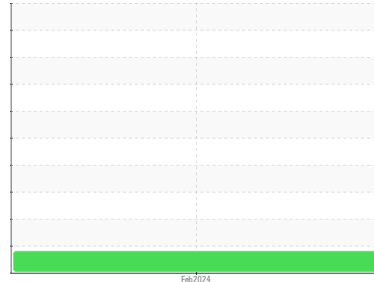




Machine Id
FREIGHTLINER 212268
Component
Diesel Engine
Fluid
SAE 5W30 (--- GAL)



DIAGNOSIS

- Recommendation**
No corrective action is recommended at this time. Resample at the next service interval to monitor.
- Wear**
Metal levels are typical for a new component breaking in.
- Contamination**
Light fuel dilution occurring. No other contaminants were detected in the oil.
- 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.

SAMPLE INFORMATION method limit/base current history1 history2

Sample Number	Client Info		PC0085551	---	---
Sample Date	Client Info		09 Feb 2024	---	---
Machine Age	kms	Client Info	18003	---	---
Oil Age	kms	Client Info	0	---	---
Oil Changed		Client Info	N/A	---	---
Sample Status			MARGINAL	---	---

CONTAMINATION method limit/base current history1 history2

Water	WC Method	>0.2	NEG	---	---
Glycol	WC Method		NEG	---	---

WEAR METALS method limit/base current history1 history2

Iron	ppm	ASTM D5185(m)	>80	20	---	---
Chromium	ppm	ASTM D5185(m)	>5	<1	---	---
Nickel	ppm	ASTM D5185(m)	>2	<1	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)	>3	0	---	---
Aluminum	ppm	ASTM D5185(m)	>30	5	---	---
Lead	ppm	ASTM D5185(m)	>30	<1	---	---
Copper	ppm	ASTM D5185(m)	>150	9	---	---
Tin	ppm	ASTM D5185(m)	>5	<1	---	---
Antimony	ppm	ASTM D5185(m)		0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
Beryllium	ppm	ASTM D5185(m)		0	---	---
Cadmium	ppm	ASTM D5185(m)		0	---	---

ADDITIVES method limit/base current history1 history2

Boron	ppm	ASTM D5185(m)		87	---	---
Barium	ppm	ASTM D5185(m)		0	---	---
Molybdenum	ppm	ASTM D5185(m)		87	---	---
Manganese	ppm	ASTM D5185(m)		<1	---	---
Magnesium	ppm	ASTM D5185(m)		521	---	---
Calcium	ppm	ASTM D5185(m)		1282	---	---
Phosphorus	ppm	ASTM D5185(m)		671	---	---
Zinc	ppm	ASTM D5185(m)		758	---	---
Sulfur	ppm	ASTM D5185(m)		2357	---	---
Lithium	ppm	ASTM D5185(m)		<1	---	---

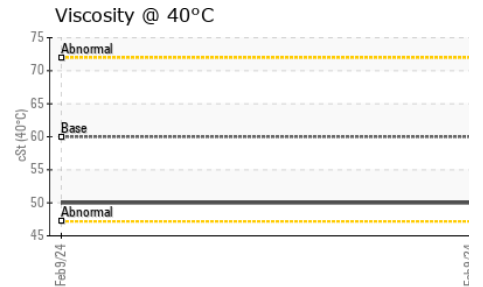
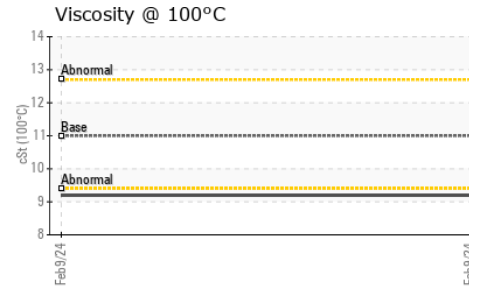
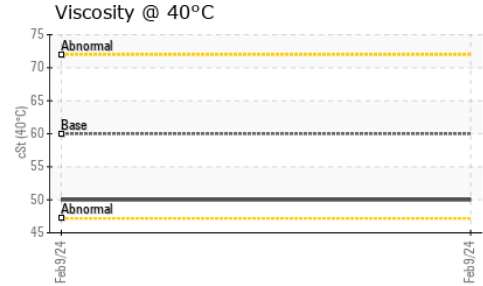
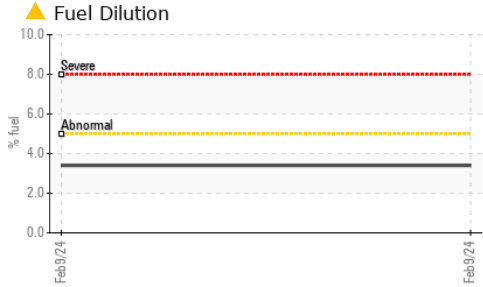
CONTAMINANTS method limit/base current history1 history2

Silicon	ppm	ASTM D5185(m)	>20	34	---	---
Sodium	ppm	ASTM D5185(m)		3	---	---
Potassium	ppm	ASTM D5185(m)	>20	2	---	---
Fuel	%	ASTM D7593*	>5	▲ 3.4	---	---

INFRA-RED method limit/base current history1 history2

Soot %	%	ASTM D7844*	>3	0	---	---
Nitration	Abs/cm	ASTM D7624*	>20	10.0	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.6	---	---

OIL ANALYSIS REPORT

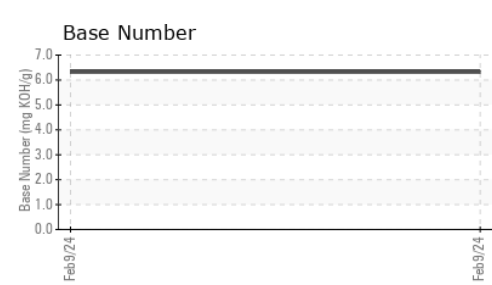
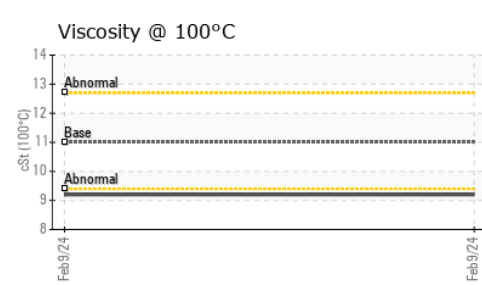
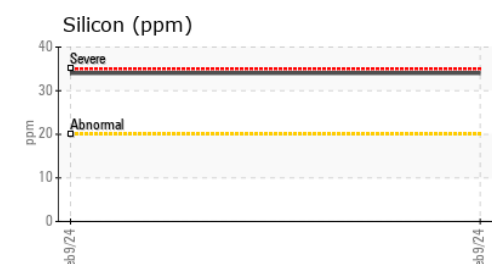
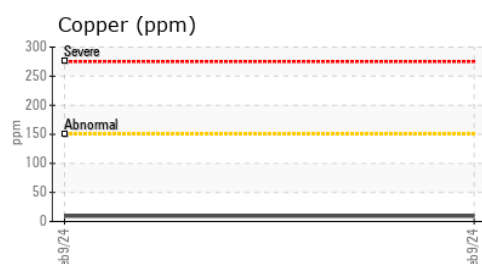
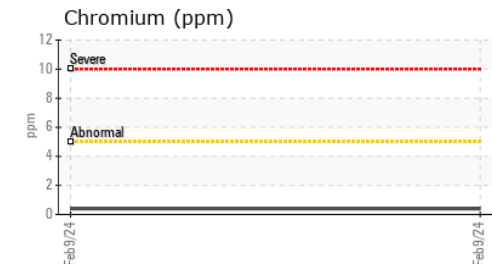
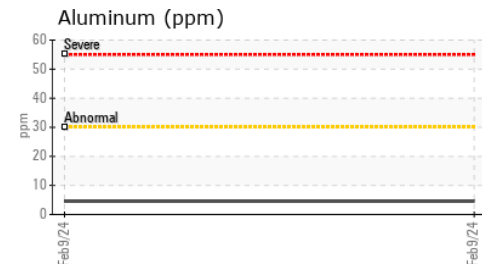
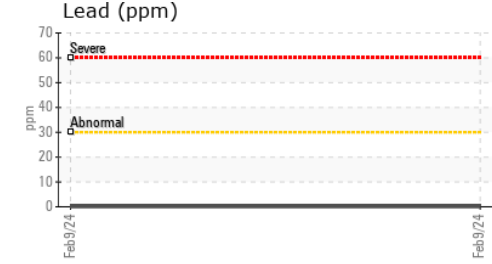
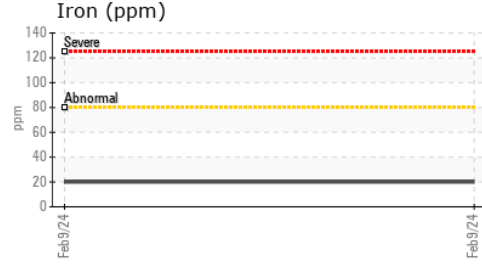


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	14.4	---	---
Base Number (BN)	mg KOH/g	ASTM D2896*		6.32	---	---

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---
Free Water	scalar	Visual*		NEG	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	60.0	50.0	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	11.0	9.2	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	177	168	---	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0085551 **Received** : 26 Feb 2024
Lab Number : **02618010** **Tested** : 27 Feb 2024
Unique Number : 5735120 **Diagnosed** : 27 Feb 2024 - Wes Davis
Test Package : MOB 2 (Additional Tests: FuelDilution, KV40, PercentFuel, VI)

UPS CANADA
 2900 STEELES AVE W
 CONCORD, ON
 CA L4K 3S2
 Contact: Service Manager
 Behshad.Sabah@HFSinclair.com
 T:
 F:

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.