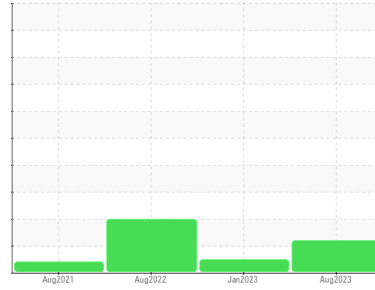




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
TK-BT424

Component
Hydraulic System

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

DIAGNOSIS

▲ Recommendation

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

Wear

All component wear rates are normal.

▲ Contamination

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

Fluid Condition

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

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0772616	WC0741551	WC0679346
Sample Date	Client Info	14 Aug 2023	25 Jan 2023	18 Aug 2022
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	Not Changd
Sample Status		ABNORMAL	NORMAL	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >20	12	10	13
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	0
Aluminum	ppm	ASTM D5185m >10	0	0	0
Lead	ppm	ASTM D5185m >10	0	0	0
Copper	ppm	ASTM D5185m >75	<1	1	1
Tin	ppm	ASTM D5185m >10	0	0	0
Antimony	ppm	ASTM D5185m	---	---	---
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 5	0	0	0
Barium	ppm	ASTM D5185m 5	0	1	1
Molybdenum	ppm	ASTM D5185m 5	0	<1	<1
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m 25	<1	1	1
Calcium	ppm	ASTM D5185m 200	49	49	50
Phosphorus	ppm	ASTM D5185m 300	354	345	348
Zinc	ppm	ASTM D5185m 370	441	443	454
Sulfur	ppm	ASTM D5185m 2500	5841	5045	4972

CONTAMINANTS

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

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	▲ 49295	922	▲ 60241
Particles >6µm	ASTM D7647 >1300	▲ 7676	112	▲ 12440
Particles >14µm	ASTM D7647 >160	110	16	▲ 268
Particles >21µm	ASTM D7647 >40	16	5	▲ 52
Particles >38µm	ASTM D7647 >10	1	1	4
Particles >71µm	ASTM D7647 >3	0	0	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	▲ 23/20/14	17/14/11	▲ 23/21/15

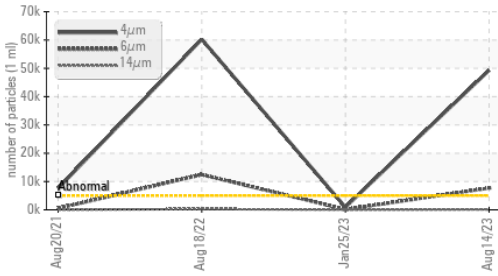
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.57	0.31	0.35	0.38

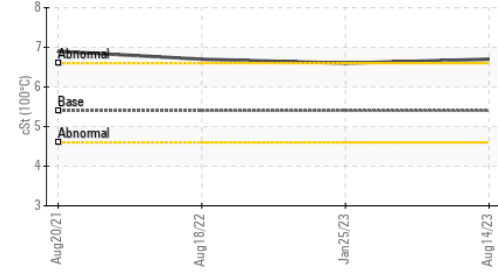


OIL ANALYSIS REPORT

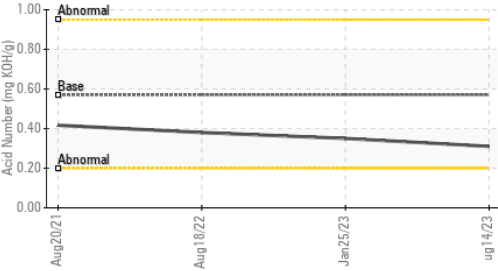
Particle Trend



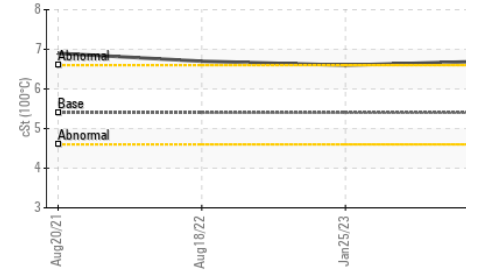
Viscosity @ 100°C



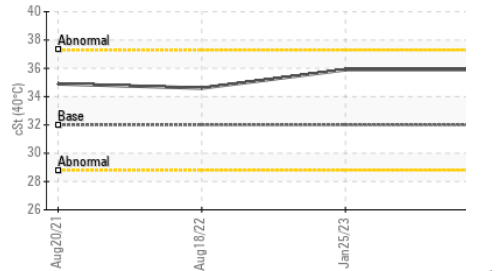
Acid Number



Viscosity @ 100°C



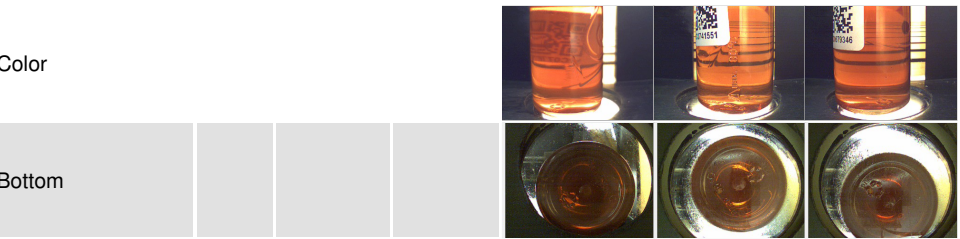
Viscosity @ 40°C



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

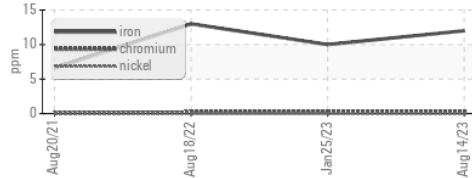
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32	35.9	34.6
Visc @ 100°C	cSt	ASTM D445	5.4	6.7	6.7
Viscosity Index (VI)	Scale	ASTM D2270	102	145	154

SAMPLE IMAGES

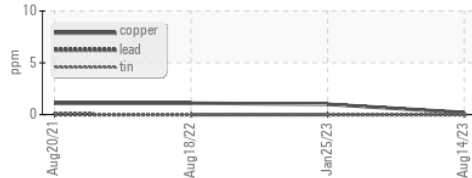


GRAPHS

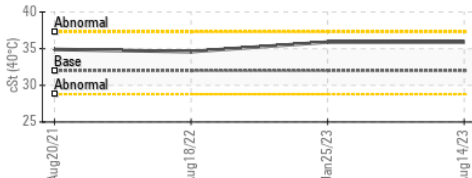
Ferrous Alloys



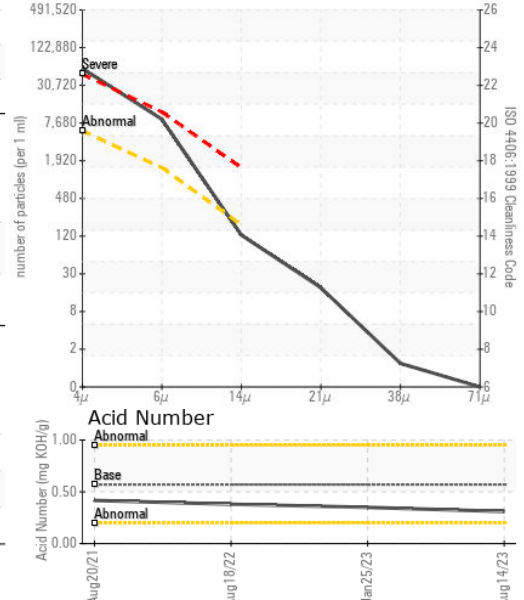
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0772616 **Received** : 14 Aug 2023
Lab Number : 05924254 **Diagnosed** : 15 Aug 2023
Unique Number : 10604201 **Diagnostician** : Don Baldrige
Test Package : MOB 2 (Additional Tests: KV100, VI)

HIAB USA - HAGERSTOWN
 148 WESTERN MARYLAND PKWY
 HAGERSTOWN, MD
 US 21740
 Contact: CHUCK WISHARD
 CHUCK.WISHARD@HIAB.COM
 T: (240)625-0045
 F: (301)797-7284

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)