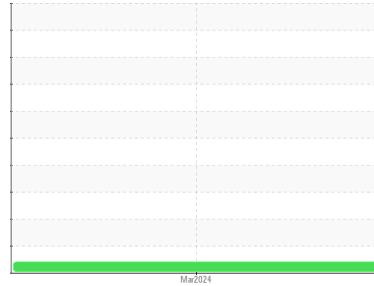


# OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id  
**TAKEUCHI TL12 410007133**

Component  
**Diesel Engine**

Fluid  
**VALVOLINE 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

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

### 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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>ML0000546</b>	---	---
Sample Date	Client Info			<b>15 Mar 2024</b>	---	---
Machine Age	hrs	Client Info		<b>262</b>	---	---
Oil Age	hrs	Client Info		<b>262</b>	---	---
Oil Changed	Client Info			<b>Changed</b>	---	---
Sample Status				<b>ATTENTION</b>	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.2	<b>NEG</b>	---	---
Glycol	WC Method			<b>NEG</b>	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	<b>15</b>	---	---
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	---	---
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	---	---
Lead	ppm	ASTM D5185m	>40	<b>0</b>	---	---
Copper	ppm	ASTM D5185m	>330	<b>158</b>	---	---
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	---	---

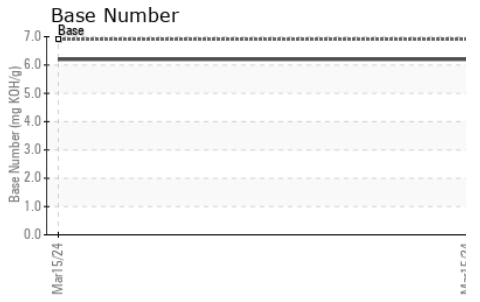
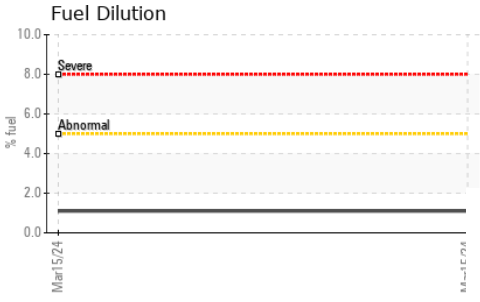
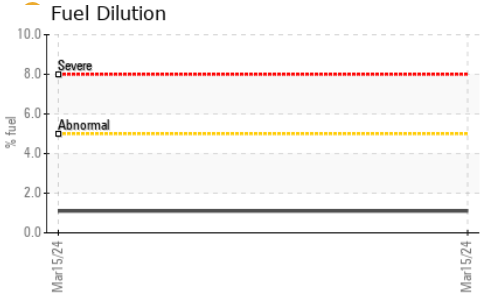
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	39	<b>9</b>	---	---
Barium	ppm	ASTM D5185m	1	<b>1</b>	---	---
Molybdenum	ppm	ASTM D5185m	49	<b>13</b>	---	---
Manganese	ppm	ASTM D5185m	1	<b>2</b>	---	---
Magnesium	ppm	ASTM D5185m	616	<b>81</b>	---	---
Calcium	ppm	ASTM D5185m	1554	<b>2279</b>	---	---
Phosphorus	ppm	ASTM D5185m	899	<b>836</b>	---	---
Zinc	ppm	ASTM D5185m	1069	<b>1061</b>	---	---
Sulfur	ppm	ASTM D5185m	2624	<b>3701</b>	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>13</b>	---	---
Sodium	ppm	ASTM D5185m		<b>26</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>8</b>	---	---
Fuel	%	ASTM D3524	>5	<b>1.1</b>	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.5</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.3</b>	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>12.9</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	6.9	<b>6.2</b>	---	---

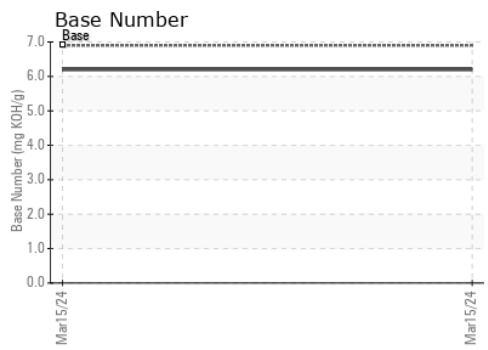
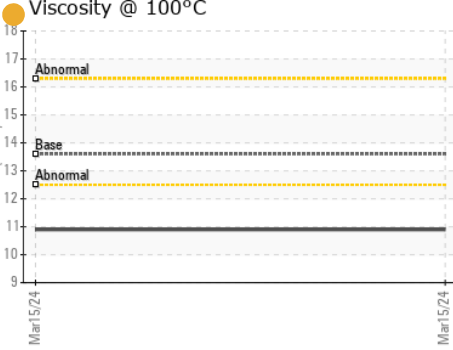
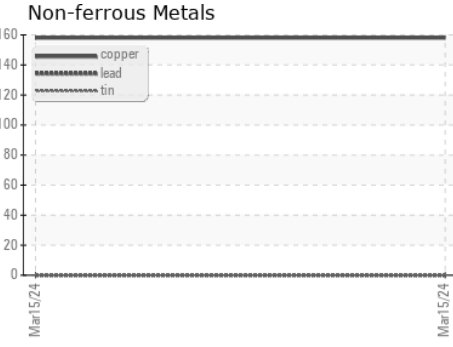
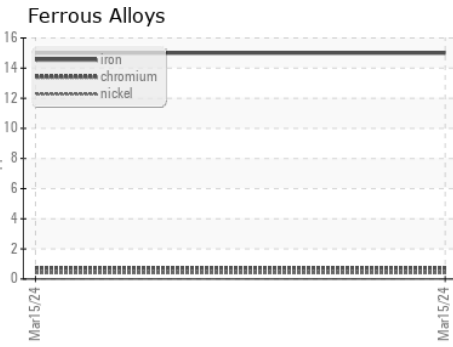
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Precipitate	scalar	*Visual	NONE	NONE	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---
Free Water	scalar	*Visual		NEG	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	13.6	● 10.9	---	---

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ML0000546 **Received** : 19 Mar 2024  
**Lab Number** : 06122185 **Tested** : 25 Mar 2024  
**Unique Number** : 10936336 **Diagnosed** : 25 Mar 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN )

**McCLUNG-LOGAN EQUIPMENT CO - FREDERICKSBURG**  
 358 KINGS HWY  
 FREDERICKSBURG, VA  
 US 22405  
 Contact: TIM LAMBERT  
 tlambert@mcclung-logan.com

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)

T:  
F: