OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Machine Id
8574013
Component
Diesel Engine
Fluid
MOBIL DELVAC 1300 SUPER 10W30 (--- GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

Cylinder, crank, or cam shaft wear is indicated.

CONTAMINATION

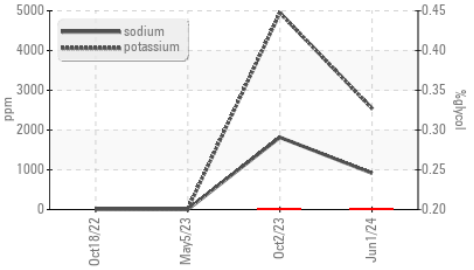
Sodium and/or potassium levels are high. There is a high concentration of glycol present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

FLUID CONDITION

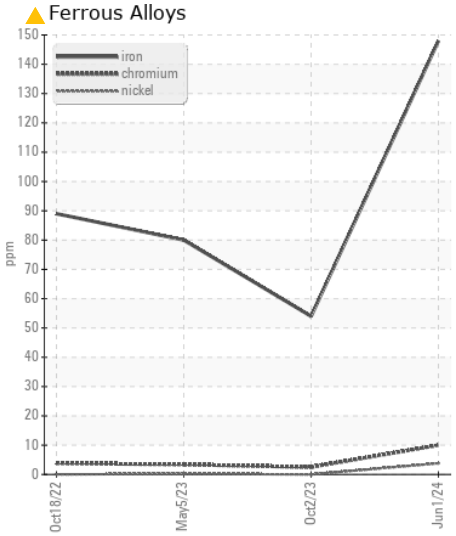
The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RPL0014743	RPL0010152	RPL0004895
Sample Date		Client Info		01 Jun 2024	02 Oct 2023	05 May 2023
Machine Age	mls	Client Info		191600	168814	149504
Oil Age	mls	Client Info		22786	19310	22536
Filter Age	mls	Client Info		22786	19310	22536
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	SEVERE	NORMAL
Iron	ppm	ASTM D5185m	>100	▲ 148	54	80
Chromium	ppm	ASTM D5185m	>20	10	2	3
Nickel	ppm	ASTM D5185m	>4	4	0	<1
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	● 10	12	10
Lead	ppm	ASTM D5185m	>40	26	10	7
Copper	ppm	ASTM D5185m	>330	5	2	4
Tin	ppm	ASTM D5185m	>15	2	<1	1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	▲ 50	▲ 84	11
Potassium	ppm	ASTM D5185m	>20	▲ 2545	▲ 4948	21
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		▲ 0.20	▲ 0.20	NEG
Soot %	%	*ASTM D7844	>3	2	1.1	1.9
Nitration	Abs/cm	*ASTM D7624	>20	17.2	17.7	13.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	33.7	23.9	32.3
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
Sodium	ppm	ASTM D5185m		▲ 915	▲ 1817	4
Boron	ppm	ASTM D5185m		26	19	14
Barium	ppm	ASTM D5185m		1	3	0
Molybdenum	ppm	ASTM D5185m		265	342	26
Manganese	ppm	ASTM D5185m		2	<1	1
Magnesium	ppm	ASTM D5185m		716	662	828
Calcium	ppm	ASTM D5185m		1683	1273	1575
Phosphorus	ppm	ASTM D5185m		771	698	789
Zinc	ppm	ASTM D5185m		987	784	975
Sulfur	ppm	ASTM D5185m		4288	3076	3675
Oxidation	Abs/.1mm	*ASTM D7414	>25	26.2	16.1	27.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	5.7	22.9	4.8
Visc @ 100°C	cSt	ASTM D445	11.9	11.5	12.3	12.4

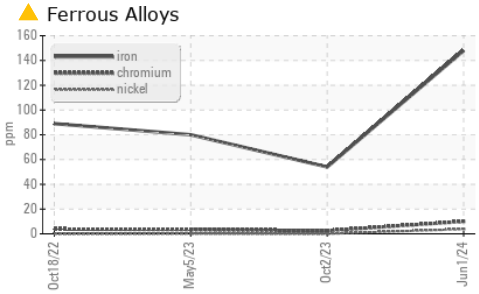
Glycol Contamination



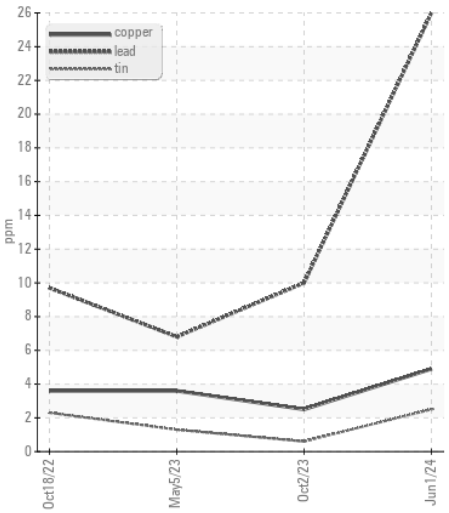
Ferrous Alloys



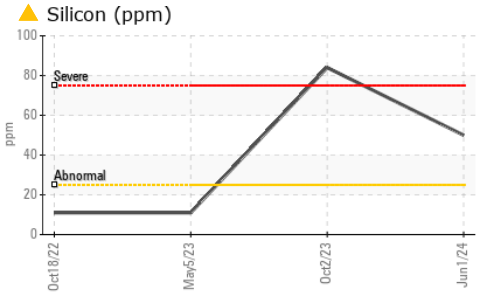
Ferrous Alloys



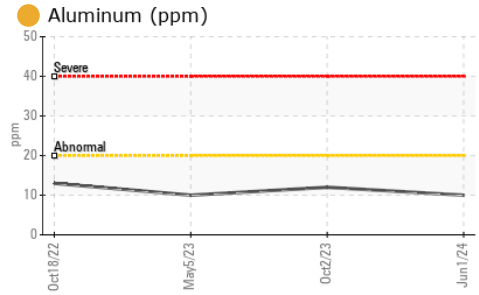
Non-ferrous Metals



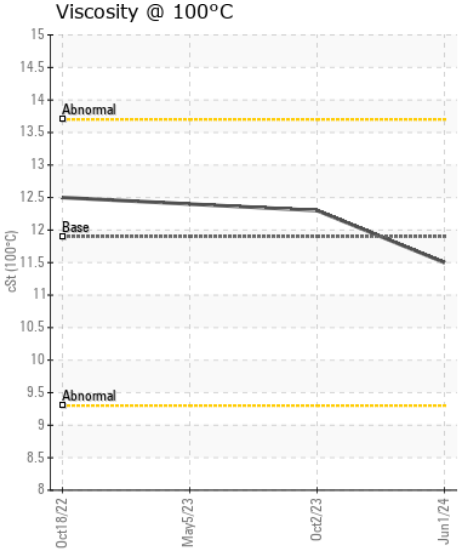
Silicon (ppm)



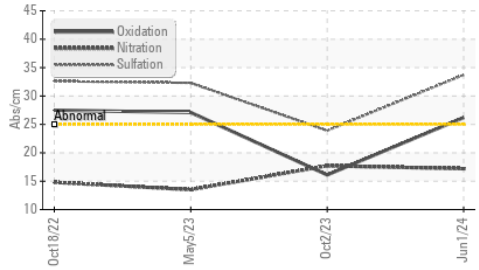
Aluminum (ppm)



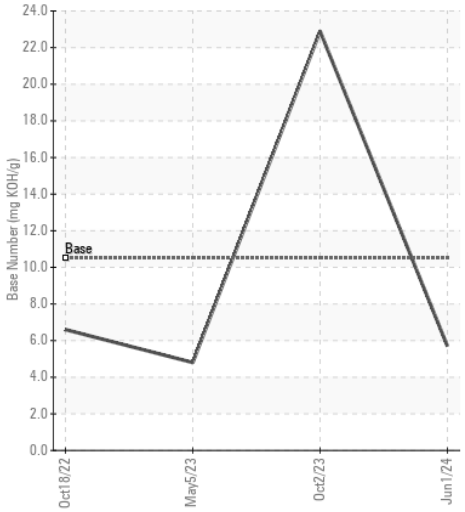
Viscosity @ 100°C



FT-IR (Direct Trend)



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RPL0014743
Lab Number : 06215534
Unique Number : 11088398
Test Package : FLEET

Received : 20 Jun 2024
Tested : 24 Jun 2024
Diagnosed : 24 Jun 2024 - Jonathan Hester

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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