



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE %2 744 P 1DW744PACNLX05964
 Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0218892	JR0193463	---
Sample Date		Client Info		26 Jun 2024	05 Dec 2023	---
Machine Age	hrs	Client Info		1469	976	---
Oil Age	hrs	Client Info		493	976	---
Filter Age	hrs	Client Info		493	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	NORMAL	---

WEAR

Valve wear is indicated.

Iron	ppm	ASTM D5185m	>100	31	23	---
Chromium	ppm	ASTM D5185m	>20	2	<1	---
Nickel	ppm	ASTM D5185m	>4	▲ 11	6	---
Titanium	ppm	ASTM D5185m		1	<1	---
Silver	ppm	ASTM D5185m	>3	1	0	---
Aluminum	ppm	ASTM D5185m	>20	6	4	---
Lead	ppm	ASTM D5185m	>40	1	2	---
Copper	ppm	ASTM D5185m	>330	7	29	---
Tin	ppm	ASTM D5185m	>15	1	<1	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
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.

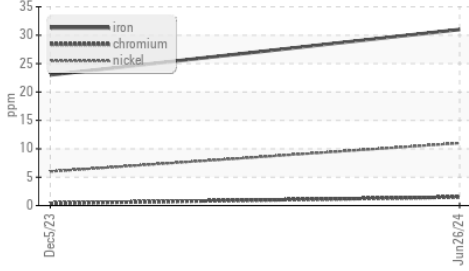
Silicon	ppm	ASTM D5185m	>25	9	9	---
Potassium	ppm	ASTM D5185m	>20	3	1	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.5	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	8.8	8.4	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.0	21.3	---
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	>0.2	NEG	NEG	---

FLUID CONDITION

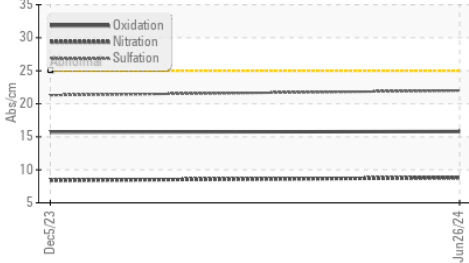
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	2	---
Boron	ppm	ASTM D5185m		209	215	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		258	256	---
Manganese	ppm	ASTM D5185m		1	1	---
Magnesium	ppm	ASTM D5185m		873	886	---
Calcium	ppm	ASTM D5185m		1453	1511	---
Phosphorus	ppm	ASTM D5185m		955	981	---
Zinc	ppm	ASTM D5185m		1183	1177	---
Sulfur	ppm	ASTM D5185m		3183	3224	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.8	15.7	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.6	8.8	---
Visc @ 100°C	cSt	ASTM D445	15.4	13.1	12.8	---

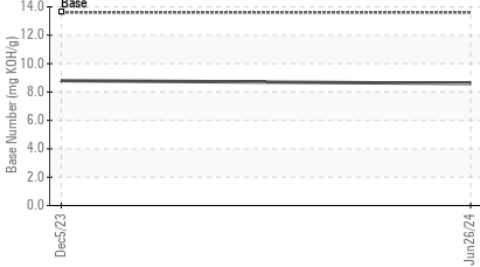
▲ Ferrous Alloys



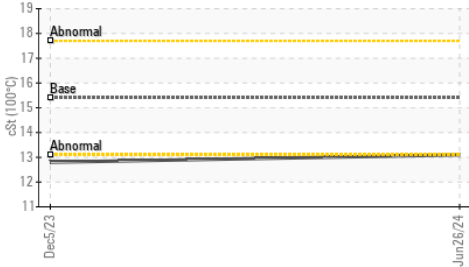
FT-IR (Direct Trend)



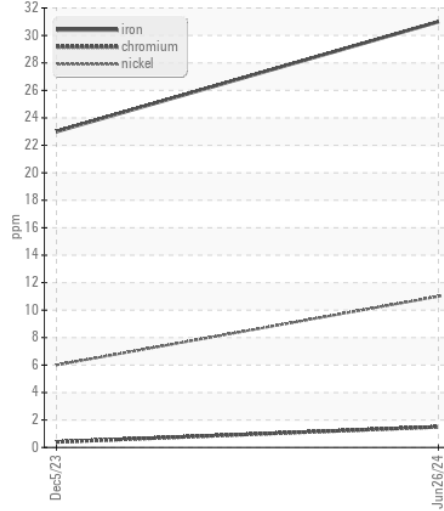
Base Number



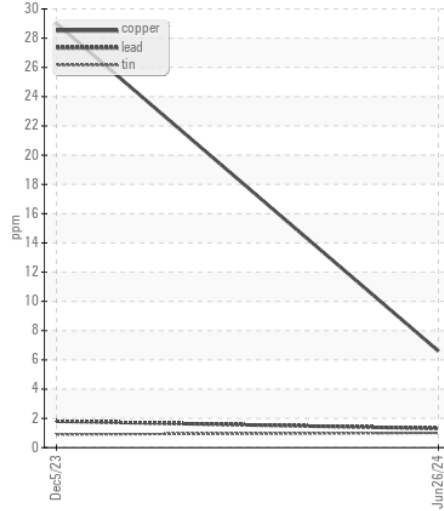
Viscosity @ 100°C



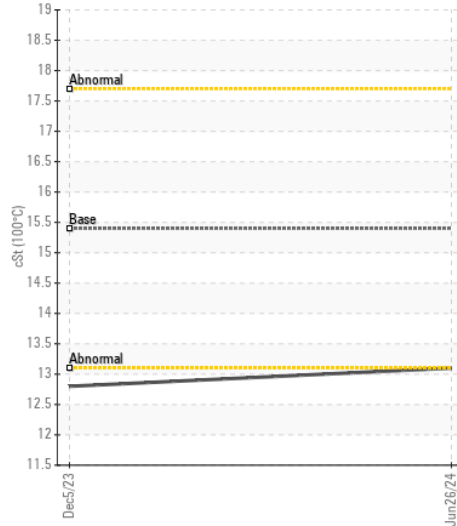
▲ Ferrous Alloys



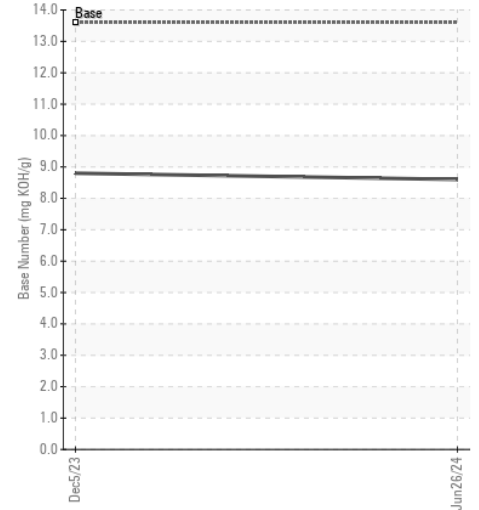
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0218892 **Received** : 08 Jul 2024
Lab Number : 06229671 **Tested** : 09 Jul 2024
Unique Number : 11113164 **Diagnosed** : 09 Jul 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: TBN)

JRE - ASHEVILLE
 101 BRUCE DRIVE
 ASHEVILLE, NC
 US 28806

Contact: Randy Warren
 randy.warren@jamesriverequipment.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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