



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
168421
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		IL06217728	IL06035581	IL05951240
Sample Date		Client Info		13 Jun 2024	22 Nov 2023	23 Aug 2023
Machine Age	hrs	Client Info		3452	2065	1396
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	28	25	13
Chromium	ppm	ASTM D5185m	>20	1	1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	<1	<1	0
Aluminum	ppm	ASTM D5185m	>20	2	4	8
Lead	ppm	ASTM D5185m	>40	3	4	0
Copper	ppm	ASTM D5185m	>330	2	6	2
Tin	ppm	ASTM D5185m	>15	<1	2	<1
Vanadium	ppm	ASTM D5185m		<1	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.

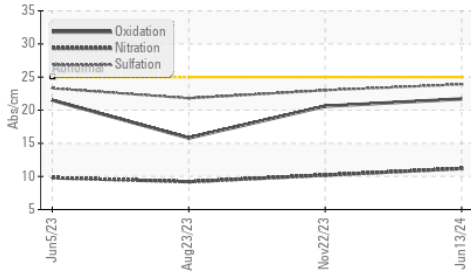
Silicon	ppm	ASTM D5185m	>25	7	11	6
Potassium	ppm	ASTM D5185m	>20	3	15	7
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.3	1.5
Nitration	Abs/cm	*ASTM D7624	>20	11.2	10.2	9.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.9	23.0	21.8
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

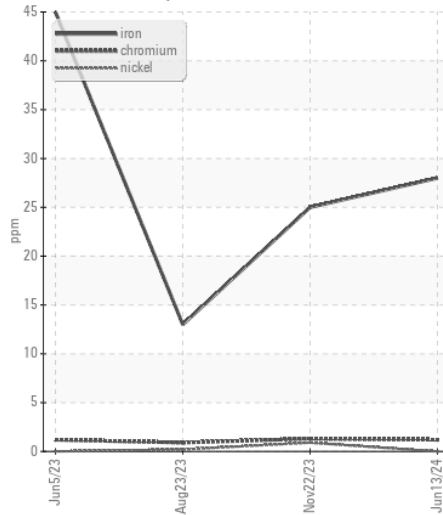
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>216	1	0	2
Boron	ppm	ASTM D5185m	250	2	2	3
Barium	ppm	ASTM D5185m	10	0	13	0
Molybdenum	ppm	ASTM D5185m	100	62	60	58
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m	450	960	891	948
Calcium	ppm	ASTM D5185m	3000	1179	1135	1135
Phosphorus	ppm	ASTM D5185m	1150	1056	928	1027
Zinc	ppm	ASTM D5185m	1350	1324	1207	1276
Sulfur	ppm	ASTM D5185m	4250	3221	3138	3738
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.7	20.6	15.8
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.7	6.5	8.7
Visc @ 100°C	cSt	ASTM D445	14.4	12.7	13.3	14.3

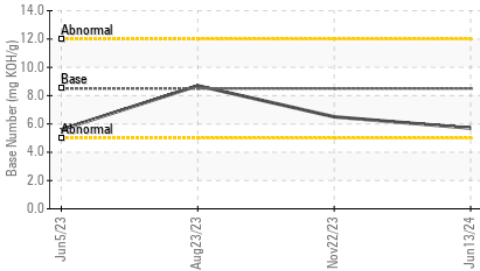
FT-IR (Direct Trend)



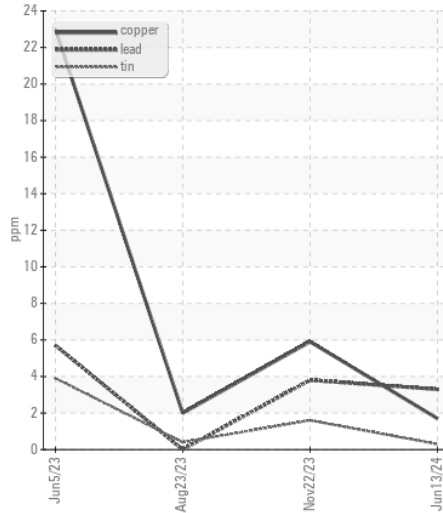
Ferrous Alloys



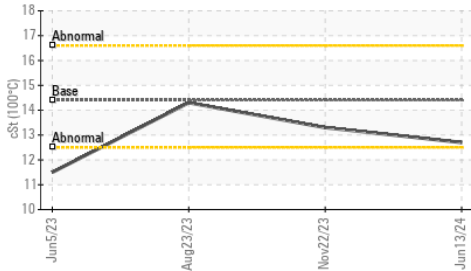
Base Number



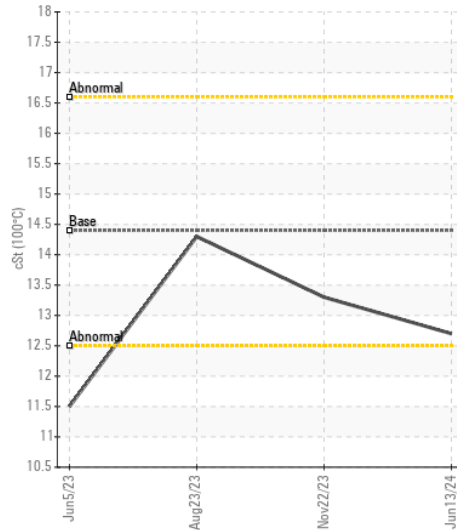
Non-ferrous Metals



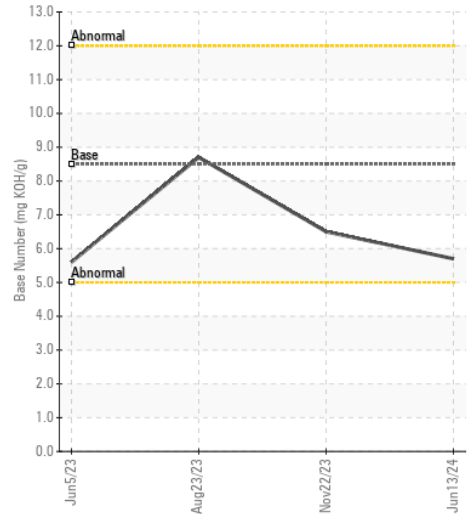
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL06217728
Lab Number : 06217728
Unique Number : 11090592
Test Package : FLEET

Received : 24 Jun 2024
Tested : 25 Jun 2024
Diagnosed : 25 Jun 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)

T: (513)657-7901
 F: (513)733-0537