



**PRESSURE VESSEL
VISUAL INSPECTION
REPORT**

Report #: **156732-MD-64**
Inspect Date: 03/21/2012
Page: 1 of 8
Insp. Co. Job #: 156732

Criticality Designation:

Green

Insp. Comp: Matrix Inspection District: Grande Prairie - North Field: Firebird
Location: 14-01-098-08W6 Unit / Skid #: 16718 LSD: 14-01-098-08W6
Jurisdiction #: A2706762 Equip Tag #: N/A Serial #: 91-6066-0
CRN #: K5656.2 Nat'l Bd #: N/A Year Built: 1991
Manufacturer: Wells-Hall Fabrication Equipment Description: Other: Free Water K.O. Drum
Status: Out of Service - 999 - Equip. Type: Vessel: Service: Sweet
MAWP Shell: 75 Psi @ 100 °F Volume: _____ Code Stamp: ☒ Y ☐ N
MAWP Tube: _____ @ _____ Height/Length: 30 Ft. Insulated: ☒ Y ☐ N
MDMT: -20 °F RT: RT-1 Size/Diameter.: 96 in. I.D. PWHT: ☐ Y ☒ N
Support Saddle Vessel on Original CNRL Inventory List: ☐ Y ☒ N Manway: ☒ Y ☐ N
C.A.: _____ Coated: N/A Clad: N/A J.E.: 1.00 Remote Access: ☒ - Winter Road

Component	Material	Nominal Thk	Diameter	OD/ID	Tube Side	Shell Side
1 Main - Shell		0.375 in.	96.000 in.	ID	☐	☒
2 North - Head	SA-516-70	0.345 in.	96.000 in.	ID	☐	☒
3 South - Head	SA-516-70	0.345 in.	96.000 in.	ID	☐	☒
4 -					☐	☐
5 -					☐	☐

Static Data: Confirmed ☐ Changed (See Comments) ☒

Comments:

Static data updated

PSV Static Data

PSV -1 Tag #: G705461 Serial #: CE-35876-A15 CRN: 0400.123456789
Model #: 26JB10L-120/S7 Capacity: 321 SCFM Set Pressure: 75 psi
Manufacturer: Farris Service Company: Unified Valve
Inlet Size & Type: 2.00 in. - Flanged Last Service Date: 10/06/2011
Outlet Size & Type: 3.00 in. - Flanged Block Valve: --- - -
Carseal Intact: Yes Code Stamp: Yes
Shell Side / Tube Side: Shell Side Out for Service During Insp.: N Location of PSV: On another vessel

PSV -2 Tag #: _____ Serial #: _____ CRN: _____
Model #: _____ Capacity: _____ Set Pressure: _____
Manufacturer: _____ Service Company: _____
Inlet Size & Type: _____ - Last Service Date: _____
Outlet Size & Type: _____ - Block Valve: _____ - -
Carseal Intact: _____ Code Stamp: _____
Shell Side / Tube Side: _____ Out for Service During Insp.: _____ Location of PSV: _____

PSV Comments



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Report #: **156732-MD-64**
Inspect Date: 03/21/2012
Page: 2 of 8
Insp. Co. Job #: 156732

Insp. Company: Matrix_Inspection LSD: 14-01-098-08W6 Jurisdiction #: A2706762

External Inspection Results – VE N/A (Not Applicable)

Item	N/A	Condition	Comment (Check Status Bar or Press F1 for Help)	NCR	Action Item Integrity	Action Item Maintenance
Nameplate	☐		No External Inspection Carried Out	☐	☐	☐
Foundation and Supports	☒		No External Inspection Carried Out	☐	☐	☐
Anchor Bolts	☒		No External Inspection Carried Out	☐	☐	☐
Grounding	☒		No External Inspection Carried Out	☐	☐	☐
Insulation Condition	☒		No External Inspection Carried Out	☐	☐	☐
PSV	☒		No External Inspection Carried Out	☐	☐	☐
Shell Heads & Nozzles	☒		No External Inspection Carried Out	☐	☐	☐
Metal Surfaces (Paint)	☒		No External Inspection Carried Out	☐	☐	☐
Aux Equipment	☒		No External Inspection Carried Out	☐	☐	☐
Cathodic Protection	☒		No External Inspection Carried Out	☐	☐	☐
Alignment	☒		No External Inspection Carried Out	☐	☐	☐
Flange Connections	☒		No External Inspection Carried Out	☐	☐	☐
Pressure Gauge	☒		No External Inspection Carried Out	☐	☐	☐
Temperature Gauge	☒		No External Inspection Carried Out	☐	☐	☐
Sight Glass	☒		No External Inspection Carried Out	☐	☐	☐
Ladder / Platform	☒		No External Inspection Carried Out	☐	☐	☐
Leaks	☒		No External Inspection Carried Out	☐	☐	☐
Piping from Vessel	☒		No External Inspection Carried Out			
Previous UT Survey	☒		No External Inspection Carried Out	UT Company: N/A		

External Visual Observations

No External Inspection Carried Out

Recommendations:

No External Inspection Carried Out



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Report #: **156732-MD-64**
Inspect Date: 03/21/2012
Page: 3 of 8
Insp. Co. Job #: 156732

Insp. Company: Matrix Inspection LSD: 14-01-098-08W6 Jurisdiction #: A2706762

Internal Inspection Results – VI N/A (Not Applicable)

Item	N/A	Condition	Comment (Check Status Bar or Press F1 for Help)	NCR	Action Item Integrity	Action Item Maintenance
Shell	☒		No Internal Inspection Carried Out	☐	☐	☐
Heads	☒		No Internal Inspection Carried Out	☐	☐	☐
Manway	☒		No Internal Inspection Carried Out	☐	☐	☐
Gasket Surfaces	☒		No Internal Inspection Carried Out	☐	☐	☐
Welds	☒		No Internal Inspection Carried Out	☐	☐	☐
Refractory	☒		No Internal Inspection Carried Out	☐	☐	☐
Heating Coils	☒		No Internal Inspection Carried Out	☐	☐	☐
Demister Pad	☒		No Internal Inspection Carried Out	☐	☐	☐
Vane Pack	☒		No Internal Inspection Carried Out	☐	☐	☐
Baffles	☒		No Internal Inspection Carried Out	☐	☐	☐
Trays	☒		No Internal Inspection Carried Out	☐	☐	☐
Filter	☒		No Internal Inspection Carried Out	☐	☐	☐
Internal Coating	☒		No Internal Inspection Carried Out	☐	☐	☐
Tubesheet	☒		No Internal Inspection Carried Out	☐	☐	☐
Tube Bundle	☒		No Internal Inspection Carried Out	☐	☐	☐

Internal Visual Observations

No Internal Inspection Carried Out

Recommendations:

No Internal Inspection Carried Out



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VISUAL INSPECTION
REPORT

Report #: **156732-MD-64**
Inspect Date: 03/21/2012
Page: 4 of 8
Insp. Co. Job #: 156732

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Firetube Static Data N/A (Not Applicable)

Diameter: Not Applicable Nom Thickness: Not Applicable Bend: Not Applicable
Length: Not Applicable Firetube Description: Not Applicable
Firetube NDE Performed: UT ☐ Report#: Not Applicable ET ☐ Report#: Not Applicable
MT ☐ Report#: Not Applicable RT ☐ Report#: Not Applicable
PT ☐ Report#: Not Applicable Other ☐ Report#: Not Applicable

Firetube Inspection Results

Item	N/A	Condition	Comment (Check Status Bar or Press F1 for Help)	NCR	Action Item Integrity	Action Item Maintenance
Burner	☒		No Firetube Inspection Carried Out	☐	☐	☐
Stack	☒		No Firetube Inspection Carried Out	☐	☐	☐
Flange (Throat)	☒		No Firetube Inspection Carried Out	☐	☐	☐
Tube Sheet	☒		No Firetube Inspection Carried Out	☐	☐	☐
Hot Side	☒		No Firetube Inspection Carried Out	☐	☐	☐
Miter	☒		No Firetube Inspection Carried Out	☐	☐	☐
Return Bend	☒		No Firetube Inspection Carried Out	☐	☐	☐
Supports	☒		No Firetube Inspection Carried Out	☐	☐	☐
Butt Welds	☒		No Firetube Inspection Carried Out	☐	☐	☐
Fillet Welds	☒		No Firetube Inspection Carried Out	☐	☐	☐

Firetube Visual Observations

No Firetube Inspection Carried Out

Recommendations:

No Firetube Inspection Carried Out



PRESSURE VESSEL
VISUAL INSPECTION
REPORT

Report #: **156732-MD-64**
Inspect Date: 03/21/2012
Page: 5 of 8
Insp. Co. Job #: 156732

Insp. Company: Matrix Inspection LSD: 14-01-098-08W6 Jurisdiction #: A2706762

Vessel NDE and Final Summary:

NDE Performed: UT ☒ Report#: _____ ET ☐ Report#: _____
MT ☐ Report#: _____ RT ☐ Report#: _____
PT ☐ Report#: _____ Other ☐ Report#: _____

Maxi-Trak Observations Summary (Summarize inspection results Max 255 Characters):

Maxi-Trak Recommendations Summary (Summarize Recommendations Max 255 Characters):

Actions Corrected at Time of Inspection: (If actions were corrected at the time of Inspection – note the corrected actions here.)

Additional Visual Observations

Any other safety concerns or observations from associated equipment: (for example associated piping, buildings, pumps etc...)



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Inspect Date: 03/21/2012
Page: 6 of 8
Insp. Co. Job #: 156732

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Thickness and Remaining Life Evaluation “**Must be Completed**”

MUST BE COMPLETED AND RESOLVED WITH CNRL IMMEDIATELY UPON DISCOVERY OF LOW WALL THICKNESS AREAS

Step 1: Was any thickness measurement location found to be less than (Nominal WT – Corrosion Allowance)? **No**

If YES, proceed to Step 2; if NO, proceed to “Crack Evaluation” and “CNRL Criticality Designation”.

Step 2: Which component(s) were found below (Nominal WT – Corrosion Allowance)?

Components found below Nom - CA:

Components
N/A - N/A
N/A - N/A
N/A - N/A
N/A - N/A
N/A - N/A

Perform Steps 3 – 8 for each component with actual thickness less than (Nominal WT – Corrosion Allowance).

Step 3: Describe Location and Extent of Corrosion:

Components	Location and Extent of Corrosion
N/A - N/A	Not Applicable for this Inspection
N/A - N/A	Not Applicable for this Inspection
N/A - N/A	Not Applicable for this Inspection
N/A - N/A	Not Applicable for this Inspection
N/A - N/A	Not Applicable for this Inspection

Notes:

Not Applicable for this Inspection

Step 4:

- For shells and nozzles, calculate minimum required thickness (T-min) as per ASME Section VIII UG-27.
- For heads, calculate minimum required thickness (T-min) as per ASME Section VIII UG-32.

Components	T-Min
N/A - N/A	N/A
N/A - N/A	N/A
N/A - N/A	N/A
N/A - N/A	N/A
N/A - N/A	N/A



PRESSURE VESSEL
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REPORT

Report #: **156732-MD-64**
Inspect Date: 03/21/2012
Page: 7 of 8
Insp. Co. Job #: 156732

Insp. Company: _____ Matrix Inspection _____ LSD: 14-01-098-08W6 Jurisdiction #: A2706762

Thickness and Remaining Life Evaluation (Continued)

Step 5: Is any measured thickness less than calculated minimum required thickness (T-min)? **N/A**

*If YES, complete Step 6
If NO, proceed to Step 7..*

Step 6: Is nature and extent of pitting acceptable as per API 510? **N/A**

Step 7: Calculate Remaining Life as per API 510. How? (Find last reading; use nominal thickness if nothing available). Short Term Corrosion Rates and Long Term Corrosion Rates.

Components	Remaining Life (Yrs)
N/A - N/A	N/A
N/A - N/A	N/A
N/A - N/A	N/A
N/A - N/A	N/A
N/A - N/A	N/A

Step 8: Contact CNRL Integrity Coordinator to discuss above results.

- Name of CNRL contact: Not Applicable for this Inspection
- Date and time of conversation: Not Applicable for this Inspection

Summary/results of conversation:
Not Applicable for this Inspection

Crack Evaluation by Magnetic Particle or Alternative Inspection “Must be Completed”

MUST BE COMPLETED AND RESOLVED WITH CNRL IMMEDIATELY UPON DISCOVERY OF CRACK-LIKE INDICATIONS

Were any indications found to suggest the vessel contained cracks? **N/A**

If NO, proceed to “CNRL Criticality Designation”.

If YES, Contact CNRL Integrity Coordinator to discuss results.

- Name of CNRL contact: Not Applicable for this Inspection
- Date and time of conversation: Not Applicable for this Inspection

Summary/results of conversation:
Not Applicable for this Inspection

