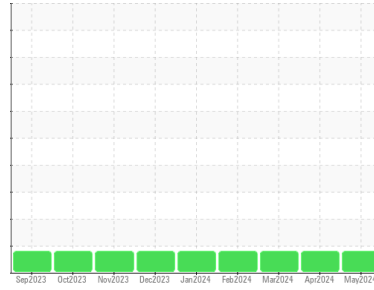




# OIL ANALYSIS REPORT

## Sample Rating Trend



**WEAR**



Machine Id  
**5000826 (S/N 500044095)**  
 Component  
**Hydraulic System**  
 Fluid  
**SHELL TELLUS S2 VX 32 (--- QTS)**

### DIAGNOSIS

#### Recommendation

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

#### Wear

The copper level is abnormal.

#### Contamination

There is no indication of any contamination 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>PH0002327</b>	PH0002330	PH0002570
Sample Date	Client Info		<b>24 May 2024</b>	22 Apr 2024	30 Mar 2024
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>	N/A	N/A
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

CONTAMINATION	method	limit/base	current	history1	history2
Water	WC Method	>0.05	<b>NEG</b>	NEG	NEG

WEAR METALS	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	<1	3
Lead	ppm	ASTM D5185m	>20	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>20	<b>▲ 22</b>	▲ 22	▲ 26
Tin	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	<1

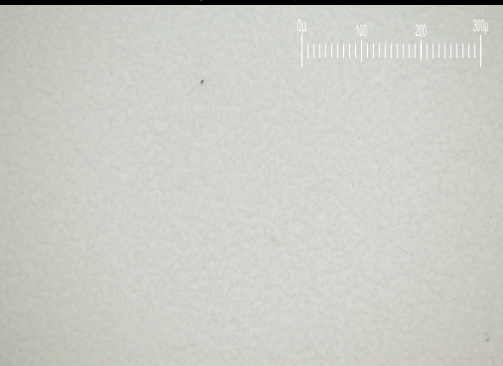
ADDITIVES	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>2</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Calcium	ppm	ASTM D5185m		<b>20</b>	27	31
Phosphorus	ppm	ASTM D5185m		<b>324</b>	300	307
Zinc	ppm	ASTM D5185m		<b>328</b>	308	325
Sulfur	ppm	ASTM D5185m		<b>725</b>	813	760

CONTAMINANTS	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	<1
Sodium	ppm	ASTM D5185m		<b>0</b>	<1	0
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>168</b>	279	555
Particles >6µm	ASTM D7647	>1300	<b>55</b>	45	125
Particles >14µm	ASTM D7647	>160	<b>3</b>	4	21
Particles >21µm	ASTM D7647	>40	<b>0</b>	1	7
Particles >38µm	ASTM D7647	>10	<b>0</b>	0	0
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>15/13/9</b>	15/13/9	16/14/12

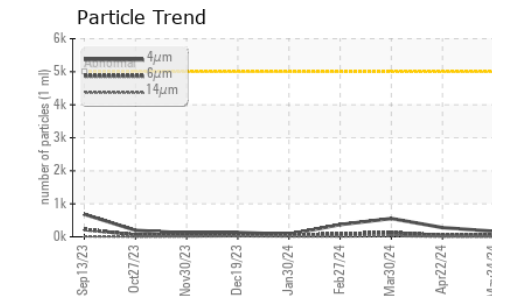
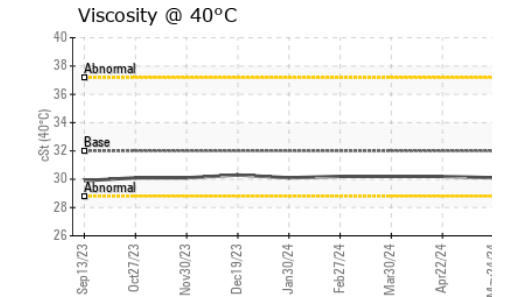
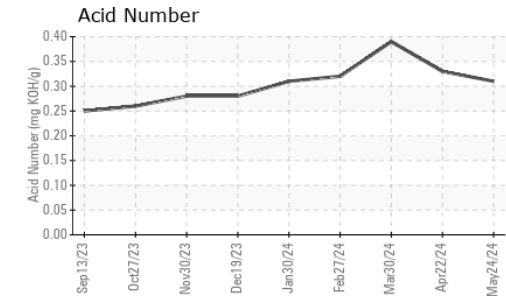
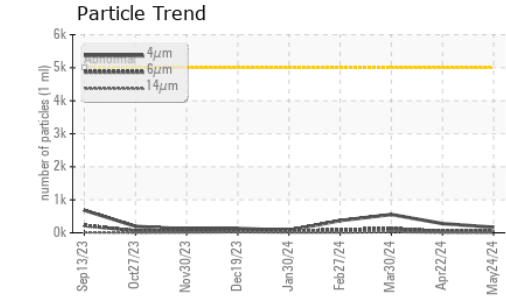
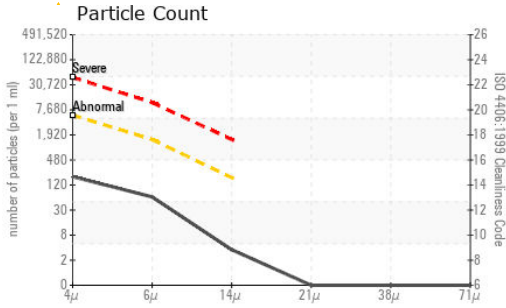
FLUID DEGRADATION	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.31</b>	0.33	0.39

Particle Filter (Magn: 200 x)





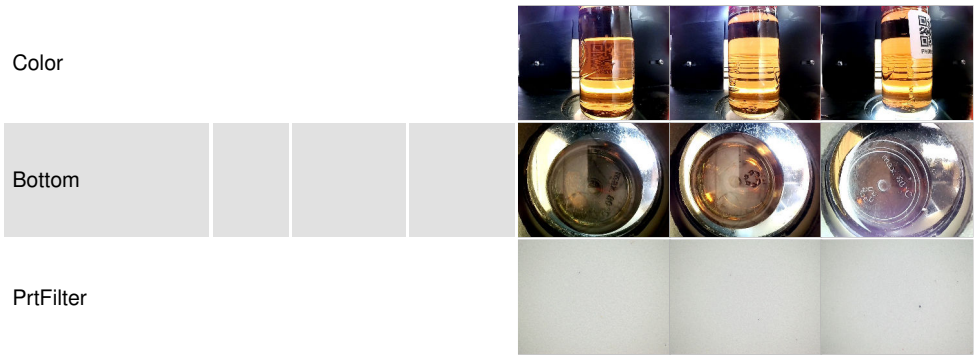
# OIL ANALYSIS REPORT



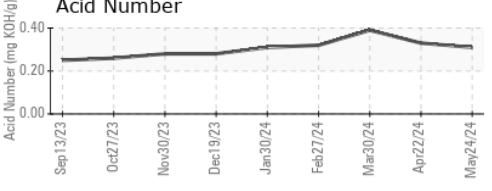
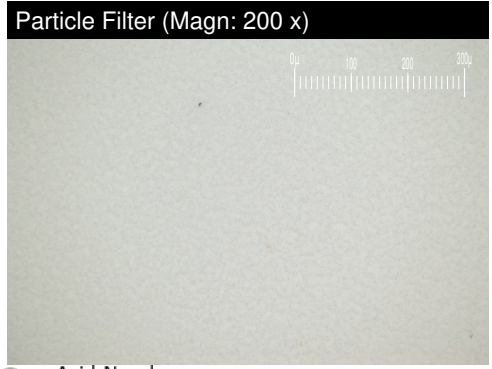
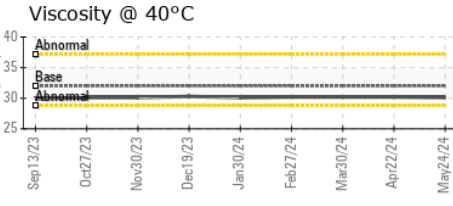
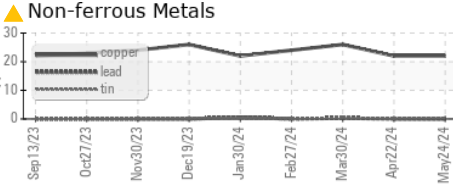
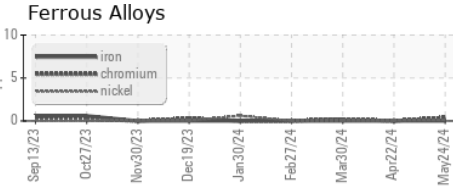
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	32	30.1	30.2

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PH0002327 **Received** : 07 Jun 2024  
**Lab Number** : 06202689 **Tested** : 11 Jun 2024  
**Unique Number** : 11070150 **Diagnosed** : 11 Jun 2024 - Jonathan Hester  
**Test Package** : PLANT ( Additional Tests: PrtFilter )

**WOODWARD INC - DRAKE**  
 1000 E DRAKE RD  
 FORT COLLINS, CO  
 US 80525  
 Contact: ALMA TOVAR  
 alma.tovar@woodward.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)