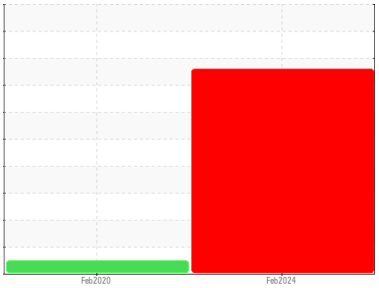
OIL DIAGNOSTICS

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Machine Id
MH-78
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (--- LTR)

DIAGNOSIS

Recommendation

We advise that you check all areas where contaminants can enter the system. The oil change at the time of sampling has been noted. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates (2 to 100 microns in size) present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PCA0113885**	PCA0006151	---
Sample Date		Client Info		**15 Feb 2024**	21 Feb 2020	---
Machine Age	hrs	Client Info		**13781**	2180	---
Oil Age	hrs	Client Info		**2000**	0	---
Oil Changed		Client Info		**Changed**	N/A	---
Sample Status				**SEVERE**	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	---

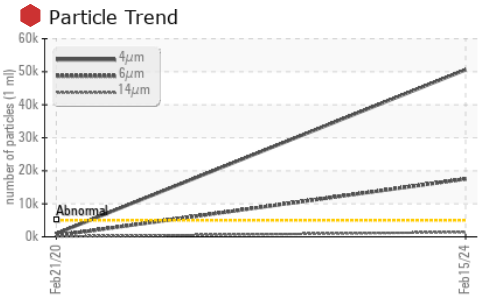
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**2**	4	---
Chromium	ppm	ASTM D5185m	>10	**1**	<1	---
Nickel	ppm	ASTM D5185m	>10	**<1**	<1	---
Titanium	ppm	ASTM D5185m		**<1**	0	---
Silver	ppm	ASTM D5185m		**<1**	<1	---
Aluminum	ppm	ASTM D5185m	>10	**<1**	<1	---
Lead	ppm	ASTM D5185m	>10	**<1**	1	---
Copper	ppm	ASTM D5185m	>75	**<1**	4	---
Tin	ppm	ASTM D5185m	>10	**<1**	0	---
Antimony	ppm	ASTM D5185m		**---**	0	---
Vanadium	ppm	ASTM D5185m		**0**	0	---
Cadmium	ppm	ASTM D5185m		**<1**	0	---

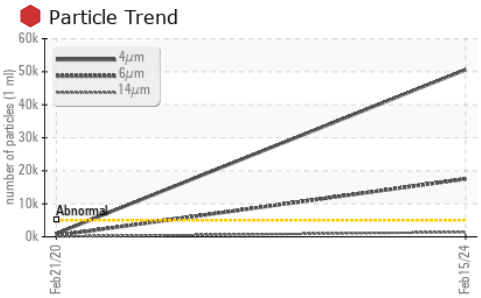
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	**0**	<1	---
Barium	ppm	ASTM D5185m	5	**5**	1	---
Molybdenum	ppm	ASTM D5185m	5	**<1**	0	---
Manganese	ppm	ASTM D5185m		**<1**	<1	---
Magnesium	ppm	ASTM D5185m	25	**<1**	7	---
Calcium	ppm	ASTM D5185m	200	**55**	1340	---
Phosphorus	ppm	ASTM D5185m	300	**322**	631	---
Zinc	ppm	ASTM D5185m	370	**463**	775	---
Sulfur	ppm	ASTM D5185m	2500	**912**	5155	---

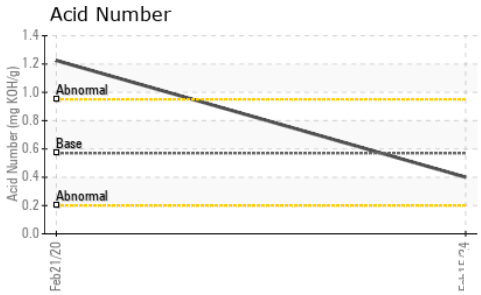
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**<1**	2	---
Sodium	ppm	ASTM D5185m		**0**	1	---
Potassium	ppm	ASTM D5185m	>20	**<1**	2	---

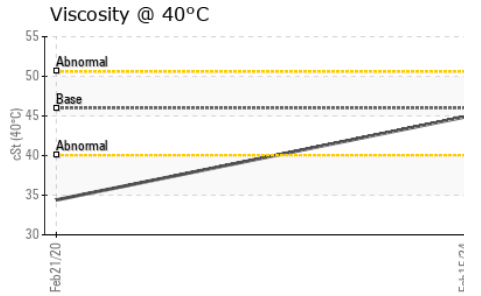
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	**50607**	972	---
Particles >6µm	ASTM D7647	>1300	**17533**	393	---
Particles >14µm	ASTM D7647	>160	**1409**	82	---
Particles >21µm	ASTM D7647	>40	**340**	30	---
Particles >38µm	ASTM D7647	>10	**10**	2	---
Particles >71µm	ASTM D7647	>3	**0**	0	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	**23/21/18**	17/16/14	---

OIL ANALYSIS REPORT





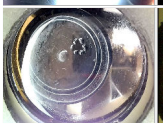
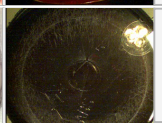




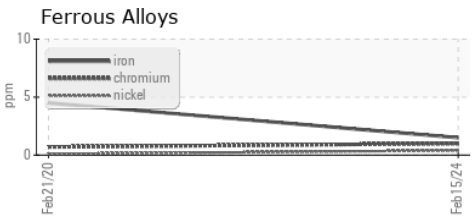
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	**0.40**	1.225	---

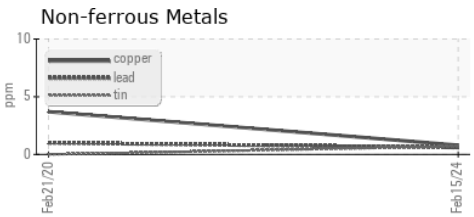
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	**NONE**	NONE	---
Debris	scalar	*Visual	NONE	**LIGHT**	NONE	---
Sand/Dirt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

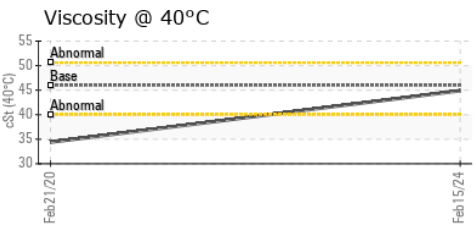
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	**44.9**	34.4	---

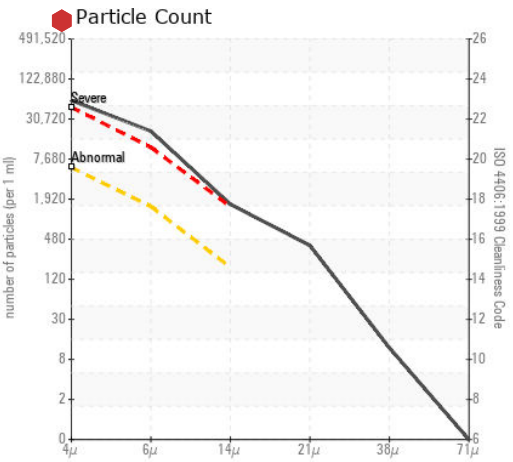
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					*no image*
Bottom					*no image*

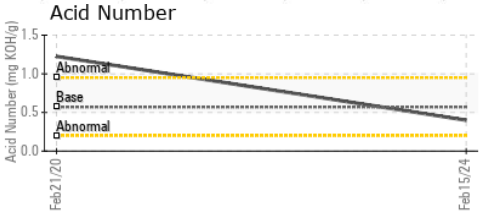
GRAPHS











Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0113885
Lab Number : 06098353
Unique Number : 10896583
Test Package : MOB 2

Received : 23 Feb 2024
Tested : 26 Feb 2024
Diagnosed : 26 Feb 2024 - Wes Davis

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)

SCRAP METAL SERVICES (SMS Mill Services LLC)
250 WEST U.S. HWY 12
CHESTERTON, IN
US 46304
Contact: DOMINIC WHITE
dwhite@scrapmetalservices.com
T:
F: