



# WEAR CHECK

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id  
**283060**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

### RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0875709</b>	WC0875815	WC0787582
Sample Date		Client Info		<b>17 Jan 2024</b>	14 Nov 2023	12 May 2023
Machine Age	mls	Client Info		<b>150313</b>	136692	100534
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>Changed</b>	N/A	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	N/A
Sample Status				<b>ATTENTION</b>	ABNORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>11</b>	53	18
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	2	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	6
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>5</b>	▲ 80	<1
Lead	ppm	ASTM D5185m	>40	<b>2</b>	1	<1
Copper	ppm	ASTM D5185m	>330	<b>4</b>	160	5
Tin	ppm	ASTM D5185m	>15	<b>2</b>	1	1
Vanadium	ppm	ASTM D5185m		<b>0</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.

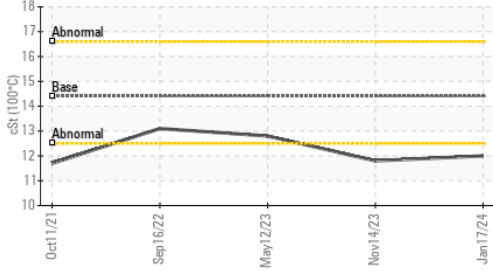
Silicon	ppm	ASTM D5185m	>25	<b>3</b>	16	5
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	▲ 210	6
Fuel		WC Method	>5	<b>&lt;1.0</b>	0.3	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.6</b>	0.9	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.7</b>	9.0	9.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.2</b>	22.6	19.7
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

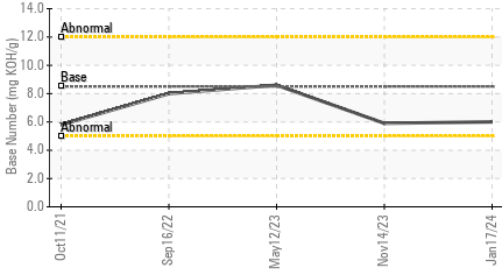
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>158	<b>7</b>	5	2
Boron	ppm	ASTM D5185m	250	<b>3</b>	34	0
Barium	ppm	ASTM D5185m	10	<b>0</b>	2	0
Molybdenum	ppm	ASTM D5185m	100	<b>70</b>	63	62
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	4	<1
Magnesium	ppm	ASTM D5185m	450	<b>864</b>	415	1000
Calcium	ppm	ASTM D5185m	3000	<b>1032</b>	1761	1148
Phosphorus	ppm	ASTM D5185m	1150	<b>903</b>	1000	1052
Zinc	ppm	ASTM D5185m	1350	<b>1140</b>	1248	1324
Sulfur	ppm	ASTM D5185m	4250	<b>2818</b>	2635	3774
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.0</b>	19.6	15.1
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>6.0</b>	5.9	8.6
Visc @ 100°C	cSt	ASTM D445	14.4	▲ <b>12.0</b>	▲ 11.8	12.8

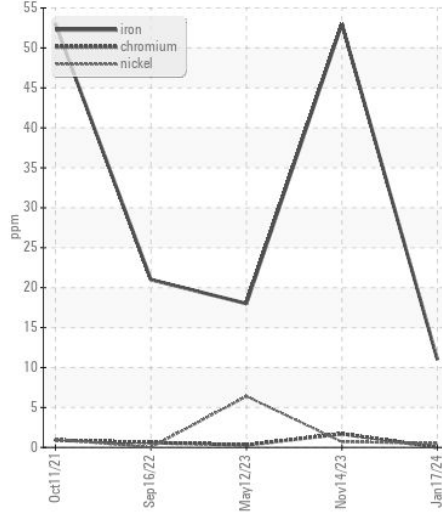
▲ Viscosity @ 100°C



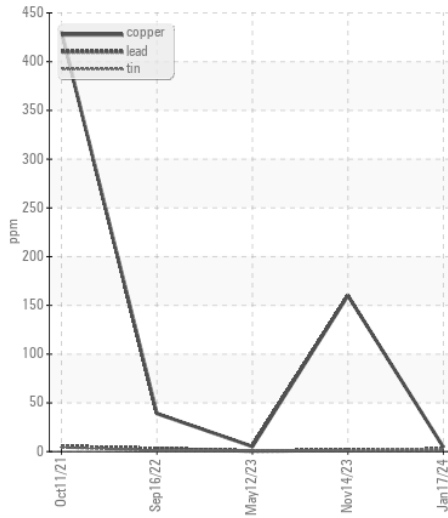
Base Number



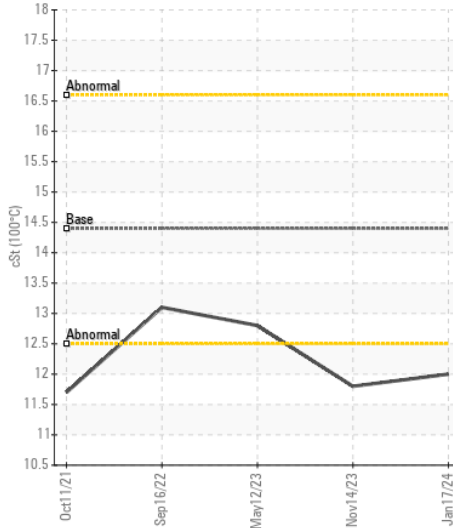
Ferrous Alloys



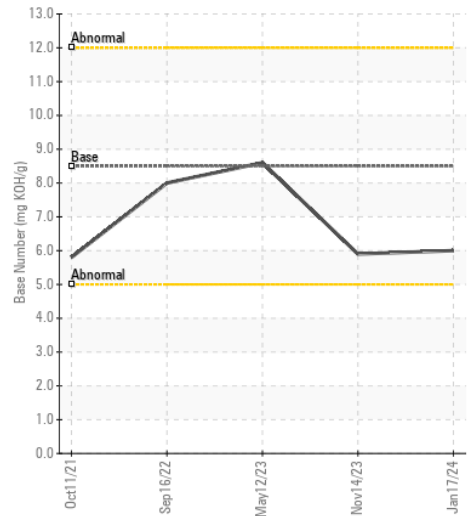
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0875709 **Received** : 30 Jan 2024  
**Lab Number** : 06073629 **Diagnosed** : 31 Jan 2024  
**Unique Number** : 10850306 **Diagnostician** : Don Baldridge  
**Test Package** : FLEET

**SALEM NATIONALEASE CORPORATION**  
 198 PARK PLAZA DRIVE  
 WINSTON SALEM, NC  
 US 27105  
 Contact: Audrey Hopkins  
 Audrey.Hopkins@salemcorp.com  
 T: (336)767-9642  
 F: x:

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)