



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id  
**CR1211**  
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>WC0922249</b>	WC0809289	WC0761845
Sample Date		Client Info		<b>06 May 2024</b>	04 May 2023	08 Nov 2022
Machine Age	hrs	Client Info		<b>8656</b>	0	8127
Oil Age	hrs	Client Info		<b>0</b>	0	582
Filter Age	hrs	Client Info		<b>0</b>	0	582
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ATTENTION</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>54</b>	3	4
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	1	<1
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	2	0
Copper	ppm	ASTM D5185m	>330	<b>8</b>	1	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

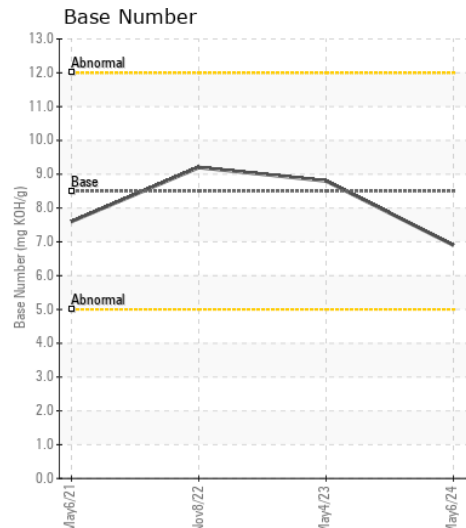
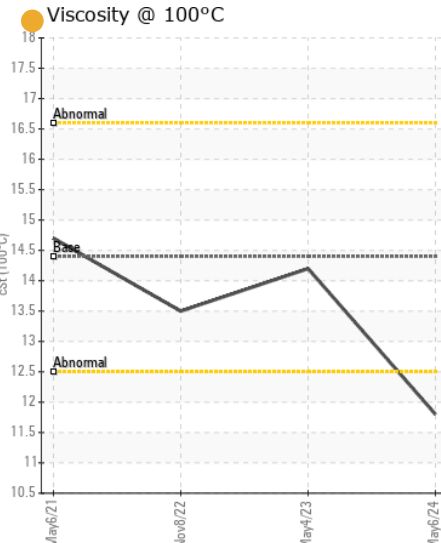
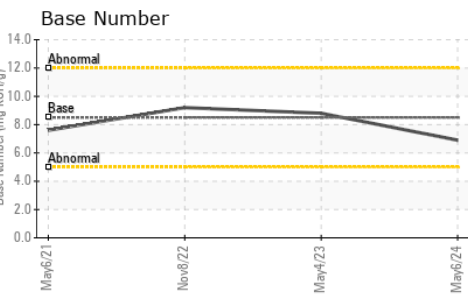
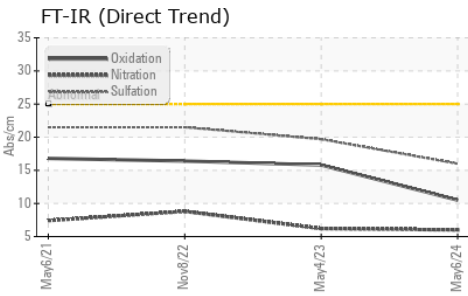
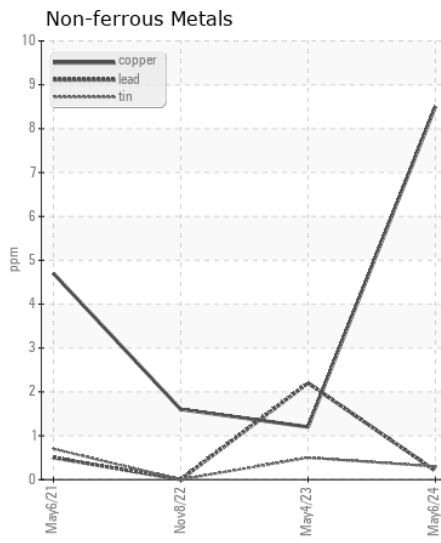
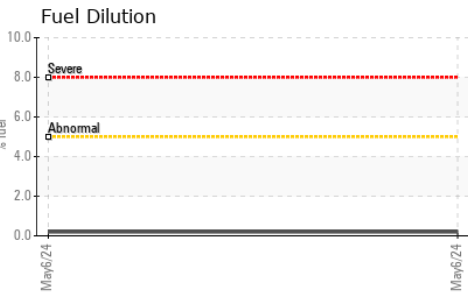
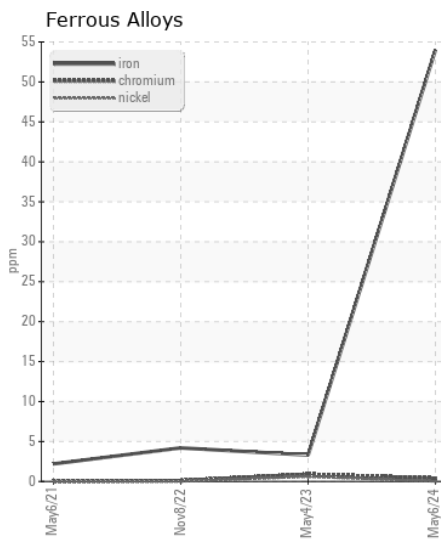
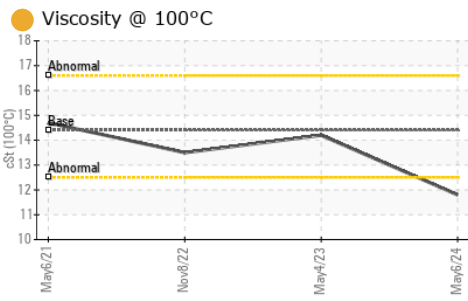
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>8</b>	6	2
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	9	<1
Fuel	%	ASTM D3524	>5	<b>0.2</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>0.1</b>	0	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.0</b>	6.2	8.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>16.0</b>	19.7	21.5
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 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>3</b>	3	3
Boron	ppm	ASTM D5185m	250	<b>66</b>	147	86
Barium	ppm	ASTM D5185m	10	<b>0</b>	2	0
Molybdenum	ppm	ASTM D5185m	100	<b>6</b>	22	45
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m	450	<b>84</b>	261	790
Calcium	ppm	ASTM D5185m	3000	<b>3039</b>	1830	1278
Phosphorus	ppm	ASTM D5185m	1150	<b>1307</b>	978	1092
Zinc	ppm	ASTM D5185m	1350	<b>1478</b>	1210	1238
Sulfur	ppm	ASTM D5185m	4250	<b>5041</b>	4095	4012
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>10.5</b>	15.8	16.4
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>6.9</b>	8.8	9.2
Visc @ 100°C	cSt	ASTM D445	14.4	<b>11.8</b>	14.2	13.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0922249 **Received** : 09 May 2024  
**Lab Number** : 06174857 **Tested** : 15 May 2024  
**Unique Number** : 11020910 **Diagnosed** : 15 May 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN )

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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