



WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
20400
Component
Diesel Engine
Fluid
MOBIL 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0881510	WC0855542	WC0812978
Sample Date		Client Info		03 Jan 2024	11 Sep 2023	30 May 2023
Machine Age	mls	Client Info		68742	47134	24264
Oil Age	mls	Client Info		25000	25000	25000
Filter Age	mls	Client Info		25000	25000	25000
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	15	20	34
Chromium	ppm	ASTM D5185m	>20	2	2	2
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	<1	<1
Aluminum	ppm	ASTM D5185m	>20	10	29	59
Lead	ppm	ASTM D5185m	>40	<1	2	<1
Copper	ppm	ASTM D5185m	>330	121	246	127
Tin	ppm	ASTM D5185m	>15	1	2	4
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

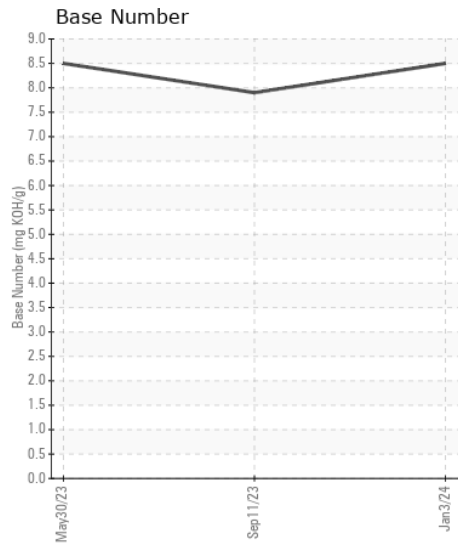
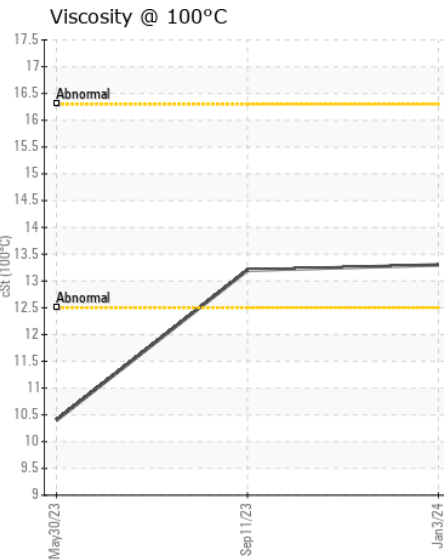
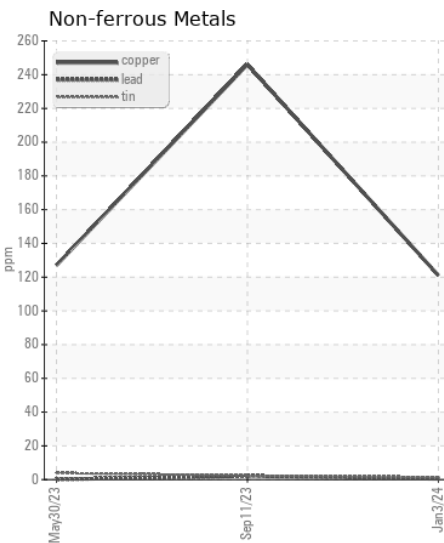
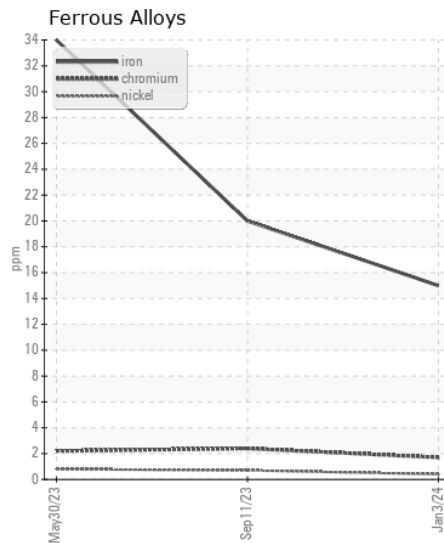
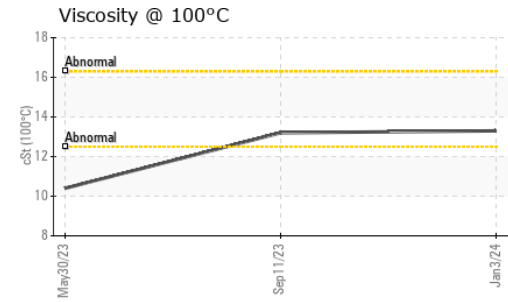
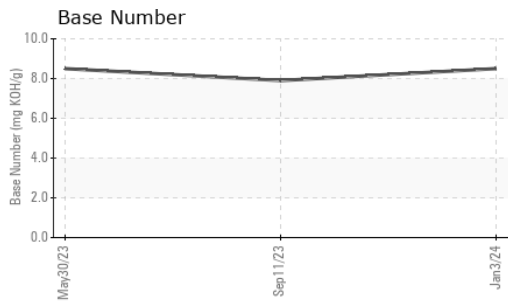
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	6	8
Potassium	ppm	ASTM D5185m	>20	17	66	135
Fuel		WC Method	>5	<1.0	<1.0	0.2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.5	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.1	8.8	9.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.9	20.4	24.2
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	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	>118	2	3	4
Boron	ppm	ASTM D5185m		3	3	35
Barium	ppm	ASTM D5185m		0	3	0
Molybdenum	ppm	ASTM D5185m		64	58	44
Manganese	ppm	ASTM D5185m		<1	2	3
Magnesium	ppm	ASTM D5185m		1074	879	484
Calcium	ppm	ASTM D5185m		1177	1135	1689
Phosphorus	ppm	ASTM D5185m		1166	849	705
Zinc	ppm	ASTM D5185m		1415	1055	897
Sulfur	ppm	ASTM D5185m		2904	2289	2323
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.4	16.9	23.3
Base Number (BN)	mg KOH/g	ASTM D2896		8.5	7.9	8.5
Visc @ 100°C	cSt	ASTM D445		13.3	13.2	▲ 10.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0881510 **Received** : 08 Jan 2024
Lab Number : 06054573 **Diagnosed** : 09 Jan 2024
Unique Number : 10820522 **Diagnostician** : Wes Davis
Test Package : FLEET

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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)