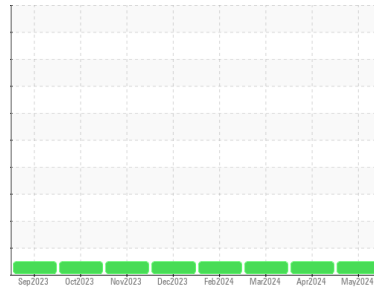




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**5000866 (S/N 500044093)**  
 Component  
**Hydraulic System**  
 Fluid  
**SHELL TELLUS S2 VX 32 (--- QTS)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### 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>PH0002328</b>	PH0003827	PH0003825
Sample Date	Client Info			<b>24 May 2024</b>	18 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>NORMAL</b>	NORMAL	NORMAL

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	<1
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>	0	3
Lead	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>20	<b>5</b>	4	6
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

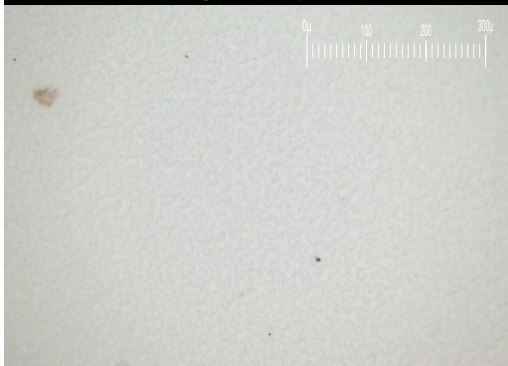
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	46
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Calcium	ppm	ASTM D5185m		<b>28</b>	34	38
Phosphorus	ppm	ASTM D5185m		<b>344</b>	330	352
Zinc	ppm	ASTM D5185m		<b>345</b>	316	328
Sulfur	ppm	ASTM D5185m		<b>801</b>	835	780

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>326</b>	452	747
Particles >6µm		ASTM D7647	>1300	<b>61</b>	79	120
Particles >14µm		ASTM D7647	>160	<b>3</b>	7	15
Particles >21µm		ASTM D7647	>40	<b>2</b>	2	7
Particles >38µm		ASTM D7647	>10	<b>0</b>	1	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>16/13/9</b>	16/13/10	17/14/11

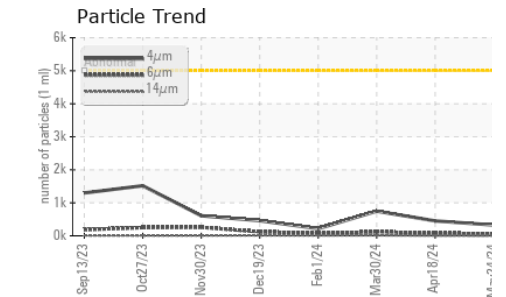
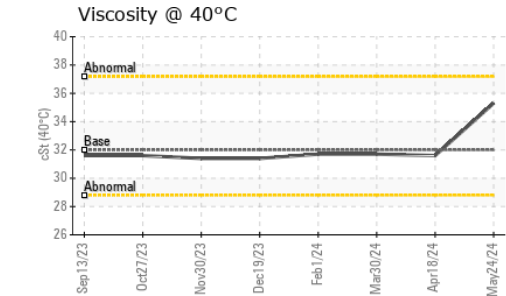
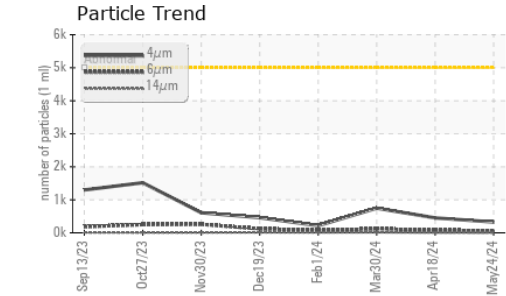
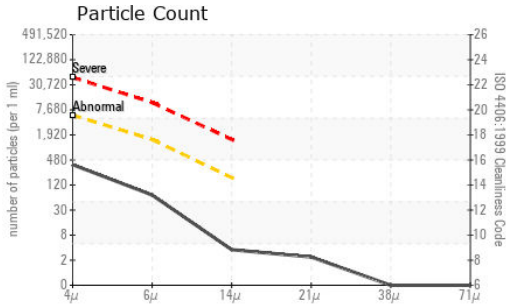
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.25</b>	0.26	0.30

Particle Filter (Magn: 200 x)





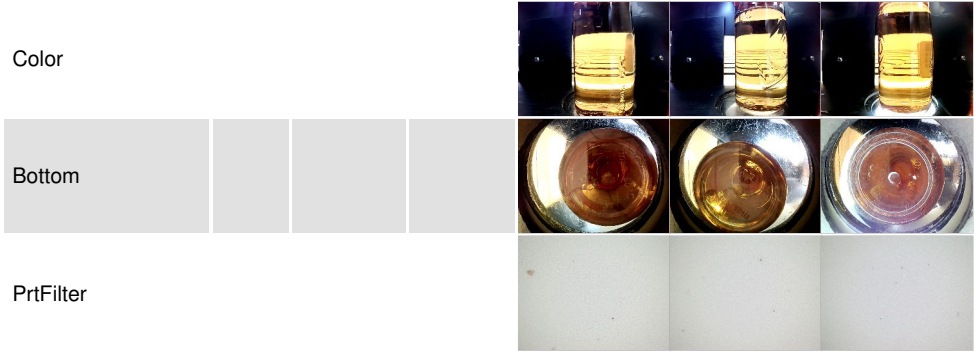
# OIL ANALYSIS REPORT



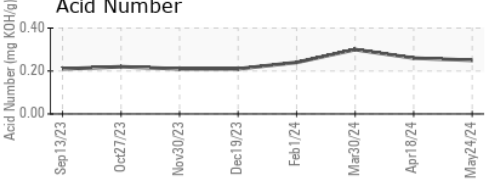
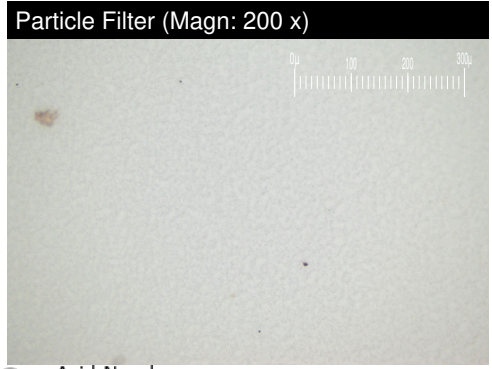
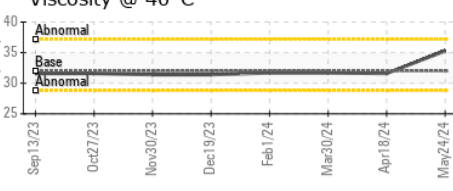
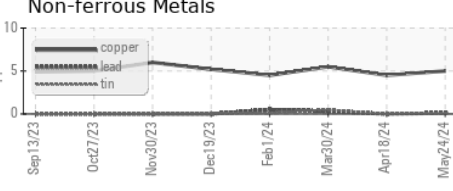
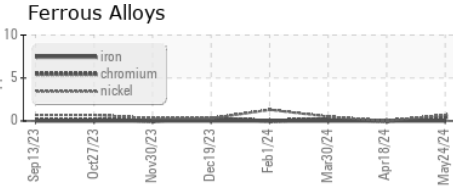
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	35.3	31.6

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PH0002328      **Received** : 07 Jun 2024  
**Lab Number** : 06202683      **Tested** : 11 Jun 2024  
**Unique Number** : 11070144      **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)