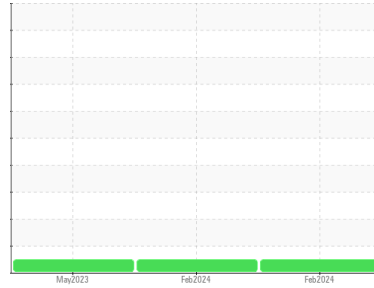




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**QUANTUM M2 HPU2**  
 Component  
**Hydraulic System**  
 Fluid  
**STELLA FOOD OIL 150 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is 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>WC0885485</b>	WC0885486	WC0743765	
Sample Date	Client Info	<b>13 Feb 2024</b>	12 Feb 2024	10 May 2023	
Machine Age	hrs	Client Info	<b>0</b>	0	5890
Oil Age	hrs	Client Info	<b>2145</b>	1235	1140
Oil Changed	Client Info	<b>Not Changed</b>	Not Changed	Not Changed	
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL	

## WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>20	<b>0</b>	0	2
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	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>0</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	0
Magnesium	ppm	ASTM D5185m		<b>0</b>	<1	0
Calcium	ppm	ASTM D5185m		<b>2</b>	2	<1
Phosphorus	ppm	ASTM D5185m		<b>114</b>	111	147
Zinc	ppm	ASTM D5185m		<b>0</b>	6	16
Sulfur	ppm	ASTM D5185m		<b>11</b>	56	106

## CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>15	<b>&lt;1</b>	2	2
Sodium	ppm	ASTM D5185m		<b>0</b>	0	0
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	<1
Water	%	ASTM D6304	>0.05	<b>0.002</b>	0.002	---
ppm Water	ppm	ASTM D6304	>500	<b>18</b>	19	---

## FLUID CLEANLINESS

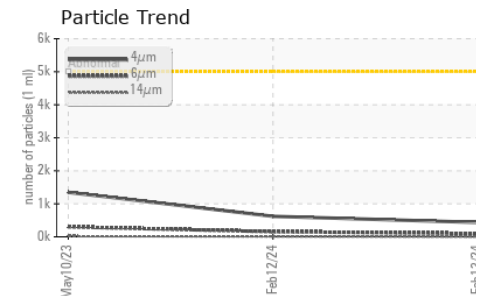
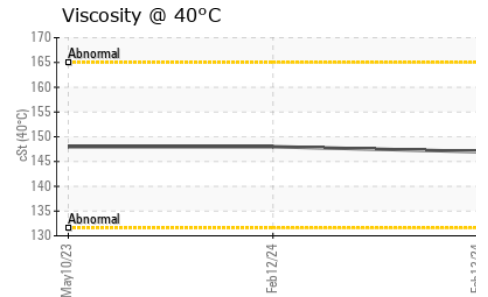
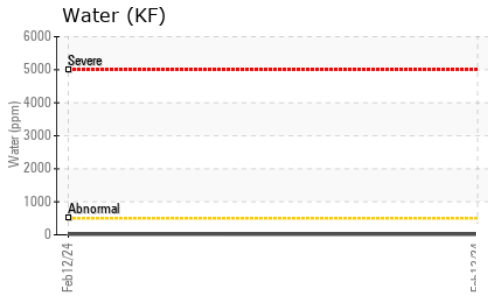
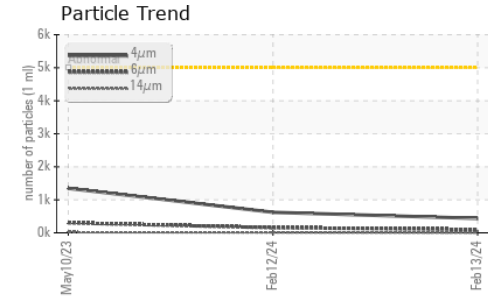
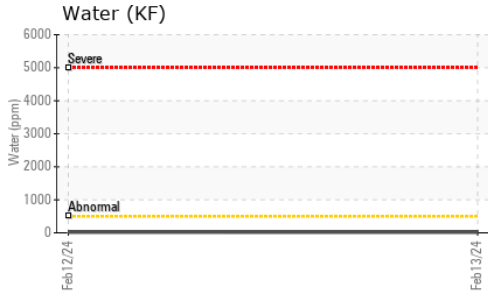
method	limit/base	current	history1	history2	
Particles >4µm	ASTM D7647	>5000	<b>436</b>	621	1348
Particles >6µm	ASTM D7647	>1300	<b>98</b>	155	302
Particles >14µm	ASTM D7647	>160	<b>5</b>	11	18
Particles >21µm	ASTM D7647	>40	<b>2</b>	4	6
Particles >38µm	ASTM D7647	>10	<b>0</b>	0	2
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	1
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>16/14/10</b>	16/14/11	18/15/11

## FLUID DEGRADATION

method	limit/base	current	history1	history2		
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.37</b>	0.25	0.27



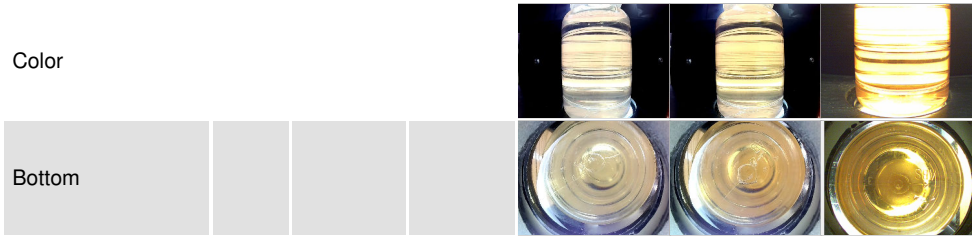
# OIL ANALYSIS REPORT



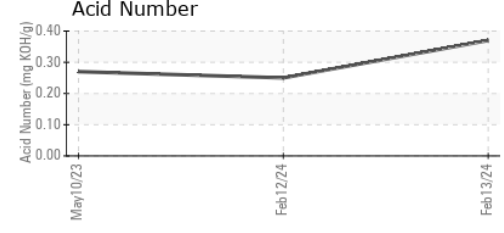
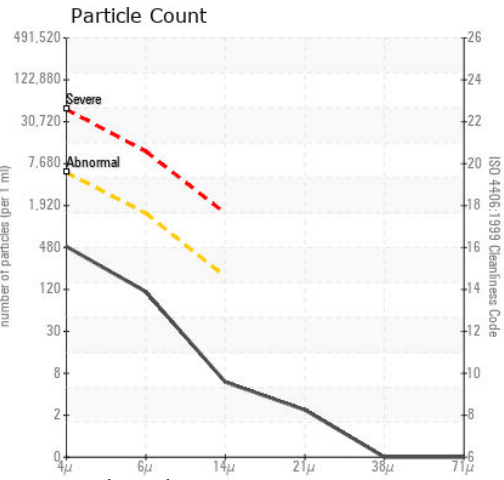
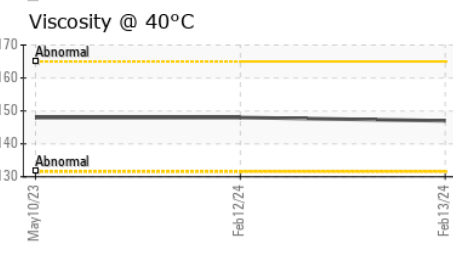
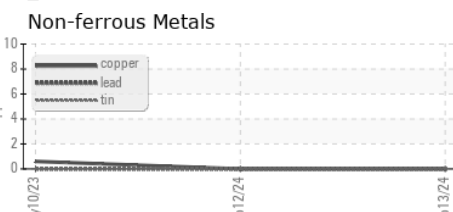
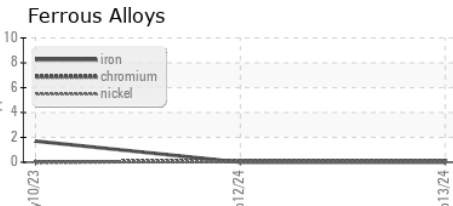
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	147	148	148

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0885485 **Received** : 22 Feb 2024  
**Lab Number** : 06097648 **Tested** : 23 Feb 2024  
**Unique Number** : 10890501 **Diagnosed** : 25 Feb 2024 - Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF )

**UNIVERSAL PURE**  
 1571 GRESSEL DR  
 DELPHOS, OH  
 US 45833  
 Contact: K BRONSON  
 kbronson@universalpure.com  
 T: (419)551-6185  
 F:

Certificate L2367  
 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)