



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 ♦: 586792 (PV124750) Serial Number ♦: 01-0141-1
 CRN ♦: U5433.213 Vessel Type: Separator
 Description ♦: Dehy 2 Glycol Contactor Skid / Process: Dehy 2
 Tag No: V-600, 6760EOG, BF5840 Current Status: In Service

Course #1 (Main)

Orientation: Vertical Coated? No Type: _____
 Fluids: _____ Anodes? No Type: _____ Quantity: _____
 Sour ♦? No Hand Holes? No
 Manufacturer ♦: Opsco Industries Ltd. Manway? No Size: _____
 MAWP ♦: 2152 psi MAWP Temp: 130 °F MDMT: -20 °F
 Shell Material: SA-516-70N Nom. Shell Thick: 2 in
 Head Material: SA-516-70N Min. Head Thick: 1.91 in
 Diameter: 36 in OD Length: 312 in
 Year Built ♦: 2008 Installation Date ♦: _____ Corrosion Allow: 0.125 in
 Volume: _____ Stress Relieved? Yes
 Radiography: RT1 ABSA Grade: 2

Course #2

Description: Dehy 2 Glycol Contactor Coil Course Type: _____
 Fluids: _____ Sour? No
 MAWP: 2152 psi MAWP Temp: 130 °F
 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 Contactor upper shell (outside)
 Serial No ♦: 526496-1-A10 Model No: 26JA14-120
 Set Pressure ♦: 1440 psi Ports: 3" J 4"
 Capacity: 35584 scfm Manufacturer: Farris
 Service date ♦: Jun 10, 2013 By: PIMMS Car Seal #: _____
 Block Valve? No Install Date: _____ Tag no: 6760

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

Comments: MDR4 UPDATED_x000D_ LENGTH: NO ACCESS_x000D_ PSV TAGS ARE ATTACHED TO NAMEPLATE TAGS_x000D_ PIC: 0005 - 0007_x000D_ NO ACCESS TO PSV



Pressure Equipment Integrity Management System

External Inspection Form

NME Form F01-03

Version 002.06

Page 2 of 4

A#: 586792 (PV124750) Vessel Description: Dehy 2 Glycol Contactor Location (LSD): D-36-I/94-O-14

External Visual Inspection - Vessel

	<u>Okay</u>	<u>Comment</u>		<u>Okay</u>	<u>Comment</u>
Name Plate Accessible:	<input checked="" type="checkbox"/>	_____	Paint/Coating Condition:	<input checked="" type="checkbox"/>	_____
Piping Connections Made:	<input checked="" type="checkbox"/>	_____	Insulation Condition:	<input checked="" type="checkbox"/>	<u>Wrapped outside skid</u>
Inspection Access (i.e. skirt):	<input checked="" type="checkbox"/>	_____	External Surface Condition:	<input checked="" type="checkbox"/>	_____
Bolting Check:	<input checked="" type="checkbox"/>	<u>Water discharge flange nuts are flush</u>	Foundation:	<input checked="" type="checkbox"/>	<u>Bolted</u>
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 2000	<input checked="" 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):	0	<input type="checkbox"/> °F <input checked="" type="checkbox"/> °C	Gauge Range (shell):	-20 to 120	<input type="checkbox"/> °F <input checked="" 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:

O/S at time of inspection

External Visual Inspection - Piping

	<u>Okay</u>	<u>Comment</u>		<u>Okay</u>	<u>Comment</u>
Bolting Check:	<input checked="" type="checkbox"/>	<u>Inlet has bolts with 1 thread not engaged</u>	Insulation Condition:	<input type="checkbox"/>	<u>N/A</u>
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"/>	_____

External Visual Inspection - PRV(s)

	<u>Okay</u>	<u>Comment</u>		<u>Okay</u>	<u>Comment</u>
PRV Piping Check:	<input type="checkbox"/>	_____	Flare Line Slope Check:	<input checked="" type="checkbox"/>	_____
Damage/Leaks:	<input type="checkbox"/>	_____	Seals Intact:	<input type="checkbox"/>	_____
Weather Protection:	<input type="checkbox"/>	_____	Lifting Lever Acceptable:	<input type="checkbox"/>	_____

	Vessel MAWP		PRV Set Pressure	PRV Capacity	PRV Size	Last Service Date	Serviced By	Block Valve Present?	Locked Open?	Reportable?
Shell	2152 psi	#1	1440 psi	35584 scfm	3" J 4"	Jun 10, 2013	PIMMS	No	No	Yes
Tube	2152 psi	#2	Open to atmosphere							

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:

PRV being serviced at time of inspection



Pressure Equipment Integrity Management System External Inspection Form

NME Form F01-03
Version 002.06
Page 3 of 4

A#: 586792 (PV124750) Vessel Description: Dehy 2 Glycol Contactor Location (LSD): D-36-I/94-O-14

Action Item(s) Identified? Yes No If yes, indicate required work and RA #: _____ Field Tag #: _____

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: Joey Poapst Inspector Company: Northern Materials Engineering

Inspector Signature:  Inspection Date: Oct 12, 2017

Sketch / Image Area



TITLE	DRAWN BY	DATE
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Documentation

- 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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NME Form F01-03

Version 002.06

Page 4 of 4

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Service Conditions

Process Fluids Description: Sour Produced Water OWE Solids
 Condensed Water Propane Air Frac. Sand
 Liquid Hydrocarbon Glycol NG _____

Potential Mode(s) of Deterioration: Pitting Crevice High Temp Sulphidation
 General Corrosion Erosion Cavitation Under Deposit Corr.
 External Atm. Corrosion Under Insulation Mechanical Damage
 Cracking > SCC Hydrogen Fatigue Other

Area(s) Most Likely to Deteriorate: Top Head Bottom Head Nozzles Welds
 Attachments Shell (lower) Shell (Upper) Shell (other)
 Tubes Piping (inlet) Piping (outlet) 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 2 Previous Grade 1 (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	12 / Jun / 18	_____
Crack Inspection	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____	/ /	_____
Additional Inspection(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____	/ /	_____
External Visual			5	12 / Oct / 22	_____
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: 64230 API