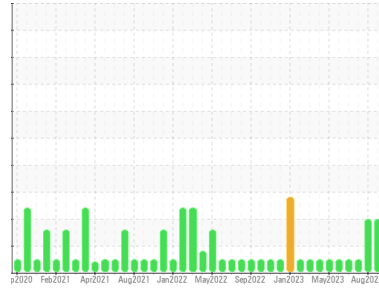


# PROBLEM SUMMARY

Sample Rating Trend

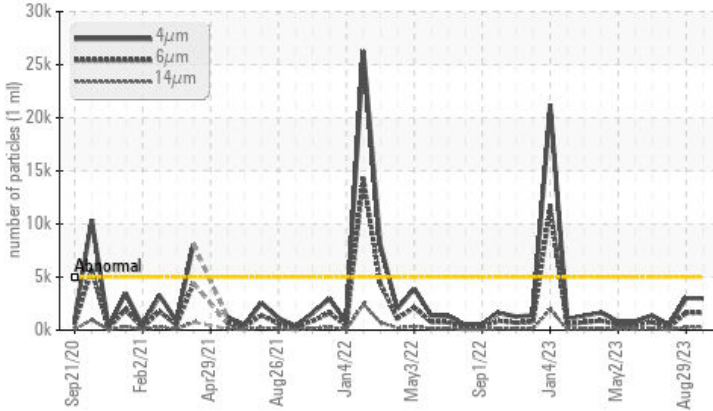
ISO

Area  
**MELT SHOP - HYDRAULIC**  
 Machine Id  
**MELT SHOP TUNDISH FLIPPING STAND**  
 Component  
**Hydraulic System**  
 Fluid  
**FIRE-RESISTANT FLUID ISO 46 (275 GAL)**



## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

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

## PROBLEMATIC TEST RESULTS

Sample Status			ATTENTION	ATTENTION	NORMAL
Particles >6µm	ASTM D7647	>1300	▲ 1626	▲ 1635	256
Particles >14µm	ASTM D7647	>160	▲ 277	▲ 278	44
Particles >21µm	ASTM D7647	>40	▲ 93	▲ 94	15
Particles >38µm	ASTM D7647	>10	▲ 14	▲ 14	2
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 19/18/15	▲ 19/18/15	16/15/13

Customer Id: OUTCALAL  
 Sample No.: RP0034953  
 Lab Number: 05964693  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Doug Bogart +1 (800)237-1369 x4016  
[dougb@wearcheckusa.com](mailto:dougb@wearcheckusa.com)

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

### 29 Aug 2023 Diag: Doug Bogart

ISO



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of particulates present in the oil. The pH level of this fluid is within the acceptable limits @ 9.0. The condition of the oil is acceptable for the time in service.

view report



### 26 Jul 2023 Diag: Jonathan Hester

NORMAL



No corrective action is recommended at this time. 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 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.

view report



### 28 Jun 2023 Diag: Jonathan Hester

NORMAL



No corrective action is recommended at this time. 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 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.

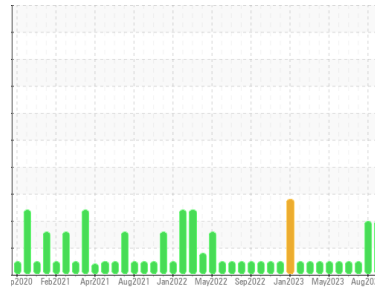
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**MELT SHOP - HYDRAULIC**  
Machine Id  
**MELT SHOP TUNDISH FLIPPING STAND**  
Component  
**Hydraulic System**  
Fluid  
**FIRE-RESISTANT FLUID ISO 46 (275 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 a moderate amount of particulates present in the oil.

### Fluid Condition

The pH level of this fluid is within the acceptable limits. pH is 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>RP0034953</b>	RP0035571	RP0034893
Sample Date	Client Info	<b>27 Sep 2023</b>	29 Aug 2023	26 Jul 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>ATTENTION</b>	ATTENTION	NORMAL

## WEAR METALS

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

## 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	1
Molybdenum	ppm	ASTM D5185m 5	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m 5	<b>3</b>	0	0
Calcium	ppm	ASTM D5185m 50	<b>2</b>	3	0
Phosphorus	ppm	ASTM D5185m 175	<b>3</b>	15	4
Zinc	ppm	ASTM D5185m 62	<b>8</b>	15	7

## CONTAMINANTS

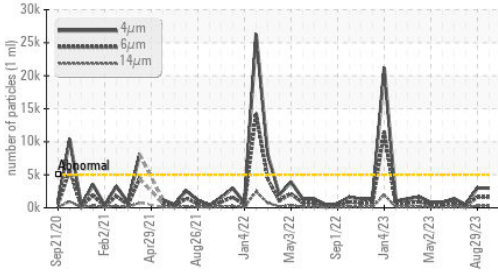
method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >15	<b>0</b>	0	<1
Sodium	ppm	ASTM D5185m	<b>0</b>	0	9
Potassium	ppm	ASTM D5185m >20	<b>0</b>	<1	2
Water	%	ASTM D6304 >55	<b>41.8</b>	44.4	38.7
ppm Water	ppm	ASTM D6304 >55000	<b>418000</b>	444000	387000

## FLUID CLEANLINESS

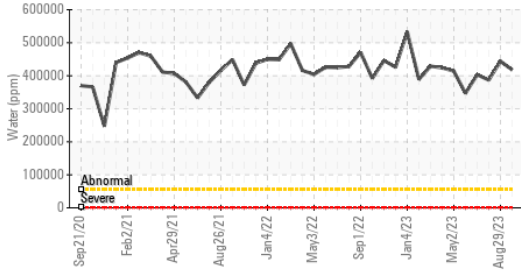
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	<b>2984</b>	3001	470
Particles >6µm	ASTM D7647 >1300	<b>▲ 1626</b>	▲ 1635	256
Particles >14µm	ASTM D7647 >160	<b>▲ 277</b>	▲ 278	44
Particles >21µm	ASTM D7647 >40	<b>▲ 93</b>	▲ 94	15
Particles >38µm	ASTM D7647 >10	<b>▲ 14</b>	▲ 14	2
Particles >71µm	ASTM D7647 >3	<b>1</b>	1	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	<b>▲ 19/18/15</b>	▲ 19/18/15	16/15/13

# OIL ANALYSIS REPORT

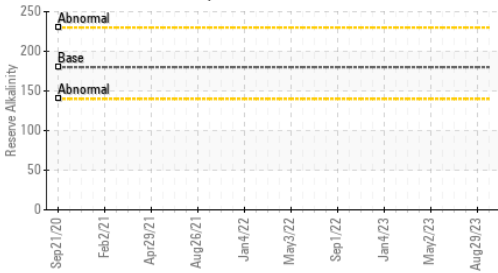
## ▲ Particle Trend



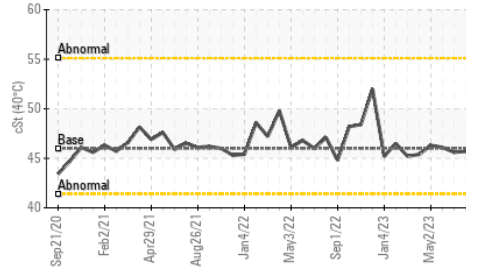
## Water (KF)



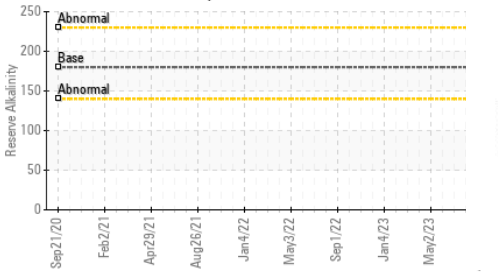
## Reserve Alkalinity



## Viscosity @ 40°C



## Reserve Alkalinity



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

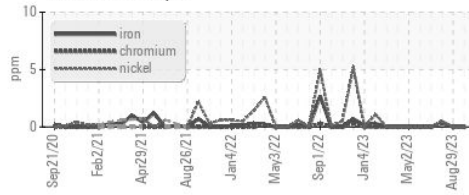
FLUID PROPERTIES	method	limit/base	current	history1	history2
pH	Scale 0-14 ASTM D1287		11.0	9.00	11.0
Visc @ 40°C	cSt ASTM D445	46	45.8	46.8	45.7

## SAMPLE IMAGES

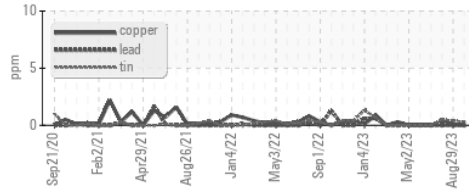
method	limit/base	current	history1	history2
Color				
Bottom				

## GRAPHS

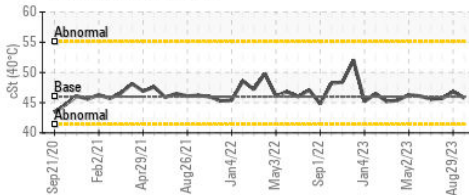
### Ferrous Alloys



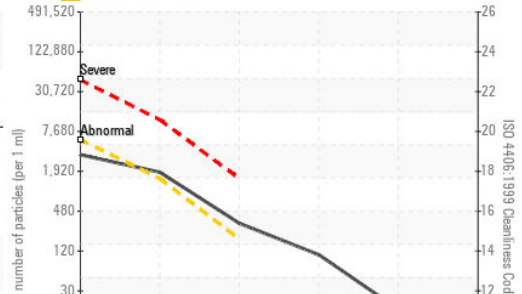
### Non-ferrous Metals



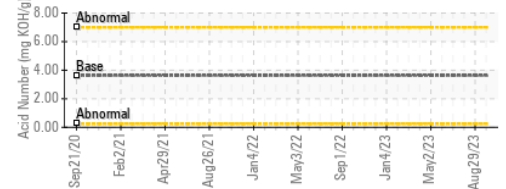
### Viscosity @ 40°C



### ▲ Particle Count



### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RP0034953 **Received** : 29 Sep 2023  
**Lab Number** : 05964693 **Diagnosed** : 03 Oct 2023  
**Unique Number** : 10671244 **Diagnostician** : Doug Bogart

**Test Package** : IND 2 ( Additional Tests: pH, ReserveAlk )

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)

**OUTOKUMPU STAINLESS USA**

HWY 43 N  
 CALVERT, AL  
 US 36513  
 Contact: MARIO JOHNSON  
 Mario.johnson@outokumpu.com

T: (251)321-4105

F: x: