

NB#: N/S CRN: A4059.32 Equip Tag#: 62045567				LSD: 06	-25-046	-03W4		Date: 2	015-01-20	SAP Equ	ipment ID	62045567		
No.						VE	SSEL S	TATIC DAT	4					
	Plant:		Rivercourse					OP Unit:			System:			
Note	Prov. Insp . #	:		NB	#: N/S	S		CRN:	A4059.32		Equip Tag#:	620	045567	
	Equipment De	scription	: SEPAR	ATOR							Serial #:	019	96406	
May 1793	Manufacturer	:	WATERFLOOD								Vessel Class	: ves	sel	
RT: None PWHT: No No None PWHT: PWHT: None PWHT: P	Internal Acce	ss:	No			Descrip	tion:				Year Built:	20	01	
### PRO Cerebure ### 199 mm	MAWP:		1793	kpa		At Tem	р	93	С		MDMT:		-29 C	
SHELL Mat*1: Unknown SA 106B Thickness: 0.00 12.7 mm	Code:		N/S			RT:	Nor	ne			PWHT:	No		
HEAD	Diameter: 2	19	mm Lengt i	1: 1143	mm	(T/T):	mm	n OAL:	mm		Orientation:	Ver	tical	
Nozzle Mat'l: Thickness: Corr Allowance:	SHI	ELL				Thickne	ess:	0.00	12.7 mm		Corr Allowa	nce:	9.00 1.6 mm	
Internal Coating Internal Clad: Capacity Internal Clad: Capacity Internal Clad: Skirt X Legs Saddle	HE	AD	Mat'l: Unk	_{nown} SA 23	4WPB	Thickne	ess:	0.00	12.7 _{mm}		Corr Allowa	ice:	9.00 1.6 mm	
No Inspection Port: Yes Skirt X Legs Saddle		Nozzle	Mat'l:			Thickne	ess:				Corr Allowa	ıce:		
Parity P	Internal Coat	ing:				Interna	l Clad:				Capacity:		m3	
PROCESS DATA Sweet Sour: PROCESS DATA Sweet Sour: PROCESS DATA PROCESS DATA PROCESS DATA PROCESS DATA Sweet Sour: PROCESS DATA	Manway: No				Inspection Port: Yes				Skirt X	Legs	Saddle			
Moduction Description: Sweet Sour: derating Pressure kpa Operating Temp: C Status: Shut-In Tag # Serial No. Location Inlet Outlet Capacity Imperial (SCFM) Manufacturer Model Last Service Company 3237 82344-35 Piping 25.40 25.40 414 262 Taylor Valve T-8200-1 2010/06/08 GC VALVE PSV DETAILS PRD Inlet Threaded N/A Size(In/mm) PRD Outlet Threaded N/A 25.40 NDE Equipment Records NDE Equipment Records Procedure # Description Manufacturer Model# Serial# Due Date	Nozzle Rating	j:	150	lb ANSI		Painted: Yes				Insulated:	No			
Note							PROCES	SS DATA						
Tag # Serial No. Location Inlet Outlet Outlet Serial No. Serial No. Type(Thread/Flange) Size Serial No. Type(Thread/Flange) Size Serial No. S	Production De	escription				Sweet		Sour:						
Tag # Location Set Press (kPa) Capacity Imperial (SCFM) Manufacturer Model Last Service Company 3237 82344-35 Piping 25.40 25.40 414 262 Taylor Valve T-8200-1 2010/06/08 GC VALVE PRD Inlet Type(Thread/Flange) ANSI Rating Size(In/mm) PRD Outlet Threaded N/A Size(In/mm) PRD Outlet Threaded NDE Equipment Records Proceure # Describion Manufacturer Model# Serial# Due Date	Operating Pre	ssure		kpa		Operating Temp: C St				Status: Shut-In				
Tag # Serial No. Location Inlet Outlet (kPa) (Imperial (SCFM)) Manufacturer Model (SCFM) Manufacturer Model (SCFM) M						PS	SV STAT	IC DATA						
Tag # Serial No. Location Inlet Outlet (kPa) Imperial (SCFM) Imperial (SCFM) Fidel (SCFM) Service Company 3237 82344-35 Piping 25.40 25.40 414 262 Taylor Valve T-8200-1 2010/06/08 GC VALVE PRD Inlet Type(Thread/Flange) ANSI Rating Size(In/mm) PRD Outlet Threaded N/A 25.40 PRD Outlet Threaded N/A 25.40 Procedure # Description Manufacturer Model# Serial# Due Date				Size	e(mm)		Set Press		Manufacture	er		Last	Service	
PSV DETAILS Type(Thread/Flange) ANSI Rating Size(In/mm) PRD Inlet Threaded N/A 25.40 PRD Outlet Threaded N/A 25.40 NDE Equipment Records Procedure # Description Manufacturer Model # Serial # Due Date	Tag #	Serial N	o. Location			utlet		Imperiai			Model	1		
Type(Thread/Flange) ANSI Rating Size(In/mm) PRD Inlet Threaded N/A 25.40 PRD Outlet Threaded N/A 25.40 NDE Equipment Records Procedure # Description Manufacturer Model# Serial# Due Date	3237	82344-	35 Piping	25.40	25	5.40	414	262	Taylor Valve		T-8200-1	2010/06/08	GC VALVE	
PRD Inlet Threaded N/A 25.40 PRD Outlet Threaded N/A 25.40 NDE Equipment Records Procedure # Description Manufacturer Model# Serial# Due Date							PSV DE	TAILS						
PRD Outlet Threaded N/A 25.40 NDE Equipment Records Procedure # Description Manufacturer Model# Serial# Due Date			Type(T	nread/Flang	e)		A	NSI Rating			Siz	e(In/mm)		
NDE Equipment Records Procedure # Description Manufacturer Model# Serial# Due Date	PRD Inle	et	Thread	ed				N/A			25.40			
Procedure # Description Manufacturer Model# Serial# Due Date	PRD Outlet Threaded					N/A				25.40				
					N	NDE E	uipmer	nt Records						
**** See Associated NDE Report	Proced	lure #	Descri	ption	М	anufact	urer	Мо	Model#			Serial# Due Date		
and the same of th	**** See A	ssociated	NDE Report					•				•		

INSPECTION SUMMARY

VESSEL IS FIT FOR SERVICE. CML 45 SHOWS SIGNIFICANT WALL LOSS AND IS BELOW NOM-MIL TOLERANCE.

RECOMMENDATIONS

RECOMMEND TO SERVICE PSV BEFORE PUTTING VESSEL BACK INTO SERVICE. I RECOMMEND THAT THE PIPING BE RETESTED WITH UT IN 1 YR TO DETERMINE CORROSION RATE AND LIFE REMAINING.

NONCONFORMANCES/INSPECTION DEFICIENCES

- PSV SERVICE IS PAST DUE.
- PSV SERVICE SEAL IS BROKEN.

WQS to return in 2016 to determine corrosion rate and remaining life. Service PSV prior to re-commissioning the vessel.

PSV has been serviced October 27, 2015. See Powell Service report in DM under Equipment Number 62045571



Assessed Next Inspection Date

2020

PRESSURE VESSEL & COLUMN INSPECTION REPORT

		INSPECTIO	N PLANNING					
Inspection Strategy		Availability		Ins	spection Interval	_	5 year	
Inspection Date	2015/01/20	Date of Last Inspect		Da	te of Next Insp	_	2020	
		REPORT CER	RTIFICATION					
The SignatureS below certify specified equipment is considered.	•	e been completed in accordance version between completed in accordance version.	vith the identified inspec	ction strate	gy and that the			
Inspected by	Justin Oricl	nowski		Cert #	758	Date	2015/01/20	
Reviewed and Approved by						Date		
Criticality Assessment Rerun		Inspection Plan	ning Rerun					



DETAILED INSPECTION VISUAL EXTERNAL

ID	Description	Condition	Location	NCR	Comments
V1	General Other (Please Explain)	Accept		No	GOOD CONDITION.
V2	General Corrosion	Accept		No	NO CORROSION OBSERVED.
V3	General Leaks	N/A		No	NOT IN SERVICE.
V4	Vibration	N/A		No	NOT IN SERVICE.
V5	Dissimilar Flange Rating	Accept		No	
V6	Ladder/Stairway	N/A		No	
V7	Heads	Accept		No	GOOD CONDITION.
V8	Guy Wires	N/A		No	
V9	Electrical Ground	N/A		No	
V10	Painted Inactive Corrosion	N/A		No	
V11	Coating/Painting	Accept		No	PAINT IN GOOD CONDITION.
V12	Expansion Joint or Bellows	N/A		No	
V13	Gauge/Site Glass	Accept		No	GOOD CONDITION.
V14	Shell	Accept		No	SHELL IN GOOD CONDITION.
V15	Jacket	N/A		No	
V21	Support Other (Please explain)	Accept		No	PIPING IS WELL SUPPORTED.
V22	Foundation	Accept		No	
V23	Anchor Bolts	N/A		No	WELDED TO FOUNDATION.
V24	Saddle/Skirt	Accept		No	SKIRT IN GOOD CONDITION.
V25	Davit	N/A		No	
V26	Fireproofing	N/A		No	
V31	Connections Other (Please explain)	Accept		No	PIPING CONNECTIONS IN GOOD CONDITION.
V32	Small Branches	Accept		No	
V33	Nozzles	Accept		No	
V34	Manways	N/A		No	
V35	Reinforcing Pads	N/A		No	
V36	Inadequate Thread Engagement	Accept		No	ADEQUATE THREAD ENGAGEMENT OBSERVED.
V37	Bolting	Accept		No	
V38	Flanges	Accept		No	
V39	Leak Clamps	N/A		No	
V41	Insulation Other (Please explain)	N/A		No	
V42	Damage	N/A		No	
V43	Penetrations	N/A		No	
V44	Insulation Jacket	N/A		No	
V45	Banding	N/A		No	
V46	Seals/Joints	N/A		No	
V51	Relief Devices Other (Please explain)	Concern		No	SERVICED 06/2010 - PSV SERVICE IS PAST DUE, PSV SERVICE SEAL IS BROKEN.
V52	Corrosion	Accept		No	
V53	Leaks	N/A		No	NOT IN SERVICE.



		LSD:	06-25-04	5-03W4	Date: 20	15-01-20	SAP Equipment ID	62045567	
ſ	V55	Manual Operation Lever	N/A			No			•

DETAILED INSPECTION OTHER TECHNIQUES

ID	Location	Observation/Measurement	Acceptance Criteria	NCR	Comments

DETAILED INSPECTION UT THICKNESS

	CML	Nom. Thickness (mm)	CURRENT READINGS (mm)	short term corr rate (mm/y)	long term corr rate (mm/y)	remaining life (year)	Survey Date	Comments
10	(SHELL) 12.7 mm	0.00	12.34	0.0000	0.0000	198.0	2015/01/20	NO COMMENTS within C/A
15	(SHELL) 12.7 mm	0.00	12.60	0.0000	0.0000	198.0	2015/01/20	NO COMMENTS within C/A
20	(SHELL) 12.7 mm	0.00	12.90	0.0000	0.0000	198.0	2015/01/20	NO COMMENTS
25	(HEAD) 12.7 mm	0.00	10.57	0.0000	0.0000	198.0	2015/01/20	NO COMMENTS
05	(BAND 2 XS)	5.54	5.26	0.0197	0.0197	246.7	2015/01/20	NO COMMENTS
30	(90L 1 STD)	3.40	3.25	0.0108	0.0108	286.9	2015/01/20	NO COMMENTS
35	(BAND 2 XS)	5.54	4.93	0.0430	0.0430	105.4	2015/01/20	NO COMMENTS
40	(90L 2 80)	5.54	5.00	0.0377	0.0377	122.5	2015/01/20	NO COMMENTS
45	(90L 2 80)	5.54	4.17	0.0968	0.0968	39.0	2015/01/20	LOW RDG IS BETWEEN NOM-CA AND Tmin

Inspected By	Signature	CGSB Level	CGSB No.	Survey Date	UT Equip	Due Date OF Calibration	NDE Procedure No.
Justin Orichowski	10-E	1	16325	01/20/2015	104_91638503_EPOCH4	06/17/2015	WQS UT-001





Client:

HUSKY ENERGY

EXAMINATION ILLUSTRATION

DISTRICT:	AB- SOUTH	LOCATION/LSD:	06-25-046-03W4		
EQUIP NAME:	SEPARATOR		PROV REG No.:		
SERIAL No.:	0196406	Equip No.:	62045567	National Board No.:	







notes:		



Client:

HUSKY ENERGY

PHOTOGRAPHS

EQUIP NAME:	SEPARATOR		PROV REG No.:		
SERIAL No.:	0196406	Equip No.:	62045567	National Board No.:	



NAMEPLATE



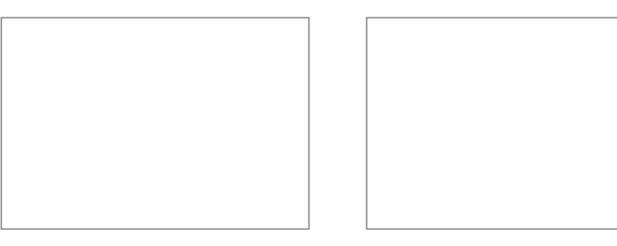
OVERALL



PSV



PSV TAG



NOTES: