



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**WASTE TREATMENT TOWN OF PITTSBORO WT**  
 Component  
**Diesel Engine**  
 Fluid  
**SHELL ROTELLA T 15W40 (7 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0887910</b>	WC0395610	WCM1169210
Sample Date		Client Info		<b>05 Mar 2024</b>	09 Jan 2020	26 Aug 2011
Machine Age	hrs	Client Info		<b>363</b>	218	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	<b>2</b>	2	9
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	2	3
Lead	ppm	ASTM D5185m	>40	<b>2</b>	0	14
Copper	ppm	ASTM D5185m	>330	<b>2</b>	2	30
Tin	ppm	ASTM D5185m	>15	<b>1</b>	0	4
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

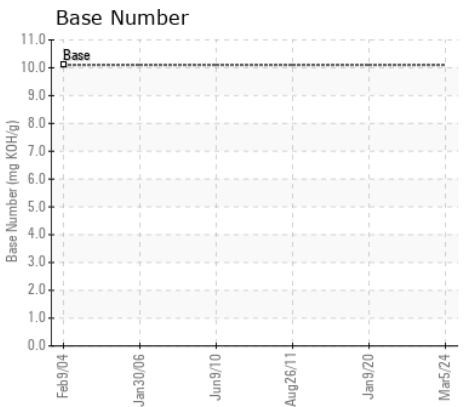
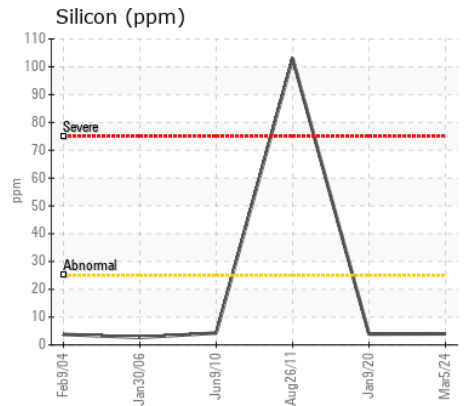
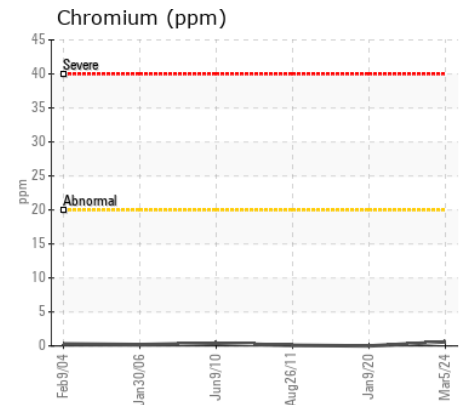
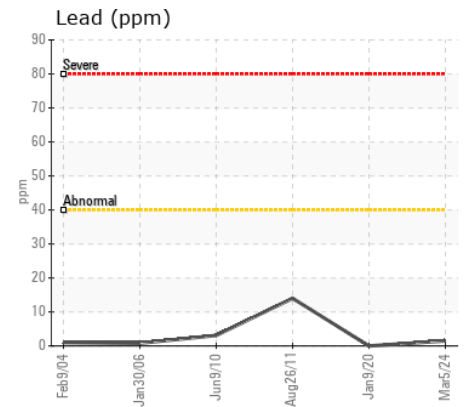
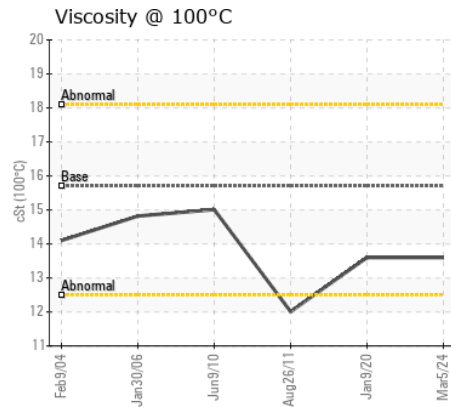
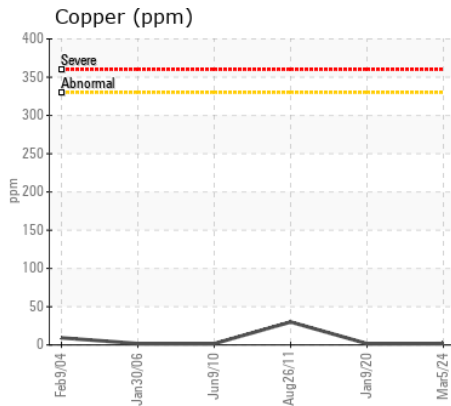
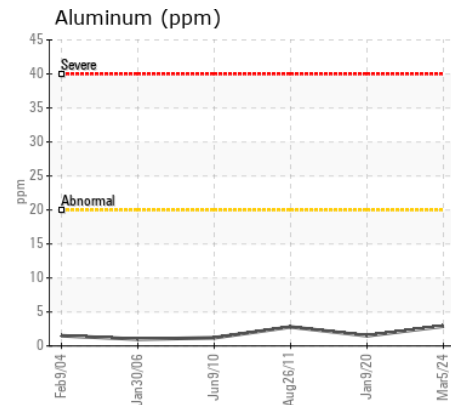
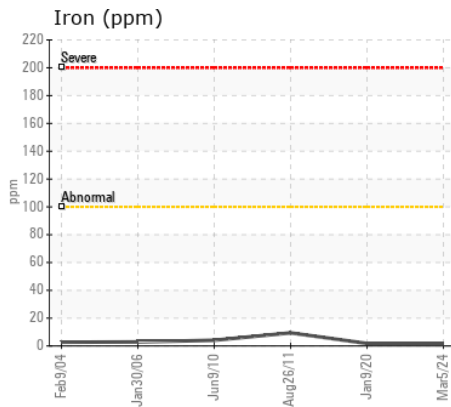
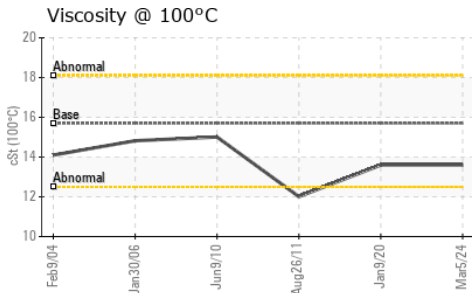
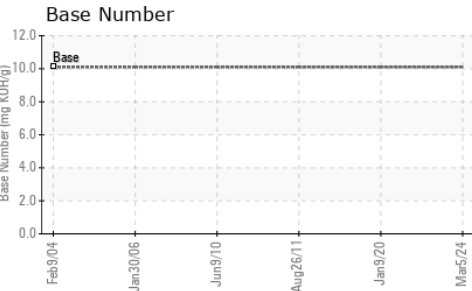
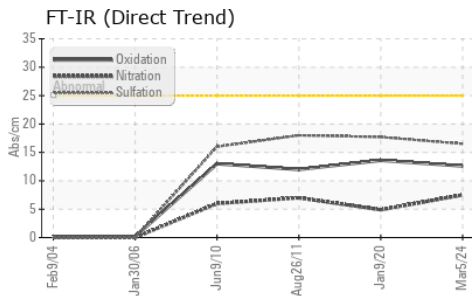
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	4	▲ 103
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	6	2
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0</b>	0	0
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.5</b>	4.9	7.
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>16.5</b>	17.7	18.
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	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	>0.2	<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		<b>1</b>	3	4
Boron	ppm	ASTM D5185m	316	<b>90</b>	9	99
Barium	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	1.2	<b>87</b>	61	125
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185m	24	<b>27</b>	1060	283
Calcium	ppm	ASTM D5185m	2292	<b>2116</b>	1179	1672
Phosphorus	ppm	ASTM D5185m	1064	<b>1111</b>	1070	841
Zinc	ppm	ASTM D5185m	1160	<b>1110</b>	1214	1045
Sulfur	ppm	ASTM D5185m	4996	<b>4090</b>	2772	4089
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>12.6</b>	13.6	12.
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>7.0</b>	---	---
Visc @ 100°C	cSt	ASTM D445	15.7	<b>13.6</b>	13.6	▲ 12.01



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0887910 **Received** : 12 Apr 2024  
**Lab Number** : 06146940 **Tested** : 15 Apr 2024  
**Unique Number** : 10977018 **Diagnosed** : 15 Apr 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

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)

**PIEDMONT GENERATOR**  
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