



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
19004
 Component
Diesel Engine
 Fluid
SHELL ROTELLA T 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0954605	WC0883120	WC0795982
Sample Date		Client Info		25 Jun 2024	24 Apr 2024	28 Feb 2024
Machine Age	mls	Client Info		191828	167659	145042
Oil Age	mls	Client Info		0	0	25000
Filter Age	mls	Client Info		23000	0	25000
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	16	18	8
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	6	6
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	2	8	5
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

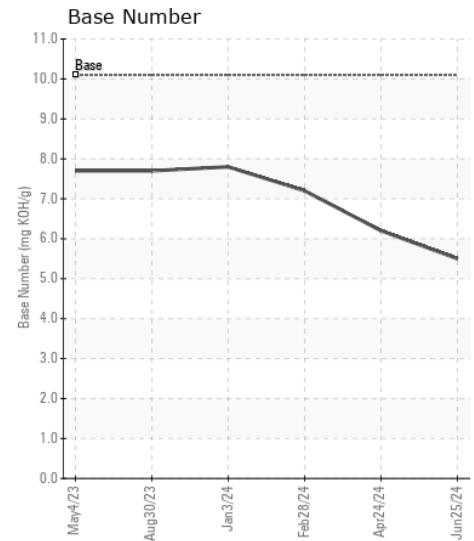
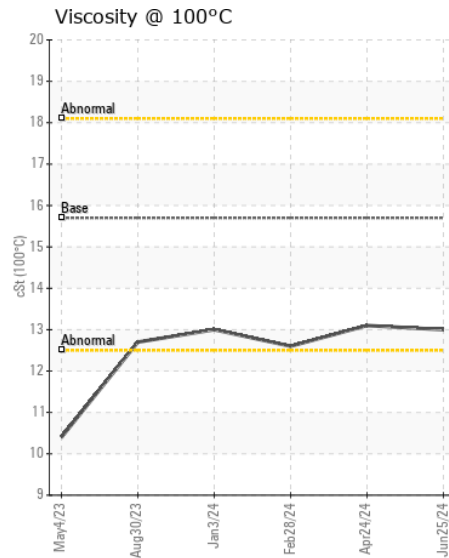
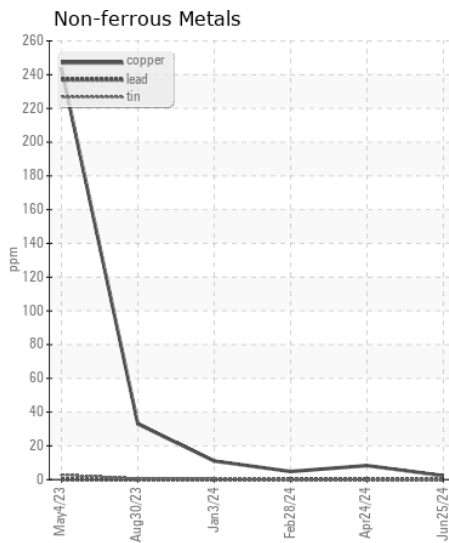
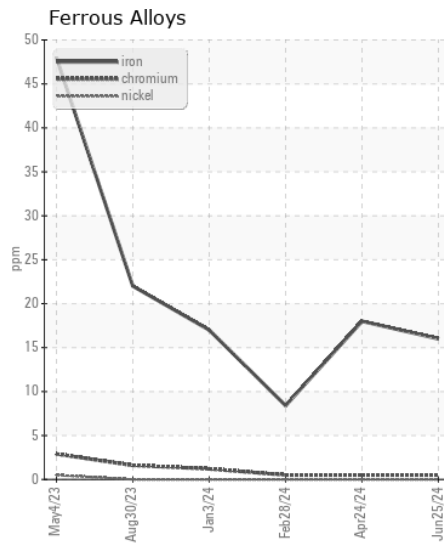
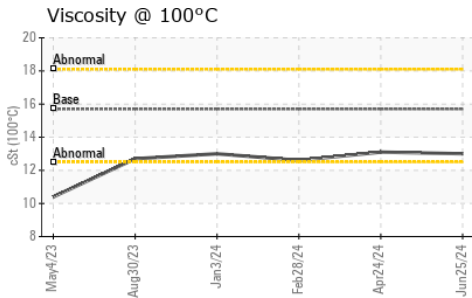
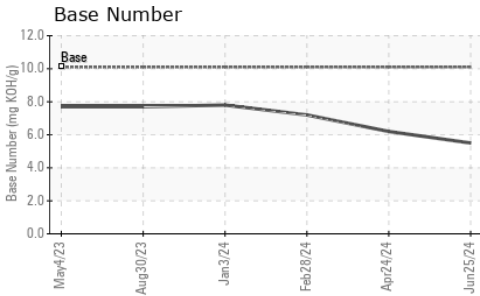
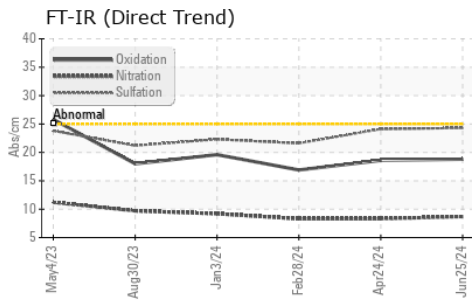
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	5	5
Potassium	ppm	ASTM D5185m	>20	8	7	9
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.8	0.7	0.7
Nitration	Abs/cm	*ASTM D7624	>20	8.7	8.3	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.3	24.1	21.6
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

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.

Sodium	ppm	ASTM D5185m		2	2	1
Boron	ppm	ASTM D5185m	316	118	247	203
Barium	ppm	ASTM D5185m	0.0	0	<1	0
Molybdenum	ppm	ASTM D5185m	1.2	87	90	78
Manganese	ppm	ASTM D5185m		<1	2	<1
Magnesium	ppm	ASTM D5185m	24	428	449	595
Calcium	ppm	ASTM D5185m	2292	1510	1449	1397
Phosphorus	ppm	ASTM D5185m	1064	1022	1065	1057
Zinc	ppm	ASTM D5185m	1160	1258	1273	1272
Sulfur	ppm	ASTM D5185m	4996	3374	3370	3471
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.8	18.6	16.9
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	5.5	6.2	7.2
Visc @ 100°C	cSt	ASTM D445	15.7	13.0	13.1	12.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0954605
Lab Number : 06229577
Unique Number : 11113070
Test Package : FLEET

Received : 05 Jul 2024
Tested : 08 Jul 2024
Diagnosed : 08 Jul 2024 - Wes Davis

SALEM NATIONALEASE CORPORATION
 198 PARK PLAZA DRIVE
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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)