

Report #: 156732-MD-64
Inspect Date: 03/21/2012
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Insp. Co. Job #: 156732

С	riticality Designation					Gr	een		
I	nsp. Comp:Matrix_Ins	pection	District:	Grande Prai	rie - North		Field:	Fir	ebird
	Location: 14-01-098	-08W6 U	nit / Skid #:	167	18	_	LSD:	14-01-0	98-08W6
Ju	risdiction #: A2706	762 E	quip Tag #:	N/	4	•			8066-0
	CRN #: K5656		Nat'l Bd #:		-	•		-	991
Ma	nufacturer: Wells-Hall Fab		E	quipment Des	cription: O	ther: Free Water h	(.O. D		
	Status: Out of Service			ip. Type: <u>Ves</u>	sel:			Service:	
	AWP Shell: 75 Psi			Volume:			Co	•	⊠Y □N
M	AWP Tube:	@		ght/Length:	30	Ft.		Insulated:	
	MDMT:20 °F	RT: <u>RT-1</u>		e/Diameter.:		I.D.		PWHT:	_
	Support Saddle			inal CNRL Inv				Manway:	
	C.A.:	Coated: N	/A	Clad: N/A	J.E.:	1.00 Remote	Acces	ss: 🖂 - Wir	iter Road
	Component	Mat	terial	Nomina	al Thk	Diameter OD	/ID :	Tube Side	Shell Side
1	Main - Shell			0.375	in. 9	96.000 in. II)		\boxtimes
2	North - Head		16-70	0.345		96.000 in. II)		\boxtimes
3	South - Head	SA-5	16-70	0.345	in. 9	96.000 in. II)		\boxtimes
4	-								
5	-								
Sta	atic Data: Confirmed 🗌	Changed (See	Comments	s) 🖂					
	mments:								
Sta	tic data updated								
DSV	Static Data								
PSV				0= 0=0=0					
PSV –1 Tag #: <u>G705461</u>			_	CE-35876-A	15			00.12345678	39
	Model #: 26JB10L-	120/87	_ Capacity:	321 SCFM		Set Pressure		•	
	Manufacturer: Farris	. = .				Service Company			
	Inlet Size & Type: 2.00		_		DI	Last Service Date	9: 10/	06/2011	
	Outlet Size & Type: 3.00 Carseal Intact: Yes	ın Flanged	_		Bloc	k Valve:	Va		
	Shell Side / Tube Side: S	thall Cida	- Out for S	Samilaa During	Inon i N	Code Stam Location of PS\			
		oneli Side	_	Service During	inspiv	•	_		
	PSV –2 Tag #:		_ Serial #:			CRN	1:		
	Model #:		_ Capacity:			Set Pressure) :		
	Manufacturer:					Service Company	/ :		
	Inlet Size & Type:		_			Last Service Date	e:		
	Outlet Size & Type:	-	_		Bloc	k Valve:			
	Carseal Intact:					Code Stam	o:		
	Shell Side / Tube Side: Out for Service During Insp.: Location of PSV:								
PSV	Comments								***



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Cailadia	1114	a cara				irisp. C	0. JOD #.	130732
Insp. Company: Mat	trix_Ir	nspection	LSD:	14-01-098-08W6	Jurisdiction #: A2706762		06762	
External Inspection Results – VE N/A (Not Applicable)								
Item	N/A	Condition	(Ct	Comment neck Status Bar or Press F1 for Help)		NCR	Action Item Integrity	Action Item Maintenance
Nameplate				Inspection Carried Out				
Foundation and Supports				Inspection Carried Out		H		
Anchor Bolts				Inspection Carried Out		片片		
						片片		
Grounding Insulation Condition				·				
				No External Inspection Carried Out				
PSV				No External Inspection Carried Out				
Shell Heads & Nozzles				Inspection Carried Out		⊢∺	<u> </u>	<u> </u>
Metal Surfaces (Paint)				Inspection Carried Out		⊢∺		
Aux Equipment				Inspection Carried Out		닏		
Cathodic Protection				Inspection Carried Out		ᅡᆜ		
Alignment				Inspection Carried Out		┝╠┈		
Flange Connections				Inspection Carried Out		닏ᆜ		
Pressure Gauge				Inspection Carried Out		ᆜ	Ц	
Temperature Gauge				Inspection Carried Out			<u> </u>	
Sight Glass	\boxtimes			Inspection Carried Out				
Ladder / Platform	\boxtimes			Inspection Carried Out				
Leaks	\boxtimes			Inspection Carried Out				
Piping from Vessel	\boxtimes			Inspection Carried Out				
Previous UT Survey			No External	Inspection Carried Out	UT C	ompan	y: N/A	
External Visual Observations	,							
Recommendations:								
No External Inspection Ca	rried	Out						



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Canadia	n Na	atural		REPORT		Insp. C	o. Job #:	156732
Insp. Company: Matrix_Inspection LSD		LSD:	14-01-098-08W6 Jurisdic		iction #: A2706762		06762	
Internal Inspection Results – VI N/A (Not Applicable)								
internal inspection results			piloabic)	Comment			Action Item	Action Item
Item	N/A	Condition	(Check Status Bar or Press F1 for Help)			NCR	Integrity	Maintenance
Shell	\boxtimes		No Internal Inspection Carried Out					
Heads				spection Carried Out				
Manway	\boxtimes		No Internal In:	spection Carried Out				
Gasket Surfaces			No Internal In:	spection Carried Out				
Welds			No Internal In:	spection Carried Out				
Refractory	\boxtimes		No Internal In:	spection Carried Out				
Heating Coils	\boxtimes		No Internal In	spection Carried Out				
Demister Pad	\boxtimes		No Internal In	spection Carried Out				
Vane Pack	\boxtimes		No Internal In:	spection Carried Out				
Baffles	\boxtimes		No Internal In:	spection Carried Out				
Trays	\boxtimes		No Internal In:	spection Carried Out				
Filter	\boxtimes			spection Carried Out				
Internal Coating	\boxtimes			spection Carried Out				
Tubesheet	\boxtimes			spection Carried Out				
Tube Bundle			No Internal In	spection Carried Out				
Internal Visual Observations								
No Internal Inspection Car	riod C	\ t						
Recommendations:								
No Internal Inspection Car	ried C	Out						



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Insp. Company:Ma	trix_In	spection	LSD:	14-01-098-0	8W6	Jurisdiction #:	A27	'06762	
Firetube Static Data N/A (Not Ap	plicable)							
Diameter: Not Applicable Nom Thickness: Not Applicable Bend: Not Applicable									
Length: Not Applicable Firetube Description: Not Applicable									
UT Report#: Not Applicable ET Report#: Not Applicable									
Firetube NDE				#: Not Applicable RT			Report#: Not Applicable		
Performed: Not Applicable Other Report#: Not Applicable Other Report#: Not Applicable									
E: ()			1701745				7 (5) (1) (1)		
Firetube Inspection Results	S 					1	A () 1(
Item	N/A	Condition	(Che	Comment eck Status Bar or Pres	-	NCR	Action Item Integrity	Action Item Maintenance	
Burner				nspection Carried					
Stack				nspection Carried					
Flange (Throat)				nspection Carried					
Tube Sheet				nspection Carried					
Hot Side				nspection Carried					
Miter				nspection Carried					
Return Bend				nspection Carried					
Supports				nspection Carried					
Butt Welds				nspection Carried					
Fillet Welds				nspection Carried					
Firetube Visual Observation	100		•						
		O4							
No Firetube Inspection C	arried	Out							
D									
Recommendations:									
No Firetube Inspection Carried Out									



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Insp. Company:M	latrix_Inspection	LSD:14	-01-098-08W6	Jurisdiction #:	A2706762
Vessel NDE and Final S	ummarv:				
	UT ⊠ Report#	:	ET 🗆	Report#:	
NDE Performed:			RT 🗆	Report#:	
	PT Report#		Other	Report#:	
Maxi-Trak Observations S	Summary (Summarize	inspection results	Max 255 Characters):		
Maxi-Trak Recommendat	tions Summary (Summ	arize Recommend	lations Max 255 Charac	ters):	
Actions Corrected at Tim	ne of Inspection: (If action	ns were corrected at the	e time of Inspection – note the	corrected actions here.)	
Additional Visual Observa	ations				
Any other safety concerns	s or observations from	associated equipr	nent: (for example asso	ciated piping, buildings,	pumps etc)



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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

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.

I -IVIIN
N/A



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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

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



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CNRL Criticality Evaluation – "MUST BE COMPLETED"

The CNRL In-Service Pressure Vessel Inspector MUST answer all the following questions

- 1. Is the vessel fit-for-service?:
- 2. Was the measured thickness less than the calculated minimum required thickness (T-min) for any component?:
- 3. Were MT indications found?:
- 4. Was the remaining life less than 6 years for sour service vessels or less than 10 years for sweet service vessels?:
- 5. Were NCR's or Action Items generated as a result of the inspection?:
- 6. Were UT readings below (Nominal WT Corrosion Allowance) found? :

Information on CNRL Owner User Program - Criticality Designation and Required Review

RED – Vessel Inspection Results are deemed RED if one of the following occurred:

- The measured thickness was less than the calculated minimum required thickness (T-min) for any component.
- MT indications were found.
- The remaining life was calculated to be less than 6 years for sour-service vessels or less than 10 years for sweet-service vessels.

RED inspection reports must be signed off by the CNRL Chief Inspector.

YELLOW - Vessel Inspection Results are deemed YELLOW if one or more of the following occurred:

- The vessel was declared NOT fit-for-service by the 3rd Party In-Service PV Inspector.
- NCR's or Action Items were generated as a result of the inspection.
- UT readings below (Nominal WT Corrosion Allowance) were found.

YELLOW inspection reports must be signed off by the CNRL Pressure Equipment Integrity Coordinator.

GREEN - Vessel Inspection Results are deemed GREEN if all of the following are true:

- The vessel was declared fit-for-service by the 3rd Party In-Service PV Inspector.
- UT readings below (Nominal WT Corrosion Allowance) were NOT found.
- MT indications were NOT found.
- NCR's or Action Items were NOT generated as a result of the VE inspection.

GREEN inspection reports must be signed off by the 3rd Party In-Service Pressure Vessel Inspector.

Critica	ality Designation	Green
Vehicle #:	380 Kms:	Inspector (Name): Matthew B Dickinson PESL: 601
Time In:	00:00 Time Out: 00:00 Hrs	Inspector (Signature): Matthew Dickinson 2012.11.12 API: 39483
Time In:	00:00 Time Out: 00:00 Hrs	CNRL Coordinator (Name):
Personnel:	JD, LP	CNRL Coordinator (Signature):
Billing Info:	AFE:	(I am in full agreement with report contents) CNRL Chief Inspector (Signature):
		(I am in full agreement with report contents)