



# WEAR CHECK

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**46465**  
 Component  
**Diesel Engine**  
 Fluid  
**MOBIL 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0829774</b>	WC0829842	WC0829455
Sample Date		Client Info		<b>01 Jun 2024</b>	01 Feb 2024	08 Oct 2023
Machine Age	mls	Client Info		<b>0</b>	249051	219945
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>50</b>	16	24
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>10</b>	4	1
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>6</b>	3	8
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
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.

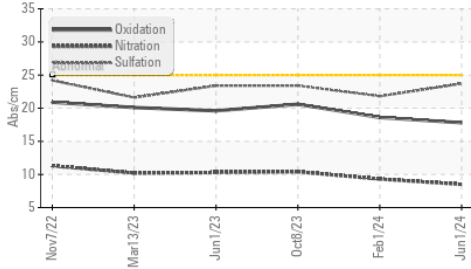
Silicon	ppm	ASTM D5185m	>25	<b>7</b>	6	5
Potassium	ppm	ASTM D5185m	>20	<b>8</b>	4	9
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.6	0.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.5</b>	9.3	10.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.7</b>	21.8	23.4
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

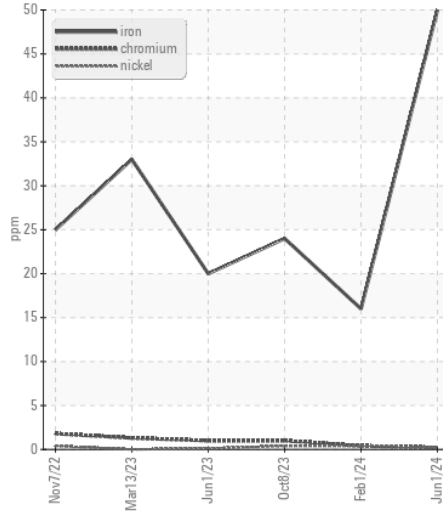
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>118	<b>2</b>	2	0
Boron	ppm	ASTM D5185m		<b>211</b>	3	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>116</b>	64	76
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>808</b>	1024	1061
Calcium	ppm	ASTM D5185m		<b>1566</b>	1109	1199
Phosphorus	ppm	ASTM D5185m		<b>840</b>	1113	1111
Zinc	ppm	ASTM D5185m		<b>987</b>	1367	1440
Sulfur	ppm	ASTM D5185m		<b>3182</b>	3041	3293
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.8</b>	18.6	20.6
Base Number (BN)	mg KOH/g	ASTM D2896		<b>8.6</b>	8.0	5.8
Visc @ 100°C	cSt	ASTM D445		<b>13.1</b>	12.8	13.4

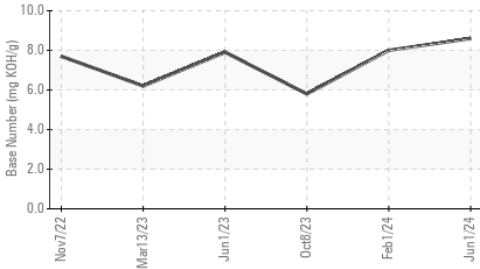
**FT-IR (Direct Trend)**



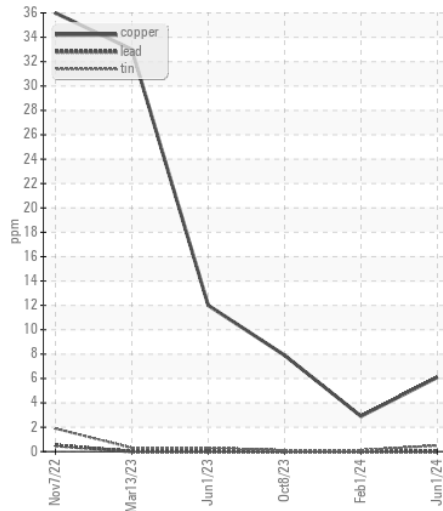
**Ferrous Alloys**



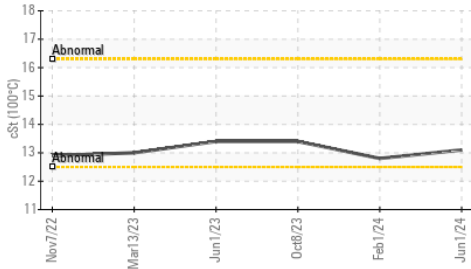
**Base Number**



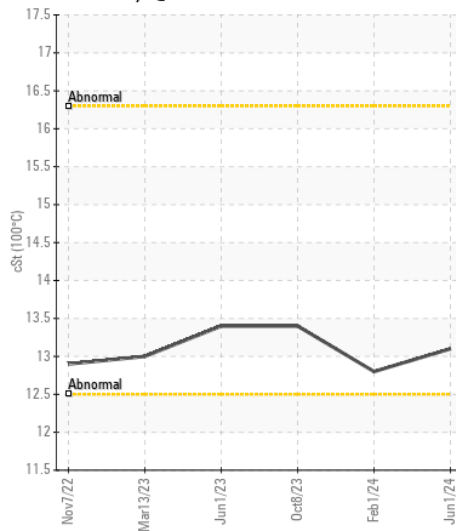
**Non-ferrous Metals**



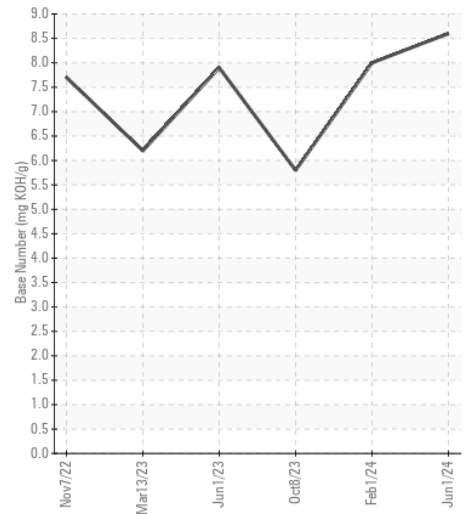
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0829774  
**Lab Number** : 06217618  
**Unique Number** : 11090482  
**Test Package** : FLEET

**Received** : 21 Jun 2024  
**Tested** : 25 Jun 2024  
**Diagnosed** : 25 Jun 2024 - Don Baldrige

**SALEM NATIONALEASE CORPORATION**  
 198 PARK PLAZA DRIVE  
 WINSTON SALEM, NC  
 US 27105

Contact: Audrey Hopkins  
 Audrey.Hopkins@salemcorp.com

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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