



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Machine Id
JOHN DEERE 850JR DOZER 616 (S/N T0850JR178352)

Component
Diesel Engine

Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 10W30 (7 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		R006157112	---	---
Sample Date		Client Info		21 Apr 2024	---	---
Machine Age	hrs	Client Info		1323	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

The iron level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	▲ 57	---	---
Chromium	ppm	ASTM D5185m	>11	4	---	---
Nickel	ppm	ASTM D5185m	>5	<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>31	4	---	---
Lead	ppm	ASTM D5185m	>26	0	---	---
Copper	ppm	ASTM D5185m	>26	2	---	---
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.

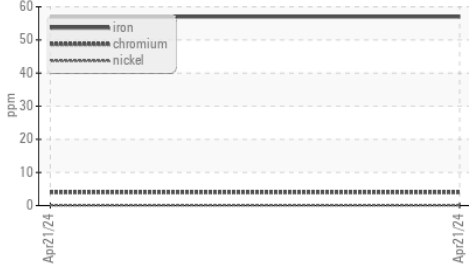
Silicon	ppm	ASTM D5185m	>22	15	---	---
Potassium	ppm	ASTM D5185m	>20	7	---	---
Fuel		WC Method	>2.1	<1.0	---	---
Water		WC Method	>0.21	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.4	---	---
Nitration	Abs/cm	*ASTM D7624	>20	8.2	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.0	---	---
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

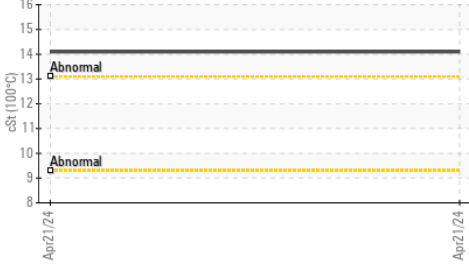
The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>31	2	---	---
Boron	ppm	ASTM D5185m		126	---	---
Barium	ppm	ASTM D5185m		2	---	---
Molybdenum	ppm	ASTM D5185m		18	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		68	---	---
Calcium	ppm	ASTM D5185m		2138	---	---
Phosphorus	ppm	ASTM D5185m		900	---	---
Zinc	ppm	ASTM D5185m		1112	---	---
Sulfur	ppm	ASTM D5185m		3459	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.0	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		8.52	---	---
Visc @ 100°C	cSt	ASTM D445		● 14.1	---	---

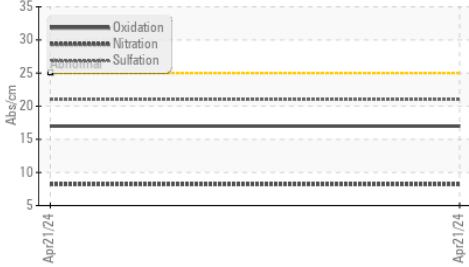
▲ Ferrous Alloys



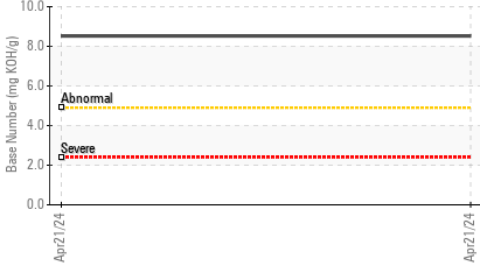
● Viscosity @ 100°C



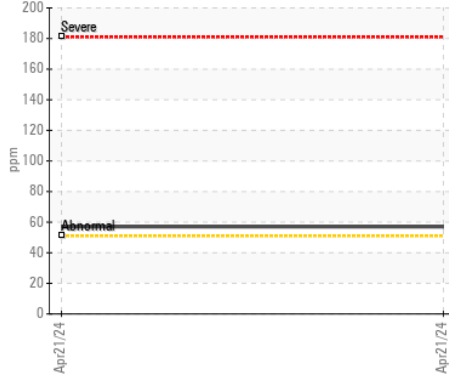
FT-IR (Direct Trend)



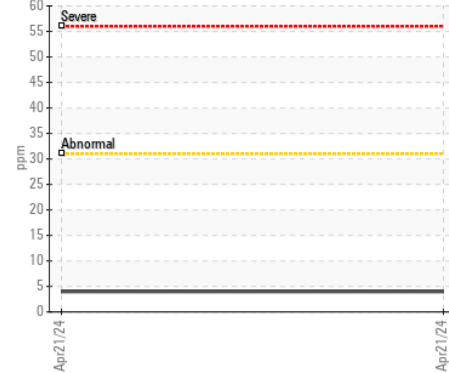
Base Number



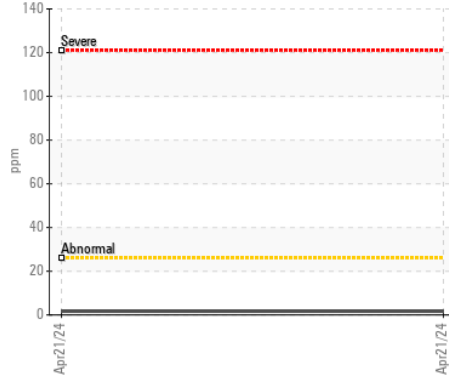
▲ Iron (ppm)



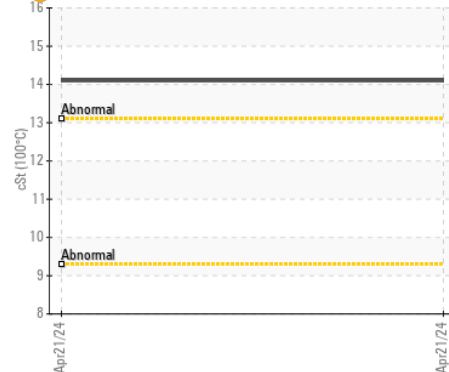
Aluminum (ppm)



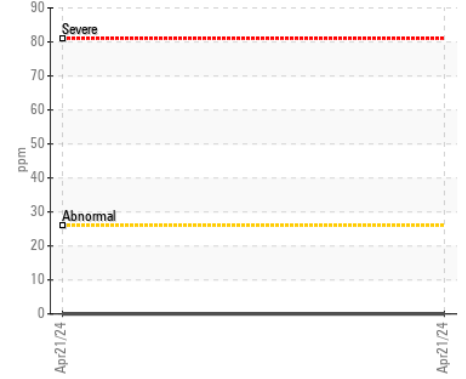
Copper (ppm)



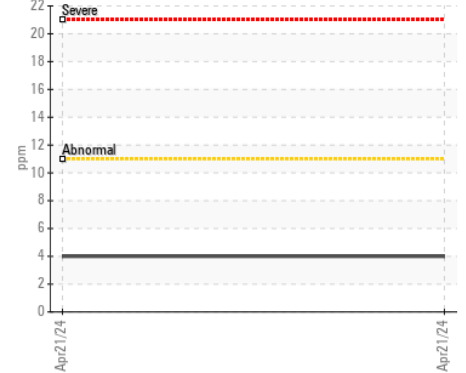
● Viscosity @ 100°C



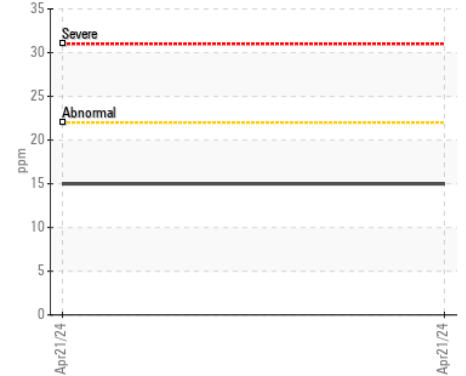
Lead (ppm)



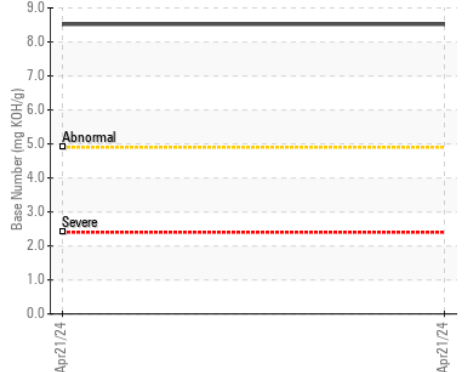
Chromium (ppm)



Silicon (ppm)



Base Number



Certificate L2367

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

Sample No. : RO06157112

Lab Number : 06157112

Unique Number : 10992535

Test Package : MOB 2

Received : 22 Apr 2024

Tested : 24 Apr 2024

Diagnosed : 25 Apr 2024 - Jonathan Hester

BIG 4 INC

301 WORTH ST

HEMPHILL, TX

US 75948

Contact: JODIE MCGEE

jodie.mcgee@big4inc.com

T: (936)275-7532

F: (409)787-2071

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)