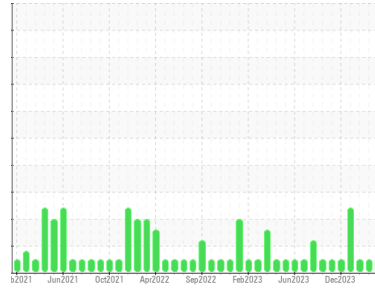




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

**MELT SHOP - HYDRAULIC**

Machine Id

**MELT SHOP LTS MAIN HYD (S/N 15-4000-0770)**

Component

**Tank Hydraulic System**

Fluid

**FIRE-RESISTANT FLUID ISO 46 (396 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 9.0. 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>RP0035578</b>	RP0042619	RP0039212
Sample Date	Client Info		<b>28 Mar 2024</b>	05 Mar 2024	31 Jan 2024
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>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<b>6</b>	6	0
Chromium	ppm	ASTM D5185m >20	<b>1</b>	1	0
Nickel	ppm	ASTM D5185m >20	<b>1</b>	<1	<1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >20	<b>11</b>	11	<1
Lead	ppm	ASTM D5185m >20	<b>0</b>	0	2
Copper	ppm	ASTM D5185m >20	<b>1</b>	1	3
Tin	ppm	ASTM D5185m >20	<b>1</b>	1	1
Vanadium	ppm	ASTM D5185m	<b>1</b>	1	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 5	<b>4</b>	1	0
Barium	ppm	ASTM D5185m 5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 5	<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	0	2
Magnesium	ppm	ASTM D5185m 5	<b>&lt;1</b>	<1	1
Calcium	ppm	ASTM D5185m 50	<b>6</b>	6	1
Phosphorus	ppm	ASTM D5185m 175	<b>6</b>	3	3
Zinc	ppm	ASTM D5185m 62	<b>3</b>	4	7

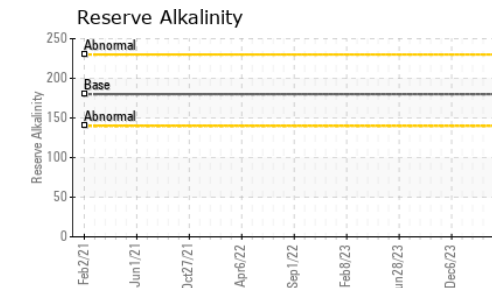
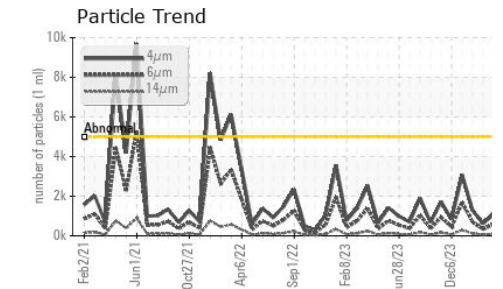
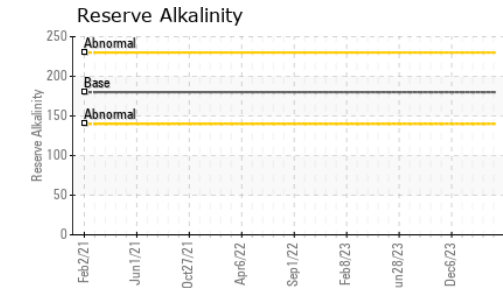
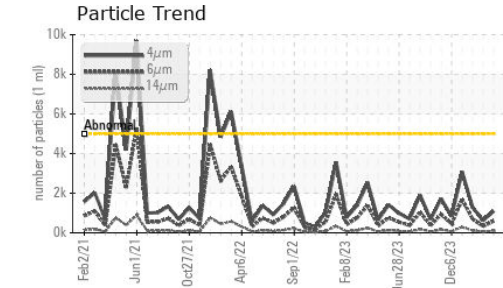
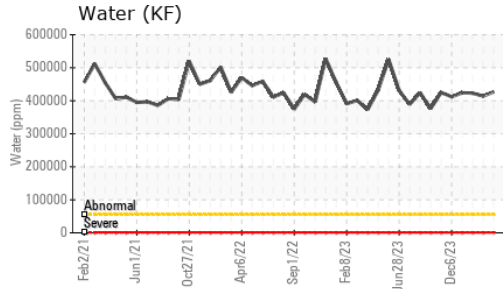
## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>3</b>	2	<1
Sodium	ppm	ASTM D5185m	<b>35</b>	34	2
Potassium	ppm	ASTM D5185m >20	<b>7</b>	8	4
Water	%	ASTM D6304 >55	<b>42.7</b>	41.4	42.3
ppm Water	ppm	ASTM D6304 >55000	<b>427000</b>	414000	423000

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>1096</b>	618	1279
Particles >6µm	ASTM D7647	>1300	<b>597</b>	336	697
Particles >14µm	ASTM D7647	>160	<b>102</b>	57	119
Particles >21µm	ASTM D7647	>40	<b>34</b>	19	40
Particles >38µm	ASTM D7647	>10	<b>5</b>	3	6
Particles >71µm	ASTM D7647	>3	<b>1</b>	0	1
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>17/16/14</b>	16/16/13	17/17/14

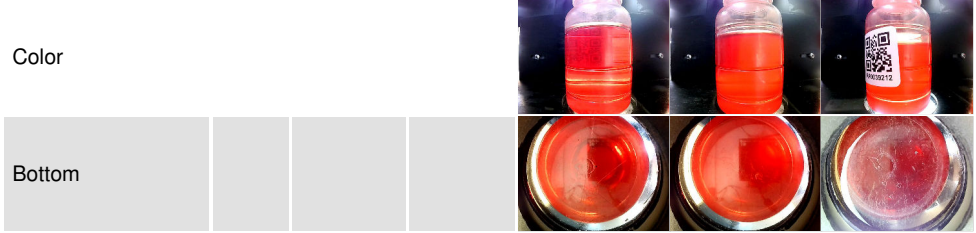
# OIL ANALYSIS REPORT



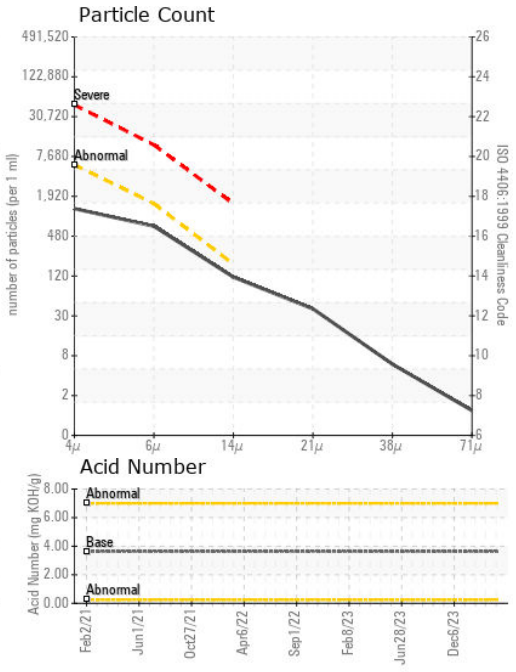
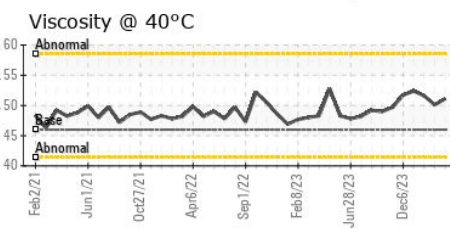
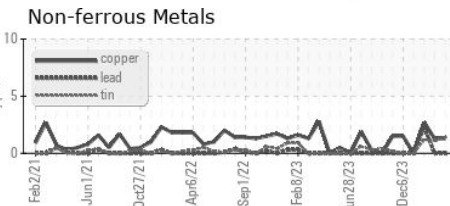
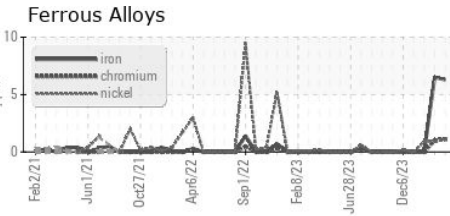
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>55	0.2%	0.2%
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
pH	Scale 0-14	ASTM D1287	9.00	8.00	9.00
Visc @ 40°C	cSt	ASTM D445	46	51.1	51.6

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RP0035578  
**Lab Number** : 06134123  
**Unique Number** : 10953588  
**Test Package** : IND 2 ( Additional Tests: pH, ReserveAlk )  
**Received** : 29 Mar 2024  
**Tested** : 03 Apr 2024  
**Diagnosed** : 03 Apr 2024 - Jonathan Hester

**OUTOKUMPU STAINLESS USA**  
 HWY 43 N  
 CALVERT, AL  
 US 36513  
 Contact: MARIO JOHNSON  
 Mario.johnson@outokumpu.com  
 T: (251)321-4105  
 F: x:

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)