



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

[W9094]

Machine Id

JOHN DEERE 410L 1T0410LXKPF435467

Component

Diesel Engine

Fluid

{not provided} (10 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: W9094)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0197280	---	---
Sample Date		Client Info		25 Jun 2024	---	---
Machine Age	hrs	Client Info		541	---	---
Oil Age	hrs	Client Info		541	---	---
Filter Age	hrs	Client Info		541	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

The copper level is abnormal. All other metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>51	27	---	---
Chromium	ppm	ASTM D5185m	>11	<1	---	---
Nickel	ppm	ASTM D5185m	>5	0	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>31	9	---	---
Lead	ppm	ASTM D5185m	>26	4	---	---
Copper	ppm	ASTM D5185m	>26	▲ 99	---	---
Tin	ppm	ASTM D5185m	>4	2	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

Fuel content negligible. There is no indication of any contamination in the oil.

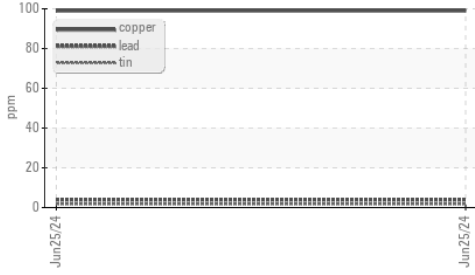
Silicon	ppm	ASTM D5185m	>22	15	---	---
Potassium	ppm	ASTM D5185m	>20	5	---	---
Fuel	%	ASTM D3524	>2.1	0.0	---	---
Water		WC Method	>0.21	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.2	---	---
Nitration	Abs/cm	*ASTM D7624	>20	8.5	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.7	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.21	NEG	---	---

FLUID CONDITION

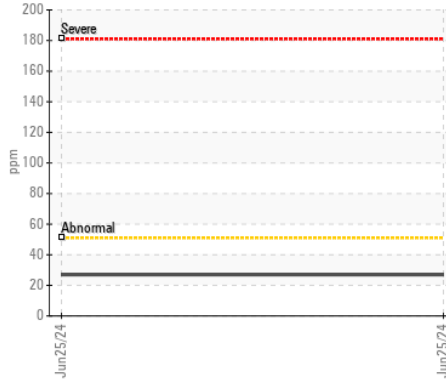
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>31	10	---	---
Boron	ppm	ASTM D5185m		213	---	---
Barium	ppm	ASTM D5185m		6	---	---
Molybdenum	ppm	ASTM D5185m		261	---	---
Manganese	ppm	ASTM D5185m		5	---	---
Magnesium	ppm	ASTM D5185m		893	---	---
Calcium	ppm	ASTM D5185m		1503	---	---
Phosphorus	ppm	ASTM D5185m		951	---	---
Zinc	ppm	ASTM D5185m		1114	---	---
Sulfur	ppm	ASTM D5185m		3392	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.1	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		8.7	---	---
Visc @ 100°C	cSt	ASTM D445		10.2	---	---

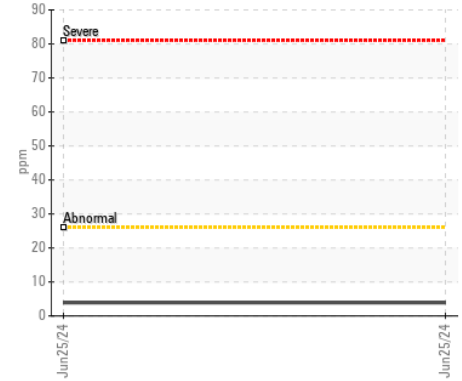
▲ Non-ferrous Metals



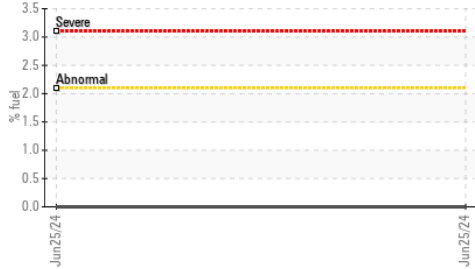
Iron (ppm)



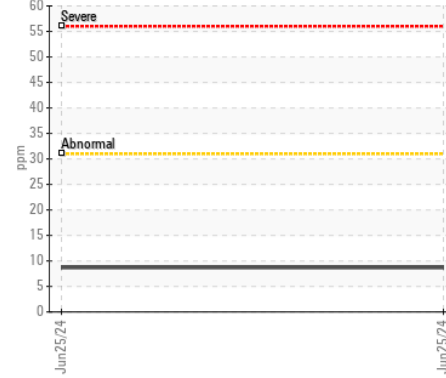
Lead (ppm)



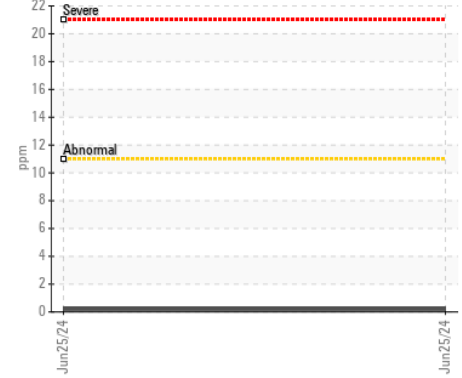
Fuel Dilution



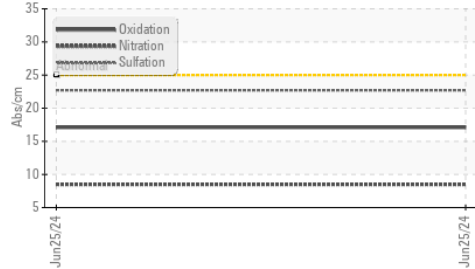
Aluminum (ppm)



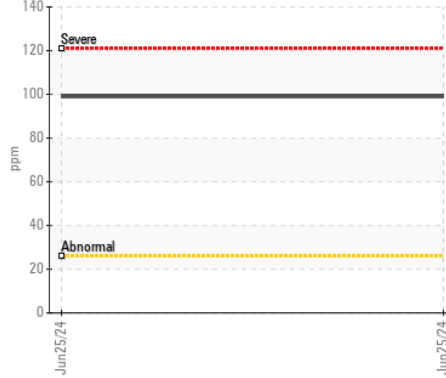
Chromium (ppm)



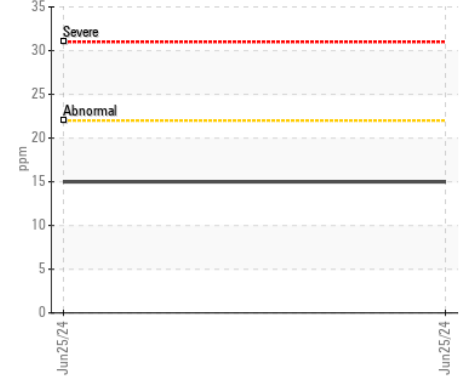
FT-IR (Direct Trend)



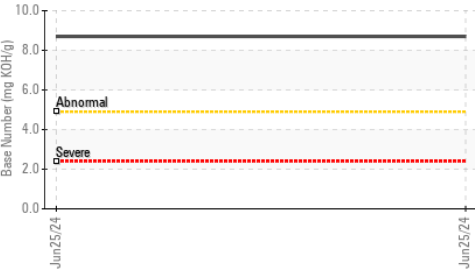
▲ Copper (ppm)



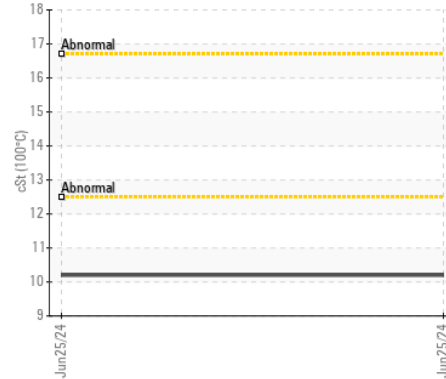
Silicon (ppm)



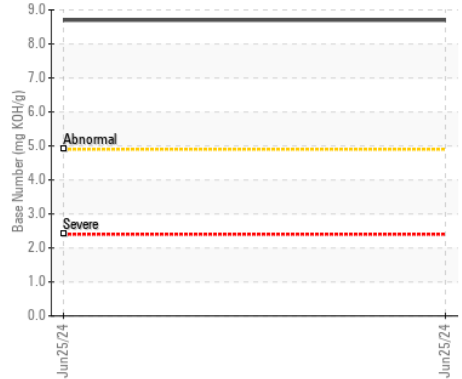
Base Number



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0197280 **Received** : 26 Jun 2024
Lab Number : 06220831 **Tested** : 28 Jun 2024
Unique Number : 11099028 **Diagnosed** : 28 Jun 2024 - Jonathan Hester
Test Package : MOBCE (Additional Tests: FuelDilution, PercentFuel, TBN)

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: