IDEALEASE

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL

Machine Id
142132
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- QTS)

RECOMMENDATION

No corrective action is recommended at this time. 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.

WEAR

All component wear rates are normal.

CONTAMINATION

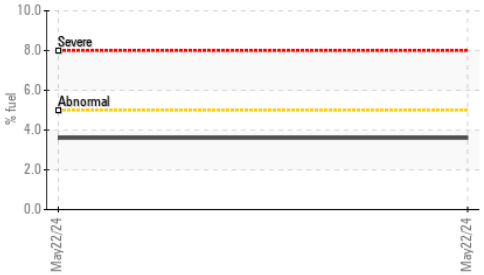
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Light fuel dilution occurring. No other contaminants were detected in the oil.

FLUID CONDITION

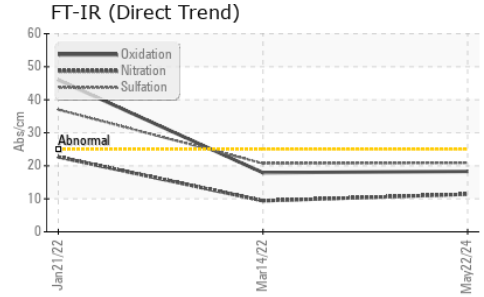
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IL06217725	IL05496502	IL05481050
Sample Date		Client Info		22 May 2024	14 Mar 2022	21 Jan 2022
Machine Age	hrs	Client Info		4144	1415	1668
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				MARGINAL	NORMAL	SEVERE
Iron	ppm	ASTM D5185m	>100	29	30	▲ 259
Chromium	ppm	ASTM D5185m	>20	<1	<1	4
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	15	9	▲ 44
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	2	3	31
Tin	ppm	ASTM D5185m	>15	0	<1	1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	4	7	▲ 44
Potassium	ppm	ASTM D5185m	>20	32	23	136
Fuel	%	ASTM D3524	>5	▲ 3.6	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.7	0.3	1.4
Nitration	Abs/cm	*ASTM D7624	>20	11.4	9.4	22.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.9	20.7	37.0
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
Sodium	ppm	ASTM D5185m	>216	1	2	6
Boron	ppm	ASTM D5185m	250	3	12	17
Barium	ppm	ASTM D5185m	10	0	0	8
Molybdenum	ppm	ASTM D5185m	100	63	54	52
Manganese	ppm	ASTM D5185m		<1	1	9
Magnesium	ppm	ASTM D5185m	450	968	908	860
Calcium	ppm	ASTM D5185m	3000	1164	1156	1266
Phosphorus	ppm	ASTM D5185m	1150	1088	975	785
Zinc	ppm	ASTM D5185m	1350	1296	1123	990
Sulfur	ppm	ASTM D5185m	4250	3689	2648	1967
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.3	17.9	46.0
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.0	10.3	3.3
Visc @ 100°C	cSt	ASTM D445	14.4	12.4	12.8	14.4

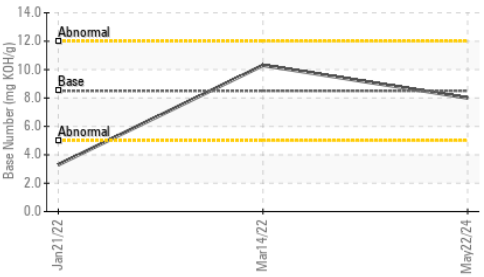
Fuel Dilution



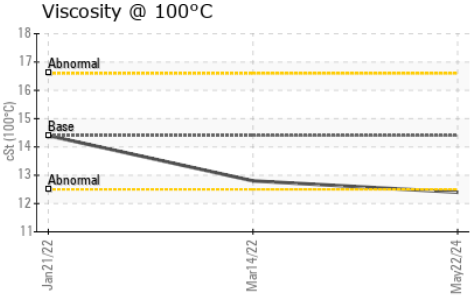
FT-IR (Direct Trend)



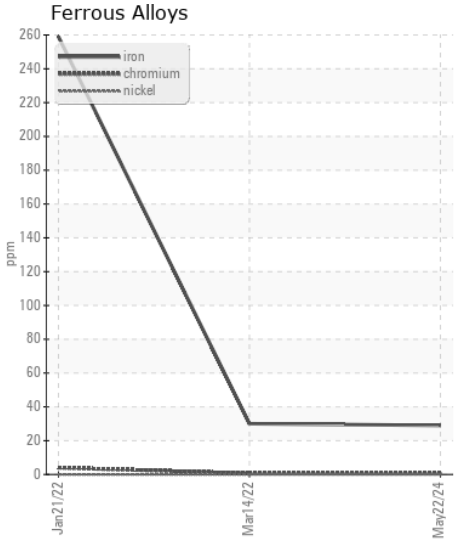
Base Number



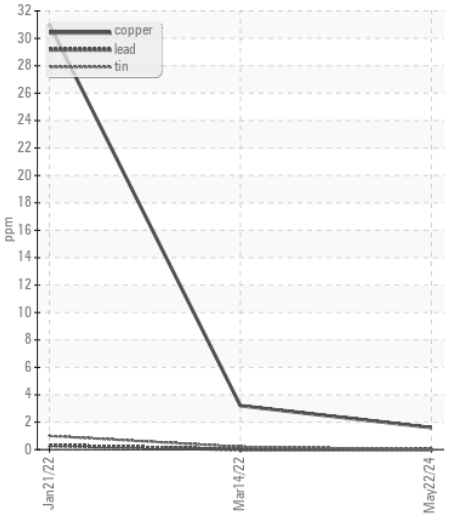
Viscosity @ 100°C



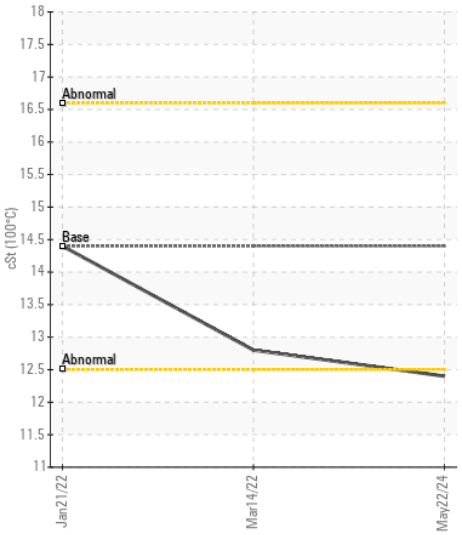
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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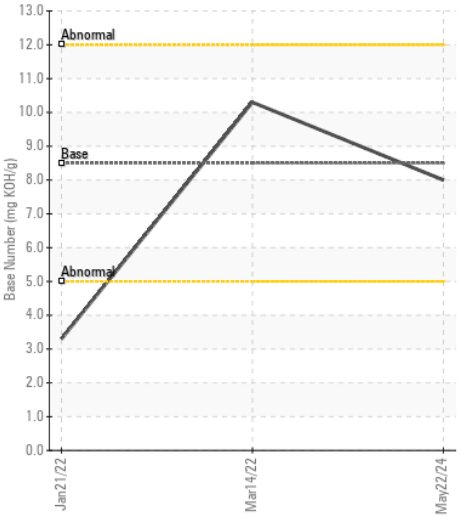

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL06217725
Lab Number : 06217725
Unique Number : 11090589
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

Received : 24 Jun 2024
Tested : 26 Jun 2024
Diagnosed : 26 Jun 2024 - Wes Davis

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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