James River Equipment

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Machine Id
JOHN DEERE 344L L-5 (S/N 1LU344LXKZB057685)
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

The lead level is abnormal. All other component wear rates are normal.

CONTAMINATION

There is a high amount of fuel present in the oil.

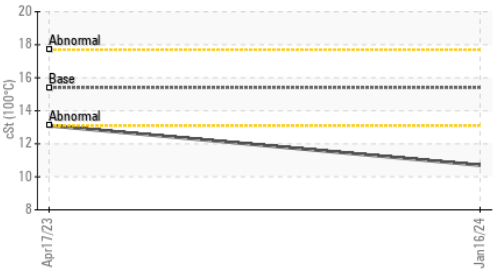
FLUID CONDITION

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

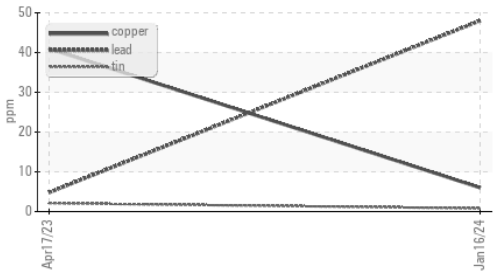
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0196388	JR0160803	---
Sample Date		Client Info		16 Jan 2024	17 Apr 2023	---
Machine Age	hrs	Client Info		1554	1030	---
Oil Age	hrs	Client Info		524	502	---
Filter Age	hrs	Client Info		524	502	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				SEVERE	ABNORMAL	---
Iron	ppm	ASTM D5185m	>51	28	▲ 91	---
Chromium	ppm	ASTM D5185m	>11	<1	1	---
Nickel	ppm	ASTM D5185m	>5	0	<1	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>31	3	9	---
Lead	ppm	ASTM D5185m	>26	▲ 48	5	---
Copper	ppm	ASTM D5185m	>26	6	▲ 41	---
Tin	ppm	ASTM D5185m	>4	<1	2	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>22	7	12	---
Potassium	ppm	ASTM D5185m	>20	3	3	---
Fuel	%	ASTM D3524	>2.1	⬢ 10.0	<1.0	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.9	0.8	---
Nitration	Abs/cm	*ASTM D7624	>20	11.3	9.3	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.7	24.0	---
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	>0.21	NEG	NEG	---
Sodium	ppm	ASTM D5185m	>31	0	4	---
Boron	ppm	ASTM D5185m		74	164	---
Barium	ppm	ASTM D5185m		4	0	---
Molybdenum	ppm	ASTM D5185m		229	266	---
Manganese	ppm	ASTM D5185m		<1	3	---
Magnesium	ppm	ASTM D5185m		767	835	---
Calcium	ppm	ASTM D5185m		1173	1506	---
Phosphorus	ppm	ASTM D5185m		695	928	---
Zinc	ppm	ASTM D5185m		840	1128	---
Sulfur	ppm	ASTM D5185m		2831	3316	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.1	17.4	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	6.4	6.7	---
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 10.7	13.1	---

Fuel Dilution

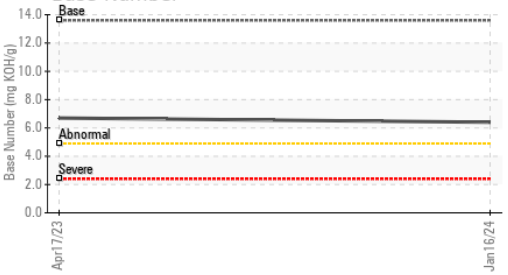
Viscosity @ 100°C



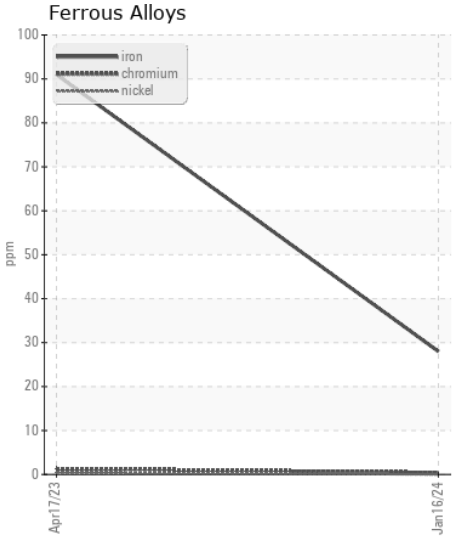
Non-ferrous Metals



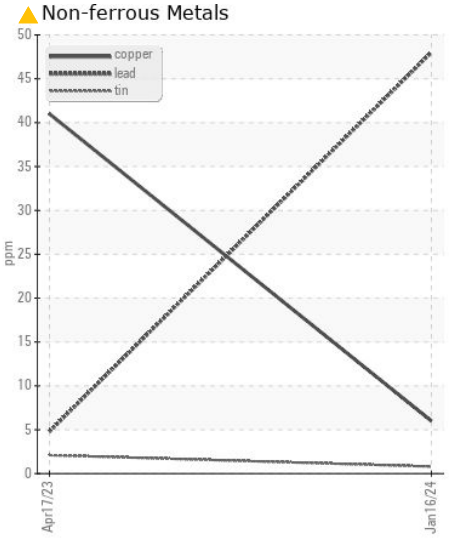
Base Number



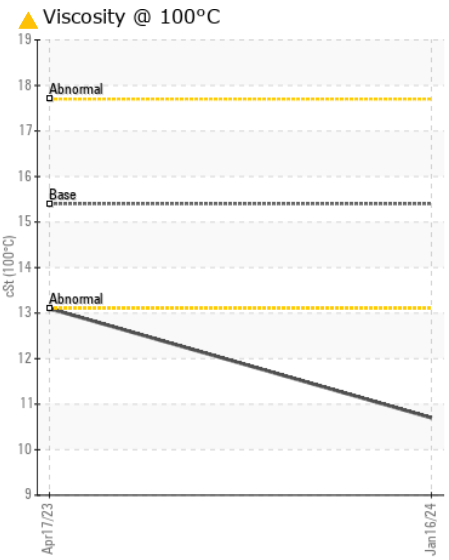
Ferrous Alloys



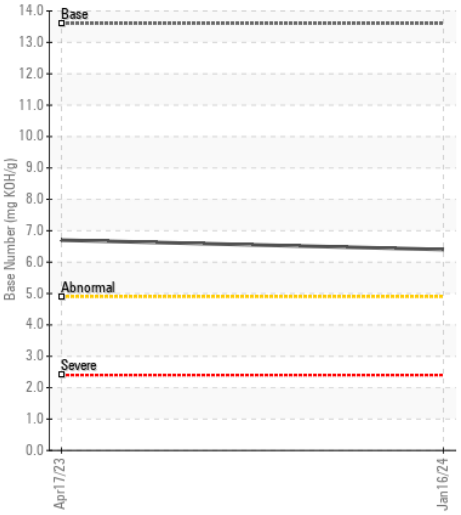
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0196388 **Recieved** : 18 Jan 2024
Lab Number : 06064063 **Diagnosed** : 24 Jan 2024
Unique Number : 10835445 **Diagnostician** : Doug Bogart
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

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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