



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Machine Id
FREIGHTLINER 2466
Component
Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (22 QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RW0005352	RW0002032	RW0001097
Sample Date		Client Info		13 Jun 2024	11 Mar 2021	22 Sep 2020
Machine Age	hrs	Client Info		5300	2900	0
Oil Age	hrs	Client Info		150	450	0
Filter Age	hrs	Client Info		150	450	0
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				ATTENTION	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	17	41	44
Chromium	ppm	ASTM D5185m	>20	<1	2	2
Nickel	ppm	ASTM D5185m	>2	0	2	<1
Titanium	ppm	ASTM D5185m	>2	1	<1	0
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	4	12	14
Lead	ppm	ASTM D5185m	>40	0	0	2
Copper	ppm	ASTM D5185m	>330	<1	2	4
Tin	ppm	ASTM D5185m	>15	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

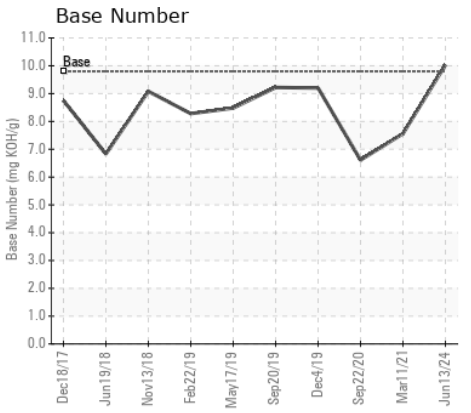
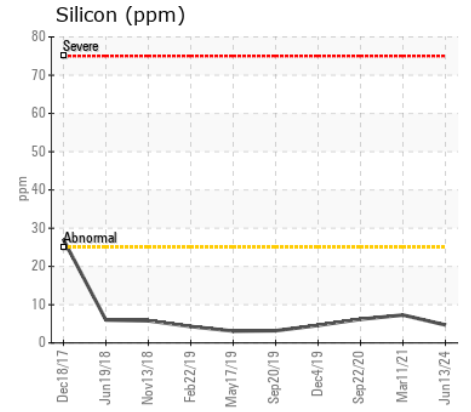
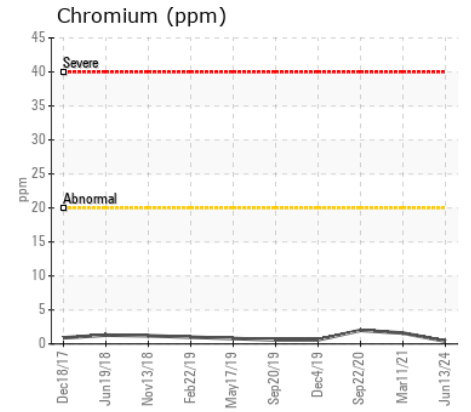
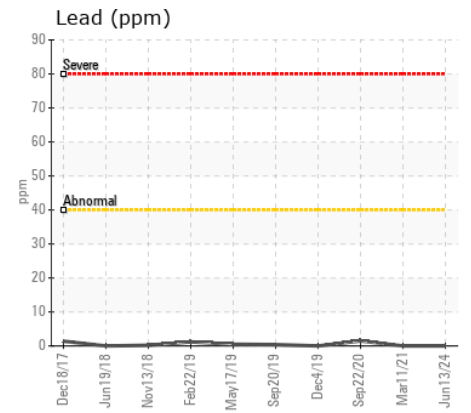
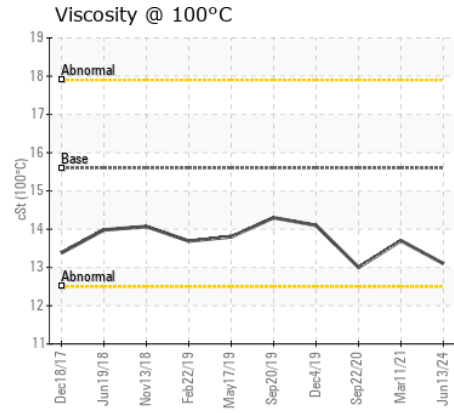
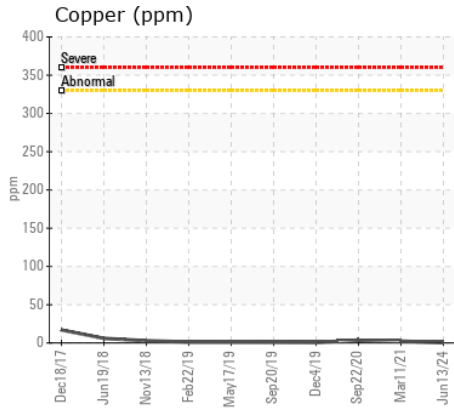
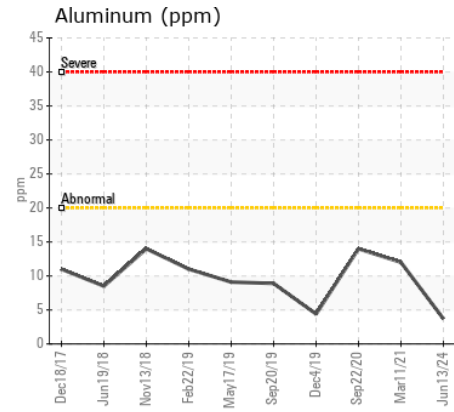
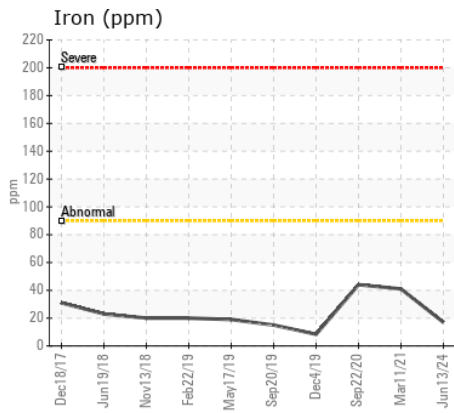
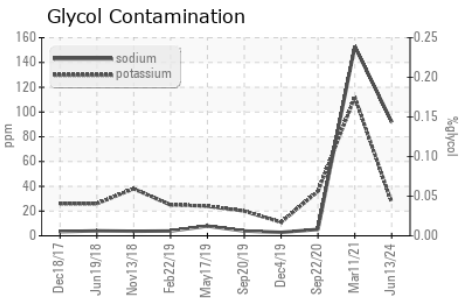
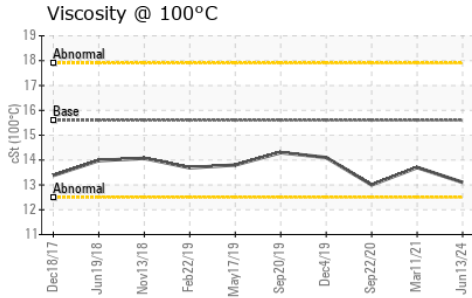
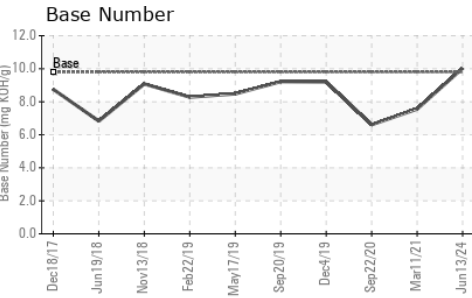
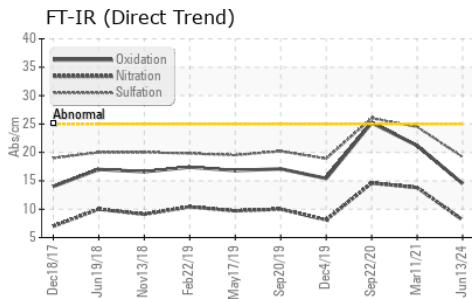
Sodium and/or potassium levels remain elevated. Test for glycol is negative.

Silicon	ppm	ASTM D5185m	>25	5	7	6
Potassium	ppm	ASTM D5185m	>20	27	▲ 112	36
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.4	0.9	0.9
Nitration	Abs/cm	*ASTM D7624	>20	8.1	13.8	14.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2	24.5	26
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 acceptable for the time in service.

Sodium	ppm	ASTM D5185m		● 92	▲ 153	5
Boron	ppm	ASTM D5185m		4	5	7
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		56	81	68
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		920	964	906
Calcium	ppm	ASTM D5185m		1260	1179	1149
Phosphorus	ppm	ASTM D5185m		1127	1020	973
Zinc	ppm	ASTM D5185m		1342	1290	1209
Sulfur	ppm	ASTM D5185m		3953	2482	2519
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.5	21.2	25.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	10.03	7.56	6.61
Visc @ 100°C	cSt	ASTM D445	15.6	13.1	13.7	13.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RW0005352 **Received** : 09 Jul 2024
Lab Number : 06231593 **Tested** : 11 Jul 2024
Unique Number : 11115086 **Diagnosed** : 11 Jul 2024 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: Glycol)

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)

NEWKIRK ELECTRIC
 1875 ROBERTS ST.
 MUSKEGON, MI
 US 49442

Contact: ERIC KING
 ewking@newkirk-electric.com

T: (231)206-6131
 F: (231)724-4090