

			LSD: 03-06	6-049-18W5		Date: 20)13-04-04 SAP	Equipment ID	66129837	
						ATIC DATA		11. 1.		
lant:	MIN	IEHEAD		OP Un	it:			System:		
rov. Insp . #	: 056:	1919		CRN:		T6804.2		Equip Tag#:	66	3129837
quipment D	escription:	FLARE	KNOCKOUT					Serial #:	06	5-2653-0001
1anufacture		amid Corporat	tion					Vessel Class	: ve	ssel
nternal Acce	ss: Yes			Descri	ption:			Year Built:	2	006
1AWP:	103	3	kpa	At Ten	np	38	С	мрмт:		-20 C
ode:				RT:	RT2			PWHT:	Ne)
iameter:	914 mm	n Length	1: 3048 m	nm (T/T):	mm	OAL:	mm	Orientation:	He	orizontal
SH	ELL N	Mat'l: Unk	nown	Thickn	ess:	0	mm	Corr Allowa	nce:	3 mm
HE	AD N	Mat'l: Unk	nown	Thickn	ess:	0	mm	Corr Allowa	nce:	3 mm
	Nozzle M			Thickn				Corr Allowa		
	NI-				al Clad:	No		Capacity:		m3
nternal Coat	ing: No				ction Port:	Yes		Skirt	Legs	Saddle X
lanway: ozzle Rating			lb ANSI	Painte		Yes		Insulated:	No	Jaudie A
Ruding	,.		/ 11102	1. ae	PROCESS			2Juluccui		
roduction D	escription:			Sweet		Sour:				
perating Pro			kpa		ting Temp:	554.1	C			
peruning : i			140		<u> </u>	CDATA				
					SV STATI	Capacity			1	1
Tag #	Coriol No	Location	Size(n	nm)	Set Press	Imperial	Manufacturer	Model	Last	Service
Tag #	Serial No.	erial No. Location	Inlet	Outlet	(kPa)	(SCFM)			Service	Company
NO PSV	ATM VESSEL		0.00	0.00	0					
					RECOM	MENDATIO	ONS			
			!	NONCON	FORMANC	ES/INSPE	CTION DEFICIEN	ICES		
					INSPECT	ION PLAN	NING			
	ategy			Availab	ility		Ir	spection Interval		
Inspection Str		2013/04/04	4	— Data of	Last Inspect			ata of Novt Inch		
Inspection Str	to.	2010/04/04	r		Last Inspect			ate of Next Insp		
	te					ERTIFICA	TION			
	te				REPORT C					
nspection Da	eS below certify			peen complete	ed in accordan		entified inspection strate	egy and that the		
Inspection Da The Signatur specified equ	eS below certify ipment is consid		service until the o	oeen complete date of next in	ed in accordan		entified inspection strate		Date 2013/0	4/04
The Signatur specified equ	eS below certify ipment is consid			oeen complete date of next in	ed in accordan			000566		4/04
The Signatur specified equ Inspected by	eS below certify ipment is consider of the consideration of the	dered fit for s	service until the o	oeen complete date of next in	ed in accordan		entified inspection strate	000566	Date <u>2013/0</u>	4/04
The Signatur specified equ Inspected by	eS below certify ipment is consid	dered fit for s	service until the o	oeen complete date of next in	ed in accordan		entified inspection strate	000566		4/04



Husky Energy PRESSURE VESSEL & COLUMN INSPECTION REPORT SAP Equipment ID

LSD: 03-06-049-18W5 Date: 2013-04-04 SAP Equipment ID 66129837

DETAILED INSPECTION VISUAL EXTERNAL

			•		
ID	Description	Condition	Location	NCR	Comments
V1	General Other (Please Explain)	Accept			FLARE KNOCK OUT
V2	General Corrosion	Accept			VESSEL MOSTLY INSULATED, PORTION NON-INSULATED HAS NO CORROSION
V3	General Leaks	Accept			NO LEAKS/WEEPS
V4	Vibration	N/A			
V5	Dissimilar Flange Rating	N/A			
V6	Ladder/Stairway	N/A			
V7	Heads	N/A			INSULATED OVER
V8	Guy Wires	N/A			
V9	Electrical Ground	N/A			
V10	Painted Inactive Corrosion	N/A			
V11	Coating/Painting	Accept			NO DAMAGE WHERE PAINT IS VISIBLE
V12	Expansion Joint or Bellows	N/A			
V13	Gauge/Site Glass	Accept			GOOD WORKING ORDER
V14	Shell	Accept			NO DAMAGE
V15	Jacket	Accept			GOOD CONDITION
V21	Support Other (Please explain)	N/A			
V22	Foundation	N/A			
V23	Anchor Bolts	Accept			SECURE VESSEL TO SKID
V24	Saddle/Skirt	Accept			NO DAMAGE
V25	Davit	Accept			GOOD CONDITION, NO DAMAGE
V26	Fireproofing	N/A			
V31	Connections Other (Please explain)	Accept			THREADED CONNECTIONS
V32	Small Branches	Accept			THREADED CONNECTIONS
V33	Nozzles	Accept			FLANGED CONNCTIONS, FULLY ENGAGED, NO DAMAGE
V34	Manways	Accept			NO DAMAGE, CHECK SEAL
V35	Reinforcing Pads	N/A			
V36	Inadequate Thread Engagement	N/A			
V37	Bolting	Accept			NO SHORT BOLTING
V38	Flanges	Accept			NO DAMAGE
V39	Leak Clamps	N/A			
V41	Insulation Other (Please explain)	Concern			VERY SLIGHT BIT OF MOISTURE ON INSULATION WHEN HEADS EXPOSED AND BOTTOM OF VESSEL AT MANWAY HAS FROZEN INSULATION
V42	Damage	Concern			MANWAY NOT PROPERLY SEALED
V43	Penetrations	Accept			LIFTING LUGS
V44	Insulation Jacket	Accept			NO DAMAGE
V45	Banding	Accept			NO DAMAGE
V46	Seals/Joints	Concern			CHECK MANWAY SEAL/INSULATION ALLOWING MOISTURE IN
V51	Relief Devices Other (Please explain)	N/A			NO PSV, ATM VESSEL
V52	Corrosion	N/A			
V53	Leaks	N/A			
		1	<u> </u>		



<u></u>	usky Energy PR	ESSURE	VESSEL	& COLUMN	INSI	PECTION REPORT		
	LS	D: 03-06-	049-18W5	Date: 2	013-04-0	4 SAP Equipment ID	66129837	
V54	Restricted Inlet/Outlet	N/A						
V55	Manual Operation Lever	N/A						

DETAILED INSPECTION OTHER TECHNIQUES

ID	Location	Observation/Measurement	Acceptance Criteria	NCR	Comments

DETAILED INSPECTION UT THICKNESS

CML	Nom. Thickness	CURRENT READINGS	short term corr rate	long term corr rate	remaining half life	Survey Date	Comments
05 (Head)	7.94	9.42	0.0000	0.0000	99.0	2013/04/04	
10 (Shell)	9.53	9.58	0.0000	0.0000	99.0	2013/04/04	
15 (Shell)	9.53	9.58	0.0000	0.0000	99.0	2013/04/04	
20 (Head)	7.94	9.22	0.0000	0.0000	99.0	2013/04/04	
25 (90L 2 80)	5.54	5.23	0.0016	0.0016	63.4	2013/04/04	
30 (90L 3 80)	7.62	7.47	0.0008	0.0008	180.9	2013/04/04	



TOTAL INTEGRITY MANAGEMENT SOLUTIONS











OWNER: HUSKY	SERIAL # 06-2653-0001	NOTE
EQUIPMENT NAME: FLARE KNOCK OUT	NB#	
REGISTRATION # 0561919	OWNER ID	

EQUIPMENT # 66129837



TOTAL INTEGRITY MANAGEMENT SOLUTIONS





NAMEPLATE OVERALL



OVERALL

OWNER: HUSKY	SERIAL # 06-2653-0001	NOTES
EQUIPMENT NAME: FLARE KNOCK OUT	NB#	
REGISTRATION # 0561919	OWNER ID	
EQUIPMENT # 66129837	ONCOR ID	