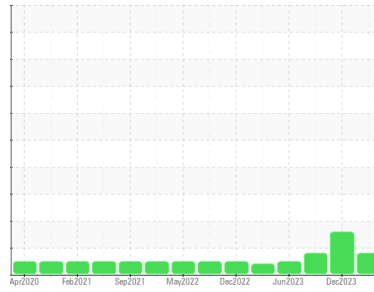




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



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

## DIAGNOSIS

### Recommendation

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

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of particulates present in the oil. The system cleanliness is above the acceptable limit for the target SAE AS4059 (replaces NAS 1638) cleanliness code. Chlorine measured at 0.0 ppm.

### 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		<b>WC0768785</b>	WC0874944	WC0768844
Sample Date	Client Info		<b>18 Mar 2024</b>	14 Dec 2023	15 Sep 2023
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	Filtered	N/A
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR METALS

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

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>0</b>	2	1
Calcium	ppm	ASTM D5185m		<b>0</b>	4	<1
Phosphorus	ppm	ASTM D5185m		<b>747</b>	698	621
Zinc	ppm	ASTM D5185m		<b>0</b>	0	0
Sulfur	ppm	ASTM D5185m		<b>0</b>	13	0

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>15	<b>1</b>	▲ 22	3
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	0	2
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Chlorine Content	ppm	ASTM D5185m		<b>0.000</b>	8.60	---
Water	%	ASTM D6304	>0.05	<b>0.010</b>	0.006	0.016
ppm Water	ppm	ASTM D6304	>500	<b>109</b>	62	166.3

## FLUID CLEANLINESS

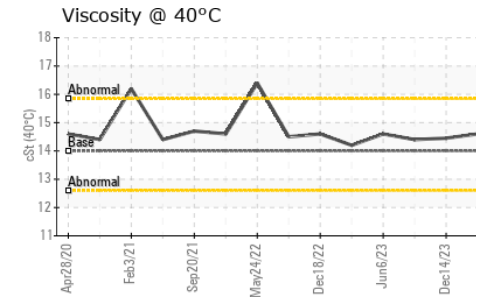
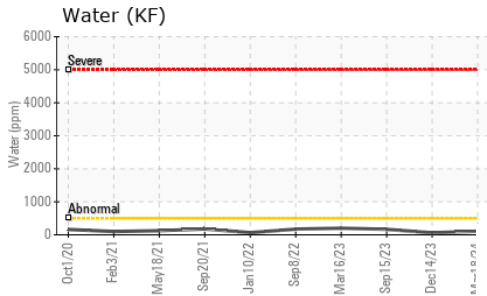
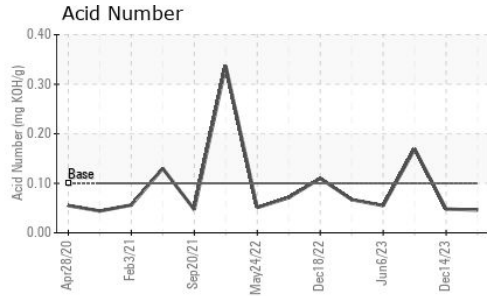
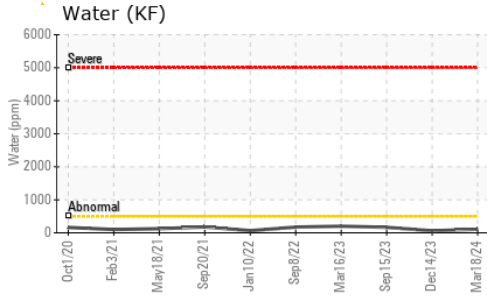
	method	limit/base	current	history1	history2	
Particles 5-15µm	count	*NAS 1638	>16000	▲ <b>118596</b>	9320	▲ 39021
Particles 15-25µm	count	*NAS 1638	>2850	<b>1925</b>	830	2245
Particles 25-50µm	count	*NAS 1638	>506	▲ <b>647</b>	246	▲ 963
Particles 50-100µm	count	*NAS 1638	>90	<b>38</b>	17	20
Particles >100µm	count	*NAS 1638	>16	<b>0</b>	0	0
NAS 1638	Class	*NAS 1638	>6	<b>9</b>	6	8

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.1	<b>0.046</b>	0.048	0.169



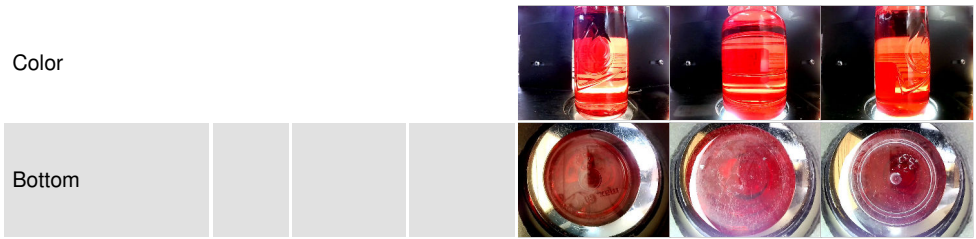
# OIL ANALYSIS REPORT



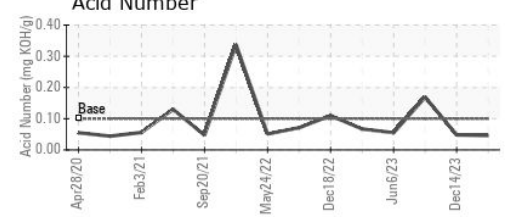
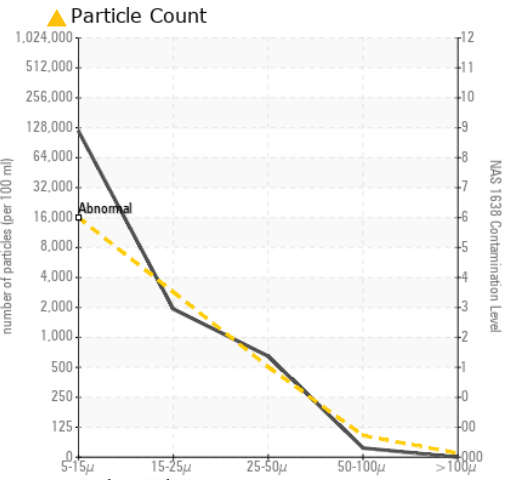
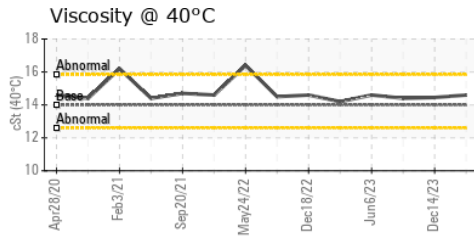
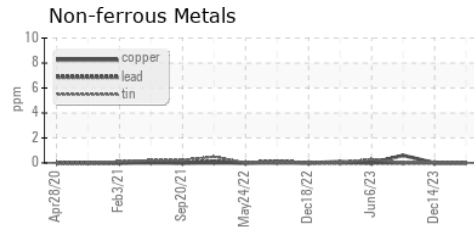
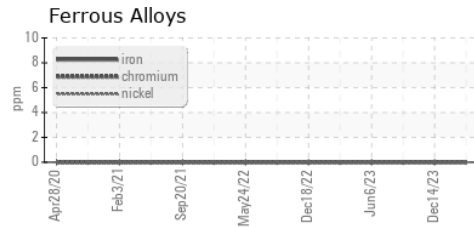
PARAMETER	VISUAL	method	limit/base	current	history1	history2
White Metal		scalar	*Visual	NONE	NONE	NONE
Yellow Metal		scalar	*Visual	NONE	NONE	NONE
Precipitate		scalar	*Visual	NONE	NONE	NONE
Silt		scalar	*Visual	NONE	NONE	NONE
Debris		scalar	*Visual	NONE	NONE	NONE
Sand/Dirt		scalar	*Visual	NONE	NONE	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	14.6	14.45

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0768785 **Received** : 17 Apr 2024  
**Lab Number** : 06152435 **Tested** : 22 Apr 2024  
**Unique Number** : 10982513 **Diagnosed** : 23 Apr 2024 - Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: CHLORINEXRF, KF, PrtCountNAS )

**NORTHLAND-WILLETTE INC**  
 12 HIGH ST  
 PLAINVILLE, MA  
 US 02762  
 Contact: MIKE BOUCHER  
 mboucher@nwhydinc.com  
 T: (508)699-4016  
 F: (508)699-4017

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)