



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

CONSTELLIUM [A32207]

Machine Id

JOHN DEERE 444P CONSTELLIUM UNIT #778 (S/N 1DW444PATNLZ16778)

Component

Drain Diesel Engine

Fluid

JOHN DEERE ENGINE OIL PLUS 50 II 10W30 (6 GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor. (Customer Sample Comment: A32207 breakin oil)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WE0003333	---	---
Sample Date		Client Info		25 Apr 2023	---	---
Machine Age	hrs	Client Info		226	---	---
Oil Age	hrs	Client Info		226	---	---
Filter Age	hrs	Client Info		226	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---

WEAR

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>51	20	---	---
Chromium	ppm	ASTM D5185m	>11	<1	---	---
Nickel	ppm	ASTM D5185m	>5	<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>31	5	---	---
Lead	ppm	ASTM D5185m	>26	3	---	---
Copper	ppm	ASTM D5185m	>26	▲ 47	---	---
Tin	ppm	ASTM D5185m	>4	1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	10	---	---
Potassium	ppm	ASTM D5185m	>20	4	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.21	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.2	---	---
Nitration	Abs/cm	*ASTM D7624	>20	7.9	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.7	---	---
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

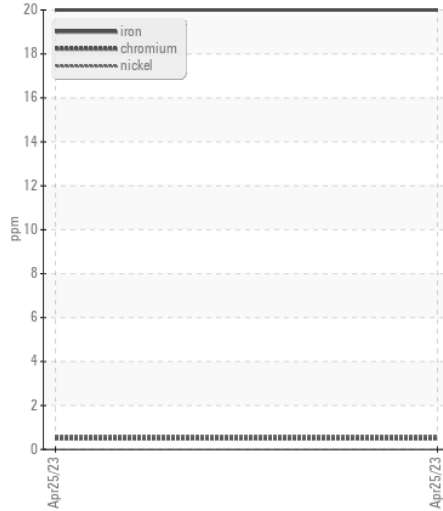
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	2	---	---
Boron	ppm	ASTM D5185m		286	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		265	---	---
Manganese	ppm	ASTM D5185m		4	---	---
Magnesium	ppm	ASTM D5185m		789	---	---
Calcium	ppm	ASTM D5185m		1429	---	---
Phosphorus	ppm	ASTM D5185m		897	---	---
Zinc	ppm	ASTM D5185m		1075	---	---
Sulfur	ppm	ASTM D5185m		3021	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.6	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		9.4	---	---
Visc @ 100°C	cSt	ASTM D445		9.9	---	---

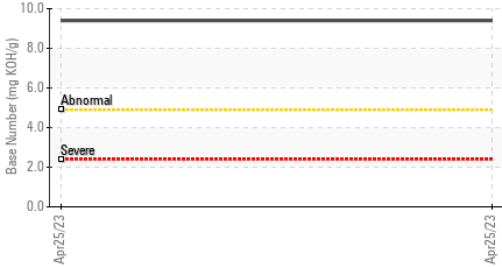
▲ Non-ferrous Metals



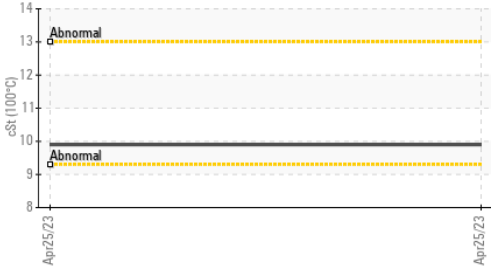
Ferrous Alloys



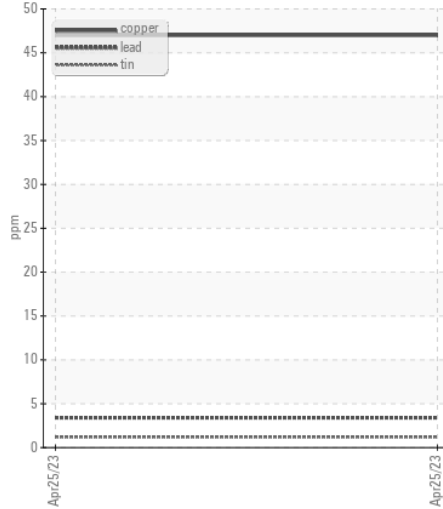
Base Number



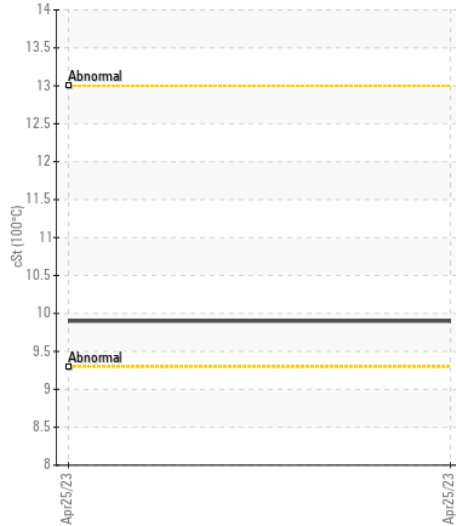
Viscosity @ 100°C



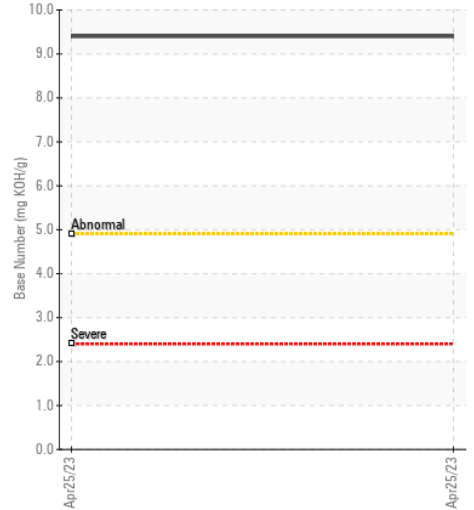
▲ Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WE0003333 **Recieved** : 27 Apr 2023
Lab Number : 05831919 **Diagnosed** : 01 May 2023
Unique Number : 10445412 **Diagnostician** : Sean Felton
Test Package : CONST (Additional Tests: TBN)

WARRIOR TRACTOR AND EQUIPMENT - HUNTSVILLE
 25135 ONE AVIATION WAY SW
 MADISON, AL
 US 35756
 Contact: BOBBY LUCKY
 warriorparts033@gmail.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: