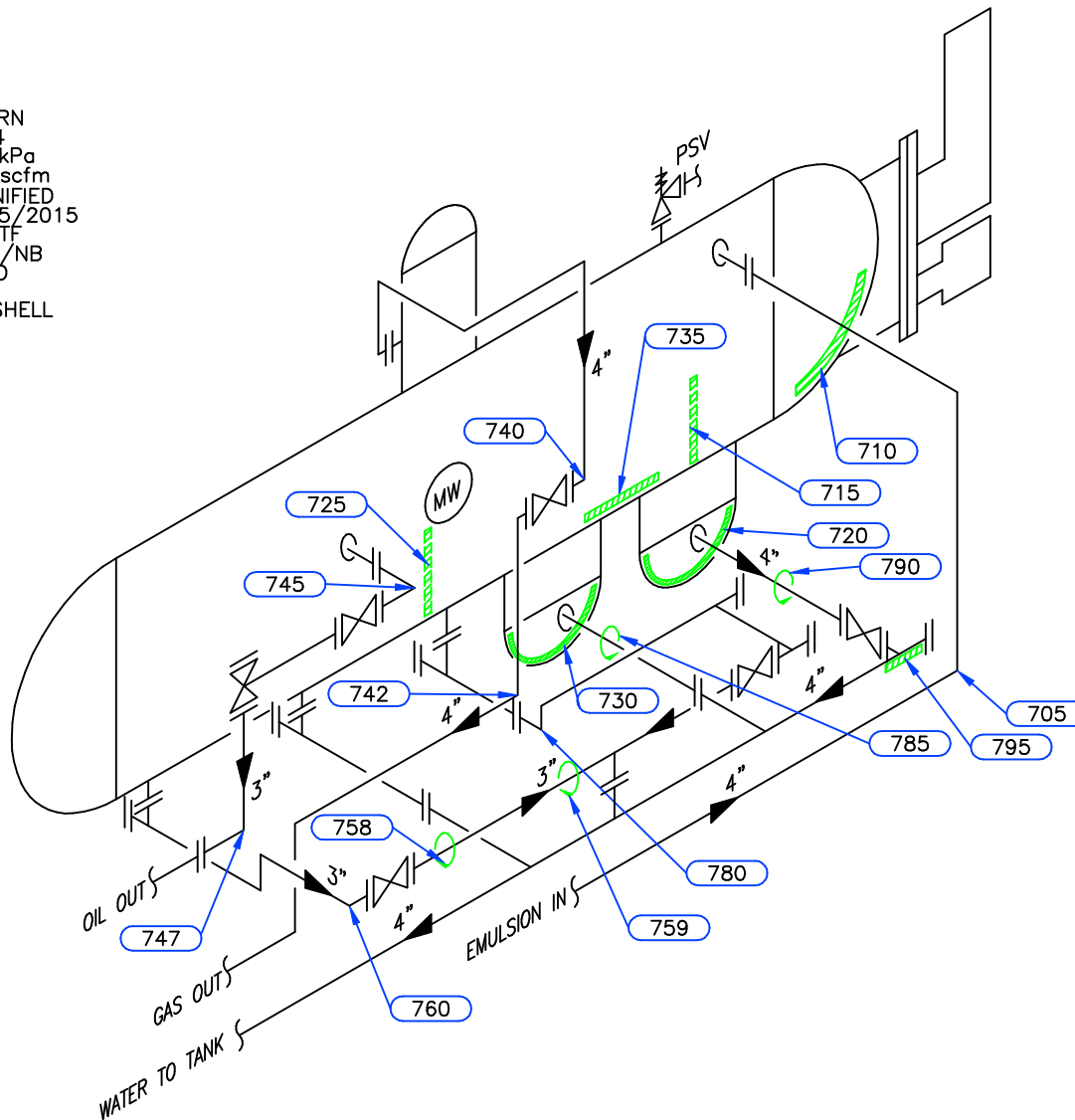


PSV DATA

MFG: WELLMARK
 MODEL: W9503-RN
 SERIAL: 67893-4
 SET PRES: 345 kPa
 CAPACITY: 2445 scfm
 SERVICED BY: UNIFIED
 SERVICE DATE: 05/2015
 SIZE: 3in x 3in TF
 CODE STAMP: UV/NB
 BLOCK VALVE: NO
 CRN: N/S
 LOCATION: TOP SHELL
 TAG: 2415F



BC 42P686

Equip. No. _____ Prov. Reg. No. **A 68932** C.R.N. **A-6968.21** Serial No. **L-1059** Yr. Inst. _____
 Code/Div. **ASME VIII, Div 1** Size: **10ft x 25ft** Manufacturer: **NATIONAL TANK CO.** Yr. Blt. **1967**
 C. Stamp: **M** Service: **SOUR** PWHT: **NIL** Radiography: **NIL** Insulated: **ASBESTOS**

Design & Materials Data

HEAD:
 Top Mat'l. **SA 283 C** Top Nom. **11.1mm** Top C.A. **N/S**
 Btm. Mat'l. _____ Btm. Nom. _____ Btm. C.A. _____
CHANNEL:
 Material: _____ Nominal: _____ C.A. _____
BOOT
 Head Mat'l. _____ Head Nom. _____ Head C.A. _____
 Shell Mat'l. _____ Shell Nom. _____ Shell C.A. _____
SHELL
 Material: **SA 285 C** Nominal: **9.5mm** C.A. **N/S**
 MAWP Shell Side: **345 kPa** @ Temp. **149°C**
 MAWP Tube Side: _____ @ Temp. _____

CLIENT	CANADIAN NATURAL RESOURCES LTD	
FACILITY	NANCY BATTERY PEE JAY UNIT#3 LSD d-65-H/94-A-15	
ITEM	FREE WATER KNOCK OUT DRUM	
BY: LO	DATE: 06/2008	DWG.# 7

UTS DATA

CLIENT: CANADIAN NATURAL RESOURCES
EQUIPMENT: FREE WATER KNOCK OUT DRUM
CRN#: A-6968.21
PROV REG: A 68932
TESTED ON STREAM

FACILITY: NANCY BATTERY PEE JAY UNIT #3
SERVICE: SOUR
LOCATION: d-65-H/94-A-15
RTD JOB #: 4016101
REFER TO DRAWING: 7

Test Point	THICKNESS DATA								Flag	T-Min	C.A.	Nom.	Short Term	Long Term	Ave. mm/py	Retirement Date		
710	Description: LOWER HEAD																	
	2008	6	2011	2	2015	1	2020	2										
Min. Thick.	14.8		14		14		14		11.10	7.9		11.10	0		.07			
Average:	15.3		14.9		14.9		14.9						0		.03	2112		
Analysis:	02/2020 - MIN SCAN @ START OF BAND.																	
715	Description: LOWER SHELL																	
	2015	1	2020	2														
Min. Thick.	9.5		9.5															
Average:	10		10															
Analysis:																		
720	Description: BOOT-BOTTOM HEAD																	
	2008	6	2011	2	2015	1	2020	2										
Min. Thick.	9.8		9.8		9.8		9.8		0.00								0	0
Average:	11		11		11		11									0	0	
Analysis:	2008/06 MIN SCAN AT KNUCKLE																	
725	Description: LOWER SHELL																	
	2008	6	2011	2	2015	1	2020	2										
Min. Thick.	9.6		9.6		9.6		9.6		9.50								0	0
Average:	9.8		9.8		9.8		9.8									0	0	
Analysis:	2008/06 LAMINATIONS NOTED																	
730	Description: BOOT-BOTTOM HEAD																	
	2008	6	2011	2	2015	1	2020	2										
Min. Thick.	9.4		6.8		6.8		6.8		0.00								0	.22
Average:	11		9.3		9.3		9.3									0	.15	
Analysis:	NOTE: 2011/02 ISOLATED PIT @ SHELL TO WELD: 5.6 (MIN) & 5.9 (AVG).																	
735	Description: BOTTOM SHELL																	
	2008	6	2011	2	2015	1	2020	2										
Min. Thick.	8.1		8.1		8.1		8.1		9.50	7.9		9.50	0		0			
Average:	9		9		9		9									0	0	
Analysis:																		

UTS DATA

CLIENT: CANADIAN NATURAL RESOURCES
EQUIPMENT: FREE WATER KNOCK OUT DRUM PIPING
CRN#:
PROV REG:
TESTED ON STREAM

FACILITY: NANCY BATTERY PEE JAY UNIT #3
SERVICE: SOUR
LOCATION: d-65-H/94-A-15
RTD JOB #: 4016101
REFER TO DRAWING: 7

Test Point	THICKNESS DATA								Flag	T-Min	C.A.	Nom.	Short Term	Long Term	Ave. mm/yr	Retirement Date
705																
Description: 4" 90° ELBOW																
	2008	6	2011	2	2015	1	2020	2								
Min. Thick.	5.9		5.9		5.9		5.9		5.25		.8	6.00	0	0		
Average:	6.3		6.3		6.3		6.3						0	0		
Analysis:																
740																
Description: 4" 90° ELBOW																
	2008	6	2011	2	2015	1	2020	2								
Min. Thick.	8.6		8.6		8.6		8.6		7.53		1.1	8.60	0	0		
Average:	8.9		8.9		8.9		8.9						0	0		
Analysis:																
742																
Description: 4" 90° ELBOW																
	2015	1	2020	2												
Min. Thick.	5.7		5.7						5.25		.8	6.00	0	0		
Average:	5.9		5.9										0	0		
Analysis:																
745																
Description: 2" 90° ELBOW																
	2008	6	2011	2	2015	1	2020	2								
Min. Thick.	5.6		5.6		5.6		5.3		4.81		.7	5.50	.06	.03		
Average:	5.8		5.8		5.8		5.6						.04	.02		
Analysis:																
747																
Description: 3" 90° ELBOW																
	2015	1	2020	2												
Min. Thick.	5.3		5.3						4.81		.7	5.50	0	0		
Average:	5.6		5.6										0	0		
Analysis:																
758																
Description: 3" CIRC BAND																
	2015	1	2020	2												
Min. Thick.	5		5						6.65	2.5	1	7.60	0	0		
Average:	6.1		6.1										0	0		
Analysis: 02/2020 - THICKNESS CALCULATIONS CARRIED OUT TO 0.1mm. API 510 REFERENCES 2.5mm AS MINIMUM THICKNESS REQUIRED FOR PRESSURE VESSELS AND PIPING. RETIREMENT DATE 2071.																

UTS DATA

CLIENT: CANADIAN NATURAL RESOURCES
EQUIPMENT: FREE WATER KNOCK OUT DRUM PIPING
CRN#:
PROV REG:
TESTED ON STREAM

FACILITY: NANCY BATTERY PEE JAY UNIT #3
SERVICE: SOUR
LOCATION: d-65-H/94-A-15
RTD JOB #: 4016101
REFER TO DRAWING: 7

Test Point	THICKNESS DATA								Flag	T-Min	C.A.	Nom.	Short Term	Long Term	Ave. mm/py	Retirement Date
759																
Description:	3" CIRC BAND															
	2015	1	2020	2												
Min. Thick.	3.4		3.4		6.65	2.5	1	7.60	0	0						
Average:	5.6		5.6						0	0						
Analysis:	02/2020 - CORROSION AT 6 O'CLOCK POSITION. THICKNESS CALCULATIONS CARRIED OUT TO 0.1mm. API 510 REFERENCES 2.5mm AS MINIMUM THICKNESS REQUIRED FOR PRESSURE VESSELS AND PIPING. RETIREMENT DATE															
760																
Description:	3" 90° ELBOW															
	2020	2														
Min. Thick.	6.8		6.65		1	7.60	0	0								
Average:	7.1						0	0								
Analysis:																
780																
Description:	3" 90° ELBOW															
	2008	6	2011	2	2015	1	2020	2								
Min. Thick.	6.9		6.9		6.9		6.9		6.65	1	7.60	0	0			
Average:	7.2		7.2		7.2		7.2					0	0			
Analysis:																
785																
Description:	4" CIRC BAND															
	2008	6	2011	2	2015	1	2020	2								
Min. Thick.	8.2		8.2		8.2		8.2		7.53	1.1	8.60	0	0			
Average:	8.7		8.7		8.7		8.7					0	0			
Analysis:	2008/06 MIN SCAN AT 6:00 POSITION															
790																
Description:	4" CIRC BAND															
	2008	6	2011	2	2015	1	2020	2								
Min. Thick.	8.1		8.1		8.1		8.1		7.53	1.1	8.60	0	0			
Average:	8.4		8.4		8.4		8.4					0	0			
Analysis:	2008/06 MIN SCAN AT 6:00 POSITION															
795																
Description:	4" 90° ELBOW															
	2020	2														
Min. Thick.	7.1		7.53	2.5	1.1	8.60	.08	.05								
Average:	8						0	0								
Analysis:	02/2020 - NEW PIPING. MIN SCAN @ WELDS. THICKNESS CALCULATIONS CARRIED OUT TO 0.1mm. API 510 REFERENCES 2.5mm AS MINIMUM THICKNESS REQUIRED FOR PRESSURE VESSELS AND PIPING. RETIREMENT DATE 2183.															