James River Equipment

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
JOHN DEERE 944K 1DW944KXAML703645
Component
Diesel Engine
Fluid
{not provided} (12 GAL)

RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

The copper level is abnormal. All other metal levels are typical for a new component breaking in.

CONTAMINATION

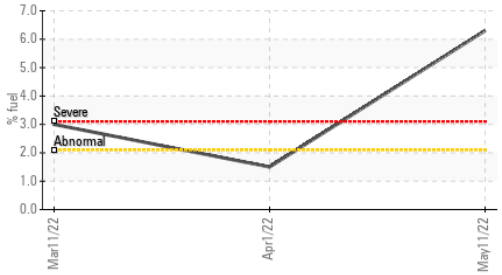
There is a moderate amount of fuel present in the oil.

FLUID CONDITION

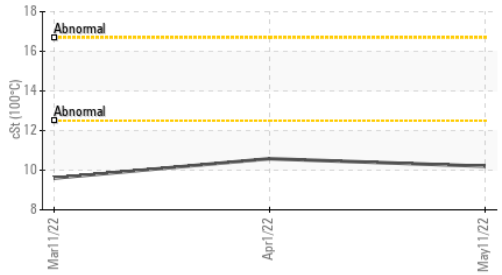
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0129988	JR0121370	JR0121181
Sample Date		Client Info		11 May 2022	01 Apr 2022	11 Mar 2022
Machine Age	hrs	Client Info		493	310	238
Oil Age	hrs	Client Info		0	310	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>51	50	42	36
Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		<1	<1	<1
Aluminum	ppm	ASTM D5185m	>31	6	4	3
Lead	ppm	ASTM D5185m	>26	50	35	42
Copper	ppm	ASTM D5185m	>26	▲ 159	▲ 325	▲ 165
Tin	ppm	ASTM D5185m	>4	9	10	7
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	10	11	12
Potassium	ppm	ASTM D5185m	>20	10	10	4
Fuel	%	ASTM D3524	>2.1	▲ 6.3	1.5	▲ 3.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.8	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	13.1	11.5	10.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	29.4	25.6	25.6
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	>0.21	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m	>31	9	5	<1
Boron	ppm	ASTM D5185m		24	81	112
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		201	227	236
Manganese	ppm	ASTM D5185m		9	10	9
Magnesium	ppm	ASTM D5185m		783	738	763
Calcium	ppm	ASTM D5185m		1558	1588	1451
Phosphorus	ppm	ASTM D5185m		866	960	861
Zinc	ppm	ASTM D5185m		1068	1110	988
Sulfur	ppm	ASTM D5185m		2485	2606	2417
Oxidation	Abs/.1mm	*ASTM D7414	>25	25.5	20.7	21.2
Base Number (BN)	mg KOH/g	ASTM D2896		7.5	8.6	9.0
Visc @ 100°C	cSt	ASTM D445		▲ 10.2	▲ 10.58	▲ 9.6

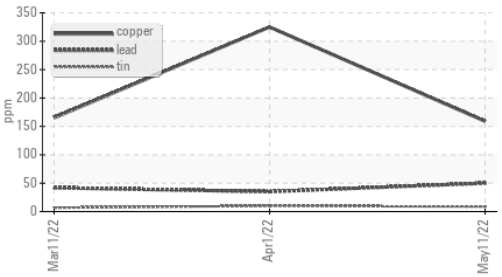
Fuel Dilution



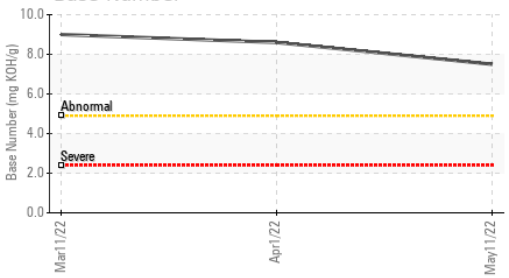
Viscosity @ 100°C



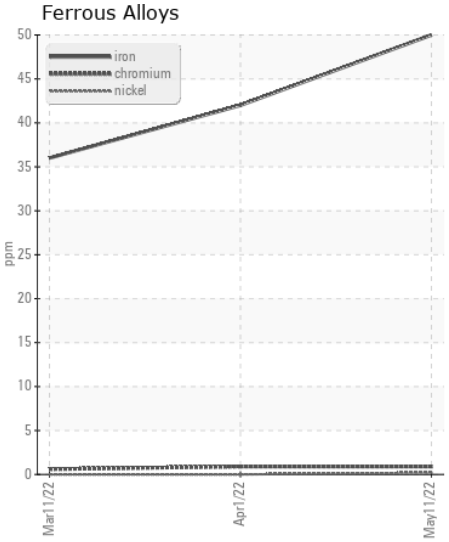
Non-ferrous Metals



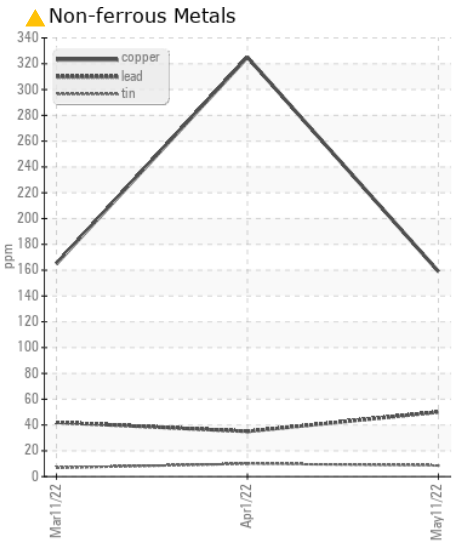
Base Number



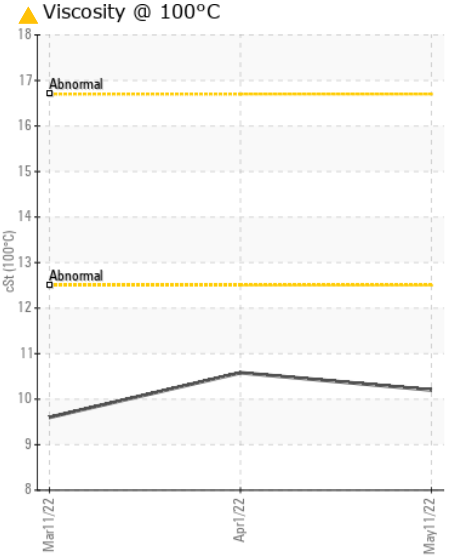
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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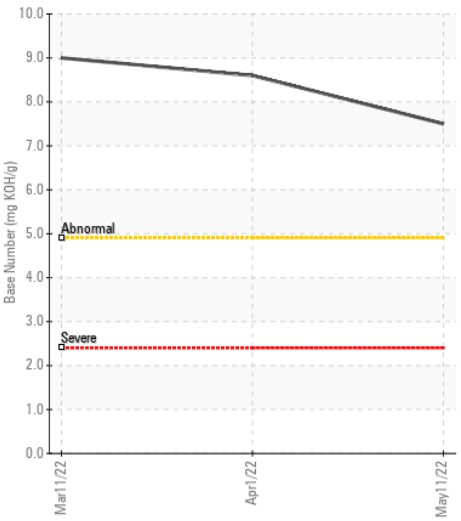

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0129988 **Recieved** : 16 May 2022
Lab Number : 05545445 **Diagnosed** : 18 May 2022
Unique Number : 9974735 **Diagnostician** : Jonathan Hester
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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