

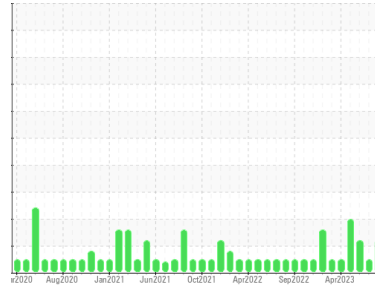
PROBLEM SUMMARY

Sample Rating Trend

ISO

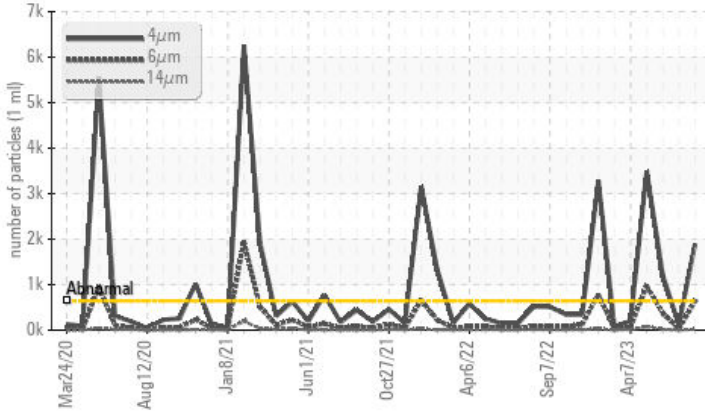


Area
CRM54 - HYDRAULIC
 Machine Id
CRM 54 HIGH PRESSURE (S/N 16-2200-1020)
 Component
Hydraulic System
 Fluid
AW HYDRAULIC OIL ISO 46 (265 GAL)



COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	NORMAL	ABNORMAL
Particles >4µm	ASTM D7647	>640	▲ 1886	121	▲ 1205
Particles >6µm	ASTM D7647	>160	▲ 634	31	▲ 372
Oil Cleanliness	ISO 4406 (c)	>16/14/11	▲ 18/16/11	14/12/9	▲ 17/16/11

Customer Id: OUTCALAL
 Sample No.: RP0038405
 Lab Number: 05938909
 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

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component if applicable.

HISTORICAL DIAGNOSIS

28 Jun 2023 Diag: Doug Bogart

NORMAL



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

view report



ISO



31 May 2023 Diag: Wes Davis

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report



ISO



02 May 2023 Diag: Wes Davis

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is a moderate amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

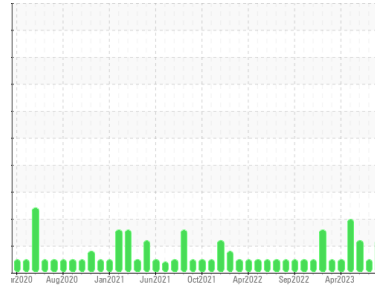
view report





OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
CRM54 - HYDRAULIC
 Machine Id
CRM 54 HIGH PRESSURE (S/N 16-2200-1020)
 Component
Hydraulic System
 Fluid
AW HYDRAULIC OIL ISO 46 (265 GAL)

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		RP0038405	RP0035181	RP0034506
Sample Date	Client Info		29 Aug 2023	28 Jun 2023	31 May 2023
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	NORMAL	ABNORMAL

WEAR METALS	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	0	0	0
Chromium	ppm	ASTM D5185m >20	0	0	<1
Nickel	ppm	ASTM D5185m >20	0	0	<1
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >20	<1	<1	<1
Lead	ppm	ASTM D5185m >20	0	0	<1
Copper	ppm	ASTM D5185m >20	<1	<1	<1
Tin	ppm	ASTM D5185m >20	0	0	<1
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	<1
Manganese	ppm	ASTM D5185m	0	0	<1
Magnesium	ppm	ASTM D5185m 25	0	4	1
Calcium	ppm	ASTM D5185m 200	59	58	60
Phosphorus	ppm	ASTM D5185m 300	343	346	339
Zinc	ppm	ASTM D5185m 370	383	398	416

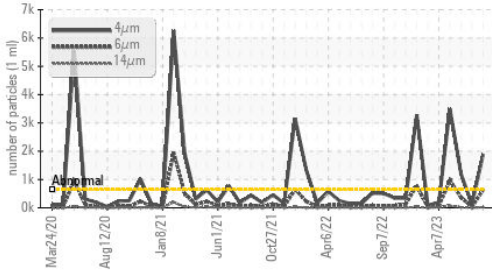
CONTAMINANTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<1	<1	<1
Sodium	ppm	ASTM D5185m	1	2	2
Potassium	ppm	ASTM D5185m >20	0	<1	2
Water	%	ASTM D6304 >0.05	0.002	0.003	0.004
ppm Water	ppm	ASTM D6304 >500	23.8	36.3	47.9

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>640	▲ 1886	121	▲ 1205
Particles >6µm	ASTM D7647	>160	▲ 634	31	▲ 372
Particles >14µm	ASTM D7647	>20	20	3	16
Particles >21µm	ASTM D7647	>4	5	1	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	14/12/9	▲ 17/16/11

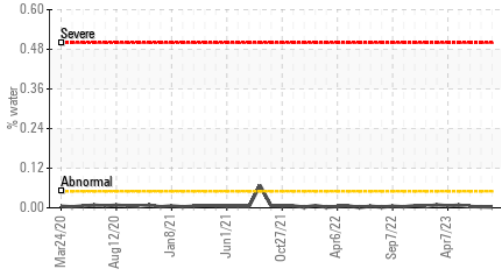
FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.57	0.22	0.24	0.21

OIL ANALYSIS REPORT

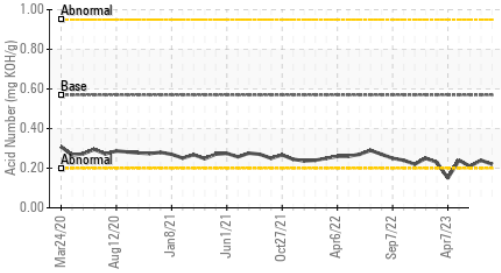
▲ Particle Trend



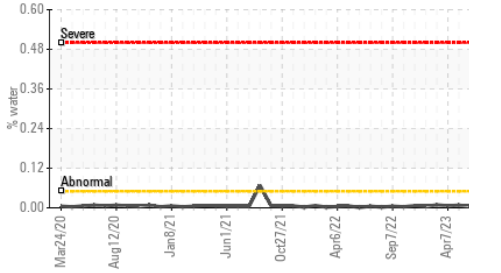
Water



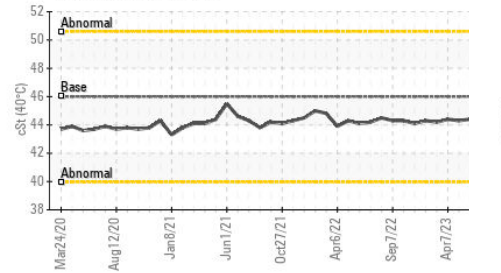
Acid Number



Water



Viscosity @ 40°C

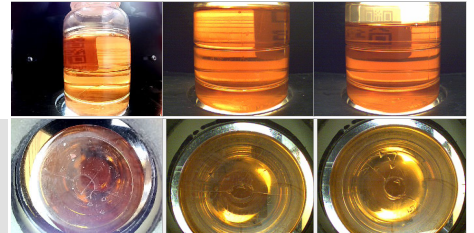


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	LIGHT	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	44.6	45.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
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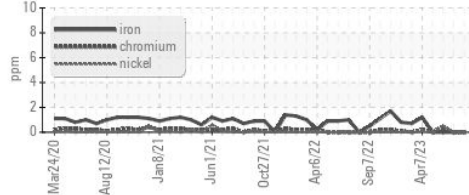
Color



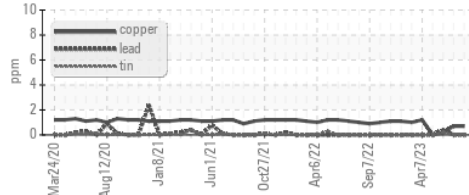
Bottom

GRAPHS

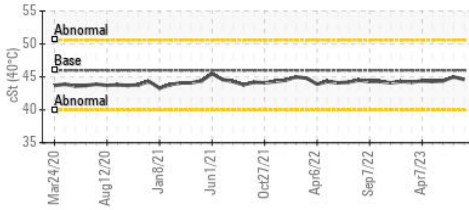
Ferrous Alloys



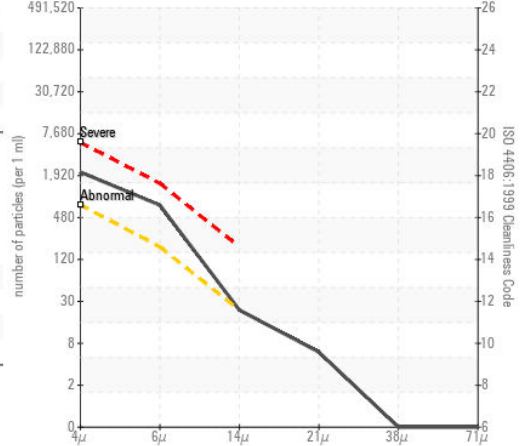
Non-ferrous Metals



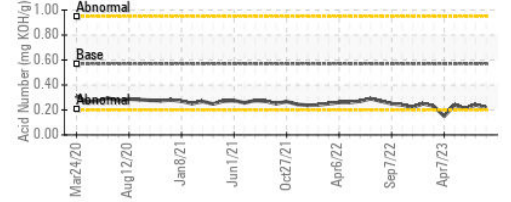
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0038405 **Received** : 30 Aug 2023
Lab Number : 05938909 **Diagnosed** : 31 Aug 2023
Unique Number : 10629521 **Diagnostician** : Doug Bogart
Test Package : IND 2

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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