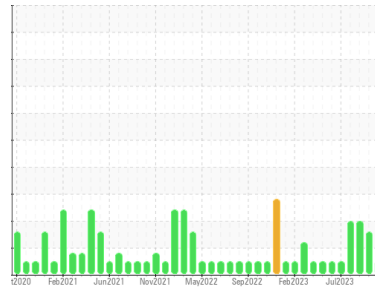




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**MELT SHOP - HYDRAULIC**  
 Machine Id  
**MELT SHOP LSG LADLE SLIDE GATE (S/N 15-4000-0770)**  
 Component  
**Hydraulic System**  
 Fluid  
**FIRE-RESISTANT FLUID ISO 46 (66 GAL)**

## 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 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>RP0038068</b>	RP0035329	RP0035494
Sample Date	Client Info	<b>06 Dec 2023</b>	07 Nov 2023	27 Sep 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>NORMAL</b>	ATTENTION	ATTENTION

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >20	<b>0</b>	0	0
Chromium	ppm	ASTM D5185m >20	<b>0</b>	0	0
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	0
Aluminum	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	0
Lead	ppm	ASTM D5185m >20	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >20	<b>1</b>	1	0
Tin	ppm	ASTM D5185m >20	<b>0</b>	0	0
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 5	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 5	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m 5	<b>&lt;1</b>	0	3
Calcium	ppm	ASTM D5185m 50	<b>0</b>	0	2
Phosphorus	ppm	ASTM D5185m 175	<b>3</b>	0	4
Zinc	ppm	ASTM D5185m 62	<b>0</b>	0	9

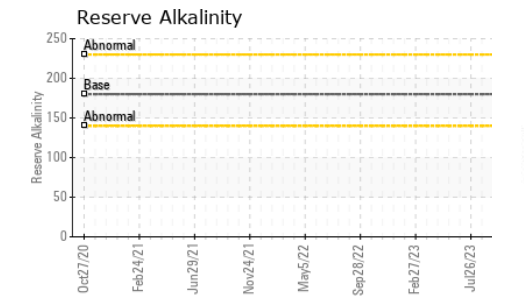
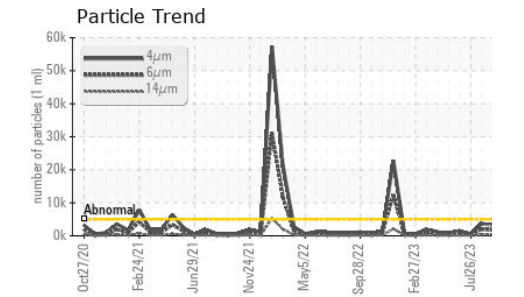
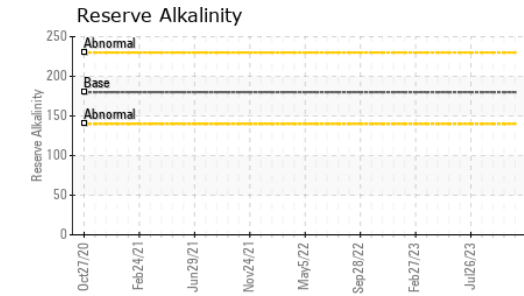
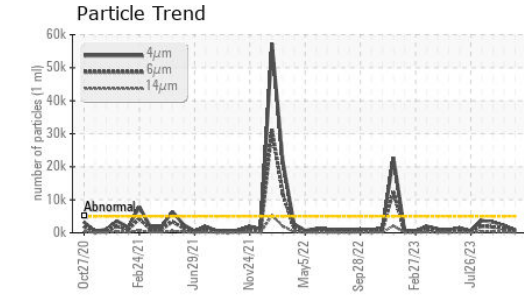
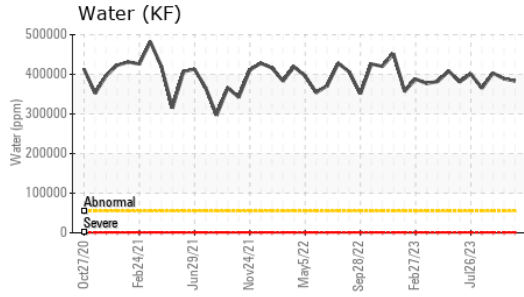
## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	0
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Potassium	ppm	ASTM D5185m >20	<b>1</b>	2	<1
Water	%	ASTM D6304 >55	<b>38.3</b>	38.9	40.3
ppm Water	ppm	ASTM D6304 >55000	<b>383000</b>	389000	403000

## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	<b>818</b>	2262	3201
Particles >6µm	ASTM D7647 >1300	<b>445</b>	1232	▲ 1744
Particles >14µm	ASTM D7647 >160	<b>76</b>	▲ 210	▲ 297
Particles >21µm	ASTM D7647 >40	<b>26</b>	▲ 71	▲ 100
Particles >38µm	ASTM D7647 >10	<b>4</b>	▲ 11	▲ 15
Particles >71µm	ASTM D7647 >3	<b>0</b>	1	2
Oil Cleanliness	ISO 4406 (c) >19/17/14	<b>17/16/13</b>	▲ 18/17/15	▲ 19/18/15

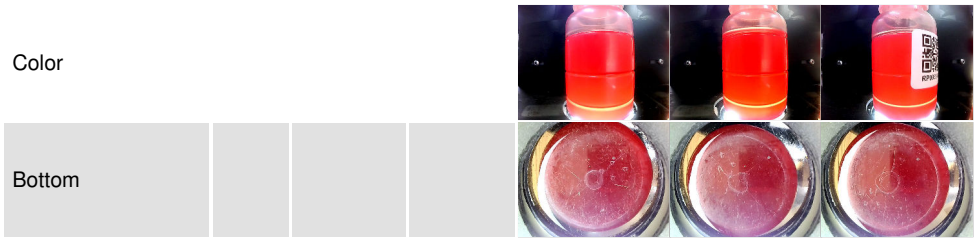
# OIL ANALYSIS REPORT



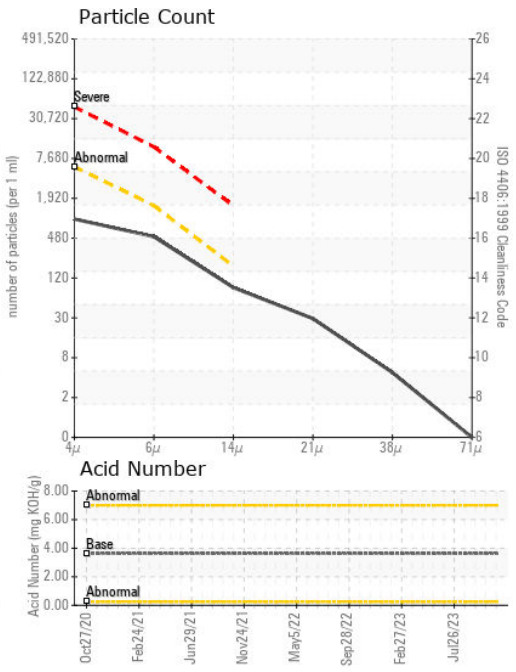
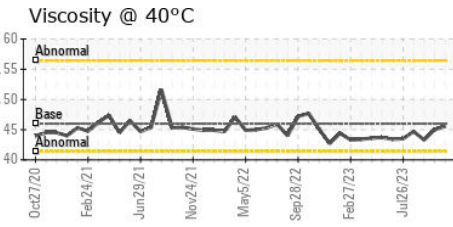
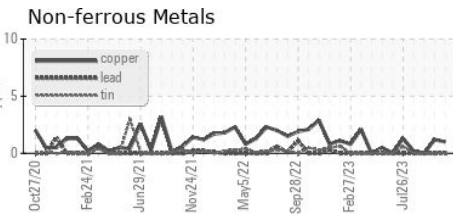
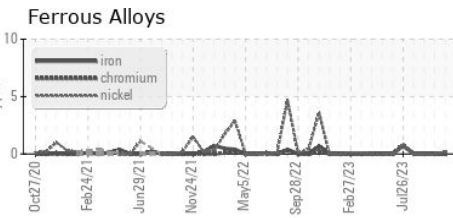
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	9.0	11.0	11.0
Visc @ 40°C	cSt	ASTM D445	46	45.0	43.3

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RP0038068 **Received** : 07 Dec 2023  
**Lab Number** : 06028742 **Diagnosed** : 13 Dec 2023  
**Unique Number** : 10778533 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: pH, ReserveAlk )

**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)