



PERFORMANCE  
UNDER  
PRESSURE

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area  
**MELT SHOP - HYDRAULIC**  
Machine Id  
**MELT SHOP GRINDER MAIN HYDRAULIC (S/N 15-8000-0815-0100)**  
Component  
**Tank Hydraulic System**  
Fluid  
**FIRE-RESISTANT FLUID ISO 46 (1056 GAL)**

**RECOMMENDATION**

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>RP0039324</b>	RP0038545	RP0038065
Sample Date		Client Info		<b>31 Jan 2024</b>	04 Jan 2024	06 Dec 2023
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m	>20	<b>1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>1</b>	1	<1
Lead	ppm	ASTM D5185m	>20	<b>3</b>	0	0
Copper	ppm	ASTM D5185m	>20	<b>3</b>	1	2
Tin	ppm	ASTM D5185m	>20	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

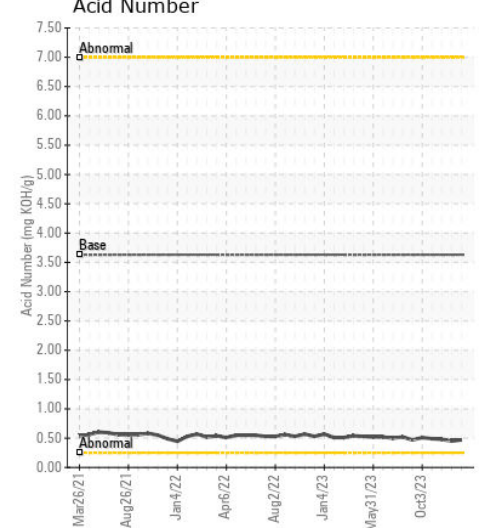
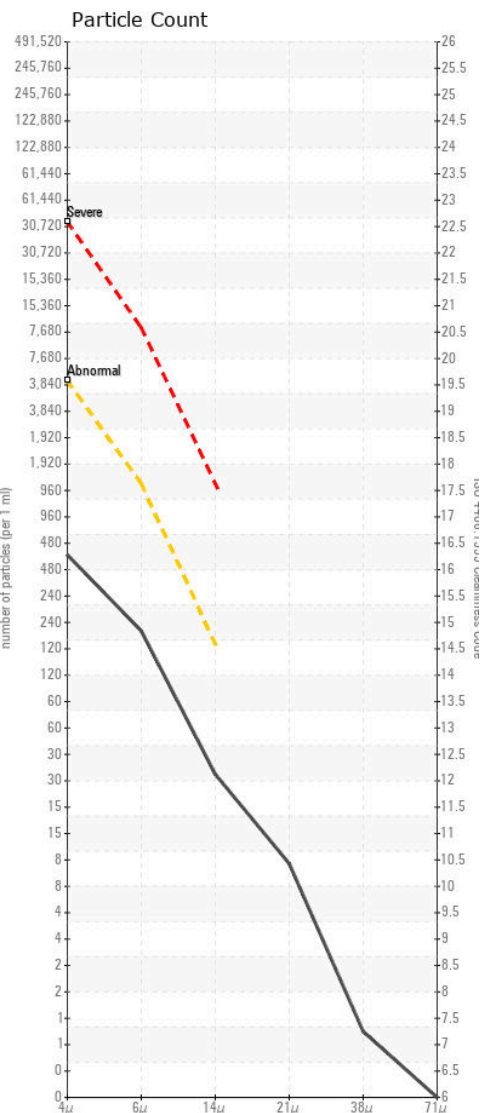
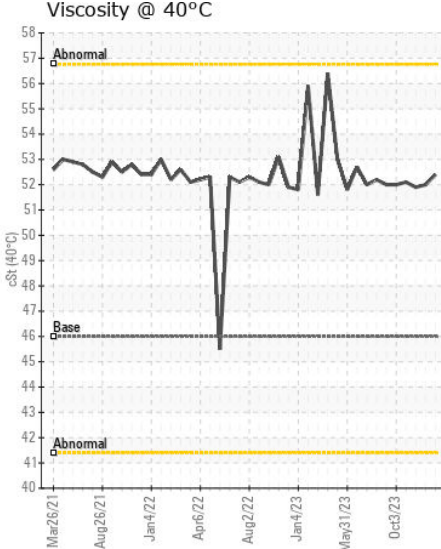
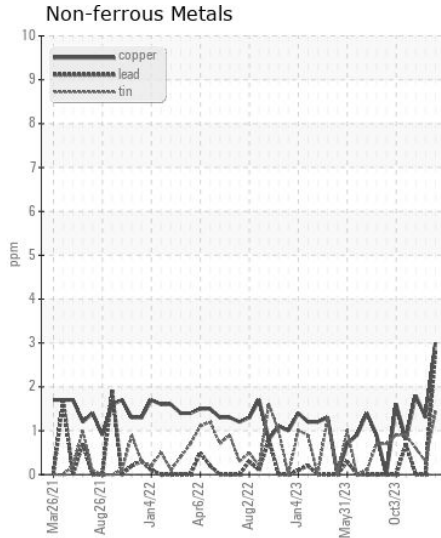
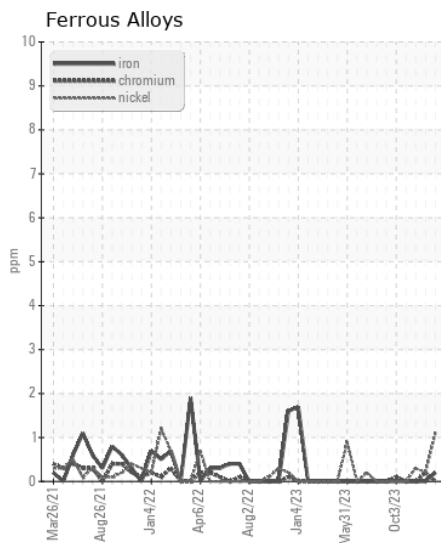
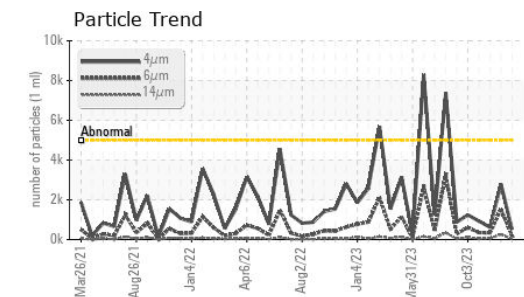
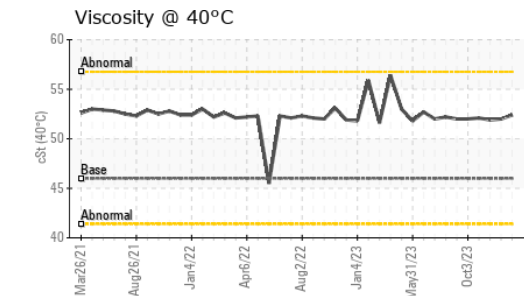
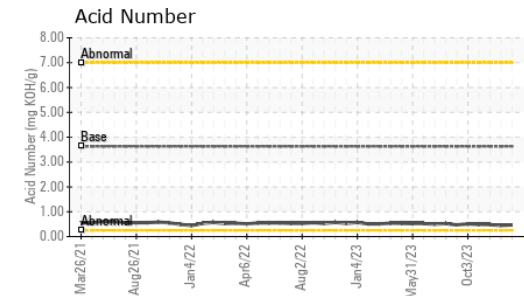
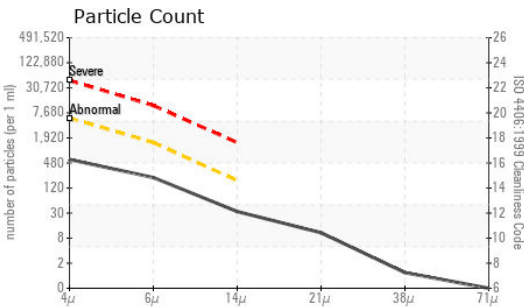
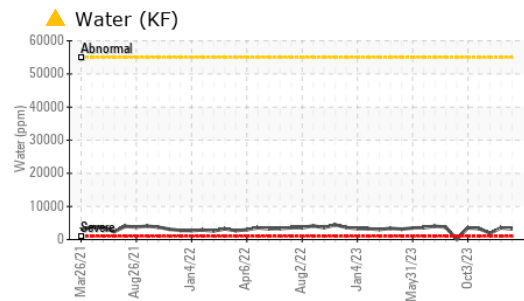
There is a light concentration of water present in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	<1
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	1	2
Water	%	ASTM D6304	>55	<b>▲ 0.317</b>	▲ 0.355	▲ 0.189
ppm Water	ppm	ASTM D6304	>55000	<b>▲ 3179</b>	▲ 3560	▲ 1890
Particles >4µm		ASTM D7647	>5000	<b>512</b>	2784	618
Particles >6µm		ASTM D7647	>1300	<b>189</b>	▲ 1517	336
Particles >14µm		ASTM D7647	>160	<b>29</b>	▲ 258	57
Particles >21µm		ASTM D7647	>40	<b>9</b>	▲ 87	19
Particles >38µm		ASTM D7647	>10	<b>1</b>	▲ 13	3
Particles >71µm		ASTM D7647	>3	<b>0</b>	1	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>16/15/12</b>	▲ 19/18/15	16/16/13
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>55	<b>NEG</b>	NEG	0.2%

**FLUID CONDITION**

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>9</b>	11	11
Boron	ppm	ASTM D5185m	5	<b>8</b>	0	0
Barium	ppm	ASTM D5185m	5	<b>0</b>	10	0
Molybdenum	ppm	ASTM D5185m	5	<b>&lt;1</b>	0	0
Manganese	ppm	ASTM D5185m		<b>2</b>	0	<1
Magnesium	ppm	ASTM D5185m	5	<b>2</b>	<1	2
Calcium	ppm	ASTM D5185m	50	<b>1</b>	3	3
Phosphorus	ppm	ASTM D5185m	175	<b>596</b>	600	602
Zinc	ppm	ASTM D5185m	62	<b>0</b>	3	0
Acid Number (AN)	mg KOH/g	ASTM D8045	3.63	<b>0.47</b>	0.45	0.48
Visc @ 40°C	cSt	ASTM D445	46	<b>52.4</b>	52.0	51.9



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RP0039324 **Received** : 01 Feb 2024  
**Lab Number** : 06077669 **Diagnosed** : 04 Feb 2024  
**Unique Number** : 10859760 **Diagnostician** : Don Baldrige  
**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: