



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
PRAIRIE STATE - WHEELHOUSE LIFT

Component
Hydraulic System

Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0059120	MW0011439	---
Sample Date		Client Info		26 Feb 2024	10 Feb 2021	---
Machine Age	hrs	Client Info		0	0	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	N/A	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<1	3	---
Chromium	ppm	ASTM D5185m	>10	<1	<1	---
Nickel	ppm	ASTM D5185m	>10	0	0	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>10	0	0	---
Lead	ppm	ASTM D5185m	>10	2	2	---
Copper	ppm	ASTM D5185m	>75	10	9	---
Tin	ppm	ASTM D5185m	>10	0	<1	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

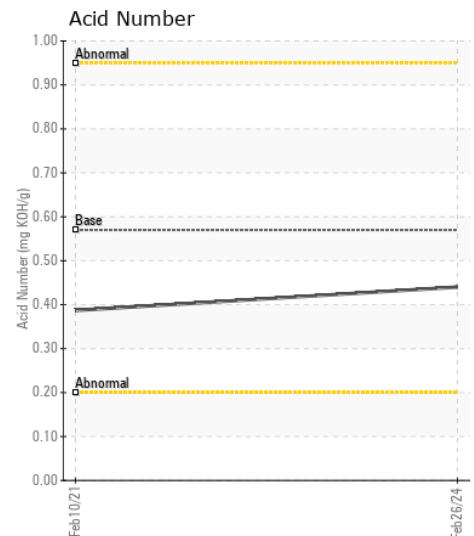
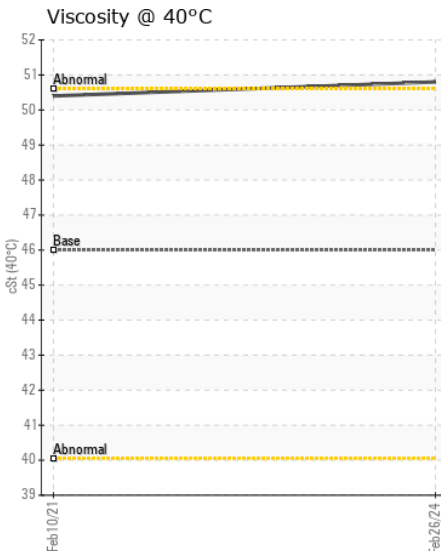
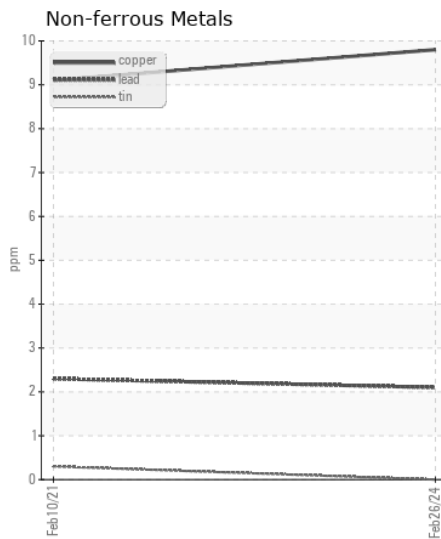
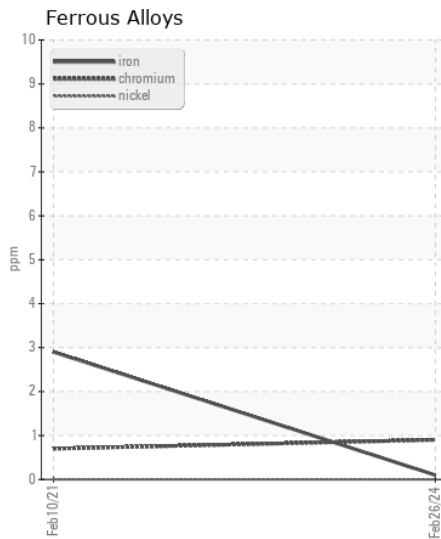
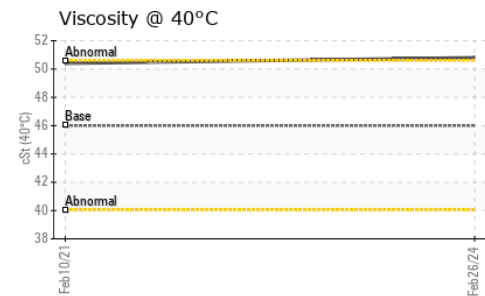
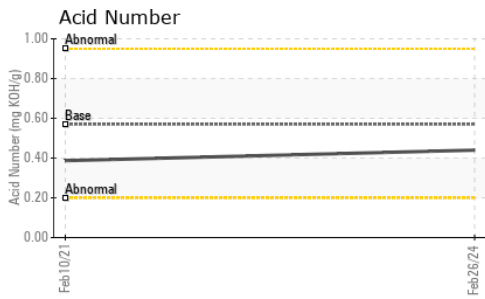
Moderate concentration of visible dirt/debris present in the oil.

Silicon	ppm	ASTM D5185m	>20	3	<1	---
Potassium	ppm	ASTM D5185m	>20	0	<1	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>5000	---	▲ 92037	---
Particles >6µm		ASTM D7647	>1300	---	▲ 5280	---
Particles >14µm		ASTM D7647	>160	---	35	---
Particles >21µm		ASTM D7647	>40	---	5	---
Particles >38µm		ASTM D7647	>10	---	0	---
Particles >71µm		ASTM D7647	>3	---	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	---	▲ 24/20/12	---
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	---

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		0	2	---
Boron	ppm	ASTM D5185m	5	0	6	---
Barium	ppm	ASTM D5185m	5	0	0	---
Molybdenum	ppm	ASTM D5185m	5	0	<1	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m	25	8	6	---
Calcium	ppm	ASTM D5185m	200	285	275	---
Phosphorus	ppm	ASTM D5185m	300	298	293	---
Zinc	ppm	ASTM D5185m	370	311	300	---
Sulfur	ppm	ASTM D5185m	2500	2188	1854	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.44	0.387	---
Visc @ 40°C	cSt	ASTM D445	46	50.8	50.4	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : MW0059120

Lab Number : 06101566

Unique Number : 10899796

Test Package : MAR 2

Received : 27 Feb 2024

Tested : 29 Feb 2024

Diagnosed : 29 Feb 2024 - Jonathan Hester

ILLINOIS MARINE TOWING

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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)