



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area  
**MACHINE SHOP**  
Machine Id  
**Glama 13**  
Component  
**Hydraulic System**  
Fluid  
**ECOSAFE FR-46 (--- GAL)**

## RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0867026</b>	---	---
Sample Date		Client Info		<b>16 Feb 2024</b>	---	---
Machine Age	hrs	Client Info		<b>8284</b>	---	---
Oil Age	hrs	Client Info		<b>8284</b>	---	---
Filter Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>Not Changd</b>	---	---
Filter Changed		Client Info		<b>N/A</b>	---	---
Sample Status				<b>ABNORMAL</b>	---	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<b>6</b>	---	---
Chromium	ppm	ASTM D5185m	>10	<b>2</b>	---	---
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185m		<b>0</b>	---	---
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185m	>10	<b>&lt;1</b>	---	---
Lead	ppm	ASTM D5185m	>10	<b>1</b>	---	---
Copper	ppm	ASTM D5185m	>75	<b>6</b>	---	---
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

## CONTAMINATION

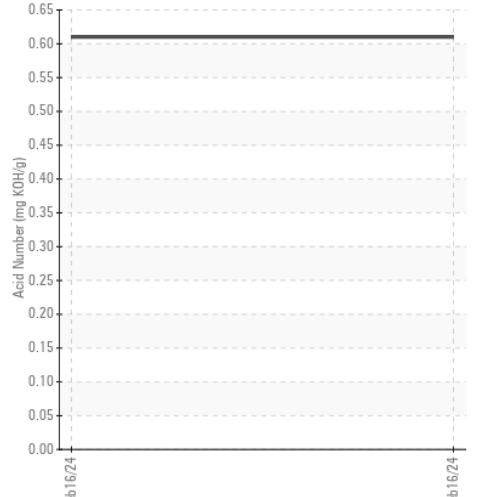
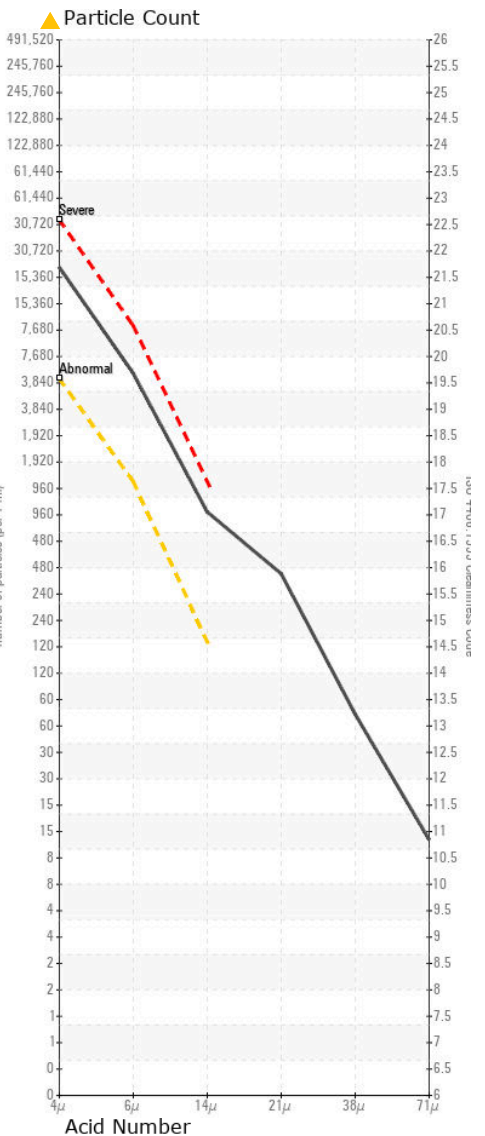
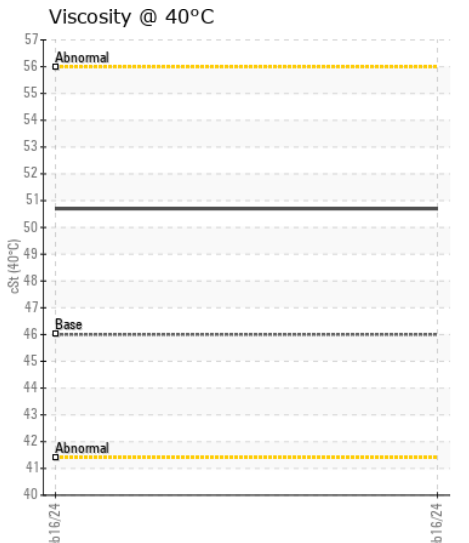
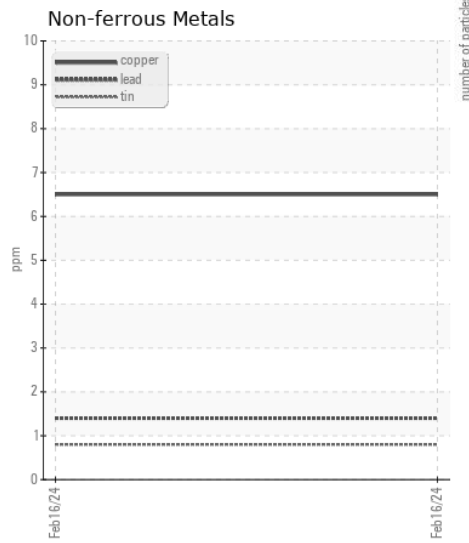
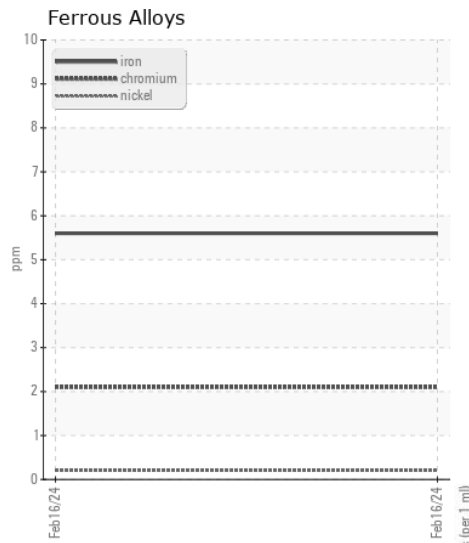
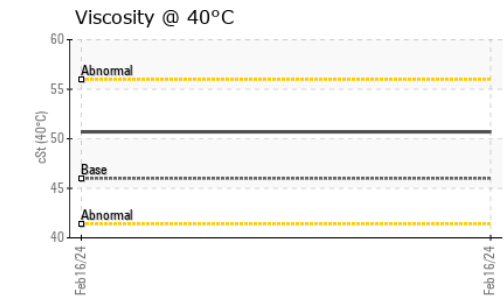
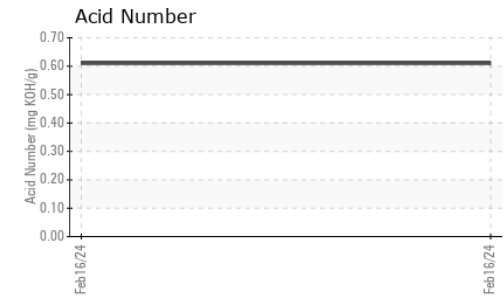
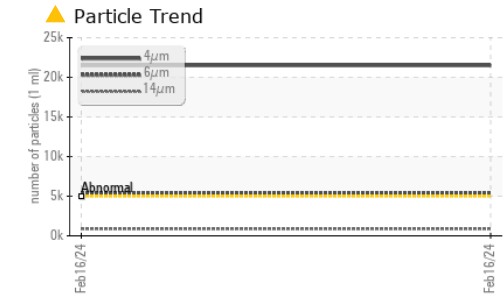
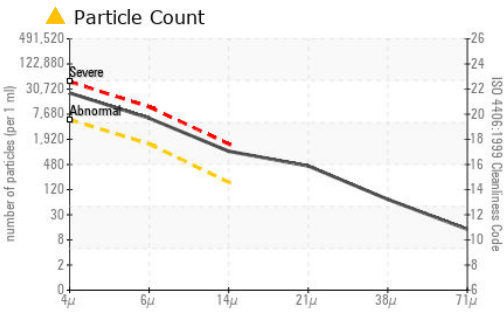
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>1</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	---	---
Water		WC Method	>0.1	<b>NEG</b>	---	---
Particles >4µm		ASTM D7647	>5000	<b>▲ 21500</b>	---	---
Particles >6µm		ASTM D7647	>1300	<b>▲ 5360</b>	---	---
Particles >14µm		ASTM D7647	>160	<b>▲ 874</b>	---	---
Particles >21µm		ASTM D7647	>40	<b>▲ 389</b>	---	---
Particles >38µm		ASTM D7647	>10	<b>▲ 62</b>	---	---
Particles >71µm		ASTM D7647	>3	<b>▲ 12</b>	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>▲ 22/20/17</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>LIGHT</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	---	---

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Boron	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Barium	ppm	ASTM D5185m		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>0</b>	---	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>2</b>	---	---
Calcium	ppm	ASTM D5185m		<b>3</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>651</b>	---	---
Zinc	ppm	ASTM D5185m		<b>12</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>3334</b>	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.61</b>	---	---
Visc @ 40°C	cSt	ASTM D445	46	<b>50.7</b>	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0867026  
**Lab Number** : 06099120  
**Unique Number** : 10897350  
**Test Package** : IND 2  
**Received** : 23 Feb 2024  
**Tested** : 28 Feb 2024  
**Diagnosed** : 29 Feb 2024 - Jonathan Hester

**ALLVAC - MACHINE SHOP**  
 2020 ASHCRAFT AVE  
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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)