



# PROBLEM SUMMARY

Sample Rating Trend

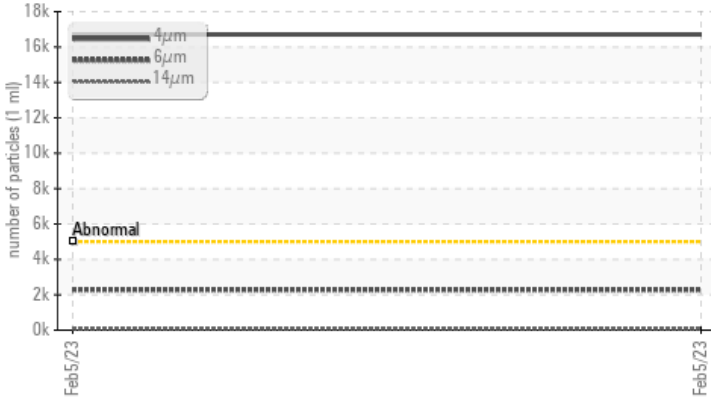
ISO



Machine Id  
**HYDR\_037 HYDRAULIC SUMP 037**  
 Component  
**Hydraulic System**  
 Fluid  
**NOT GIVEN (--- LTR)**

## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

No corrective action is recommended at this time.  
 Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status	ASTM D7647	ISO 4406 (c)	ABNORMAL	---	---
Particles >4µm	>5000	>19/17/14	▲ 16709	---	---
Particles >6µm	>1300	>19/17/14	▲ 2285	---	---
Oil Cleanliness	>19/17/14	>19/17/14	▲ 21/18/14	---	---

Customer Id: NOKDAY  
 Sample No.: WC0752526  
 Lab Number: 05759386  
 Test Package: PLANT



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@wearcheckusa.com)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS



# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**[ ] HYDR\_037 HYDRAULIC SUMP 037**

Component

**Hydraulic System**

Fluid

**NOT GIVEN (--- LTR)**

## DIAGNOSIS

### ▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### ▲ Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>WC0752526</b>	---	---
Sample Date	Client Info	<b>05 Feb 2023</b>	---	---
Machine Age	hrs	Client Info	<b>0</b>	---
Oil Age	hrs	Client Info	<b>0</b>	---
Oil Changed	Client Info	<b>N/A</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<b>6</b>	---
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	---
Nickel	ppm	ASTM D5185m >20	<b>0</b>	---
Titanium	ppm	ASTM D5185m	<b>0</b>	---
Silver	ppm	ASTM D5185m	<b>0</b>	---
Aluminum	ppm	ASTM D5185m >20	<b>0</b>	---
Lead	ppm	ASTM D5185m >20	<b>0</b>	---
Copper	ppm	ASTM D5185m >20	<b>4</b>	---
Tin	ppm	ASTM D5185m >20	<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	<b>0</b>	---
Barium	ppm	ASTM D5185m	<b>0</b>	---
Molybdenum	ppm	ASTM D5185m	<b>0</b>	---
Manganese	ppm	ASTM D5185m	<b>0</b>	---
Magnesium	ppm	ASTM D5185m	<b>0</b>	---
Calcium	ppm	ASTM D5185m	<b>107</b>	---
Phosphorus	ppm	ASTM D5185m	<b>436</b>	---
Zinc	ppm	ASTM D5185m	<b>30</b>	---
Sulfur	ppm	ASTM D5185m	<b>1829</b>	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>1</b>	---
Sodium	ppm	ASTM D5185m	<b>1</b>	---
Potassium	ppm	ASTM D5185m >20	<b>0</b>	---

## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	<b>▲ 16709</b>	---	---
Particles >6µm	ASTM D7647 >1300	<b>▲ 2285</b>	---	---
Particles >14µm	ASTM D7647 >160	<b>81</b>	---	---
Particles >21µm	ASTM D7647 >40	<b>20</b>	---	---
Particles >38µm	ASTM D7647 >10	<b>3</b>	---	---
Particles >71µm	ASTM D7647 >3	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c) >19/17/14	<b>▲ 21/18/14</b>	---	---

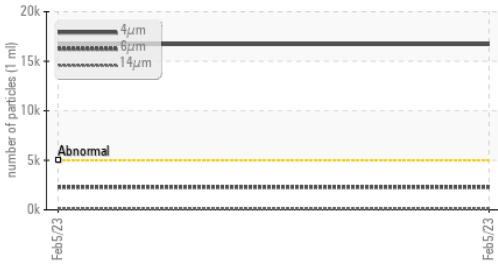
## FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.072</b>	---

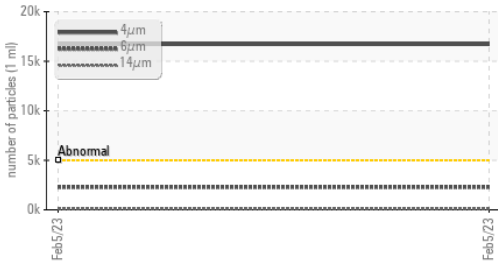


# OIL ANALYSIS REPORT

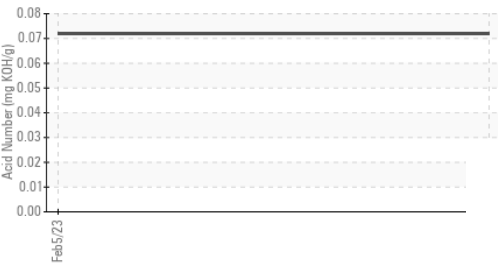
### ▲ Particle Trend



### ▲ Particle Trend



### Acid Number



### Viscosity @ 40°C



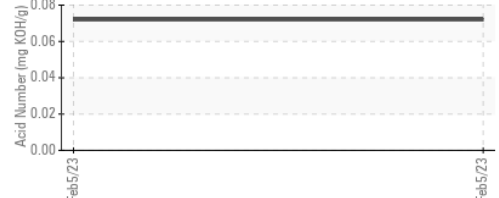
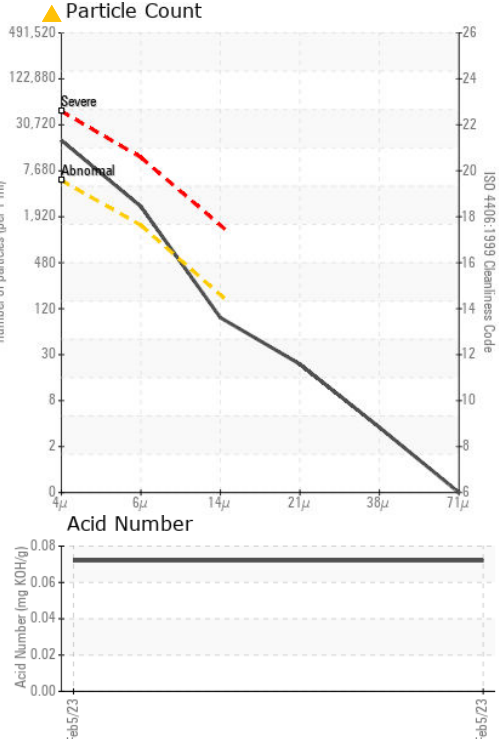
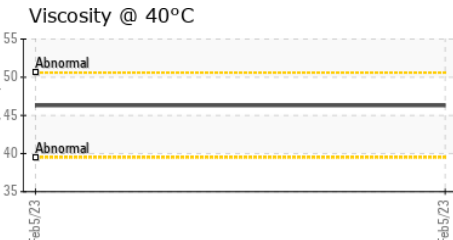
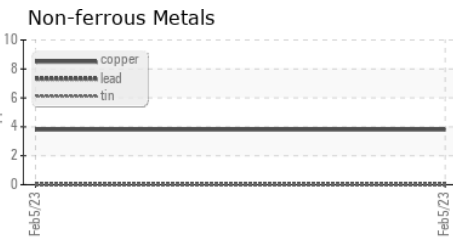
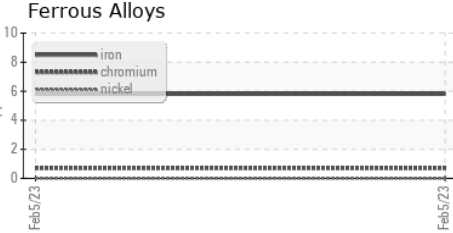
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	VLITE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	LIGHT	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.05	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46.3	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color		no image	no image
Bottom		no image	no image

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0752526 **Received** : 06 Feb 2023  
**Lab Number** : 05759386 **Diagnosed** : 07 Feb 2023  
**Unique Number** : 10323993 **Diagnostician** : Jonathan Hester  
**Test Package** : PLANT

**NOKIAN TYRES US OPERATIONS LLC**  
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 US 37321  
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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)