



Pressure Equipment Integrity Management System

External Inspection Form

Owner: EOG Canada Oil and Gas District/Facility: Northeast BC / Maxhamish
 Location (LSD) ♦: D-36-I/94-O-14 Surface Location: _____

Vessel Data

A Number ♦: SN-JL2008-035 Serial Number ♦: JL2008-035
 CRN ♦: R1288.2134 Vessel Type: Filter
 Description ♦: Dehy #2 Charcoal Filter Skid / Process: Dehy Skid #2
 Tag No: 10945 Current Status: In Service

Course #1 (Main)

Orientation: Vertical Coated? No Type: _____
 Fluids: _____ Anodes? No Type: _____ Quantity: _____
 Sour ♦? No Hand Holes? No
 Manufacturer ♦: JL Filtration Manway? No Size: _____
 MAWP ♦: 350 psi MAWP Temp: 2411 °F MDMT: _____
 Shell Material: _____ Nom. Shell Thick: _____
 Head Material: _____ Min. Head Thick: _____
 Diameter: 6.625 in OD Length: 15 in
 Year Built ♦: 2008 Installation Date ♦: _____ Corrosion Allow: _____
 Volume: _____ Stress Relieved? No
 Radiography: RT1 ABSA Grade: 2

Course #2

Description: _____ Course Type: _____
 Fluids: _____ Sour? _____
 MAWP: _____ MAWP Temp: _____
 Tube/Shell Material: _____ Nom. T/S Thick: _____
 Head Material: _____ Min. Head Thick: _____
 Diameter: _____ Length: _____

PRV #1 Course # 1 PRV Location or Position: Dehy #2 glycol filter inlet line
 Serial No ♦: 721123 Model No: 91-17D51V0CE1
 Set Pressure ♦: 80 psi Ports: 1 x 1"
 Capacity: 187 scfm Manufacturer: Mercer
 Service date ♦: Jun 10, 2013 By: PIMMS Car Seal #: _____
 Block Valve? Yes Install Date: _____ Tag no: 10945

PRV #2 Course # _____ PRV Location or Position: _____
 Serial No: _____ Model No: _____
 Set Pressure: _____ Ports: _____
 Capacity: _____ Manufacturer: _____
 Last Service date: _____ By: _____ Car Seal #: _____
 Block Valve? _____ Install Date: _____ Tag no: _____

Comments: HAS QWS UT MARKINGS ON VESSEL. _x000D_ PIC: 5293, 5294.



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External Visual Inspection - Vessel

	OK	<u>Comment</u>		OK	<u>Comment</u>
Name Plate Accessible:	<input checked="" type="checkbox"/>	_____	Paint/Coating Condition:	<input checked="" type="checkbox"/>	Shell dirty – historical leak
Piping Connections Made:	<input checked="" type="checkbox"/>	_____	Insulation Condition:	<input type="checkbox"/>	N/A
Inspection Access (i.e. skirt):	<input checked="" type="checkbox"/>	_____	External Surface Condition:	<input checked="" type="checkbox"/>	_____
Bolting Check:	<input checked="" type="checkbox"/>	_____	Foundation:	<input checked="" type="checkbox"/>	_____
Leaks/Drips/Seeping:	<input checked="" type="checkbox"/>	_____	Bending/Warping/Distortion:	<input checked="" type="checkbox"/>	_____
Dents:	<input checked="" type="checkbox"/>	_____	Cuts/ Gouges:	<input checked="" type="checkbox"/>	_____
Ladders/Walkways:	<input checked="" type="checkbox"/>	_____	Ground Wire Connection:	<input checked="" type="checkbox"/>	_____
Condition of Gauges:	<input checked="" type="checkbox"/>	_____	Other Equipment:	<input checked="" type="checkbox"/>	_____
Observed operating pressure (shell):	0	<input checked="" type="checkbox"/> psi <input type="checkbox"/> kPa	Gauge Range (shell):	0 to 160	<input type="checkbox"/> psi <input type="checkbox"/> kPa
Observed operating pressure (tube):		<input type="checkbox"/> psi <input type="checkbox"/> kPa	Gauge Range (tube):		<input type="checkbox"/> psi <input type="checkbox"/> kPa
Observed operating temperature (shell):		<input type="checkbox"/> °F <input type="checkbox"/> °C	Gauge Range (shell):		<input type="checkbox"/> °F <input type="checkbox"/> °C
Observed operating temperature (tube):		<input type="checkbox"/> °F <input type="checkbox"/> °C	Gauge Range (tube):		<input type="checkbox"/> °F <input type="checkbox"/> °C

Detailed Observations/Notes/Comments:

External Visual Inspection - Piping

	OK	<u>Comment</u>		OK	<u>Comment</u>
PRV Piping Check:	<input checked="" type="checkbox"/>	_____	Flare Line Slope Check:	<input checked="" type="checkbox"/>	_____
Bolting Check:	<input checked="" type="checkbox"/>	_____	Insulation Condition:	<input type="checkbox"/>	N/A
Paint/Coating Condition:	<input checked="" type="checkbox"/>	_____	Check for dead legs:	<input checked="" type="checkbox"/>	_____
Leaks/Drips/Seeping:	<input checked="" type="checkbox"/>	_____	Bending/Warping/Distortion:	<input checked="" type="checkbox"/>	_____
Dents:	<input checked="" type="checkbox"/>	_____	Cuts/Gouges:	<input checked="" type="checkbox"/>	_____
Supports:	<input checked="" type="checkbox"/>	_____	Misalignment:	<input checked="" type="checkbox"/>	_____

Detailed Observations/Notes/Comments:

PRV Data

	Vessel MAWP		PRV Set Pressure	PRV Capacity	PRV Size	Last Service Date	Serviced By	Block Valve Present?	Locked Open?	Reportable?
Shell	350 psi	#1	80 psi	187 scfm	1 x 1"	Jun 10, 2013	PIMMS	Yes	No	No
Tube		#2								

PRV Check: OK - PRV Set pressure is not greater than vessel MAWP PRV is set too high. Reset PRV to vessel MAWP.

Detailed Observations/Notes/Comments:



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NME Form F01-03

Version 002.05

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Action Item(s) Identified? no yes If yes, indicate required work:

Field Tag No.: _____

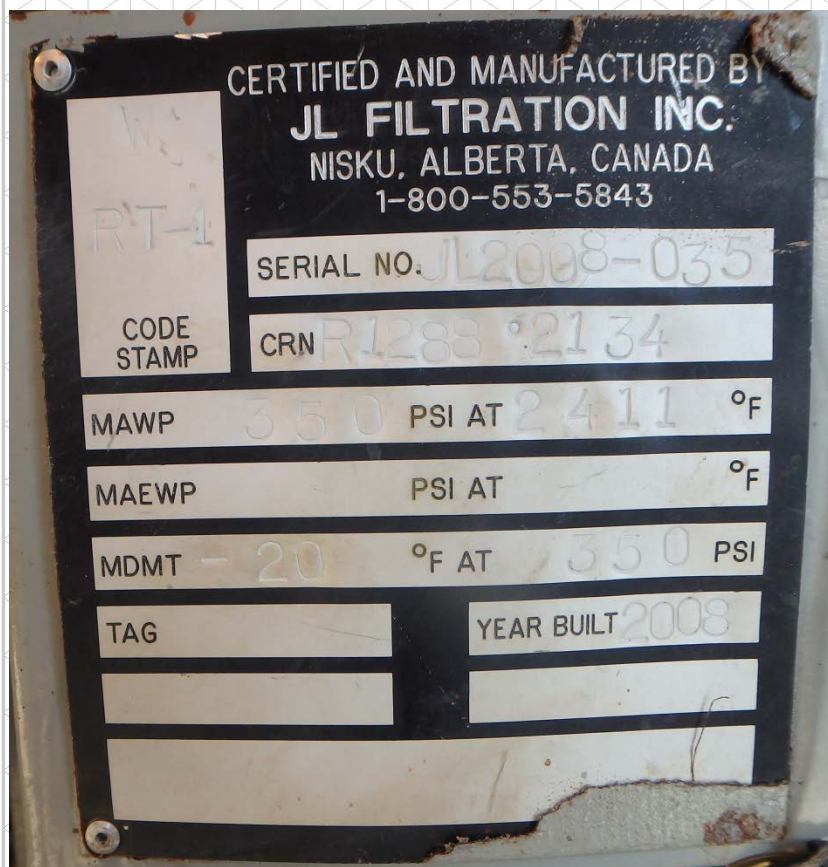
The scope of this external inspection is restricted to the items detailed above and forms part of a thorough integrity assessment for this equipment. Results of this inspection have determined the external condition of this equipment to be:

- Acceptable
- Acceptable with the identified action items resolved before the associated action item's "Required By Date".
- Not Acceptable until the identified action items are resolved.

Inspector Name: Josh Neufeld Inspector Company: Northern Materials Engineering

Inspector Signature:  Inspection Date: August 10, 2016

Sketch / Image Area



TITLE	DRAWN BY	DATE
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Documentation

- ABSA Documents Acquired: Manufacturer's Data Report (U-1A) Jurisdictional Operating Permit/Licence
- Name Plate Information is correct? Yes No To be completed through routine ABSA reporting process
- Design is registered in province (CRN)? Yes No, Generate an action item and arrange for design registration



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Service Conditions

Process Fluids Description:

<input type="checkbox"/> Sour	<input type="checkbox"/> Produced Water	<input type="checkbox"/> OWE	<input type="checkbox"/> Solids
<input type="checkbox"/> Condensed Water	<input type="checkbox"/> Propane	<input type="checkbox"/> Air	<input type="checkbox"/> Frac. Sand
<input checked="" type="checkbox"/> Liquid Hydrocarbon	<input checked="" type="checkbox"/> Glycol	<input checked="" type="checkbox"/> NG	<input type="checkbox"/> U

Potential Mode(s) of Deterioration:

<input checked="" type="checkbox"/> Pitting	<input type="checkbox"/> Crevice	<input type="checkbox"/> High Temp	<input type="checkbox"/> Sulphidation
<input checked="" type="checkbox"/> General Corrosion	<input type="checkbox"/> Erosion	<input type="checkbox"/> Cavitation	<input type="checkbox"/> Under Deposit Corr.
<input type="checkbox"/> External Atm. Corrosion	<input type="checkbox"/> Under Insulation	<input type="checkbox"/> Mechanical Damage	
<u>Cracking</u> <input type="checkbox"/> SCC	<input type="checkbox"/> Hydrogen	<input type="checkbox"/> Fatigue	<input type="checkbox"/> Other

Area(s) Most Likely to Deteriorate:

<input type="checkbox"/> Top Head	<input checked="" type="checkbox"/> Bottom Head	<input type="checkbox"/> Nozzles	<input type="checkbox"/> Welds
<input type="checkbox"/> Attachments	<input checked="" type="checkbox"/> Shell (lower)	<input type="checkbox"/> Shell (Upper)	<input type="checkbox"/> Shell (other)
<input type="checkbox"/> Tubes	<input type="checkbox"/> Piping (inlet)	<input type="checkbox"/> Piping (outlet)	<input checked="" type="checkbox"/> Piping (drain)

Current Mitigation Program? Yes No
(if yes, describe) _____

Other Considerations? Yes No
(if yes, describe) _____

Additional Process Monitoring Yes No (if yes, describe in area below or attach details)

Fluids Sample (Type / Frequency / Analysis Req'd) _____

Corrosion Monitoring (Coupons / Probes) _____

Other (describe) _____

Inspection History

(Complete this section if the vessel is new and a baseline inspection was completed or if the vessel is used)

Inspection Company _____ Last Inspection Date _____

Inspection – Plan Assigned Grade _____ Previous Grade 2 (if Assigned Grade differs from Previous Grade explain in **Notes** section below)

Activity Required	Yes	No	Interval (years)	Due Date (dd / mmm / yy)	Comments / Justification
Offline Internal Visual	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____	/ /	_____
UT Inspection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5	09 / Aug / 21	_____
Crack Inspection	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____	/ /	_____
Additional Inspection(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____	/ /	_____
External Visual			5	10 / Aug / 21	_____
PRV service interval			5	10 / Jun / 18	_____

Notes

Complete if Assessor is different than Inspector

Assessor Name: _____ Company: _____

Assessor Signature: _____ Assessment Date: _____

Report Certification

Report Certified By (signature): Certificate No: 000239 ISPVI