



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area  
**SANDY B**  
Machine Id  
**[SANDY B] 001 562531-1**  
Component  
**Port Main Engine**  
Fluid  
**SHELL ROTELLA T 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0061659</b>	MW0061336	MW0061387
Sample Date		Client Info		<b>02 Jan 2024</b>	30 Nov 2023	01 Nov 2023
Machine Age	hrs	Client Info		<b>7257</b>	6838	6442
Oil Age	hrs	Client Info		<b>203</b>	309	394
Filter Age	hrs	Client Info		<b>203</b>	309	394
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	<b>0</b>	0	1
Chromium	ppm	ASTM D5185m	>8	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>1</b>	<1	0
Lead	ppm	ASTM D5185m	>18	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>80	<b>3</b>	3	5
Tin	ppm	ASTM D5185m	>14	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

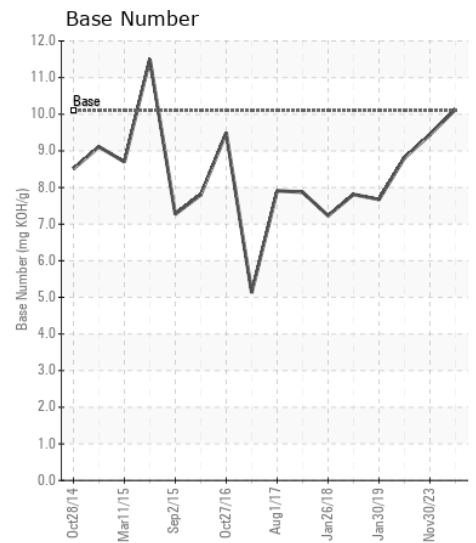
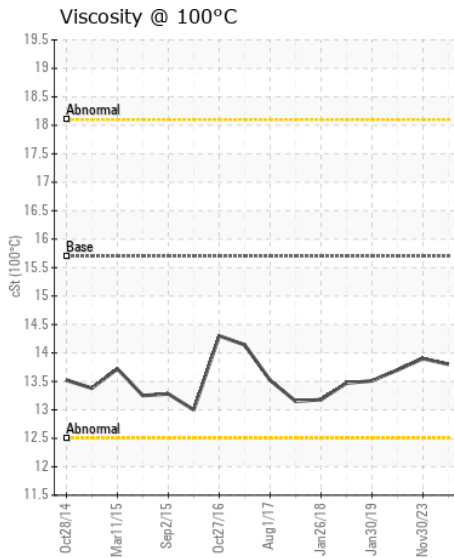
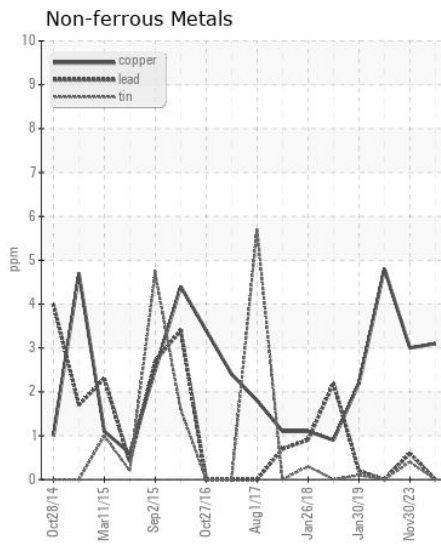
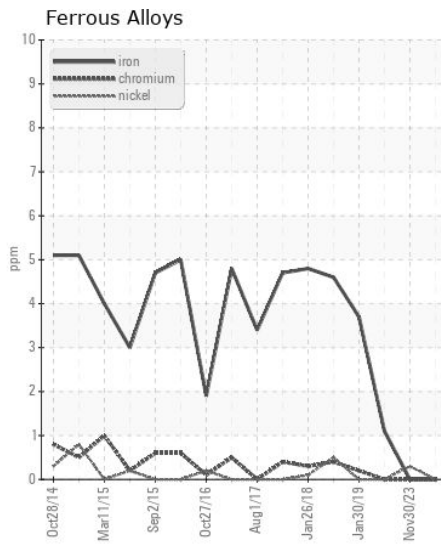
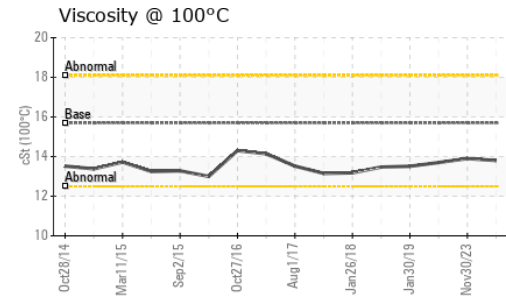
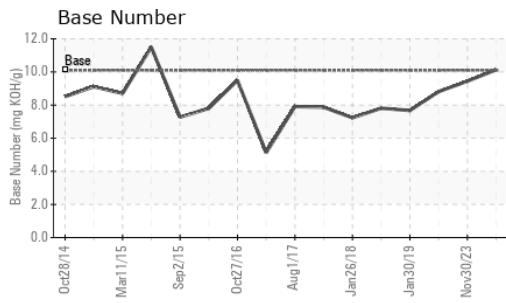
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>2</b>	3	3
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	9	7
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.0</b>	6.4	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.6</b>	19.8	20.0
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>75	<b>0</b>	2	2
Boron	ppm	ASTM D5185m	316	<b>185</b>	190	175
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	1.2	<b>8</b>	6	9
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	24	<b>43</b>	30	32
Calcium	ppm	ASTM D5185m	2292	<b>2036</b>	2140	2125
Phosphorus	ppm	ASTM D5185m	1064	<b>959</b>	998	1030
Zinc	ppm	ASTM D5185m	1160	<b>1129</b>	1188	1250
Sulfur	ppm	ASTM D5185m	4996	<b>3338</b>	3601	3789
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.0</b>	16.2	16.6
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>10.13</b>	9.44	8.81
Visc @ 100°C	cSt	ASTM D445	15.7	<b>13.8</b>	13.9	13.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0061659 **Received** : 16 Jan 2024  
**Lab Number** : 06062168 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10833550 **Diagnostician** : Wes Davis  
**Test Package** : MAR 2

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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