



# Canadian Natural Resources Ltd Facility Change Record

FCR/Project #:	FCR 6 Bolloque	Work Requisition:	N/A
Priority/Timeline:	ASAP	Initiated Date:	March 23 2009
AFE# (if applicable):	N/A	PHA/ FCR Level # (1, 2, or 3)	2

Summary of Change/Modifications include reason for change:

Change the current vessel inspection interval and PSV serving interval to 60 months. Currently the inspection interval is 48 months. Attached with this FCR form is a spreadsheet of the required changes in Maxtrak to be completed by Joanne at Coraspec. The Integrity and Operational staff have reviewed the changes and determined the new interval to be safe and appropriate.

Cost/Time Estimate (Include estimated cost to complete change and estimated down time)

N/A

Timing of Change (Include start and end date and if temporary change, date returned to normal)

Start

End:

Permanent (Y/N): Yes

Temporary (Y/N):

Return to Normal Operations Date:

Key Areas Affected: (check box if req'd)

Modification/alteration to control logic incl. S/D key

Modification to process piping/vessel/ exchanger

Structural change to building or lifting equipment

Modification to Gathering Lines

Change to Design Conditions (i.e.: Temp., Press. Etc.)

Modification to electrical/control circuits

Modification to rotating machinery

Change to Operating Philosophy or Procedure

Spare Parts

Others: Inspection Interval

Key Drawings or Documentation Affected: (check box if req'd)

P&IDs and PFDs

Line Lists

Plot Plans

U/G. Piping

S/D Key and Logic Diagrams

Termination and Loop Diagrams

Single Lines

QA/QC Program

Corrosion Control Program

Others

Data Books

Operating procedures/Manuals

Start-up/Shut-down procedures

Isolation Procedures

Training Manuals or Procedures

ERP

Safety Manual

Environmental or Waste Management Program

Others

Documentation Required: (check box if req'd)

Updated key documentation as above

Material or Equipment Specifications

Instrument Specification

HAZOP

Technical Checklist

Piping Drawings incl. Isometrics

Civil/Structural Drawings

Testing Program (hydro, radiographic, etc)

Welding and PWT procedures

Precommissioning Inspection Reports

Change Management Sign-off:

Approval to Execute Change

Initiator: Clayton Seifrid

Operations:

Maintenance:

Engineering:

Integrity: Anthony Merle

Safety:

Environment:

Other: Joanne Bryk

Other: Keith McIntosh

Follow-up Documentation Complete

Initiator:

Operations:

Maintenance:

Engineering:

Integrity:

Safety:

Environment:

Other:

Other:

Comments

"The vessel and PSV interval were changed on March 23, 2009, see FCR 6 Bolloque for back-up documentation. This documentation

is in the chief inspectors FCR binder." \* Comment added: intervals changed to 60 months on in service PV's & PSV's in Maxtrak \*



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Change the current vessel inspection interval and PSV serving interval to 60 months. Currently the inspection interval is 48 months. Attached with this FCR form is a spreadsheet of the required changes in Maxitak to be completed by Joanne at Coraspec. The Integrity and Operational staff have reviewed the changes and determined the new interval to be safe and appropriate.

**Cost/Time Estimate (Include estimated cost to complete change and estimated down time)**

N/A

**Timing of Change (Include start and end date and if temporary change, date returned to normal)**

Start	End:	
Permanent (Y/N): Yes	Temporary (Y.N):	Return to Normal Operations Date:

**Key Areas Affected: (check box if req'd)**

Modification/alteration to control logic incl. S/D key	<input type="checkbox"/>	Modification to electrical/control circuits	<input type="checkbox"/>
Modification to process piping/vessel/ exchanger	<input type="checkbox"/>	Modification to rotating machinery	<input type="checkbox"/>
Structural change to building or lifting equipment	<input type="checkbox"/>	Change to Operating Philosophy or Procedure	<input type="checkbox"/>
Modification to Gathering Lines	<input type="checkbox"/>	Spare Parts	<input type="checkbox"/>
Change to Design Conditions (i.e.: Temp., Press. Etc.)	<input type="checkbox"/>	Others: Inspection Interval	<input checked="" type="checkbox"/>

**Key Drawings or Documentation Affected: (check box if req'd)**

P&IDs and PFDs	<input type="checkbox"/>	Data Books	<input type="checkbox"/>
Line Lists	<input type="checkbox"/>	Operating procedures/Manuals	<input type="checkbox"/>
Plot Plans	<input type="checkbox"/>	Start-up/Shut-down procedures	<input type="checkbox"/>
U/G. Piping	<input type="checkbox"/>	Isolation Procedures	<input type="checkbox"/>
S/D Key and Logic Diagrams	<input type="checkbox"/>	Training Manuals or Procedures	<input type="checkbox"/>
Termination and Loop Diagrams	<input type="checkbox"/>	ERP	<input type="checkbox"/>
Single Lines	<input type="checkbox"/>	Safety Manual	<input type="checkbox"/>
QA/QC Program	<input type="checkbox"/>	Environmental or Waste Management Program	<input type="checkbox"/>
Corrosion Control Program	<input type="checkbox"/>	Others	<input type="checkbox"/>
Others	<input type="checkbox"/>		<input type="checkbox"/>

**Documentation Required: (check box if req'd)**

Updated key documentation as above	<input type="checkbox"/>	Piping Drawings incl. Isometrics	<input type="checkbox"/>
Material or Equipment Specifications	<input type="checkbox"/>	Civil/Structural Drawings	<input type="checkbox"/>
Instrument Specification	<input type="checkbox"/>	Testing Program (hydro, radiographic, etc)	<input type="checkbox"/>
HAZOP	<input type="checkbox"/>	Welding and PWHT procedures	<input type="checkbox"/>
Technical Checklist	<input type="checkbox"/>	Precommissioning Inspection Reports	<input type="checkbox"/>

**Change Management Signoff:**

**Approval to Execute Change**

Initiator:	Clayton Seifridt
Operations:	
Maintenance:	
Engineering:	
Integrity:	Anthony Merle
Safety:	
Environment:	
Other:	Joanne Bryk
Other:	Keith McIntosh

**Follow-up Documentation Complete**

Initiator:	
Operations:	
Maintenance:	
Engineering:	
Integrity:	
Safety:	
Environment:	
Other:	
Other:	

**Comments**

"The vessel and PSV interval were changed on March 23, 2009, see FCR 6 Bolloque for back-up documentation. This documentation is in the chief inspectors FCR binder."

FIELD	LOCATION	JUR#	LAST REG INSP	INSP INT (REG)	SERIAL#	CRN	STATUS	EQUIP DESCRIPTION	MANUFACTURER	LAST INSPECTION DATA		PSV DATA	NEW INTERVAL AND APPROVAL	Next Regulatory Inspection
BOLLOQUE	10-10-064-26W4	A0111962	08/01/2004	48	17S1120	B8013.2	IN SERVICE	2ND STAGE SCRUBBER	BD HOLT CO	VE, UT: External Condition: No loose or flaking paint. Leakage: No leaks found. Skirt: Scrubber is mounted firmly to floor, no distortion to skirt. Skid package is grounded. Anchor Bolts: Firmly bolted. Nozzle: Good condition. No leaking detected. Gauges: Firmly attached and within operational parameters for service. External Piping: Firmly supported, no distortion or deflection. Valving: Firmly attached, no leaks. PSV: Located on the Inlet separator discharge piping, set below MAWP of vessel. NDE method: Ultrasonic corrosion survey carried out, no items of concern.	Previous inspection 1997 RAE	2004		
BOLLOQUE	10-10-064-26W4	A0111963	08/01/2004	48	17S112B	B8013.2	IN SERVICE	1ST STAGE SCRUBBER	BD HOLT CO	VE, UT: External Condition: No loose or flaking paint. Leakage: No leaks found. Skirt: Scrubber is mounted firmly to floor, no distortion to skirt. Skid package is grounded. Anchor bolts: Firmly bolted. Nozzle: Good condition. No leaking found. Gauges: Firmly attached and within operational parameters for service. External Piping: Firmly supported, no distortion or deflection. Valving: Firmly attached, no leaks. PSV: Located on the Inlet separator discharge piping, set below MAWP of vessel. NDE method: UT carried out, lower shell thickness detected below nominal - code calculations carried out to ensure sufficient metal is present for safe operation.	Previous inspection 1997 RAE	2004		
BOLLOQUE	06-19-064-25W4	A0117662	07/29/2008	48	LS1419	C4794.2	IN SERVICE	SEPARATOR	NATCO	VE, UT: Vessel was last painted over corrosion. UT showed APP 0.016" loss at Shell Bottom. External: No concerns. Nameplate is secure and eligible. Ground Cable is attached. Shell, Nozzles, Welds, Supports, Top and Bottom Heads are all in good condition. PSV is overdue and a waxy emulsion was seen inside after cleaning. External Protection has corrosion under the paint. Internal: Vessel has non removable internals that leave no visual of Shell Internal.		2008		
BOLLOQUE	05-04-064-02W5	A0119364	11/21/2007	48	P-2287	O8132.2	IN SERVICE	SEPARATOR	CESSCO	VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell and piping. The skirt is secure and level with no paint and light corrosion around the base. The temperature and pressure gauges are visible and in good condition. The sight glass is in good condition however the glass is not transparent. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact. See attached photos for inspection findings. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thickness recorded.	Previous inspection 2007 RAE	No service Date		
BOLLOQUE	06-19-064-25W4	A0128102	07/29/2008	48	LC147	A5465.2	IN SERVICE	REBOILER	NATCO	VI, VE, UT, MT: No External concerns, paint is deteriorated. Nameplate is secure and eligible and Ground Cable is attached. Nozzles, welds, Supports are all in good condition. Vessel was last painted over corrosion. Internal: Tube Sheet is pitted-light, Firetubes and Tubes are in good condition. Tube Bundle has heavy General Corrosion. Shell has Internal Corrosion and is Scaled. Blistered. Active Corrosion and Barnacles. 2" tube bundle shows up to 0.025" internal loss and up to 0.050" external pitting(2" SCH 40 = 0.154 NOM). Internal Barnacles seen above fluid line and active corrosion seen under barnacles. Heavy Scale/Product build up observed on 2' convection tubes. Heavy corrosion observed at Shell Top hatch. After blast clean was performed, Shell shows general 0.030" with 0.060" random pitting from 10:00 to 2:00.		2008		
BOLLOQUE	11-30-064-25W4	A0405320	11/23/2007	48	4161	H0843.2	IN SERVICE	3 PHASE SEPARATOR		VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell and piping with the exception of isolated areas. The skirt is secure and level with light corrosion around the base. Mild corrosion is present inside the skirt on the bottom head. The sight glass, temperature and pressure gauges are visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thicknesses recorded.		2007		
BOLLOQUE	11-33-063-02W5	A0405334	11/21/2007	48	4177	H0843.2	IN SERVICE	3 PHASE SEPARATOR		VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is starting to deteriorate on the shell and piping with light corrosion present. The skirt is secure and level with mild corrosion and scale build up present on the bottom 6 inches of the base. Light corrosion is present inside the skirt on the bottom head and drain elbow. The sight glass, temperature and pressure gauges are visible and in good condition. The PSV was in good condition with the carseal intact. External UT was performed with no significant wall losses noted. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thicknesses recorded.	Previous inspection 1999 RAE	2007		

Bottom Line : - all intervals will be revised to 60 mos  
- 10-10 location requires VE, UT in 2009 due to ESR  
- line heater at 6-19 (A409027) requires inspection if in service full

- COR in  
issues  
in sp. in  
2008

- SOME  
CORROS. on

							VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is starting to deteriorate on the shell and piping with light corrosion present on isolated areas. The skirt is secure and level with light corrosion around the base. Mild corrosion is present inside the skirt on the bottom head and drain elbow. The sight glass, temperature and pressure gauges are visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact. See attached photos for inspection findings. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thickness recorded.	Previous inspection 2001 RAE	2007		
BOLLOQUE	02-03-064-26W4	A0405563	11/22/2007	48	4376	H0843.2	IN SERVICE	3 PHASE SEPARATOR	R/V GAS FIELD SERVICES		
BOLLOQUE	08-27-062-01W5	A0405641	11/22/2007	48	4457	H0843.2	IN SERVICE	3 PHASE SEPARATOR		2005	
BOLLOQUE	06-24-064-26W4	A0405788	11/09/2005	48	4571	F5874.2	IN SERVICE	SEPARATOR	R/V GAS FIELD SERVICES	2001 RAE VE, UT: External The coating is in very good condition. The top head and section of shell is located outside the building roof. The skirt is welded to the floor. UT data good.	1997
BOLLOQUE	06-19-064-26W4	A0409027	11/20/2007	24	BW115-12	M1543.2	IN SERVICE	LINE HEATER		2003	
BOLLOQUE	10-10-064-26W4	A0441029	08/01/2004	48	97-3402F-1	F9975.2	IN SERVICE	SALES GAS FILTER		2004	
BOLLOQUE	09-24-064-26W4	A0441888	11/23/2007	48	5231	H0843.2	IN SERVICE	3 PHASE SEPARATOR		2004	
BOLLOQUE	16-11-064-02W5	A0446853	11/23/2007	48	5360	F5874.2	IN SERVICE	SEPARATOR	R/V GAS FIELD SERVICES	Previous inspection 2001 RAE	2000

\* Issue  
- some  
corr'n  
- what is  
status?  
- if in  
operation  
need to  
inspect

										VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No vibrations were noted. The paint is intact on the shell and piping. The skirt is secure and level with light corrosion around the base. Mild corrosion is present inside the skirt on the bottom head and drain elbow. A product stain on the shell below the instrumentations threaded connection suggests a past or intermittent leak. The connection was not leaking at time of inspection. The sight glass, temperature and pressure gauges are visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thickness recorded.	Previous inspection 2001 RAE	2007		
BOLLOQUE	02-01-063-03W5	A046857	11/21/2007	48	5364	F5874.2	IN SERVICE	3 PHASE SEPARATOR	R/V GAS FIELD SERVICES					
							IN SERVICE	3 PHASE SEPARATOR		VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell and piping. The inlet piping is sweating. Light corrosion is present on the flanges of the outlet piping. The skirt is secure and level. Light corrosion is present inside the skirt on the bottom head. The sight glass and temperature gauge are visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thicknesses recorded.		2007		
BOLLOQUE	16-28-063-25W4	A0463683	11/22/2007	48		P7217.2	IN SERVICE	3 PHASE SEPARATOR				2007		
							IN SERVICE	INLET SEPARATOR	ALCO GAS & OIL PRODUCTION EQUIPMENT LTD	VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the piping and majority of the shell. The paint is cracked and deteriorating on the middle shell. Light corrosion is present on the outlet nozzle flanges and hardware. The skirt is secure and level. The sight glass, temperature and pressure gauges are visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thicknesses recorded.	Previous inspection 2003 RAE	2007 no prepop	2007	
BOLLOQUE	14-24-063-02W5	A0465946	11/21/2007	48	200166940IE	P4495.213	IN SERVICE	DISCHARGE COAL SEPARATOR		NO Inspections				
BOLLOQUE	06-04-064-26W4	A0471440		48			IN SERVICE	INLET SEPARATOR		NO Inspections			2007	
BOLLOQUE	06-04-064-26W4	A0471592		48			IN SERVICE				Previous inspection 2004 RAE	2007		
BOLLOQUE	09-04-063-01W5	A0478970	11/22/2007	48	7484	P7217.2	IN SERVICE	SEPARATOR		Representative Inspection			2007	
							IN SERVICE	3 PHASE SEPARATOR		VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell and inlet piping. Light corrosion is present at the threaded joints of the outlet piping. The skirt is secure and level. The skirt is full of standing water, as a result there is light corrosion on the bottom head and inside of the skirt. The sight glass, temperature and pressure gauges are visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact. See attached photos for inspection findings. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thicknesses recorded.			2003	
BOLLOQUE	14-35-063-26W4	A0479061	11/23/2007	48	7549	P7217.2	IN SERVICE			VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell and piping. Many stains were observed on the upper section of the south shell below the top head. The staining does not appear to be from a process leak. The skirt is secure and level. Light corrosion is present inside the skirt on the bottom head and drain elbow. The sight glass is visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact. See attached photos for inspection findings. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thicknesses recorded.				
BOLLOQUE	13-23-064-26W4	A0490365	11/20/2007	48	7669	P9596.2	IN SERVICE	COALESCER		VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell and piping. The skirt is secure and level. Light corrosion is present inside the skirt on the bottom head and drain elbow. The sight glass is visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thickness recorded.		No service Date		
BOLLOQUE	13-23-064-26W4	A0493074	11/20/2007	48	030194-1	R0348.213	IN SERVICE	INLET SEPARATOR		VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell and piping. The skirt is secure and level. Light corrosion is present inside the skirt on the bottom head and drain elbow. The sight glass is visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thickness recorded.		No service Date		

- Some  
errors

										VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was off stream at time of inspection. There was no evidence of process leaks. The paint is intact on the shell and piping except behind the name plate where light corrosion is present. The skirt is secure and level. There is no paint on the inside of the skirt. <u>Light corrosion is present on the bottom head and drain elbow.</u> The sight glass is visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact. See attached photos for inspection findings.		No service Date		
BOLLOQUE	04-23-064-28W4	A0505058	07/24/2007	48	030455-20	R4613.2	IN SERVICE	INLET SEPARATOR	JIRO	VE, UT: 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. The paint was intact on the shell and piping except behind the name plate where light corrosion is present. The skirt is secure and level. There is no paint on the inside of the skirt. Light corrosion is present on the bottom head and drain elbow. The sight glass is visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact. See attached photos for inspection findings.		No service Date		
BOLLOQUE	04-23-064-28W4	A0510601	07/24/2007	48	030676-05	R4146.213	IN SERVICE	OIL COALESCER	JIRO	VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell. The paint is deteriorating and light corrosion is present on the inlet and drain piping concentrated around the threaded connections. The skirt is secure and level with light corrosion around the base. Mild corrosion is present inside the skirt on the bottom head and drain elbow. The sight glass and temperature gauge are visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thickness recorded.	Precomm 2005	No service Date	2005	
BOLLOQUE	04-27-063-25W5	A0517736	11/21/2007	48	9601	P7217.2	IN SERVICE	3 PHASE SEPARATOR	RAV	VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell, piping and saddles is intact. The saddle supports are secure and level. The sight glass and pressure gauge are visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact. See attached photos for inspection findings. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thicknesses recorded.		No service Date		
BOLLOQUE	07-13-062-03W5	A0535455	11/23/2007	48	9771		IN SERVICE	SEPARATOR		Representative Sample		No service Date		
										VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint on the shell, piping and saddles is intact. The saddle supports are secure and level. The sight glass and pressure gauge are visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact. See attached photos for inspection findings. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thicknesses recorded.		No service Date		
BOLLOQUE	07-16-063-01W5	A0536273	11/22/2007	48	V-3938-001	T3254.2	IN SERVICE	SEPARATOR	JIRO	VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint on the shell, piping and saddles is intact. The skirt support is secure and level. The sight glass and pressure gauge are visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact. See attached photos for inspection findings. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thicknesses recorded.		No service Date		
										VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint on the shell, piping and saddles is intact. The skirt support is secure and level. The sight glass and pressure gauge are visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact. See attached photos for inspection findings. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thicknesses recorded.		No service Date		
BOLLOQUE	07-16-063-01W5	A0541487	11/22/2007	48	9677	R6697.213	IN SERVICE	COALESCER	JIRO	VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell and piping. The skirt is missing paint on the base and inside on the bottom head and drain nozzle with mild corrosion is present. The sight glass was dirty and not visible. The temperature and pressure gauges are visible and in good condition. The PSV was in good condition with the carseal intact. External UT was performed with no significant wall losses noted. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thicknesses recorded.		No service Date		
										VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell and piping. The skirt is missing paint on the base and inside on the bottom head and drain nozzle with mild corrosion is present. The sight glass was dirty and not visible. The temperature and pressure gauges are visible and in good condition. The PSV was in good condition with the carseal intact. External UT was performed with no significant wall losses noted. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thicknesses recorded.		No service Date		
BOLLOQUE	16-32-063-02W5	A2737953	11/21/2007	48	5015-21	K4952.2	IN SERVICE	SEPARATOR	PRESSON MANUFACTURING LTD.	VE, UT: Insulation: Good condition, no open or torn areas. Leakage: No leaks found. Skirt: Tower is mounted firmly to the floor. Good condition, no distortion to skirt. Ground cable is attached. Anchor bolts: Firmly bolted. Nozzle: Good condition. No leaking found. Gauges: Firmly attached and within operational parameters for service. External Piping: Firmly supported, no distortion or deflection. Valving: Firmly attached, no leaks. PSV: Located on the, set below MAWP of vessel. NDE method: UT carried out, no items of concern.		No service Date		
										VE, UT: Insulation: Good condition, no open or torn areas. Leakage: No leaks found. Saddle: Good condition, no distortion to supports. Skid package is grounded. Anchor bolts: Firmly bolted. Nozzle: Good condition. No leaking found. Gauges: Firmly attached and within operational parameters for service. External Piping: Firmly supported, no distortion or deflection. Valving: Firmly attached, no leaks. PSV: Located on the, set below MAWP of vessel. NDE method: UT carried out, lower shell thickness detected below nominal- code calculations carried out to ensure sufficient metal is present for safe operation.	Previous inspection 1999 RAE		2004	
BOLLOQUE	10-10-064-28W4	A2771694	08/01/2004	48	93C-4851-04	K0434.2	IN SERVICE	DE-ETHANIZER	ALCO GAS & OIL PRODUCTION EQUIPMENT LTD	VE, UT: Insulation: Good condition. No open or torn areas. Leakage: No leaks found. Saddle: Good condition, no distortion to supports. Skid package is grounded. Anchor bolts: Firmly bolted. Nozzle: Good condition. No leaking found. Gauges: Firmly attached and within operational parameters for service. External Piping: Firmly supported, no distortion or deflection. Valving: Firmly attached, no leaks. PSV: Located on the, set below MAWP of vessel. NDE method: UT carried out, lower shell thickness detected below nominal- code calculations carried out to ensure sufficient metal is present for safe operation.	Previous inspection 1999 RAE	Tube 2004 Shell 1998		
BOLLOQUE	10-10-064-28W4	A2771704	08/01/2004	48	93C-4851-02	K0435.2	IN SERVICE	CONDENSATE/GAS EXCHANGER	ALCO GAS & OIL PRODUCTION EQUIPMENT LTD	VE, UT: Insulation: Good condition. No open or torn areas. Leakage: No leaks found. Saddle: Good condition, no distortion to supports. Skid package is grounded. Anchor bolts: Firmly bolted. Nozzle: Good condition. No leaking found. Gauges: Firmly attached and within operational parameters for service. External Piping: Firmly supported, no distortion or deflection. Valving: Firmly attached, no leaks. PSV: Located on the, set below MAWP of vessel. NDE method: UT carried out, lower shell thickness detected below nominal- code calculations carried out to ensure sufficient metal is present for safe operation.	Previous inspection 1999 RAE	Tube 2004 Shell 1998		

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BOLLOQUE	10-10-064-26W4	A2771711	08/01/2004	48	93C-4851-01A	K9436.2	IN SERVICE	GAS/GAS EXCHANGER	ALCO GAS & OIL PRODUCTION EQUIPMENT LTD	VE, UT: Insulation: Good overall condition. No open or torn areas. Leakage: No leaks found. Skirt: Good condition, no distortion to supports. Skid package is grounded. Anchor bolts: Firmly bolted. Nozzle: Good condition, no leaking detected. Gauges: Firmly attached and within operational parameters for service. External Piping: Firmly supported, no distortion or deflection. Valving: Firmly attached, no leaks. PSV: Located on ,set below MAWP of vessel. NDE method: UT carried out, no items of concern.	Previous inspection 1999 RAE	Tube 2004 Shell 1998		
BOLLOQUE	10-10-064-26W4	A2771728	08/01/2004	48	93C-4851-01B	K9436.2	IN SERVICE	GAS/GAS EXCHANGER	ALCO GAS & OIL PRODUCTION EQUIPMENT LTD	VE, UT: Insulation: Good overall condition. No open or torn areas. Leakage: No leaks found. Skirt: Good condition, no distortion to supports. Skid package is grounded. Anchor bolts: Firmly bolted. Nozzle: Good condition, no leaking detected. Gauges: Firmly attached and within operational parameters for service. External Piping: Firmly supported, no distortion or deflection. Valving: Firmly attached, no leaks. PSV: Located on ,set below MAWP of vessel. NDE method: UT carried out, no items of concern.	Previous inspection 1999 RAE	Tube 1998 Shell 1998		
BOLLOQUE	10-10-064-26W4	A2771735	08/01/2004	48	93C-1851-09	N9566.2	IN SERVICE	FUEL GAS SCRUBBER	ALCO GAS & OIL PRODUCTION EQUIPMENT LTD	VE, UT: External Condition: No loose or flaking paint. Leakage: No leaks found. Skirt: Good condition mounted firmly to deck, no distortion. Ground wire is attached. Anchor bolts: Firmly bolted. Nozzle: Good condition. No leaking found. Gauges: Firmly attached and within operational parameters for service. External Piping: Firmly supported, no distortion or deflection. Valving: Firmly attached, no leaks. PSV: Located on the, set below MAWP of vessel. NDE method: UT carried out, no pitting detected.	Previous inspection 1999 RAE	2004		
BOLLOQUE	10-26-063-02W5	A2809256	11/21/2007	48	2161		IN SERVICE	3 PHASE SEPARATOR		VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is deteriorating on the shell and piping with light corrosion present on isolated areas of the shell. Light corrosion is present throughout the piping. The skirt is secure and level with light corrosion around the base. Mild corrosion is present inside the skirt on the bottom head and drain elbow. The sight glass and pressure gauge are visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thicknesses recorded.	Previous inspection 2001 RAE	2003		
BOLLOQUE	10-10-064-26W4	A2835909	08/01/2004	48	93C-4851-06	D3824.2	IN SERVICE	LINE HEATER	ALCO GAS & OIL PRODUCTION EQUIPMENT LTD	VE, UT: Insulation: Good condition, no open or torn areas. Leakage: No leaks found. Skirt: Reboiler is mounted firmly to the floor. Good condition, no distortion to skirt. Ground cable is attached. Anchor bolts: Firmly bolted. Nozzle: Good condition. No leaking found. Gauges: Firmly attached and within operational parameters for service. External Piping: Firmly supported, no distortion or deflection. Valving: Firmly attached, no leaks. PSV: Located on the, set below MAWP of vessel. NDE method: UT carried out, no items of concern.	Previous inspection 1999 RAE	No PSV attached		
BOLLOQUE	10-10-064-26W4	A2845236	08/01/2004	48	93C-4851-03	K9272.2	IN SERVICE	SEPARATOR	ALCO GAS & OIL PRODUCTION EQUIPMENT LTD	VE, UT: External Condition: No loose or flaking paint. Leakage: No leaks found. Skirt: Separator is mounted firmly to the floor. Good condition, no distortion to skirt. Ground cable is attached. Anchor bolts: Firmly bolted. Nozzle: Good condition. No leaking found. Gauges: Firmly attached and within operational parameters for service. External Piping: Firmly supported, no distortion or deflection. Valving: Firmly attached, no leaks. PSV: Located on the, set below MAWP of vessel. NDE method: UT carried out, no items of concern.	Previous inspection 1999 RAE	2004 Valve replaced		
BOLLOQUE	10-10-064-26W4	A2914646	08/01/2004	48	2428	F5874.2	IN SERVICE	INLET SEPARATOR	RAV GAS FIELD SERVICES	VE, UT: External Condition: No loose or flaking paint. Leakage: No leaks found. Skirt: Scrubber is firmly mounted to the floor, no distortion to skirt. Ground wire is attached. Anchor bolts: Firmly bolted. Nozzle: Good condition, no leaking detected. Gauges: Firmly attached and within operational parameters for service. External Piping: Firmly supported, no distortion or deflection. Valving: Firmly attached, no leaks. PSV: Located on upper shell, set below MAWP of vessel. NDE method: UT carried out, shell metal detected below nominal- code calculations carried out to ensure sufficient metal exists for safe operation.	Previous inspection 2001 RAE	2004		
BOLLOQUE	06-10-064-25W4	A2920175	11/21/2007	48	93-6970-01	H4884.1	IN SERVICE	SULFATREAT TOWER	WELLS-HALL FABRICATION	Representative Sample	Precomm 2005	No service Date		
BOLLOQUE	06-10-064-25W4	A2920182	11/21/2007	48	93-6970-01	H4884.1	IN SERVICE	SULFATREAT TOWER	WELLS-HALL FABRICATION	Representative Sample	Precomm 2006	No service Date		
BOLLOQUE	06-19-064-25W4	A2946797	11/20/2007	48	2485G 93	M2245.2	IN SERVICE	SEPARATOR		VE, UT: Insulation: Not insulated. External Condition: Good paint. No corrosion or damage. Leakage: No leaks. Saddle:No corrosion. No damage. No leaks. Common ground. Anchor bolts: All bolts are tight. No cracking or deformation. Nozzles: Studs are fully engaged.No damage. No leaks. No gussets. External Piping:All clamps are in place. Well supported. No overload or deflection.Paint is fair. No corrosion. Valving: No leaks. NDE method: UT/MT.	Previous inspection 1999 RAE	2004 Prepped		



										VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is starting to deteriorate on the shell and piping with light corrosion present on isolated areas. The corrosion on the piping is concentrated around the threaded connections. The skirt is secure and level with light corrosion around the base. Mild corrosion is present inside the skirt on the bottom head and drain elbow. The sight glass, temperature and pressure gauges are visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carsael intact. See attached photos for inspection findings. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thickness recorded.	Previous inspection 1996 RAE	No service Date		
BOLLOQUE	07-16-063-01W5	A3081024	11/22/2007	48	3258	F5874.2	IN SERVICE	3 PHASE SEPARATOR	RAV GAS FIELD SERVICES	VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell and piping with the exception of isolated areas. The skirt is secure and level. The skirt is full of standing water, as a result there is light corrosion on the bottom head and inside of the skirt. The sight glass, temperature and pressure gauges are visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carsael intact.	Previous inspection 1999 RAE	No service Date		
BOLLOQUE	06-14-064-26W4	A3097498	11/20/2007	48	3396	H0843.23	IN SERVICE	3 PHASE SEPARATOR	RAV GAS FIELD SERVICES	VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell and piping. The skirt is secure and level. Mild corrosion is present inside the skirt on the bottom head and drain elbow. The sight glass and pressure gauge are visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carsael intact. See attached photos for inspection findings. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thicknesses recorded.	Previous inspection 1996 RAE		2007	
BOLLOQUE	13-23-064-26W4	A3104309	11/20/2007	48	3445	H0843.2	IN SERVICE	3 PHASE SEPARATOR	RAV GAS FIELD SERVICES	VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No vibrations were noted. The paint is intact on the shell and piping with isolated deterioration on the upper shell below the roof of building. The skirt is secure and level with light corrosion around the base. Light corrosion is present inside the skirt on isolated areas of the bottom head and drain elbow. The sight glass, temperature and pressure gauges are visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carsael intact.	Previous inspection 1996 RAE		2007	
BOLLOQUE	03-04-064-02W5	A3104866	11/21/2007	48	3480	F5874.2	IN SERVICE	3 PHASE SEPARATOR		VE, UT: Insulation: Not insulated. External Condition: Good paint. No corrosion or damage. Leakage: No leaks. Saddle:Skirt has slight corrosion at skirt to floor interface. No leaks. Welds are ok. Common ground. Anchor bolts. All bolts are tight. No cracking or deformation. Nozzles: Studs are fully engaged.No damage. No leaks. No gussets. Gauges: (1) 0-300 psi. Gauge is ok External Piping:All clamps are in place. Well upported. No overload or deflection. Paint is fair. No corrosion. Valving: No leaks. No chains required. PSV: PSV at 165 psi. Vessel at 250 MAWP. NDE method: "UTS".	Previous inspection 1996 RAE	2004 Prepped		
BOLLOQUE	10-10-064-26W4	A3139769	08/01/2004	48	95-8053-0	M2319.21	IN SERVICE	FUEL GAS SCRUBBER	WELLS-HALL FABRICATION	VE, UT: Insulation: Not insulated. External Condition: Good paint. No corrosion or damage. Leakage: No leaks. Saddle:Paint is fair. Slight surface corrosion at floor to skirt interface. Welds are ok. Common ground. Anchor bolts. All bolts are tight. No cracking or deformation. Nozzles: Studs are fully engaged.No damage. No leaks. No gussets. Gauges: (1) -20-1207C. Temp gauge is ok. External Piping:All clamps are in place. Well upported. No overload or deflection. Paint is fair. No corrosion. Valving: No leaks. No chains required. PSV: PSV at 1440. Vessel at 1440 MAWP. NDE method: "UTS".	Previous inspection 2001 RAE	2004 Prepped		
BOLLOQUE	10-10-064-26W4	A3139848	08/01/2004	48	95-8052-0	M2316.21	IN SERVICE	GLYCOL CONTRACTOR	WELLS-HALL FABRICATION	VE, UT: External Condition: No loose or flaking paint. Leakage: No leaks found. Skirt: Separator is firmly mounted to the floor, no distortion to skirt. Ground wire is attached. Anchor bolts: Firmly bolted. Nozzle: Good condition, no leaking detected. Gauges: Firmly attached and within operational parameters for service. External Piping: Firmly supported, no distortion or deflection. Valving: Firmly attached, no leaks. PSV: Located on discharge piping, set below MAWP of vessel. NDE method: UT carried out, no items of concern.	Previous inspection 2001 RAE		2004	
BOLLOQUE	10-10-064-26W4	A3139886	08/01/2004	48	95-8056-0	M2318.213	IN SERVICE	INLET SEPARATOR	WELLS-HALL FABRICATION	VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No vibrations were noted. The paint is deteriorating on the shell and piping with the most affected area on the east side of the shell. There is light corrosion present on isolated areas. The skirt is secure and level with light corrosion around the base. Mild corrosion is present inside the skirt on the bottom head. The sight glass, temperature and pressure gauges are visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carsael intact.	Previous inspection 2001 RAE		2004	
BOLLOQUE	07-16-063-01W5	A3142934	11/22/2007	48	3578	H3897.2	IN SERVICE	2 PHASE SEPARATOR					2004	

11  
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										VE, UT: Insulation: Not insulated. External Condition: Very slight surface corrosion (pachy). Leakage: No leaks. Saddle: No saddle, vessel mounted to cylinders. No leaks. Common ground. All welds are acceptable. Anchor bolts: All bolts secure. No deformation. Nozzles: Paint is good. No gussets. Bolts are engaged. Gauges: -40-50 temp. Gauge working. External Piping: Paint is good. No overload, or deflection. All clamps are in place. Valving: No leaks. PSV: vessel at 655. PSV at 635. NDE method: UT/MT.	Previous inspection 1999 RAE	2004 BODY/BONNE T BOLT BROKEN. NO PRETEST		
BOLLOQUE	10-10-064-26V4	A3146804	08/01/2004	48	583P1	N0695.2	IN SERVICE	1ST STAGE SUCTION BOTTLE	ENERFLEX SYSTEMS LTD	VE, UT: Insulation: Not insulated. External Condition: Paint is fair. Slight surface corrosion at top of vessel. Leakage: No leaks. Saddle: No leaks. Good welds. Common ground. No saddle. Anchor bolts: All bolts are secure. No cracking or deformation. Nozzles: All studs engaged. No damage or deflection. No gussets. External Piping: All clamps and shoes are in place. No overload. Paint is good. Valving: No leaks. No chaining required. PSV: vessel set at 655. psv set at 635. NDE method: UT/MT.	Previous inspection 1999 RAE	2004 BODY/BONNE T BOLT BROKEN. NO PRETEST		
BOLLOQUE	10-10-064-26V4	A3146811	08/01/2004	48	382 P2	N0696.2	IN SERVICE	1ST STAGE SCRUBBER	ENERFLEX SYSTEMS LTD	VE, UT: Insulation: Not insulated. External Condition: Good paint. No corrosion or damage. Leakage: No leaks. Saddle: No saddle, vessel is mounted to cylinders. . No leaks. Common ground. Anchor bolts: All bolts are tight. Nozzles: No gussets. All studs are engaged. No leaks. No damage or deflection. Gauges: -20-1207c. Temp gauges is ok. External Piping: Well supported. No deflection or overload. Paint is good. No corrosion. Valving: No leaks. No chaining required. PSV: Vessel at 655 psi. PSV at 635 psi. NDE method: UT.	Previous inspection 1999 RAE	2004 BODY/BONNE T BOLT BROKEN. NO PRETEST		
BOLLOQUE	10-10-064-26V4	A3146828	08/01/2004	48	583-P3	N0697.2	IN SERVICE	2ND STAGE SUCTION BOTTLE	ENERFLEX SYSTEMS LTD	VE, UT: Insulation: Not insulated. External Condition: Good paint. No corrosion or damage. Leakage: No leaks. Saddle: No saddle on vessel, mounted on cylinders. Common ground thny skid. Anchor bolts: All bolts are tight. No cracking or deformation. Nozzles: No damage. No leaks. No gussets. Gauges: (1) 10-2607c. Temp gauge is ok. External Piping: Well supported. No overload or deflection. Good paint. No corrosion. Valving: No leaks. No chains required. PSV at 1250. Vessel at 1315 psi. NDE method: UT/MT.	Previous inspection 1999 RAE	2004 BODY/BONNE T BOLT BROKEN. NO PRETEST		
BOLLOQUE	10-10-064-26V4	A3146835	08/01/2004	48	583-P4	N0698.2	IN SERVICE	2ND STAGE DISCHARGE BOTTLE	ENERFLEX SYSTEMS LTD	VE, UT: Insulation: Not insulated. External Condition: Good paint. No corrosion or damage. Leakage: No leaks. Saddle: No saddle, mounted to cylinders No dents or corrosion. . No leaks. Common ground. Anchor bolts: All bolts are tight. No cracking or deformation. Nozzles: Studs are fully engaged. No damage. No leaks. No gussets. Gauges: (1) -20-1207c. Temp gauge is ok. External Piping: All clamps are in place. Well supported. No overload or deflection. Good paint. No corrosion. Valving: No leaks. No chains required. PSV: PSV at 1250. Vessel at 1315 psi. NDE method: UT/MT.	Previous inspection 1999 RAE	2004 Prepopped		
BOLLOQUE	10-10-064-26V4	A3146842	08/01/2004	48	583-P5	N0699.2	IN SERVICE	3RD STAGE SUCTION BOTTLE	ENERFLEX SYSTEMS LTD	VE, UT: Insulation: Not insulated. External Condition: Good paint. No corrosion or damage. Leakage: No leaks. Saddle: No saddle. Common ground. Anchor bolts: All bolts are tight. No cracking or deformation. Nozzles: Studs are fully engaged. No damage. No leaks. No gussets. Gauges: (1) -20-1207c. Temp gauge is ok. External Piping: All clamps are in place. Well supported. No overload or deflection. Good paint. No corrosion. Valving: No leaks. No chains required. PSV: PSV at 1250. Vessel at 1315 psi. NDE method: UT/MT.	Previous inspection 1999 RAE	2004 Prepopped		
BOLLOQUE	10-10-064-26V4	A3146859	08/01/2004	48	583-P6	N0700.2	IN SERVICE	3RD STAGE DISCHARGE BOTTLE	ENERFLEX SYSTEMS LTD	VE, UT: Insulation: Not insulated. External Condition: Good paint. No corrosion or damage. Leakage: No leaks. Saddle: No saddle. Common ground. Anchor bolts: All bolts are tight. No cracking or deformation. Nozzles: Studs are fully engaged. No damage. No leaks. No gussets. Gauges: (1) 10-2807c. Temp gauge is a little tough to read, not bad. External Piping: All clamps are in place. Well supported. No overload or deflection. Paint is fair. No corrosion. Valving: No leaks. No chains required. PSV: PSV at 1440. Vessel at 1970 psi. NDE method: UT/MT.	Previous inspection 1999 RAE	2004 Prepopped		
BOLLOQUE	10-10-064-26V4	A3146866	08/01/2004	48	583-S1	N0692.2	IN SERVICE	1ST STAGE SCRUBBER	ENERFLEX SYSTEMS LTD	VE, UT: Insulation: Not insulated. External Condition: Slight area of peeling below outer nozzle. Leakage: No leaks. Saddle: Slight surface corrosion at bottom of skirt. No leaks. Common ground thru skid. Anchor bolts: All bolts are secure. No cracks or deformation. Nozzles: Paint is good. No gussets. Gauges: Non functioning 0-1000 psi gauge. No leaks. (1) 1 liquid level (ok). External Piping: Well supported. No overload. No deflection. Paint is good. No corrosion. Valving: All valves are good. NDE method: UT/MT at nozzles. "UTS". Bottom head inspection: No access for TML @ bottom head.	Previous inspection 1999 RAE	2004 BODY/BONNE T BOLT BROKEN. NO PRETEST		
BOLLOQUE	10-10-064-26V4	A3146873	08/01/2004	48	583S2	N0693.2	IN SERVICE	2ND STAGE SCRUBBER	ENERFLEX SYSTEMS LTD	VE, UT: Insulation: Not insulated. External Condition: Paint is good. No damage or corrosion. Leakage: No leaks. Saddle: Saddle is good. No dents or mechanical damage. No leaks. Common ground. Nozzles: No gussets. All studs are engaged. Gauges: Non functioning 10 psi-1000 psi gauge. (1) liquid level-ok. External Piping: All clamps are in place. No deflection or overload. Paint is good. No corrosion. Valving: No leaks. no chaining required. PSV: Vessel at 655 psi. PSV at 635 psi. NDE method: UT.	Previous inspection 1999 RAE	2004 BODY/BONNE T BOLT BROKEN. NO PRETEST		
BOLLOQUE	10-10-064-26V4	A3146880	08/01/2004	48	583S3	N0694.2	IN SERVICE	3RD STAGE SCRUBBER	ENERFLEX SYSTEMS LTD	VE, UT: Insulation: Not insulated. External Condition: Good paint. No corrosion or damage. Leakage: No leaks. Saddle: No dents or corrosion. Welds are acceptable. No leaks. Common ground. Anchor bolts: All bolts are tight. No cracking or deformation. Nozzles: Studs are fully engaged. No damage. No leaks. No gussets. Gauges: (1) 0-1000 psi. Pressure gauge is ok. External Piping: Well supported. No overload or deflection. Good paint. No corrosion. Valving: No leaks. No chains required. PSV: PSV at 1250. Vessel at 1315 psi. NDE method: UT/MT.	Previous inspection 1999 RAE	2004 Prepopped		

									VE, UT: External Condition: No loose or flaking paint. Leakage: No leaks found. Saddle: Dampener is firmly bolted to compressor cross head. Skid package is grounded. Anchor bolts: Firmly bolted. Nozzle: Good condition, no leaking detected. Gauges: No gauges on this dampener. External Piping: Firmly supported, no distortion or deflection. Valving: Firmly attached, no leaks. PSV: Located on 1st Stage discharge piping. Set below MAWP of vessel. NDE method: UT carried out, discharge nozzle metal thickness detected below nominal- code calculations carried out to ensure sufficient metal exists for safe operation.		No PSV attached		
BOLLOQUE	10-10-064-26V4	C11540	08/01/2004	48	ES-1109	C5060.2	IN SERVICE	1ST STAGE SCRUBBER					
BOLLOQUE	10-10-064-26V4	C11541	08/01/2004	48	ES-1112	C5490.2	IN SERVICE	1ST STAGE DISCHARGE BOTTLE			2004		
BOLLOQUE	10-10-064-26V4							2ND STAGE SUCTION BOTTLE			2004		
BOLLOQUE	10-10-064-26V4	C11542	08/01/2004	48	16B011		IN SERVICE	2ND STAGE					
BOLLOQUE	10-10-064-26V4	C11543	08/01/2004	48	16B011		IN SERVICE	2ND STAGE DISCHARGE BOTTLE			2004		
BOLLOQUE	10-10-064-26V4												
BOLLOQUE	10-10-064-26V4	C11544	08/01/2004	48	PT-4376	O5152.2	IN SERVICE	SALES GAS SCRUBBER			2004		
BOLLOQUE	10-10-064-26V4												
BOLLOQUE	10-10-064-26V4	C1183	07/24/2007	48			IN SERVICE	GLYCOL REBOILER		Previous inspection 2004 RTD	2004 no prepop		
BOLLOQUE	06-14-064-26V4	C28565	11/20/2007	48			IN SERVICE	FUEL GAS SCRUBBER			No service Date		
BOLLOQUE	13-23-064-26V4	C28566	11/20/2007	48			IN SERVICE	FUEL GAS SCRUBBER			2007		
BOLLOQUE	02-03-064-26V4	C28567	11/22/2007	48			IN SERVICE	FUEL GAS SCRUBBER			2005		

									VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is deteriorating on isolated areas of the shell and piping with light corrosion present. The clamp support is secure and level. The pressure gauge is visible and in good condition. External UT was performed with no significant wall losses noted.		No service Date		
BOLLOQUE	07-16-063-01W5	C28570	11/22/2007	48					VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is deteriorating on the shell, top head and piping. Mild corrosion is present. Sections of the inlet piping are not painted. The vessel is self supported on the bottom flat head. The pressure gauge is visible and in good condition. External UT was performed with no significant wall losses noted.		No PSV attached 2007		
BOLLOQUE	11-33-063-02W5	C28571	11/21/2007	48					NO Inspections VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was off stream at time of inspection. There was no evidence of process leaks. The paint is intact on the shell and piping. The U-Bolt support is secure and level with the paint intact. The pressure gauge is visible and in good condition. External UT was performed with no significant wall losses noted.				
BOLLOQUE	06-04-064-26W4	C32900		48					VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was off stream at time of inspection. There was no evidence of process leaks. The paint is intact on the shell and piping. The U-Bolt support is secure and level with the paint intact. The pressure gauge is visible and in good condition. External UT was performed with no significant wall losses noted.		No service Date		
BOLLOQUE	04-23-064-26W4	C33130	07/24/2007	48					VE, UT: An external visual inspection was performed on filter and the findings are as follows: The filter was off stream at time of inspection. There was no evidence of process leaks. The paint was intact on the shell and piping. No external supports. External UT was performed with no significant wall losses noted.		No service Date		
BOLLOQUE	04-23-064-26W4	C33131	07/24/2007	48	ADP-593	OH5132.231	IN SERVICE	FUEL GAS SCRUBBER	VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was off stream at time of inspection. There was no evidence of process leaks. The paint is intact on the shell and piping. The U-Bolt support is secure and level with the paint intact. The pressure gauge is visible and in good condition. External UT was performed with no significant wall losses noted.		No service Date		
BOLLOQUE	04-23-064-26W4	C33132	07/24/2007	48	NPS8-37	OH5811.123	IN SERVICE	INLET FILTER	VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was off stream at time of inspection. There was no evidence of process leaks. The A# was only partially visible as it was stamped into the paint which has flaked off on the name plate bracket, therefore a C number was assigned. The paint has deteriorated on the shell and piping. Mild corrosion is present throughout. Sections of the outlet piping were not painted with mild corrosion present. Standing water was on the floor of the shack. The skirt is secure and level with light corrosion on the bottom. There is no paint on the inside of the skirt. Mild corrosion and scale build up is present on the bottom head and drain elbow. The PSV was in good condition with the carseal intact. <u>The set pressure of the PSV (720PSI) exceeds the MAWP of the vessel(690PSI).</u>		No service Date		
BOLLOQUE	04-23-064-26W4	C33133	07/24/2007	48	P3008	D6337.2	IN SERVICE	SEPARATOR	VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell and piping. No external supports. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact. See attached photos for inspection findings. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thickness recorded.		No service Date		
BOLLOQUE	13-23-064-26W4	C33164	11/20/2007	48			IN SERVICE	FUEL GAS SCRUBBER	VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell and piping. The U-bolt supports are secure and level. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact. See attached photos for inspection findings. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thickness recorded.		No service Date		
BOLLOQUE	13-23-064-26W4	C33165	11/20/2007	48	ADP477	OH5132.23	IN SERVICE	FUEL GAS SCRUBBER	VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell and piping. The U-Bolt support is secure and level. The pressure gauges (2) are visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact. See attached photos for inspection findings. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thickness recorded.		No service Date		
BOLLOQUE	05-04-064-02W5	C33167	11/21/2007	48			IN SERVICE	FUEL GAS SCRUBBER	VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell and piping. The U-Bolt support is secure and level. The pressure gauges (2) are visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact. See attached photos for inspection findings. The vessel appears to be in good operating condition for continued service based on the external visual observations and UT thickness recorded.		No service Date		

							VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell and piping with the exception of isolated paint chips on the top head. The clamp support is secure and level. The pressure gauge is visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact.	No service Date		
BOLLOQUE	04-27-063-25W5	C33176	11/22/2007	48			VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell and piping. The clamp support is secure and level with light corrosion on the bottom of c-channel support. The pressure gauge is visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact.	No service Date		
BOLLOQUE	16-28-063-25W4	C33177	11/22/2007	48			VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell. The paint is deteriorating on the piping with light corrosion present. The clamp support is secure and level. The pressure gauge is visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact.	No service Date		
BOLLOQUE	11-30-064-25W4	C33178	11/23/2007	48			VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell and piping with the exception of isolated paint chips on the top head. The clamp support is secure and level. The pressure gauge is visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact.	2007		
BOLLOQUE	06-19-064-25W4	C33179	11/23/2007	48	LM-000		VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. There were no process leaks or vibrations noted. The PSV protecting the fuel gas scrubber has discharged. Operations confirmed the excess pressure was due to a faulty regulator. The PSV set pressure is 150 PSI and the MAWP of the scrubber is 125 PSI, therefore the MAWP was exceeded by 25 PSI (20%). The paint is deteriorating on the shell and piping. The shell is also stained with product from the PSV discharge.	No service Date		
BOLLOQUE	06-19-064-25W4	C33180	11/23/2007	48	74274-001	7665.3	VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell and piping. The clamp support is secure and level. The pressure gauge is visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact.	No service Date		
BOLLOQUE	09-24-064-26W4	C33181	11/23/2007	48			VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell and piping with the exception of the top head where light corrosion is present. The clamp support is secure and level with light corrosion on the bottom of the c-channel. The pressure gauge is visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact.	No service Date		
BOLLOQUE	14-35-063-26W4	C33182	11/23/2007	48			VE, UT: An external visual inspection was performed on vessel and the findings are as follows: The vessel was operating at time of inspection. No process leaks or vibrations were noted. The paint is intact on the shell and piping with the exception of the top head where light corrosion is present. The clamp support is secure and level with light corrosion on the bottom of the c-channel. The pressure gauge is visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact.	2003		
							VE, UT: Nameplate is secure and eligible. Ground Cable is attached. Shell, Nozzles, External Protection, Welds, Supports, Top and Bottom Heads are all in good condition. Bottom heads are enclosed. PSV is missing but ordered and unit MAWP is too low for purpose.	No PSV attached		
BOLLOQUE	06-19-064-25W4	C34073A	07/29/2008	48	1999		VE, UT: Shell, Nozzles, Welds, Top and Bottom Heads are all in good condition. The paint is deteriorated on the External Protection. Bolts are missing/loose/damaged on the Supports. The concrete base is not secured.	No PSV attached		
BOLLOQUE	06-19-064-25W4	C34075A	07/29/2008	48	S1722	M0231.231	VE, UT: An external visual inspection was performed on air cooled exchanger and the findings are as follows: The exchanger was operating at time of inspection. No process leaks or vibrations were noted. The paint is deteriorating on the wrapper plates and piping. Light corrosion is present on isolated areas of shell. The headers are secure and level. The temperature gauge is visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact.	2004 BODY/BONNET BOLT BROKEN, NO PRETEST		
BOLLOQUE	10-10-064-26W4	CN5016	11/20/2007	48	T0272-1C-1	N0430.2	VE, UT: An external visual inspection was performed on air cooled exchanger and the findings are as follows: The exchanger was operating at time of inspection. No process leaks or vibrations were noted. The paint is deteriorating on the wrapper plates and piping. Light corrosion is present on isolated areas of shell. The headers are secure and level. The temperature gauge is visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact.	Previous inspection 1999 RAE		
BOLLOQUE	10-10-064-26W4	CN5017	11/20/2007	48	T0272-1C-1	N0430.2	VE, UT: An external visual inspection was performed on air cooled exchanger and the findings are as follows: The exchanger was operating at time of inspection. No process leaks or vibrations were noted. The paint is deteriorating on the wrapper plates and piping. Light corrosion is present on isolated areas of shell. The headers are secure and level. The temperature gauge is visible and in good condition. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact.	Previous inspection 1999 RAE	2004 BODY/BONNET BOLT BROKEN, NO PRETEST	

PSV

										VE, UT: An external visual inspection was performed on air cooled exchanger and the findings are as follows: The exchanger was operating at time of inspection. No process leaks or vibrations were noted. The paint is deteriorating on the wrapper plates and piping. Light corrosion is present on isolated areas of shell. The headers are secure and level. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact.	Previous inspection 1999 RAE	2004 Prepopped		
BOLLOQUE	10-10-064-26W4	CN5018	11/20/2007	48	T0272-1A-1	N0432.2	IN SERVICE	3RD STAGE COOLER		VE, UT: An external visual inspection was performed on air cooled exchanger and the findings are as follows: The exchanger was operating at time of inspection. No process leaks or vibrations were noted. The paint is deteriorating on the wrapper plates and piping. Light corrosion is present on isolated areas of shell.				
BOLLOQUE	10-10-064-26W4	NB69	11/20/2007	48	D416-2	C873.2	IN SERVICE	2ND STAGE COOLER	R&R ENGINEERING			2004		
BOLLOQUE	10-10-064-26W4	NB70	11/20/2007	48	D416-3	C872.2	IN SERVICE	1ST STAGE COOLER		VE, UT: An external visual inspection was performed on air cooled exchanger and the findings are as follows: The exchanger was operating at time of inspection. No process leaks or vibrations were noted. The paint is deteriorating on the wrapper plates and piping. Light corrosion is present on isolated areas of shell. The headers are secure and level. External UT was performed with no significant wall losses noted. The PSV is in good condition with the carseal intact.			2004	