



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
4593L
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IL0034325	IL0032391	IL0028847
Sample Date		Client Info		28 Apr 2024	09 Oct 2023	14 Apr 2023
Machine Age	mls	Client Info		98204	85892	69213
Oil Age	mls	Client Info		15000	0	0
Filter Age	mls	Client Info		15000	0	0
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	64	91	163
Chromium	ppm	ASTM D5185m	>20	1	2	2
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	11	20	23
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	0	5	2
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

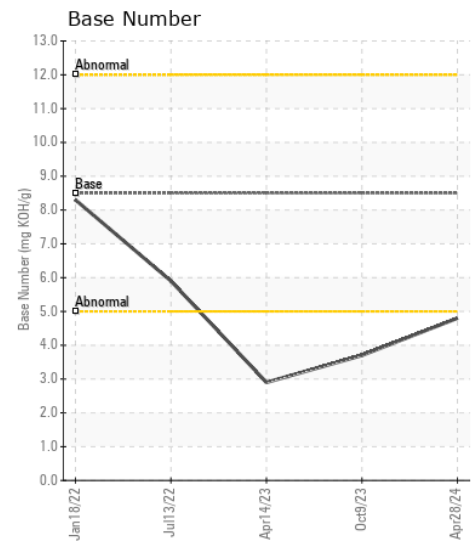
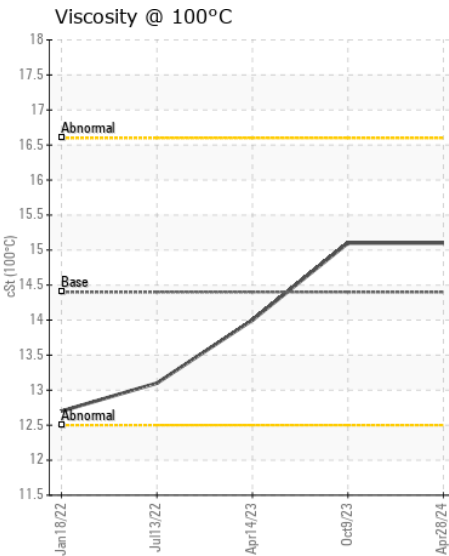
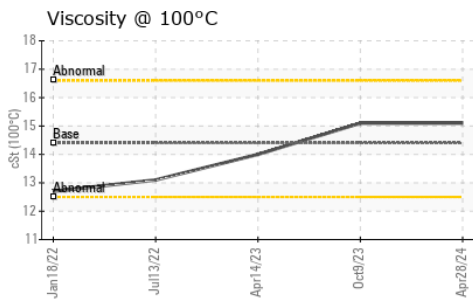
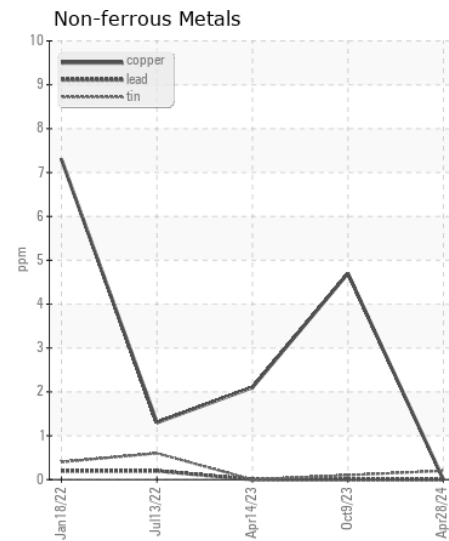
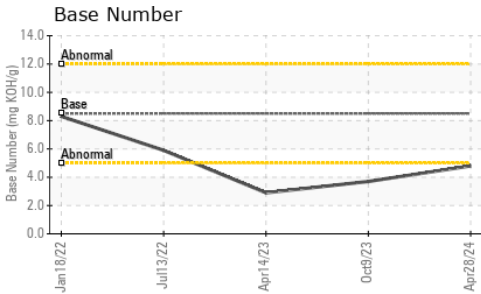
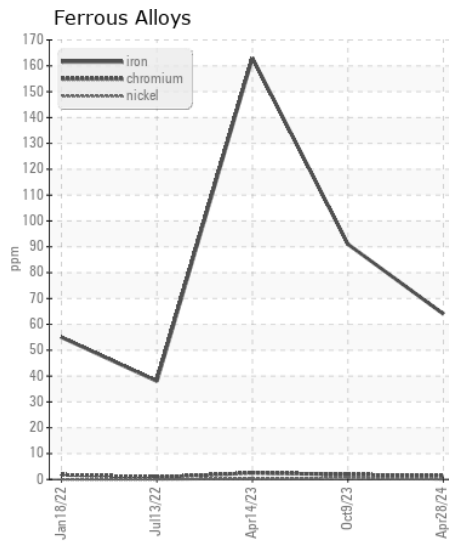
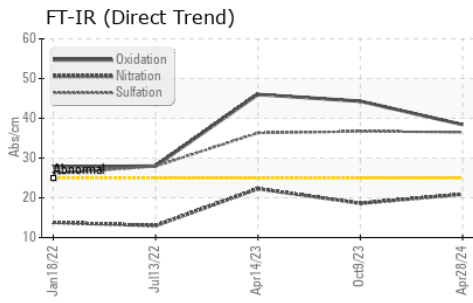
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	8	8
Potassium	ppm	ASTM D5185m	>20	16	38	37
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	2.4	1.5	2.1
Nitration	Abs/cm	*ASTM D7624	>20	20.9	18.6	22.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	36.5	36.7	36.3
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	>158	2	2	3
Boron	ppm	ASTM D5185m	250	2	<1	2
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	64	67	55
Manganese	ppm	ASTM D5185m		<1	<1	2
Magnesium	ppm	ASTM D5185m	450	960	1014	925
Calcium	ppm	ASTM D5185m	3000	1093	1085	1120
Phosphorus	ppm	ASTM D5185m	1150	1047	1033	991
Zinc	ppm	ASTM D5185m	1350	1248	1293	1243
Sulfur	ppm	ASTM D5185m	4250	3256	3260	2899
Oxidation	Abs/.1mm	*ASTM D7414	>25	38.4	44.3	46.0
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	4.8	▲ 3.7	▲ 2.9
Visc @ 100°C	cSt	ASTM D445	14.4	15.1	15.1	14.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL0034325
Lab Number : 06175158
Unique Number : 11021211
Test Package : FLEET

Received : 10 May 2024
Tested : 11 May 2024
Diagnosed : 13 May 2024 - Don Baldrige

RUSH TRUCK CENTER - CHICAGO IDEALEASE
 4655 SOUTH CENTRAL AVENUE
 CHICAGO, IL
 US 60638

Contact: MIKE LINLEY
 linleym@rushtruckcenters.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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