



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**642**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (17 QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0932859</b>	WC0821331	WC0706502
Sample Date		Client Info		<b>03 May 2024</b>	25 Jul 2023	14 Jun 2022
Machine Age	mls	Client Info		<b>279161</b>	263402	249077
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>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	SEVERE	SEVERE

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	<b>15</b>	43	79
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	2	4
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>6</b>	8	4
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	2
Copper	ppm	ASTM D5185m	>330	<b>1</b>	2	2
Tin	ppm	ASTM D5185m	>15	<b>1</b>	0	<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

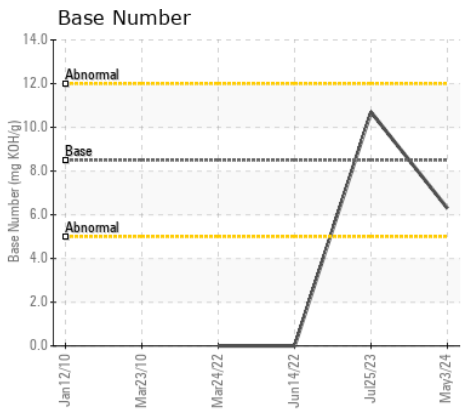
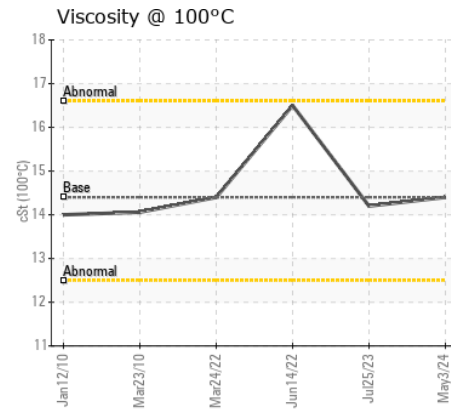
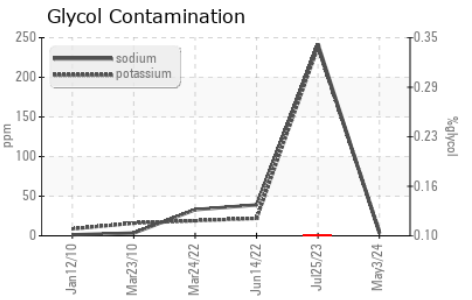
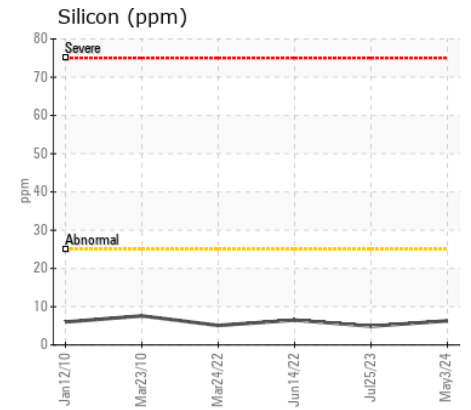
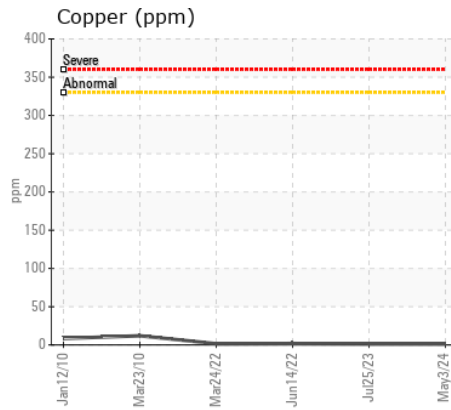
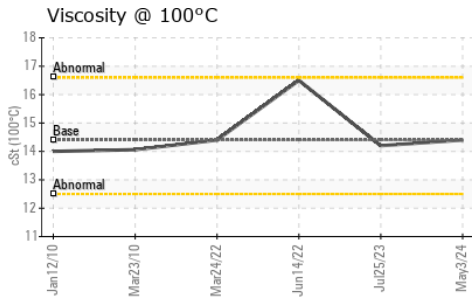
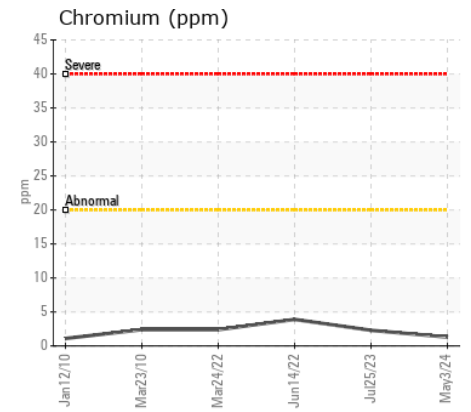
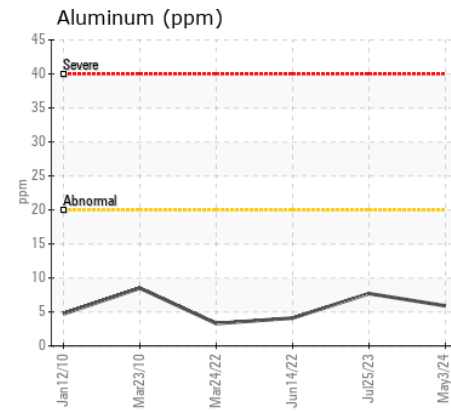
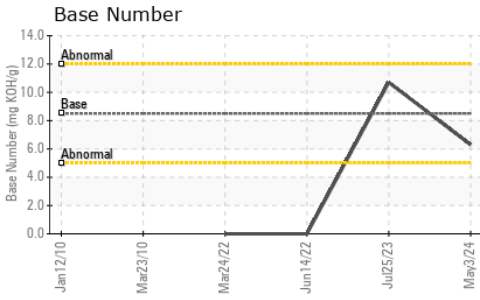
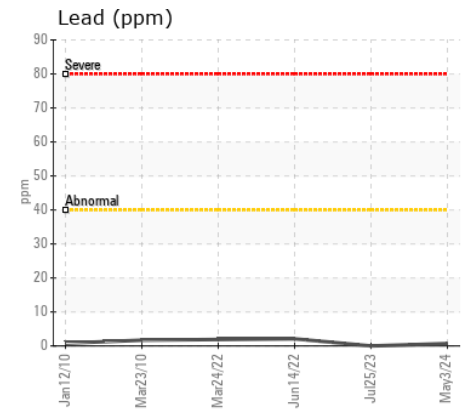
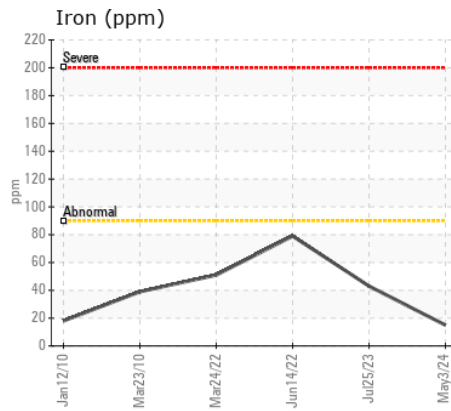
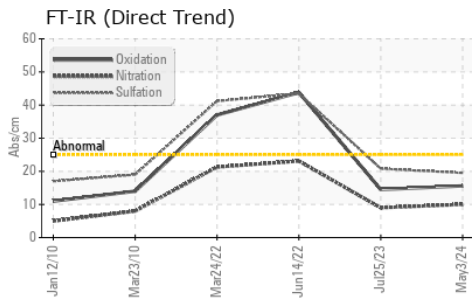
No evidence of coolant present in the oil. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	5	6
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	▲ 238	22
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	0.2	▲ 8.4
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	*ASTM D2982		<b>NEG</b>	▲ 0.10	NEG
Soot %	%	*ASTM D7844	>6	<b>0.4</b>	1.2	▲ 7.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.0</b>	9.0	23.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.5</b>	20.8	43.5
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	>158	<b>4</b>	● 242	39
Boron	ppm	ASTM D5185m	250	<b>42</b>	5	35
Barium	ppm	ASTM D5185m	10	<b>0</b>	6	0
Molybdenum	ppm	ASTM D5185m	100	<b>98</b>	82	84
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	450	<b>130</b>	346	25
Calcium	ppm	ASTM D5185m	3000	<b>2359</b>	1863	2002
Phosphorus	ppm	ASTM D5185m	1150	<b>1189</b>	1039	910
Zinc	ppm	ASTM D5185m	1350	<b>1375</b>	1222	1166
Sulfur	ppm	ASTM D5185m	4250	<b>4198</b>	3669	3336
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.6</b>	14.5	43.8
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>6.3</b>	10.7	▲ 0.0
Visc @ 100°C	cSt	ASTM D445	14.4	<b>14.4</b>	14.2	16.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0932859  
**Lab Number** : 06189071  
**Unique Number** : 11045823  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**WAKE COUNTY PUBLIC SCHOOL SYSTEM**  
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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)