IDEALEASE FLEET

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
3636L
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

We advise that you check the fuel injection system. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

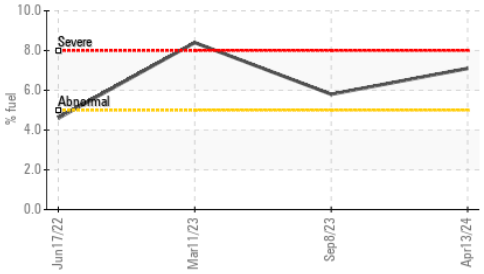
There is a moderate amount of fuel present in the oil. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components.

FLUID CONDITION

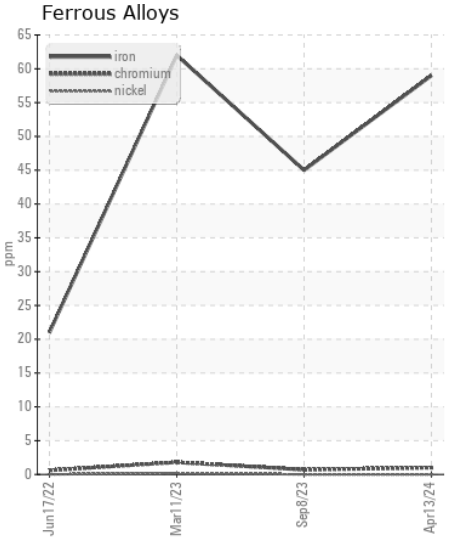
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IL06175112	IL0032381	IL0025818
Sample Date		Client Info		13 Apr 2024	08 Sep 2023	11 Mar 2023
Machine Age	mls	Client Info		0	76401	61930
Oil Age	mls	Client Info		15000	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	SEVERE
Iron	ppm	ASTM D5185m	>100	59	45	62
Chromium	ppm	ASTM D5185m	>20	1	<1	2
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	35	26	46
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	1	1	3
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	8	6	10
Potassium	ppm	ASTM D5185m	>20	44	38	94
Fuel	%	ASTM D3524	>5	▲ 7.1	▲ 5.8	▲ 8.4
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.4	1.4	1.5
Nitration	Abs/cm	*ASTM D7624	>20	13.4	12.3	13.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.8	28.4	31.0
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
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
Sodium	ppm	ASTM D5185m	>158	3	1	2
Boron	ppm	ASTM D5185m	250	27	0	4
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	39	60	53
Manganese	ppm	ASTM D5185m		1	<1	2
Magnesium	ppm	ASTM D5185m	450	476	955	795
Calcium	ppm	ASTM D5185m	3000	1522	1036	1135
Phosphorus	ppm	ASTM D5185m	1150	679	930	788
Zinc	ppm	ASTM D5185m	1350	793	1201	1044
Sulfur	ppm	ASTM D5185m	4250	2318	3229	2774
Oxidation	Abs/.1mm	*ASTM D7414	>25	36.1	30.6	33.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.0	6.0	5.3
Visc @ 100°C	cSt	ASTM D445	14.4	▲ 11.2	▲ 12.2	▲ 11.6

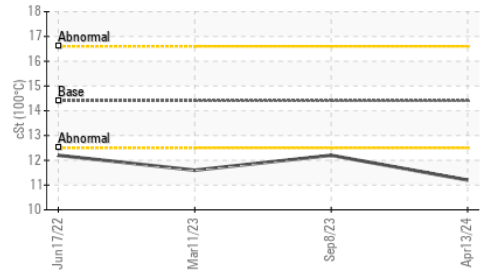
Fuel Dilution



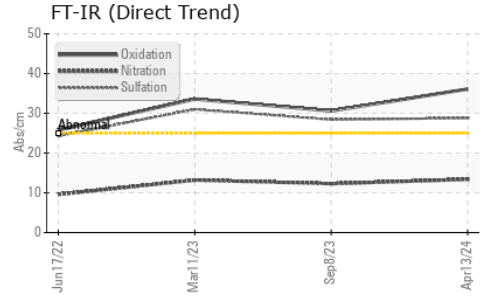
Ferrous Alloys



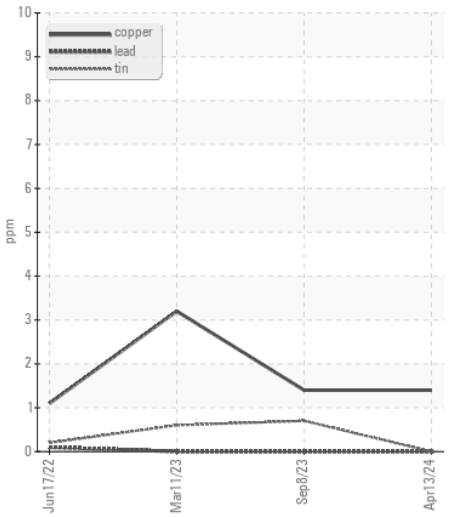
Viscosity @ 100°C



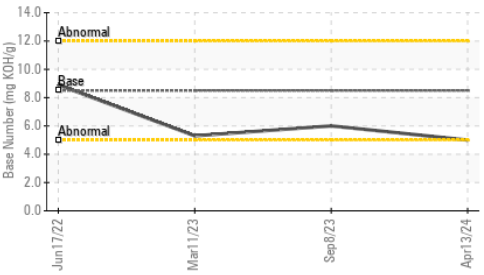
FT-IR (Direct Trend)



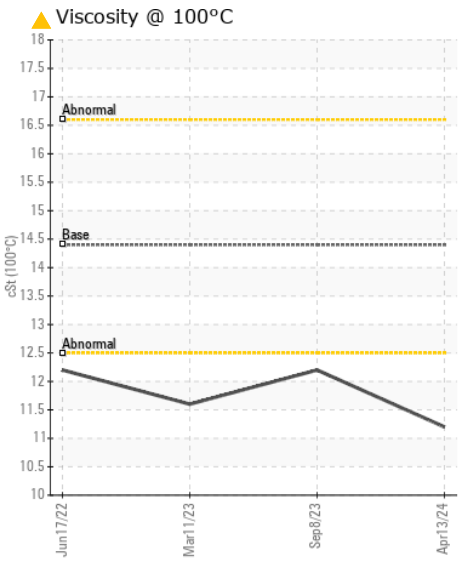
Non-ferrous Metals



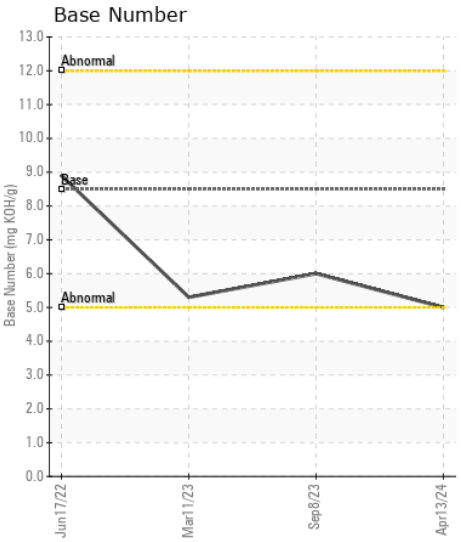
Base Number



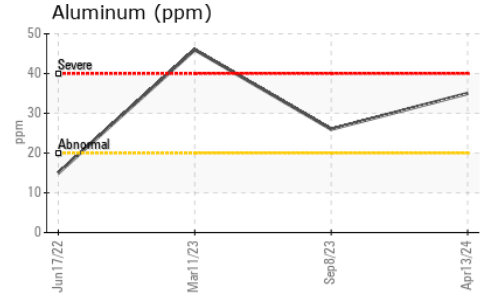
Viscosity @ 100°C



Base Number



Aluminum (ppm)



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL06175112
Lab Number : 06175112
Unique Number : 11021165
Test Package : FLEET (Additional Tests: PercentFuel)

Received : 10 May 2024
Tested : 15 May 2024
Diagnosed : 15 May 2024 - Don Baldridge

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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