. { SPed~ D~----p4~3
s. t4t)8+: 41)~AVN~ii V.DVi/ V~VVIVH 1~--1~}~ -i~'~y
T. seems: Seamless Ma 3~°ib Na Na Ty~1 SP+~t 70 2
Lam,M'Ndad,~, ~f ~F~7 ~{+6? H~ T ~ ~e~i~3 MEN,~.. RT.(8p~,aButi) Eef.{\$} Na
8n~t,Lept 8~ ~ ~ .L~ti S~At7 8~..L~ti S~At7 8~..L~ti S~At7 Na
euroroe

e. ttsedxta) r~u. 3AS48 74th {>}tit. SA420YYPL8
{sue too.,c~aae} tree. War. C~4ai

~ {TOP. I aa~ Carcelon Cra~em EN~{k~ Catiea3' i~minAh~tesi Fit ~idakrPreeaure
E[~ Ytdd~fe# AdOwangs itadfUS Ra~Rw t Radlua f33ameteF Conve#a ora
~f ~Saas~ 0.1YSO~ 0.a~a2S~° n~a eta Z~S~ n~a eta nra eonca~
tbl 8s Ft d 8.37 " 0.ifBZS" nf~ Ma Wets! Na rya Na Concave

s. r~awp 1440 Na s~mac'tom. {t~'L.Sic.NaKaI:.\$I~.NO.) 13E~ nla °F.

kAtn.deIpn I~rr.p. ~M19F °~~ 144ti p~. t~'o..tna+.r+.i.Y~testpruawa 21\$0 P~.
Proc@t~# N8
1¢. Naulea end e

~{r,Uadted,Cn'~rs fro. DisrnorSF~ TypO Noale s Carr. i{Sfstd~l N~ie ~rdic t. my
~~~ ~ a~ass C~sao~ sasa~ ~ aas2} .0aZS~ erg ~mr~e.~~ ~raez S~~  
{tuHeE 1 2°tiP8 CI6t3412FlIYN 8A333~8 ' " OA32" :0s6x6" nla WV'16.1C 1 Shed He~id  
t.+C 1 2'~NPR C REIWN \*' ' rda 0.880" A826"~ Ma UW18.1a sl 800t  
Dram f 2" NP8 C16dORFWN 8A333~6 \*' Q.343" .0636" Na t1WtB.ic al Bt4ot Head  
L.SH i 2"~1PB CtBCOR~LWAl ` . t~la 0.BStI" .G826" rd8 tAfV'i&1C 13oof  
CGi, 2 2~NP8 Gt880RFV11N 8313388 \*' Cl.S4\$ .OSZ6" Na t1i~'18,'le T 9 Boot  
PU~ryP~StThr~e 1 2~p N~PS C/~I~Oii~YYN aSA~S8+3y~.6~ " ' 0/~.~349" .082~y6" tdra ~t1~v~l~t16a1c 1 S[~]t1a.W  
EX~s ~ i /E~ Y~itIR/~ ~wi~+TV i i i.i.V'Np s~.i~ ~i{1~ Lri {9w~ir ~ ~TW~C  
8ar~# ! 8 " Pt 8A333~8 Na OA32" .0828" " ' UW18.4c nta 8he~

at. 6s~ppartxsk6z tm O Lee Q ter p ~uacnsa tta  
tYesoel~m {Na.} tNa} tom} (v49mre end ham)

12. R'1C8:~ilacfirr~`~P8r~8l pats 32eports Ph+ (tfentflletla~u!~n~t r+CcoatmiaB~itNi~i 1tatre6~ttsunil9h9dffrlt1s8 fi~av~ln~i#em~  
tt~report Nti

if68tk9t,"\$A35#~t.l=2Ct4.`\*`S1k333\$

~Nec~tily6~atifie madefn thds~+rarterecur~tseat s~ ~deei9n, Cvn95~+n~; workrrsattshpt~ ves6~ra~tllzumtII AST~E909LER  
Ai~ClP1~ssur~EVESSEt cols,sect~nv~,c?it~tatont. 'U'cafu~ata catAutfi htaum6er 33,250 ems 129 <20 14  
~~~

