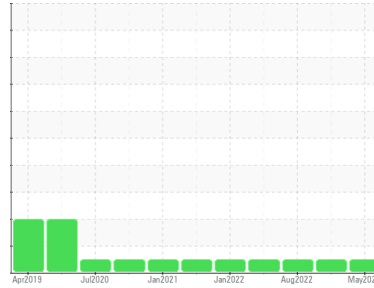




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
51292

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

DIAGNOSIS

Recommendation

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

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			WC0742185	WC0645455	WC0645359
Sample Date	Client Info			13 May 2023	14 Dec 2022	10 Aug 2022
Machine Age	mls	Client Info		581387	539444	0
Oil Age	mls	Client Info		0	0	0
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<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	>100	35	28	22
Chromium	ppm	ASTM D5185m	>20	2	2	1
Nickel	ppm	ASTM D5185m	>4	2	1	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	7	6	5
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	44	11	14
Tin	ppm	ASTM D5185m	>15	<1	1	<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	0	3
Barium	ppm	ASTM D5185m	10	0	0	2
Molybdenum	ppm	ASTM D5185m	100	70	65	62
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	987	1020	797
Calcium	ppm	ASTM D5185m	3000	1178	1160	1035
Phosphorus	ppm	ASTM D5185m	1150	990	996	863
Zinc	ppm	ASTM D5185m	1350	1276	1344	1042
Sulfur	ppm	ASTM D5185m	4250	2700	3116	2086

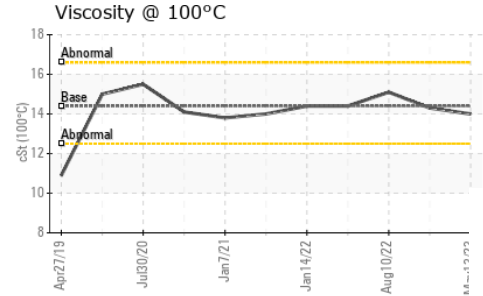
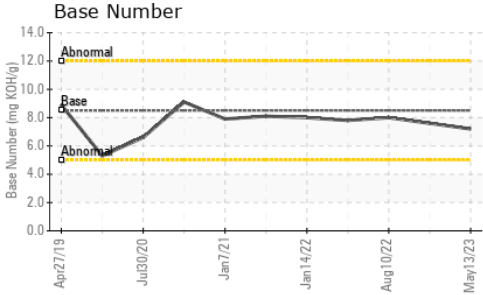
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	4	7	6
Sodium	ppm	ASTM D5185m	>158	0	2	4
Potassium	ppm	ASTM D5185m	>20	3	1	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.7	0.8	1
Nitration	Abs/cm	*ASTM D7624	>20	10.4	10.4	12.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.7	22.8	26.1

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.1	18.9	22.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.2	7.6	8



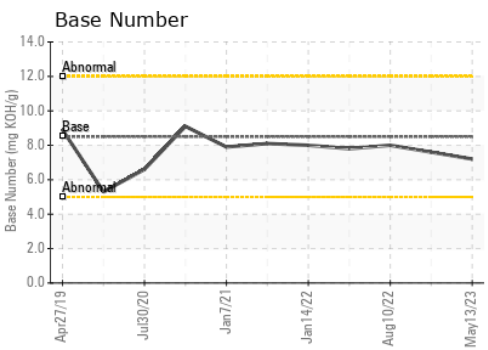
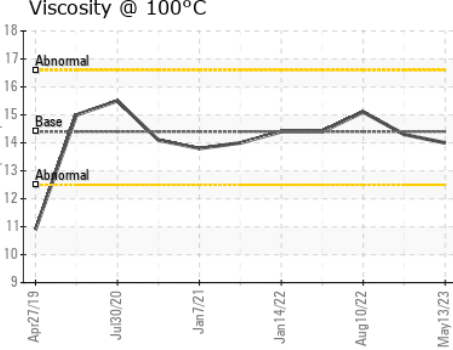
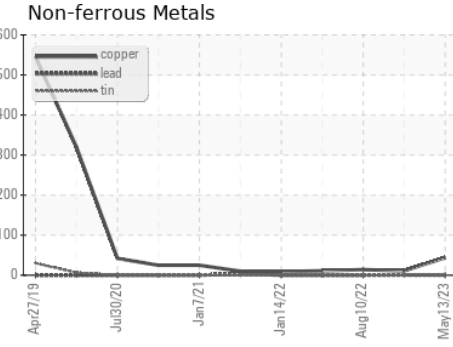
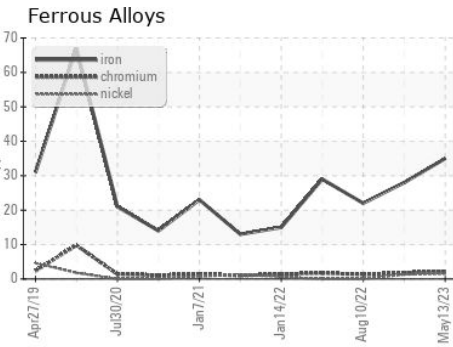
OIL ANALYSIS REPORT



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	14.0	14.3	15.1

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0742185
Lab Number : 05858840
Unique Number : 10493305
Test Package : FLEET

Received : 30 May 2023
Tested : 30 May 2023
Diagnosed : 30 May 2023 - Wes Davis

SALEM NATIONALEASE CORPORATION
 198 PARK PLAZA DRIVE
 WINSTON SALEM, NC
 US 27105

Contact: Audrey Hopkins
 Audrey.Hopkins@salemcorp.com
 T: (336)767-9642

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)

F: x: