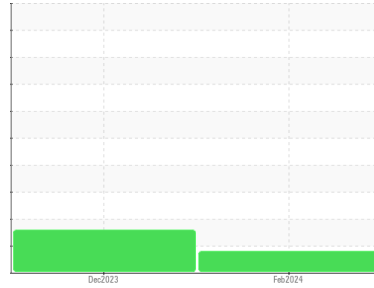


OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area
FLEET
 Machine Id
VOLVO 2227087 (S/N 4V4NC9EH8RN643765)
 Component
Diesel Engine
 Fluid
NOT GIVEN (42 QTS)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core).

Contamination

There is no indication of any contamination 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	PCA0118722	PCA0108204	---
Sample Date	Client Info	26 Feb 2024	13 Dec 2023	---
Machine Age	mls	Client Info	39500	21064
Oil Age	mls	Client Info	18436	21064
Oil Changed	Client Info	Not Chngd	Changed	---
Sample Status		ABNORMAL	ABNORMAL	---

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG
Glycol	WC Method		NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>100	15	27
Chromium	ppm	ASTM D5185m	>20	<1	<1
Nickel	ppm	ASTM D5185m	>2	2	2
Titanium	ppm	ASTM D5185m		0	<1
Silver	ppm	ASTM D5185m	>2	4	19
Aluminum	ppm	ASTM D5185m	>25	9	30
Lead	ppm	ASTM D5185m	>40	4	0
Copper	ppm	ASTM D5185m	>330	▲ 357	112
Tin	ppm	ASTM D5185m	>15	<1	4
Vanadium	ppm	ASTM D5185m		0	<1
Cadmium	ppm	ASTM D5185m		0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		16	213
Barium	ppm	ASTM D5185m		0	<1
Molybdenum	ppm	ASTM D5185m		68	115
Manganese	ppm	ASTM D5185m		<1	3
Magnesium	ppm	ASTM D5185m		1044	703
Calcium	ppm	ASTM D5185m		1215	1329
Phosphorus	ppm	ASTM D5185m		1040	716
Zinc	ppm	ASTM D5185m		1279	835
Sulfur	ppm	ASTM D5185m		2937	2305

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	13	▲ 57
Sodium	ppm	ASTM D5185m		3	4
Potassium	ppm	ASTM D5185m	>20	21	83
Fuel	%	ASTM D3524	>6.0	<1.0	0.0

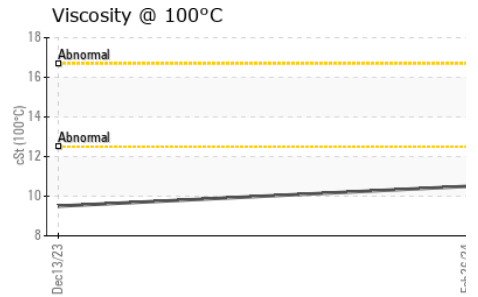
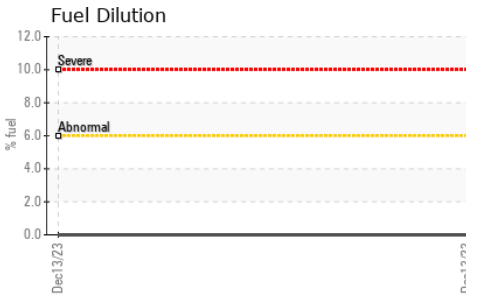
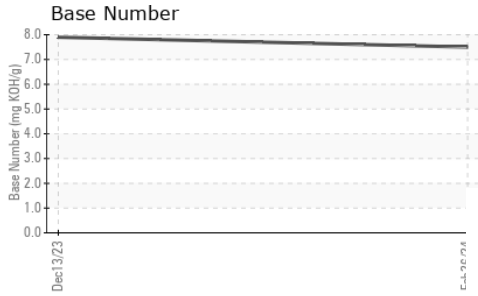
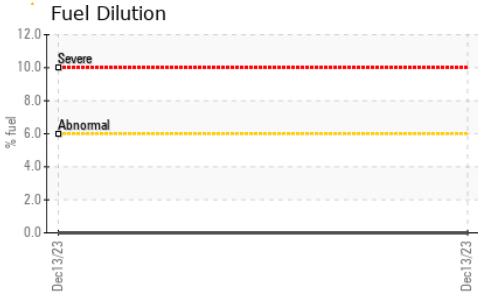
INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	8.1	9.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.9	24.3

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.1	21.9
Base Number (BN)	mg KOH/g	ASTM D2896		7.5	7.9

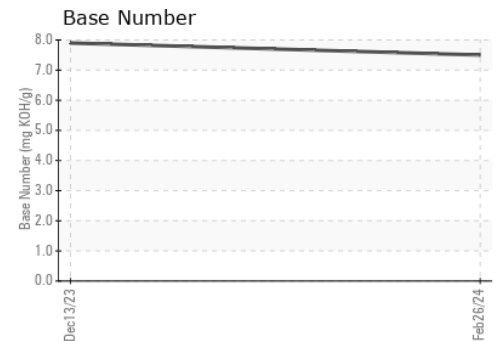
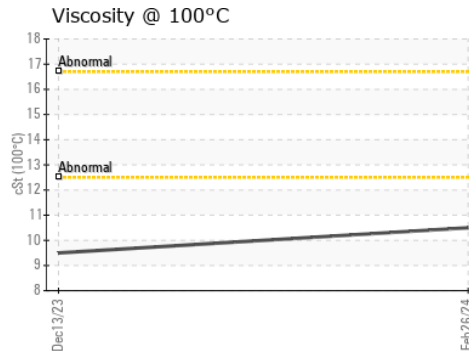
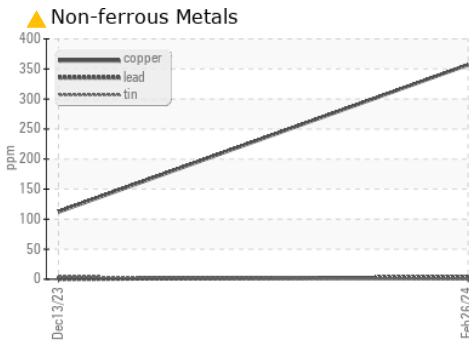
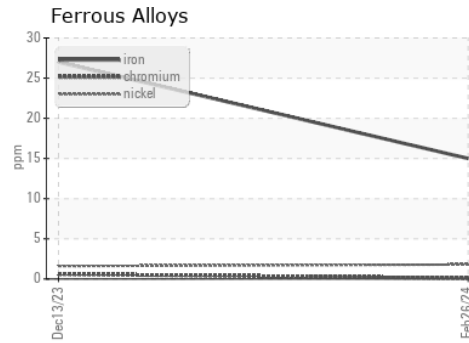
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	10.5	9.5	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0118722 **Received** : 04 Mar 2024
Lab Number : 06107039 **Tested** : 04 Mar 2024
Unique Number : 10910536 **Diagnosed** : 06 Mar 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: FuelDilution)

PERDUE FARMS - ACCOMAC
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 ACCOMAC, VA
 US 23301
 Contact: PEGGY KIMES
 peggy.kimes@perdue.com
 T: (757)787-5304
 F: (757)787-5208

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)