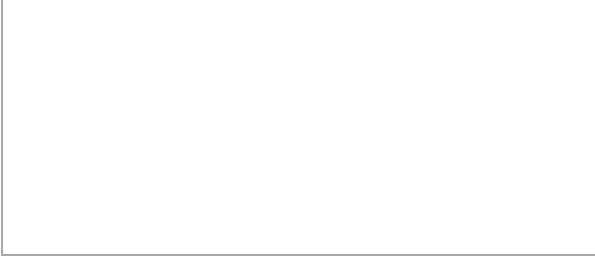
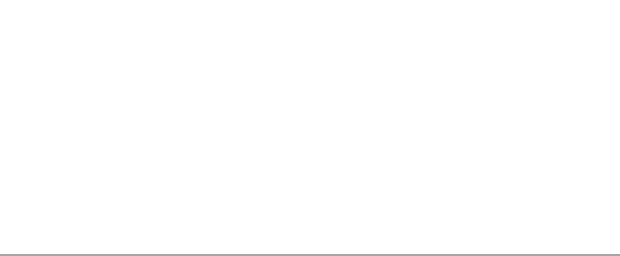
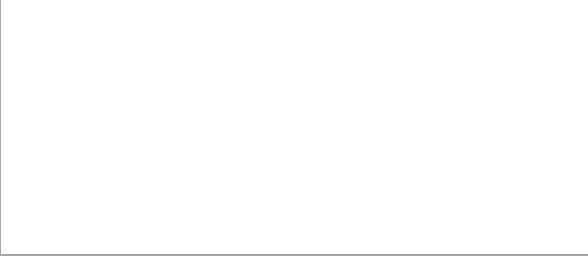


Integrity Thorough Assessment (ITA) Form

PART I – ASSESSMENT

General Details					
Business Unit:	NEBC	Area:	Rigel	ITA Reviewer:	
Facility:	Well site	Location (LSD):		ITA Effective Date:	2/1/2018
Regulatory Number:	A0138937	Tag Number:		Last ITA Review Date:	Click here to enter a date
Serial Number:	28250.A	CRN Number:	A7564.2	Design Press/Temp:	250psi @ 115F
EAM Asset Number	SYSN1012	Specific Location:	NEBC		
Equipment Description:	Storage Bullet				

Equipment Details				
Equipment Class:	<input checked="" type="checkbox"/> Vessel <input type="checkbox"/> Exchanger <input type="checkbox"/> Boiler <input type="checkbox"/> Fired Heater <input type="checkbox"/> Piping System <input type="checkbox"/> Tank (Above Ground) <input type="checkbox"/> Tank (Below Ground)			
Process Fluid	Component	Service Classification	Process Fluid/Gas	Comments
	Shell:	Sweet	Butane	
	Tube (A):	Choose an item:		
	Tube (B):	Choose an item		
	Tube (C):	Choose an item		

Equipment Pictures		
		
Picture 1:	Picture 2:	Picture 3:

Integrity Thorough Assessment (ITA) Form

Equipment Overview			
Repairs and Alterations	Previous Repairs/Alterations:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Details:
	Anticipated/ Possible Repairs:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Details:
	Scheduled Repairs/Alteration/ Decommissioning Plan:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Details:
Equipment History (History starting with most recent or current activities) (Detail equipment history for inspections, repairs, NDE, etc.)	Number of Years in Service: 1987 <ul style="list-style-type: none"> 2018 02 (VE) - No issues. 2018 02 (UT) - No major loss concerns. 2014 07 (VE VI) - No issues noted. 		
Corrosion Mitigation (Describe activities or systems in place to prevent corrosion or failure)	<input type="checkbox"/> Corrosion Inhibitor <input type="checkbox"/> Operating Procedures <input type="checkbox"/> CP (External Sacrificial Anode) <input type="checkbox"/> CP (External Impressed Current) <input type="checkbox"/> CP (Internal Sacrificial Anode) <input type="checkbox"/> CP (Internal Impressed Current) <input type="checkbox"/> Internal Coating		
	Details:		

Integrity Thorough Assessment (ITA) Form

Degradation Mechanisms			
Potential Degradation Mechanisms	Degradation Mechanism	Consideration	Comments
(Based on service seen or anticipated through life of equipment)	General Internal Corrosion	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
	External Corrosion	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
	Corrosion Under Insulation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
	Under-Deposit Corrosion	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
	Coating Failure	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
	HIC/Sulphide Stress Cracking	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
	Stress Corrosion Cracking (other)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
	High Temperature Sulphidation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
	Fatigue (Cyclic or Vibrating Service)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
	Creep Damage (High temperatures, flame impingement)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
	Dynamic Stresses (firetubes, equipment subject to slugging)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
	Erosion (or velocity induced corrosion – corrosion / erosion)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
	Biological Corrosion	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
	Mechanical Stresses (settling vessel or piping connected to nozzles)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
	Other:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Other:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

Integrity Thorough Assessment (ITA) Form

Inspection Plan Schedule			
Remaining Life Assessment: (Use Worst Case)	Location of part of the vessel being assessed (use worst case): Point 95		
	Material:	Max Allowable Stress Value (psi)	ASME Code Edition: <2001
	Minimum Actual Thickness: (measured or estimated) 3.2mm	Required Thickness: 1.59mm	
	Remaining Thickness: (actual – required) 1.61mm	Corrosion Rate: (higher of STCR or LRCR) 2mpy worst case expected.	
	Remaining Life (RL): >22y	½ Remaining Life (RL): >11y	
	<i>Note: Thorough inspection should not exceed ½ RL, unless ½ RL is less than 2; then the inspection interval can be equal to the Remaining Life up to a maximum of 2 years</i>		
Comments:			
Thorough Inspection Interval (based on ABSA AB-506 – Inspection and Servicing Requirements for Pressure Equipment Guidelines)	AB-506 Ed. 2 Rev. 3 Type of Equipment (Appendix A): LPG plant storage vessels and	Grade Assigned: 2	
	API 510 Alternative Rule Type of Equipment (Ref. AB-506 Appendix B): Choose an item	Risk Classification (Ref. AB-506 Appendix B): Choose an item	
	Thorough Inspection Type: Internal	Maximum Thorough Inspection Interval Assigned: 5	
	Justification for Grade Assignment and Interval: Max internal applied		

Integrity Thorough Assessment (ITA) Form

Inspection Plan Schedule						
Type of Inspection	Required	Last Date Completed	Last Assessed Report No.	Next Interval (months)	Next Due Date	Comments
Integrity Thorough Assessment (ITA)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2/1/2012	A0138937 Master (ITA)	60	2/1/2019	
Internal Inspection	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			60	2/1/2019	
External Inspection	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2/1/2018	A0138937 2018 02 (VE)	60	2/1/2023	
Partial/Limited Internal Inspection	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Click here to enter a date			Click here to enter a date	
UT Corrosion Survey	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2/1/2018	A0138937 2018 02 (UT)	60	2/1/2023	
MT/WFMT	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			60	2/1/2019	
PT (LPI)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Click here to enter a date			Click here to enter a date	
Shear Wave UT	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Click here to enter a date			Click here to enter a date	
Automated / Phased Array UT	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Click here to enter a date			Click here to enter a date	
Eddy Current	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Click here to enter a date			Click here to enter a date	
Boroscope	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Click here to enter a date			Click here to enter a date	
Hydrotest/Leak Test	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Click here to enter a date			Click here to enter a date	
Other:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Click here to enter a date			Click here to enter a date	
Other:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Click here to enter a date			Click here to enter a date	

*Note: The Integrity Thorough Assessment (ITA) due date **MUST** be set to match the next significant inspection activity.*

Integrity Thorough Assessment (ITA) Form

PART II – PLANNING

General Details					
Business Unit:	NEBC	Area:	Rigel	ITA Reviewer:	
Facility:	Well site	Location (LSD):		ITA Effective Date:	2/1/2018
Regulatory Number:	A0138937	Tag Number:		Last ITA Review Date:	Click here to enter a date
Serial Number:	28250.A	CRN Number:	A7564.2	Design Press/Temp:	250psi @ 115F
EAM Asset Number	SYSN1012	Specific Location:	NEBC		
Equipment Description:	Storage Bullet				

Inspection Task Planning	
Equipment Preparation (detail cleaning, access and general inspection preparation requirements)	Open, clean, Buff welds
Details and Special Requirements	VE, UT, MT, VI
Recommendations and Cautions	

Inspection and Test Plan (ITA) Sign-Off		
This section is to be signed off whenever the ITA is updated. The review and sign-off is to be completed by the Asset Integrity Coordinator or Chief Inspector.		
ITA Approved By:	<div><div></div><div>Name</div></div>	<div><div>4/14/2018</div><div>Date</div></div> <div><div></div><div>Signature</div></div>