



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

Area

**[COMMONWEALTH EVENT]**

Machine Id

**AVANT 528 108365**

Component

**Diesel Engine**

Fluid

**DIESEL ENGINE OIL SAE 10W30 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ML0000829</b>	VCP421118	---
Sample Date		Client Info		<b>21 Feb 2024</b>	13 Apr 2023	---
Machine Age	hrs	Client Info		<b>192</b>	88	---
Oil Age	hrs	Client Info		<b>108</b>	88	---
Filter Age	hrs	Client Info		<b>108</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>5</b>	10	---
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	3	---
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	---
Copper	ppm	ASTM D5185m	>330	<b>2</b>	12	---
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

**CONTAMINATION**

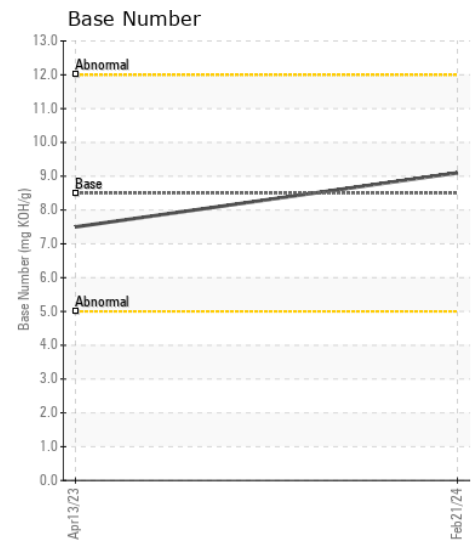
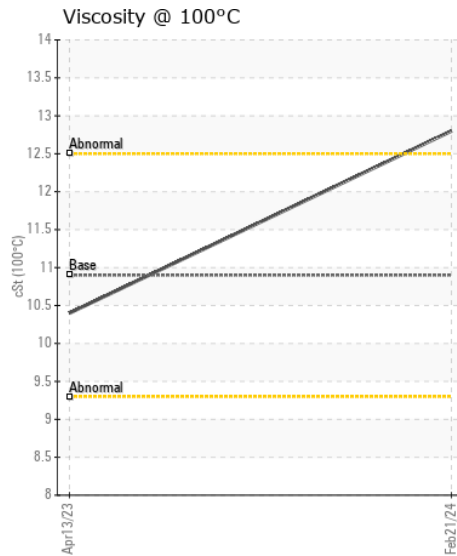
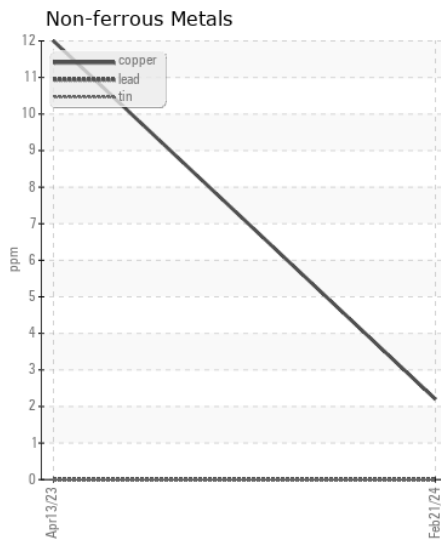
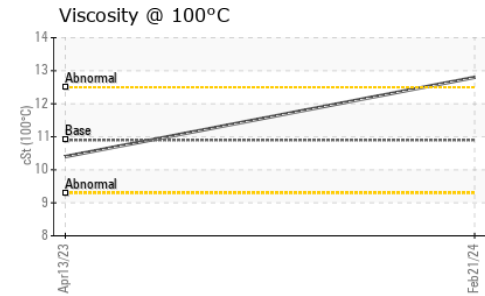
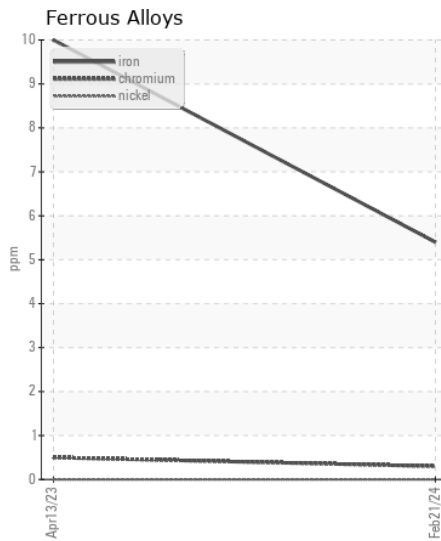
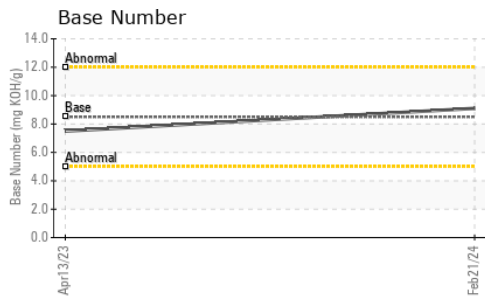
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>11</b>	26	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.9</b>	4.0	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.0</b>	12.1	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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>3</b>	0	---
Boron	ppm	ASTM D5185m	250	<b>41</b>	5	---
Barium	ppm	ASTM D5185m	10	<b>0</b>	3	---
Molybdenum	ppm	ASTM D5185m	100	<b>43</b>	13	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	2	---
Magnesium	ppm	ASTM D5185m	450	<b>798</b>	833	---
Calcium	ppm	ASTM D5185m	3000	<b>1226</b>	1347	---
Phosphorus	ppm	ASTM D5185m	1150	<b>718</b>	1049	---
Zinc	ppm	ASTM D5185m	1350	<b>879</b>	1269	---
Sulfur	ppm	ASTM D5185m	4250	<b>2395</b>	4017	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.3</b>	7.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>9.1</b>	7.5	---
Visc @ 100°C	cSt	ASTM D445	10.9	<b>12.8</b>	10.4	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : ML0000829

**Lab Number** : 06098928

**Unique Number** : 10897158

**Test Package** : CONST ( Additional Tests: TBN )

**Received** : 23 Feb 2024

**Tested** : 26 Feb 2024

**Diagnosed** : 26 Feb 2024 - Don Baldrige

**MCCLEUNG-LOGAN EQUIPMENT CO - RICHMOND**

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GLEN ALLEN, VA

US 23060

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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)