



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

Machine Id  
**FORD F550 V66**  
 Component  
**Diesel Engine**  
 Fluid  
**CAT DIESEL ENGINE OIL 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0219610</b>	JR0144791	JR0115407
Sample Date		Client Info		<b>27 Jun 2024</b>	23 Aug 2023	03 Jan 2022
Machine Age	mls	Client Info		<b>360300</b>	359781	343077
Oil Age	mls	Client Info		<b>22938</b>	6189	5715
Filter Age	mls	Client Info		<b>5519</b>	0	5715
Oil Changed		Client Info		<b>Changed</b>	Changed	Not Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>90</b>	86	44
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	2	1
Nickel	ppm	ASTM D5185m	>2	<b>3</b>	3	<1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>10</b>	8	5
Lead	ppm	ASTM D5185m	>40	<b>14</b>	10	6
Copper	ppm	ASTM D5185m	>330	<b>4</b>	5	5
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

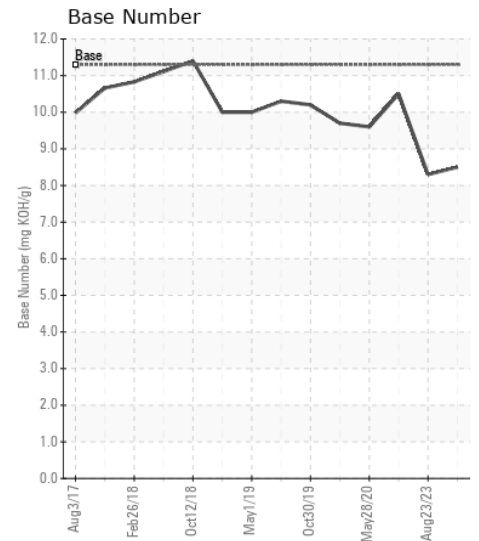
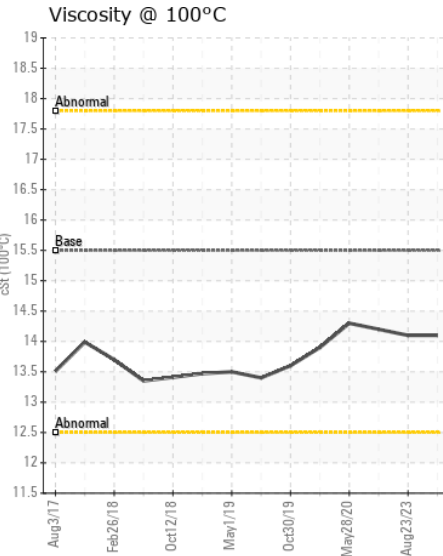
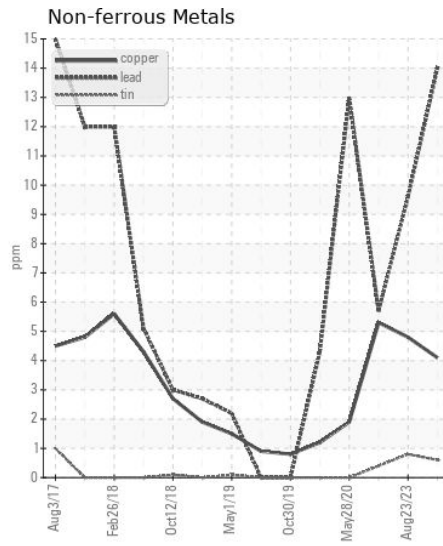
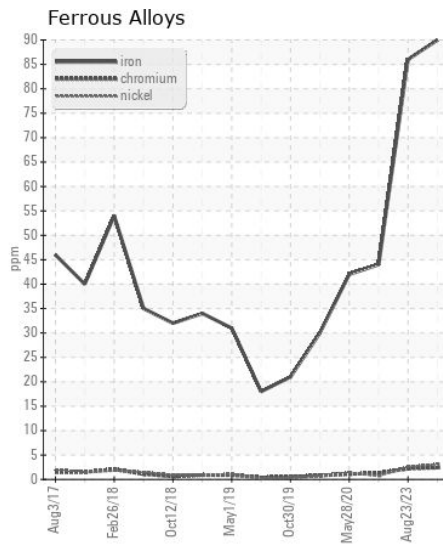
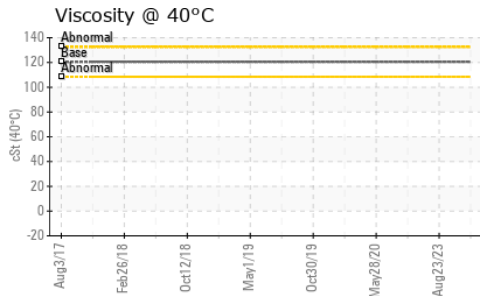
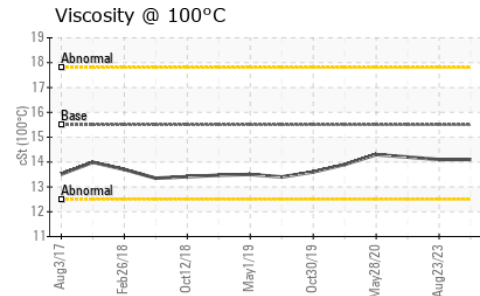
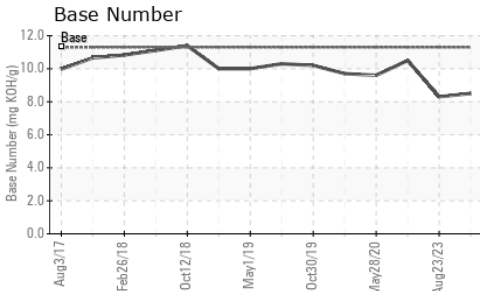
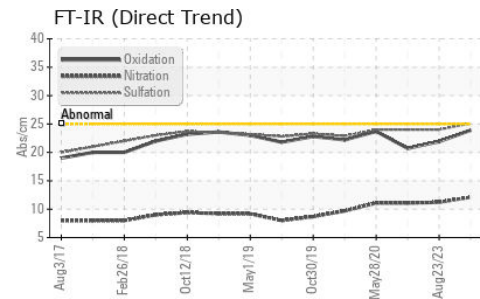
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>17</b>	17	11
Potassium	ppm	ASTM D5185m	>20	<b>7</b>	4	0
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>0.3</b>	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.1</b>	11.2	11.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.1</b>	24.0	24.0
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 suitable for further service.

Sodium	ppm	ASTM D5185m		<b>45</b>	31	14
Boron	ppm	ASTM D5185m		<b>144</b>	187	213
Barium	ppm	ASTM D5185m		<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>295</b>	283	252
Manganese	ppm	ASTM D5185m		<b>1</b>	1	<1
Magnesium	ppm	ASTM D5185m		<b>863</b>	929	855
Calcium	ppm	ASTM D5185m		<b>1555</b>	1688	1505
Phosphorus	ppm	ASTM D5185m		<b>880</b>	916	928
Zinc	ppm	ASTM D5185m	1460	<b>1105</b>	1153	1127
Sulfur	ppm	ASTM D5185m		<b>2819</b>	3723	2659
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>23.9</b>	21.9	20.7
Base Number (BN)	mg KOH/g	ASTM D2896	11.3	<b>8.5</b>	8.3	10.5
Visc @ 100°C	cSt	ASTM D445	15.5	<b>14.1</b>	14.1	14.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0219610 **Received** : 02 Jul 2024  
**Lab Number** : 06225817 **Tested** : 03 Jul 2024  
**Unique Number** : 11109310 **Diagnosed** : 03 Jul 2024 - Jonathan Hester  
**Test Package** : CONST ( Additional Tests: KV40, TBN )

**MATTHEWS CONSTRUCTION**  
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 F:

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)