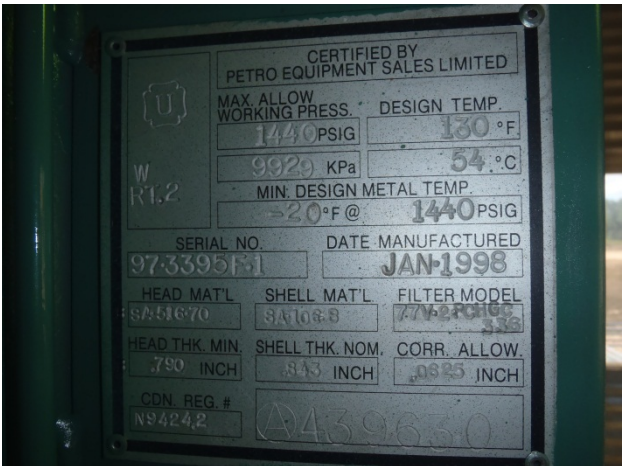


Visual Inspection Report – Pressure Vessels

Job #:
FIS029
Report #:
FIS029-WF-1
Inspection Date:
25-July-2011

Client: CNRL	District: St. Albert North	
Field: Spurfield	Facility: 07-28-071-02W5	
LSD: 07-28-071-02W5	Skid / Unit#:	
Jurisdiction #: A0439630	CRN #: N9424.2	
Serial #: 973395F1	Equip Tag #:	
Nat'l Bd #:	Year Built: 1998	
Manufacturer: Petro Equipment	Equipment Description: Coalescer	

MAWP (S.S.):	1440 Psi	MAWT (S.S.):	150 °F	Corrosion Allowance:	0.0625 in.
MAWP (T.S.):		MAWT (T.S.):		Height/Length:	
MDMT:	-20 °F	J.E.:		Volume:	
Size/Diameter.:	12.75 in. O.D.	RT:	RT-2	Code Stamp: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	PWHT: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Status:	In Service - Shutdown	Removed From Service On:		Service:	Sweet
Coated: <input type="checkbox"/> Y <input type="checkbox"/> N	Cladding: <input type="checkbox"/> Y <input type="checkbox"/> N	Insulation: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Manway: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N		
Support Type:	Skirt	Is this a remote access site: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Access Type:		

Component			Diameter	O.D. I.D.	Nominal Thickness	Material (Spec & Grade)	Tube Side	Shell Side
Location	Type							
1.	Top	Head					<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.	Bottom	Head			0.790 in.	SA-516-70	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.		Shell			0.843 in.	SA-106-B	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.							<input type="checkbox"/>	<input type="checkbox"/>
5.							<input type="checkbox"/>	<input type="checkbox"/>

Comments: The vessel was on the original inventory list. Static data confirmed

PSV Static Data

	PSV-1 ()	PSV-2 ()	PSV-3 ()	PSV-4 ()
PSV Tag #:				
Serial #:	B102692X-1-2			
CRN:	OG0449.2			
Model #:	1912FC			
Manufacturer:	Consolidated			
Capacity:	8705 SCFM			
Set Pressure:	1400 psi			
Inlet Size & Type:	1.5 in. - Flanged	-	-	-
Outlet Size & Type:	2.0 in. - Flanged	-	-	-
Carseal Intact:	Yes			
Block Valve:	N/A - -	- -	- -	- -
Service Company:	APEX Valve Services			
Last Service Date:	July 23, 2011			



Visual Inspection Report – Pressure Vessels

Job #:

FIS029

Report #:

FIS029-WF-1

Inspection Date:

25-July-2011

Client: CNRL

Jurisdiction #: A0439630

PSV Comments

- The PSV is in good condition with the carseal intact.
- Code Stamps: NB & UV.

External Visual Inspection - Checklist

Inspection Item		Condition	Comments	Action Item Integrity	Action Item Maintenance	NCR
1	Nameplate	Accept		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Foundation and Supports	Accept		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Anchor Bolts	Accept		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Grounding	Accept		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Insulation Condition	N/A		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	PSV	Accept		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Shell & Heads	Accept		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Metal Surfaces (Paint)	Accept		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Aux Equipment	N/A		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Cathodic Protection	N/A		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Alignment	Accept		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Flange Connections	Accept		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Pressure Gauge	N/A		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Piping from Vessel	Accept		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	Temperature Gauge	N/A		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	Sight Glass	Accept		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	Leaks	Accept		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	Previous UT Survey			UT Company:		

External Visual Inspection - Observations

An external visual inspection was performed on vessel and the findings are as follows:

- The vessel was off stream at time of inspection. No evidence of process leaks was noted.
- The paint is intact on the shell and piping.
- The skirt is secure and level.
- The sight glass is clear and visible.
- All visible bolting is intact and fully engaged.
- The PSV is in good condition with the carseal intact.
- The vessel is sufficiently grounded.
- An external UT thickness survey was performed with no significant wall losses noted. UT was carried out with GE DMS 2 SN: 0221JR.
- Refer to the attached photos, UT data and drawing for inspection findings.



Visual Inspection Report – Pressure Vessels

Job #:

FIS029

Report #:

FIS029-WF-1

Inspection Date:

25-July-2011

Client: CNRL

Jurisdiction #: A0439630

External Visual Inspection – Observations (Continued)

Internal Visual Inspection - Checklist

Inspection Item		Condition	Comments	Action Item Integrity	Action Item Maintenance	NCR
1	Shell			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Heads			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Manway			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Gasket Surfaces			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Welds			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Refractory			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Heating Coils			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Demister Pad			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Vane Pack			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Baffles			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Trays			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Filter			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Internal Coating			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Tubesheet			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	Tube Bundle			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Internal Visual Inspection - Observations



Visual Inspection Report – Pressure Vessels

Job #:

FIS029

Report #:

FIS029-WF-1

Inspection Date:

25-July-2011

Client: CNRL

Jurisdiction #: A0439630

Internal Visual Inspection – Observations (Continued)

Vessel Visual Inspection – Recommendations and Action Items

- Continue to inspect vessel at regular scheduled intervals.

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



Visual Inspection Report – Pressure Vessels

Job #:

FIS029

Report #:

FIS029-WF-1

Inspection Date:

25-July-2011

Client: CNRL

Jurisdiction #: A0439630

Vessel NDE – NDE Performed

UT:	<input checked="" type="checkbox"/>	Report No.:	FIS029-UT-WF-01	ET:	<input type="checkbox"/>	Report No.:	
MT:	<input type="checkbox"/>	Report No.:		RT:	<input type="checkbox"/>	Report No.:	
PT:	<input type="checkbox"/>	Report No.:		Other:	<input type="checkbox"/>	Report No.:	
				Other Type:			

Vessel Visual Inspection - Summary

- The vessel is in good operating condition for continued service.

Vessel Visual Inspection – Summary Recommendations

- Continue to inspect vessel at regular scheduled intervals.

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

Meets Code Criteria: - Yes

Re-Inspection Required - No

Time and Billing Information:

Vehicle #:		Kms:		Hrs	Inspector (Name):	Wes Farquhar	PESL: 462
Time In:	00:00	Time Out:	00:00		Inspector (Signature):		API: 26996
Time In:	00:00	Time Out:	00:00		Client (Name):	Tim Kelly	
Personnel:					Client (Signature):		
Billing Info:					Chief Inspector (Signature – If Required):		

Additional Billing Information:



Figure 001_Coalescer



Figure 002_Coalescer-Top Shell

CLIENT: CNRL

P&ID: _____

LOCATION: _____

DISTRICT: ST. ALBERT - N

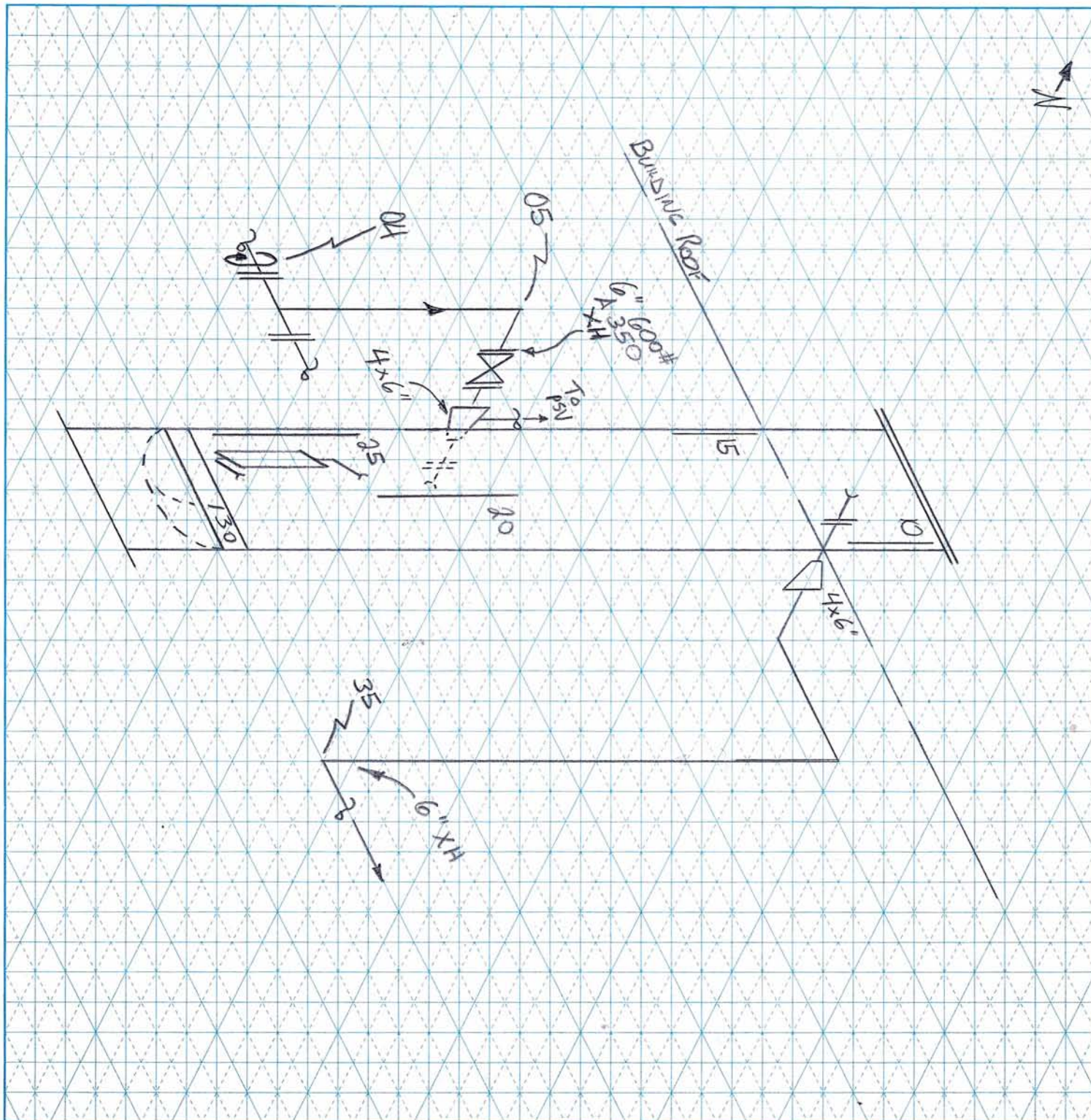
FACILITY: SPURFIELD

LSD: 07-28-071-02WS

DRAWING NO: WF-01

DATE: 25-JULY-2011

DRAWN BY: WES F



REG. NO. A0439630 EQP. NO. _____ S/N 973395F-1 EQP. DESC. COALGSCGX
 CODE/STAMP U CRN N9424-2 DIA. (ID/OD) 12.75 YEAR BUILT 1998 SERVICE SWEET
 MANUFACTURER PETRO EQUIPMENT HEIGHT/LENGTH _____ RT RT-2 J.E. _____

HEAD		SHELL		CHANNEL HEAD	
Top/N/S/E/W Mat	<u>SA-516-70</u>	Nom	<u>.790"</u>	Mat	<u>SA-106-B</u>
Btm/N/S/E/W Mat	_____	Nom	_____	Nom (top)	<u>.843"</u>
MAWP Shell Side	<u>1440 PSI</u>	Corr. All.	<u>0.0625"</u>	Shell Mat	_____
@ MAWT	<u>150°F</u>	Nom (btm)	_____	Head Mat	_____
PWHT	_____	MDMT	<u>-20°F</u>	MAWP Tube Side	_____
				@ MAWT	_____

[illegible]

Row 1 Legend

TML=Thickness measurement location (Scanned Bands)

PNT 1=Minimum thickness recorded in band (Red = Thickness is below nominal minus C.A.)

PNT 2=Maximum thickness recorded in band

PNT 3=Average thickness recorded in band

SOD=Scanning orientation & direction

LOM=Location of minimum thickness relative to the start of band

SOD Column Legend -1st Entry (Scan Orientation)

H=Horizontal band

V=Vertical band

C=Circumferential band

SOD Column Legend -2nd & 3rd Entry (Scan Direction)

T=Top

B=Bottom

N=North

S=South

E=East

W=West

LOM Column Legend

SOB=Start of band

EOB=End of Band

Knuckle=Within the knuckle of a pressure vessel head

*Note: All field equipment on transportable skids will be drawn from the view at the door of the building looking in. These drawings will have "View From Door" as the reference direction in the top left hand corner of the drawing. For all drawings with the "View From Door" designation the building wall opposite the door will be considered North for all scan direction acronyms listed in the legend above.