



OIL ANALYSIS REPORT

Sample Rating Trend

WEAR

Area
TC01
 Machine Id
TC01 Bottom 6 Inch Sludge
 Component
Gearbox
 Fluid
SHELL OMALA S2 G 320 (40 GAL)



DIAGNOSIS

Recommendation

This is a baseline read-out on the submitted sample. Diagnostician's Note: This sludge is a combination of metal wear particles, dirt, oxidized oil, and likely grease (high levels of lithium and molybdenum suggest an EP lithium complex grease).

Wear

PQ levels are noted. Aluminum, chromium and iron ppm levels are noted.

Contamination

Silicon ppm levels are notably high.

Fluid Condition

Boron ppm levels are notably high. Calcium ppm levels are notably high. Molybdenum ppm levels are notably high. Phosphorus ppm levels are notably high. Zinc ppm levels are notably high. Lithium ppm levels are notably high.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0546884	---	---
Sample Date	Client Info		09 Oct 2023	---	---
Machine Age	hrs	Client Info	0	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		Not Chngd	---	---
Sample Status			ATTENTION	---	---

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		▲ 3610	---	---
Iron	ppm	ASTM D5185(m) >200	▲ 3850	---	---
Chromium	ppm	ASTM D5185(m) >15	▲ 20	---	---
Nickel	ppm	ASTM D5185(m) >15	0	---	---
Titanium	ppm	ASTM D5185(m)	0	---	---
Silver	ppm	ASTM D5185(m)	<1	---	---
Aluminum	ppm	ASTM D5185(m) >25	▲ 60	---	---
Lead	ppm	ASTM D5185(m) >100	1	---	---
Copper	ppm	ASTM D5185(m) >200	40	---	---
Tin	ppm	ASTM D5185(m) >25	0	---	---
Antimony	ppm	ASTM D5185(m) >5	<1	---	---
Vanadium	ppm	ASTM D5185(m)	0	---	---
Beryllium	ppm	ASTM D5185(m)	0	---	---
Cadmium	ppm	ASTM D5185(m)	0	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 5.5	▲ 40	---	---
Barium	ppm	ASTM D5185(m) 0.4	2	---	---
Molybdenum	ppm	ASTM D5185(m) 0.5	▲ 3840	---	---
Manganese	ppm	ASTM D5185(m)	2	---	---
Magnesium	ppm	ASTM D5185(m) 23	40	---	---
Calcium	ppm	ASTM D5185(m) 13	▲ 830	---	---
Phosphorus	ppm	ASTM D5185(m) 450	▲ 2510	---	---
Zinc	ppm	ASTM D5185(m) 9.9	▲ 890	---	---
Sulfur	ppm	ASTM D5185(m) 8181	11260	---	---
Lithium	ppm	ASTM D5185(m)	▲ 940	---	---

CONTAMINANTS

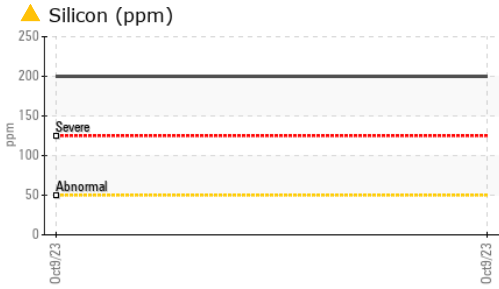
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >50	▲ 200	---	---
Sodium	ppm	ASTM D5185(m)	120	---	---
Potassium	ppm	ASTM D5185(m) >20	120	---	---

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	---



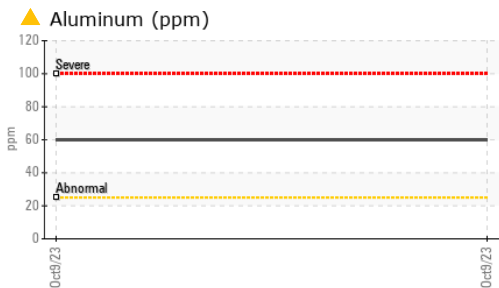
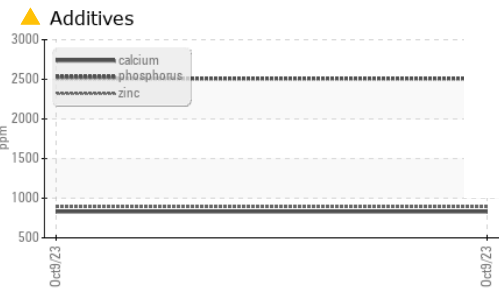
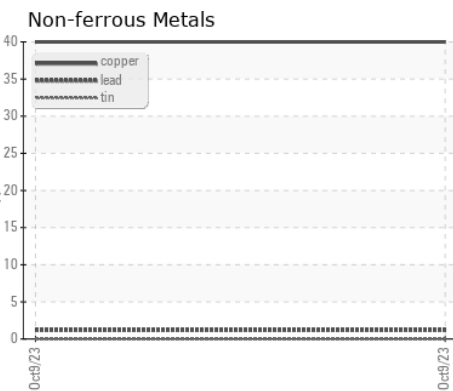
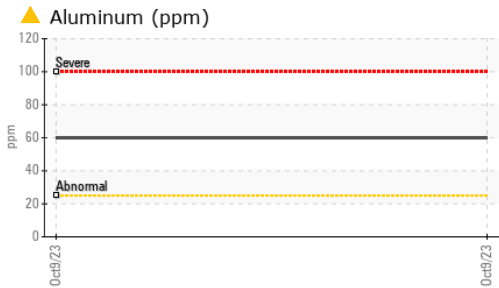
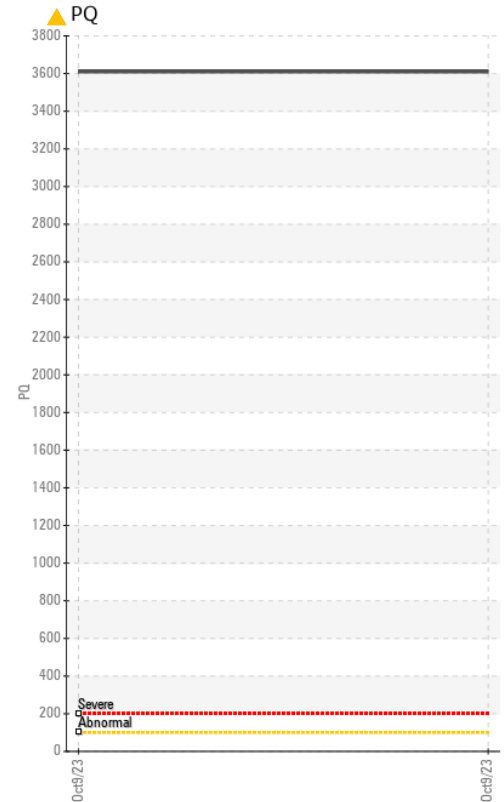
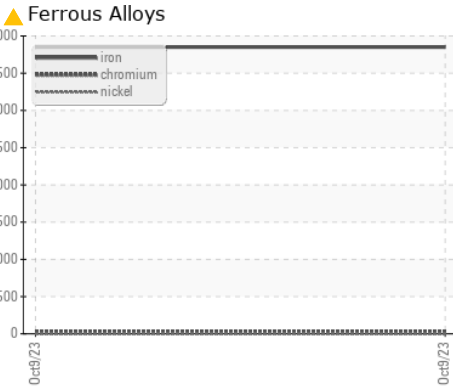
OIL ANALYSIS REPORT



SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image



GRAPHS



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0546884 **Received** : 13 Oct 2023
Lab Number : 02589094 **Diagnosed** : 16 Oct 2023
Unique Number : 5658160 **Diagnostician** : Bill Quesnel
Test Package : TEST (Additional Tests: ICP, ICP-Digest, PQ)

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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