



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

Machine Id  
**112601**  
Component  
**Diesel Engine**  
Fluid  
**SHELL ROTELLA T 15W40 (--- QTS)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>IL0033041</b>	IL0033063	IL0032722
Sample Date		Client Info		<b>15 May 2024</b>	22 Jan 2024	27 Sep 2023
Machine Age	mls	Client Info		<b>322310</b>	288486	0
Oil Age	mls	Client Info		<b>33824</b>	41488	0
Filter Age	mls	Client Info		<b>33824</b>	41488	0
Oil Changed		Client Info		<b>Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	<b>16</b>	0	25
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	<1	2
Nickel	ppm	ASTM D5185m	>2	<b>2</b>	0	1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	2	5
Lead	ppm	ASTM D5185m	>40	<b>1</b>	0	2
Copper	ppm	ASTM D5185m	>330	<b>2</b>	<1	2
Tin	ppm	ASTM D5185m	>15	<b>1</b>	0	<1
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

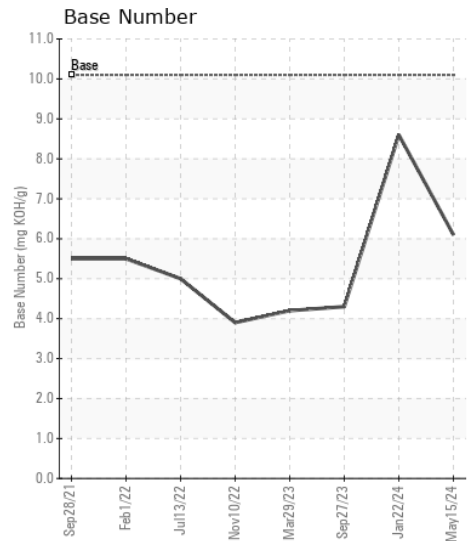
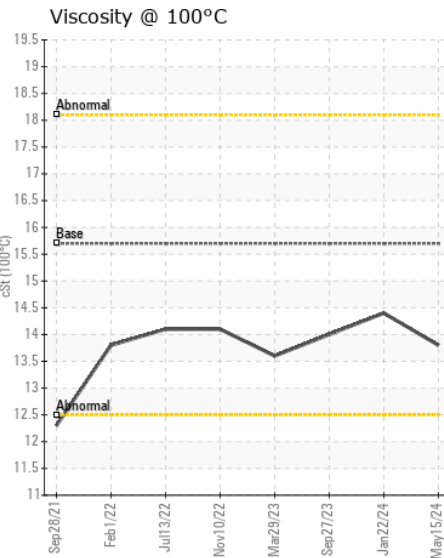
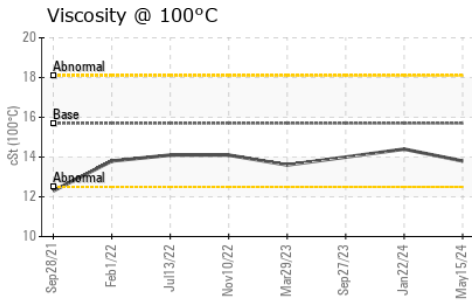
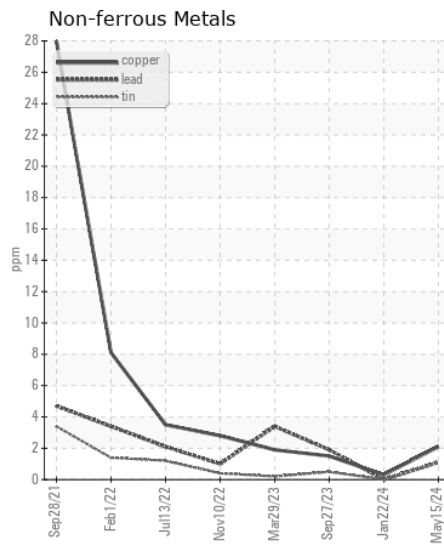
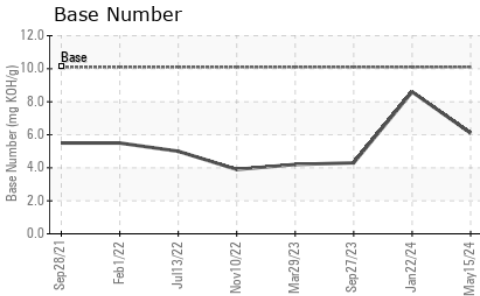
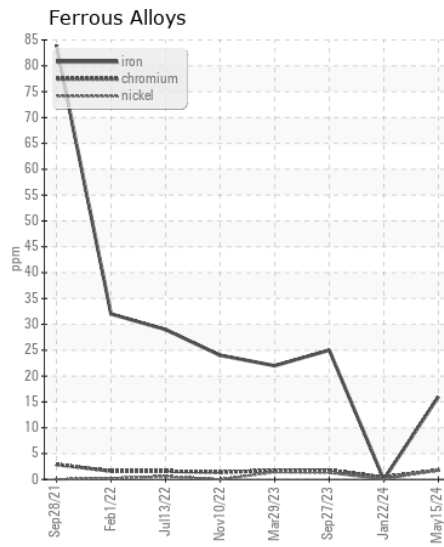
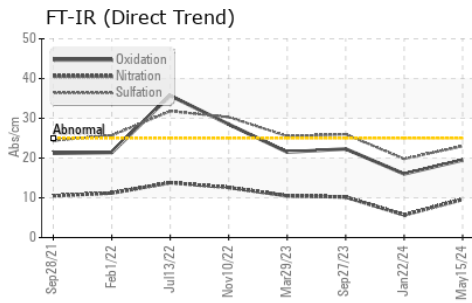
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>7</b>	10	8
Potassium	ppm	ASTM D5185m	>20	<b>9</b>	5	11
Fuel		WC Method	>3.0	<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	>6	<b>0.3</b>	0.1	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.6</b>	5.7	10.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.0</b>	19.8	26.0
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	>0.2	<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 acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>3</b>	<1	3
Boron	ppm	ASTM D5185m	316	<b>42</b>	107	24
Barium	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	0	2
Molybdenum	ppm	ASTM D5185m	1.2	<b>28</b>	25	32
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	24	<b>293</b>	247	156
Calcium	ppm	ASTM D5185m	2292	<b>1878</b>	1609	2070
Phosphorus	ppm	ASTM D5185m	1064	<b>979</b>	948	980
Zinc	ppm	ASTM D5185m	1160	<b>1237</b>	1066	1244
Sulfur	ppm	ASTM D5185m	4996	<b>3369</b>	3195	3436
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.5</b>	16.0	22.3
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>6.1</b>	8.6	4.3
Visc @ 100°C	cSt	ASTM D445	15.7	<b>13.8</b>	14.4	14.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : IL0033041  
**Lab Number** : 06191842  
**Unique Number** : 11048594  
**Test Package** : FLEET  
**Received** : 28 May 2024  
**Tested** : 29 May 2024  
**Diagnosed** : 30 May 2024 - Sean Felton

**IDEALASE OF NORTHWEST WI**  
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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)