ConocoPhillips

Pressure Equipment Integrity

GENERAL INSPECTION FORM

Field: Elmworth	Skid No. : N/S
Facility: Elmworth Gas Gathering	Location (LSD) Surface: 06-08-70-13-W6M
Vessel Name & Equipment Number: Blowcase	PSV Only-Installed on piping: ☐
Orientation: Horizontal ☒ or Vertical ☐	Location (LSD) Down hole:
Status: In Service ☒ or Out of Service (blinded / fully isolated) ☐	Com. Inspection ☐ Shop Inspection ☐ Reg. Inspection ☒

PRESSURE VESSEL NAMEPLATE DATA

"A" or "G" or "S" (Sask.) or BC Registration Number. A0535661		CRN Number: R-2608.21
		Size (diameter x length- estimate if necessary): 24 in x 48 in
Vessel serial number: 05.264HB		Shell material: SA 106 C
Shell thickness: 31.0 mm		Head material: SA 516 70 N
Head thickness: 27.0 mm		Tube material:
Tube wall thickness:		Tube length:
Tube diameter:		Channel material:
Channel thickness:		X-ray: RT-2
MAWP	Shell: 1440 PSI	Code parameters: ASME VIII, Div 1
	Tubes:	Heat treatment? yes_____ no___X___
Design Temp.	Shell: 130 deg F	Joint efficiency (if on nameplate):
	Tubes:	Manufacturer: Orban Industries
Man Way: ☐ Y ☒ N		Year built: 2005

PRESSURE SAFETY VALVE DATA

PSV set pressure from P&ID _____KPA _____PSI ☐ N/A	Piping PSV P & ID. #_____ ☐ N/A
PSV set pressure as per P&ID : ☐Y ☐ N ☐ NA	PSV set pressure is ≤ than MAWP of vessel or piping : ☒ Y ☐ N No PSV attached because vessel is vented to atmosphere ☐ Y

Tag Number(s)	Set Pressure	Manufacturer/ Model / Serial #	Capacity (ie:SCFM/ GPM,etc)	Size (Inlet x Outlet)	Service Co & Serv Co ID# or WO#	Set Date (mm/dd/yyyy)
Shell Side G# G 737209	720 PSI	Mercer / 91-17D51T14E1 / 132365	1477 scfm	1 in x 1 in	King's / 46290	09/10/2012

SERVICE CONDTIONS-INDICATE ALL THAT APPLY

Sweet ☒	Sour ☐	Oil ☐	Gas ☒	Water ☐
Amine ☐	LPG ☐	Condensate ☒	Air ☐	Glycol ☐
Other (Describe):				

PV Inspection Interval 120 months ABSA Grade 1☐ 2☐ 3☑ similar service criteria applied to interval: Yes ☐ Generic ITP ☑

PSV Service Interval as per PCMS months ABSA Grade 1☐ 2☐ 3☐ similar service criteria applied to interval: Yes ☐ Equipment specific ITP ☐

* UT Interval 60 month

Shop Inspector _____ Date _____
Print and Initial

Construction/
VE Inspector : Dellas Wiedman Date: July 13, 2015
Print and Initial

Contractor Superintendant _____ Date _____
Print and Initial

Inspection reports reviewed/accepted by:
ConocoPhillips A&OI Specialist Neil Johnson ISPT# 680 Date 8/19/2015

Fill out all forms as completely as possible. All information is important! Use back of sheets to record additional information or sketch if required.

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G=Good Y=Yes
F=Fair N=No
P=Poor
N/A=Not Applicable

A0535661

External Inspection Items	G	F	P	N/A	Comments
Insulation Verify sealed around man ways, nozzles, valves, etc., no damage present, and there is no ingress/egress of moisture. Are straps secured?				X	No insulation.
External Condition Assess paint condition, areas peeling, record any corrosion, (check roof interface for corrosion), damage, distortion, etc. (record location, size and depth of corrosion or damage)	X				Paint is in good condition – no exposed metal and no previous corrosion.
Leakage Record any leakage at flanges, threaded joints, weep holes on repads, etc.	X				Product weeping from 2" nozzle on top shell.
Skirt/ Saddle Assess condition of paint, fire protection, concrete. Look for corrosion, buckling, dents, etc. Look at vessel surface area near supports. Verify no signs of leakage at attachment to vessel and attachment welds are acceptable. Is ground wire attached? Adequate access for UT inspection? **Note:** For horizontal vessels mounted on saddles ensure anchor bolting loose on one end to allow for expansion/contraction after installation.	X				Paint in good condition. No signs of leakage near supports. No buckling. Ground cable attached to vessel and skid.
Anchor Bolts Hammer tap to ensure secure. Look for corrosion, cracking in threads or signs of deformation.	X				Anchor bolts are secure. No signs of deformation.
Concrete foundation Check for cracks, spalling, etc.				X	No concrete – skid is mounted on pilings.
Ladder / Platform Describe general condition, ensure support is secure to vessel, describe any hazards.				X	No ladder or platform.
Nozzle Assess paint, look for leakage, and ensure stud threads are fully engaged. Record any damage, deflection, etc. Are nozzles gusseted? Inspect gussets for cracking.	X				Threaded fittings – fully engaged except one 2" nozzle on the top shell. Product weeping. No deflection. No gussets.
Gauges Ensure gauges/gauge glass(es) are visible, working, no leakage, and suitable for range of MAWP/ Temp.	X				Pressure Gauge 0-1500 PSI. Temperature gauge.-40 to 160 Deg F Suitable for range of vessel operation.
External Piping Ensure pipe is well supported. All clamps, supports, shoes, etc. in place. Look for evidence of structural overload, deflection, etc., paint condition, external corrosion?	X				Well supported, no deflection, all clamps in place. Piping is painted inside building – no exposed metal.
Valving Ensure no leaks are visible. Valves are properly supported and chained if necessary.	X				Well supported – no leaks.
NDE methods Was UT/ MPI done on vessel	X				Ultrasonic thickness survey carried out – no metal thickness detected below nominal minus corrosion allowance.

Piping Installation Items	Y	N	N/A	Comments
Are all flange connections free from tape/wrap which may have been used for leak testing?	X			
Is the soil-air interface for the piping wrapped properly?			X	
Is there potential to create future mechanical damage from contact with grating, loose tubing etc.?		X		
Note: refer to piping inspection form for in-service inspection of pressure piping (Form 2113)				

Observations:

PESL 275

Construction/ VE Inspector : Dellas Wiedman

(Please Print)

Date: July 13, 2015

PSV Configuration Items	Y	N	N/A	Comments
Is PSV Inlet/Discharge free of obstruction? Check for contaminants (if possible) and verify full pipe diameter from PSV inlet/discharge to point of connection. Not leaking?			X	
Flexible hoses present on inlet/outlet piping?		X		
If yes, flexible hose size > diameter than piping by 1 nominal pipe size (ie: 1" piping, 1 ½" flexible hose). Flexible hose free of misalignment?			X	If hose same diameter as piping follow up with Engineering to ensure adequate capacity.
Are all block valves in PSV relief path full port and locked/car sealed in the open position?			X	No block valves present.
Is the PSV inlet/discharge braced/supported by piping, brackets etc?	X			
Are threaded PSV's, mounted to prevent turning to the left or right if PSV opened (i.e. if an elbow is used below PSV, PSV should point in line with the inlet piping to the elbow)?	X			
Are the PSV's mounted vertically?	X			
For PSV's vented to atmosphere, do PSV's have a tail pipe that is braced and protected from rain/snow ingress (ie: rain cap)? Low point drain if pointed upwards? **Shipping plugs removed?**	X			
Does PSV discharge orient away from areas that may be occupied by personnel (minimum 7' above ground/walkway), and away from other units, especially air intakes, non-classified buildings, and burner inlets/exhaust stacks?	X			
Does discharge line have pocketed sections? If yes, are pocketed sections protected from freezing? Are these sections drained periodically?		X		Ensure PM in place for periodic draining if pocketed.
Do pop lines terminate into upper third of pop tank and are lines secured and self draining?			X	
Is there a rupture disc and if so is it at the proper pressure rating?			X	
Does the rupture Disc have a pressure bleed off point?			X	
Are all PSV seal wires intact?	X			
Have all transit wires been removed from lift lever?			X	
If this is a bellows style PSV, is the bonnet vented to a safe location?			X	

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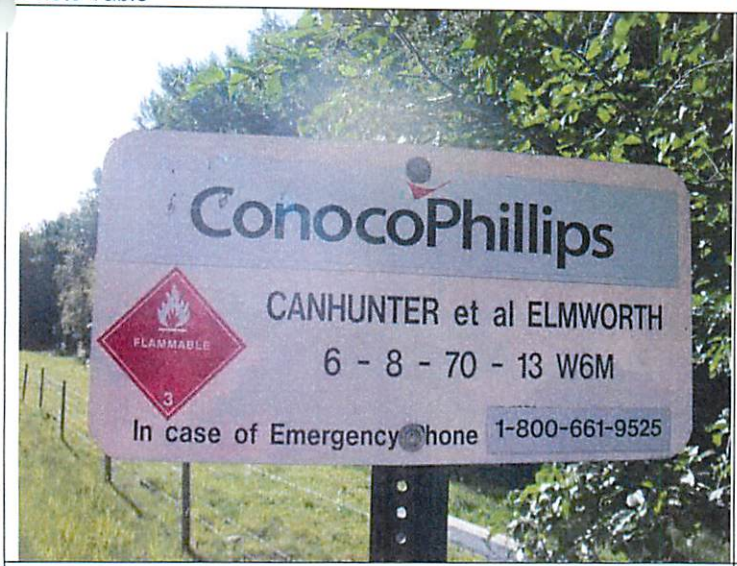
(Please Print)

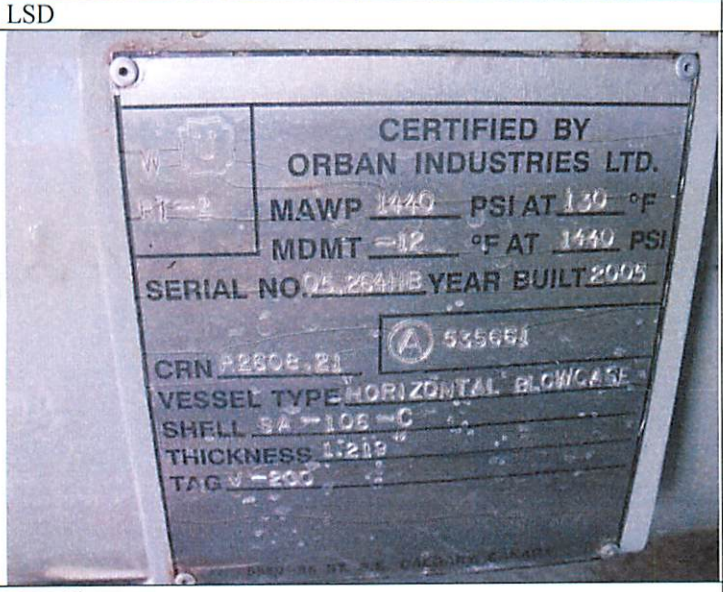
Date: July 13, 2015

Photo Table

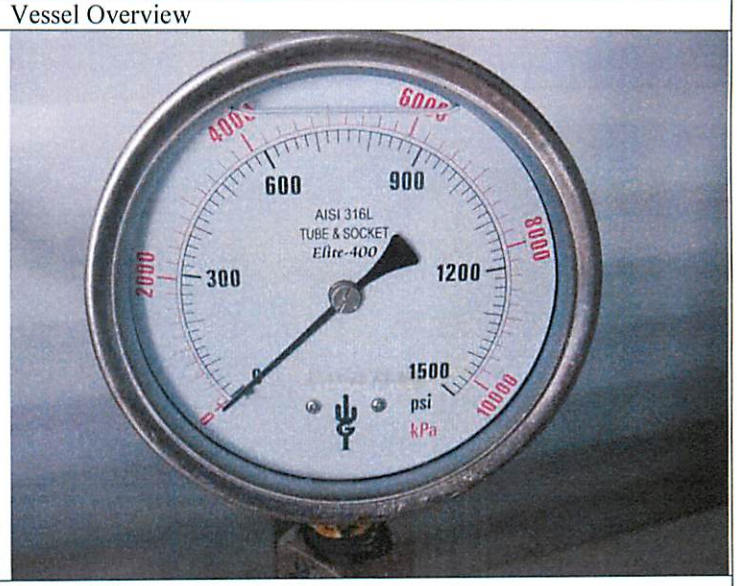


LSD

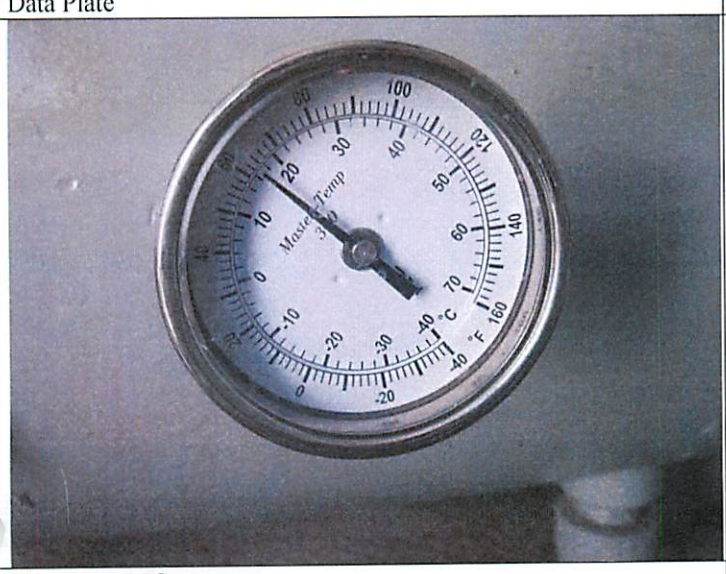
Vessel Overview



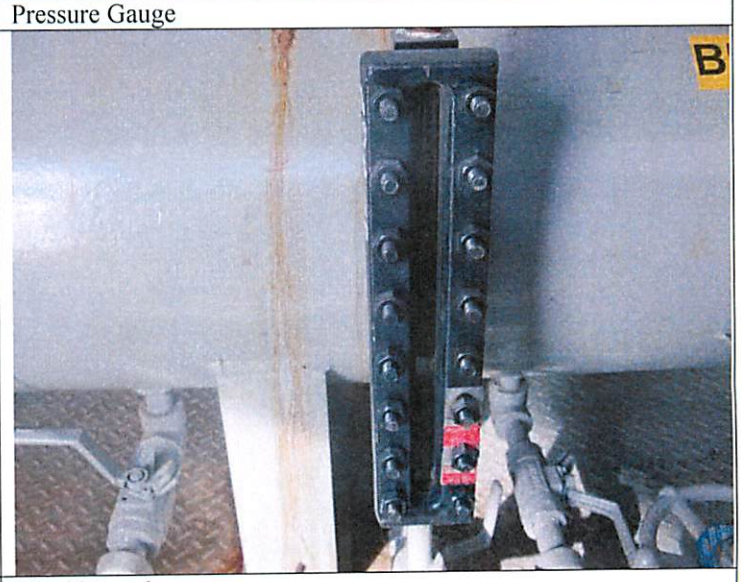
Data Plate



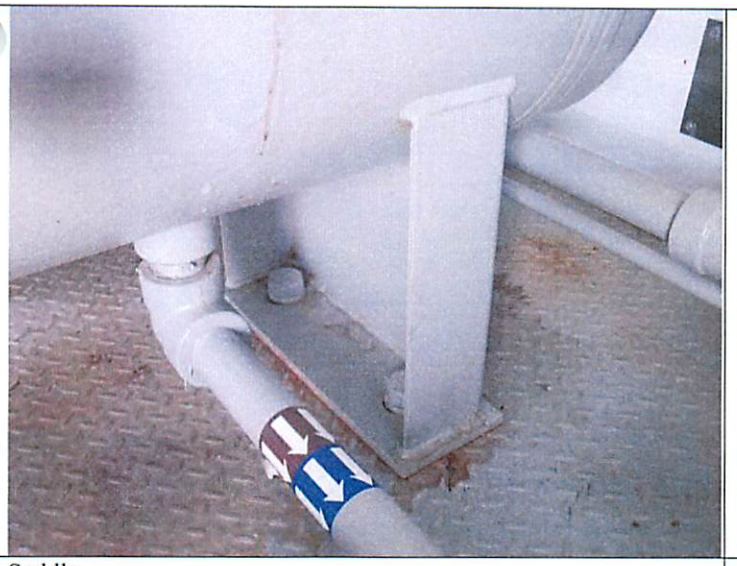
Pressure Gauge



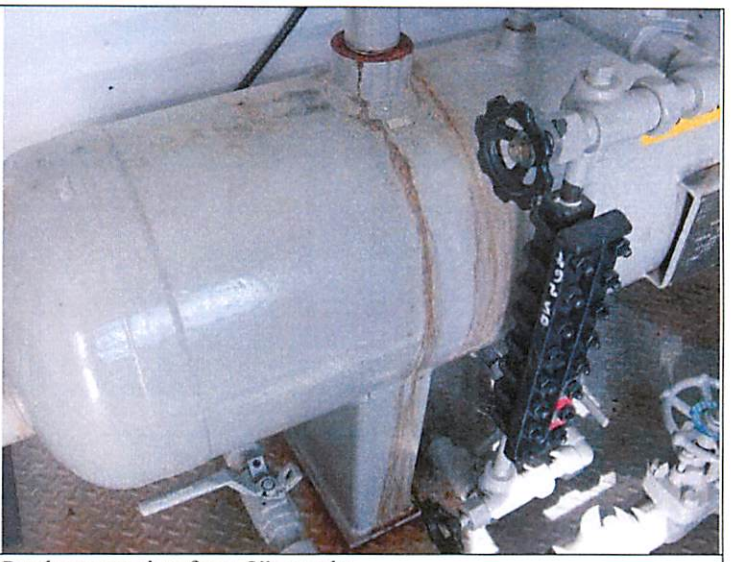
Temperature Gauge



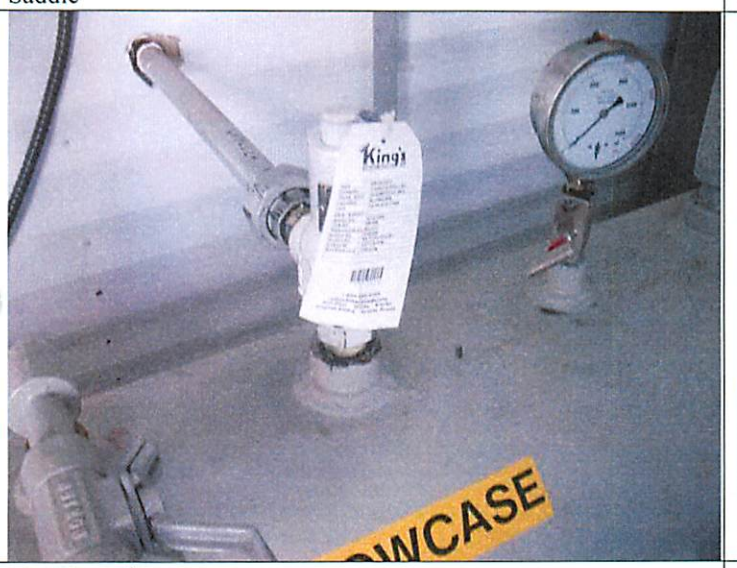
Liquid Level



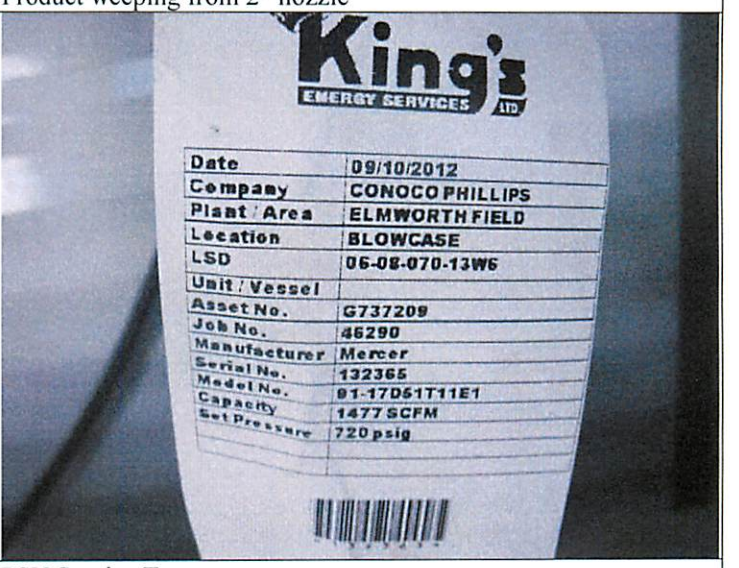
Saddle



Product weeping from 2" nozzle



PSV Overview



PSV Service Tag