



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
142453
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm.
 Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IL06241316	IL06139623	---
Sample Date		Client Info		21 Jun 2024	15 Mar 2024	---
Machine Age	hrs	Client Info		0	859	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	N/A	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	20	85	---
Chromium	ppm	ASTM D5185m	>20	<1	2	---
Nickel	ppm	ASTM D5185m	>4	0	1	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>20	5	13	---
Lead	ppm	ASTM D5185m	>40	0	<1	---
Copper	ppm	ASTM D5185m	>330	5	56	---
Tin	ppm	ASTM D5185m	>15	0	1	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	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.

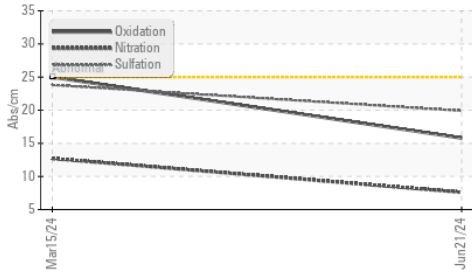
Silicon	ppm	ASTM D5185m	>25	6	26	---
Potassium	ppm	ASTM D5185m	>20	11	32	---
Fuel		WC Method	>5	<1.0	1.7	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.3	0.8	---
Nitration	Abs/cm	*ASTM D7624	>20	7.6	12.7	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.9	23.8	---
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	---

FLUID CONDITION

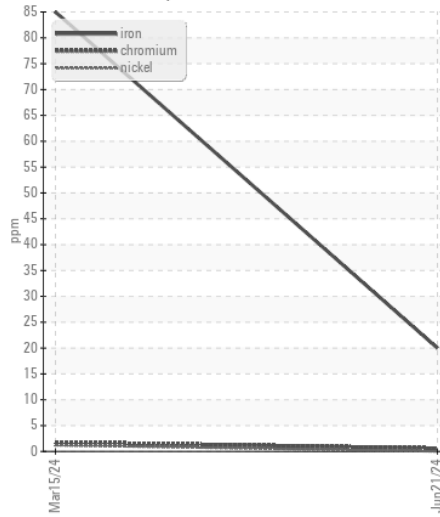
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>216	2	7	---
Boron	ppm	ASTM D5185m	250	8	24	---
Barium	ppm	ASTM D5185m	10	0	0	---
Molybdenum	ppm	ASTM D5185m	100	60	48	---
Manganese	ppm	ASTM D5185m		<1	6	---
Magnesium	ppm	ASTM D5185m	450	917	771	---
Calcium	ppm	ASTM D5185m	3000	1136	1180	---
Phosphorus	ppm	ASTM D5185m	1150	973	675	---
Zinc	ppm	ASTM D5185m	1350	1163	877	---
Sulfur	ppm	ASTM D5185m	4250	3514	2501	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.8	25.0	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.3	5.8	---
Visc @ 100°C	cSt	ASTM D445	14.4	12.8	11.7	---

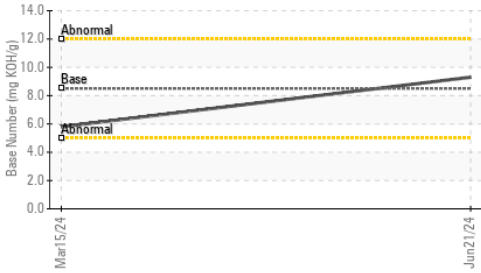
FT-IR (Direct Trend)



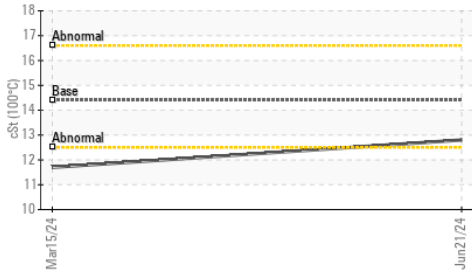
Ferrous Alloys



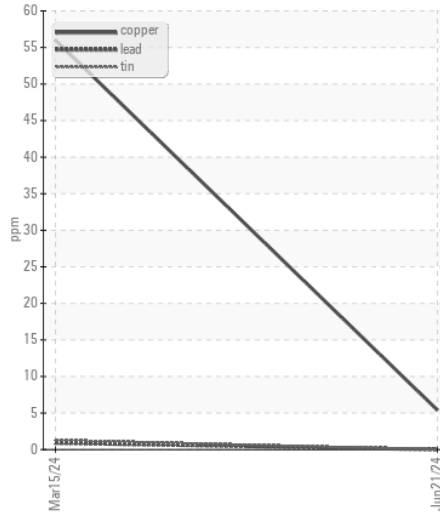
Base Number



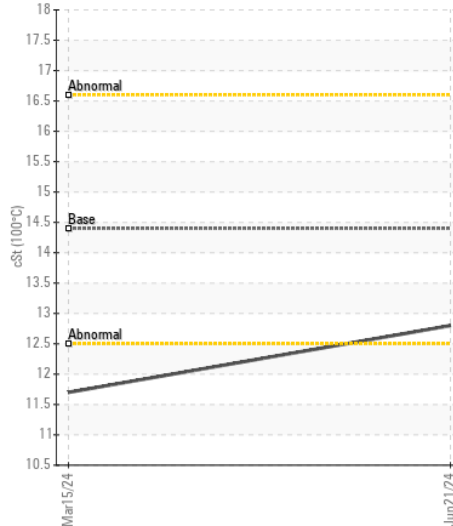
Viscosity @ 100°C



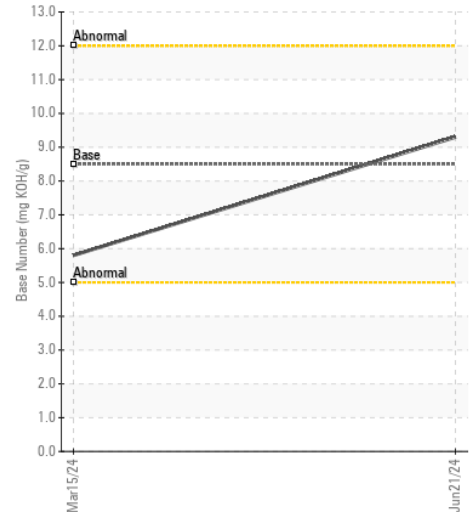
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL06241316
Lab Number : 06241316
Unique Number : 11130150
Test Package : FLEET

Received : 19 Jul 2024
Tested : 20 Jul 2024
Diagnosed : 20 Jul 2024 - Wes Davis

RUSH TRUCK LEASING - CINCINNATI IDEALEASE
 11777 HIGHWAY DRIVE
 CINCINNATI, OH
 US 45241

Contact: ROBERT BAIER
 baierr@rushenterprises.com

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)

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