



# OIL ANALYSIS REPORT

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

Machine Id  
**1711**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- QTS)**

## RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0905781</b>	WC0870688	WC0821401
Sample Date		Client Info		<b>14 Mar 2024</b>	11 Dec 2023	26 Jun 2023
Machine Age	mls	Client Info		<b>100998</b>	94302	84328
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>MARGINAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>16</b>	9	20
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>7</b>	5	5
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>0</b>	1	1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

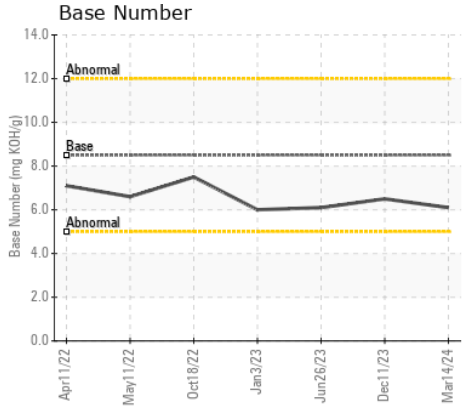
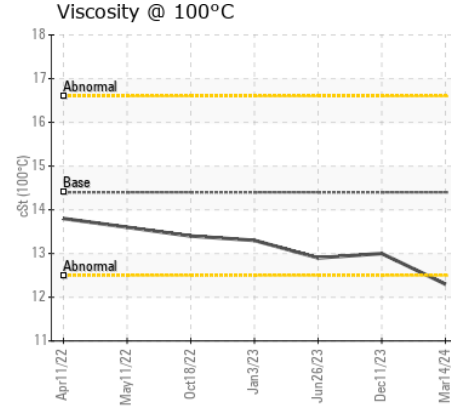
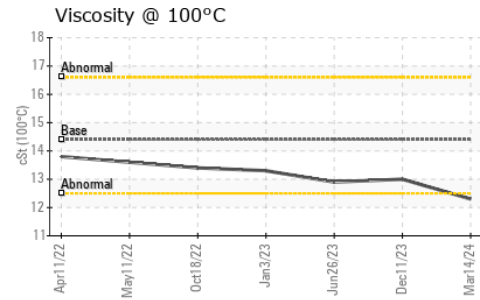
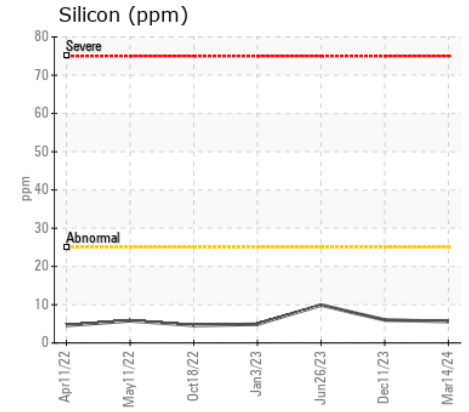
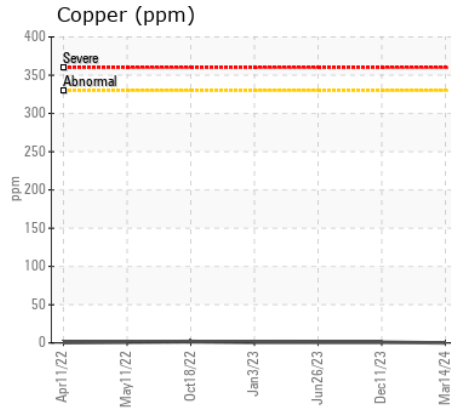
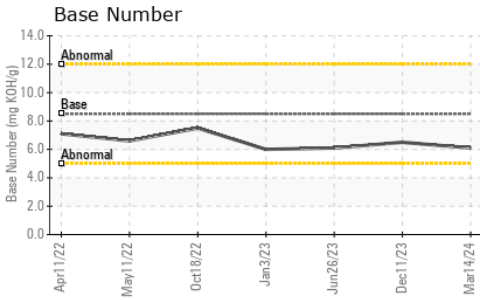
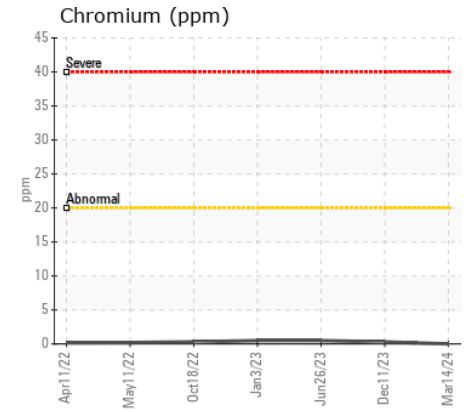
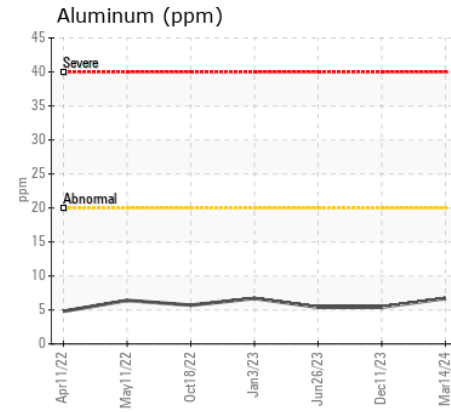
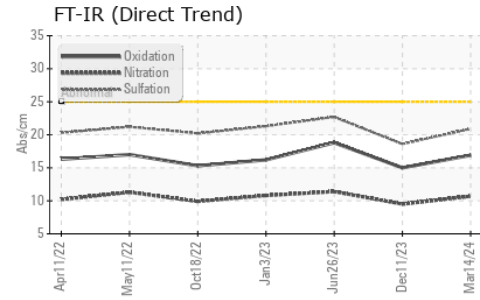
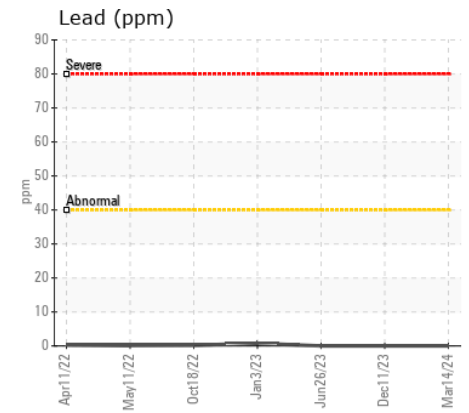
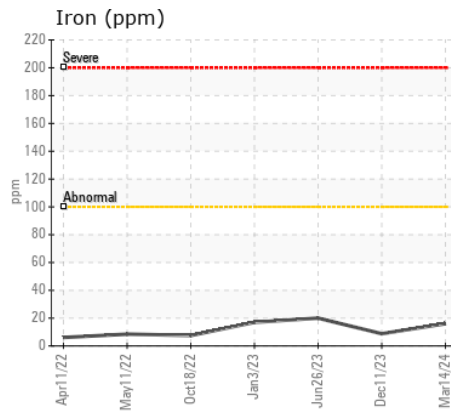
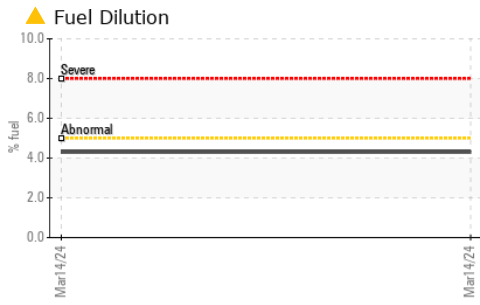
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	6	10
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	4	2
Fuel	%	ASTM D3524	>5	<b>▲ 4.3</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>	0.3	0.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.7</b>	9.5	11.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.9</b>	18.6	22.7
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 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>2</b>	2	4
Boron	ppm	ASTM D5185m	250	<b>27</b>	42	21
Barium	ppm	ASTM D5185m	10	<b>0</b>	4	0
Molybdenum	ppm	ASTM D5185m	100	<b>80</b>	81	85
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	450	<b>103</b>	102	111
Calcium	ppm	ASTM D5185m	3000	<b>2005</b>	1911	2260
Phosphorus	ppm	ASTM D5185m	1150	<b>910</b>	955	977
Zinc	ppm	ASTM D5185m	1350	<b>1096</b>	1133	1196
Sulfur	ppm	ASTM D5185m	4250	<b>3691</b>	3657	4088
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.9</b>	15.0	18.8
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>6.1</b>	6.5	6.1
Visc @ 100°C	cSt	ASTM D445	14.4	<b>12.3</b>	13.0	12.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0905781 **Received** : 30 May 2024  
**Lab Number** : 06195167 **Tested** : 04 Jun 2024  
**Unique Number** : 11057290 **Diagnosed** : 04 Jun 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel, 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)