



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
115728

Component
Diesel Engine

Fluid
SHELL ROTELLA T 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IL0033087	IL0032737	IL0027482
Sample Date		Client Info		03 Jan 2024	03 Oct 2023	10 Jul 2023
Machine Age	mls	Client Info		128770	107352	85726
Oil Age	mls	Client Info		21418	21626	23068
Filter Age	mls	Client Info		21418	21626	23068
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	>90	35	27	34
Chromium	ppm	ASTM D5185m	>20	3	2	3
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	37	29	34
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	1	<1	2
Tin	ppm	ASTM D5185m	>15	0	0	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

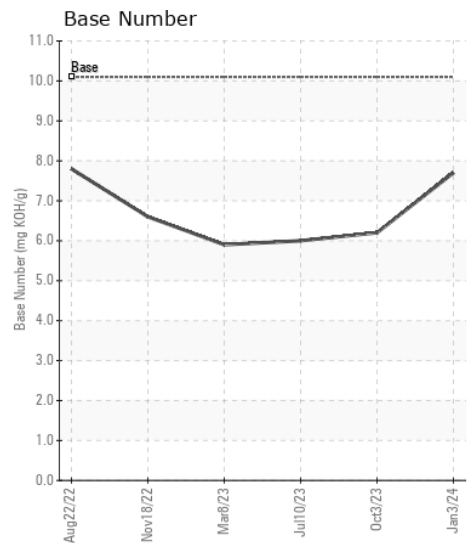
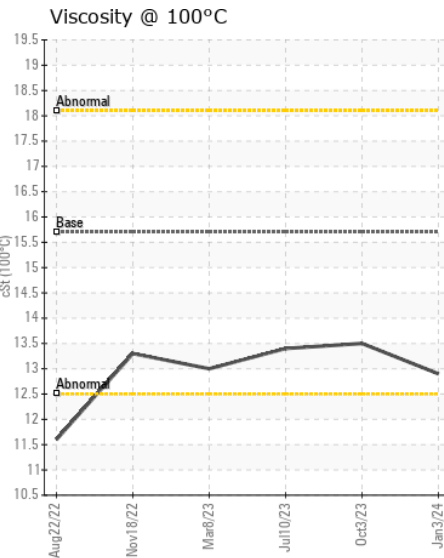
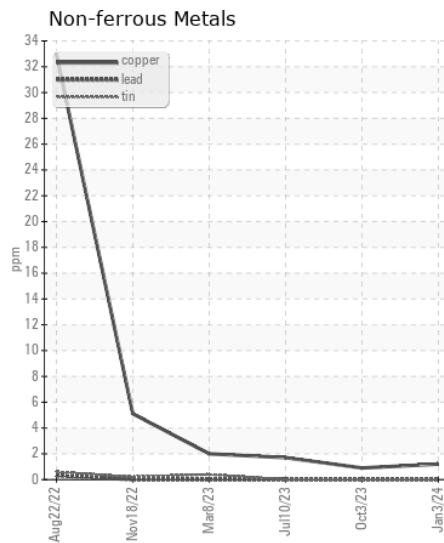
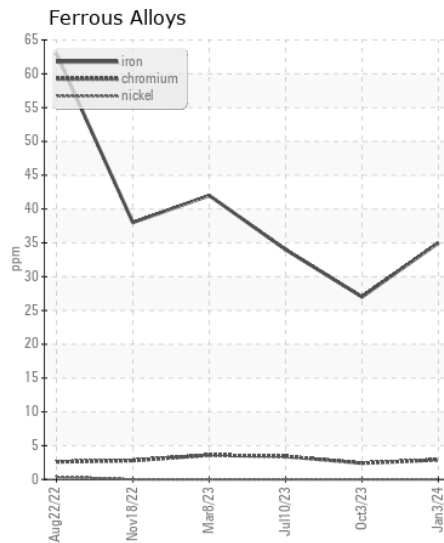
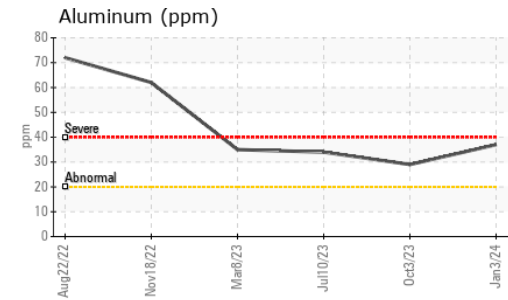
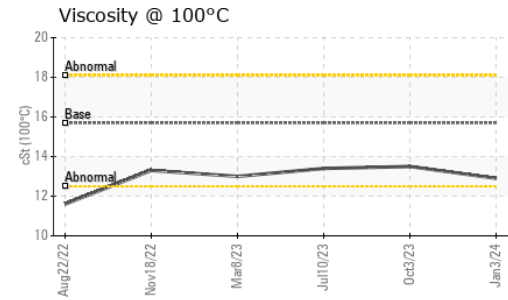
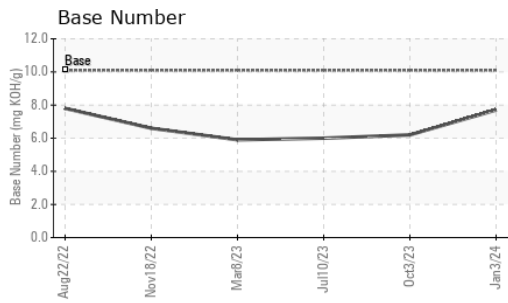
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	8	6	9
Potassium	ppm	ASTM D5185m	>20	42	56	48
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
Soot %	%	*ASTM D7844	>6	0.8	0.6	0.7
Nitration	Abs/cm	*ASTM D7624	>20	10.8	9.8	10.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.9	22.4	23.6
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	2
Boron	ppm	ASTM D5185m	316	35	43	26
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	1.2	48	29	39
Manganese	ppm	ASTM D5185m		0	<1	1
Magnesium	ppm	ASTM D5185m	24	455	223	149
Calcium	ppm	ASTM D5185m	2292	1616	1899	2206
Phosphorus	ppm	ASTM D5185m	1064	988	947	988
Zinc	ppm	ASTM D5185m	1160	1201	1216	1264
Sulfur	ppm	ASTM D5185m	4996	3195	3225	4009
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.7	19.1	19.7
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	7.7	6.2	6
Visc @ 100°C	cSt	ASTM D445	15.7	12.9	13.5	13.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL0033087 **Received** : 09 Jan 2024
Lab Number : 06055772 **Diagnosed** : 10 Jan 2024
Unique Number : 10821721 **Diagnostician** : Wes Davis
Test Package : FLEET

IDEALASE OF NORTHWEST WI
 611 HANSEN ROAD
 GREEN BAY, WI
 US 54304
 Contact: GARY KOLTZ
 gkoltz@pcitrucks.com
 T: (920)499-6200
 F: (920)499-5332

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)