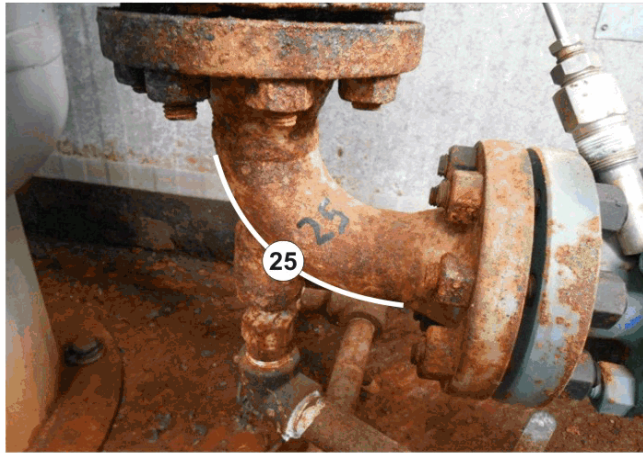
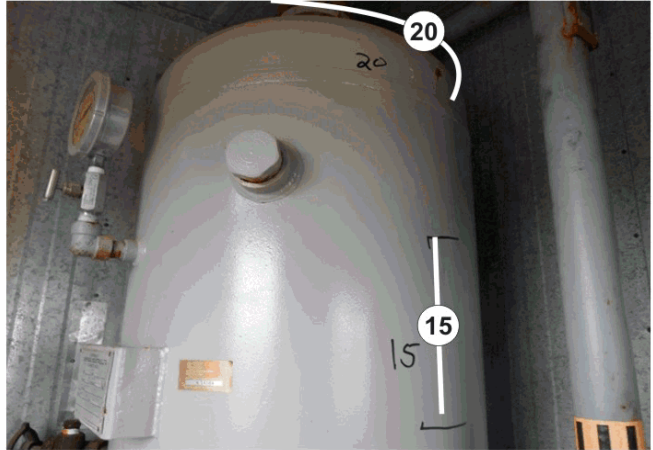
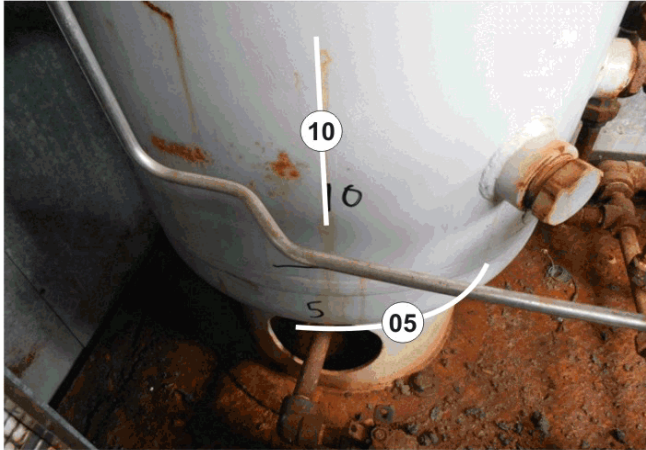


GENERAL PRESSURE VESSEL INFORMATION						
District:	LLOYDMINSTER			Skid No.:		
Facility:	GOLDEN LAKE			Location (LSD):	06-28-048-23W3	
Name & Equip No:	SEPARATOR			Orientation:	Vertical	
Company:	CNRL			Cost Code:		
Status:	Operating			Operating Province:	Alberta	
Unit:				W.O/P.O No.:		
Registration Number:	2903442			Registration Number (Other):	04364	
Serial Number:	94-03-23			CRN Number:	M2030.2.3	
National Board:				Unique ID:	ONCOR ID:	147402
PRESSURE VESSEL NAMEPLATE DATA						
Internal Clad:	Painted:	Yes		Hand Hole:		
Insulated:	No			Support Type	Skirt	
Capacity:	M3			MDMT:	-20.00 (F)	-28.89 (C)
MAWP:	735.00 (psi)	5067.68 (Kpa)		AT temperature:	100.00 (F)	37.78 (C)
Size (diam. x length):	24.00 x 60.00(In)	609.60 x 524.00(mm)		Manufacturer:	UNIVERSAL/NUSCO	
X-Ray:	RT3			Lining Or Coated:		
Year Built:	1994			Heat Treatment:	No	
Code parameters:				Corrosion allowance:	(In)	0.00 (mm)
Nozzle Rating:	lb ANSI			Manway:	No	Manway Size: (In)
PIPING NAMEPLATE DATA						
Primary Flange Rating:	300			ASME B16.5 - Table 2-1.1 @ 150F:	740 (psi)	
Pressure Use For TMin:	Vess Design Press			Piping Operating Press:	735 (psi)	
Stress Value:	20000 (psi)				E Value:	1
Comments:						
SERVICE CONDITIONS-INDICATE ALL THAT APPLY						
Sweet	Sour	Oil	Gas	Water		
Amine	LPG	Condensate	Air	Glycol		
Other (Describe):						
COMPONENTS						
Name	Joint Efficiency	Outside Diameter(in.)	Head Type	Material Type	Stress Value (PSI)	Nominal Thickness(Inch)
SHELL	1.00	24.00		Unknown	15000	
HEAD	1.00	24.00	Ellipsoidal	Unknown	15000	
GENERAL COMMENTS						



<b>OWNER: CNRL</b>	<b>SERIAL # 94-03-23</b>	<b>NOTES</b>
<b>EQUIPMENT NAME: SEPARATOR</b>	<b>NB#</b>	
<b>REGISTRATION # 2903442</b>	<b>OWNER ID</b>	
<b>EQUIPMENT # 4364</b>		

## ULTRASONIC CORROSION SURVEY REPORT

EQUIP NAME: SEPARATOR  
 PROV REG: 2903442  
 EQUIP #:

SERIAL #: 94-03-23  
 CRN: M2030.2.3

DISTRICT: LLOYDMINSTER  
 FACILITY: GOLDEN LAKE  
 LSD: 06-28-048-23W3

### SUMMARY


TYPE	LAST INSPECTION	INSPECTION INTERVAL (YEARS)	CORROSION RATE (IN/YR)		REMAINING LIFE (YEARS)	NEXT INSPECTION DATE
			SHORT TERM	LONG TERM		
VESSEL	Jun 25, 2013	0.0	0.0000	0.0000	198.0	Jun 25, 2013
PIPING	Jun 25, 2013	0.0	0.0009	0.0009	181.3	

### VESSEL SURVEY READINGS

POINT NUMBER	TYPE	POINT DATA (INCH)			DATE	SURVEY READINGS			CALCULATIONS		
		NOM.	C.A.	NOM-CA		LOW	AVG	T Req (inch)	short term corr rate	long term corr rate	remaining life
05	HEAD	0.0000	0.0000	0.0000	Jun 25/13	0.630	0.645	0.563	0.0000	0.0000	198.0
10	SHELL	0.0000	0.0000	0.0000	Jun 25/13	0.622	0.645	0.577	0.0000	0.0000	198.0
15	SHELL	0.0000	0.0000	0.0000	Jun 25/13	0.650	0.660	0.577	0.0000	0.0000	198.0
20	HEAD	0.0000	0.0000	0.0000	Jun 25/13	0.633	0.645	0.563	0.0000	0.0000	198.0

### PIPING SURVEY READINGS

POINT NUMBER	TYPE	POINT DATA (INCH)			DATE	SURVEY READINGS			CALCULATIONS		
		NOM.	Mill Tol./CA	NOM-CA		LOW	AVG	T Req (inch)	short term corr rate	long term corr rate	remaining life
25	90L 2 XS	0.2180	0.0273	0.1907	Jun 25/13	0.201	0.220	0.044	0.0009	0.0009	181.3

<b>Inspected By</b> Gordon Derewiano	<b>Signature</b> 	<b>CGSB Level</b> 1	<b>CGSB</b> 13896	<b>Survey Date</b> 06/25/2013
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# Pressure Safety Valve Summary

## PSV Static Data

Client:	CNRL	Facility:	GOLDEN LAKE
District:	LLOYDMINSTER	PSV Number:	
Location:	06-28-048-23W3	Serial Number:	83668-10
Description:		Manufacturer:	TAYLOR
CRN:	OG1316.2C	Code Stamp:	
Model:	T-8200-1	Outlet Size:	1
Inlet Size:	1		
Side (Shell or Tube):	Shell		

## PSV Service/Inspection

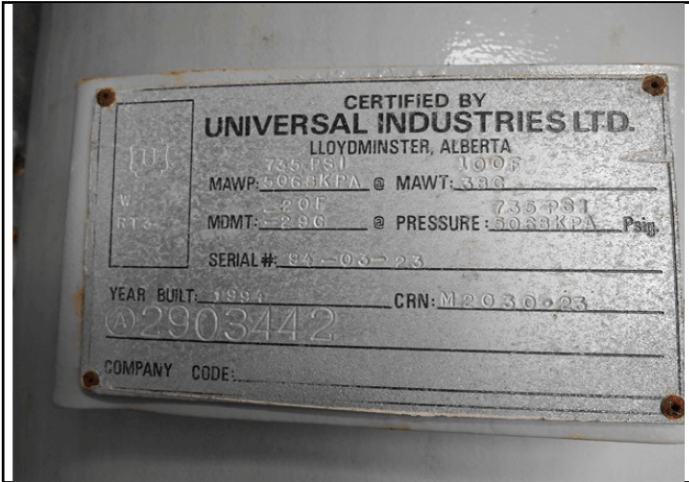
Set Date:	25 Jan, 2008	Service Interval:	
Set Pressure (psig):	720	Capacity (scfm):	4964
Service Sealed Intact:			
Block Valve Inlet:		Block Valve Inlet Locked Open:	
Block Valve Outlet:		Block Valve Outlet Locked Open:	
Service Company:		Ref Number:	
Condition:		Prepped Results:	
Service Type:		Installed Date:	
Next Service Date:			
Comments:			

## Equipment Protected

<u>Req #</u>	<u>Equip #</u>	<u>Type</u>	<u>Name</u>	<u>Status</u>	<u>MAWP</u>
2903442		Pressure Vessel	SEPARATOR	Operating	735.00

## PSV Summary

PSV passes all summary checks.
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NAMEPLATE



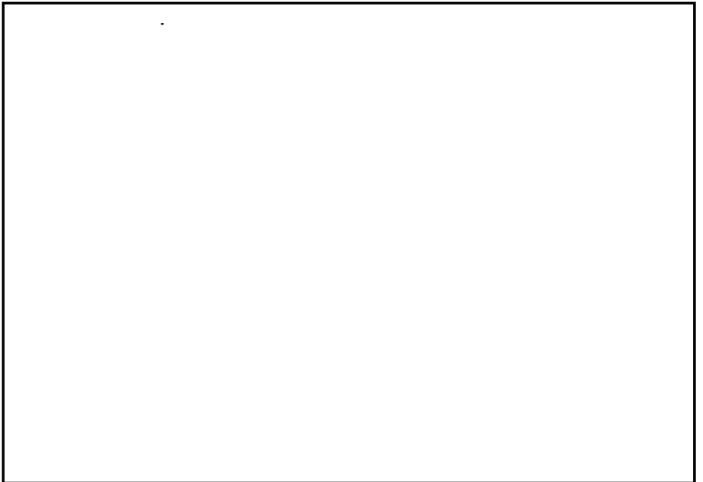
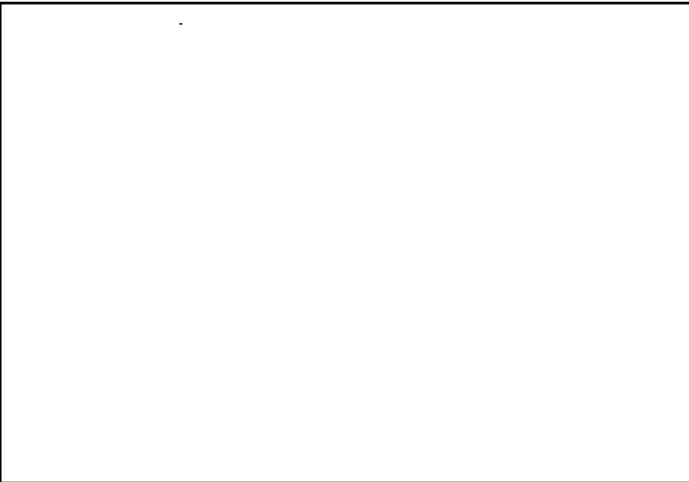
OVERALL



OVERALL



PSV



<b>OWNER:</b> CNRL	<b>SERIAL #</b> 94-03-23	<b>NOTES</b>
<b>EQUIPMENT NAME:</b> SEPARATOR	<b>NB#</b>	
<b>REGISTRATION #</b> 2903442	<b>OWNER ID</b>	
<b>EQUIPMENT #</b> 4364	<b>ONCOR ID</b>	