

# **PROBLEM SUMMARY**

Sample Rating Trend

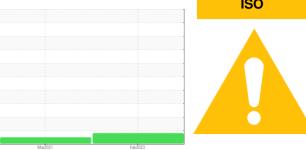
ISO

unassigned

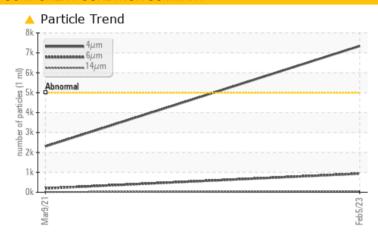
[unassigned] HYDR\_015 Curing Line 1

**Hydraulic System** 

**NOT GIVEN (500 LTR)** 



## **COMPONENT CONDITION SUMMARY**



#### RECOMMENDATION

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

PROBLEMATIC TES	ST RESULTS				
Sample Status			ATTENTION	NORMAL	
Particles >4μm	ASTM D7647	>5000	<b>7345</b>	2303	
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>20/17/13</b>	18/15/11	

Customer Id: NOKDAY Sample No.: WC0752527 Lab Number: 05759397 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

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

## **RECOMMENDED ACTIONS**

There are no recommended actions for this sample.

## HISTORICAL DIAGNOSIS

09 Mar 2021 Diag: Jonathan Hester

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





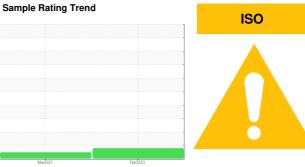
# **OIL ANALYSIS REPORT**

unassigned

[unassigned] HYDR\_015 Curing Line 1

**Hydraulic System** 

**NOT GIVEN (500 LTR)** 



## **DIAGNOSIS**

#### Recommendation

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

All component wear rates are normal.

## Contamination

There is a moderate amount of silt (particulates < 6 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.

		<u> </u>	Mar2021	Feb 2023		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0752527	WC0512314	
Sample Date		Client Info		05 Feb 2023	09 Mar 2021	
Machine Age	hrs	Client Info		0	0	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		N/A	N/A	
Sample Status				ATTENTION	NORMAL	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	3	<1	
Chromium	ppm	ASTM D5185m	>20	<1	<1	
Nickel	ppm	ASTM D5185m	>20	0	0	
Titanium	ppm	ASTM D5185m		0	0	
Silver	ppm	ASTM D5185m		0	0	
Aluminum	ppm	ASTM D5185m	>20	0	0	
Lead	ppm	ASTM D5185m	>20	0	<1	
Copper	ppm	ASTM D5185m	>20	7	2	
Tin	ppm	ASTM D5185m	>20	0	0	
Antimony	ppm	ASTM D5185m			0	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	<1	
Barium	ppm	ASTM D5185m		0	0	
Molybdenum	ppm	ASTM D5185m		0	0	
Manganese	ppm	ASTM D5185m		0	0	
Magnesium	ppm	ASTM D5185m		0	0	
Calcium	ppm	ASTM D5185m		104	103	
Phosphorus				436	404	
	maa	ASTM D5185m		430	431	
Zinc	mqq				431 49	
	ppm ppm	ASTM D5185m ASTM D5185m		49 2088		
Zinc	ppm ppm	ASTM D5185m	limit/base	49	49	
Zinc Sulfur CONTAMINANTS	ppm ppm	ASTM D5185m ASTM D5185m method	limit/base >15	49 2088	49 1481	
Zinc Sulfur CONTAMINANTS Silicon	ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m		49 2088 current	49 1481 history1	
Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm	ASTM D5185m ASTM D5185m method	>15	49 2088 current <1	49 1481 history1 <1	history2
Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	>15	49 2088 current <1 2	49 1481 history1 <1 0	history2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	>15 >20	49 2088 current <1 2 0	49 1481 history1 <1 0 0	history2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method	>15 >20 limit/base	49 2088 current <1 2 0	49 1481 history1 <1 0 0 history1	history2 history2 history2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D7647	>15 >20 limit/base >5000	49 2088  current  <1 2 0  current  7345	49 1481 history1 <1 0 0 history1 2303	history2 history2 history2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  method ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300	49 2088  current <1 2 0  current  ^7345 936	49 1481 history1 <1 0 0 history1 2303 195 14	history2 history2 history2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160	49 2088  current <1 2 0  current  7345 936 51 12	49 1481 history1 <1 0 0 history1 2303 195	history2 history2 history2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160 >40 >10	49 2088  current <1 2 0  current  7345 936 51 12 1	49 1481  history1  <1 0 0  history1  2303  195 14 3 0	history2 history2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  method ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160 >40	49 2088  current <1 2 0  current  7345 936 51 12	49 1481  history1  <1 0 0  history1  2303  195 14 3	history2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647	>15  >20  limit/base  >5000  >1300  >160  >40  >10  >3	49 2088  current  <1 2 0  current  ^ 7345 936 51 12 1 0	49 1481 history1 <1 0 0 history1 2303 195 14 3 0 0	history2 history2



## **OIL ANALYSIS REPORT**







Laboratory Sample No. Lab Number Unique Number

: WC0752527 : 05759397 : 10324004 Test Package : PLANT

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : 06 Feb 2023 Received : 07 Feb 2023 Diagnosed

Diagnostician

: Jonathan Hester

Contact: CHRIS NAPIER christopher.napier@nokiantyres.com T: (423)457-3121

**NOKIAN TYRES US OPERATIONS LLC** 

520 NOKIAN TYRES DRIVE

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)

DAYTON, TN

US 37321