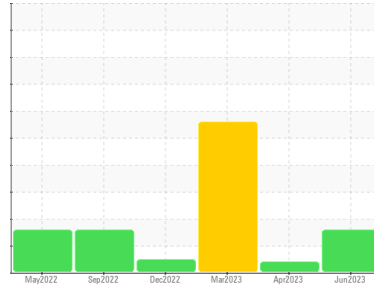




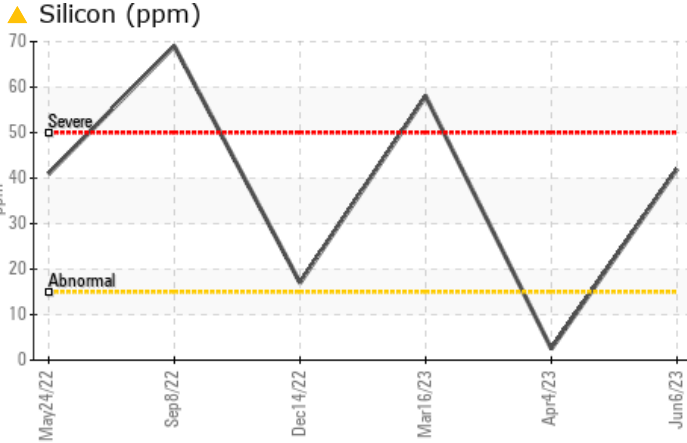
PROBLEM SUMMARY

Sample Rating Trend



Machine Id
ENTWISTLE STAND
 Component
Hydraulic System
 Fluid
MILITARY MIL-H-83282C (50 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time.
 Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status	ABNORMAL	ATTENTION	SEVERE
Silicon	▲ 42	2	● 58

Customer Id: NORPLAMA
 Sample No.: WC0768893
 Lab Number: 05872663
 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

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

04 Apr 2023 Diag: Doug Bogart

ISO



Resample at the next service interval to monitor. Please note that this is a corrected copy for laboratory data updates for particle counts. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target SAE AS4059 (replaces NAS 1638) cleanliness code. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



16 Mar 2023 Diag: Doug Bogart

DIRT



We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. Elemental level of silicon (Si) above normal. The system cleanliness is above the acceptable limit for the target SAE AS4059 (replaces NAS 1638) cleanliness code. The water content is negligible. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

view report



14 Dec 2022 Diag: Jonathan Hester

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. Chlorine not detected.

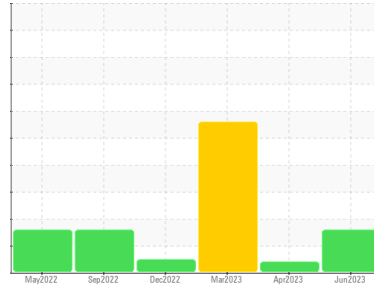
view report





OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
ENTWISTLE STAND
 Component
Hydraulic System
 Fluid
MILITARY MIL-H-83282C (50 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
 NAS 1638 Class: 5, Discrete particle counts [100 ml] 5-15µm = 6184, 15-25µm = 864, 25-50µm = 251, 50-100µm = 0, >100µm = 0. Elemental level of silicon (Si) above normal. The system cleanliness is acceptable for your target SAE AS4059 (replaces NAS 1638) cleanliness code.

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		WC0768893	WC0768890	WC0768888
Sample Date	Client Info		06 Jun 2023	04 Apr 2023	16 Mar 2023
Machine Age	hrs	Client Info	0	8431	8420
Oil Age	hrs	Client Info	0	2	200
Oil Changed	Client Info		N/A	Filtered	Filtered
Sample Status			ABNORMAL	ATTENTION	SEVERE

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	0	0	0
Chromium	ppm	ASTM D5185m >20	0	0	0
Nickel	ppm	ASTM D5185m >20	0	0	0
Titanium	ppm	ASTM D5185m	0	0	<1
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	0	0
Tin	ppm	ASTM D5185m >20	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	0	0	0
Barium	ppm	ASTM D5185m	0	0	2
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m	<1	0	0
Calcium	ppm	ASTM D5185m	<1	0	0
Phosphorus	ppm	ASTM D5185m	736	710	733
Zinc	ppm	ASTM D5185m	0	<1	0
Sulfur	ppm	ASTM D5185m	<1	0	0

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	▲ 42	2	● 58
Sodium	ppm	ASTM D5185m	0	0	0
Potassium	ppm	ASTM D5185m >20	0	<1	0

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles 5-15µm	count	*NAS 1638 >16000	6184	▲ 29259	▲ 44413
Particles 15-25µm	count	*NAS 1638 >2850	864	1491	2083
Particles 25-50µm	count	*NAS 1638 >506	251	381	▲ 519
Particles 50-100µm	count	*NAS 1638 >90	0	0	0
Particles >100µm	count	*NAS 1638 >16	0	0	0
NAS 1638	Class	*NAS 1638 >6	5	7	8

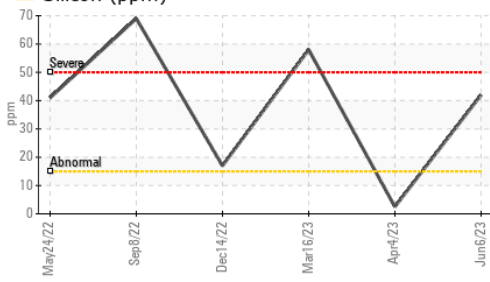
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.1	0.059	0.177	0.079



OIL ANALYSIS REPORT

▲ Silicon (ppm)

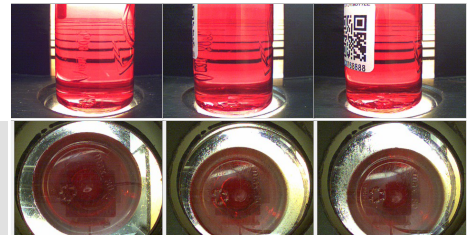


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	14.0	14.7	15.7

SAMPLE IMAGES	method	limit/base	current	history1	history2
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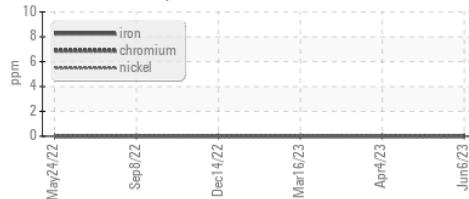
Color



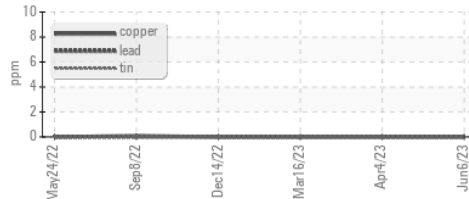
Bottom

GRAPHS

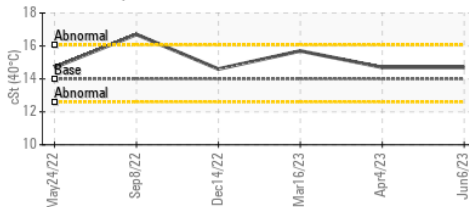
Ferrous Alloys



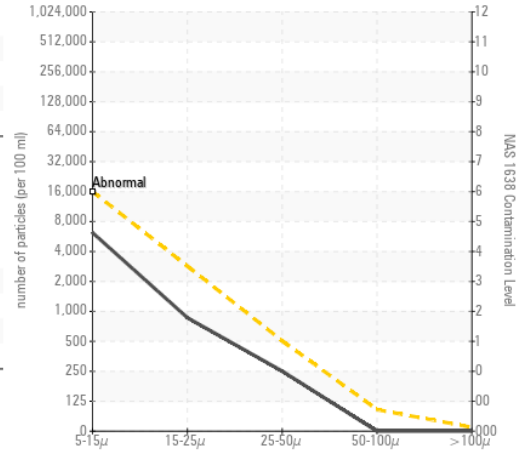
Non-ferrous Metals



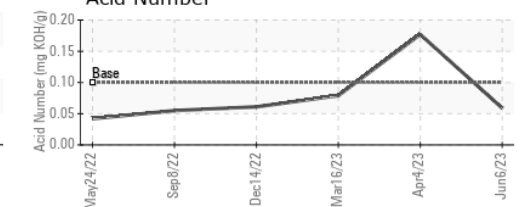
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : WC0768893 Received : 13 Jun 2023
 Lab Number : 05872663 Diagnosed : 15 Jun 2023
 Unique Number : 10512447 Diagnostician : Doug Bogart
 Test Package : IND 2 (Additional Tests: PrtCountNAS)

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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)