



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
TR22920 - ABC FREDRICK

Component
Hydraulic System

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

RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0708458	WC0581583	WC0585223
Sample Date		Client Info		25 Jan 2023	07 Sep 2021	06 Sep 2021
Machine Age	days	Client Info		0	0	0
Oil Age	days	Client Info		0	0	0
Filter Age	days	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	Not Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

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

Iron	ppm	ASTM D5185m	>20	7	5	6
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>10	0	0	<1
Lead	ppm	ASTM D5185m	>10	<1	0	0
Copper	ppm	ASTM D5185m	>75	1	1	1
Tin	ppm	ASTM D5185m	>10	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	LIGHT	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

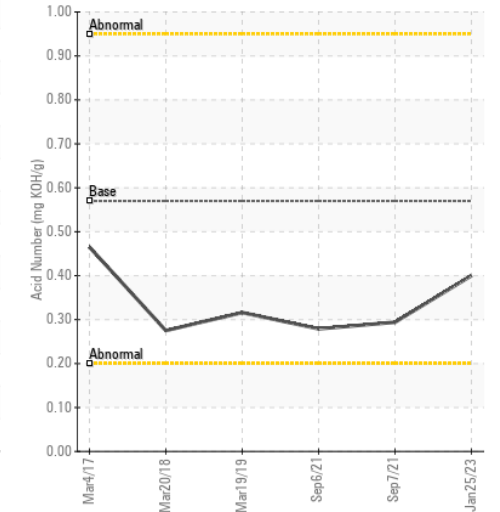
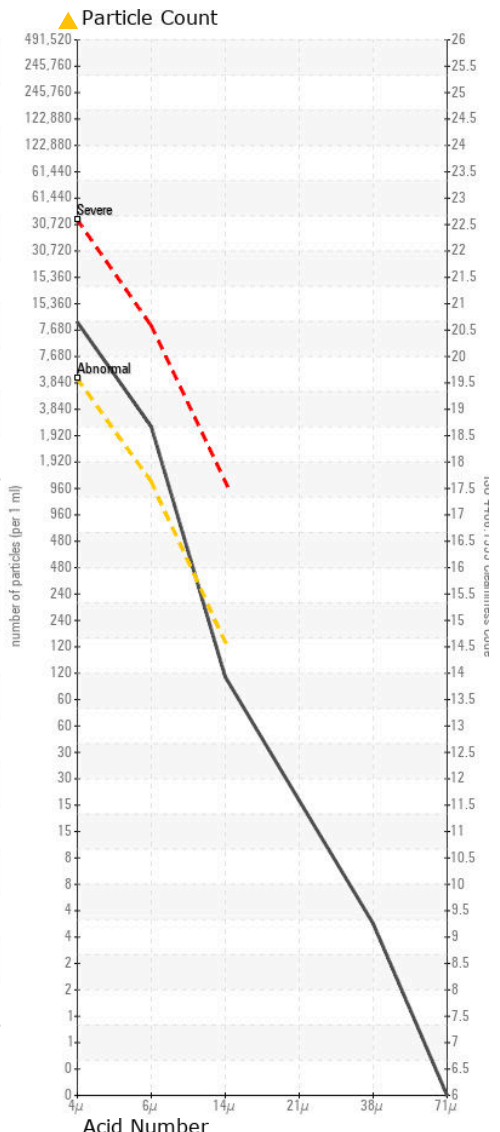
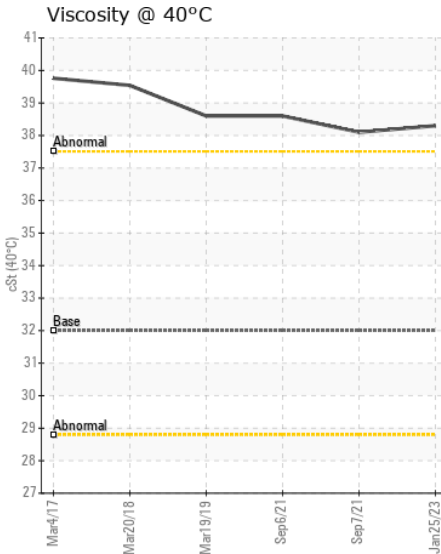
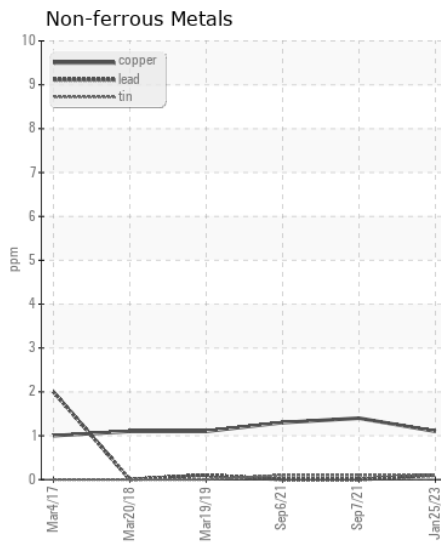
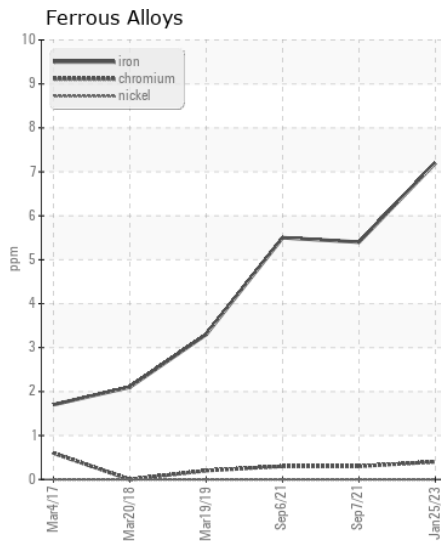
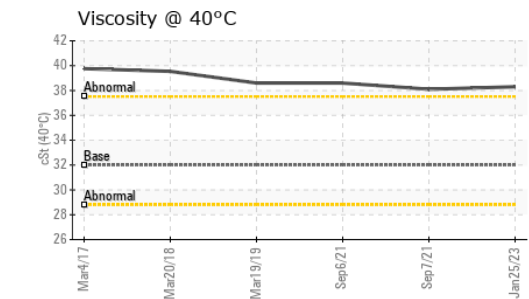
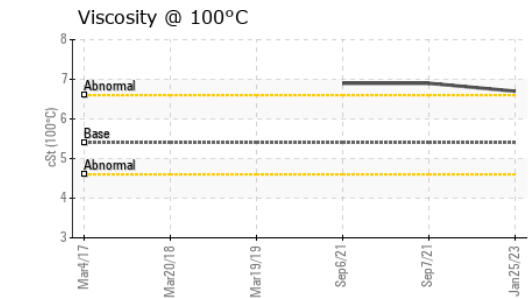
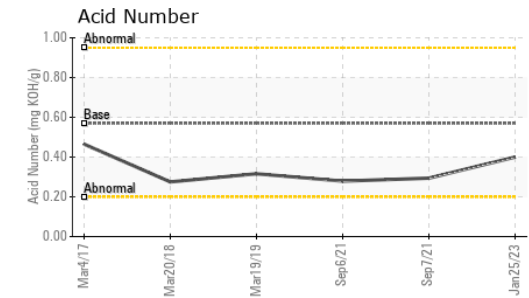
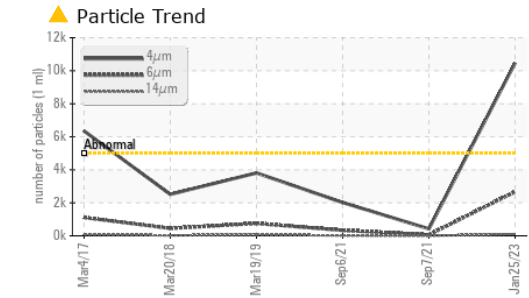
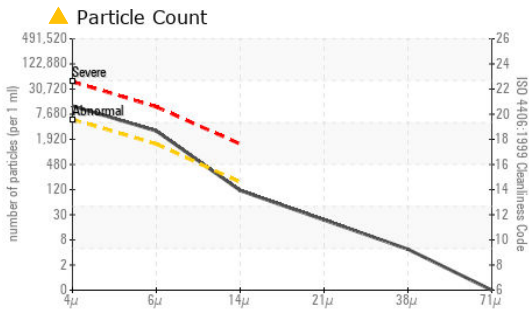
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	1	0	<1
Potassium	ppm	ASTM D5185m	>20	1	0	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	▲ 10470	423	2017
Particles >6µm		ASTM D7647	>1300	▲ 2671	59	336
Particles >14µm		ASTM D7647	>160	101	3	16
Particles >21µm		ASTM D7647	>40	20	1	6
Particles >38µm		ASTM D7647	>10	4	0	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 21/19/14	16/13/9	18/16/11
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	VLITE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	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	1	1
Boron	ppm	ASTM D5185m	5	0	3	3
Barium	ppm	ASTM D5185m	5	2	0	0
Molybdenum	ppm	ASTM D5185m	5	<1	<1	<1
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	25	3	2	1
Calcium	ppm	ASTM D5185m	200	51	48	50
Phosphorus	ppm	ASTM D5185m	300	331	332	330
Zinc	ppm	ASTM D5185m	370	422	394	391
Sulfur	ppm	ASTM D5185m	2500	3802	3185	3274
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.40	0.294	0.279
Visc @ 40°C	cSt	ASTM D445	32	38.3	38.1	38.6
Visc @ 100°C	cSt	ASTM D445	5.4	6.7	6.9	6.9
Viscosity Index (VI)	Scale	ASTM D2270	102	131	142	139



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0708458 **Received** : 26 Jan 2023
Lab Number : 05750801 **Diagnosed** : 27 Jan 2023
Unique Number : 10310405 **Diagnostician** : Don Baldrige
Test Package : MOB 2 (Additional Tests: KV100, VI)

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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)