



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
109561
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		IL0032925	IL0032955	IL0027485
Sample Date		Client Info		02 Jul 2024	01 Feb 2024	03 Jul 2023
Machine Age	mls	Client Info		69996	109044	59635
Oil Age	mls	Client Info		10361	22009	12714
Filter Age	mls	Client Info		10361	22009	12714
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	20	58	23
Chromium	ppm	ASTM D5185m	>20	<1	1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	15	9	28
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	2	3	2
Tin	ppm	ASTM D5185m	>15	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

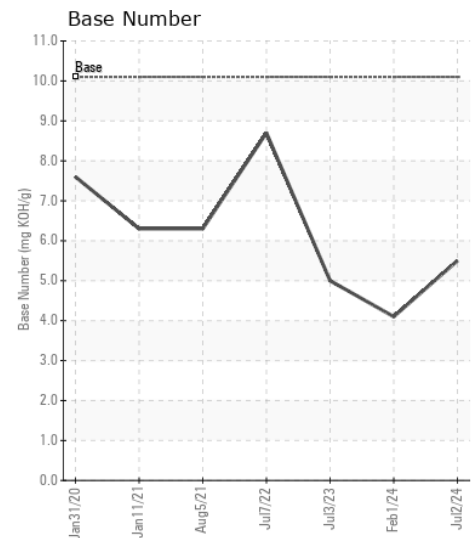
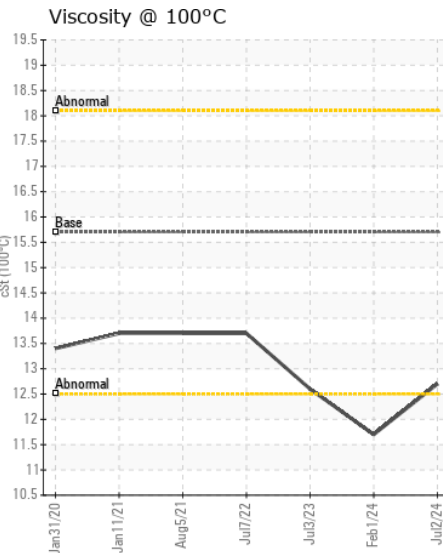
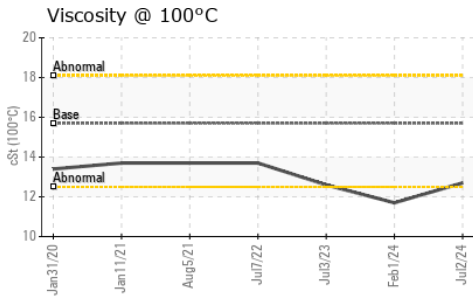
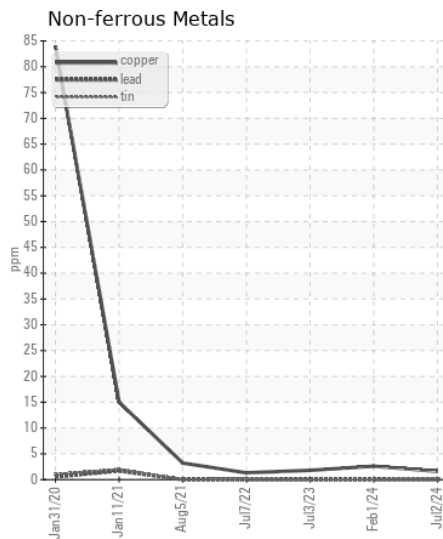
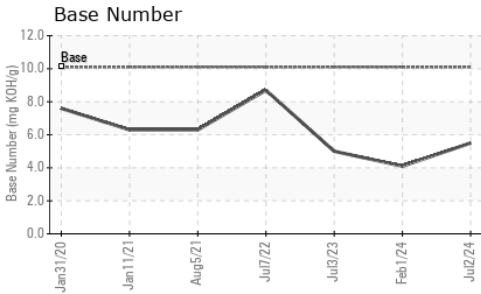
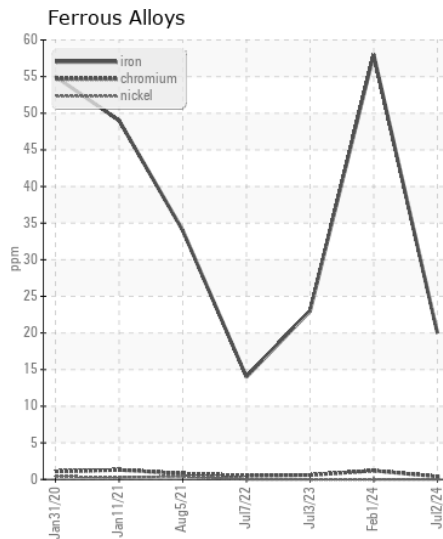
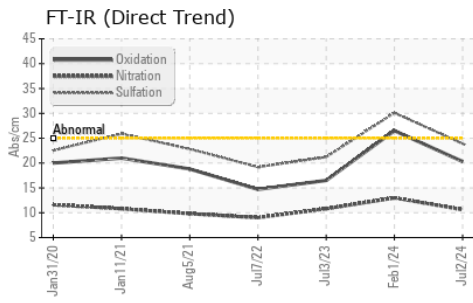
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	6	7
Potassium	ppm	ASTM D5185m	>20	28	24	38
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	0.5	0.8	0.4
Nitration	Abs/cm	*ASTM D7624	>20	10.6	13.0	10.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.9	30.1	21.2
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		0	2	1
Boron	ppm	ASTM D5185m	316	68	81	18
Barium	ppm	ASTM D5185m	0.0	<1	0	0
Molybdenum	ppm	ASTM D5185m	1.2	33	13	81
Manganese	ppm	ASTM D5185m		0	<1	1
Magnesium	ppm	ASTM D5185m	24	199	78	49
Calcium	ppm	ASTM D5185m	2292	2021	2813	2124
Phosphorus	ppm	ASTM D5185m	1064	813	1120	889
Zinc	ppm	ASTM D5185m	1160	1133	1525	1111
Sulfur	ppm	ASTM D5185m	4996	3094	4169	4180
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.3	26.5	16.5
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	5.5	4.1	5
Visc @ 100°C	cSt	ASTM D445	15.7	12.7	11.7	12.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : IL0032925

Lab Number : 06235606

Unique Number : 11124440

Test Package : FLEET

Received : 15 Jul 2024

Tested : 15 Jul 2024

Diagnosed : 15 Jul 2024 - Wes Davis

IDEALISE OF NORTHWEST WI

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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)