

## Vessel Information

Vessel Owner	RMP Energy Inc.	
Location	08-08-066-24W5	
Survey Date	July 09, 2016	
Review Date	Sept 16, 2016	
Vessel Description	Vertical Separator	
A# 0603579	Serial # C3348B.VS	NB#

## Deficiencies

Deficiency Noted	NO
<b>Deficiency Type</b>	
PSV In Compliance	YES
PSV Overdue for Service	NO
Nameplate Deficiency	NO
<b>Comments</b>	
No issues noted	

## Vessel Condition Status

Internal Corrosion Noted	NO
Band number	
<b>Comments</b>	
No issues noted	

## Fit for Service

Vessel /Piping is Fit for Service	YES
Conditions for Fit for Service	NO
In Service / Out of Service	In Service
<b>Comments</b>	
Maximum interval achieved	


## Inspection Interval

NDE Inspection Interval	10 Years
Thorough Inspection by	UT Inspection
Next Inspection Date	July 08, 2026
Next External Inspection	July 08, 2021

Reviewer



R. (Bob) Stanhope  
 Bootis Hill Integrity Management Inc.  
 Phone: (780) 915-0510



Jeff Crabbe  
 API 510, 570, 653  
 ABSA PESL – 000240  
 TSask PEI – 0147

RG - 120 mths VE, UT  
 PD - 60 mths VE

Bootis Hill Integrity Management Inc Revision # 1	<b>Installation Inspection Form</b>	Form # 001 Effective Date: February 1, 2008
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Owner	RMP Energy INC.	Location	8-8-66-24-W5
Inspector	Stuart Vink	Field	Ante Creek.
<b>Vessel Data</b>			
Vessel Description	Vert. Sep.	PWHT	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Manufacturer	Rushton	Diameter	34"
AP / NB#	603 579	Length	10'
Serial #	C33488-VS	Radiography (RT)	RT-2
CRN #	P1584.21	Corrosion Allowance	0.0625"
Date Built	2011	Shell Thickness	1.125"
MAWP	1440 Psi <input checked="" type="checkbox"/> kPa <input type="checkbox"/>	Shell Material	
MAWT	130 F <input checked="" type="checkbox"/> C <input type="checkbox"/>	Head Thickness	MIN 1.08"
MDMT (-29C)	-20 F <input checked="" type="checkbox"/> C <input type="checkbox"/>	Head Material	

<b>PSV Data</b>			
PSV #1		PSV #2	
PSV Location	Vert. Sep.	PSV Location	
Manufacturer(s)	Mercer	Manufacturer(s)	
Serial #	735045	Serial #	
CRN #	068841.5C.	CRN #	
Model #	81-43251P27G21	Model #	
Set Pressure	1440 Psi <input checked="" type="checkbox"/> kPa <input type="checkbox"/>	Set Pressure	Psi <input type="checkbox"/> kPa <input type="checkbox"/>
Capacity	11527 scfm <input checked="" type="checkbox"/> g/m <input type="checkbox"/>	Capacity	scfm <input type="checkbox"/> g/m <input type="checkbox"/>
Last Service Date	10-11	Last Service Date	
Inlet Size	2"	Inlet Size	
Outlet Size	2"	Outlet Size	
Inlet Type	Thread <input checked="" type="checkbox"/> Flange <input type="checkbox"/>	Inlet Type	Thread <input type="checkbox"/> Flange <input type="checkbox"/>
Outlet Type	Thread <input checked="" type="checkbox"/> Flange <input type="checkbox"/>	Outlet Type	Thread <input type="checkbox"/> Flange <input type="checkbox"/>
PSV Outlet Trapped	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	PSV Outlet Trapped	Yes <input type="checkbox"/> No <input type="checkbox"/>
PSV Inlet Restricted	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	PSV Inlet Restricted	Yes <input type="checkbox"/> No <input type="checkbox"/>
PSV Outlet Restricted	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	PSV Outlet Restricted	Yes <input type="checkbox"/> No <input type="checkbox"/>
Inlet Block Valve	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Inlet Block Valve	Yes <input type="checkbox"/> No <input type="checkbox"/>
Outlet Block Valve	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Outlet Block Valve	Yes <input type="checkbox"/> No <input type="checkbox"/>

<b>External Inspection Data</b>			
Vessel/Skid Grounded	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Vessel Nameplate	1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>
Vessel Level	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Vessel Saddle/Skirt	1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>
Vessel Secured	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Ladder(s)	N/A 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>
Bolting per Code	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Temp Indicator (TI)	NONE 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>
Vessel Shell	1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Pressure Gauge	1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>
Vessel Head	1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Valves	1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>
Vessel Paint	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Piping	1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>
Foundation	1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Flame Arrestor	n/a <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>
Insulation/Cladding	1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	Stack	n/a <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>

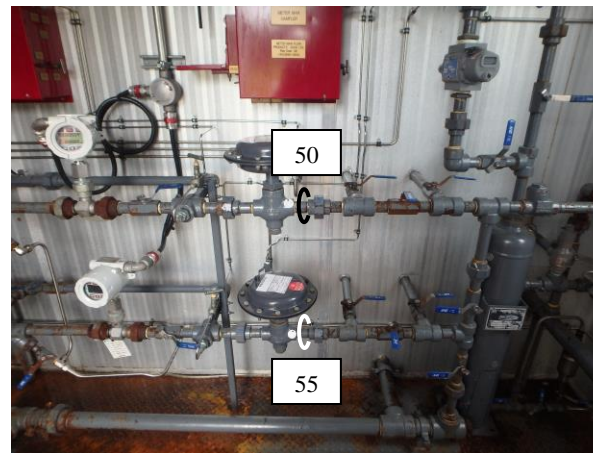
Legend – 1 as new, 2 used good condition, 3 deterioration consider repair, 4 severe deterioration, 5 further inspection required, n/a not applicable

<b>Comments</b>	
SKID Grounded	
Fit for Service	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
In Service	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Inspection Interval	1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>
Inspection Type	UT <input checked="" type="checkbox"/> Visual <input type="checkbox"/> Internal <input type="checkbox"/> Other <input type="checkbox"/>
Inspector	Donny Juras
Date	July 9/2016.
5 yr interval Bob Stanhope Sept 2016	




**Vessel Static Data:**

<b>Name:</b>	Separator
<b>A#:</b>	0603579
<b>Serial Number:</b>	C3348B.VS
<b>CRN:</b>	P 1584.21
<b>LSD:</b>	08-08-066-24 W5M
<b>Location:</b>	Ante Creek
<b>CA:</b>	0.0625"
<b>Size:</b>	34.00" OD
<b>MAWP:</b>	1440psi
<b>Temp:</b>	130°F
<b>Head Material:</b>	SA-516-70
<b>Head Nominal:</b>	1.080"
<b>Shell Material:</b>	SA-516-70
<b>Shell Nominal:</b>	1.125"
<b>Year Built:</b>	2011
<b>Manufacturer:</b>	Rushton



<b>Notes:</b>	<p>*Band 00 – Top head (no pic).</p> <p>*Band 05 – Top shell, above roof line (no pic).</p>
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CONST	W	CERTIFIED BY	
RT	2		
		<b>RUSHTON</b>	
		EDMONTON ALBERTA	
MAWP	1440 Psig	AT	130
	Psig	AT	
MDMT	-20 °F	AT	1440
JOB#	03348B	S/N	03348B-VS
YR BT	2011	CRN	P1584-21
A#	(A) 603579		
MIN HD	1-08	NOM SH	1-125
		CA	0-0628




# ULTRASONIC CORROSION SURVEY

Survey Name: RMP ENERGY INC

Report No.: 180

Survey Date: 07/09/2016

LSD: 08-08-066-24W5	Dwg: 37	Vessel Number: A0603579	Manufacturer: RUSHTON	Technician: D. JUTRAS
Downhole LSD:		Vessel Name: SEPARATOR	Serial Number: C3348B.VS	Certification: CGSB / SNT-TC-1A
District Unit: ANTE CREEK		Year Built: 2011	Shell MAWP PSI: 1440	MAWT F: 130
Location: FIELD		Tag Number:	Tube MAWP PSI: 0	MAWT F: 0
Skid:		CRN: P 1584.21	Vessel CA: 0.0625	

Band	Description		Baseline	Previous	Current	Next Inspection	Nominal	TMIN	ST Loss	LT Loss	Recommended
						Material	CA		MPY	MPY	Retirement
											Date
00	Top - Head	Ref	2016	1.2510	2016	1.2510	2017	1.0800	1.0095		
Shape	Ellipsoidal	<b>Min</b>		<b>1.2260</b>		<b>1.2260</b>	SA 516 - 70	0.0625			
OD	30	Avg		1.2450		1.2450					
Spec.	VIII Div 1										Comments:
05	Top - Shell	Ref	2016	1.1480	2016	1.1480	2017	1.1250	1.0441		
Shape	Cylindrical	<b>Min</b>		<b>1.1400</b>		<b>1.1400</b>	SA 516 - 70	0.0625			
OD	30	Avg		1.1430		1.1430					
Spec.	VIII Div 1										Comments:
10	Middle - Shell	Ref	2016	1.1390	2016	1.1390	2017	1.1250	1.0441		
Shape	Cylindrical	<b>Min</b>		<b>1.1370</b>		<b>1.1370</b>	SA 516 - 70	0.0625			
OD	30	Avg		1.1410		1.1410					
Spec.	VIII Div 1										Comments:
15	Middle - Shell	Ref	2016	1.1380	2016	1.1380	2017	1.1250	1.0441		
Shape	Cylindrical	<b>Min</b>		<b>1.1360</b>		<b>1.1360</b>	SA 516 - 70	0.0625			
OD	30	Avg		1.1410		1.1410					
Spec.	VIII Div 1										Comments:




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Survey Date: 07/09/2016

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Downhole LSD:		Vessel Name: SEPARATOR	Serial Number: C3348B.VS	Certification: CGSB / SNT-TC-1A
District Unit: ANTE CREEK		Year Built: 2011	Shell MAWP PSI: 1440	MAWT F: 130
Location: FIELD		Tag Number:	Tube MAWP PSI: 0	MAWT F: 0
Skid:		CRN: P 1584.21	Vessel CA: 0.0625	

Band	Description		Baseline	Previous	Current	Next Inspection	Nominal	TMIN	ST Loss	LT Loss	Recommended
						Material	CA		MPY	MPY	Retirement
											Date
20	Bottom - Shell	Ref	2016	1.1410	2016	1.1410	2017	1.1250	1.0441		
Shape	Cylindrical	<b>Min</b>		<b>1.1350</b>		<b>1.1350</b>	SA 516 - 70	0.0625			
OD	30	Avg		1.1450		1.1450					
Spec.	VIII Div 1										Comments:
25	Bottom - Head	Ref	2016	1.1190	2016	1.1190	2017	1.0800	1.0095		
Shape	Ellipsoidal	<b>Min</b>		<b>1.1130</b>		<b>1.1130</b>	SA 516 - 70	0.0625			
OD	30	Avg		1.1340		1.1340					
Spec.	VIII Div 1										Comments:
30	Nozzle	Ref	2016	0.3490	2016	0.3490	2017	0.3430	0.0749		
Shape	360° Circ	<b>Min</b>		<b>0.3370</b>		<b>0.3370</b>	SA 106 - B	0.1054			
OD	2.375	Avg		0.3440		0.3440					
Spec.	VIII Div 1										Comments:
35	Piping	Ref	2016	0.2090	2016	0.2090	2017	0.2180	0.0825		
Shape	90° Elbow	<b>Min</b>		<b>0.1970</b>		<b>0.1970</b>	A 234 - WPB	0.0272			
OD	2.375	Avg		0.2020		0.2020					
Spec.	B31.3										Comments:




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Survey Name: RMP ENERGY INC

Report No.: 180

Survey Date: 07/09/2016

LSD: 08-08-066-24W5	Dwg: 37	Vessel Number: A0603579	Manufacturer: RUSHTON	Technician: D. JUTRAS
Downhole LSD:		Vessel Name: SEPARATOR	Serial Number: C3348B.VS	Certification: CGSB / SNT-TC-1A
District Unit: ANTE CREEK		Year Built: 2011	Shell MAWP PSI: 1440	MAWT F: 130
Location: FIELD		Tag Number:	Tube MAWP PSI: 0	MAWT F: 0
Skid:		CRN: P 1584.21	Vessel CA: 0.0625	

Band	Description		Baseline	Previous	Current	Next Inspection	Nominal	TMIN	ST Loss	LT Loss	Recommended
						Material	CA		MPY	MPY	Retirement
											Date
40	Nozzle	Ref	2016	0.5680	2016	0.5680	2017	0.6000	0.1020		
Shape	90° Elbow	<b>Min</b>		<b>0.5630</b>		<b>0.5630</b>	SA 234 - WPB	0.1375			
OD	3.5	Avg		0.5700		0.5700					
Spec.	VIII Div 1										Comments:
45	Piping	Ref	2016	0.3260	2016	0.3260	2017	0.3430	0.0825		
Shape	90° Elbow	<b>Min</b>		<b>0.3050</b>		<b>0.3050</b>	A 234 - WPB	0.0429			
OD	2.375	Avg		0.3260		0.3260					
Spec.	B31.3										Comments:
50	Piping	Ref	2016	0.1890	2016	0.1890	2017	0.1790	0.0457		
Shape	360° Circ	<b>Min</b>		<b>0.1820</b>		<b>0.1820</b>	A 106 - B	0.0224			
OD	1.315	Avg		0.1830		0.1830					
Spec.	B31.3										Comments:
55	Piping	Ref	2016	0.1940	2016	0.1940	2017	0.1790	0.0457		
Shape	360° Circ	<b>Min</b>		<b>0.1890</b>		<b>0.1890</b>	A 106 - B	0.0224			
OD	1.315	Avg		0.1910		0.1910					
Spec.	B31.3										Comments: