

# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**CHS WINONA BARGE LOAD OUT**  
Component  
**Hydraulic System**  
Fluid  
**MOBIL EAL 224H (--- GAL)**

**DIAGNOSIS**

**Recommendation**

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

**Wear**

All component wear rates are normal.

**Contamination**

There is a trace of moisture present in the oil. The amount and size of particulates present in the system are acceptable.

**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>Y2K0001546</b>	---	---
Sample Date	Client Info			<b>29 May 2024</b>	---	---
Machine Age	hrs	Client Info		<b>0</b>	---	---
Oil Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed	Client Info			<b>Not Changed</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	<b>&lt;1</b>	---	---
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	---	---
Nickel	ppm	ASTM D5185m	>20	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m		<b>0</b>	---	---
Silver	ppm	ASTM D5185m		<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>20	<b>&lt;1</b>	---	---
Lead	ppm	ASTM D5185m	>20	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185m	>20	<b>2</b>	---	---
Tin	ppm	ASTM D5185m	>20	<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	---	---

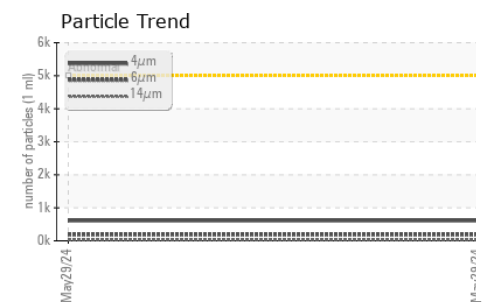
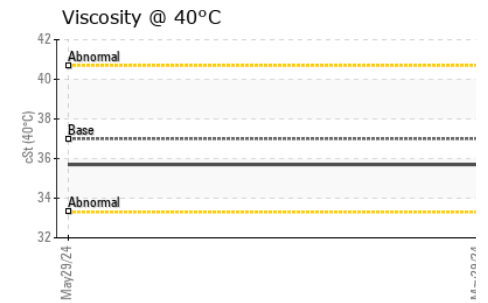
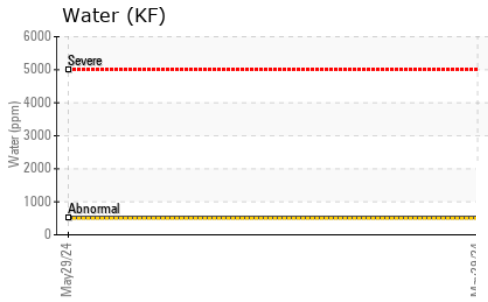
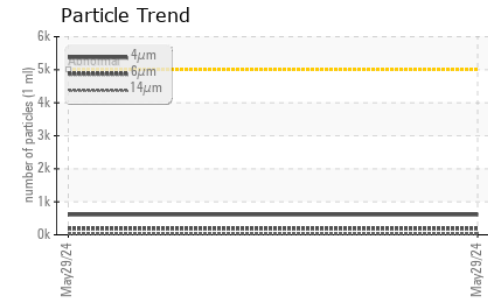
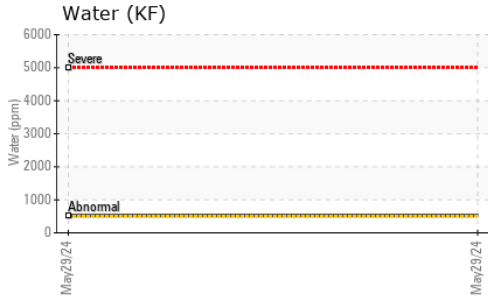
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>1</b>	---	---
Barium	ppm	ASTM D5185m		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>0</b>	---	---
Calcium	ppm	ASTM D5185m		<b>0</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>106</b>	---	---
Zinc	ppm	ASTM D5185m		<b>0</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>0</b>	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<b>1</b>	---	---
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	---	---
Water	%	ASTM D6304	>0.05	<b>0.052</b>	---	---
ppm Water	ppm	ASTM D6304	>500	<b>522</b>	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	<b>610</b>	---	---
Particles >6µm		ASTM D7647	>1300	<b>188</b>	---	---
Particles >14µm		ASTM D7647	>160	<b>25</b>	---	---
Particles >21µm		ASTM D7647	>40	<b>5</b>	---	---
Particles >38µm		ASTM D7647	>10	<b>0</b>	---	---
Particles >71µm		ASTM D7647	>3	<b>0</b>	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>16/15/12</b>	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.05</b>	---	---

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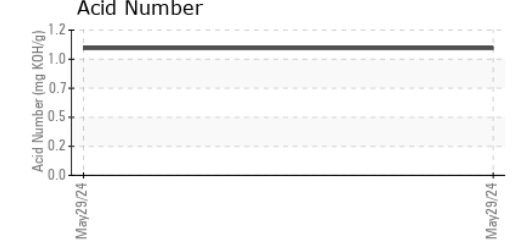
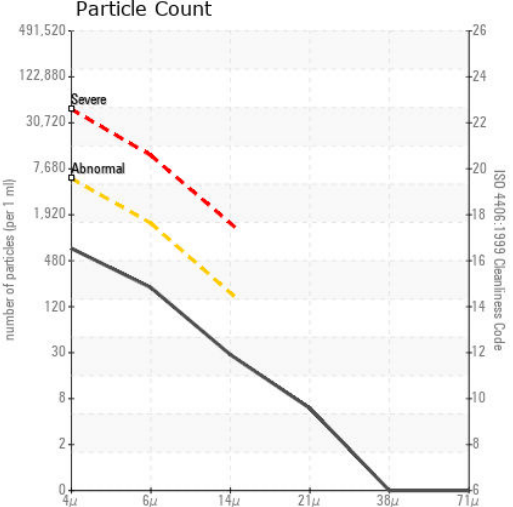
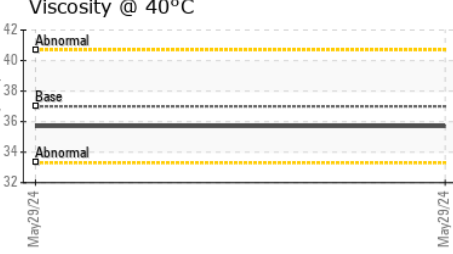
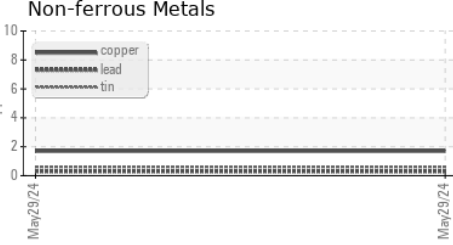
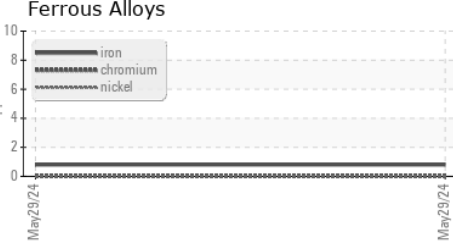
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.05	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	37	35.7	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color				no image	no image
Bottom				no image	no image

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : Y2K0001546      **Received** : 14 Jun 2024  
**Lab Number** : 06210152      **Tested** : 17 Jun 2024  
**Unique Number** : 11083016      **Diagnosed** : 19 Jun 2024 - Doug Bogart  
**Test Package** : MOB 2 ( Additional Tests: KF )

**Y2K FLUID POWER**  
 3620 N LEWIS AVE  
 SIOUX FALLS, SD  
 US 57104  
 Contact: SERVICE MANAGER  
 sales@y2kfiltration.com

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)      T: F: (605)332-0988