



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

[W9019]

Machine Id

JOHN DEERE H1590586

Component

Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 50 (3 GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: W9019)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0196900	JR0078943	---
Sample Date		Client Info		18 Jun 2024	11 Mar 2021	---
Machine Age	hrs	Client Info		3529	3529	---
Oil Age	hrs	Client Info		3529	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Not Changed	---
Filter Changed		Client Info		Changed	Not Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	38	11	---
Chromium	ppm	ASTM D5185m	>11	2	<1	---
Nickel	ppm	ASTM D5185m	>5	2	<1	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	0	<1	---
Aluminum	ppm	ASTM D5185m	>31	7	0	---
Lead	ppm	ASTM D5185m	>26	2	0	---
Copper	ppm	ASTM D5185m	>26	6	2	---
Tin	ppm	ASTM D5185m	>4	1	0	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

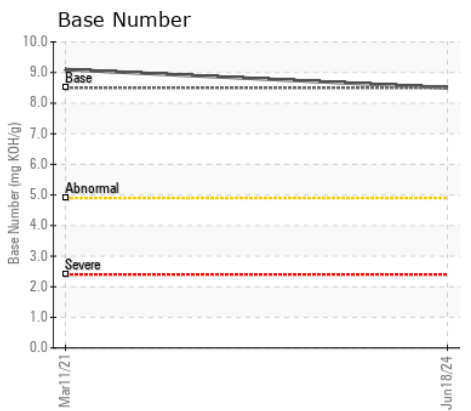
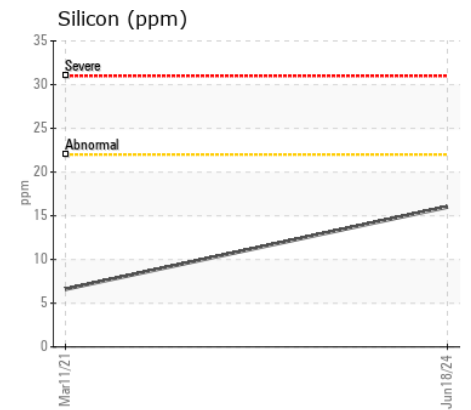
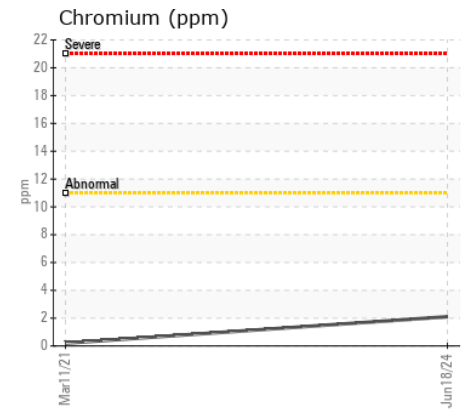
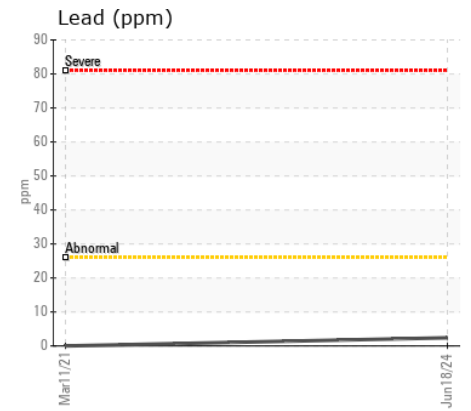
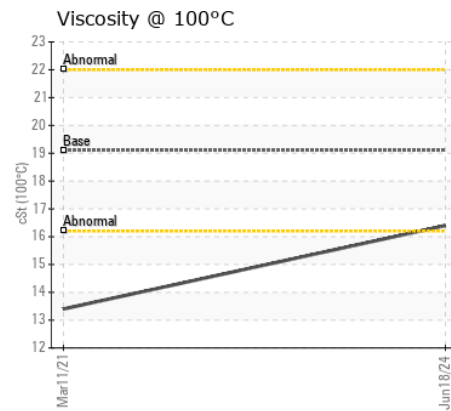
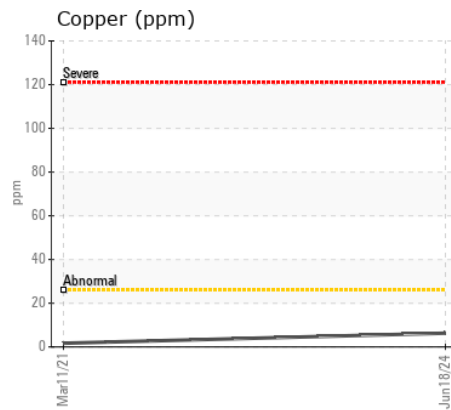
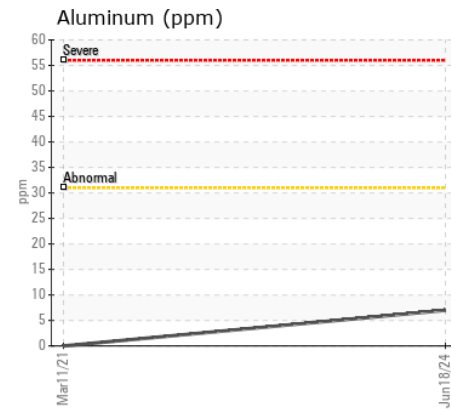
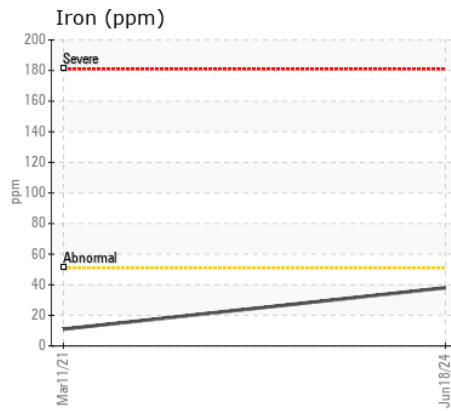
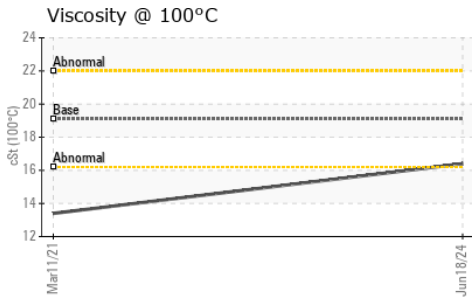
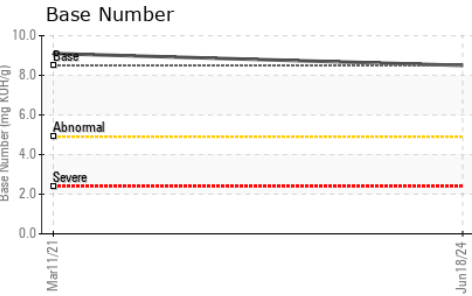
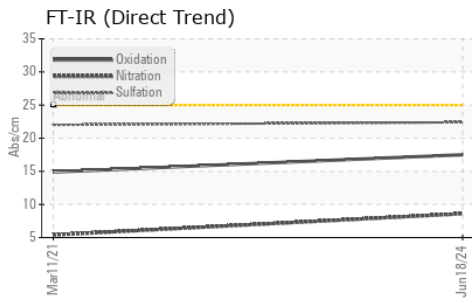
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	16	7	---
Potassium	ppm	ASTM D5185m	>20	10	<1	---
Fuel		WC Method	>2.1	<1.0	<1.0	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.1	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	8.6	5.4	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.4	22	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.21	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	6	3	---
Boron	ppm	ASTM D5185m	250	255	327	---
Barium	ppm	ASTM D5185m	10	16	0	---
Molybdenum	ppm	ASTM D5185m	100	189	112	---
Manganese	ppm	ASTM D5185m		2	<1	---
Magnesium	ppm	ASTM D5185m	450	738	565	---
Calcium	ppm	ASTM D5185m	3000	1769	1450	---
Phosphorus	ppm	ASTM D5185m	1150	1079	681	---
Zinc	ppm	ASTM D5185m	1350	1338	755	---
Sulfur	ppm	ASTM D5185m	4250	3571	2015	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.5	14.9	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.5	9.1	---
Visc @ 100°C	cSt	ASTM D445	19.1	16.4	13.4	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0196900 **Received** : 20 Jun 2024
Lab Number : 06215467 **Tested** : 21 Jun 2024
Unique Number : 11088331 **Diagnosed** : 21 Jun 2024 - Don Baldrige
Test Package : MOBCE (Additional Tests: TBN)

JRE - HOPE MILLS/FAYETTEVILLE
 5039 HWY 301 SOUTH
 HOPE MILLS, NC
 US 28348
 Contact: FAYETTEVILLE SHOP
 stephen.mullis@jamesriverequipment.com;canastasio@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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