



Machine Id
JOHN DEERE 644P 8322
Component
Rear Differential
Fluid
PETRO CANADA DURATRAN (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

WEAR

Copper, lead and tin ppm levels are abnormal. Thrust washer and/or bearing/bushing wear is indicated.

CONTAMINATION

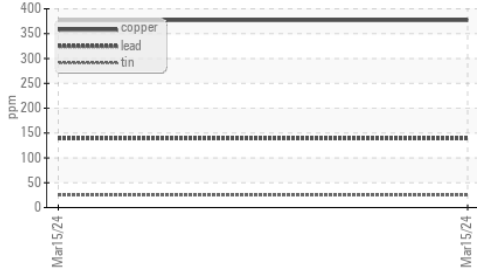
There is no indication of any contamination in the oil.

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0075128	---	---
Sample Date		Client Info		15 Mar 2024	---	---
Machine Age	hrs	Client Info		2363	---	---
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	---	---
Iron	ppm	ASTM D5185(m)	>500	107	---	---
Chromium	ppm	ASTM D5185(m)	>10	0	---	---
Nickel	ppm	ASTM D5185(m)	>10	<1	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)		0	---	---
Aluminum	ppm	ASTM D5185(m)	>25	<1	---	---
Lead	ppm	ASTM D5185(m)	>25	▲ 139	---	---
Copper	ppm	ASTM D5185(m)	>100	▲ 377	---	---
Tin	ppm	ASTM D5185(m)	>10	▲ 25	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Silicon	ppm	ASTM D5185(m)	>75	4	---	---
Potassium	ppm	ASTM D5185(m)	>20	1	---	---
Water		WC Method	>.2	NEG	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	VLITE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>.2	NEG	---	---
Sodium	ppm	ASTM D5185(m)		7	---	---
Boron	ppm	ASTM D5185(m)	110	1	---	---
Barium	ppm	ASTM D5185(m)	0.0	3	---	---
Molybdenum	ppm	ASTM D5185(m)	0.0	<1	---	---
Manganese	ppm	ASTM D5185(m)	1	3	---	---
Magnesium	ppm	ASTM D5185(m)	13	58	---	---
Calcium	ppm	ASTM D5185(m)	3610	2064	---	---
Phosphorus	ppm	ASTM D5185(m)	1192	915	---	---
Zinc	ppm	ASTM D5185(m)	1455	910	---	---
Sulfur	ppm	ASTM D5185(m)	2641	2804	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	55.14	54.0	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	9.38	8.5	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	153	131	---	---

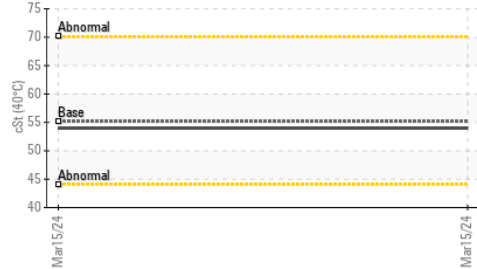
▲ Non-ferrous Metals



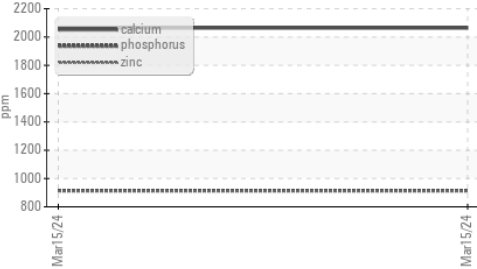
Viscosity @ 100°C



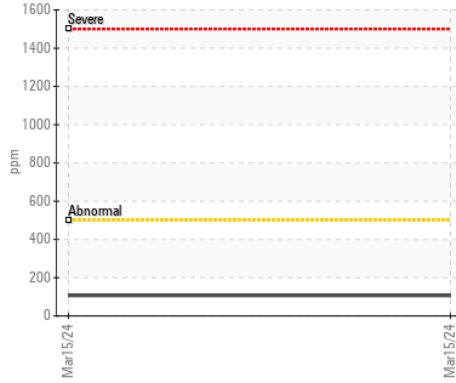
Viscosity @ 40°C



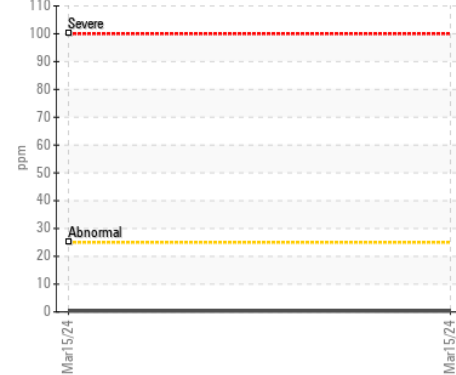
Additives



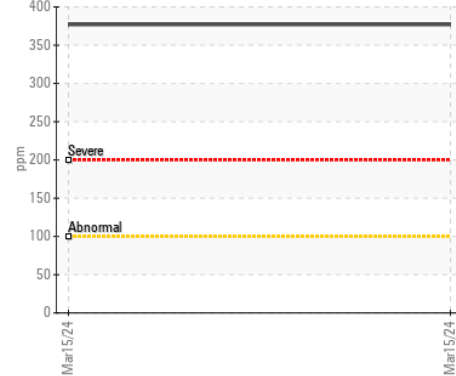
Iron (ppm)



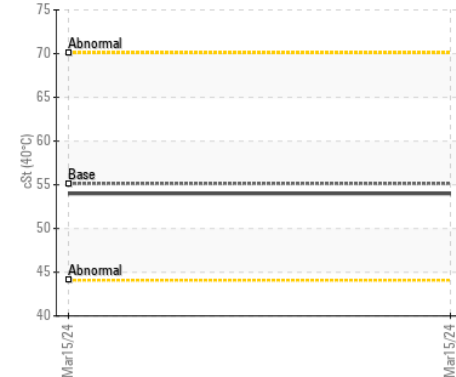
Aluminum (ppm)



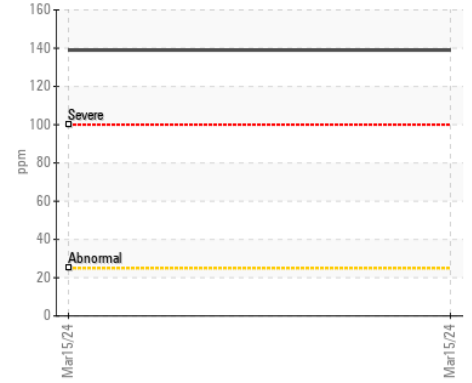
▲ Copper (ppm)



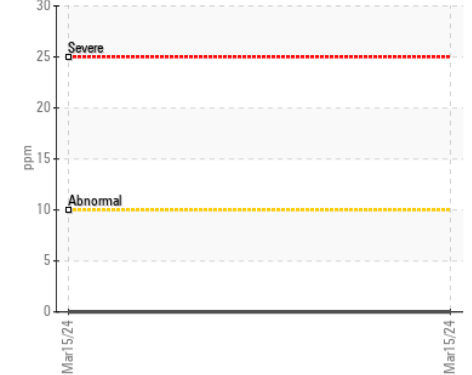
Viscosity @ 40°C



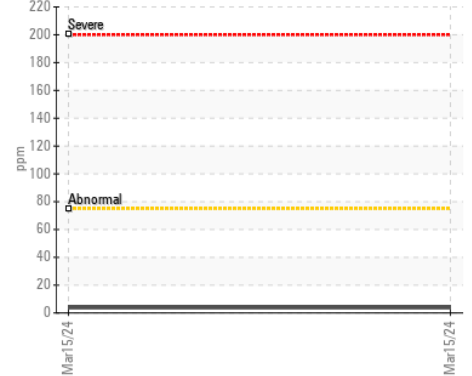
▲ Lead (ppm)



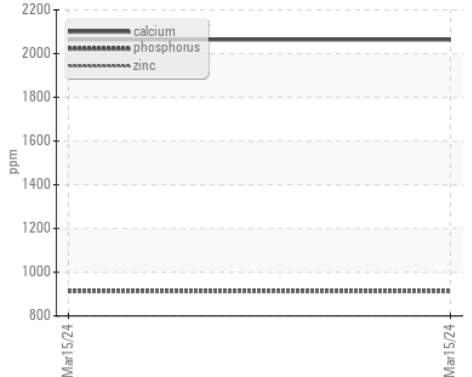
Chromium (ppm)



Silicon (ppm)



Additives



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Sample No. : PC0075128

Lab Number : 02628961

Unique Number : 5762093

Test Package : MOB 1 (Additional Tests: KV100, VI)

Received : 15 Apr 2024

Tested : 16 Apr 2024

Diagnosed : 17 Apr 2024 - Kevin Marson

TRUCK AND EQUIPMENT SOLUTION

2 BERTRAM INDUSTRIAL PKWY.

MIDHURST, ON

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Contact: Julie Holden

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F: (705)725-5425

To discuss this sample report, contact Customer Service at 1-800-268-2131.

Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.

Validity of results and interpretation are based on the sample and information as supplied.