



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
FREIGHTLINER 737
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (17 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0870802	WC0792916	WC0742979
Sample Date		Client Info		01 Feb 2024	28 Mar 2023	12 Oct 2022
Machine Age	mls	Client Info		264180	259220	249304
Oil Age	mls	Client Info		0	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	27	16	9
Chromium	ppm	ASTM D5185m	>20	1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	5	4	6
Lead	ppm	ASTM D5185m	>40	2	0	0
Copper	ppm	ASTM D5185m	>330	2	0	5
Tin	ppm	ASTM D5185m	>15	0	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

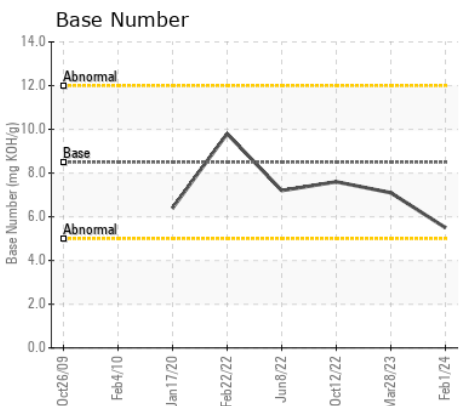
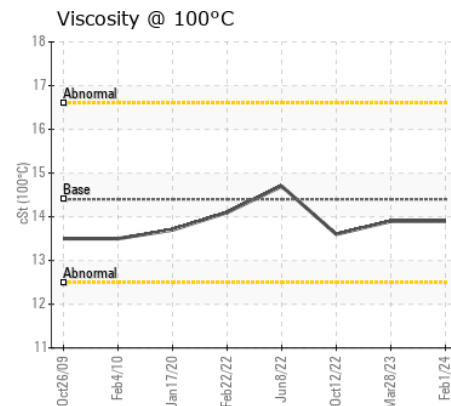
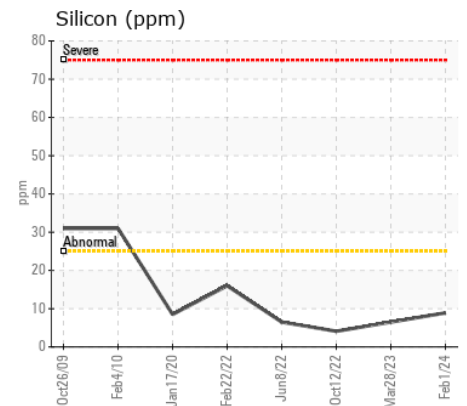
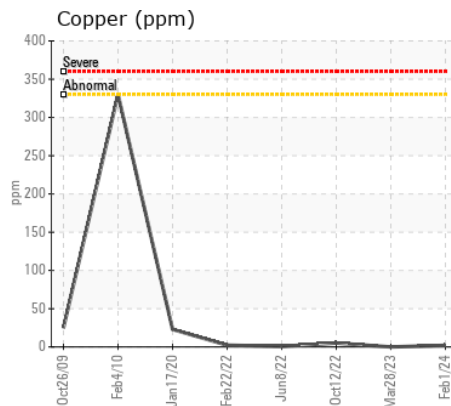
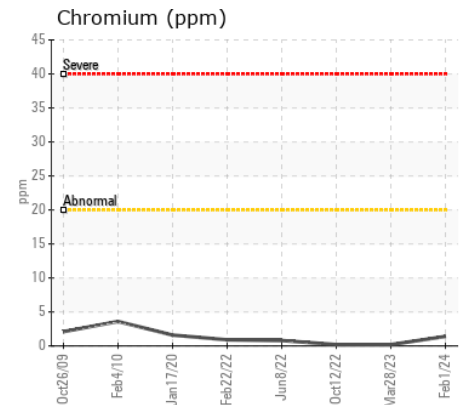
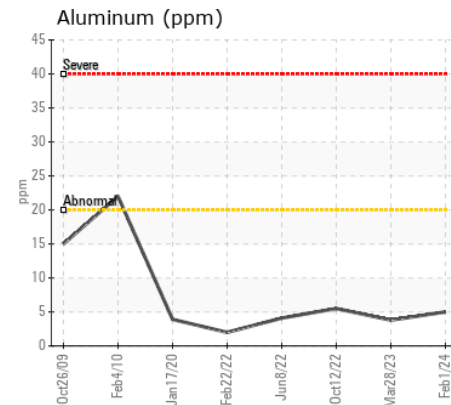
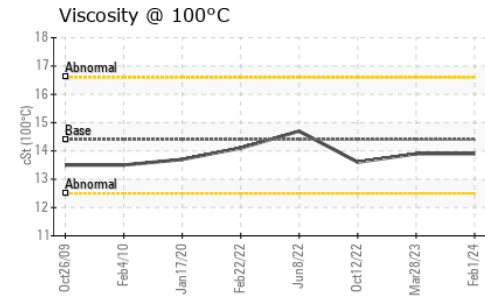
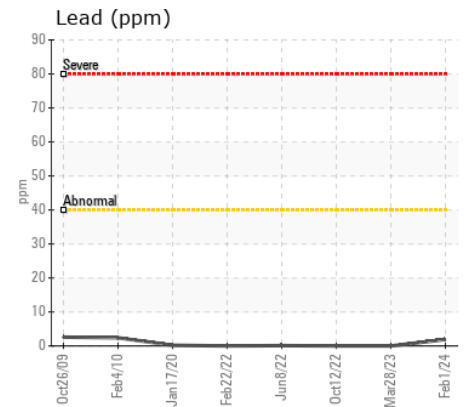
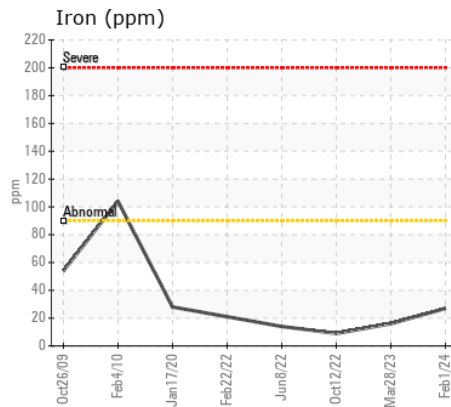
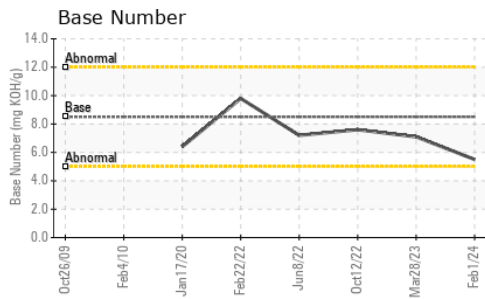
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	9	6	4
Potassium	ppm	ASTM D5185m	>20	5	1	7
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	1.6	0.8	0.3
Nitration	Abs/cm	*ASTM D7624	>20	13.4	10.6	10.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.5	20.3	20.5
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	6	3	0
Boron	ppm	ASTM D5185m	250	21	43	37
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	89	88	77
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	95	94	42
Calcium	ppm	ASTM D5185m	3000	2218	2344	2149
Phosphorus	ppm	ASTM D5185m	1150	1013	1054	1005
Zinc	ppm	ASTM D5185m	1350	1241	1335	1183
Sulfur	ppm	ASTM D5185m	4250	3505	4381	4315
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.2	15.4	15.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.5	7.1	7.6
Visc @ 100°C	cSt	ASTM D445	14.4	13.9	13.9	13.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0870802
Lab Number : 06100808
Unique Number : 10899038
Test Package : MOB 1 (Additional Tests: TBN)

Received : 26 Feb 2024
Tested : 27 Feb 2024
Diagnosed : 27 Feb 2024 - Wes Davis

WAKE COUNTY PUBLIC SCHOOL SYSTEM
 1551 ROCK QUARRY ROAD
 RALEIGH, NC
 US 27610
 Contact: DEVIN WEBER
 dweber@wcpss.net
 T: (919)856-8076
 F: x:

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)