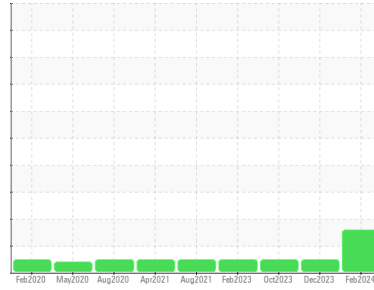


OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION



Machine Id
VOLVO 26653
 Component
Diesel Engine
 Fluid
 DIESEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

Fluid Condition

The oil viscosity is lower than normal. The BN level is low. Confirm oil type.

SAMPLE INFORMATION

method	limit/base	current	history1	history2	
Sample Number	Client Info	PCA0118955	PCA0106421	PCA0068359	
Sample Date	Client Info	28 Feb 2024	12 Dec 2023	11 Oct 2023	
Machine Age	mls	Client Info	30000	0	715961
Oil Age	mls	Client Info	30000	30000	30000
Oil Changed	Client Info	Changed	Changed	Changed	
Sample Status		ABNORMAL	NORMAL	NORMAL	

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>100	29	16	22
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	1	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	<1
Aluminum	ppm	ASTM D5185m	>25	2	2	2
Lead	ppm	ASTM D5185m	>40	2	0	0
Copper	ppm	ASTM D5185m	>330	1	1	2
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185m	250	<1	5	0
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	45	63	61
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	450	617	914	940
Calcium	ppm	ASTM D5185m	3000	743	1084	1071
Phosphorus	ppm	ASTM D5185m	1150	704	1010	976
Zinc	ppm	ASTM D5185m	1350	856	1259	1243
Sulfur	ppm	ASTM D5185m	4250	2151	2687	2511

CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>25	6	4	6
Sodium	ppm	ASTM D5185m	>158	29	5	4
Potassium	ppm	ASTM D5185m	>20	30	0	0
Fuel	%	ASTM D3524	>6.0	<1.0	<1.0	<1.0
Glycol	%	*ASTM D2982		NEG	NEG	NEG

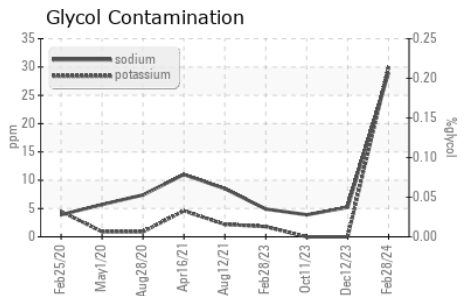
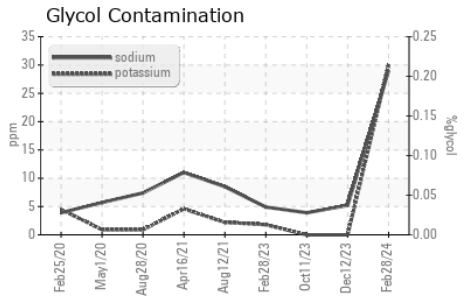
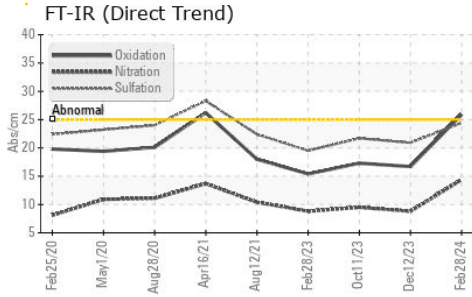
INFRA-RED

method	limit/base	current	history1	history2		
Soot %	%	*ASTM D7844	>3	0.4	0.5	0.6
Nitration	Abs/cm	*ASTM D7624	>20	14.4	8.8	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.4	20.9	21.7

FLUID DEGRADATION

method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	*ASTM D7414	>25	25.9	16.7	17.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	▲ 2.5	6.3	6.1

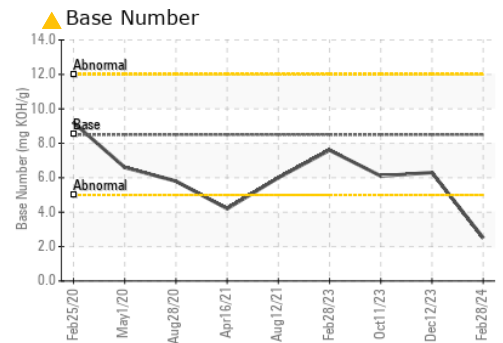
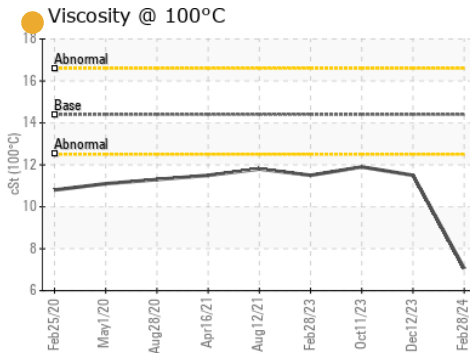
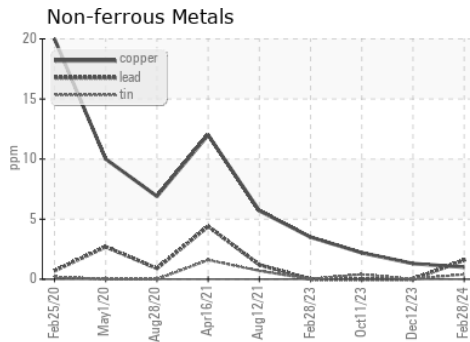
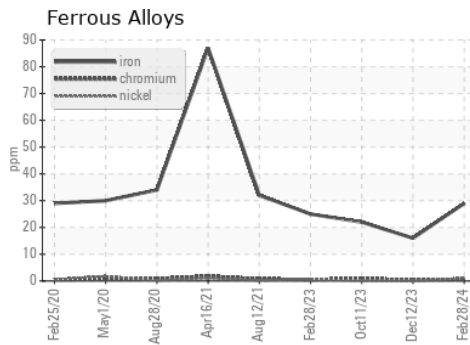
OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	7.06	11.5

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0118955
Lab Number : 06145212
Unique Number : 10970020
Test Package : FLEET (Additional Tests: FuelDilution, Glycol)

PERDUE FARMS INC - GARAGE
 189 PERDUE WAY
 CANDOR, NC
 US 27229
 Contact: Service Manager

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)

T:
F: