



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 460E 1DW460ELEM712760

Component
Diesel Engine

Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0199984	JR0180168	JR0146805
Sample Date		Client Info		08 Feb 2024	24 Aug 2023	13 Mar 2023
Machine Age	hrs	Client Info		2960	2486	1959
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				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	5	12	11
Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	5	5	4
Lead	ppm	ASTM D5185m	>26	4	4	4
Copper	ppm	ASTM D5185m	>26	8	12	14
Tin	ppm	ASTM D5185m	>4	2	2	3
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

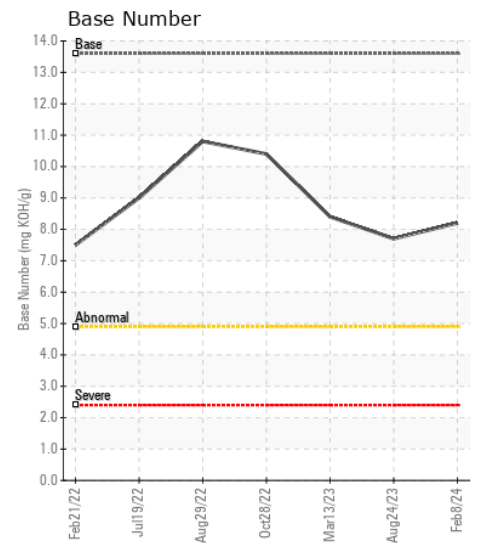
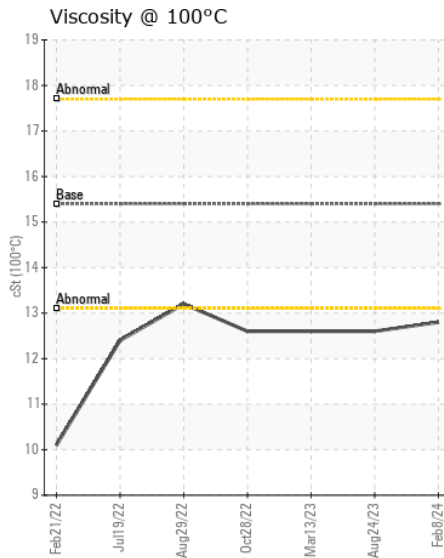
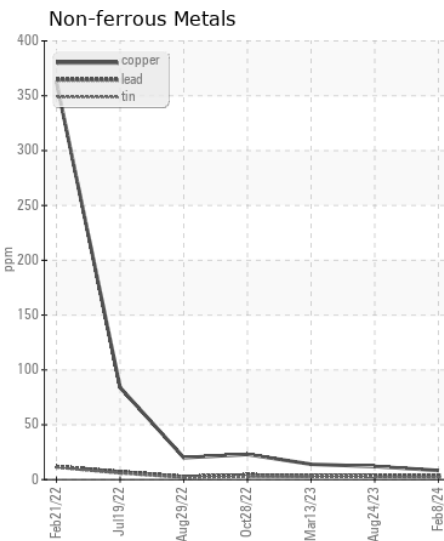
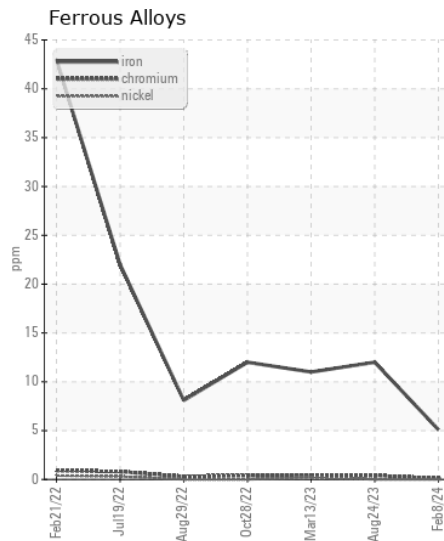
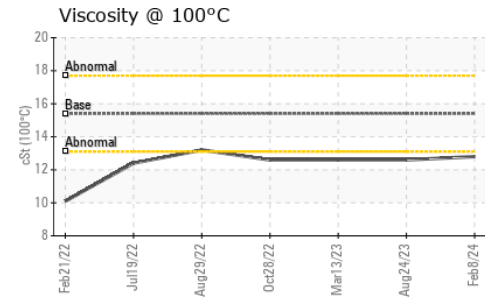
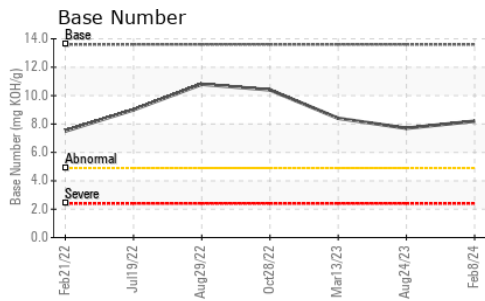
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	6	7	6
Potassium	ppm	ASTM D5185m	>20	<1	1	2
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	0.3	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	9.1	8.7	8.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.3	21.7	22.6
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

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.

Sodium	ppm	ASTM D5185m	>31	4	3	<1
Boron	ppm	ASTM D5185m		181	181	150
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		237	229	236
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		733	828	756
Calcium	ppm	ASTM D5185m		1255	1384	1391
Phosphorus	ppm	ASTM D5185m		820	862	859
Zinc	ppm	ASTM D5185m		979	1072	1050
Sulfur	ppm	ASTM D5185m		2814	3665	3027
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.6	16.0	16.5
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.2	7.7	8.4
Visc @ 100°C	cSt	ASTM D445	15.4	12.8	12.6	12.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : JR0199984

Lab Number : 06084665

Unique Number : 10872110

Test Package : CONST (Additional Tests: TBN)

Received : 09 Feb 2024

Tested : 12 Feb 2024

Diagnosed : 12 Feb 2024 - Wes Davis

JRE - ASHLAND

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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)