



OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

ABNORMAL
ATTENTION
NORMAL

Machine Id
TK22689

Component
Hydraulic System

Fluid
AW HYDRAULIC OIL ISO 32 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0708506	WC0636284	---
Sample Date		Client Info		25 Jan 2023	16 Dec 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

The copper level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	14	14	---
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	<1	---
Lead	ppm	ASTM D5185m	>10	<1	0	---
Copper	ppm	ASTM D5185m	>75	▲ 93	▲ 93	---
Tin	ppm	ASTM D5185m	>10	0	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

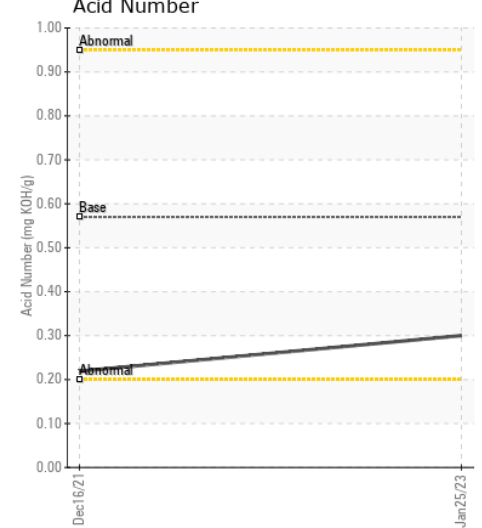
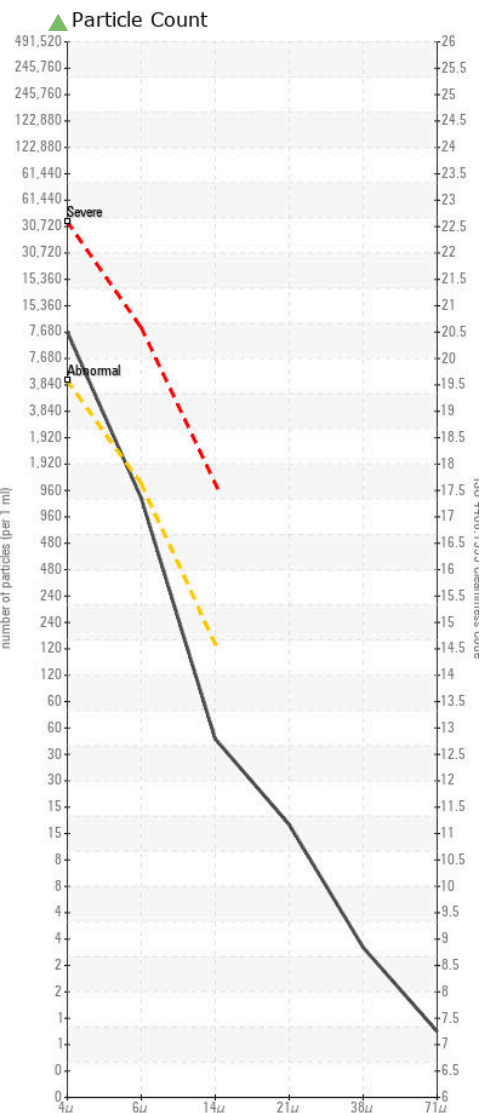
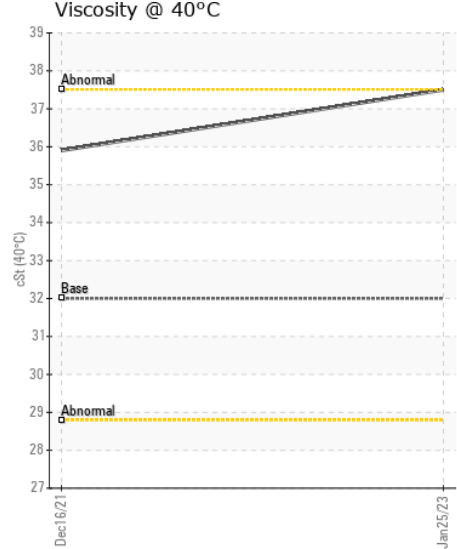
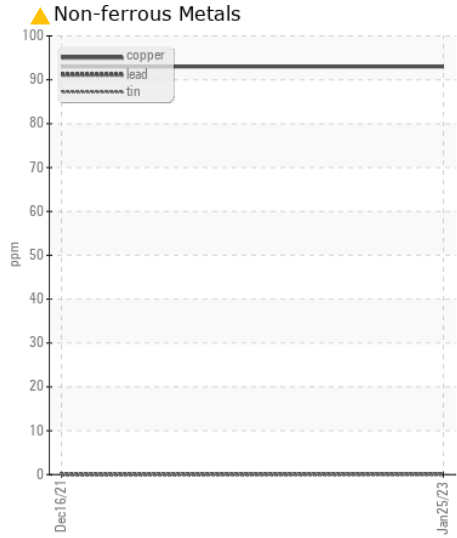
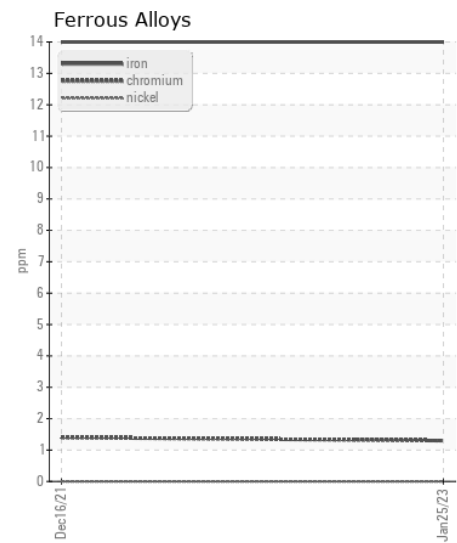
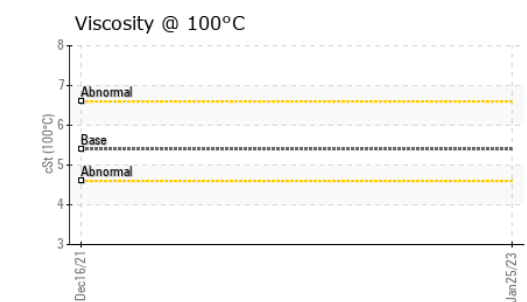
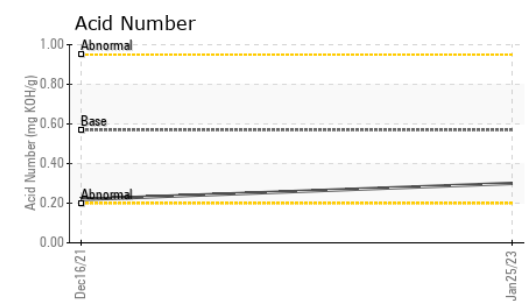
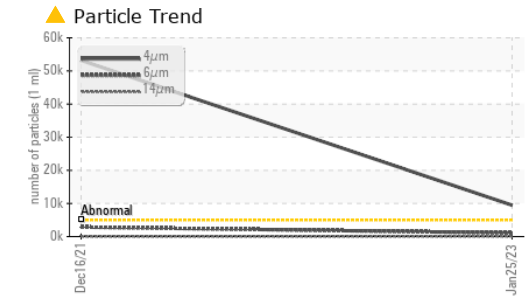
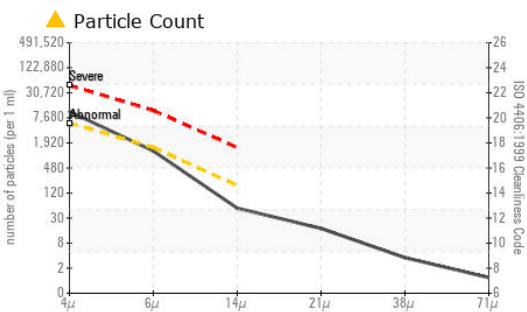
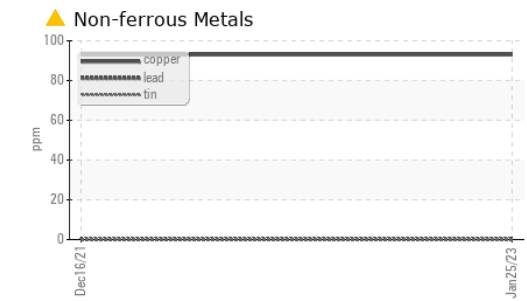
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	2	2	---
Potassium	ppm	ASTM D5185m	>20	<1	0	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>5000	▲ 9473	▲ 53191	---
Particles >6µm		ASTM D7647	>1300	1074	▲ 2867	---
Particles >14µm		ASTM D7647	>160	46	19	---
Particles >21µm		ASTM D7647	>40	15	4	---
Particles >38µm		ASTM D7647	>10	3	0	---
Particles >71µm		ASTM D7647	>3	1	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 20/17/13	▲ 23/19/11	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	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	4	---
Barium	ppm	ASTM D5185m	5	1	0	---
Molybdenum	ppm	ASTM D5185m	5	<1	<1	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m	25	3	2	---
Calcium	ppm	ASTM D5185m	200	49	51	---
Phosphorus	ppm	ASTM D5185m	300	272	240	---
Zinc	ppm	ASTM D5185m	370	265	242	---
Sulfur	ppm	ASTM D5185m	2500	4376	3457	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.30	0.219	---
Visc @ 40°C	cSt	ASTM D445	32	37.5	35.9	---
Visc @ 100°C	cSt	ASTM D445	5.4	6.1	---	---
Viscosity Index (VI)	Scale	ASTM D2270	102	108	---	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0708506 **Received** : 26 Jan 2023
Lab Number : 05750805 **Diagnosed** : 27 Jan 2023
Unique Number : 10310409 **Diagnostician** : Don Baldrige
Test Package : MOB 2 (Additional Tests: KV100, VI)

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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)