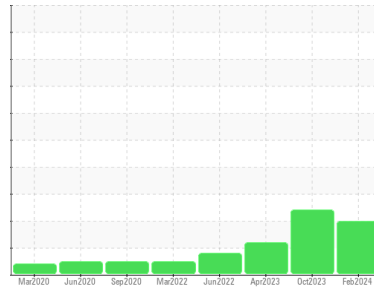




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
CR-3305

Component
Hydraulic System

Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

DIAGNOSIS

Recommendation

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0893077	WC0833346	WC0785154
Sample Date	Client Info			19 Feb 2024	11 Oct 2023	05 Apr 2023
Machine Age	hrs	Client Info		10157	9267	8087
Oil Age	hrs	Client Info		0	0	1000
Oil Changed	Client Info			Not Changed	Not Changed	Not Changed
Sample Status				ABNORMAL	ATTENTION	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.1	NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	<1	<1	<1
Chromium	ppm	ASTM D5185m	>10	<1	0	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	0	0
Lead	ppm	ASTM D5185m	>10	0	1	<1
Copper	ppm	ASTM D5185m	>75	4	10	3
Tin	ppm	ASTM D5185m	>10	0	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	2	0
Barium	ppm	ASTM D5185m	5	8	0	0
Molybdenum	ppm	ASTM D5185m	5	<1	0	2
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m	25	8	0	6
Calcium	ppm	ASTM D5185m	200	92	28	89
Phosphorus	ppm	ASTM D5185m	300	346	▲ 77	327
Zinc	ppm	ASTM D5185m	370	411	▲ 89	442
Sulfur	ppm	ASTM D5185m	2500	3209	789	3283

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	<1	4	<1
Sodium	ppm	ASTM D5185m		0	1	0
Potassium	ppm	ASTM D5185m	>20	1	0	1

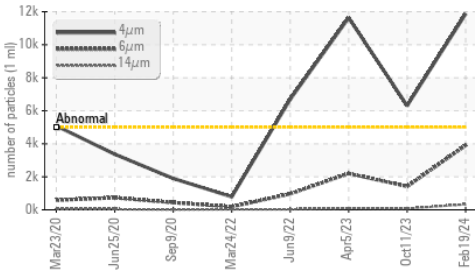
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 11865	▲ 6308	▲ 11628	
Particles >6µm	ASTM D7647	>1300	▲ 3907	▲ 1416	▲ 2198	
Particles >14µm	ASTM D7647	>160	▲ 335	70	82	
Particles >21µm	ASTM D7647	>40	▲ 76	14	15	
Particles >38µm	ASTM D7647	>10	3	0	3	
Particles >71µm	ASTM D7647	>3	0	0	0	
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 21/19/16	▲ 20/18/13	▲ 21/18/14	

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.44	0.16	0.39

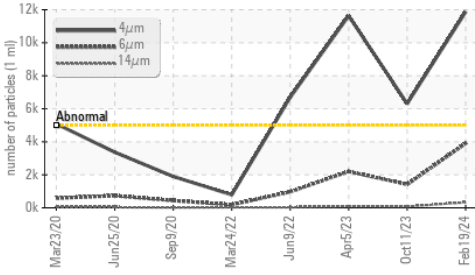


OIL ANALYSIS REPORT

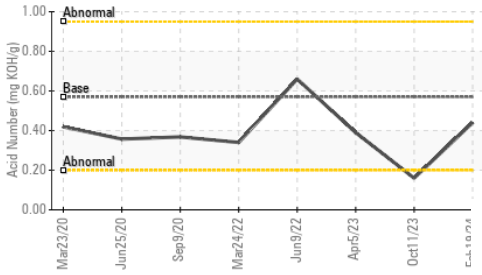
▲ Particle Trend



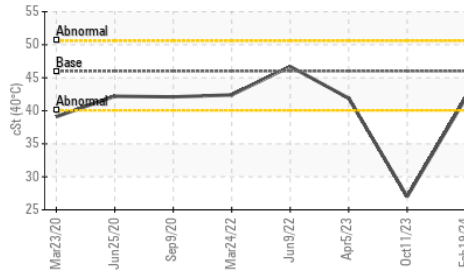
▲ Particle Trend



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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	41.9	27.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

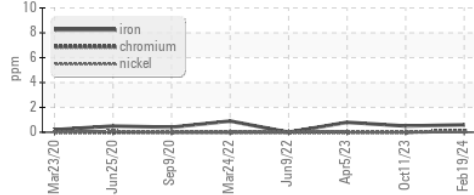


Bottom

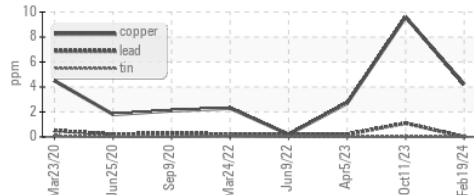


GRAPHS

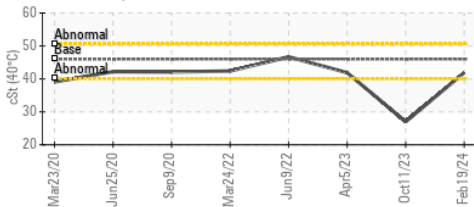
Ferrous Alloys



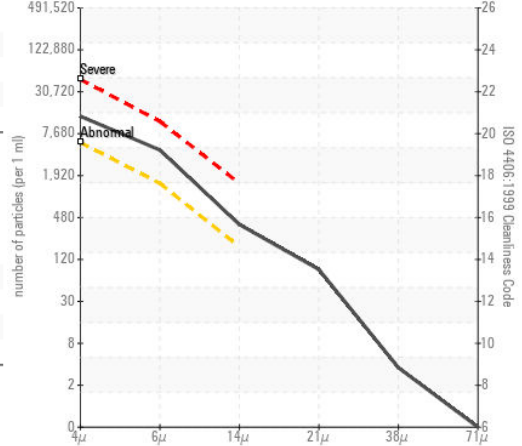
Non-ferrous Metals



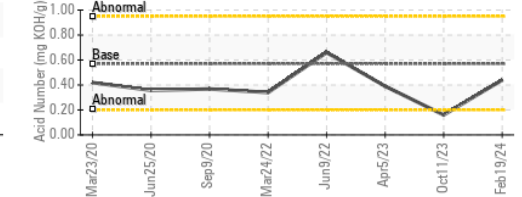
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0893077

Lab Number : 06100879

Unique Number : 10899109

Test Package : CONST

Received : 26 Feb 2024

Tested : 27 Feb 2024

Diagnosed : 27 Feb 2024 - Wes Davis

BUCKNER - WILLIS

18123 HWY 75 NORTH

WILLIS, TX

US 77378

Contact: JOHN HAWKINS

johnh@bucknercompanies.com

T:

F:

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)