



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ATTENTION

Machine Id
ENGINE ONE M00292
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DC0036415	DC0028279	DC0023032
Sample Date		Client Info		22 May 2024	20 Sep 2023	17 Jan 2023
Machine Age	mls	Client Info		119536	114815	102868
Oil Age	mls	Client Info		0	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	40	54	31
Chromium	ppm	ASTM D5185m	>20	2	2	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		2	25	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	5	4	2
Lead	ppm	ASTM D5185m	>40	2	2	<1
Copper	ppm	ASTM D5185m	>330	4	5	2
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

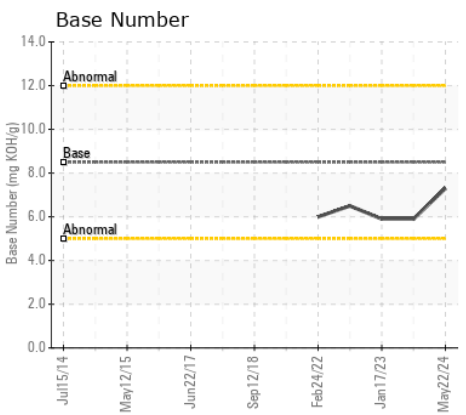
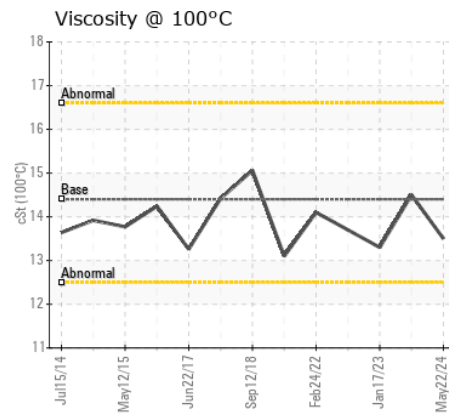
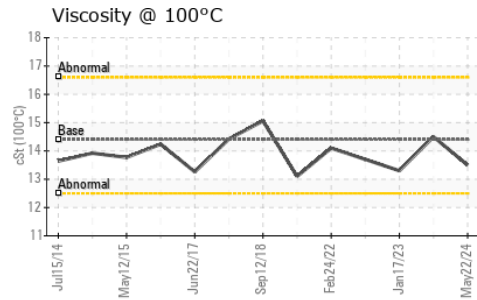
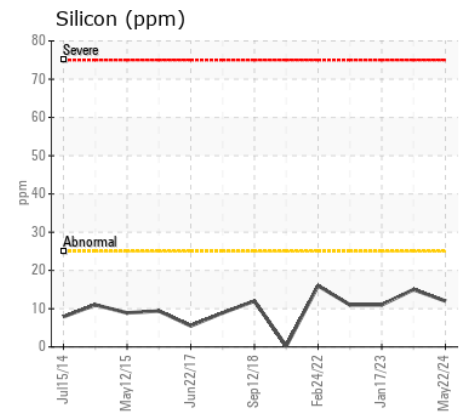
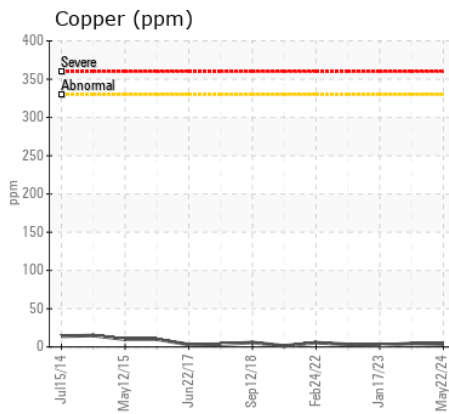
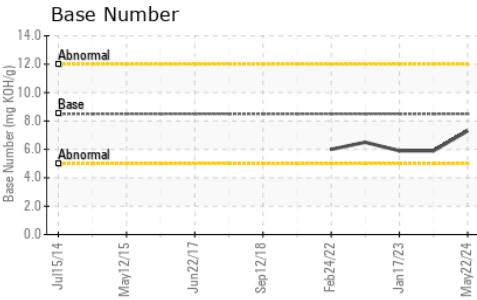
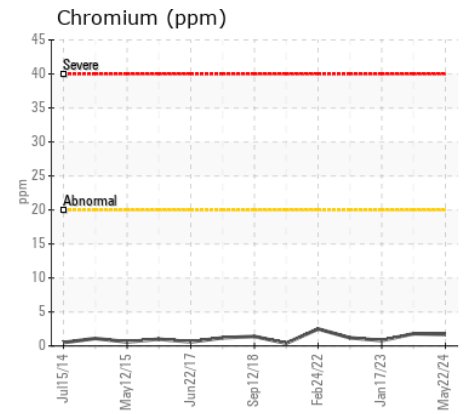
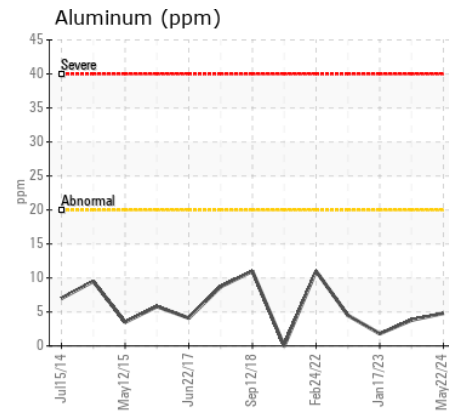
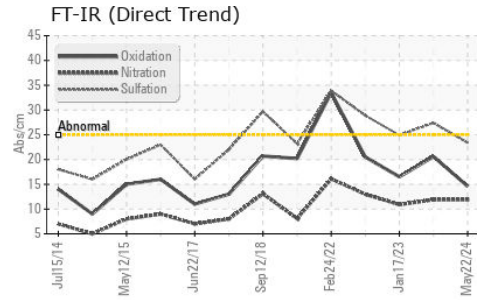
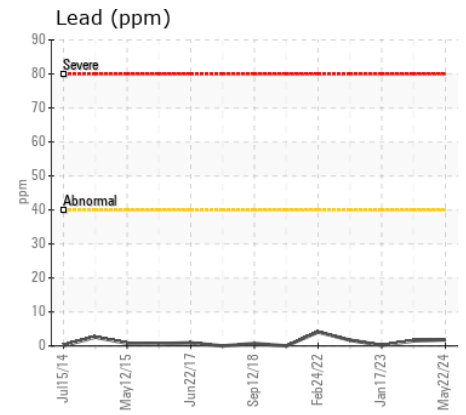
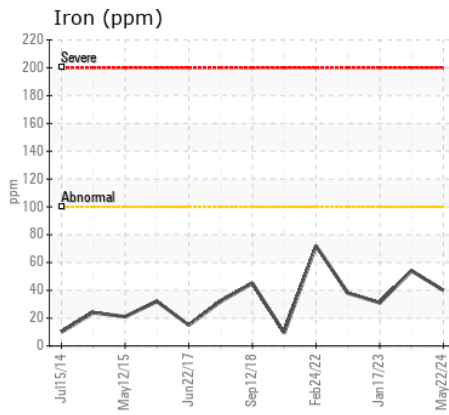
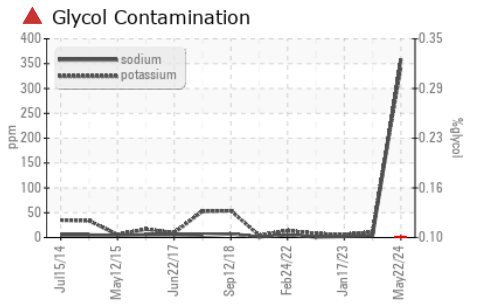
Test for glycol is positive. There is a high concentration of glycol present in the oil.

Silicon	ppm	ASTM D5185m	>25	12	15	11
Potassium	ppm	ASTM D5185m	>20	344	11	6
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		0.10	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.6	1.1	0.8
Nitration	Abs/cm	*ASTM D7624	>20	11.9	11.9	10.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.4	27.4	24.9
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 oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m	>158	359	4	2
Boron	ppm	ASTM D5185m	250	3	34	0
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	24	6	7
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m	450	59	193	109
Calcium	ppm	ASTM D5185m	3000	2366	2102	2146
Phosphorus	ppm	ASTM D5185m	1150	950	930	858
Zinc	ppm	ASTM D5185m	1350	1059	1178	1040
Sulfur	ppm	ASTM D5185m	4250	4246	3669	3504
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.6	20.6	16.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.3	5.9	5.9
Visc @ 100°C	cSt	ASTM D445	14.4	13.5	14.5	13.3



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0036415 **Received** : 29 May 2024
Lab Number : 06194826 **Tested** : 31 May 2024
Unique Number : 11056949 **Diagnosed** : 31 May 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: Glycol, TBN)
 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)

M&M FLEET
 5046 BUCHANAN ST.
 HYATTSVILLE, MD
 US 20781
 Contact: June McClosky
 office@mmlfleet.net
 T: (301)779-4545
 F: x: