



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area  
**Mobile Fleet**  
 Machine Id  
**860 860**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 10W30 (9 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0937938</b>	WC0862076	WC0744696
Sample Date		Client Info		<b>14 Jun 2024</b>	25 Sep 2023	11 Oct 2022
Machine Age	hrs	Client Info		<b>28864</b>	28864	28864
Oil Age	hrs	Client Info		<b>548</b>	667	962
Filter Age	hrs	Client Info		<b>548</b>	667	962
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>85	<b>34</b>	50	62
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	1	2
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>3</b>	3	4
Lead	ppm	ASTM D5185m	>20	<b>&lt;1</b>	3	10
Copper	ppm	ASTM D5185m	>250	<b>2</b>	4	3
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
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

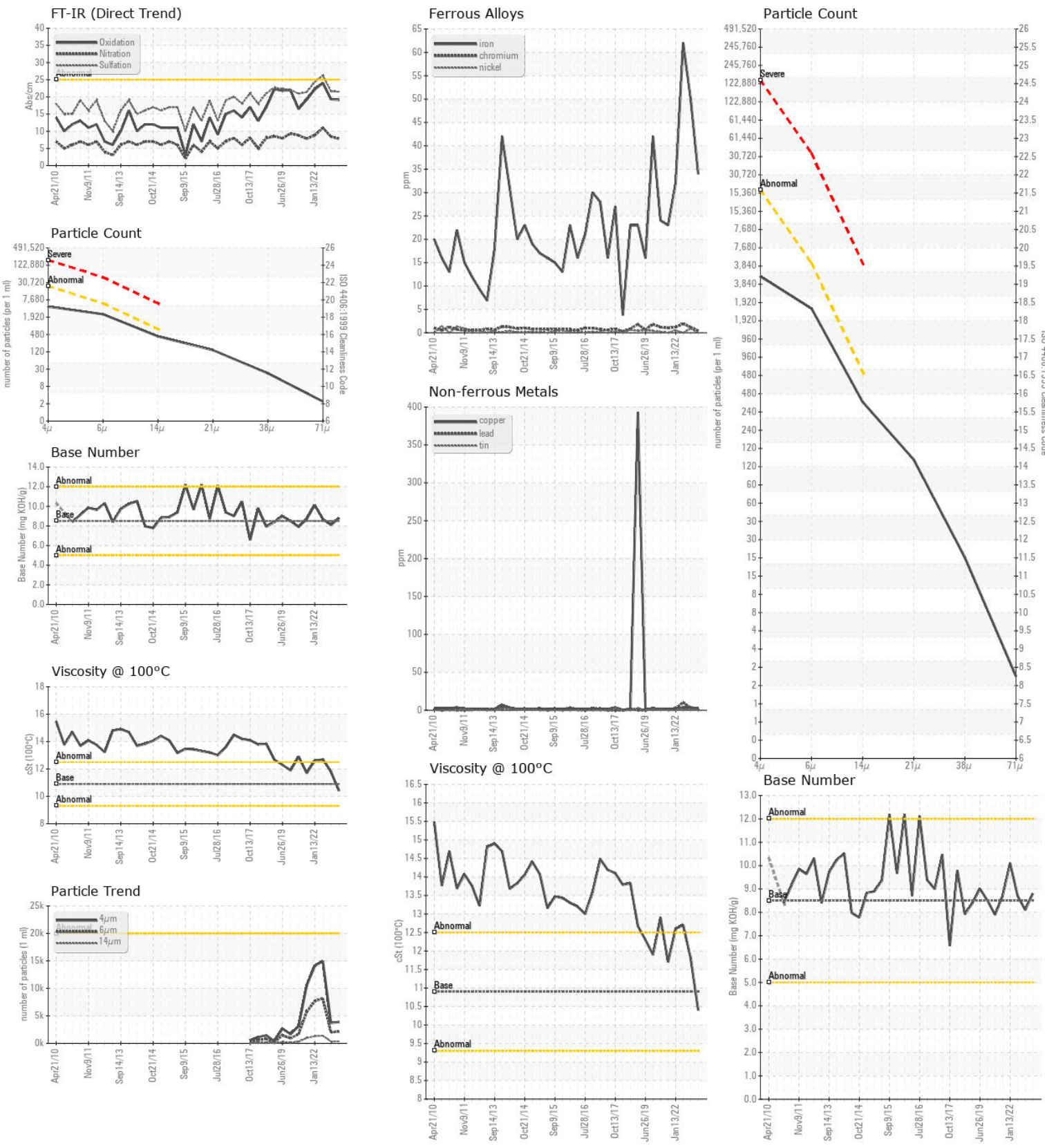
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>8</b>	7	10
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	1	2
Fuel		WC Method	>5	<b>&lt;1.0</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>0.6</b>	0.9	1.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.8</b>	8.4	11.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.5</b>	21.6	26.2
Particles >4µm		ASTM D7647	>20000	<b>3889</b>	3689	14966
Particles >6µm		ASTM D7647	>5000	<b>2118</b>	2009	▲ 8153
Particles >14µm		ASTM D7647	>640	<b>361</b>	342	▲ 1387
Particles >21µm		ASTM D7647	>160	<b>121</b>	115	▲ 467
Particles >38µm		ASTM D7647	>40	<b>19</b>	18	▲ 72
Particles >71µm		ASTM D7647	>10	<b>2</b>	2	7
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>19/18/16</b>	19/18/16	▲ 21/20/18
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>5</b>	5	6
Boron	ppm	ASTM D5185m	250	<b>42</b>	32	30
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>51</b>	44	46
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>501</b>	496	504
Calcium	ppm	ASTM D5185m	3000	<b>1591</b>	1515	1705
Phosphorus	ppm	ASTM D5185m	1150	<b>739</b>	728	762
Zinc	ppm	ASTM D5185m	1350	<b>866</b>	912	964
Sulfur	ppm	ASTM D5185m	4250	<b>2751</b>	2589	3025
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.1</b>	19.3	24.0
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>8.8</b>	8.1	8.7
Visc @ 100°C	cSt	ASTM D445	10.9	<b>10.4</b>	11.8	12.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0937938  
**Lab Number** : 06214512  
**Unique Number** : 11087376  
**Test Package** : CONST ( Additional Tests: PrtCount, TBN )

**Received** : 19 Jun 2024  
**Tested** : 20 Jun 2024  
**Diagnosed** : 21 Jun 2024 - Don Baldrige

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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