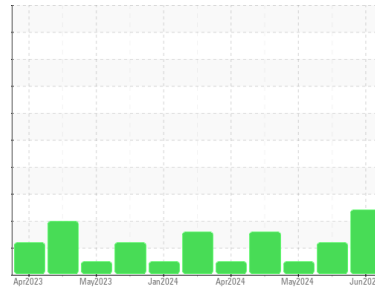




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id

FLUID POWER 2177033 (S/N SRNS 105)

Component

Hydraulic System

Fluid

SHELL ECOSAFE S3 DU 46 (3 GAL)

DIAGNOSIS

Recommendation

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

Wear

All component wear rates are normal.

Contamination

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

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	PH0001465	PH0001467	PH0001469
Sample Date	Client Info	04 Jun 2024	19 May 2024	16 May 2024
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	ATTENTION	NORMAL

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>20	0	0
Chromium	ppm	ASTM D5185m	>20	0	<1
Nickel	ppm	ASTM D5185m	>20	0	0
Titanium	ppm	ASTM D5185m		0	<1
Silver	ppm	ASTM D5185m		0	<1
Aluminum	ppm	ASTM D5185m	>20	0	<1
Lead	ppm	ASTM D5185m	>20	0	<1
Copper	ppm	ASTM D5185m	>20	0	<1
Tin	ppm	ASTM D5185m	>20	<1	2
Vanadium	ppm	ASTM D5185m		0	0
Cadmium	ppm	ASTM D5185m		0	<1

ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185m		<1	7	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		<1	<1	0
Calcium	ppm	ASTM D5185m		3	<1	<1
Phosphorus	ppm	ASTM D5185m		695	684	673
Zinc	ppm	ASTM D5185m		1	0	0
Sulfur	ppm	ASTM D5185m		3840	4247	4172

CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>15	<1	<1	<1
Sodium	ppm	ASTM D5185m		0	0	0
Potassium	ppm	ASTM D5185m	>20	2	0	0

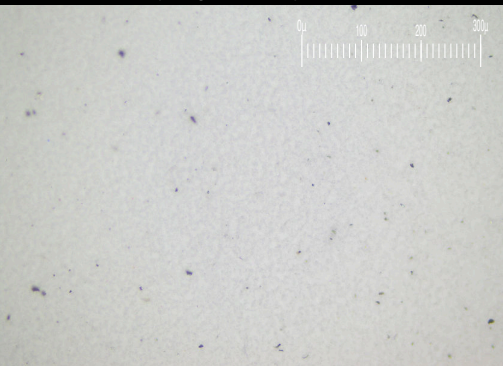
FLUID CLEANLINESS

method	limit/base	current	history1	history2	
Particles >4µm	ASTM D7647	>2500	▲ 13303	● 3970	875
Particles >6µm	ASTM D7647	>640	▲ 3970	● 1252	225
Particles >14µm	ASTM D7647	>80	▲ 339	71	24
Particles >21µm	ASTM D7647	>20	▲ 133	20	5
Particles >38µm	ASTM D7647	>4	▲ 13	0	1
Particles >71µm	ASTM D7647	>3	1	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ 21/19/16	● 19/17/13	17/15/12

FLUID DEGRADATION

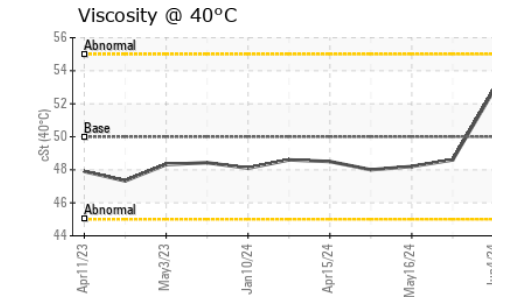
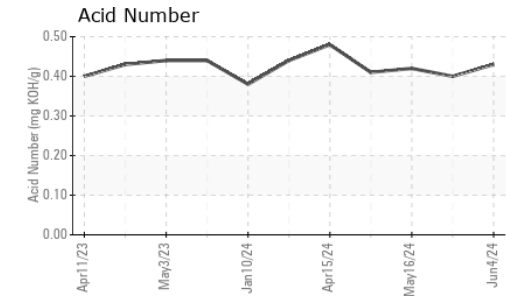
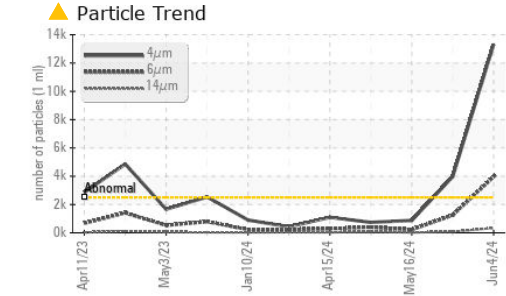
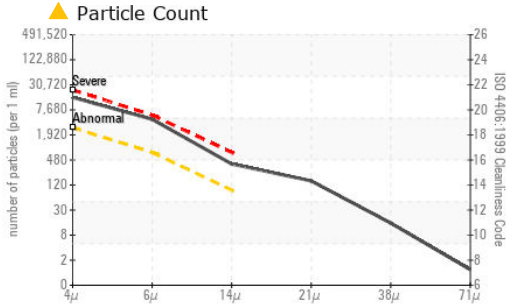
method	limit/base	current	history1	history2		
Acid Number (AN)	mg KOH/g	ASTM D8045		0.43	0.40	0.42

Particle Filter (Magn: 200 x)





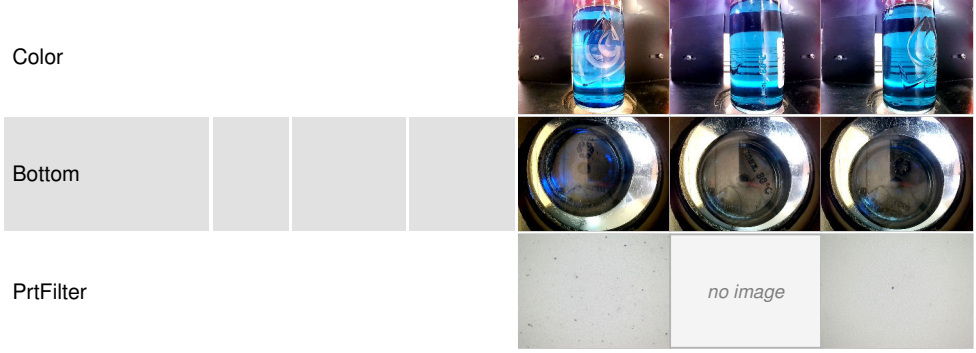
OIL ANALYSIS REPORT



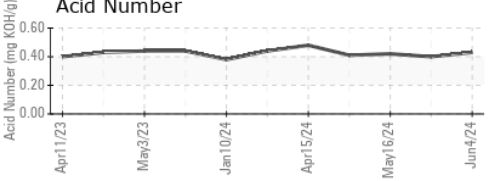
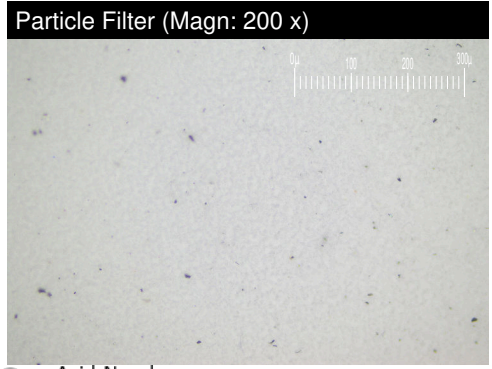
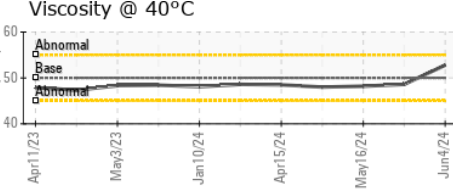
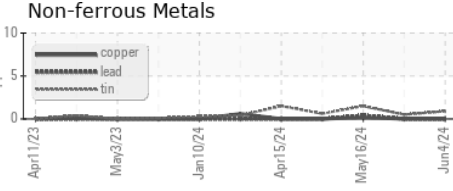
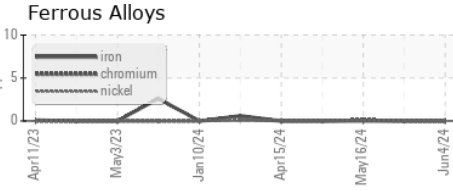
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	50.0	52.8	48.6	48.2

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PH0001465 **Received** : 05 Jun 2024
Lab Number : **06200107** **Tested** : 07 Jun 2024
Unique Number : 11062230 **Diagnosed** : 07 Jun 2024 - Jonathan Hester
Test Package : PLANT (Additional Tests: PrtFilter)

HYDRADYNE LLC
 15050 FAA BLVD
 FORT WORTH, TX
 US 76155
 Contact: JACK DAVIS
 jdavis@hydradynellc.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)