MOB

James River Equipment

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[MURPHYS EXCAVATING]
Machine Id
JOHN DEERE 300G 3602212 (S/N 1TT300GXAGF730338)
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (5 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

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

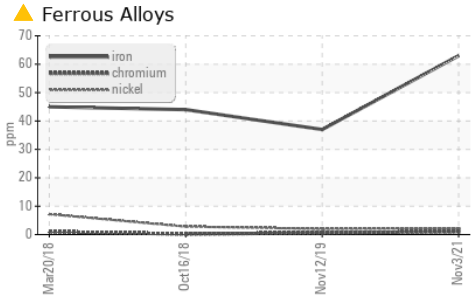
CONTAMINATION

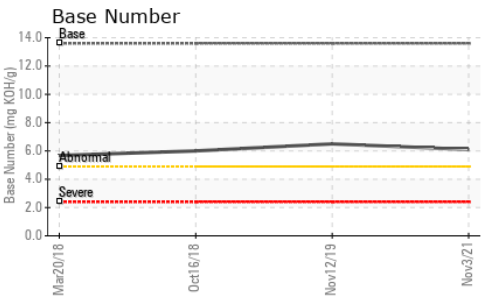
There is no indication of any contamination in the oil.

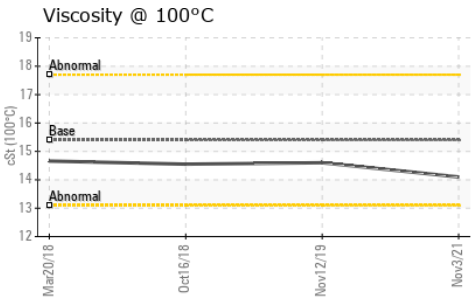
FLUID CONDITION

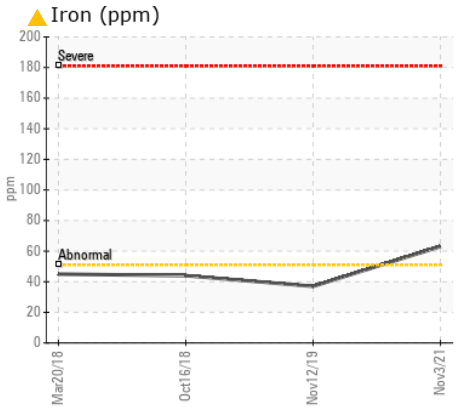
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

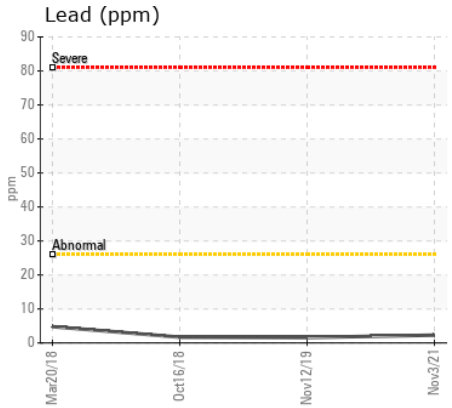
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0104522	JR0021205	JRMC449908
Sample Date		Client Info		03 Nov 2021	12 Nov 2019	16 Oct 2018
Machine Age	hrs	Client Info		3017	2094	1501
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>51	▲ 63	37	44
Chromium	ppm	ASTM D5185m	>11	1	<1	<1
Nickel	ppm	ASTM D5185m	>5	2	2	3
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>31	6	7	4
Lead	ppm	ASTM D5185m	>26	2	2	2
Copper	ppm	ASTM D5185m	>26	6	6	16
Tin	ppm	ASTM D5185m	>4	0	2	0
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	9	9	6
Potassium	ppm	ASTM D5185m	>20	4	0	4
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	0.7	0.5	0.6
Nitration	Abs/cm	*ASTM D7624	>20	11.1	11.2	11.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.9	28.2	27.1
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	8	6	6
Boron	ppm	ASTM D5185m		20	25	16
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		252	234	227
Manganese	ppm	ASTM D5185m		2	2	2
Magnesium	ppm	ASTM D5185m		908	832	910
Calcium	ppm	ASTM D5185m		1701	1513	1495
Phosphorus	ppm	ASTM D5185m		811	858	854
Zinc	ppm	ASTM D5185m		1054	1016	1102
Sulfur	ppm	ASTM D5185m		3710	2306	2576
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.9	23.7	23.5
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	6.1	6.5	6
Visc @ 100°C	cSt	ASTM D445	15.4	14.1	14.6	14.55

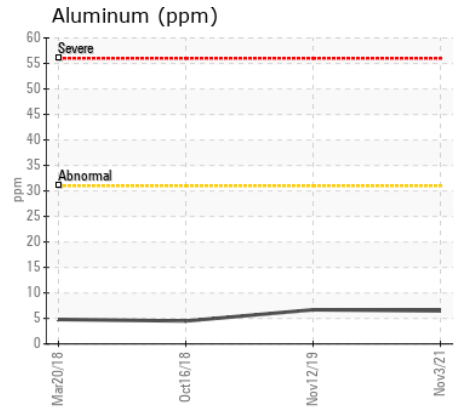


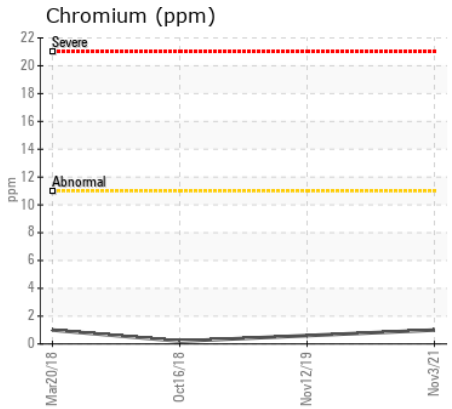


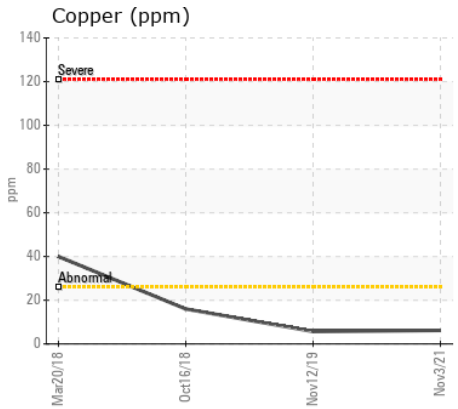


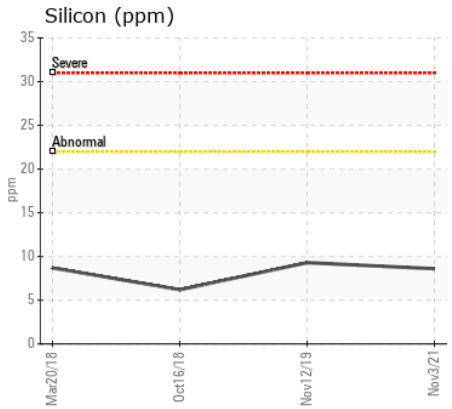


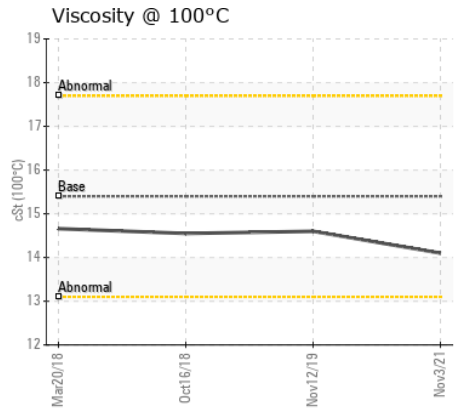


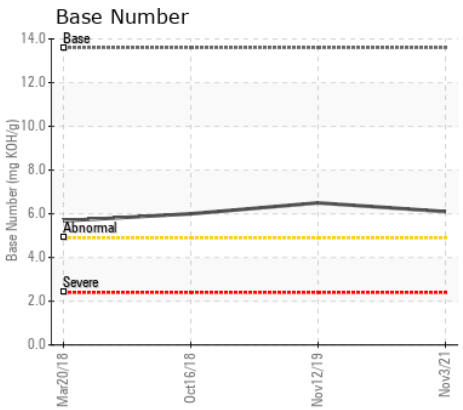












Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0104522 **Received** : 08 Nov 2021
Lab Number : 05394326 **Tested** : 09 Nov 2021
Unique Number : 9733476 **Diagnosed** : 09 Nov 2021 - Don Baldridge
Test Package : MOBCE (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)

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