



HEATER EXCHANGER INSPECTION REPORT

66037593

QHIREX10997

10# 6018874 C.T.

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FACILITY	Jackfish Creek CS	DATE	August 22, 2002	REPORT #	IR_020822_MKY- 13
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EXCHANGER STATIC DATA

Prov. Insp. #	N/A	CRN	N/A	Equip Tag #	
Equipment Location (LSD)	15-15-65-02 W4M "Marie Lake South" Booster			Serial #	991703.1/.2
Equipment Description	Engine Glycol Cooler			Exchanger Class	A.C.H.E.
Manufacturer	Air-X-Changer (model 93 VI)			Year Built	1999
Shell MAWP	psig	@	°F	MDMT	°F
Tube MAWP	14	psig	@ 300	MDMT	-10F @ 50psi
CODE : UM <input type="checkbox"/> U <input type="checkbox"/> U2 <input type="checkbox"/>	ASME Sect VIII, Div 1			RT : 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>	PWHT : YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
Tube Diameter	Mm/in	Tube Length	Mm/in	OAL	Mm/in
Tube Sheet	Mat'l	SA-516-70	Mm/ in	Thickness	unknown
Head	Mat'l	SA-516-70	Mm/ in	Thickness	unknown
Channel	Mat'l		Mm/ in	Thickness	
Nozzle	Mat'l		Mm/ in	Thickness	
Tube	Mat'l	unknown	Mm/ in	Thickness	unknown
Internal Coating : YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	Internal Clad : YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>			Capacity	m ³ / ft ³
Nozzle Rating	150	lb ANSI	Manway : YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	Inspection Port : YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	
Painted : YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Insulated : YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>			Skirt <input type="checkbox"/> Legs <input type="checkbox"/> Saddle <input type="checkbox"/>	

PROCESS DATA

Shell Product Description		Sweet <input type="checkbox"/> Sour <input type="checkbox"/> PPM
Tube Product Description	Glycol	Sweet <input checked="" type="checkbox"/> Sour <input type="checkbox"/> PPM
Shell Operating Pressure	psig	Operating Temperature °F
Tube Operating Pressure	Atmospheric	psig
Operating Temperature		°F

PSV STATIC DATA

Tag / Serial No	Location	Size Inlet	Size Outlet	Set Pressure	Capacity SCFM / Lbs/Hr / GPM	Manufacturer	Model / Type	Service Date
N/A								

INSPECTION HISTORY

RBI Category	A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/>	Last Inspection Date	W.O. #
Inspection Task List #		Inspection Type	Inspection Reason
Inspection Techniques Required		Next Inspection Type	Due Date
VE <input checked="" type="checkbox"/> VI <input type="checkbox"/> RT <input type="checkbox"/> UT <input type="checkbox"/> MT <input type="checkbox"/> PT <input type="checkbox"/> TT <input type="checkbox"/>	Outstanding Repairs		

INSPECTION SUMMARY

Vessel is in very good condition and is suitable for continued service.

RECOMMENDATIONS

Clean out debris from between cooling fins.

REPAIRS COMPLETED

Object Name	Cause	Damage	Repair Activity
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EXCHANGER STATUS

Integrity Status	<input checked="" type="checkbox"/> Suitable for Continued Service	<input type="checkbox"/> Immediate Repairs Required	<input type="checkbox"/> Replace
Inventory Status	<input checked="" type="checkbox"/> Inservice Fully Utilized	<input type="checkbox"/> Idle	<input type="checkbox"/> Surplus
This IR completes a thorough inspection. Reschedule as indicated		<input checked="" type="checkbox"/> Partial IR only. Do not reschedule	<input type="checkbox"/>

HEATER EXCHANGER INSPECTION REPORT

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FACILITY Jackfish Creek CS	DATE August 22, 2002	REPORT # IR_020822_MKY- 13
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INSPECTION OBSERVATIONS**NONCOMPLIANCES OR INSPECTION DEFICIENCIES ISSUED****EXTERNAL VISUAL INSPECTION**

The vessel has very good external appearance. The paint is intact and is in good condition. No visible corrosion. Cooling fins have no mechanical damage. Some build up of debris between cooling fins. No signs of leakage.


Piping is in good condition.

EXTERNAL NDE EXAMINATION**INTERNAL VISUAL INSPECTION****INTERNAL NDE EXAMINATION****PRESSURE TEST**


Test Completed <input type="checkbox"/> Yes <input type="checkbox"/> No	Test Acceptable <input type="checkbox"/> Yes <input type="checkbox"/> No	Test Report #
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INSPECTOR CERTIFICATION

I, the undersigned certify that the above equipment has been inspected in accordance with the assigned task list and that statements within this report are correct and represent inspection findings

Inspectors Name Manley Yuen	Inspector's Signature 
Inspection Company Ramtech Consulting Inc.	Date August 22, 2002

LEAD INSPECTOR'S ACCEPTANCE & SCHEDULE CONFIRMATION

Lead Inspector	Signature 	Date 08/22/02
Vessel Inspection Interval 5 years	Leave "as-is" <input type="checkbox"/>	Change to
PSV Inspection Interval 5 years	Leave "as-is" <input type="checkbox"/>	Change to

Office Use Only Report Entered to SEQA Database by
Static Data Verified by

Date
Date



AERIAL COOLER INSPECTION REPORT

(Metric)

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Rev. 8-06-08

Facility: **MARIE LAKE BOOSTER** Date: **September 3, 2008** Report #: **IR080903GENe**

Area Supervisor: **ROGER BUREAU** W.O. / C.C.#: **70975**

STATIC DATA			
Alberta Reg. #:	CRN:	National Board #:	
Equipment Number: - 66037593	Notification #: -	Classification: -	
Manufacturer: AIR-X-CHANGERS		Serial Number: 991703.1/2	
Equip. Description: EJW COOLER		Location (LSD): 15-15-065-02W4	
Equipment Tag #: -	Year Built: 1999	Company I.D.#: BC-034749 / 347500n	
Province Installed: ALBERTA	Registration #: -	Skid / Building #: -	
Nameplate Attached: YES	Legible: YES	U1A Available: NO	

MAWP: 97 Kpa	Capacity: - m ³	Radiography: NONE	Insulated: NO
MAWT: 149 °C	Efficiency: -	Stress Relief: NO	Position: VERTICAL
MDMT: -23 °C	Code Stamp: -	Ext. Coating: YES	Support: STRUCTURAL

Header Box Size:	Depth: 127 mm	Width: 178 mm	Height: 914 mm	Overall Length: 3937 mm
Tube Size:	O.D. - mm	I.D. - mm	No. of Tubes -	Test Pressure: 517 kpa

	Material	Thickness	Corrosion Allowance
Tube sheet	N/A	- mm	- mm
Plug sheet	N/A	- mm	- mm
Wrapper plates	N/A	- mm	- mm
End plates	N/A	- mm	- mm

Nozzle Description	I.D. #	NPS	Flange Rating	Type	Material	Thickness	Length
Inlet	-	76 mm	150 #	RFWN	SA-106B	5.5 mm	152 mm
Outlet	-	76 mm	150 #	RFWN	SA-106B	5.5 mm	152 mm

PROCESS DATA	
Product Description: GLYCOL / WATER MIX	Service: SWEET -
Operating Pressure: - Kpa	Operating Temperature: - °C

PSV STATIC DATA			
Tag Number: -	Manufacturer: -		
Company I.D. #: NON-CODE	Model # / Type: -		
Serial Number: -	CRN: -		
Inlet Size: - mm	Rating: - #	Set Pressure: - Kpa	Back Pressure: - Kpa
Outlet Size: - mm	Rating: - #	Capacity: -	Service Date: -
Location of PSV: -			

INSPECTION DETAILS									
Inspection Reason: CODE INSPECTION	Inspections Required: VE								
Inspection Test Plan: -	Inspection Type Used: VE								
Last Inspection Date: -	Next Inspection Type: VE								
Next Inspection Due: 2013	Outstanding Repairs: NO			RBI Category:	A	B	C	D	

VESSEL STATUS	
Integrity Status: SUITABLE FOR CONTINUED SERVICE	Inventory Status: ISF
This IR completes a thorough inspection; reschedule as indicated. YES	Partial inspection; do not reschedule. -

INSPECTION SUMMARY

An inspection to verify the equipments integrity was done by VE.
There were no rejectable defects observed at this time; the vessel can be recommended fit for service.
There are no recommendations to be made at this time.
There were no repairs performed that were related to this inspection.
No NCR's were issued at this time.
No IDR's were issued at this time.
There was no external NDE performed during this inspection.
There was no internal inspection performed at this time.
There was no internal NDE performed during this inspection.

EQ # 66037593	NO # 6078715
Copied <input checked="" type="checkbox"/>	Scanned <input checked="" type="checkbox"/>
Entered SB	HDMS Linked <input type="checkbox"/>

RECOMMENDATIONS

REPAIRS COMPLETED

Facility: **MARIE LAKE BOOSTER** Date: **September 3, 2008** Report #: **IR080903GENe**

INSPECTION OBSERVATIONS

NON COMPLIANCES ISSUED

INSPECTION DEFICIENCIES ISSUED

EXTERNAL VISUAL INSPECTION

The nameplate is hard to read.
The pressure retaining welds are in tact with no evidence of deterioration or visible cracking.
The cooler support is in good condition with no evidence of mechanical deterioration.
The cooler's ground connection is through the skid's ground rod.
The cooler fins are reasonably clean and in fair condition.
The fan was in operation at time of inspection; no visible defects were noted.
The plugs are tight and free of leaks.
The cooler is painted with no notable coating defects.
The piping and piping attachments are in fair condition with no detectable leaks.
The attached piping is painted with no notable defects.

EXTERNAL NDE

INTERNAL VISUAL INSPECTION

INTERNAL NDE

PRESSURE TESTS

Test Completed: - Test Pressure: - Kpa Test Acceptable: - Test Report #: -

INSPECTOR CERTIFICATION AND ACCEPTANCE

I, the undersigned, certify that the equipment stated above has been inspected in accordance with the assigned task list and that the statements within this report are correct and represent my inspection findings.

External Inspector's Name:	Inspector's Certification:	Inspector's Signature:	Date:
GUY NORMAND C.E.T.	API 510, 653, ABSA PESL, NACE		SEPTEMBER 3, 2008
Internal Inspector's Name:	Inspector's Certification:	Inspector's Signature:	Date:
-	-	-	-

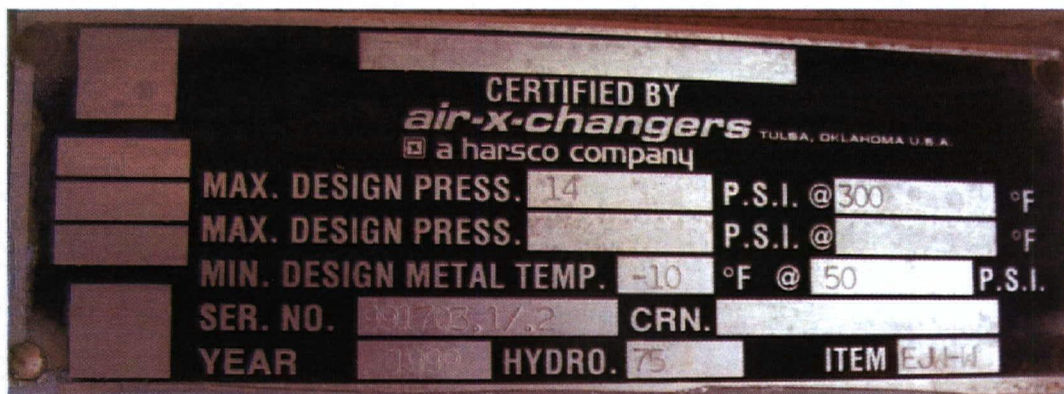
CHIEF OR LEAD INSPECTOR'S ACCEPTANCE AND SCHEDULE CONFIRMATION

Inspector's Name:		Inspector's Certification:		Inspector's Signature:		Date:	
JIM RICE						sept 24, 08	
Vessel Inspection Interval:	Leave "As Is":	Change to:	PSV Inspection Interval:	Leave "As Is":	Change to:		
3 Years						Years	

Office Use Only: Report Entered to SEQA Database by: _____ Date: _____
Static Data Verified by: _____ Date: _____

Do not Re-schedule

Facility: MARIE LAKE BOOSTER	Date: September 3, 2008	Report #: IR080903GENe
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NAMEPLATE



OVERALL VIEW

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Display Equipment

Equipment Detail

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Equipment Number 66037593
Equipment Text HEAT EXCHANER GLYCOL COOLER (NON CODE)
Status In Service - Fully Utilized
Equipment Condition B
Functional Location EC-NO-004-00008

General Information

Technical Object Type PRESSVES
Class HEAT EXCHANGER - AIR COOLED
Tag Number 15-15-065-20W4
Technical ID Number
Manufacturer Air-X-Changer
Model Number
Manufacturer Serial Number 991703.1/.2
Maintenance Plant EC01
Inventory Number 34750
Size/Dimension
Weight
Weight Units
Acquisition Date
Acquisition Value
Currency Key CAD
Manufacturing Country
Manufacturer Drawing Number
Construction Year 1999
Construction Month
Task List Exists
Serial Number
Plant
Market Value 0.74
Replacement Cost 0.99
Equipment Owner
Saskatchewan PST Indicator
British Columbia PST Indicator
Manitoba PST Indicator
History Equipment
Internal Equipment Status 1
Maintenance Planning Plant EC01
Manufacturer Part Number
Superior Equipment 000000000066026350
Equipment Position (at Install)
Planner Group EC
Technical Description HEAT EXCHANER GLYCOL COOLER (NON CODE)
Long Text Indicator
AB Registration Number
BC Registration Number
SK Registration Number

Characteristics

Tube Side Fluid GLYCOL
Tube MDMT -10 DEGF
Tube Max Temp 300 DEGF

Tube design MAWP	14 PSI
Number of Banks	3 EACH
Stress Relief	NONE
MDMT - Min. Design Metal Temp	-10 DEGF
Nozzle Type	"3" R/F FLANGE"
Fluid Service	SWEET
Fluid Description	GLYCOL
Design Max Temp	300 DEGF
Packaged Flag	Yes

TOP
