



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

[W20991-BRYAN]

Machine Id

JOHN DEERE 3038E 1LV3038EKJJ122957

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		JR0204432	JR0159123	JR0053769
Sample Date		Client Info		02 Feb 2024	23 Jan 2023	25 Jan 2021
Machine Age	hrs	Client Info		214	150	74
Oil Age	hrs	Client Info		0	0	20
Filter Age	hrs	Client Info		0	0	20
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>51	8	5	4
Chromium	ppm	ASTM D5185m	>11	<1	<1	0
Nickel	ppm	ASTM D5185m	>5	<1	<1	1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	<1
Aluminum	ppm	ASTM D5185m	>31	4	2	5
Lead	ppm	ASTM D5185m	>26	<1	3	0
Copper	ppm	ASTM D5185m	>26	12	19	20
Tin	ppm	ASTM D5185m	>4	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

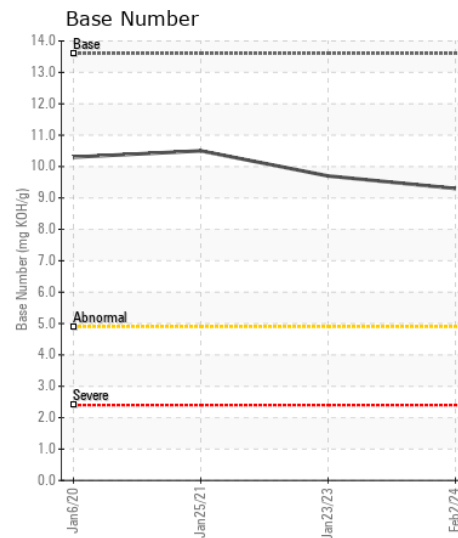
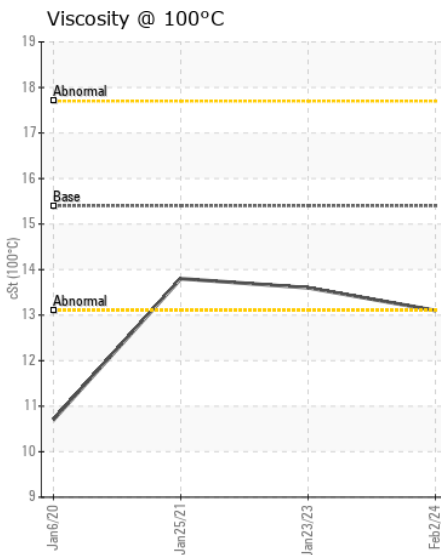
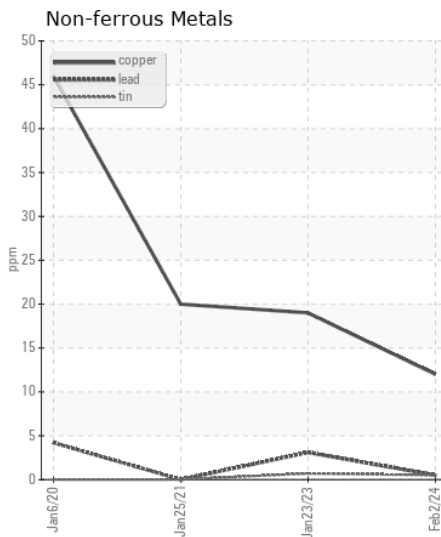
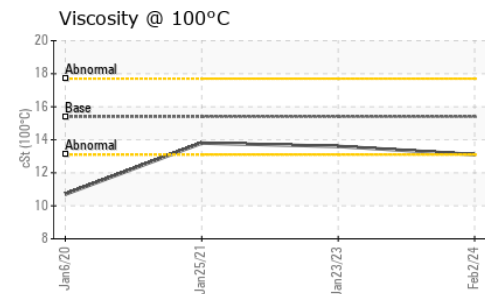
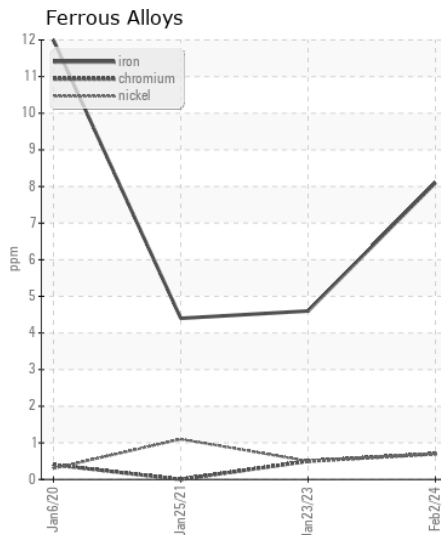
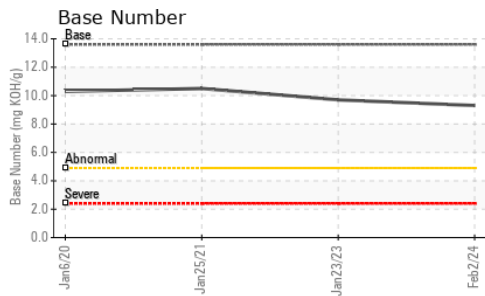
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	11	9	15
Potassium	ppm	ASTM D5185m	>20	2	8	0
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	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.4	6.8	6.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.1	19.5	20.7
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	0	2	4
Boron	ppm	ASTM D5185m		302	227	243
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		259	205	232
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		846	767	790
Calcium	ppm	ASTM D5185m		1421	1158	1450
Phosphorus	ppm	ASTM D5185m		906	800	837
Zinc	ppm	ASTM D5185m		1121	954	954
Sulfur	ppm	ASTM D5185m		3127	3191	2504
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.7	14.7	15.2
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	9.3	9.7	10.5
Visc @ 100°C	cSt	ASTM D445	15.4	13.1	13.6	13.8



Certificate L2367

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

Sample No. : JR0204432

Lab Number : 06085344

Unique Number : 10872789

Test Package : CONST (Additional Tests: TBN)

Received : 09 Feb 2024

Tested : 12 Feb 2024

Diagnosed : 12 Feb 2024 - Wes Davis

JRE - BURKEVILLE

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BURKEVILLE, VA

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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)