



# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id

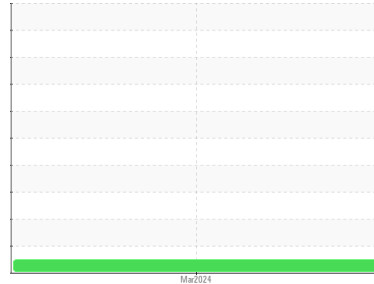
**121904 - JOHN DEERE 324E**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON ADVANCED 10W30 (--- GAL)**



## DIAGNOSIS

### Recommendation

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

### Wear

Metal levels are typical for a new component breaking in.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

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

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>SBP0006414</b>	---	---
Sample Date	Client Info		<b>25 Mar 2024</b>	---	---
Machine Age	hrs	Client Info	<b>539</b>	---	---
Oil Age	hrs	Client Info	<b>539</b>	---	---
Oil Changed	Client Info		<b>Changed</b>	---	---
Sample Status			<b>NORMAL</b>	---	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	---	---
Water	WC Method	>0.2	<b>NEG</b>	---	---
Glycol	WC Method		<b>NEG</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>35</b>	---	---
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	---	---
Nickel	ppm	ASTM D5185m >4	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m	<b>0</b>	---	---
Silver	ppm	ASTM D5185m >3	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m >20	<b>5</b>	---	---
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185m >330	<b>64</b>	---	---
Tin	ppm	ASTM D5185m >15	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	---	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>159</b>	---	---
Barium	ppm	ASTM D5185m 0	<b>1</b>	---	---
Molybdenum	ppm	ASTM D5185m 60	<b>225</b>	---	---
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m 1010	<b>733</b>	---	---
Calcium	ppm	ASTM D5185m 1070	<b>1737</b>	---	---
Phosphorus	ppm	ASTM D5185m 1150	<b>848</b>	---	---
Zinc	ppm	ASTM D5185m 1270	<b>1051</b>	---	---
Sulfur	ppm	ASTM D5185m 2060	<b>3657</b>	---	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>45</b>	---	---
Sodium	ppm	ASTM D5185m	<b>8</b>	---	---
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	---	---

## INFRA-RED

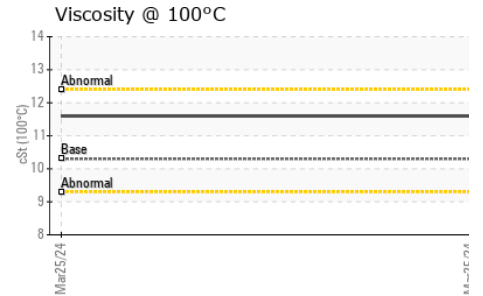
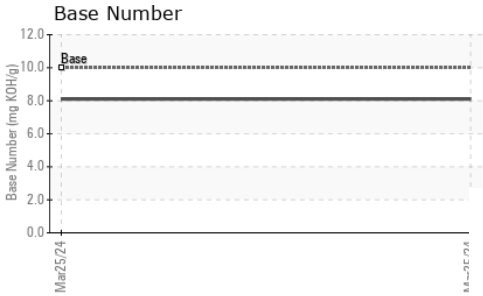
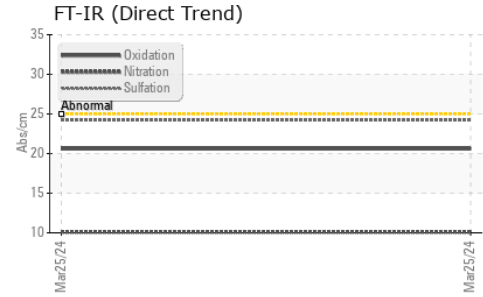
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.5</b>	---	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>10.1</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>24.2</b>	---	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>20.6</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896 10.0	<b>8.1</b>	---	---



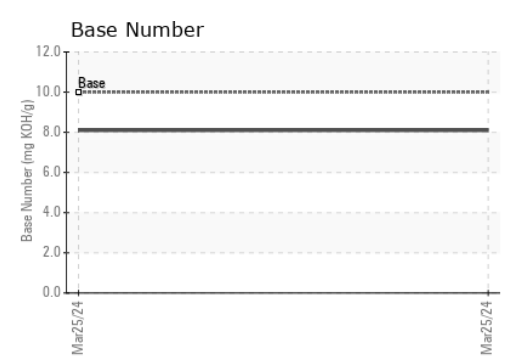
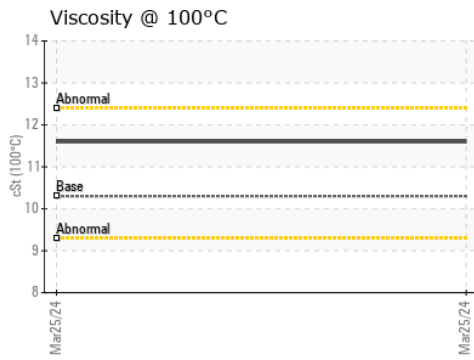
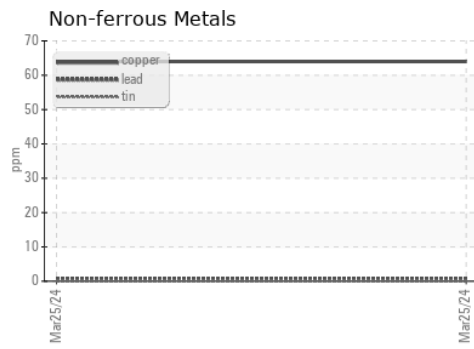
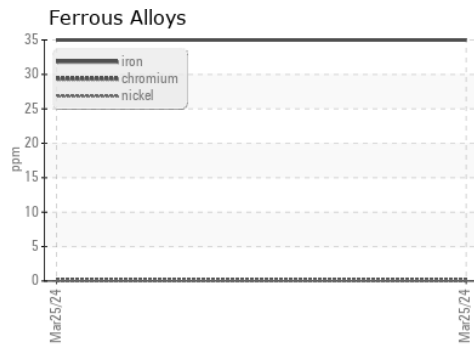
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	---	---
Free Water	scalar	*Visual		<b>NEG</b>	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	10.3	<b>11.6</b>	---	---

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : SBP0006414      **Received** : 01 Apr 2024  
**Lab Number** : **06135565**      **Tested** : 02 Apr 2024  
**Unique Number** : 10955030      **Diagnosed** : 04 Apr 2024 - Sean Felton  
**Test Package** : FLEET

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 US 68508  
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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)