



# WEAR CHECK

## OIL ANALYSIS REPORT

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

Machine Id  
**13084**  
 Component  
**Diesel Engine**  
 Fluid  
**MOBIL 15W40 (--- QTS)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0936771</b>	WC0916014	WC0882273
Sample Date		Client Info		<b>10 Jul 2024</b>	08 Apr 2024	08 Jan 2024
Machine Age	mls	Client Info		<b>156604</b>	148396	1388549
Oil Age	mls	Client Info		<b>10000</b>	0	0
Filter Age	mls	Client Info		<b>10000</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	N/A	N/A
Filter Changed		Client Info		<b>Changed</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>32</b>	30	27
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	6	3
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>2</b>	<1	1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
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.

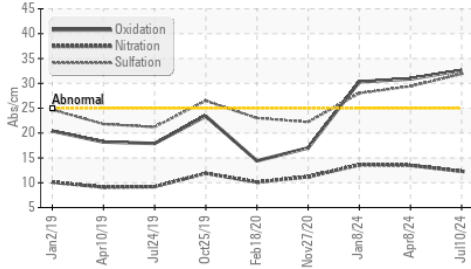
Silicon	ppm	ASTM D5185m	>25	<b>10</b>	6	4
Potassium	ppm	ASTM D5185m	>20	<b>8</b>	2	4
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.5</b>	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.3</b>	13.5	13.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>31.9</b>	29.4	28.0
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

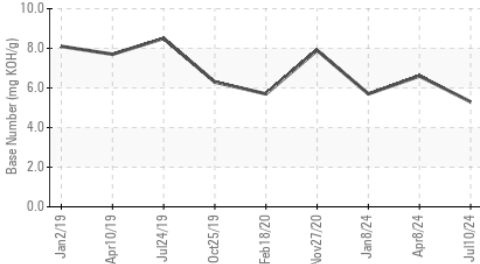
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>118	<b>3</b>	<1	1
Boron	ppm	ASTM D5185m		<b>132</b>	207	1
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>113</b>	153	67
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>527</b>	884	1130
Calcium	ppm	ASTM D5185m		<b>1681</b>	1805	1245
Phosphorus	ppm	ASTM D5185m		<b>1173</b>	912	1191
Zinc	ppm	ASTM D5185m		<b>1417</b>	1101	1437
Sulfur	ppm	ASTM D5185m		<b>3145</b>	3254	3054
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>32.6</b>	30.9	30.3
Base Number (BN)	mg KOH/g	ASTM D2896		<b>5.3</b>	6.6	5.7
Visc @ 100°C	cSt	ASTM D445		<b>14.8</b>	14.4	13.8

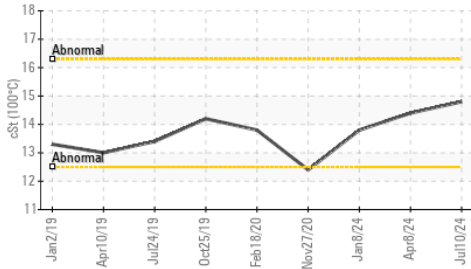
**FT-IR (Direct Trend)**



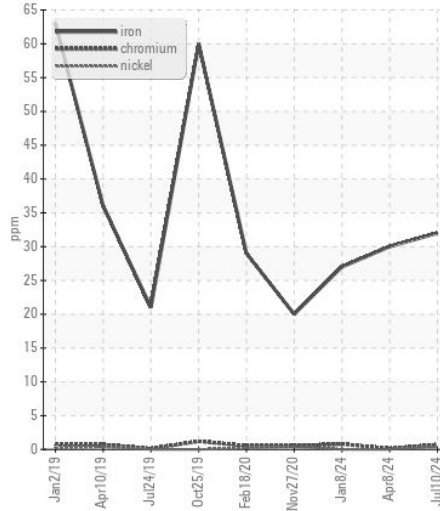
**Base Number**



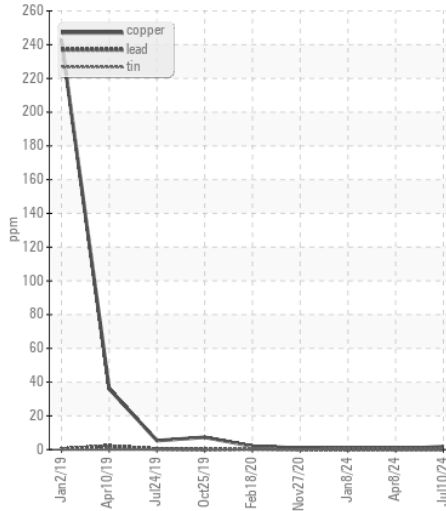
**Viscosity @ 100°C**



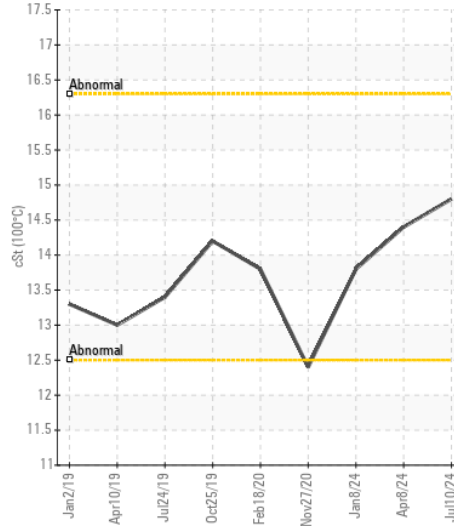
**Ferrous Alloys**



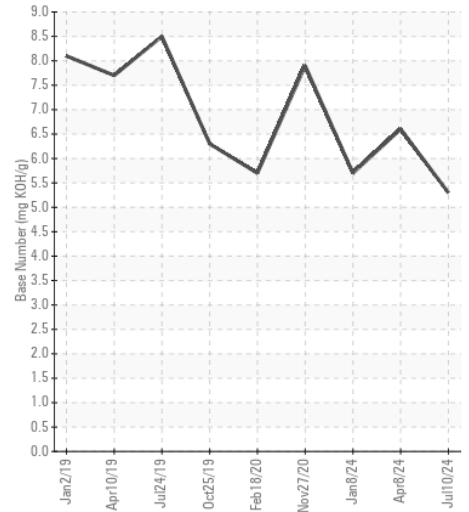
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0936771  
**Lab Number** : 06238736  
**Unique Number** : 11127570  
**Test Package** : FLEET  
**Received** : 16 Jul 2024  
**Tested** : 17 Jul 2024  
**Diagnosed** : 18 Jul 2024 - Sean Felton

**SALEM NATIONALEASE CORPORATION**  
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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)