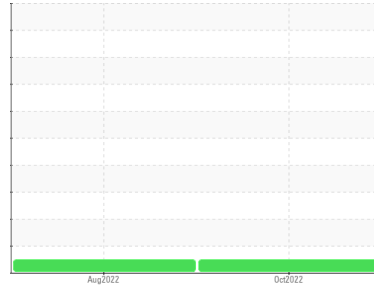




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
STORAGE TANK

Component
New (Unused) Oil
Fluid
NOT GIVEN (--- GAL)

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		WC0743431	WC0591824	---
Sample Date	Client Info		09 Oct 2022	08 Aug 2022	---
Machine Age	hrs	Client Info	0	0	---
Oil Age	hrs	Client Info	0	0	---
Oil Changed	Client Info		N/A	N/A	---
Sample Status			NORMAL	NORMAL	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >5	0	0	---
Chromium	ppm	ASTM D5185m >5	<1	0	---
Nickel	ppm	ASTM D5185m >5	<1	0	---
Titanium	ppm	ASTM D5185m	<1	<1	---
Silver	ppm	ASTM D5185m >5	<1	<1	---
Aluminum	ppm	ASTM D5185m >5	<1	0	---
Lead	ppm	ASTM D5185m >5	0	<1	---
Copper	ppm	ASTM D5185m >5	2	1	---
Tin	ppm	ASTM D5185m >5	<1	1	---
Vanadium	ppm	ASTM D5185m	<1	0	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	1	---
Barium	ppm	ASTM D5185m	0	0	---
Molybdenum	ppm	ASTM D5185m	1	0	---
Manganese	ppm	ASTM D5185m	<1	0	---
Magnesium	ppm	ASTM D5185m	0	<1	---
Calcium	ppm	ASTM D5185m	35	39	---
Phosphorus	ppm	ASTM D5185m	287	301	---
Zinc	ppm	ASTM D5185m	376	370	---
Sulfur	ppm	ASTM D5185m	2016	2257	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	10	9	---
Sodium	ppm	ASTM D5185m	2	2	---
Potassium	ppm	ASTM D5185m >20	0	<1	---

FLUID CLEANLINESS

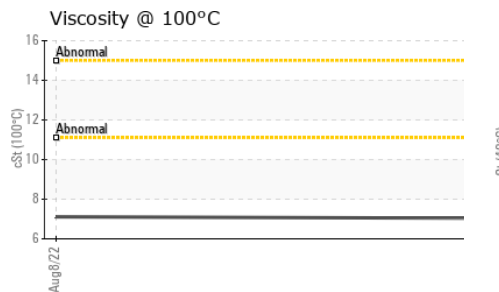
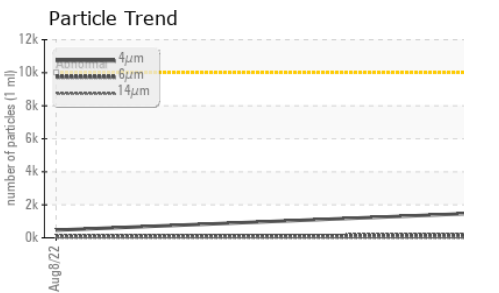
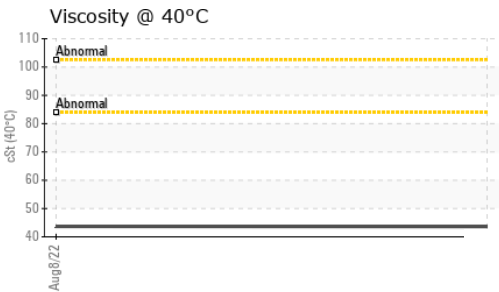
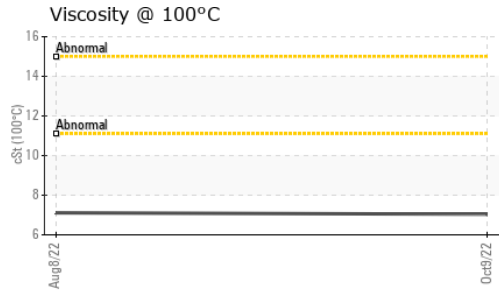
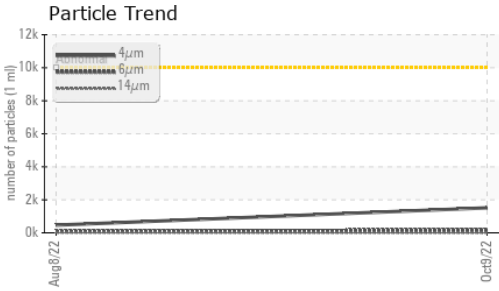
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	1514	466	---
Particles >6µm	ASTM D7647	>1300	170	82	---
Particles >14µm	ASTM D7647	>160	7	14	---
Particles >21µm	ASTM D7647	>40	2	3	---
Particles >38µm	ASTM D7647	>10	0	0	---
Particles >71µm	ASTM D7647	>3	0	0	---
Oil Cleanliness	ISO 4406 (c)	>20/17/14	18/15/10	16/14/11	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.25	0.24	---



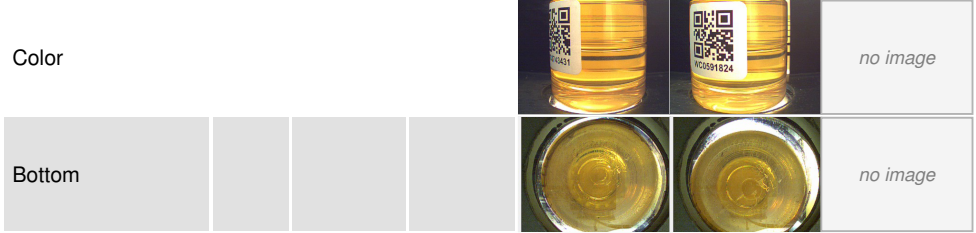
OIL ANALYSIS REPORT



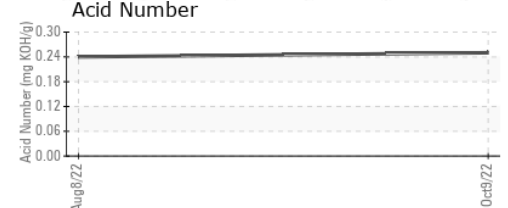
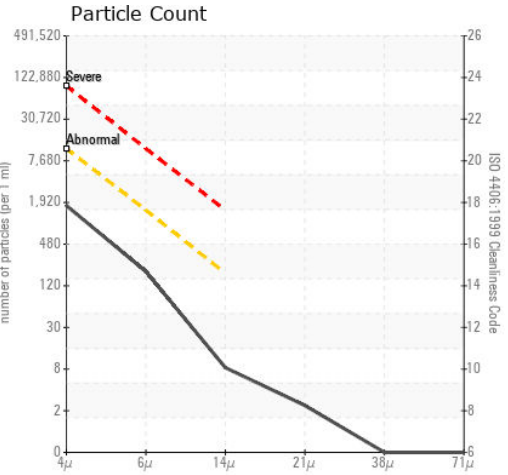
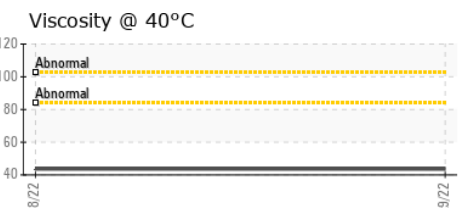
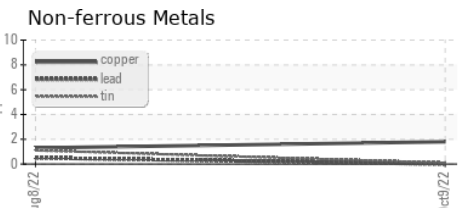
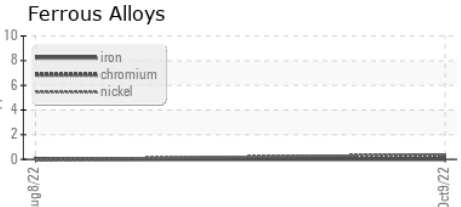
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	43.63	43.68	---
Visc @ 100°C	cSt	ASTM D445	7.04	7.11	---
Viscosity Index (VI)	Scale	ASTM D2270	120	122	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0743431 **Received** : 10 Oct 2022
Lab Number : 05662685 **Diagnosed** : 12 Oct 2022
Unique Number : 10167254 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: FT-IR, ICP-NewOil, KV100, PrtCount, VI)

HAWE HYDRAULICS PORTLAND
 12990 SE HWY 212
 CLACKAMAS, OR
 US 97015
 Contact: KIMBERLY NELSEN
 k.nelsen@hawehydraulics.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: (503)222-3295

F: