



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
162123
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IL06151627	IL05982185	IL05832362
Sample Date		Client Info		04 Mar 2024	14 Sep 2023	05 Apr 2023
Machine Age	hrs	Client Info		6552	5325	4418
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	19	13	19
Chromium	ppm	ASTM D5185m	>20	1	<1	1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	4	3
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	1	<1	1
Tin	ppm	ASTM D5185m	>15	0	0	0
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.

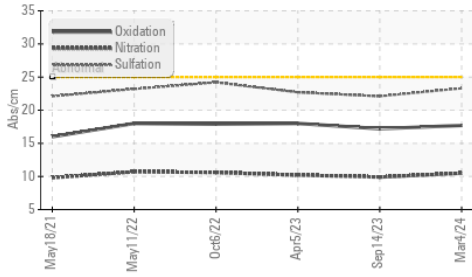
Silicon	ppm	ASTM D5185m	>25	6	6	9
Potassium	ppm	ASTM D5185m	>20	4	7	3
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.4	0.7	1
Nitration	Abs/cm	*ASTM D7624	>20	10.5	9.9	10.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.3	22.1	22.7
Silt	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

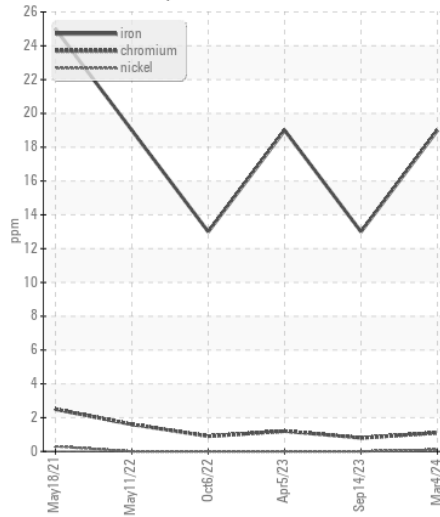
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>216	3	1	1
Boron	ppm	ASTM D5185m	250	5	9	4
Barium	ppm	ASTM D5185m	10	0	<1	0
Molybdenum	ppm	ASTM D5185m	100	70	62	57
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	899	916	946
Calcium	ppm	ASTM D5185m	3000	1197	1138	1278
Phosphorus	ppm	ASTM D5185m	1150	938	957	971
Zinc	ppm	ASTM D5185m	1350	1110	1194	1287
Sulfur	ppm	ASTM D5185m	4250	3360	2894	3282
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.7	17.2	18.0
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.3	7.0	5.5
Visc @ 100°C	cSt	ASTM D445	14.4	13.2	13.8	13.9

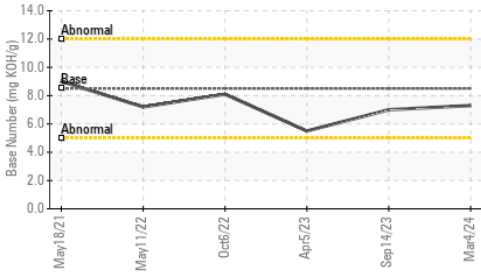
FT-IR (Direct Trend)



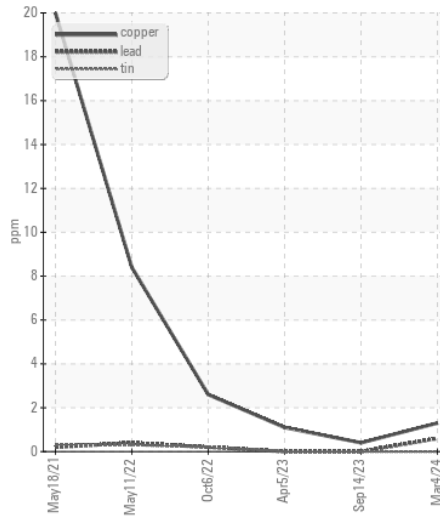
Ferrous Alloys



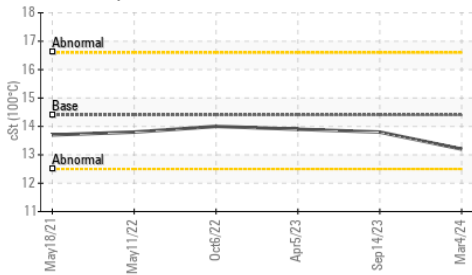
Base Number



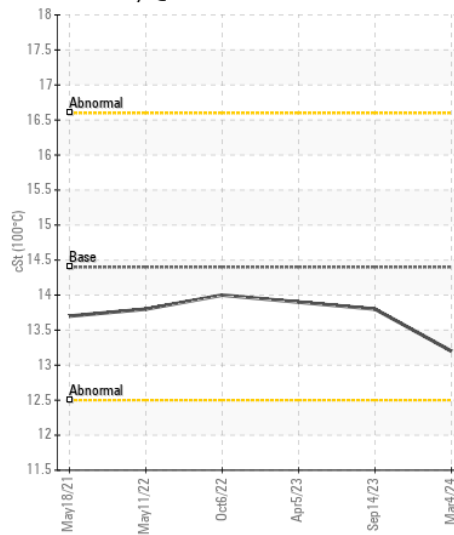
Non-ferrous Metals



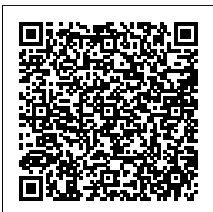
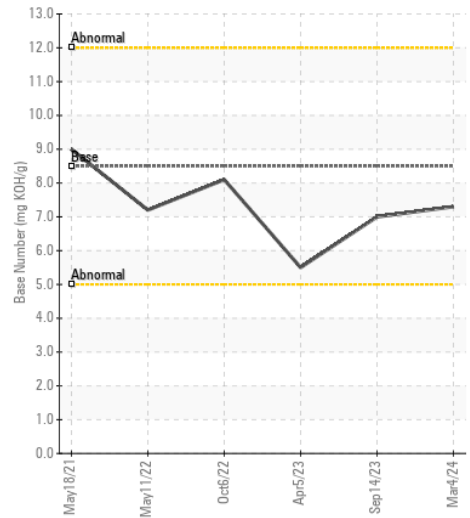
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : IL06151627
 Lab Number : 06151627
 Unique Number : 10981705
 Test Package : FLEET

Received : 17 Apr 2024
 Tested : 18 Apr 2024
 Diagnosed : 18 Apr 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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