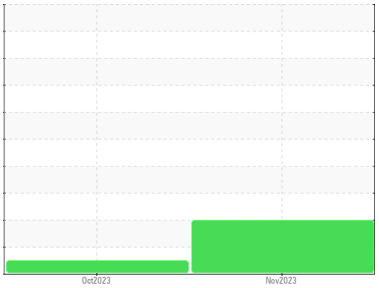
OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Area
CHAD STEELE
Machine Id
19-064S13-1 - 180
Component
Hydraulic System
Fluid
NOT GIVEN (--- QTS)

DIAGNOSIS

Recommendation

NOTE: one of two samples received with same ID and sampling date. Insufficient sample was received to conduct or confirm all the routine laboratory tests.

Wear

{not applicable}

Contamination

Moderate concentration of visible dirt/debris present in the oil.

Fluid Condition

{not applicable}

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0837623**	WC0837691	---
Sample Date		Client Info		**14 Nov 2023**	04 Oct 2023	---
Machine Age	hrs	Client Info		**0**	0	---
Oil Age	hrs	Client Info		**0**	0	---
Oil Changed		Client Info		**N/A**	N/A	---
Sample Status				**ABNORMAL**	NORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**0**	<1	---
Chromium	ppm	ASTM D5185m	>10	**0**	<1	---
Nickel	ppm	ASTM D5185m	>10	**0**	<1	---
Titanium	ppm	ASTM D5185m		**0**	0	---
Silver	ppm	ASTM D5185m		**0**	0	---
Aluminum	ppm	ASTM D5185m	>10	**0**	1	---
Lead	ppm	ASTM D5185m	>10	**0**	0	---
Copper	ppm	ASTM D5185m	>75	**11**	<1	---
Tin	ppm	ASTM D5185m	>10	**<1**	0	---
Vanadium	ppm	ASTM D5185m		**0**	<1	---
Cadmium	ppm	ASTM D5185m		**0**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	69	---
Barium	ppm	ASTM D5185m		**0**	0	---
Molybdenum	ppm	ASTM D5185m		**0**	0	---
Manganese	ppm	ASTM D5185m		**0**	0	---
Magnesium	ppm	ASTM D5185m		**0**	2	---
Calcium	ppm	ASTM D5185m		▲ **2**	351	---
Phosphorus	ppm	ASTM D5185m		▲ **3**	309	---
Zinc	ppm	ASTM D5185m		**0**	<1	---
Sulfur	ppm	ASTM D5185m		▲ **14**	843	---

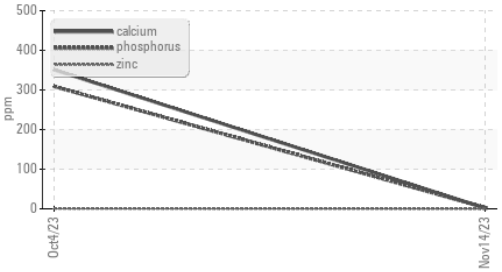
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**<1**	3	---
Sodium	ppm	ASTM D5185m		**0**	4	---
Potassium	ppm	ASTM D5185m	>20	**0**	<1	---
Water	%	ASTM D6304	>0.1	**0.051**	0.032	---
ppm Water	ppm	ASTM D6304	>1000	**518.3**	322.1	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**---**	3121	---
Particles >6µm		ASTM D7647	>1300	**---**	468	---
Particles >14µm		ASTM D7647	>160	**---**	69	---
Particles >21µm		ASTM D7647	>40	**---**	23	---
Particles >38µm		ASTM D7647	>10	**---**	3	---
Particles >71µm		ASTM D7647	>3	**---**	1	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**---**	19/16/13	---

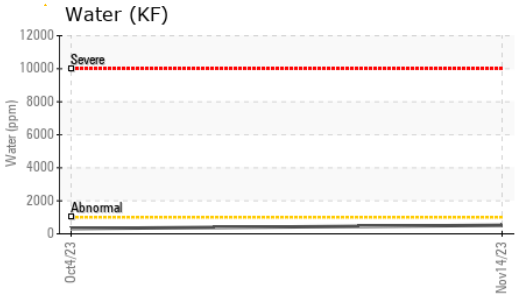
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**3.506**	1.90	---

OIL ANALYSIS REPORT

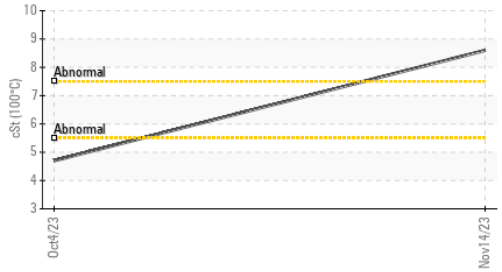
Additives



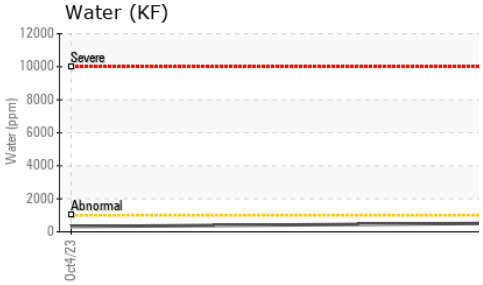
Water (KF)



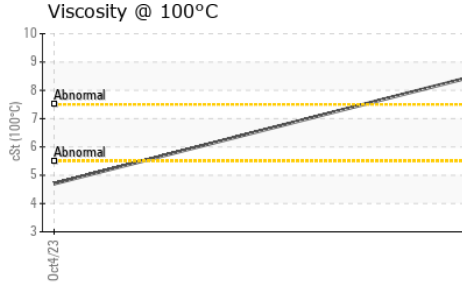
Viscosity @ 100°C



Water (KF)

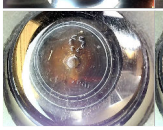


Viscosity @ 100°C



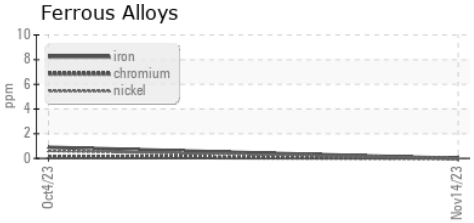
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	**NONE**	NONE	---
Debris	scalar	*Visual	NONE	▲ **MODER**	NONE	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	---
Appearance	scalar	*Visual	NORML	**NORML**	NORML	---
Odor	scalar	*Visual	NORML	**NORML**	NORML	---
Emulsified Water	scalar	*Visual	>0.1	**NEG**	NEG	---
Free Water	scalar	*Visual		**NEG**	NEG	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		▲ **51.7**	19.3	---
Visc @ 100°C	cSt	ASTM D445		**8.6**	4.7	---
Viscosity Index (VI)	Scale	ASTM D2270		**143**	173	---

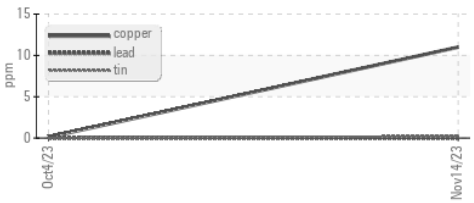
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					*no image*
Bottom					*no image*

GRAPHS

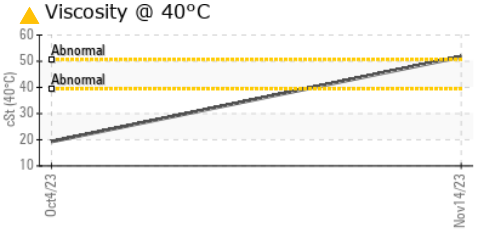
Ferrous Alloys



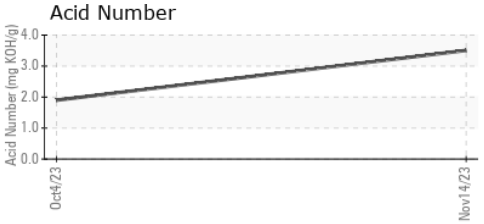
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0837623 **Received** : 16 Nov 2023
Lab Number : 06010208 **Diagnosed** : 20 Nov 2023
Unique Number : 10749352 **Diagnostician** : Doug Bogart
Test Package : MOB 2 (Additional Tests: KF, KV100, VI)

Certificate L2367

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)

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