MOB II HIGH PERFORMANCE LUBRICANTS

OIL ANALYSIS REPORT

WEAR	ATTENTION
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
FORD F350 4
Component
Diesel Engine
Fluid
HIGH PERFORMANCE LUBRICANTS HDMO 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

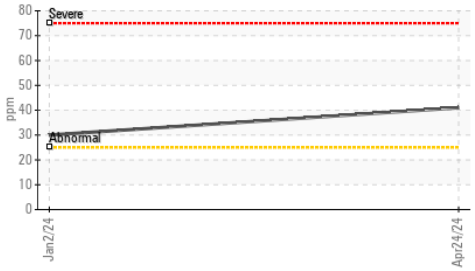
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

FLUID CONDITION

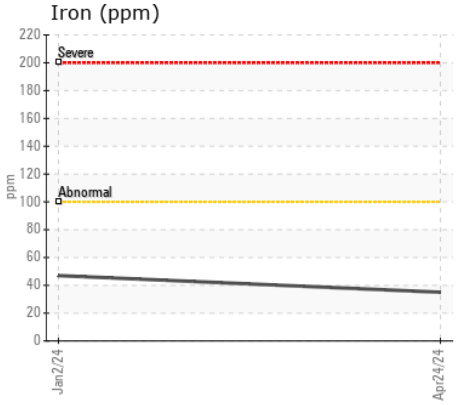
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		HPL0002482	HPL0002480	---
Sample Date		Client Info		24 Apr 2024	02 Jan 2024	---
Machine Age	mls	Client Info		277729	273678	---
Oil Age	mls	Client Info		4050	0	---
Filter Age	mls	Client Info		4050	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	ABNORMAL	---
Iron	ppm	ASTM D5185m	>100	35	47	---
Chromium	ppm	ASTM D5185m	>20	2	2	---
Nickel	ppm	ASTM D5185m	>4	2	<1	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>20	9	5	---
Lead	ppm	ASTM D5185m	>40	6	10	---
Copper	ppm	ASTM D5185m	>330	5	5	---
Tin	ppm	ASTM D5185m	>15	1	1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>25	▲ 41	▲ 30	---
Potassium	ppm	ASTM D5185m	>20	5	6	---
Fuel		WC Method	>5	<1.0	▲ 2.2	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.1	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	11.6	7.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	33.4	18.7	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---
Sodium	ppm	ASTM D5185m		7	10	---
Boron	ppm	ASTM D5185m	200	4	13	---
Barium	ppm	ASTM D5185m		<1	<1	---
Molybdenum	ppm	ASTM D5185m	85	443	65	---
Manganese	ppm	ASTM D5185m		1	<1	---
Magnesium	ppm	ASTM D5185m	525	964	929	---
Calcium	ppm	ASTM D5185m	4300	2209	1133	---
Phosphorus	ppm	ASTM D5185m	1000	1132	996	---
Zinc	ppm	ASTM D5185m	1100	1235	1151	---
Sulfur	ppm	ASTM D5185m	20200	8285	3082	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	37.0	15.6	---
Base Number (BN)	mg KOH/g	ASTM D2896	14.5	12.70	9.72	---
Visc @ 100°C	cSt	ASTM D445	14.5	13.4	▲ 12.3	---

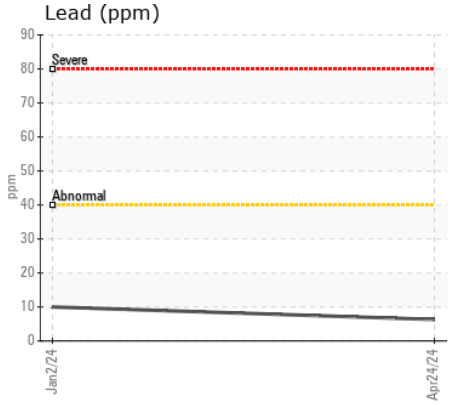
Silicon (ppm)



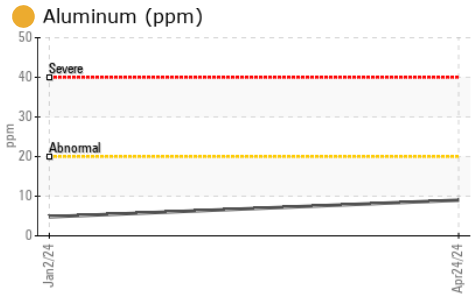
Iron (ppm)



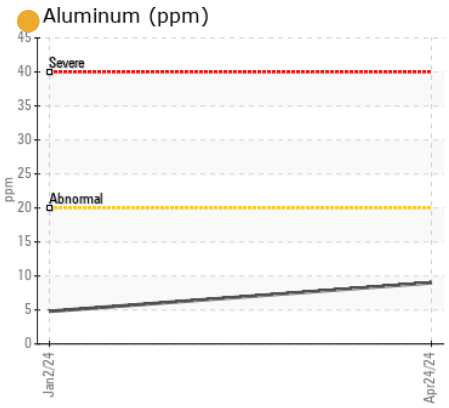
Lead (ppm)



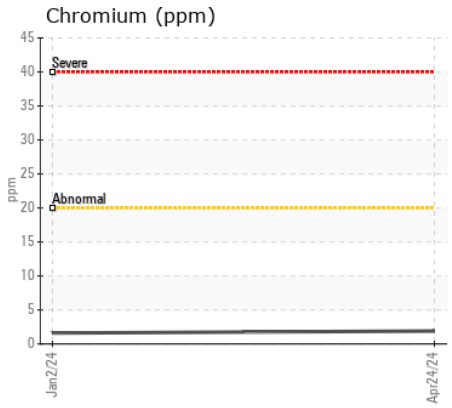
Aluminum (ppm)



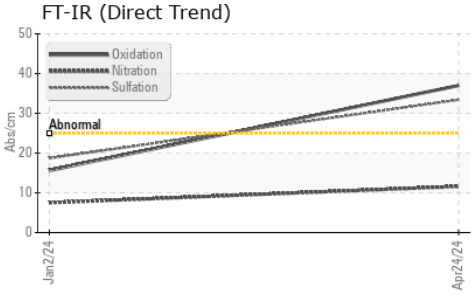
Aluminum (ppm)



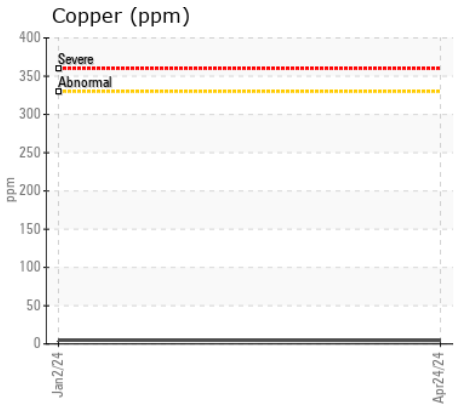
Chromium (ppm)



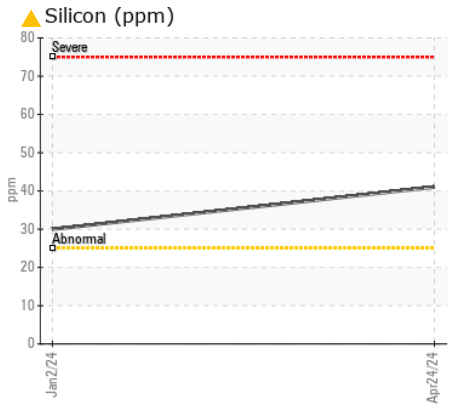
FT-IR (Direct Trend)



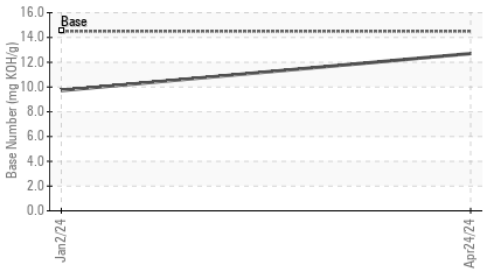
Copper (ppm)



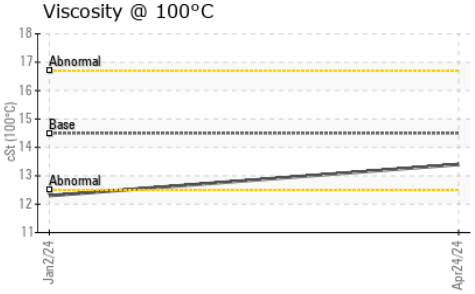
Silicon (ppm)



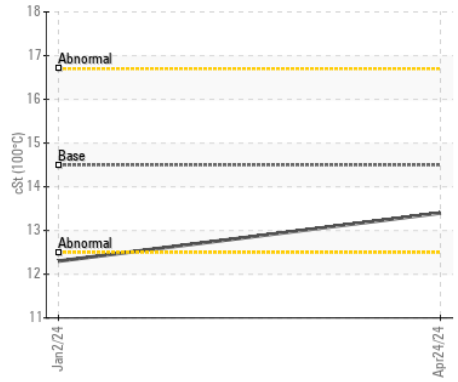
Base Number



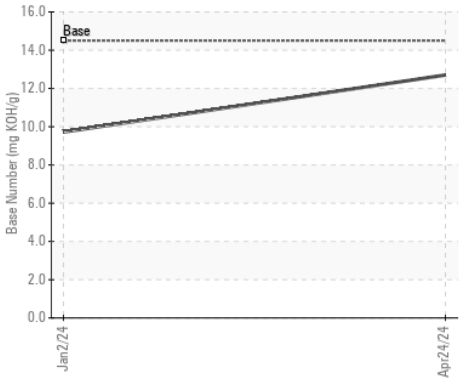
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : HPL0002482
Lab Number : 06160587
Unique Number : 10996010
Test Package : MOB 2

Received : 25 Apr 2024
Tested : 26 Apr 2024
Diagnosed : 26 Apr 2024 - Sean Felton

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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