



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**1228**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL 10W40 (--- QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0913531</b>	WC0924509	WC0857068
Sample Date		Client Info		<b>03 Jul 2024</b>	20 Apr 2024	24 Jan 2024
Machine Age	mls	Client Info		<b>92338</b>	83869	75420
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>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	SEVERE	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>14</b>	29	24
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	<1
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>6</b>	11	8
Lead	ppm	ASTM D5185m	>40	<b>0</b>	2	0
Copper	ppm	ASTM D5185m	>330	<b>1</b>	4	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

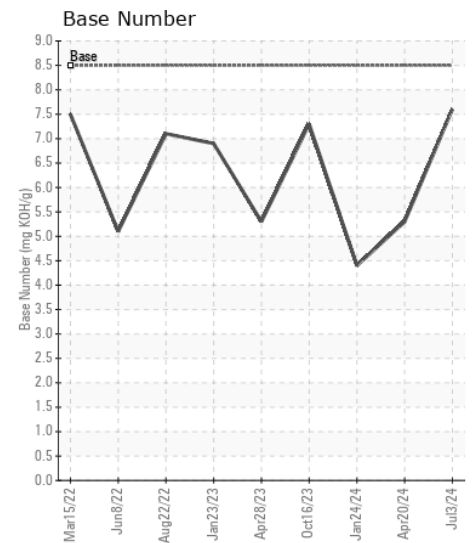
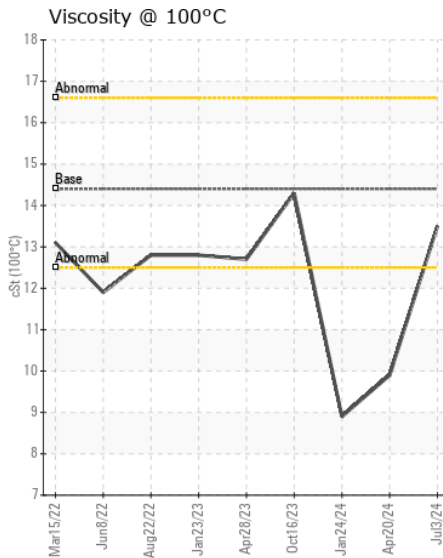
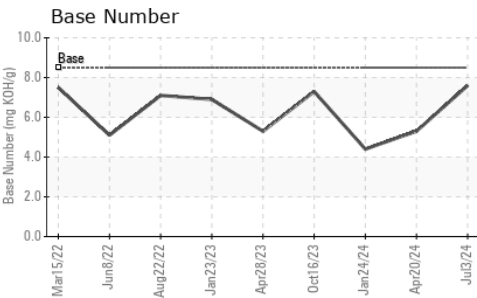
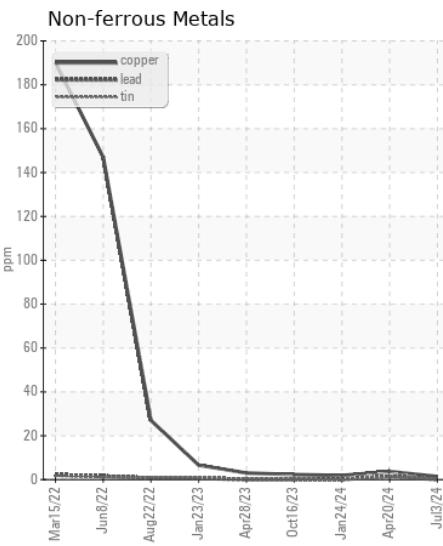
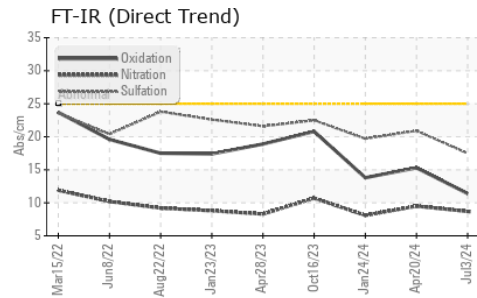
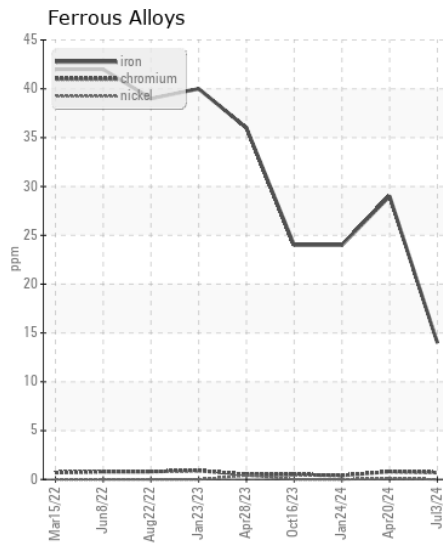
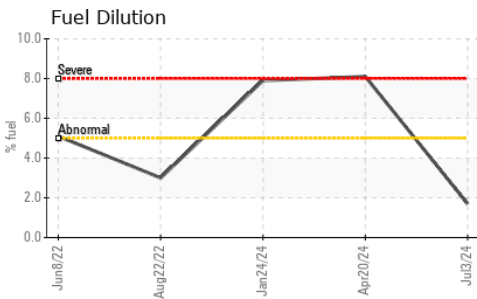
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>7</b>	9	6
Potassium	ppm	ASTM D5185m	>20	<b>7</b>	12	7
Fuel	%	ASTM D3524	>5	<b>1.7</b>	▲ 8.1	▲ 7.9
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	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.7</b>	9.5	8.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.5</b>	20.9	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 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		<b>&lt;1</b>	<1	1
Boron	ppm	ASTM D5185m	250	<b>34</b>	9	44
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>25</b>	14	39
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>312</b>	124	593
Calcium	ppm	ASTM D5185m	3000	<b>2085</b>	1976	742
Phosphorus	ppm	ASTM D5185m	1150	<b>927</b>	838	584
Zinc	ppm	ASTM D5185m	1350	<b>1069</b>	959	672
Sulfur	ppm	ASTM D5185m	4250	<b>3062</b>	3006	2007
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>11.4</b>	15.3	13.8
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>7.6</b>	5.3	4.4
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.5</b>	▲ 9.9	▲ 8.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0913531 **Received** : 11 Jul 2024  
**Lab Number** : 06233045 **Tested** : 12 Jul 2024  
**Unique Number** : 11116538 **Diagnosed** : 13 Jul 2024 - Don Baldridge  
**Test Package** : CONST ( Additional Tests: PercentFuel, TBN )

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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)