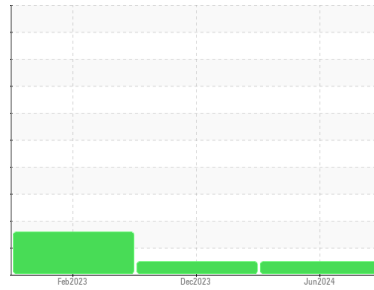


OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL


Area
{UNASSIGNED}
 Machine Id
DT847
 Component
2 Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 30 (36 QTS)

DIAGNOSIS
Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

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. 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			PCA0121965	PCA0114738	PCA0090298
Sample Date	Client Info			24 Jun 2024	26 Dec 2023	01 Feb 2023
Machine Age	hrs	Client Info		4337	3165	931
Oil Age	hrs	Client Info		21743	0	0
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>3.0		<1.0	<1.0	0.5
Water	WC Method	>0.2		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>120	22	27	45
Chromium	ppm	ASTM D5185m	>20	<1	1	2
Nickel	ppm	ASTM D5185m	>5	8	4	5
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	<1	<1	0
Aluminum	ppm	ASTM D5185m	>20	5	7	30
Lead	ppm	ASTM D5185m	>40	0	1	<1
Copper	ppm	ASTM D5185m	>330	7	12	102
Tin	ppm	ASTM D5185m	>15	<1	2	6
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	3	3	80
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	58	62	119
Manganese	ppm	ASTM D5185m		1	1	6
Magnesium	ppm	ASTM D5185m	450	930	893	669
Calcium	ppm	ASTM D5185m	3000	1098	1113	1410
Phosphorus	ppm	ASTM D5185m	1150	956	817	650
Zinc	ppm	ASTM D5185m	1350	1226	1194	836
Sulfur	ppm	ASTM D5185m	4250	3021	2639	2261

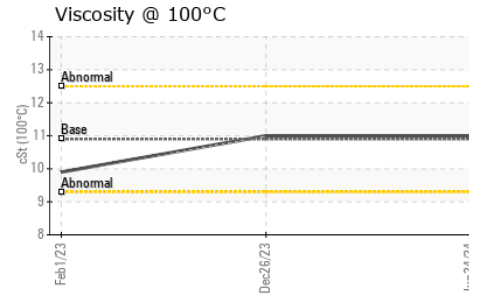
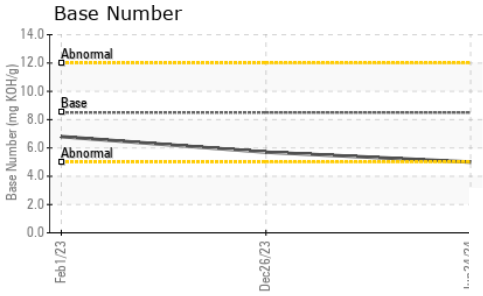
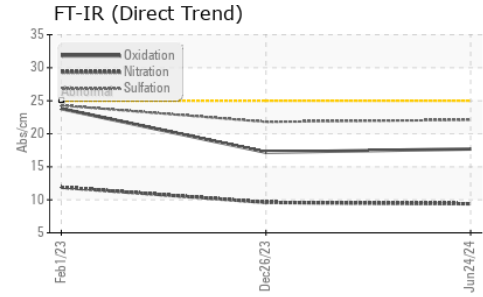
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	7	12	▲ 76
Sodium	ppm	ASTM D5185m	>75	2	0	3
Potassium	ppm	ASTM D5185m	>20	10	19	70

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>4	0.8	0.8	0.6
Nitration	Abs/cm	*ASTM D7624	>20	9.4	9.6	11.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.1	21.8	24.3

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.7	17.2	23.8
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.0	5.7	6.8



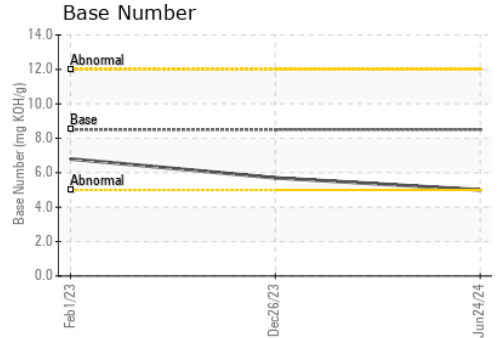
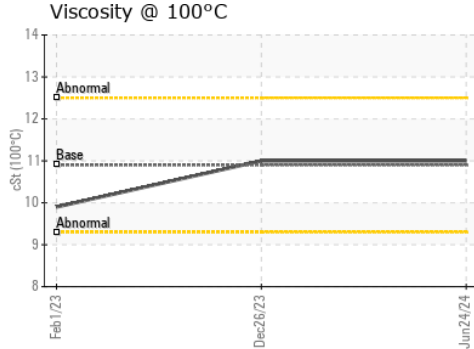
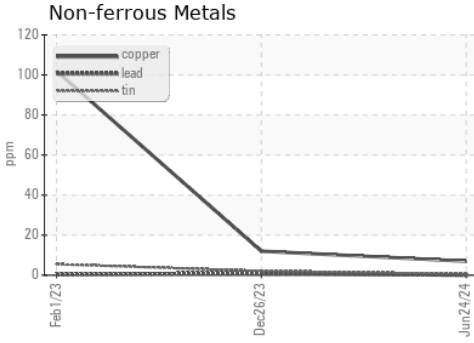
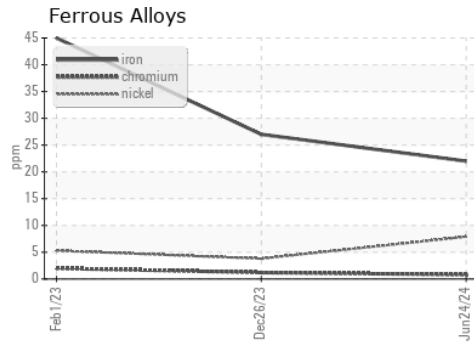
OIL ANALYSIS REPORT



PARAMETER	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	10.9	11.0	9.9

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0121965
Lab Number : 06220681
Unique Number : 11098878
Test Package : FLEET

Received : 26 Jun 2024
Tested : 27 Jun 2024
Diagnosed : 27 Jun 2024 - Wes Davis

NW WHITE & CO - COLUMBIA DIVISION
 100 INDEPENDENCE BLVD
 COLUMBIA, SC
 US 29210
 Contact: GEORGE EDWARDS
 gedwards@nwwhite.com

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)