



Machine Id
CUMMINS 25093

Component
Rear Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 15W40 (6 LTR)



DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Wear

Metal levels are typical for a new component breaking in.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Light fuel dilution occurring. No other contaminants were detected in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PC0083786	---	---
Sample Date	Client Info		23 Nov 2023	---	---
Machine Age	kms	Client Info	34722	---	---
Oil Age	kms	Client Info	0	---	---
Oil Changed	Client Info		Changed	---	---
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) >90	78	---	---
Chromium	ppm	ASTM D5185(m) >20	2	---	---
Nickel	ppm	ASTM D5185(m) >2	<1	---	---
Titanium	ppm	ASTM D5185(m) >2	0	---	---
Silver	ppm	ASTM D5185(m) >2	<1	---	---
Aluminum	ppm	ASTM D5185(m) >20	10	---	---
Lead	ppm	ASTM D5185(m) >40	2	---	---
Copper	ppm	ASTM D5185(m) >330	46	---	---
Tin	ppm	ASTM D5185(m) >15	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) 250	5	---	---
Barium	ppm	ASTM D5185(m) 10	<1	---	---
Molybdenum	ppm	ASTM D5185(m) 100	58	---	---
Manganese	ppm	ASTM D5185(m)	1	---	---
Magnesium	ppm	ASTM D5185(m) 450	905	---	---
Calcium	ppm	ASTM D5185(m) 3000	1152	---	---
Phosphorus	ppm	ASTM D5185(m) 1150	926	---	---
Zinc	ppm	ASTM D5185(m) 1350	1166	---	---
Sulfur	ppm	ASTM D5185(m) 4250	2250	---	---
Lithium	ppm	ASTM D5185(m)	<1	---	---

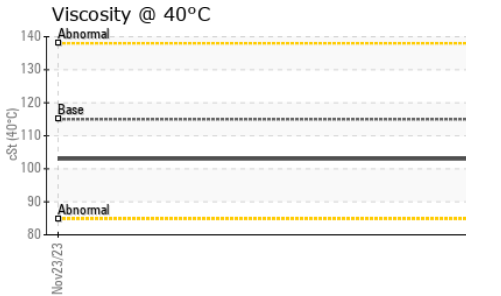
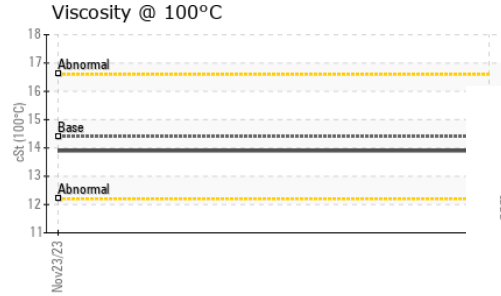
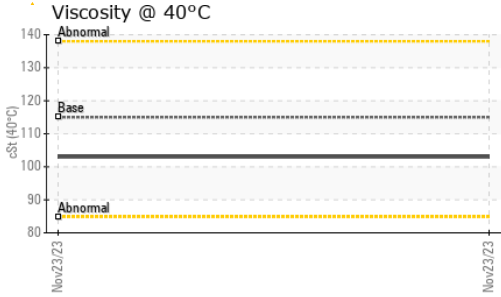
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	11	---	---
Sodium	ppm	ASTM D5185(m) >158	7	---	---
Potassium	ppm	ASTM D5185(m) >20	20	---	---
Fuel	%	ASTM D7593* >3.0	▲ 2	---	---

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >6	1.8	---	---
Nitration	Abs/cm	ASTM D7624* >20	13.9	---	---
Sulfation	Abs./1mm	ASTM D7415* >30	31.5	---	---

OIL ANALYSIS REPORT

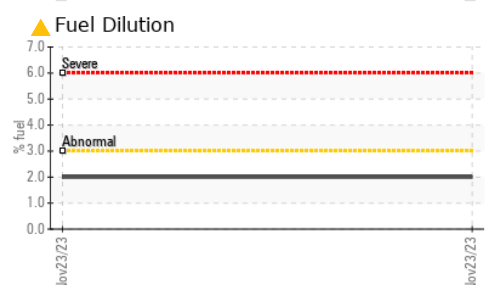
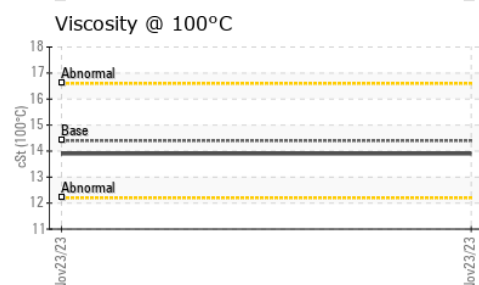
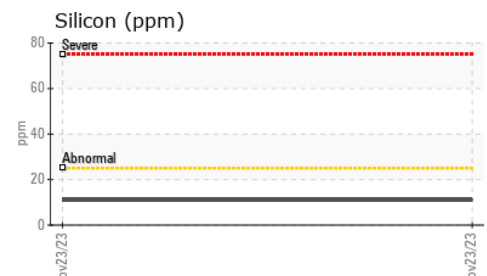
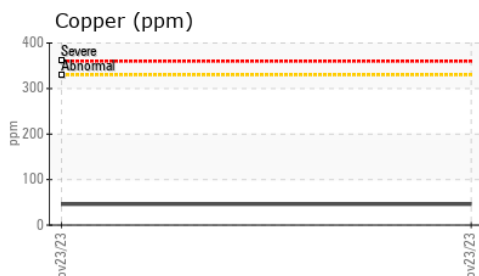
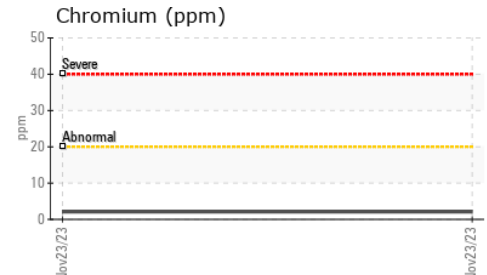
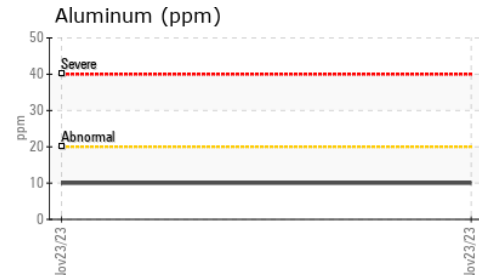
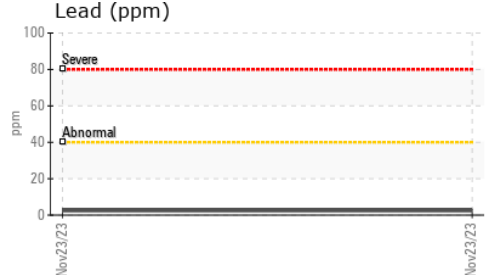
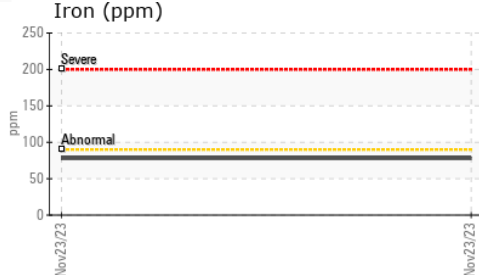


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	29.5	---	---

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)	115	103	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	13.9	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	126	136	---	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0083786 **Received** : 15 Dec 2023
Lab Number : **02603421** **Diagnosed** : 19 Dec 2023
Unique Number : 5696506 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: FUELDILUTION, KV40, PercentFuel, VI)

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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.