

AIR COOLED HEAT EXCHANGER INSPECTION REPORT

LSD: 06-25-046-03W4 **Date:** 2015-01-20 **SAP Equipment ID** 62045575

AIR COOLED HEAT EXCHANGER STATIC DATA

Plant:	Rivercourse	OP Unit:		System:	
Prov. Insp . #:		NB#:	2244	CRN:	M-5200-23
Equipment Description:	HEAT EXCHANGER				Equip Tag#: 62045575
Manufacturer:	Air Cooled Exchangers				Serial #: 01543-3
Internal Access:	No	Description:			
MAWP:	1724	kpa	At Temp	112	C
Code:	N/S	Fluid Service:	Sweet:	Sour:	PWHT: No
Dimension					Orientation: Vertical
SHELL	Mat'l: Unknown	SA 516-70	Thickness:	0.00	12.7 mm
Nozzle	Mat'l:		Thickness:		
Internal Coating:					Corr Allowance: 0.00 1.6 mm
Nozzle Rating:	300	lb ANSI	Internal Clad:		
Painted:	Yes				Capacity: m3
Insulated:	No				

PROCESS DATA

Operating Pressure	kpa	Operating Temp:	C	Status:	Shut-In
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PSV STATIC DATA

Tag #	Serial No.	Location	Size(mm)		Set Press (kPa)	Capacity Imperial (SCFM)	Manufacturer	Model	Last Service	Service Company
			Inlet	Outlet						
3415	7907-20	Piping	25.40	25.40	1379	761	Taylor Valve	T-8200-1	2010/06/01	GUEST

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
**** See Associated NDE Report					

INSPECTION SUMMARY

VESSEL IS FIT FOR SERVICE. PIPING CML SHOWS UT RDG BETWEEN NOM-MIL AND CALC Tmin HOWEVER THE WALL LOSS IS MINOR AND ACCEPTABLE AT TIME OF INSPECTION.

RECOMMENDATIONS

RECOMMEND TO SERVICE PSV BEFORE PUTTING VESSEL BACK INTO SERVICE.

NONCONFORMANCES/INSPECTION DEFICIENCIES

PSV SERVICE IS PAST DUE.

Service PSV prior to re-commissioning the cooler.



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INSPECTION PLANNING

Inspection Strategy	_____	Availability	_____	Inspection Interval	<u>5 year</u>
Inspection Date	<u>2015/01/20</u>	Date of Last Inspect	_____	Date of Next Insp	<u>2020</u>

REPORT CERTIFICATION

The SignatureS below certify that inspections/tests have been completed in accordance with the identified inspection strategy and that the specified equipment is considered fit for service until the date of next inspection.

Inspected by	<u>Justin Orichowski</u>		Cert #	<u>758</u>	Date	<u>2015/01/20</u>
Reviewed and Approved by	_____	_____			Date	_____
Criticality Assessment Rerun	_____	Inspection Planning Rerun				
Assessed Next Inspection Date	<u>2020</u>	_____				

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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	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	N/A		No	
V14	Shell	Accept		No	GOOD CONDITION.
V15	Jacket	N/A		No	
V21	Support Other (Please explain)	Accept		No	PIPING IS WELL SUPPORTED.
V22	Foundation	N/A		No	
V23	Anchor Bolts	N/A		No	
V24	Saddle/Skirt	N/A		No	
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.
V52	Corrosion	Accept		No	
V53	Leaks	N/A		No	NOT IN SERVICE.
V54	Restricted Inlet/Outlet	Accept		No	
V55	Manual Operation Lever	N/A		No	

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DETAILED INSPECTION OTHER TECHNIQUES

ID	Location	Observation/Measurement	Acceptance Criteria	NCR	Comments


DETAILED INSPECTION TUBE INSPECTION

Tube #	Flaw Type	Flaw Length	Location on Tube	Wall Loss	NCR	Comments

DETAILED INSPECTION UT THICKNESS

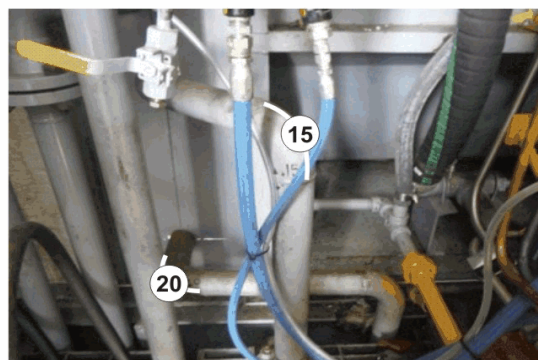
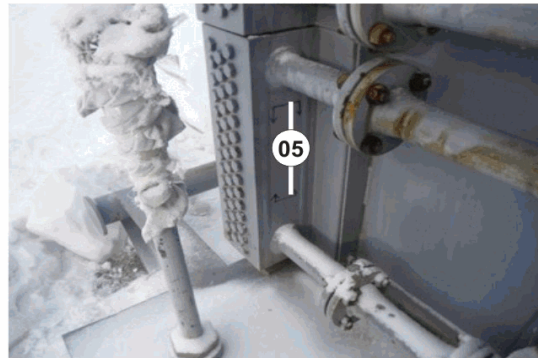
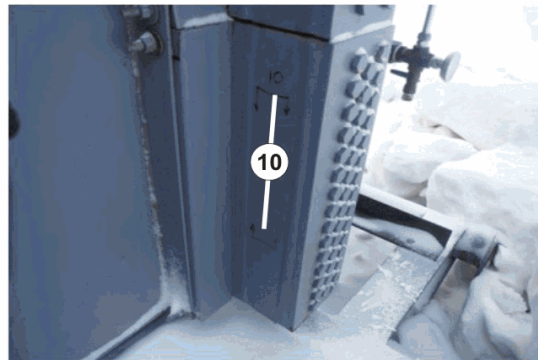
CML	Nom. Thickness (mm)	CURRENT READINGS (mm)	short term corr rate (mm/y)	long term corr rate (mm/y)	remaining life (year)	Survey Date	Comments
05 (SHELL) 12.7 mm	0.00	12.75	0.0000	0.0000	198.0	2015/01/20	NO COMMENTS
10 (SHELL) 12.7 mm	0.00	12.65	0.0000	0.0000	198.0	2015/01/20	NO COMMENTS within C/A

15 (90L 2 XS)	5.54	4.62	0.0645	0.0645	65.8	2015/01/20	LOW RDG IS BETWEEN NOM-CA AND Tmin
20 (90L 2 XS)	5.54	4.93	0.0430	0.0430	105.8	2015/01/20	NO COMMENTS

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

EXAMINATION ILLUSTRATION

DISTRICT:	AB- SOUTH	FACILITY:	RIVERCOURSE	LOCATION/LSD:	06-25-046-03W4
EQUIP NAME:	HEAT EXCHANGER			PROV REG No.:	
SERIAL No.:	01543-3	Equip No.:	62045575	National Board No.:	



NOTES:

PHOTOGRAPHS

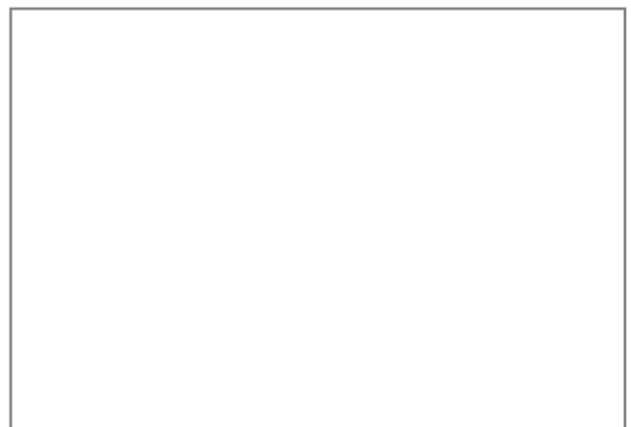
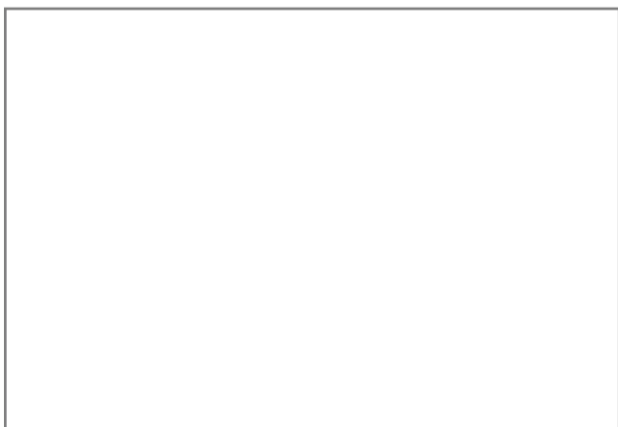
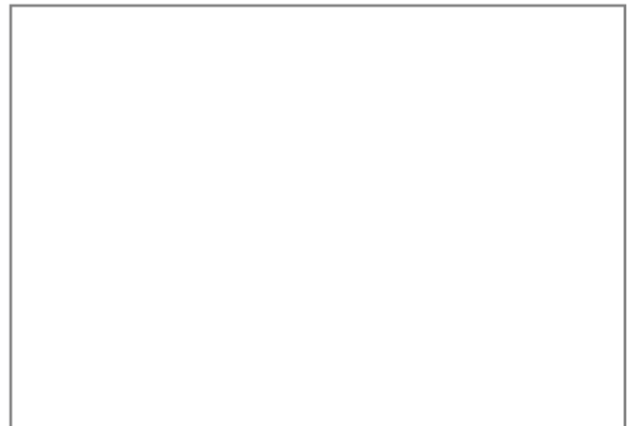
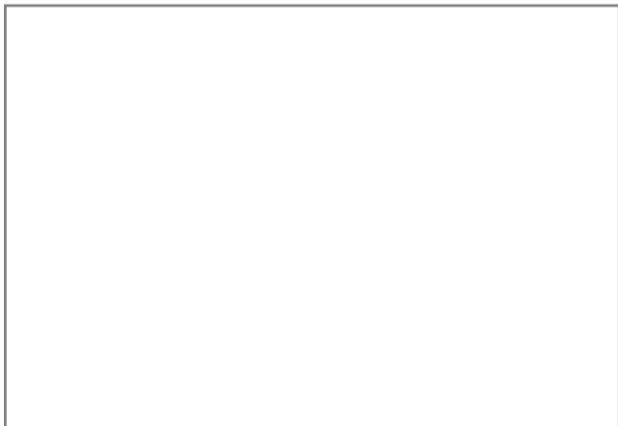
EQUIP NAME:	HEAT EXCHANGER		PROV REG No.:	
SERIAL No.:	01543-3	Equip No.:	62045575	National Board No.:



NAMEPLATE



OVERALL



NOTES: