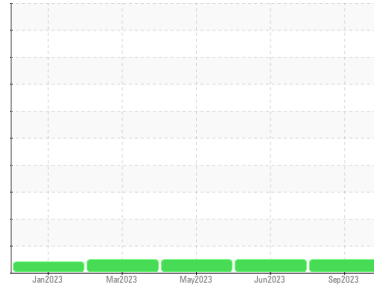


OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
112 (S/N 3HSPAAPR3PN664808)

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			PCA0089622	PCA0097118	PCA0089614
Sample Date	Client Info			01 Sep 2023	27 Jun 2023	01 May 2023
Machine Age	mls	Client Info		99969	80741	60847
Oil Age	mls	Client Info		19228	19894	20451
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method			<1.0	<1.0	<1.0
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m		10	9	11
Chromium	ppm	ASTM D5185m		<1	<1	<1
Nickel	ppm	ASTM D5185m		0	<1	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	<1	0
Aluminum	ppm	ASTM D5185m		6	8	8
Lead	ppm	ASTM D5185m		<1	0	<1
Copper	ppm	ASTM D5185m		1	<1	1
Tin	ppm	ASTM D5185m		<1	0	1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

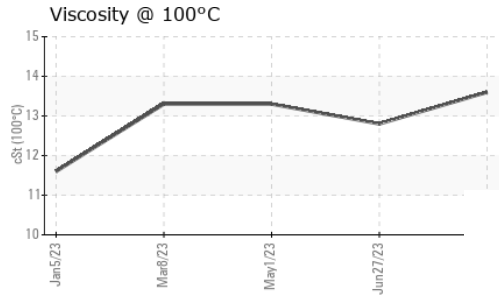
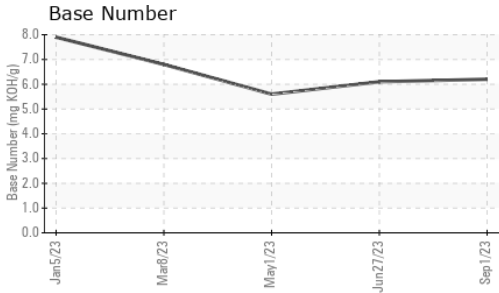
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		80	68	85
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		16	12	16
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		49	78	123
Calcium	ppm	ASTM D5185m		2305	2199	1975
Phosphorus	ppm	ASTM D5185m		987	906	918
Zinc	ppm	ASTM D5185m		1278	1200	1138
Sulfur	ppm	ASTM D5185m		4235	3880	3583

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m		6	5	5
Sodium	ppm	ASTM D5185m		3	<1	<1
Potassium	ppm	ASTM D5185m		22	20	24

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		0.3	0.3	0.3
Nitration	Abs/cm	*ASTM D7624		8.3	8.3	7.5
Sulfation	Abs/.1mm	*ASTM D7415		20.6	20.9	19.4

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414		16.1	16.1	16.1
Base Number (BN)	mg KOH/g	ASTM D2896		6.2	6.1	5.6

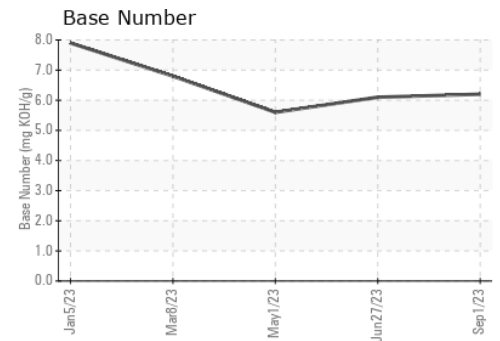
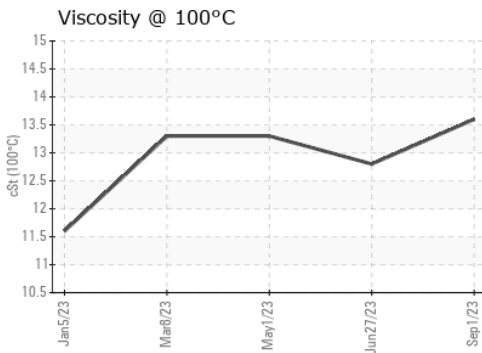
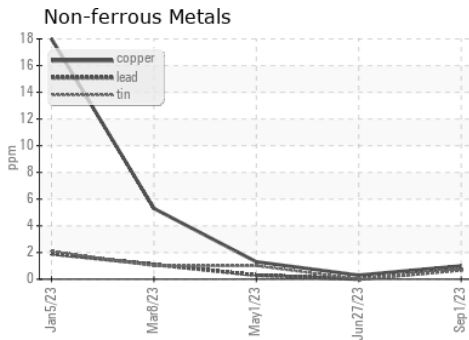
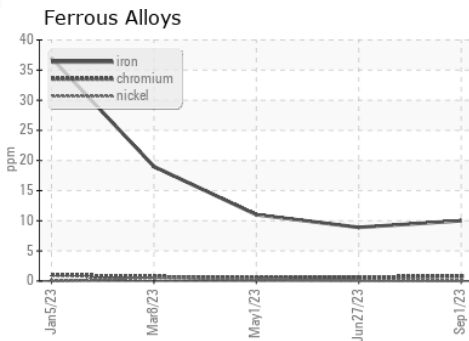
OIL ANALYSIS REPORT



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	NEG	NEG	NEG
Free Water	scalar	*Visual	NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	13.6	12.8	13.3

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0089622 **Received** : 18 Sep 2023
Lab Number : **05953625** **Diagnosed** : 20 Sep 2023
Unique Number : 10649584 **Diagnostician** : 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)