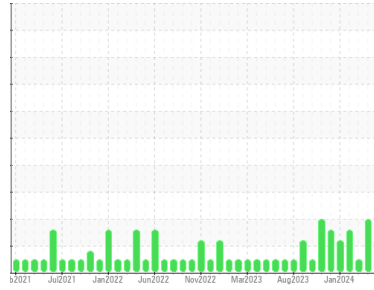




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area

SPM74 - HYDRAULIC

Machine Id

SKIN PASS MILL HIGH AND LOW PRESSURE (S/N 16-4100-1020)

Component

Hydraulic System

Fluid

AW HYDRAULIC OIL ISO 46 (--- QTS)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			RP0042505	RP0042740	RP0042610
Sample Date	Client Info			08 May 2024	26 Mar 2024	29 Feb 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				ABNORMAL	ABNORMAL	NORMAL

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

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	0	0	0
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	5	0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m	25	0	0	<1
Calcium	ppm	ASTM D5185m	200	46	41	45
Phosphorus	ppm	ASTM D5185m	300	339	314	321
Zinc	ppm	ASTM D5185m	370	385	385	362

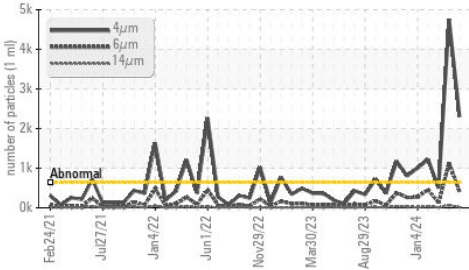
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	2	1	1
Sodium	ppm	ASTM D5185m		<1	<1	<1
Potassium	ppm	ASTM D5185m	>20	<1	0	0
Water	%	ASTM D6304	>0.05	0.002	0.001	0.003
ppm Water	ppm	ASTM D6304	>500	21	15	31

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>640	▲ 2297	▲ 4761	504
Particles >6µm		ASTM D7647	>160	▲ 402	▲ 1133	125
Particles >14µm		ASTM D7647	>20	18	▲ 64	11
Particles >21µm		ASTM D7647	>4	4	▲ 13	2
Particles >38µm		ASTM D7647	>3	0	0	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>16/14/11	▲ 18/16/11	▲ 19/17/13	16/14/11

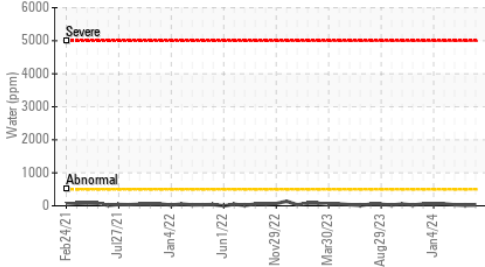
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.21	0.25	0.31

OIL ANALYSIS REPORT

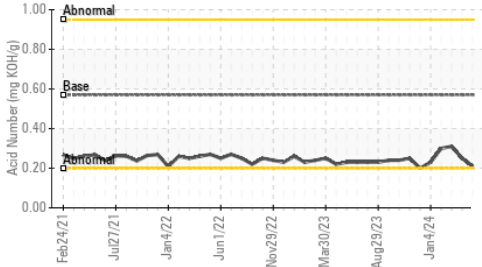
▲ Particle Trend



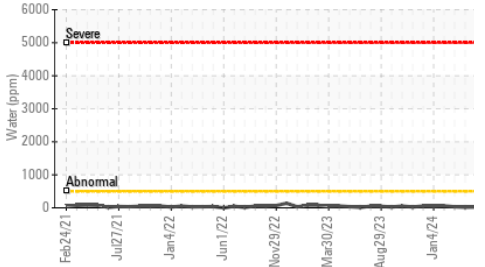
Water (KF)



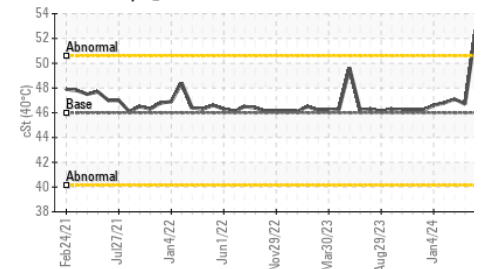
Acid Number



Water (KF)



Viscosity @ 40°C



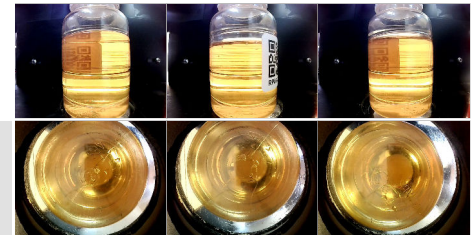
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	52.6	46.7	47.1

SAMPLE IMAGES	method	limit/base	current	history1	history2
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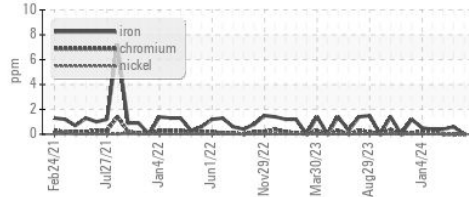
Color

Bottom

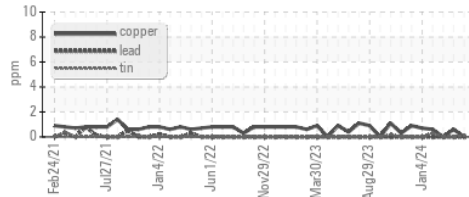


GRAPHS

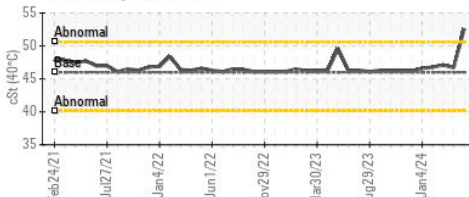
Ferrous Alloys



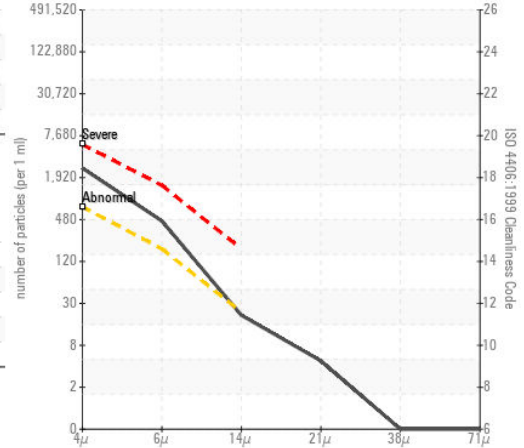
Non-ferrous Metals



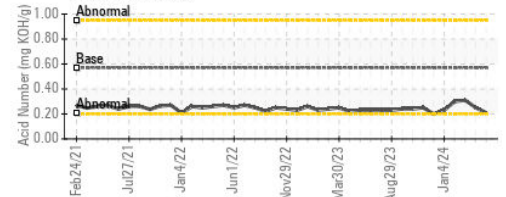
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0042505 **Received** : 09 May 2024
Lab Number : 06174616 **Tested** : 10 May 2024
Unique Number : 11020669 **Diagnosed** : 13 May 2024 - Don Baldrige
Test Package : IND 2

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)