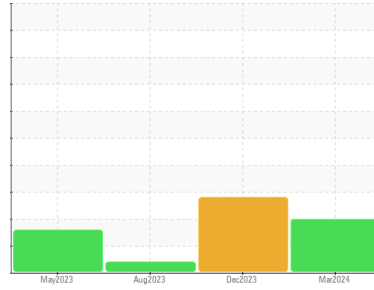




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
ROLL SHOP
 Machine Id
60 Farrel Waylube 8100-004-0001
 Component
Gearbox
 Fluid
CITGO COMPOUND EP 220 (--- GAL)

DIAGNOSIS

Recommendation

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

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates 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	KFS0004859	KFS0004894	KFS0003615
Sample Date	Client Info	26 Mar 2024	19 Dec 2023	30 Aug 2023
Machine Age	hrs	0	0	0
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.2	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >200	36	45	46
Chromium	ppm	ASTM D5185m >15	0	<1	0
Nickel	ppm	ASTM D5185m >15	1	0	0
Titanium	ppm	ASTM D5185m	<1	0	<1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	1	2	<1
Lead	ppm	ASTM D5185m >100	<1	0	2
Copper	ppm	ASTM D5185m >200	53	<1	44
Tin	ppm	ASTM D5185m >25	<1	0	<1
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	0	0	<1

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	0	0	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	1	0	2
Manganese	ppm	ASTM D5185m	2	<1	2
Magnesium	ppm	ASTM D5185m	9	<1	11
Calcium	ppm	ASTM D5185m	289	8	318
Phosphorus	ppm	ASTM D5185m	485	61	551
Zinc	ppm	ASTM D5185m	565	0	618
Sulfur	ppm	ASTM D5185m	6230	2600	6692

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >50	6	4	7
Sodium	ppm	ASTM D5185m	17	21	18
Potassium	ppm	ASTM D5185m >20	5	<1	5

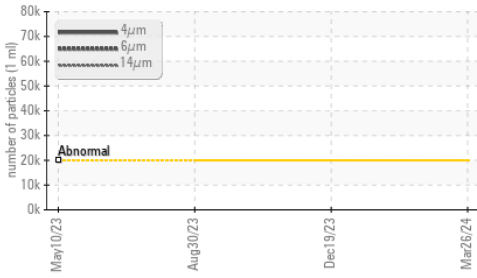
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >20000	▲ 73823	---	---
Particles >6µm	ASTM D7647 >5000	▲ 20368	---	---
Particles >14µm	ASTM D7647 >640	▲ 1485	---	---
Particles >21µm	ASTM D7647 >160	▲ 377	---	---
Particles >38µm	ASTM D7647 >40	15	---	---
Particles >71µm	ASTM D7647 >10	2	---	---
Oil Cleanliness	ISO 4406 (c) >21/19/16	▲ 23/22/18	---	---

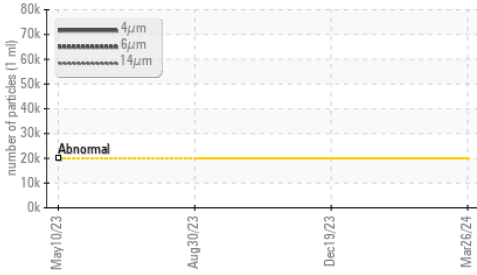
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.70	0.22	0.79

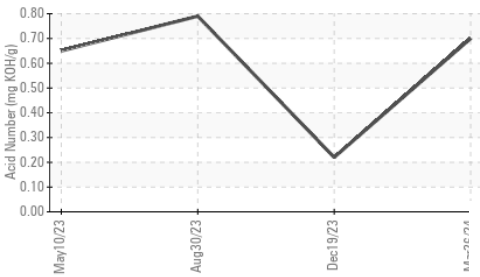
▲ Particle Trend



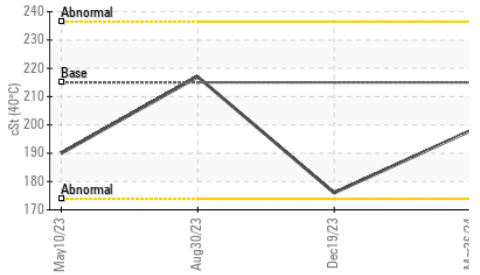
▲ Particle Trend



Acid Number



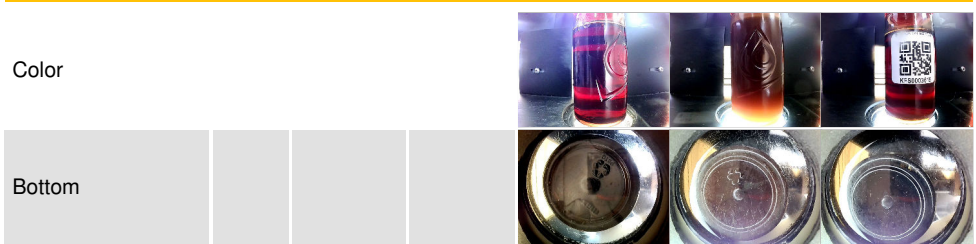
Viscosity @ 40°C



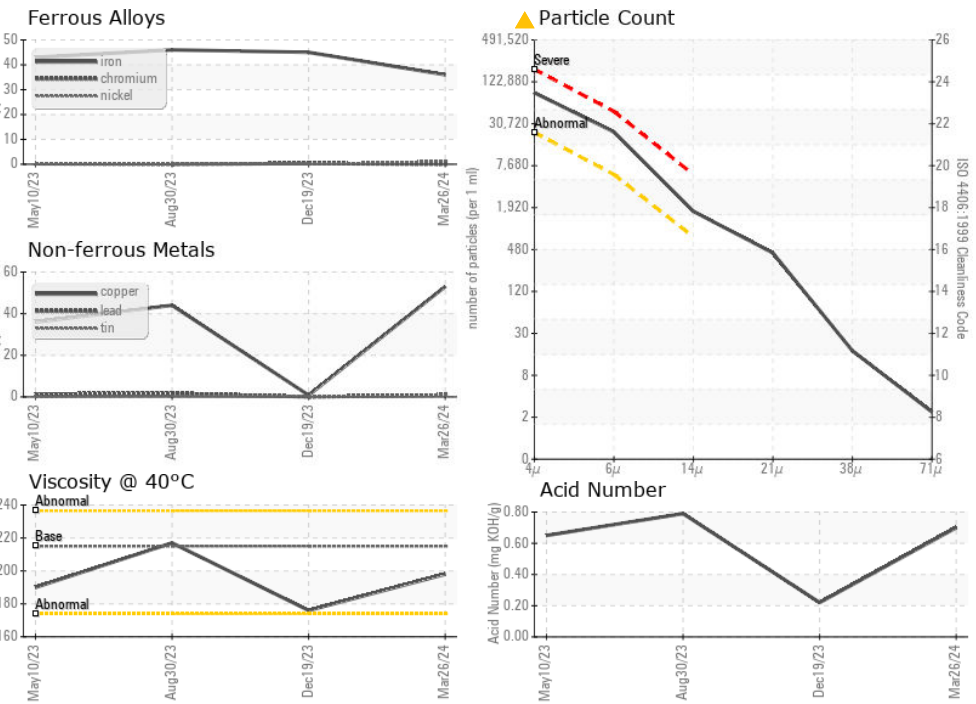
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	▲ MODER	NONE
Debris	scalar	*Visual	NONE	LIGHT	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	0.2%
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 215	198	▲ 176	217

SAMPLE IMAGES



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KFS0004859 **Received** : 28 Mar 2024
Lab Number : 06131994 **Tested** : 29 Mar 2024
Unique Number : 10951459 **Diagnosed** : 02 Apr 2024 - Jonathan Hester
Test Package : IND 2 (Additional Tests: PrtCount)

CONSTELLIUM
 4805 SECOND STREET
 MUSCLE SHOALS, AL
 US 35661

Contact: Randy Nichols
 randall.nichols@constellium.com
 T: (256)386-6956

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)

F: