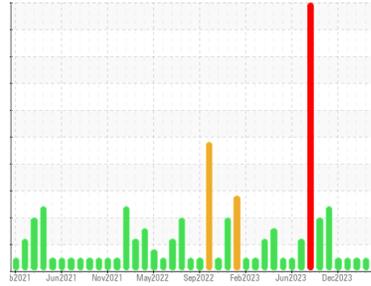




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area

MELT SHOP - HYDRAULIC

Machine Id

MELT SHOP LADLE WALL LADLE PREHEATER HYDRAULIC UNIT (S/N 15-3000-0741-0020)

Component

Tank Hydraulic System

Fluid

FIRE-RESISTANT FLUID ISO 46 (20 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			RP0042711	RP0042614	RP0039214
Sample Date	Client Info			28 Mar 2024	05 Mar 2024	31 Jan 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

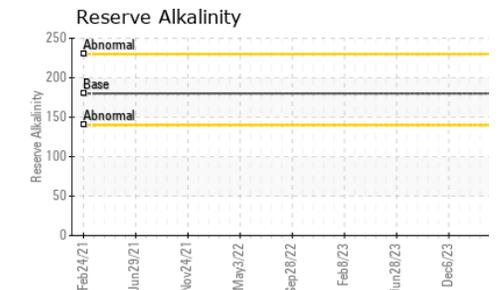
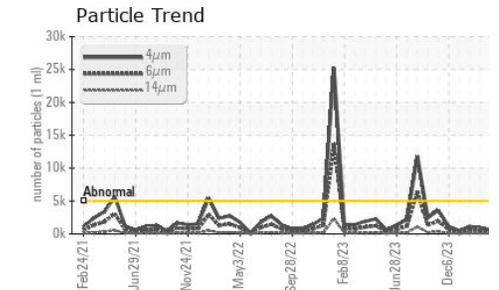
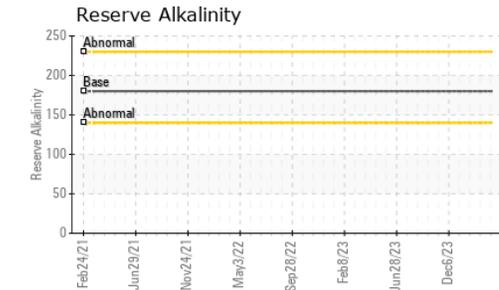
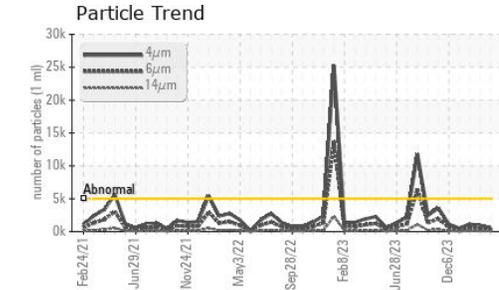
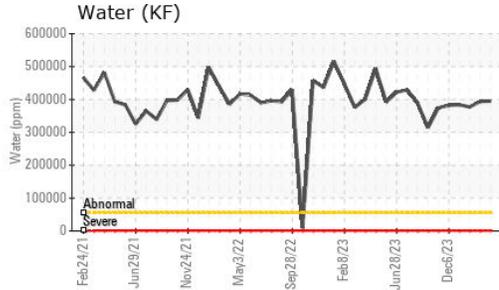
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	4	7	<1
Chromium	ppm	ASTM D5185m	>20	1	1	0
Nickel	ppm	ASTM D5185m	>20	1	<1	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>20	12	11	<1
Lead	ppm	ASTM D5185m	>20	0	0	3
Copper	ppm	ASTM D5185m	>20	1	<1	3
Tin	ppm	ASTM D5185m	>20	1	1	1
Vanadium	ppm	ASTM D5185m		1	1	<1
Cadmium	ppm	ASTM D5185m		<1	<1	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	2	1	0
Barium	ppm	ASTM D5185m	5	0	<1	0
Molybdenum	ppm	ASTM D5185m	5	0	0	<1
Manganese	ppm	ASTM D5185m		<1	0	2
Magnesium	ppm	ASTM D5185m	5	1	<1	1
Calcium	ppm	ASTM D5185m	50	6	11	<1
Phosphorus	ppm	ASTM D5185m	175	7	4	4
Zinc	ppm	ASTM D5185m	62	2	4	7

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	3	3	1
Sodium	ppm	ASTM D5185m		42	36	2
Potassium	ppm	ASTM D5185m	>20	6	8	4
Water	%	ASTM D6304	>55	39.5	39.4	37.7
ppm Water	ppm	ASTM D6304	>55000	395000	394000	377000

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	574	948	1131
Particles >6µm		ASTM D7647	>1300	313	517	616
Particles >14µm		ASTM D7647	>160	53	88	105
Particles >21µm		ASTM D7647	>40	18	30	35
Particles >38µm		ASTM D7647	>10	3	5	5
Particles >71µm		ASTM D7647	>3	0	0	1
Oil Cleanliness		ISO 4406 (c)	>19/17/14	16/15/13	17/16/14	17/16/14

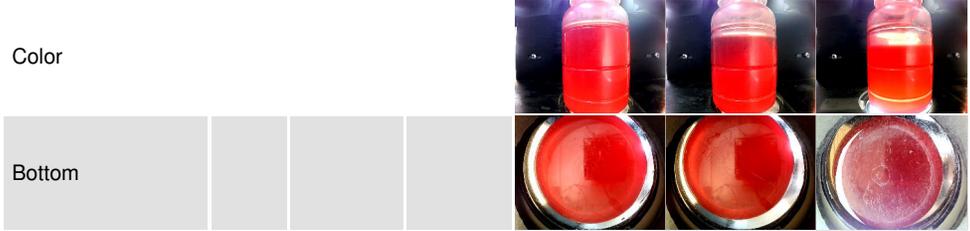
OIL ANALYSIS REPORT



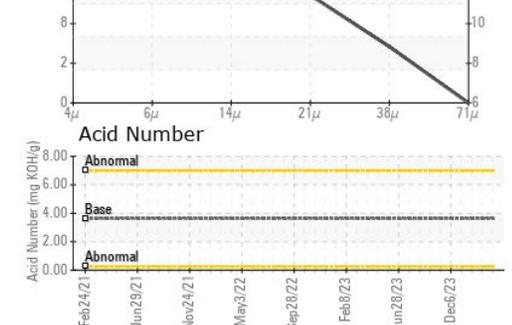
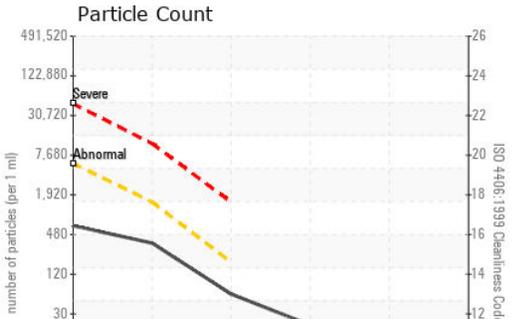
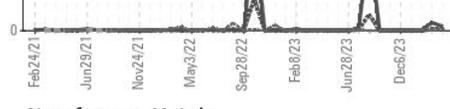
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	10.0	10.0
Visc @ 40°C	cSt	ASTM D445	46	52.7	51.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0042711
Lab Number : 06134127
Unique Number : 10953592
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)