James River Equipment

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE PM061092
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (29 QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

WEAR

Cylinder, crank, or cam shaft wear is indicated. All other component wear rates are normal.

CONTAMINATION

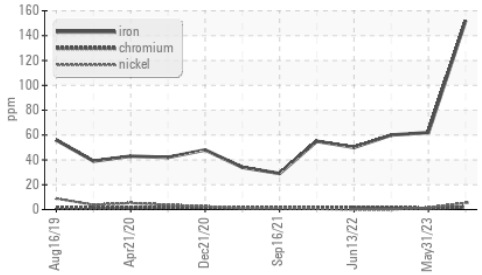
There is no indication of any contamination in the oil.

FLUID CONDITION

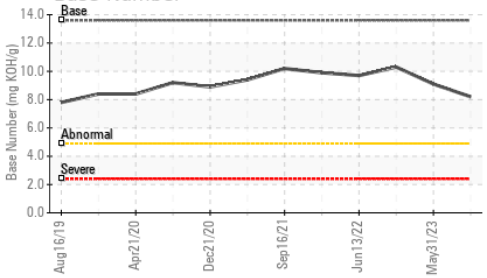
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0203150	JR0174587	JR0153253
Sample Date		Client Info		22 Feb 2024	31 May 2023	11 Nov 2022
Machine Age	hrs	Client Info		6469	5991	5527
Oil Age	hrs	Client Info		478	5453	538
Filter Age	hrs	Client Info		478	5453	0
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>51	▲ 152	▲ 62	▲ 60
Chromium	ppm	ASTM D5185m	>11	2	<1	1
Nickel	ppm	ASTM D5185m	>5	5	2	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>31	14	3	4
Lead	ppm	ASTM D5185m	>26	0	0	<1
Copper	ppm	ASTM D5185m	>26	3	3	3
Tin	ppm	ASTM D5185m	>4	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	11	8	8
Potassium	ppm	ASTM D5185m	>20	38	<1	5
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.4	0.6
Nitration	Abs/cm	*ASTM D7624	>20	8.8	8.8	10.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.8	24.5	24.2
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	<1	3	0
Boron	ppm	ASTM D5185m		180	206	143
Barium	ppm	ASTM D5185m		9	0	0
Molybdenum	ppm	ASTM D5185m		260	262	255
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		719	868	761
Calcium	ppm	ASTM D5185m		1266	1578	1517
Phosphorus	ppm	ASTM D5185m		831	884	866
Zinc	ppm	ASTM D5185m		977	1109	1077
Sulfur	ppm	ASTM D5185m		2864	3535	3480
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.1	19.3	18
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.2	9.1	10.3
Visc @ 100°C	cSt	ASTM D445	15.4	13.1	13.3	13.3

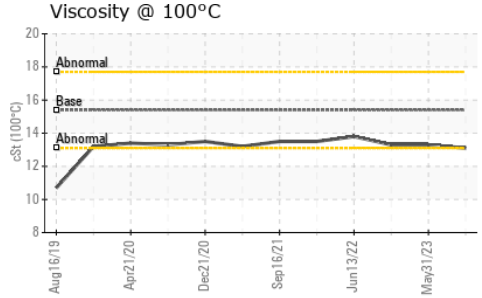
Ferrous Alloys



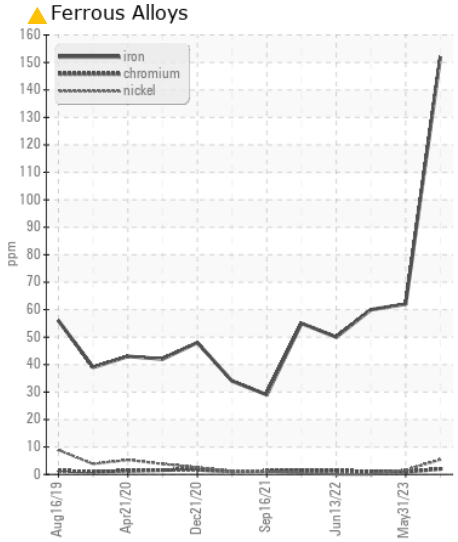
Base Number



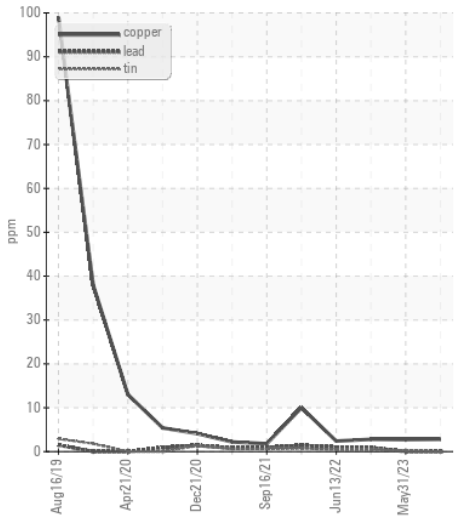
Viscosity @ 100°C



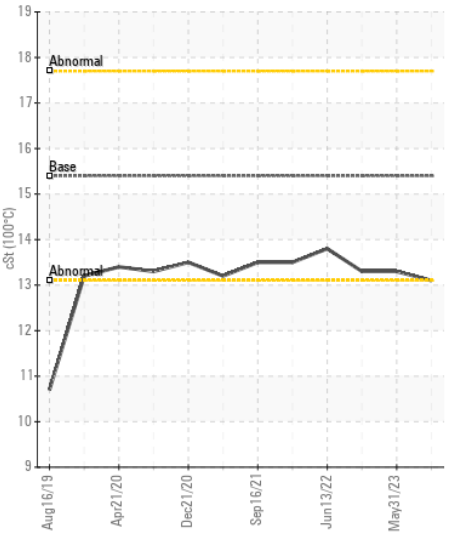
Ferrous Alloys



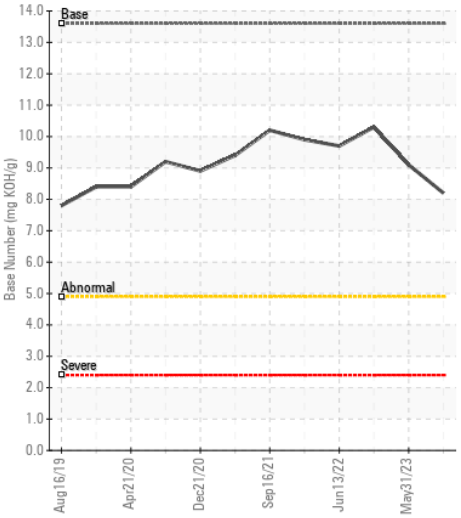
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0203150 **Received** : 26 Feb 2024
Lab Number : 06099979 **Tested** : 27 Feb 2024
Unique Number : 10898209 **Diagnosed** : 27 Feb 2024 - Don Baldridge
Test Package : CONST (Additional Tests: 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)

FITZGERALD EXCAVATING
PO BOX 2168
WINCHESTER, VA
US 22604
Contact: Service Manager
T:
F: