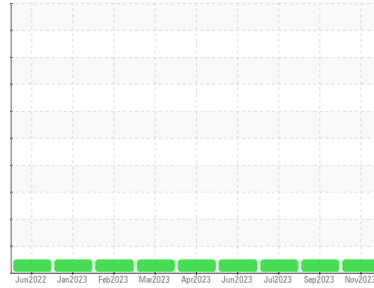




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
HOTLINE/120 MILL
 Machine Id
120-HAGC-DIRTY 120-HAGC-DIRTY
 Component
Hydraulic System
 Fluid
QUAKER CHEMICAL QUINTOLUBRIC 888-46 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are 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	KFS0004818	KFS0004889	KFS0003802
Sample Date	Client Info	10 Nov 2023	29 Sep 2023	19 Jul 2023
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

WEAR METALS

method	limit/base	current	history1	history2
Iron ppm ASTM D5185m	>20	0	<1	<1
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	300	311	319
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
Barium ppm ASTM D5185m		0	0	2
Molybdenum ppm ASTM D5185m		0	0	0
Manganese ppm ASTM D5185m		0	0	0
Magnesium ppm ASTM D5185m		0	<1	0
Calcium ppm ASTM D5185m		0	<1	0
Phosphorus ppm ASTM D5185m		119	99	110
Zinc ppm ASTM D5185m		1	<1	4
Sulfur ppm ASTM D5185m		582	619	628

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm ASTM D5185m	>15	1	2	2
Sodium ppm ASTM D5185m		2	2	1
Potassium ppm ASTM D5185m	>20	0	<1	0

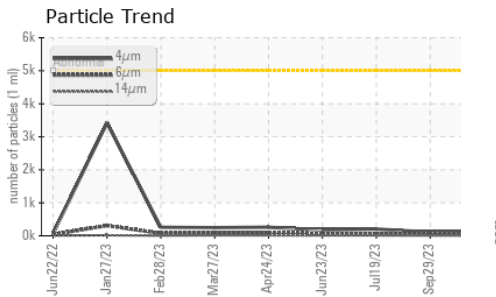
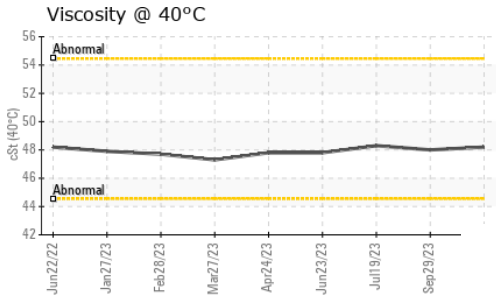
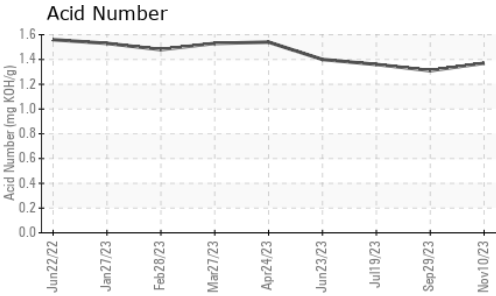
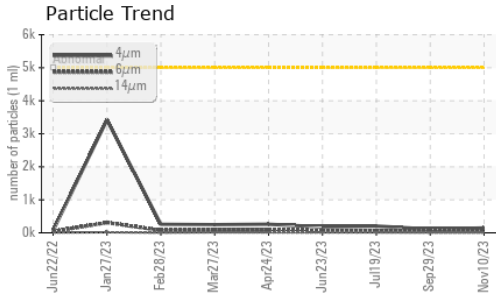
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm ASTM D7647	>5000	147	110	205
Particles >6µm ASTM D7647	>1300	56	45	70
Particles >14µm ASTM D7647	>160	7	7	11
Particles >21µm ASTM D7647	>40	1	3	3
Particles >38µm ASTM D7647	>10	0	0	0
Particles >71µm ASTM D7647	>3	0	0	0
Oil Cleanliness ISO 4406 (c)	>19/17/14	14/13/10	14/13/10	15/13/11

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g ASTM D8045		1.37	1.31	1.36

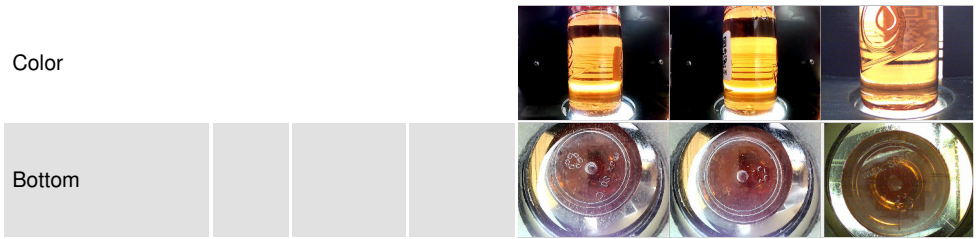
OIL ANALYSIS REPORT



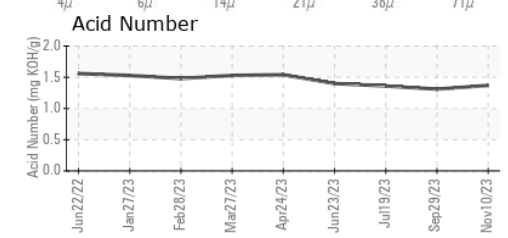
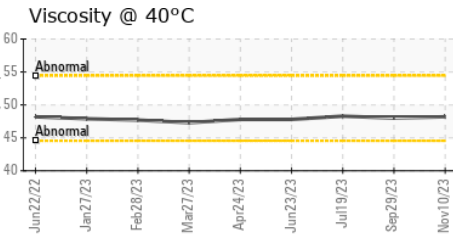
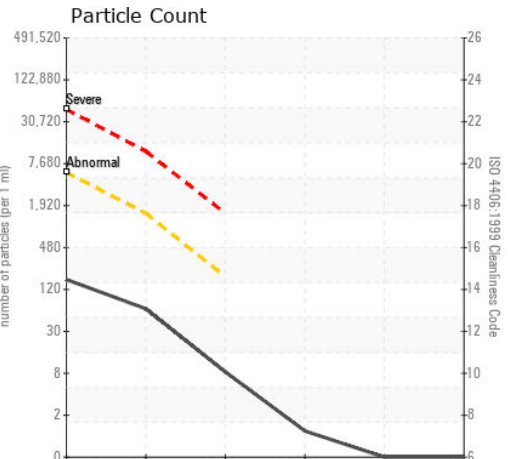
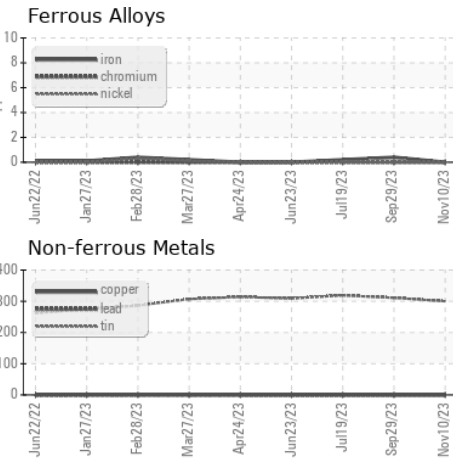
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	48.2	48.0	48.3

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KFS0004818 **Received** : 14 Nov 2023
Lab Number : 06007640 **Diagnosed** : 16 Nov 2023
Unique Number : 10741402 **Diagnostician** : Don Baldrige
Test Package : IND 2 (Additional Tests: KF)

CONSTELLIUM
 4805 SECOND STREET
 MUSCLE SHOALS, AL
 US 35661
 Contact: BRENT TAYS
 brent.tays@constellium.com
 T: (256)627-4915
 F:

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)