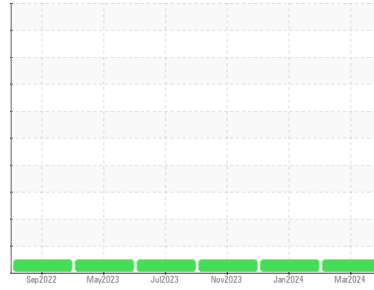


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
109 (S/N 1XPBD49X9HD415616)
 Component
Diesel Engine
 Fluid
SHELL ROTELLA T4 15W40 (--- GAL)

DIAGNOSIS

- Recommendation**
 Resample at the next service interval to monitor.
- Wear**
 All component wear rates are normal.
- 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			PCA0105529	PCA0105520	PCA0089627
Sample Date	Client Info			07 Mar 2024	18 Jan 2024	03 Nov 2023
Machine Age	mls Client Info			949197	931386	912512
Oil Age	mls Client Info			17811	20874	19942
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>3.0		<1.0	<1.0	<1.0
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	>165	7	11	11
Chromium	ppm	ASTM D5185m	>5	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	2	1
Lead	ppm	ASTM D5185m	>150	<1	1	3
Copper	ppm	ASTM D5185m	>90	0	<1	1
Tin	ppm	ASTM D5185m	>5	0	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0

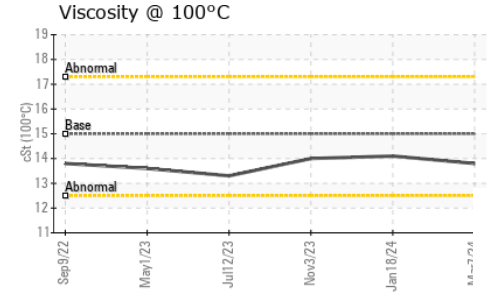
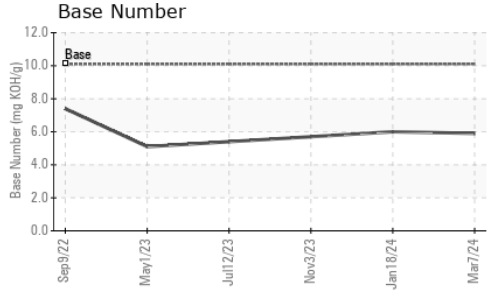
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		60	83	62
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		6	9	13
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m		30	59	57
Calcium	ppm	ASTM D5185m		2126	2336	2137
Phosphorus	ppm	ASTM D5185m		845	1088	961
Zinc	ppm	ASTM D5185m		1042	1347	1156
Sulfur	ppm	ASTM D5185m		3479	3939	3492

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>35	3	5	6
Sodium	ppm	ASTM D5185m		3	2	0
Potassium	ppm	ASTM D5185m	>20	19	11	9

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>7.5	0.5	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	9.4	9.3	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.0	23.4	24.1

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.3	18.8	19.3
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	5.9	6.0	5.7

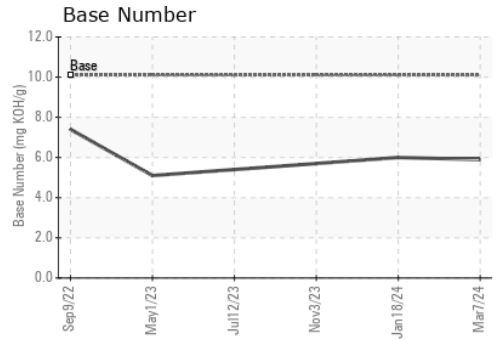
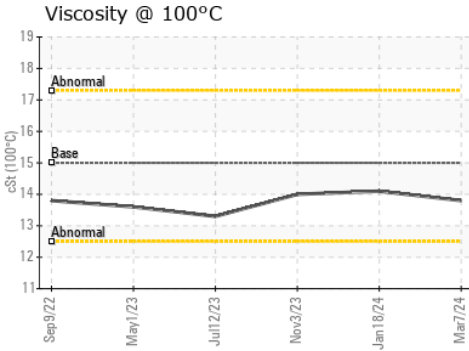
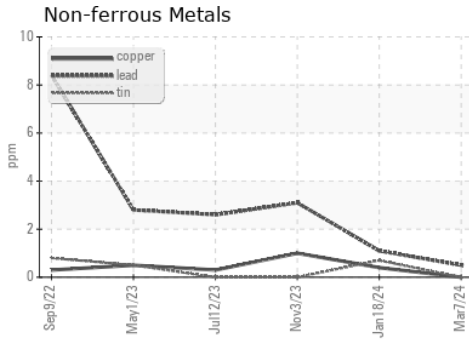
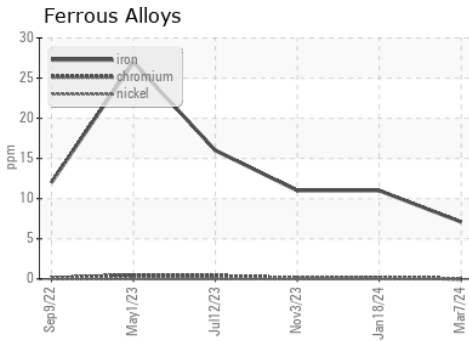
OIL ANALYSIS REPORT



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 15	13.8	14.1	14.0

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0105529 **Received** : 11 Mar 2024
Lab Number : 06114848 **Tested** : 12 Mar 2024
Unique Number : 10923681 **Diagnosed** : 12 Mar 2024 - Wes Davis
Test Package : FLEET

VULCRAFT
 1501 W DARLINGTON ST
 FLORENCE, SC
 US 29501
 Contact: DAVID VOUGHT
 david.vought@vulcraft-sc.com
 T: (843)409-3910
 F:

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)