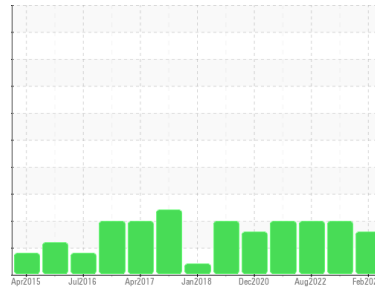




# PROBLEM SUMMARY

Sample Rating Trend



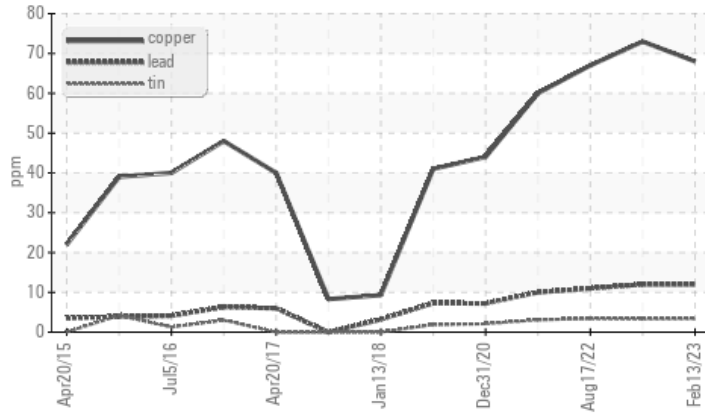
WEAR



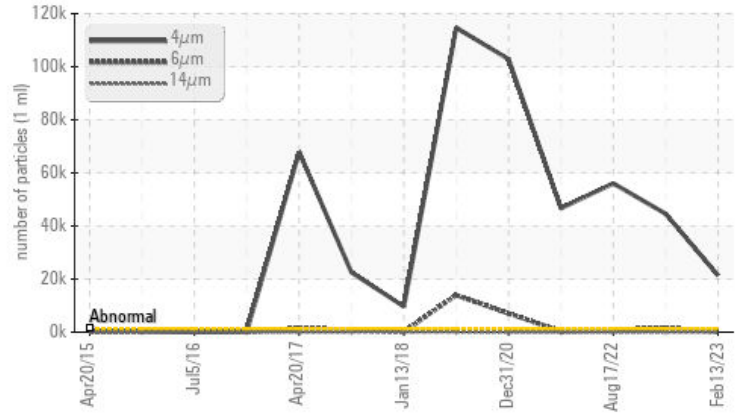
Area  
**WOOD SUPPLY**  
 Machine Id  
**PHELPS 0120HP01**  
 Component  
**Hydraulic System**  
 Fluid  
**HYPAR 68 (800 GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Non-ferrous Metals



### ▲ Particle Trend



## RECOMMENDATION

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

## PROBLEMATIC TEST RESULTS

Sample Status		ABNORMAL	ABNORMAL	ABNORMAL	
Copper	ppm	ASTM D5185m >20	▲ 68	▲ 73	▲ 67
Particles >4µm		ASTM D7647 >1300	▲ 21371	▲ 44601	▲ 56053
Oil Cleanliness		ISO 4406 (c) >17/15/12	▲ 22/14/9	▲ 23/18/11	▲ 23/17/10

Customer Id: FLAMONNC  
 Sample No.: WC0730484  
 Lab Number: 05844393  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

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

### 15 Nov 2022 Diag: Angela Borella

#### WEAR



The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The copper level is abnormal. All other component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 17 Aug 2022 Diag: Don Baldrige

#### WEAR



We recommend you service the filters on this component. Resample at the next service interval to monitor. The copper level is abnormal. All other component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 18 May 2022 Diag: Don Baldrige

#### WEAR



No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The copper level is abnormal. All other component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

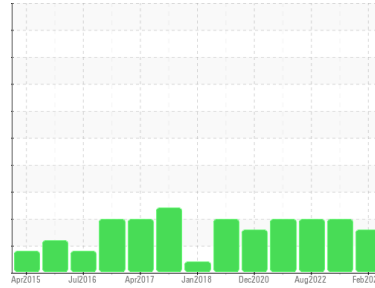
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Area  
**WOOD SUPPLY**  
Machine Id  
**PHELPS 0120HP01**  
Component  
**Hydraulic System**  
Fluid  
**HYPAR 68 (800 GAL)**

## DIAGNOSIS

### ▲ Recommendation

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

### ▲ Wear

The copper level is abnormal. All other 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>WC0730484</b>	WC0668093	WC0635778
Sample Date	Client Info		<b>13 Feb 2023</b>	15 Nov 2022	17 Aug 2022
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Not Changed</b>	Not Changed	N/A
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<b>8</b>	8	8
Chromium	ppm	ASTM D5185m >20	<b>11</b>	10	10
Nickel	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >20	<b>0</b>	0	1
Lead	ppm	ASTM D5185m >20	<b>12</b>	12	11
Copper	ppm	ASTM D5185m >20	<b>▲ 68</b>	▲ 73	▲ 67
Tin	ppm	ASTM D5185m >20	<b>3</b>	3	3
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>0</b>	0	<1
Barium	ppm	ASTM D5185m	<b>0</b>	1	0
Molybdenum	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Manganese	ppm	ASTM D5185m	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	<b>2</b>	2	2
Calcium	ppm	ASTM D5185m	<b>102</b>	106	103
Phosphorus	ppm	ASTM D5185m	<b>479</b>	474	466
Zinc	ppm	ASTM D5185m	<b>552</b>	543	527
Sulfur	ppm	ASTM D5185m	<b>7396</b>	7059	6338

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>4</b>	4	4
Sodium	ppm	ASTM D5185m	<b>3</b>	<1	<1
Potassium	ppm	ASTM D5185m >20	<b>1</b>	2	1

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>1300	<b>▲ 21371</b>	▲ 44601	▲ 56053
Particles >6µm	ASTM D7647	>320	<b>116</b>	▲ 1562	▲ 833
Particles >14µm	ASTM D7647	>40	<b>3</b>	13	6
Particles >21µm	ASTM D7647	>10	<b>1</b>	1	2
Particles >38µm	ASTM D7647	>3	<b>0</b>	1	1
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	1
Oil Cleanliness	ISO 4406 (c)	>17/15/12	<b>▲ 22/14/9</b>	▲ 23/18/11	▲ 23/17/10

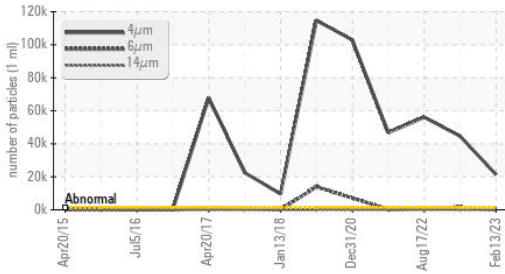
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.93</b>	0.85	0.89

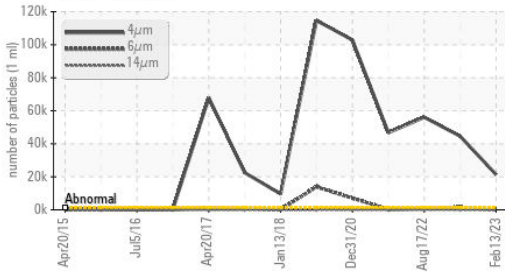


# OIL ANALYSIS REPORT

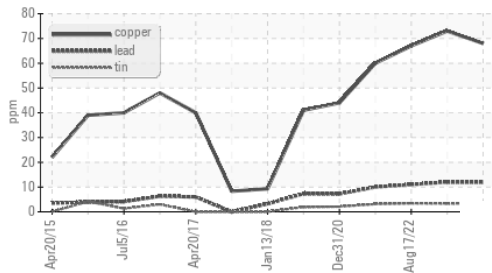
## ▲ Particle Trend



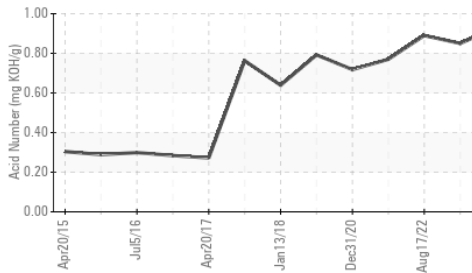
## ▲ Particle Trend



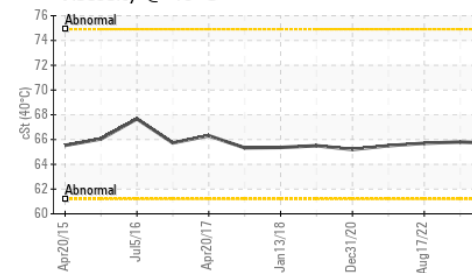
## ▲ Non-ferrous Metals



## Acid Number



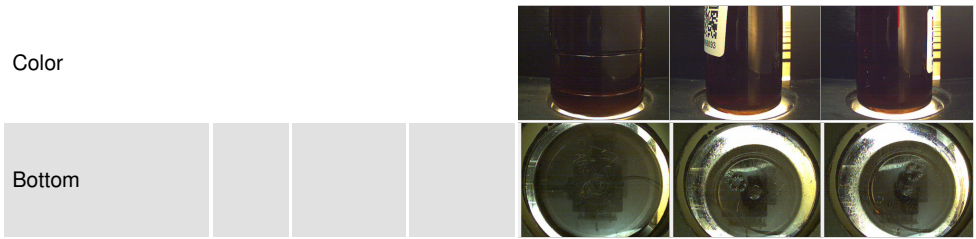
## Viscosity @ 40°C



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

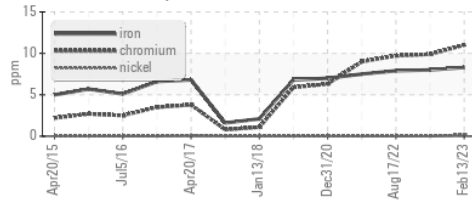
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	65.7	65.8	65.7

SAMPLE IMAGES	method	limit/base	current	history1	history2
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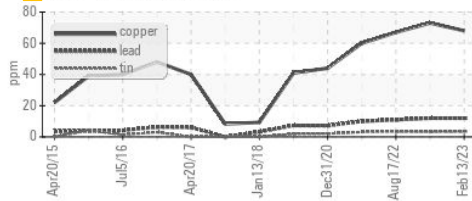


## GRAPHS

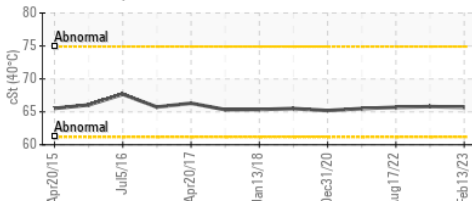
### Ferrous Alloys



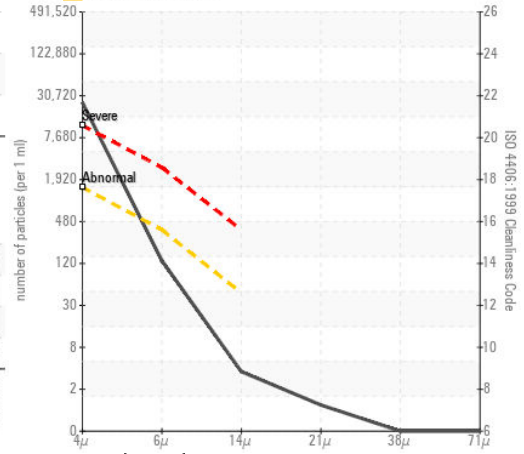
### Non-ferrous Metals



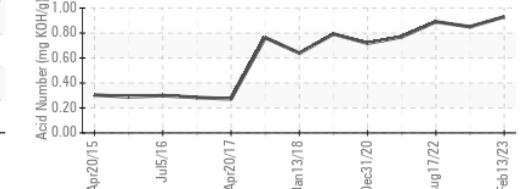
### Viscosity @ 40°C



### ▲ Particle Count



### Acid Number



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0730484 **Received** : 11 May 2023  
**Lab Number** : 05844393 **Diagnosed** : 14 May 2023  
**Unique Number** : 10468500 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2

**ARAUCO FLAKEBOARD - MDF**  
 985 CORINTH RD  
 MONCURE, NC  
 US  
 Contact: CHRISTOPHER JACKSON  
 christopher.jackson@arauco.com

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)