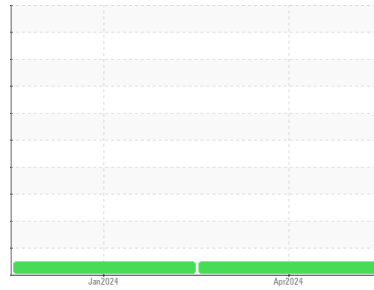


# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**CASTER MAIN**  
 Component  
**Hydraulic System**  
 Fluid  
**KOST ACHIEVAL FRH 46 (--- GAL)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

#### Fluid Condition

The pH level of this fluid is within the acceptable limits at 11.0. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>PCA0107859</b>	PCA0107865	---
Sample Date	Client Info			<b>04 Apr 2024</b>	19 Jan 2024	---
Machine Age	days	Client Info		<b>0</b>	0	---
Oil Age	days	Client Info		<b>0</b>	90	---
Oil Changed	Client Info			<b>N/A</b>	N/A	---
Sample Status				<b>NORMAL</b>	NORMAL	---

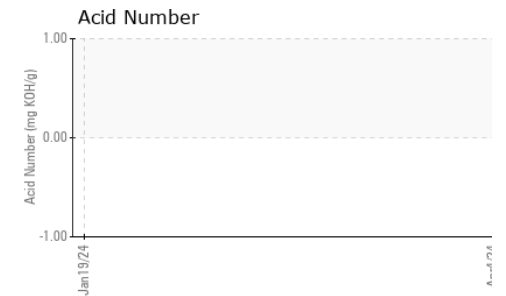
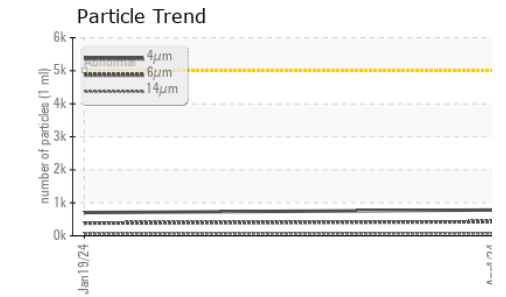
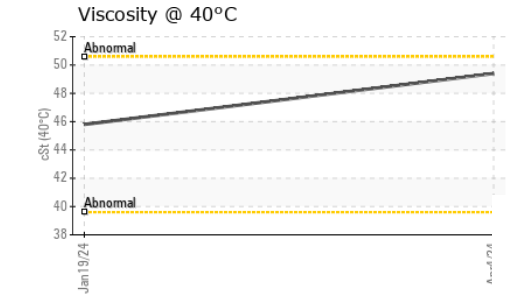
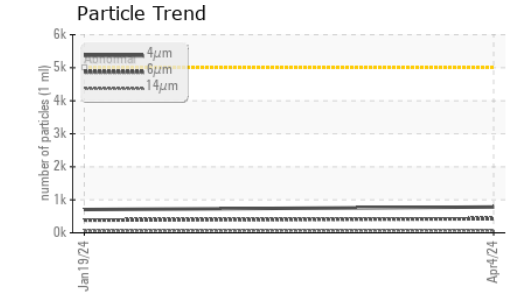
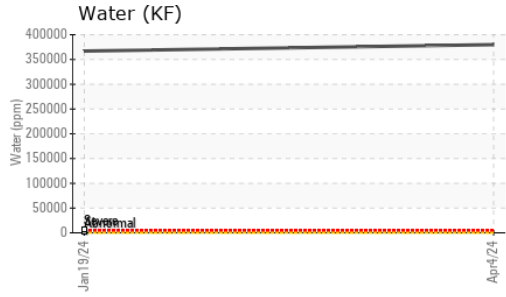
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	<b>2</b>	0	---
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	0	---
Nickel	ppm	ASTM D5185m	>20	<b>1</b>	<1	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>11</b>	<1	---
Lead	ppm	ASTM D5185m	>20	<b>0</b>	0	---
Copper	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	---
Tin	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>2</b>	0	---
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>1</b>	0	---
Barium	ppm	ASTM D5185m		<b>0</b>	<1	---
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m		<b>&lt;1</b>	1	---
Calcium	ppm	ASTM D5185m		<b>3</b>	1	---
Phosphorus	ppm	ASTM D5185m		<b>9</b>	4	---
Zinc	ppm	ASTM D5185m		<b>3</b>	6	---
Sulfur	ppm	ASTM D5185m		<b>0</b>	0	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<b>3</b>	<1	---
Sodium	ppm	ASTM D5185m		<b>42</b>	0	---
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	1	---
Water	%	ASTM D6304	>0.05	<b>38.0</b>	36.7	---
ppm Water	ppm	ASTM D6304	>500	<b>380000</b>	367000	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	<b>783</b>	705	---
Particles >6µm		ASTM D7647	>1300	<b>426</b>	384	---
Particles >14µm		ASTM D7647	>160	<b>73</b>	65	---
Particles >21µm		ASTM D7647	>40	<b>24</b>	22	---
Particles >38µm		ASTM D7647	>10	<b>4</b>	3	---
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>17/16/13</b>	17/16/13	---

# OIL ANALYSIS REPORT



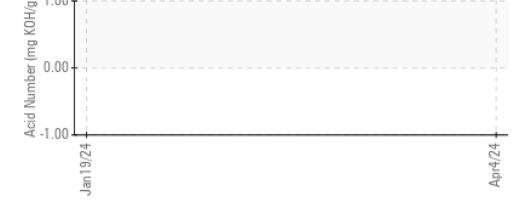
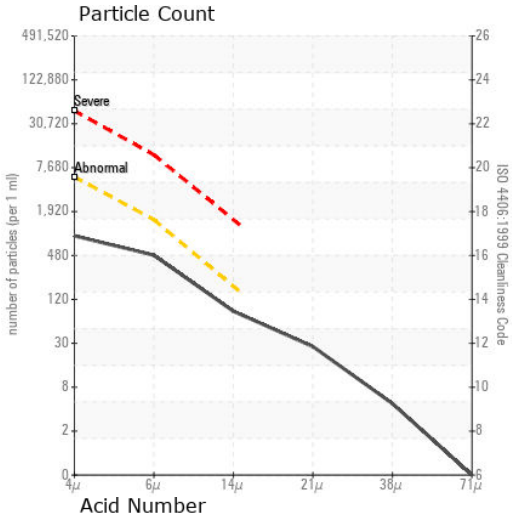
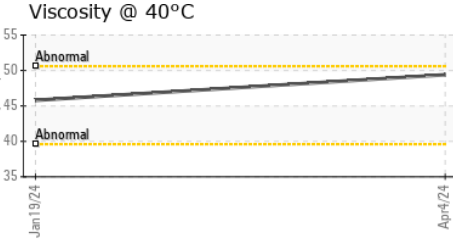
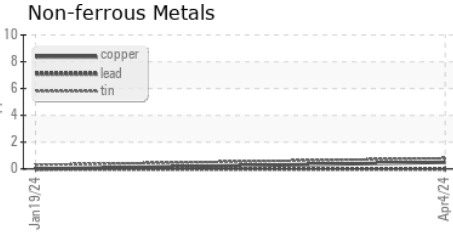
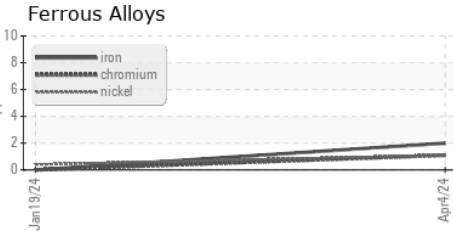
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.05	<b>0.2%</b>	0.2%	---
Free Water	scalar	*Visual		<b>NEG</b>	NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
pH	Scale 0-14	ASTM D1287	<b>11.0</b>	9.00	---
Visc @ 40°C	cSt	ASTM D445	<b>49.4</b>	45.8	---

### SAMPLE IMAGES

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

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0107859      **Received** : 22 Apr 2024  
**Lab Number** : **06156086**      **Tested** : 24 Apr 2024  
**Unique Number** : 10991509      **Diagnosed** : 24 Apr 2024 - Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: KF, pH )

**NUCOR STEEL KANKAKEE**  
 ONE NUCOR WAY  
 BOURBONNAIS, IL  
 US 60914  
 Contact: NATHAN DUNNILL  
 nathan.dunnill@nucor.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)