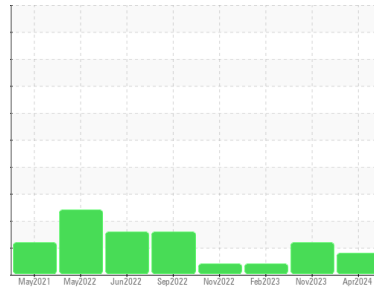




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area

COLD MILL/CM-3STD-2N

Machine Id

Prep Station HPU 3ST2 Prep Station HPU

Component

Hydraulic Power Pack

Fluid

QUAKER CHEMICAL QUINTOLUBRIC 888-46 (200 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 silt (particulates < 6 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	KFS0004396	KFS0004869	KFS0002533
Sample Date	Client Info	08 Apr 2024	10 Nov 2023	08 Feb 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ATTENTION	ATTENTION	ATTENTION

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >20	3	2	2
Chromium	ppm	ASTM D5185m >20	0	0	0
Nickel	ppm	ASTM D5185m >20	0	0	0
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >20	0	0	<1
Lead	ppm	ASTM D5185m >20	0	0	0
Copper	ppm	ASTM D5185m >20	0	<1	<1
Tin	ppm	ASTM D5185m >20	281	286	283
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	0	0	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	<1	0	<1
Magnesium	ppm	ASTM D5185m	<1	<1	0
Calcium	ppm	ASTM D5185m	2	0	3
Phosphorus	ppm	ASTM D5185m	100	107	98
Zinc	ppm	ASTM D5185m	21	9	10
Sulfur	ppm	ASTM D5185m	783	583	660

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >15	2	2	2
Sodium	ppm	ASTM D5185m	1	1	2
Potassium	ppm	ASTM D5185m >20	0	0	0
Water	%	ASTM D6304 >0.05	NEG	NEG	NEG

FLUID CLEANLINESS

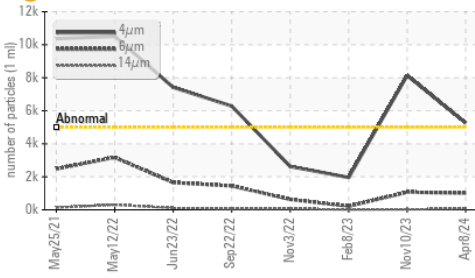
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	5268	8134	1957
Particles >6µm	ASTM D7647 >1300	1004	1070	220
Particles >14µm	ASTM D7647 >160	63	22	9
Particles >21µm	ASTM D7647 >40	17	4	2
Particles >38µm	ASTM D7647 >10	1	1	0
Particles >71µm	ASTM D7647 >3	1	1	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	20/17/13	20/17/12	18/15/10

FLUID DEGRADATION

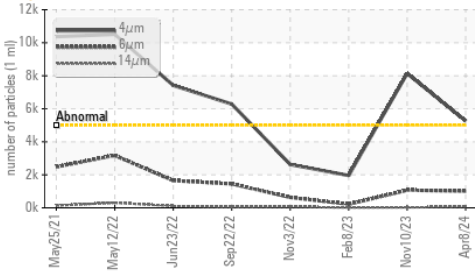
method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.51	2.00	1.84

OIL ANALYSIS REPORT

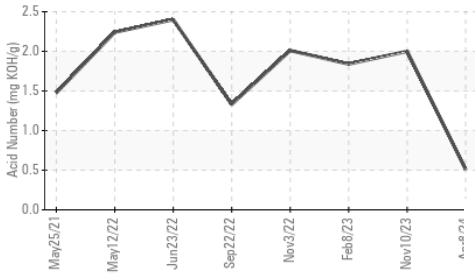
Particle Trend



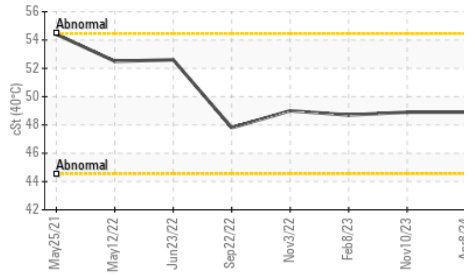
Particle Trend



Acid Number



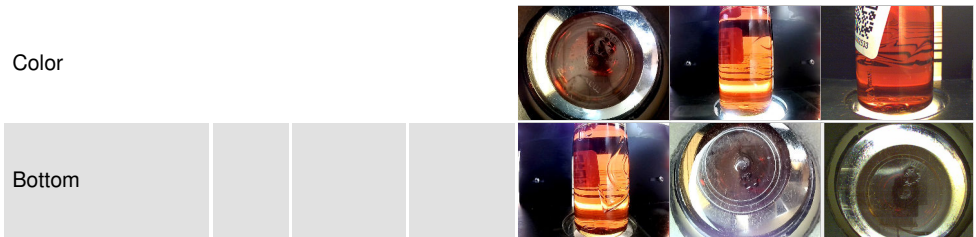
Viscosity @ 40°C



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	NEG

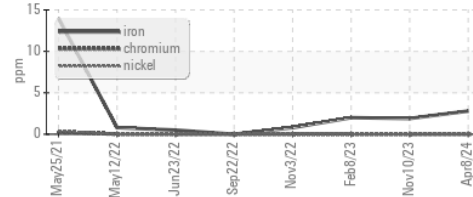
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	48.9	48.9	48.7

SAMPLE IMAGES	method	limit/base	current	history1	history2
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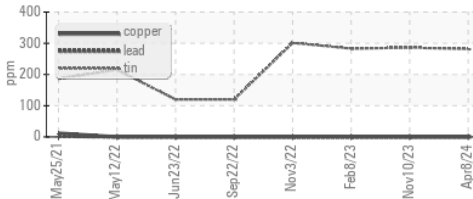


GRAPHS

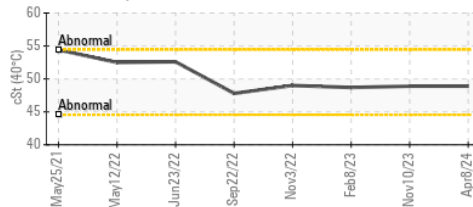
Ferrous Alloys



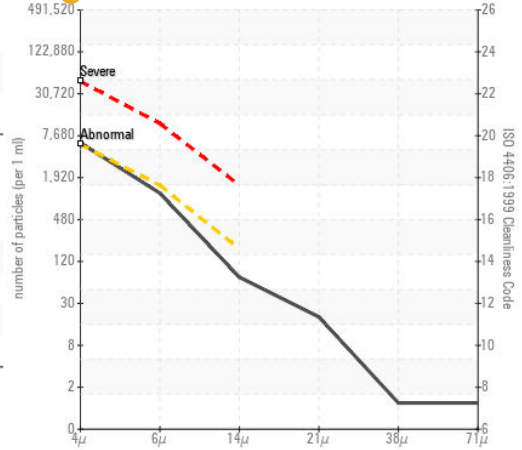
Non-ferrous Metals



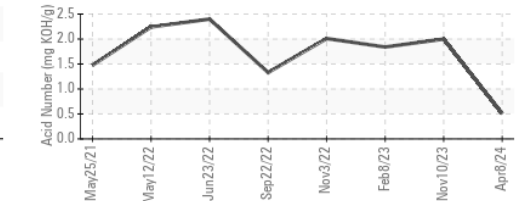
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KFS0004396 **Received** : 09 Apr 2024
Lab Number : 06142993 **Tested** : 11 Apr 2024
Unique Number : 10967801 **Diagnosed** : 11 Apr 2024 - Jonathan Hester
Test Package : IND 2 (Additional Tests: KF)

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)

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