



# PRESSURE VESSEL INSPECTION REPORT

District:	GRANDE PRAIRIE	Facility:	CRANBERRY-CHINCHAGA	Location/LSD:	05-17-097-03W6
Equipment Name:	SEPARATOR			Prov Reg No.:	2910415
Serial No.:	93C-5003-01B	Equip No.:	V-100	National Board No.:	

UT SURVEY	Accept
PSV INSP	Accept
VTE INSP	Accept
VTI INSP	N/A

Client: CNRL

**FIT FOR SERVICE**

INSPECTOR: Francis Omovbude

VITUS INTERNAL REVIEW BY: Kevin Billesberger

DATE: 08 February 2021

CLIENT SIGNOFF

DATE:

## PRESSURE VESSEL DEFICIENCY SUMMARY

<b>UT SURVEY</b>		LATEST UT DATE USED IN SUMMARY		January 27, 2021	
<b>LOCATION</b>	Nom - CA	Low RDG	Avg RD	TMin	UT Flag
N/A					No TMLs Flagged for This
<b>RECOMMENDATION</b>		<b>QUALITY ACTION</b>		<b>RESULT</b>	
N/A		N/A		Accept	
<b>PSV INSPECTION</b>		LATEST PSV INSP DATE USED IN SUMMARY		January 27, 2021	
<b>DEFICIENCY</b>		<b>RECOMMENDATION</b>		<b>QUALITY ACTION</b>	
No Deficiencies Found		N/A		N/A	
<b>VISUAL EXTERNAL INSPECTION</b>		LATEST VTE DATE USED IN SUMMARY		January 27, 2021	
<b>DEFICIENCY</b>		<b>RECOMMENDATION</b>		<b>QUALITY ACTION</b>	
No Deficiencies Found		N/A		N/A	
<b>VISUAL INTERNAL INSPECTION</b>		LATEST VTI DATE USED IN SUMMARY			
<b>DEFICIENCY</b>		<b>RECOMMENDATION</b>		<b>QUALITY ACTION</b>	
N/A		N/A		N/A	

## PRESSURE VESSEL STATIC DATA

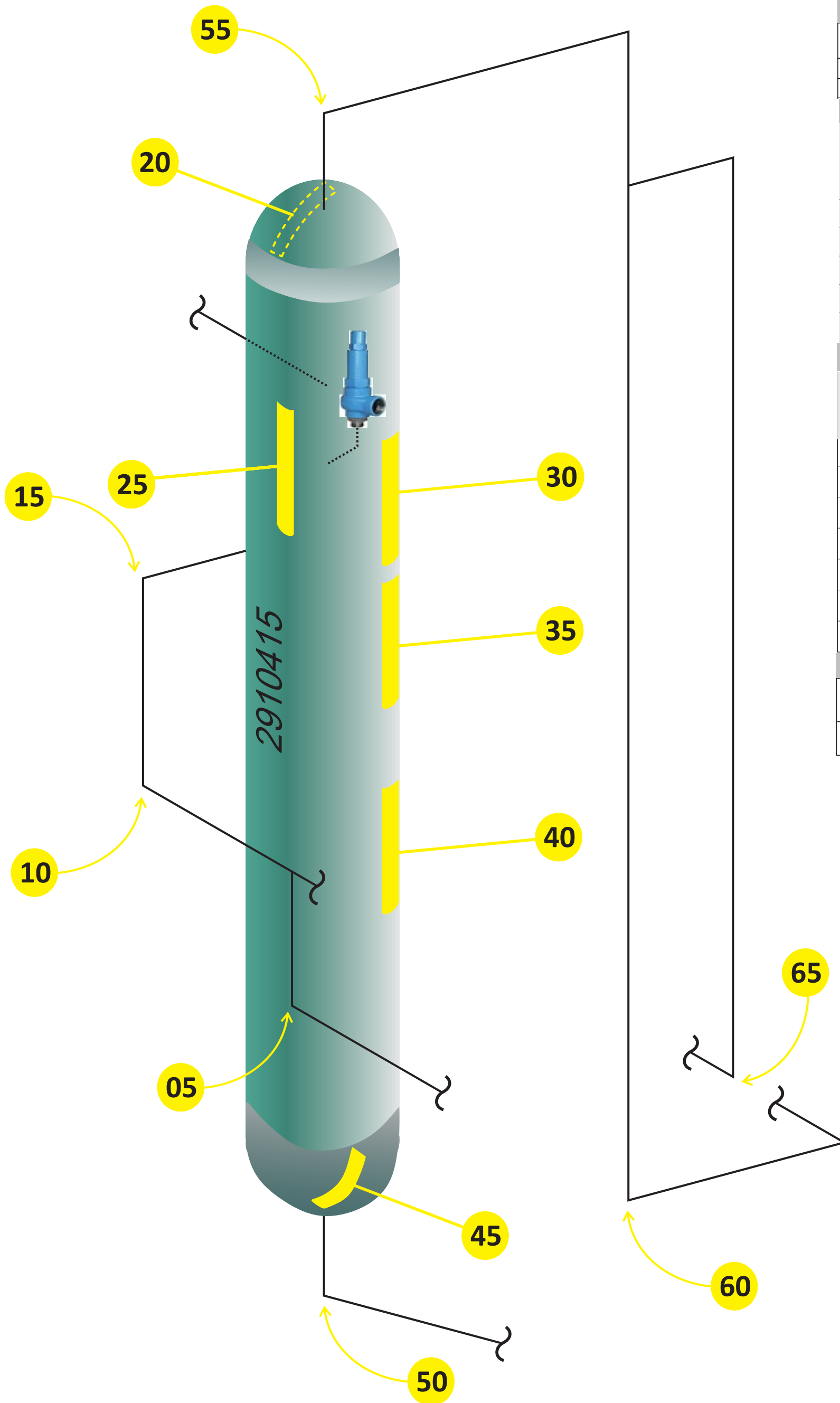
<b>Equipment Status:</b>	Operating	<b>Orientation:</b>	Vertical
<b>Skid No.:</b>		<b>Unit:</b>	
<b>EQUIPMENT STATIC DATA</b>			
<b>AB Registration No.:</b>	2910415	<b>Serial No.:</b>	93C-5003-01B
<b>Registration No./Other:</b>		<b>Equipment No.:</b>	V-100
<b>CRN NO.:</b>	K-6916.2	<b>Unique ID No.:</b>	
<b>National Board No.:</b>		<b>Oncor ID No.:</b>	177603
<b>Manufacturer:</b>	Alco Gas	<b>Year Built:</b>	1993
<b>MAWP:</b>	1330.00 (psi)	9170.08 (Kpa)	<b>Temperature:</b> 250.00 (F) 121.11 (C)
<b>Diameter.:</b>	20.000 (In)	508.000 (mm)	<b>Length:</b> 90.00 (In) 2286.00 (mm)
<b>Radiography:</b>	RT2	<b>Heat Treatment:</b>	No
<b>Corrosion allowance:</b>	0.063 (In)	1.600 (mm)	<b>MDMT:</b> -20.00
<b>Lining Or Coated:</b>	No	<b>Painted:</b>	Yes
<b>Insulated:</b>	No	<b>Internally Clad:</b>	No
<b>Hand Hole:</b>	No	<b>Support Type:</b>	
<b>Manway:</b>	No	<b>Manway Size(In):</b>	
<b>Capacity/Volume(m3):</b>		<b>Nozzle Rating:</b>	
<b>MATERIALS/COMPONENTS</b>			
<b>Name</b>	<b>Joint Efficiency</b>	<b>Outside Diameter(In.)</b>	<b>Head Type</b>
SHELL	1.00	20.000	
BTM HEAD	1.00	20.000	Ellipsoidal
TOP HEAD	1.00	20.000	Ellipsoidal
			<b>Material Type</b>
			SA-516 70
			<b>Stress Value (PSI)</b>
			17500
			<b>Nominal Thickness(In.)</b>
			0.75
<b>PIPING STATIC DATA</b>			
<b>Primary Flange Rating:</b>	600	<b>ASME B16.5 - Table 2-1.1 @ 150F:</b>	1480 (psi)
<b>Pressure Use For TMin:</b>	Vess Design Press	<b>Piping Operating Press:</b>	1330 (psi)
<b>Stress Value:</b>	20000 (psi)	<b>E Value:</b>	1.00
		<b>Joint:</b>	
<b>SERVICE CONDITIONS</b>			
<b>Sweet</b> ✓	<b>Sour</b>	<b>Oil</b>	<b>Gas</b>
<b>Water</b>			
<b>Amine</b>	<b>LPG</b>	<b>Condensate</b>	<b>Air</b>
			<b>Glycol</b>
<b>COMMENTS</b>			
MDR DATA ENTERED TO THIS RECORD JAN 201			



# ULTRASONIC CORROSION SURVEY REPORT

UT SURVEY Accept

District:	GRANDE PRAIRIE	Facility:	CRANBERRY-CHINCHAGA	Location/LSD:	05-17-097-03W6
Equipment Name:	SEPARATOR			Prov Reg No.:	2910415
Serial No.:	93C-5003-01B	Equip No.:	V-100	National Board No.:	



TYPE	LAST INSPECTIONS	INSPECTION INTERVAL (YEARS)	CORROSION RATE (IN/YR)		REMAINING LIFE (YEARS)	NEXT INSPECTION DATE
			SHORT TERM	LONG TERM		
VESSEL	Jan 27, 2021	5.0	0.0003	0.0003	198.0	Jan 27, 2026
PIPING	Jan 27, 2021	5.0	0.0015	0.0015	59.9	

POINT NUMBER	TYPE	Point Data (INCH)		NOM-CA	DATE	SURVEY READINGS			CALCULATIONS			Flag
		NOM.	C.A.			LOW	AVG	T Req (inch)	short term corr rate	long term corr rate	remaining life	
20	TOP HEAD	0.8370	0.0630	0.7740	Jan 27/21	0.829	0.850	0.710	0.0003	0.0003	414.2	NO COMMENTS
25	SHELL	0.7500	0.0630	0.6870	Jan 27/21	0.797	0.810	0.740	0.0000	0.0000	198.0	NO COMMENTS
30	SHELL	0.7500	0.0630	0.6870	Jan 27/21	0.778	0.790	0.740	0.0000	0.0000	198.0	NO COMMENTS
35	SHELL	0.7500	0.0630	0.6870	Jan 27/21	0.782	0.790	0.740	0.0000	0.0000	198.0	NO COMMENTS
40	SHELL	0.7500	0.0630	0.6870	Jan 27/21	0.770	0.780	0.740	0.0000	0.0000	198.0	NO COMMENTS
45	BTM HEAD	0.8490	0.0630	0.7860	Jan 27/21	0.865	0.890	0.710	0.0000	0.0000	198.0	NO COMMENTS

POINT NUMBER	TYPE	SIZE	SCH	POINT DATA (INCH)			DATE	SURVEY READINGS			CALCULATIONS			Flag
				NOM.	Mill Tol./CA	NOM-CA		LOW	AVG	T Req (inch)	short term corr rate	long term corr rate	remaining life	
05	90L 3 160	3.00	160	0.4380	0.1180	0.3200	Jan 27/21	0.410	0.420	0.120	0.0000	0.0000	295.4	NO COMMENTS
10	90L 2 STD	2.00	STD	0.1540	0.0820	0.0720	Jan 27/21	0.130	0.140	0.080	0.0000	0.0000	59.9	NO COMMENTS
15	90L 3 160	3.00	160	0.4380	0.1180	0.3200	Jan 27/21	0.550	0.620	0.120	0.0000	0.0000	198.0	NO COMMENTS
50	90L 1 XS	1.00	XS	0.1770	0.0850	0.0920	Jan 27/21	0.140	0.150	0.030	0.0000	0.0000	68.2	NO COMMENTS
55	90L 3 STD	3.00	STD	0.2160	0.0900	0.1260	Jan 27/21	0.200	0.230	0.120	0.0000	0.0000	136.9	NO COMMENTS
60	90L 4 STD	4.00	STD	0.2370	0.0930	0.1440	Jan 27/21	0.230	0.240	0.150	0.0000	0.0000	176.9	NO COMMENTS
65	90L 2 STD	2.00	STD	0.1540	0.0820	0.0720	Jan 27/21	0.150	0.160	0.080	0.0000	0.0000	394.5	NO COMMENTS

Inspected By	Signature	CGSB Level	CGSB No.	Survey Date	UT Equipment	Due Date OF Calibration	NDE Procedure #
Jordan Mackenzie	<i>J Mackenzie</i>	1	19537	01/27/2021	106_61457706_EPOCH 4	12/30/2021	WQS UT-001



District:	GRANDE PRAIRIE	Facility:	CRANBERRY-CHINCHAGA	Location/LSD:	05-17-097-03W6
Equipment Name:	SEPARATOR			Prov Reg No.:	2910415
Serial No.:	93C-5003-01B	Equip No.:	V-100	National Board No.:	

### PSV STATIC DATA

Tag/Equip No.:	79236G	Serial No.:	47524-94
Manufacturer:	TAYLOR	CRN No.:	0G01316.2C
Model No.:	82E8351311	Code Stamp:	
Side (Shell or Tube):	Shell	Outlet Size:	1
Inlet Size:	1	Outlet Type / ANSI Rating:	Threaded /
Inlet Type / ANSI Rating:	Threaded /		

### PSV SERVICE DATA

Set Date:	18 Aug, 2017	Service Interval:	60
Set Pressure (psig):	1330	Capacity (scfm):	4789
Service Company:	UNIFIED	Next Service Date:	18 Aug, 2022

### PSV FIELD INSPECTION

Inspector: Francis Omovbude Company: Vitus Technology Signature: Inspection Date: 27-Jan-2021

Inspection Type:			
<b>RESTRICTIONS</b>	<b>BLINDS</b>	INLET:	No Blinds found btwn vessels and psv inlet <span style="float: right; background-color: green; color: white; padding: 2px 5px;">Accept</span>
		OUTLET:	No blinds found btwn PSV and discharge point <span style="float: right; background-color: green; color: white; padding: 2px 5px;">Accept</span>
	<b>REDUCERS</b>	INLET:	No reducers found btwn Vessel(s) and PSV Inlet <span style="float: right; background-color: green; color: white; padding: 2px 5px;">Accept</span>
		OUTLET:	No reducers found btwn PSV and Discharge Point <span style="float: right; background-color: green; color: white; padding: 2px 5px;">Accept</span>
	<b>BLOCK VALVES</b>	INLET:	No block valve <span style="float: right; background-color: green; color: white; padding: 2px 5px;">Accept</span>
		OUTLET:	No block valve <span style="float: right; background-color: green; color: white; padding: 2px 5px;">Accept</span>
<b>SERVICING</b>	<b>SET PRESSURE</b>	PSV set pressure is at or less than MAWP of all linked vessels in the system. <span style="float: right; background-color: green; color: white; padding: 2px 5px;">Accept</span>	
	<b>SERVICE DATE</b>	PSV set date is current at time of inspection <span style="float: right; background-color: green; color: white; padding: 2px 5px;">Accept</span>	
	<b>SERVICE SEAL</b>	Service seal is intact <span style="float: right; background-color: green; color: white; padding: 2px 5px;">Accept</span>	
<b>OPERATION</b>	<b>TAGGING</b>	Service tag is properly attached to the psv <span style="float: right; background-color: green; color: white; padding: 2px 5px;">Accept</span>	
	<b>VIBRATION</b>	None <span style="float: right; background-color: green; color: white; padding: 2px 5px;">Accept</span>	
	<b>DISCHARGE</b>	PSV Discharge point is in a safe location and is acceptable <span style="float: right; background-color: green; color: white; padding: 2px 5px;">Accept</span>	
	<b>LEAKS</b>	INLET:	No visible leaks found at psv inlet connection <span style="float: right; background-color: green; color: white; padding: 2px 5px;">Accept</span>
OUTLET:		No visible leaks found at psv outlet connection <span style="float: right; background-color: green; color: white; padding: 2px 5px;">Accept</span>	
<b>INSTALLATION</b>	<b>PSV SUPPORTS</b>	PSV supported <span style="float: right; background-color: green; color: white; padding: 2px 5px;">Accept</span>	
	<b>ANGLE</b>	PSV is installed in the proper upright positon <span style="float: right; background-color: green; color: white; padding: 2px 5px;">Accept</span>	

### EQUIPMENT PROTECTED

Prov Reg No.	Equipment No.	Serial No.	Equipment Name	Status	MAWP
2910415	V-100	93C-5003-01B	SEPARATOR	Operating	1330.00





# VISUAL INSPECTION REPORT - PRESSURE VESSEL

VTE INSP Accept

District:	GRANDE PRAIRIE	Facility	CRANBERRY-CHINCHAGA	Location/LSD	05-17-097-03W6
Equipment Name	SEPARATOR			Prov Reg No.:	2910415
Serial No.:	93C-5003-01B	Equip No.:	V-100	National Board No.	

### External Inspection

Inspector:	Francis Omovbude	ABSA PESL #:001176	Signature:		Date:	01/27/2021
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**External Corrosion**  
There was no significant external corrosion found on the vessel/piping Accept

**External Damage**  
There was no external corrosion found on the vessel/piping Accept

**Leakage**  
No Leaks were found on the vessel or piping connections Accept

**Vessel and Piping Supports**

Vessel support is Skirt and is acceptable	Accept
Vessel support anchor bolts are in place and acceptable	Accept
Vessel Foundation is Metal and is acceptable	Accept
Piping is supported by clamp and is acceptable	Accept

Insulation/Paint	Type	Findings	
Vessel	Painted	Accept	Accept
Inlet Piping	Painted	Accept	Accept
Outlet Piping	Painted	Accept	Accept

Pressure Envelope Flanging	Bolting	Thread engagement	Gaskets	Flange Rating	
Manway	NA				Accept
Vessel	NA				Accept
Inlet Piping	Accept	Accept	Accept	Accept	Accept
Outlet Piping	Accept	Accept	Accept	Accept	Accept
Other Piping	Accept	Accept	Accept	Accept	Accept

**General**  
Pressure Gauge is acceptable, Temp Gauge is acceptable, Level Gauge is acceptable, Grounding is acceptable, Accept

**Comment**