



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
FREIGHTLINER 1243
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0949295	WC0917313	WC0878837
Sample Date		Client Info		02 Jul 2024	22 Mar 2024	10 Jan 2024
Machine Age	mls	Client Info		97673	91900	80938
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				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	9	15	11
Chromium	ppm	ASTM D5185m	>20	<1	2	2
Nickel	ppm	ASTM D5185m	>4	0	2	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	3	5	4
Lead	ppm	ASTM D5185m	>40	0	1	<1
Copper	ppm	ASTM D5185m	>330	10	22	22
Tin	ppm	ASTM D5185m	>15	<1	2	2
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

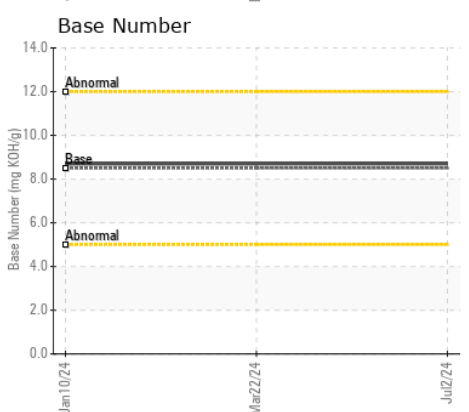
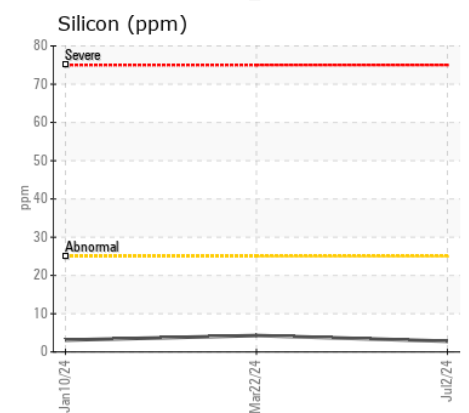
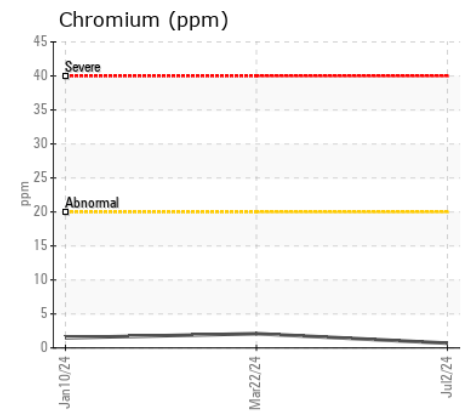
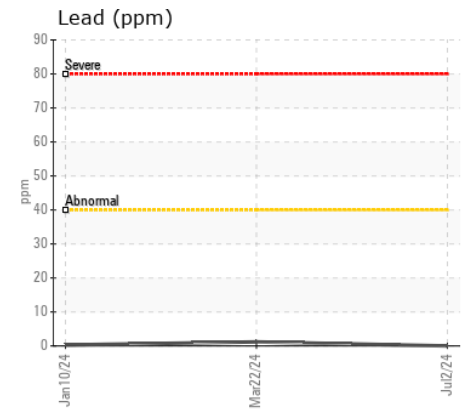
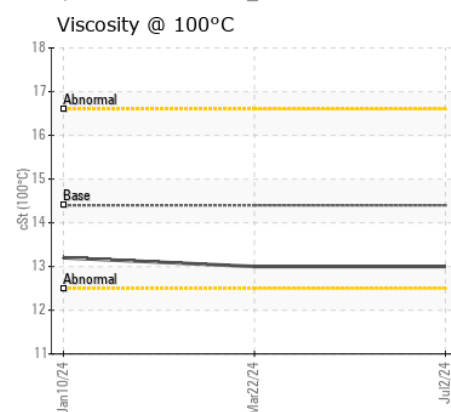
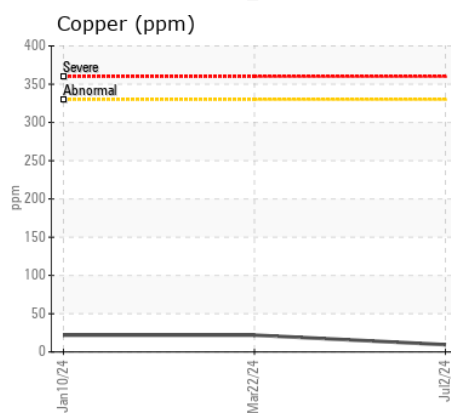
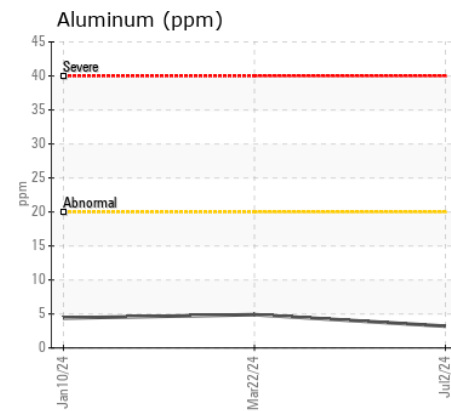
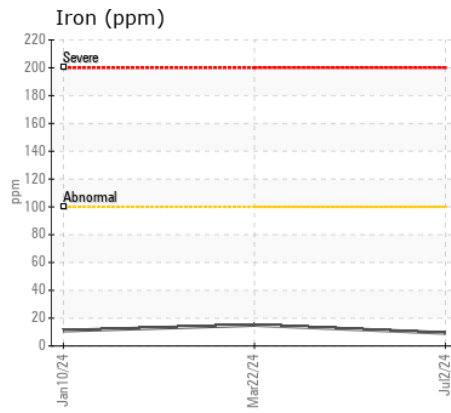
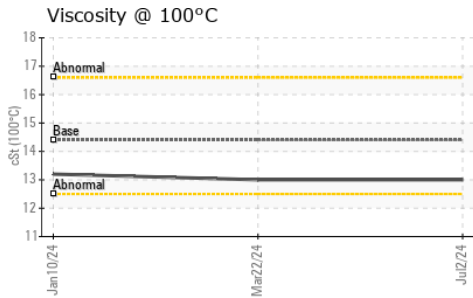
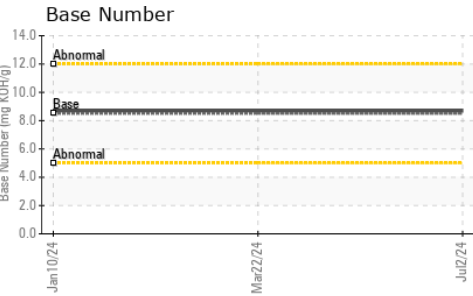
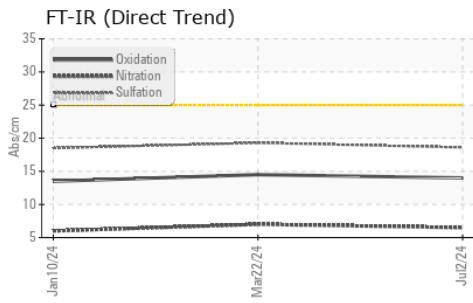
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	3	4	3
Potassium	ppm	ASTM D5185m	>20	4	10	10
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	6.5	7.0	6.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.6	19.3	18.5
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	>158	<1	<1	1
Boron	ppm	ASTM D5185m	250	5	<1	2
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	58	62	55
Manganese	ppm	ASTM D5185m		0	1	<1
Magnesium	ppm	ASTM D5185m	450	924	937	992
Calcium	ppm	ASTM D5185m	3000	1105	1061	1046
Phosphorus	ppm	ASTM D5185m	1150	1001	1067	1044
Zinc	ppm	ASTM D5185m	1350	1224	1212	1205
Sulfur	ppm	ASTM D5185m	4250	2946	3169	3004
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.0	14.5	13.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.7	8.7	8.7
Visc @ 100°C	cSt	ASTM D445	14.4	13.0	13.0	13.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0949295 **Received** : 19 Jul 2024
Lab Number : 06241398 **Tested** : 20 Jul 2024
Unique Number : 11130232 **Diagnosed** : 20 Jul 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: TBN)

CONCRETE SERVICE CO - FAY BLOCK
 161 BUILDERS BLVD
 FAYETTEVILLE, NC
 US 28301
 Contact: BRYAN VANNIMAN
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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)