OIL ANALYSIS REPORT

KIMBRO FLUID SOLUTIONS

Sample Rating Trend

ay2021 Dec2021 Sep2022 Mar2023 Jun2023 Aug2023 Dec2023 Feb2024

NORMAL

Area
COLD MILL/CM-3STD-1S
Machine Id
SOUTH 3-STAND HAGC HPU 1526-007-4410
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX AW 68 (450 GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

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		**KFS0004476**	KFS0004843	KFS0004667
Sample Date		Client Info		**03 Apr 2024**	29 Feb 2024	05 Feb 2024
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**NORMAL**	NORMAL	NORMAL

CONTAMINATION

		method	limit/base	current	history1	history2
Water		WC Method	>0.05	**NEG**	NEG	NEG

WEAR METALS

		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**0**	0	0
Chromium	ppm	ASTM D5185m	>20	**0**	0	0
Nickel	ppm	ASTM D5185m	>20	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**0**	0	0
Lead	ppm	ASTM D5185m	>20	**0**	0	0
Copper	ppm	ASTM D5185m	>20	**0**	0	0
Tin	ppm	ASTM D5185m	>20	**0**	0	0
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	0	**0**	0	0
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	0	**0**	0	0
Manganese	ppm	ASTM D5185m	0	**0**	0	0
Magnesium	ppm	ASTM D5185m	0	**0**	<1	0
Calcium	ppm	ASTM D5185m	50	**53**	52	20
Phosphorus	ppm	ASTM D5185m	330	**353**	339	345
Zinc	ppm	ASTM D5185m	430	**452**	430	454
Sulfur	ppm	ASTM D5185m	760	**952**	842	658

CONTAMINANTS

		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**0**	<1	0
Sodium	ppm	ASTM D5185m		**0**	0	0
Potassium	ppm	ASTM D5185m	>20	**0**	0	0

FLUID CLEANLINESS

		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**288**	298	105
Particles >6µm		ASTM D7647	>1300	**135**	109	31
Particles >14µm		ASTM D7647	>160	**21**	10	4
Particles >21µm		ASTM D7647	>40	**7**	3	0
Particles >38µm		ASTM D7647	>10	**1**	0	0
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**15/14/12**	15/14/10	14/12/9

FLUID DEGRADATION

		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.60	**0.43**	0.48	0.38

OIL ANALYSIS REPORT

KIMBRO FLUID SOLUTIONS
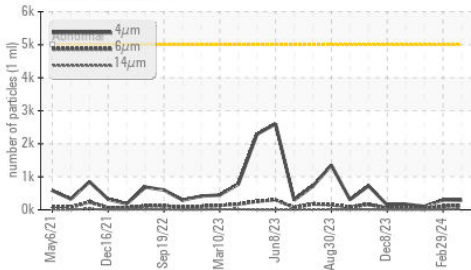
Particle Trend

Acid Number
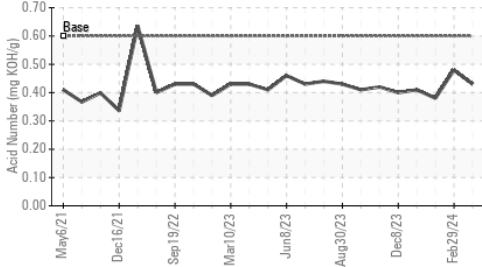
Viscosity @ 40°C
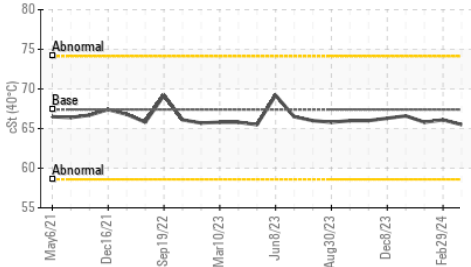
Particle Trend
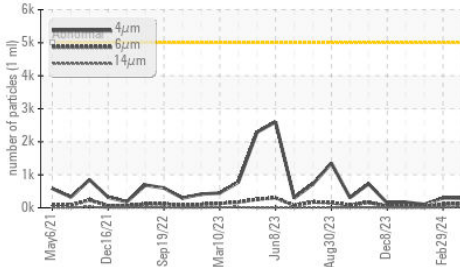
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	67.4	**65.5**	66.1	65.8

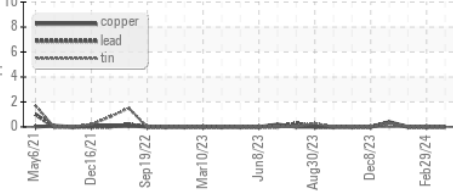| SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					
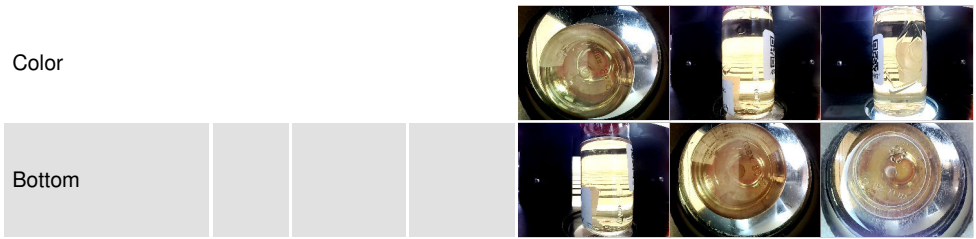
GRAPHS

Ferrous Alloys
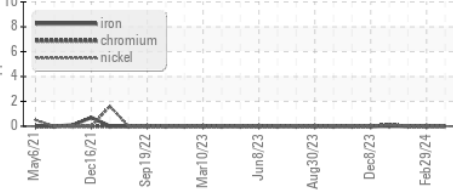
Non-ferrous Metals

Viscosity @ 40°C
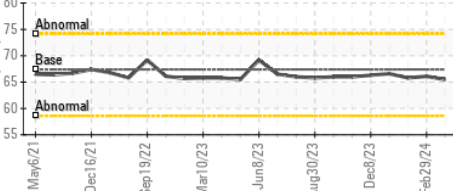
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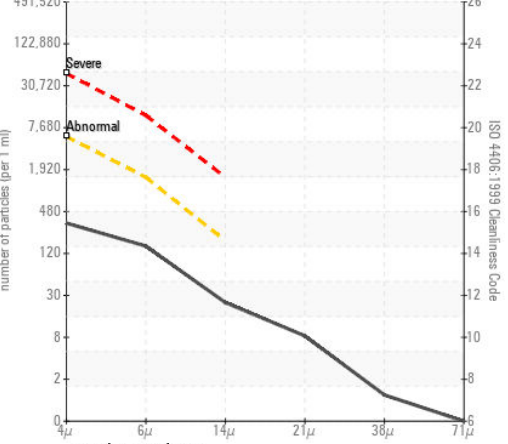
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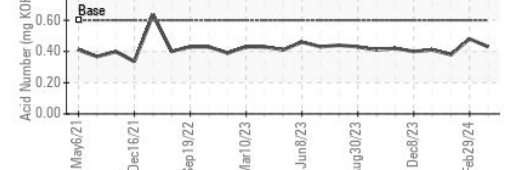
Laboratory

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KFS0004476
Lab Number : 06144183
Unique Number : 10968991
Test Package : IND 2

Received : 10 Apr 2024
Tested : 11 Apr 2024
Diagnosed : 11 Apr 2024 - Wes Davis

CONSTELLIUM
4805 SECOND STREET
MUSCLE SHOALS, AL
US 35661
Contact: Randy Nichols
randall.nichols@constellium.com
T: (256)386-6956
F:

ANAB ACCREDITED TESTING LABORATORY
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)