



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[W8471]
 Machine Id
JOHN DEERE 410E-II 1DW410ELPNF713346
 Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (46 QTS)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: W8471)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0183122	JR0183436	JR0077891
Sample Date		Client Info		09 Feb 2024	15 Sep 2023	20 Oct 2022
Machine Age	hrs	Client Info		1995	1995	512
Oil Age	hrs	Client Info		596	495	512
Filter Age	hrs	Client Info		596	495	0
Oil Changed		Client Info		Not Chngd	Changed	Changed
Filter Changed		Client Info		Not Chngd	Changed	Changed
Sample Status				NORMAL	SEVERE	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	17	45	7
Chromium	ppm	ASTM D5185m	>11	<1	1	0
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	4	5	2
Lead	ppm	ASTM D5185m	>26	14	103	1
Copper	ppm	ASTM D5185m	>26	34	94	61
Tin	ppm	ASTM D5185m	>4	4	8	2
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

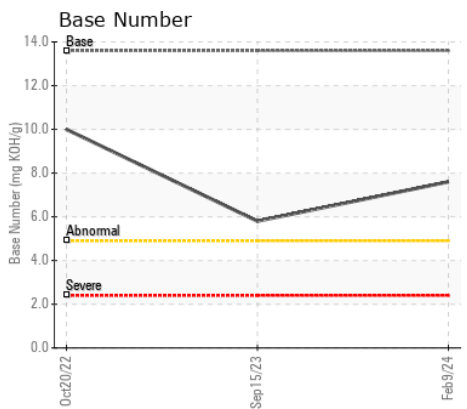
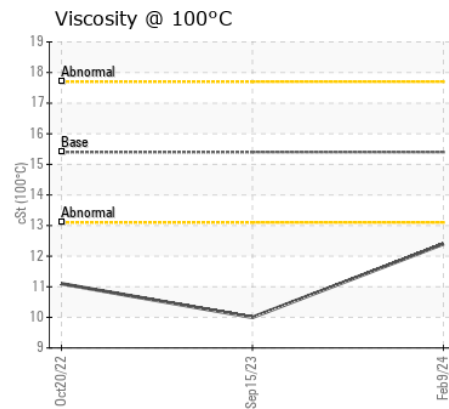
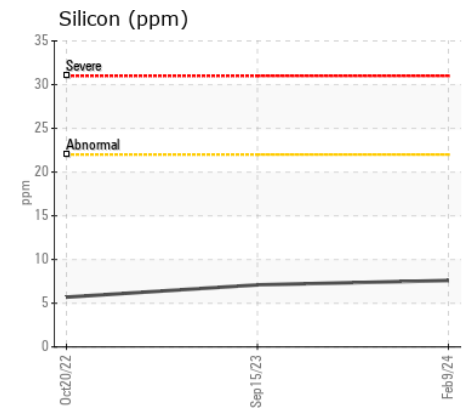
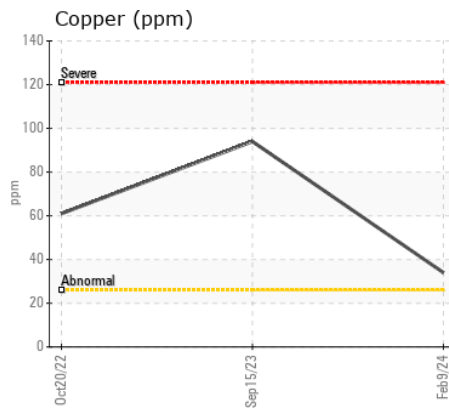
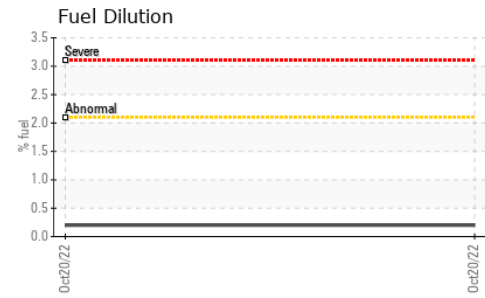
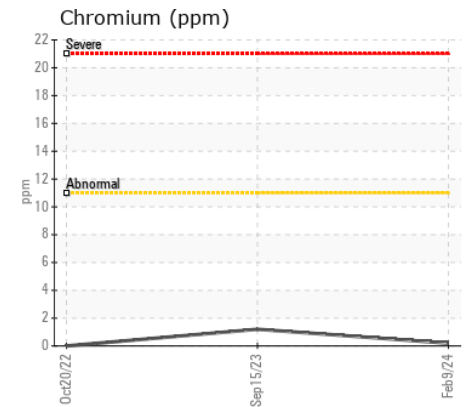
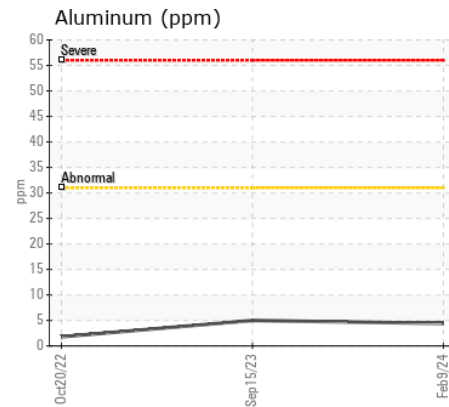
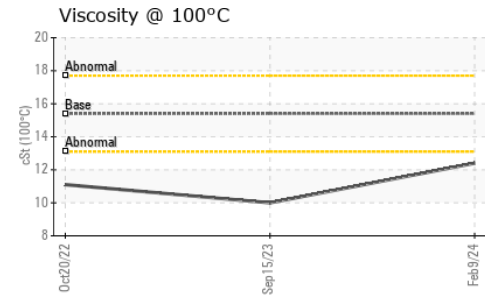
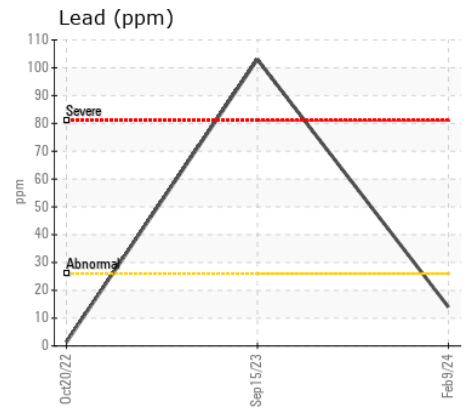
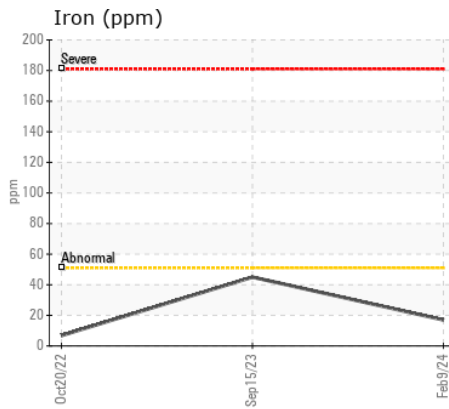
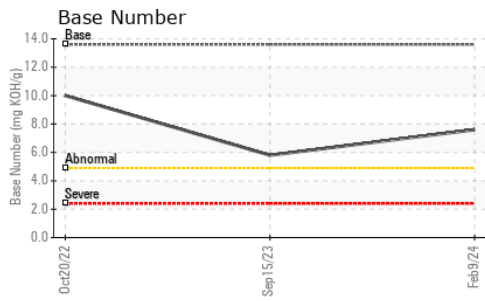
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	8	7	6
Potassium	ppm	ASTM D5185m	>20	3	2	3
Fuel	%	ASTM D3524	>2.1	<1.0	<1.0	0.2
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.6	0.1
Nitration	Abs/cm	*ASTM D7624	>20	9.0	11.8	5.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.9	27.8	20.4
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	1	8	<1
Boron	ppm	ASTM D5185m		190	16	122
Barium	ppm	ASTM D5185m		0	0	2
Molybdenum	ppm	ASTM D5185m		257	154	129
Manganese	ppm	ASTM D5185m		0	3	2
Magnesium	ppm	ASTM D5185m		773	509	435
Calcium	ppm	ASTM D5185m		1382	2147	2356
Phosphorus	ppm	ASTM D5185m		836	886	911
Zinc	ppm	ASTM D5185m		1032	1079	1115
Sulfur	ppm	ASTM D5185m		2928	2934	3825
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.9	21.8	14.1
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.6	5.8	10.0
Visc @ 100°C	cSt	ASTM D445	15.4	12.4	10.0	11.1



Certificate L2367

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

Sample No. : JR0183122

Lab Number : 06087093

Unique Number : 10874538

Test Package : MOBCE (Additional Tests: FuelDilution, TBN)

Received : 13 Feb 2024

Tested : 14 Feb 2024

Diagnosed : 14 Feb 2024 - Jonathan Hester

JRE - HOPE MILLS/FAYETTEVILLE

5039 HWY 301 SOUTH

HOPE MILLS, NC

US 28348

Contact: FAYETTEVILLE SHOP

stephen.mullis@jamesriverequipment.com; panastasio@wearcheck.com

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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F: