

Machine Id  
**FALK VAC-PAN-11**

Component  
**Gearbox**

Fluid  
**CASTROL AP GEAR LUBRICANT 85W140 (10 GAL)**

**DIAGNOSIS**

**Recommendation**

Resample at the next service interval to monitor. Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue.

**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			<b>ST43205</b>	ST44853	ST44314
Sample Date	Client Info			<b>03 Apr 2024</b>	13 Apr 2023	20 Apr 2022
Machine Age	mths	Client Info		<b>0</b>	0	0
Oil Age	mths	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	SEVERE

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	<b>30</b>	20	34
Chromium	ppm	ASTM D5185m	>15	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m	>15	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>0</b>	<1	1
Lead	ppm	ASTM D5185m	>100	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>200	<b>0</b>	<1	2
Tin	ppm	ASTM D5185m	>25	<b>0</b>	0	0
Antimony	ppm	ASTM D5185m	>5	<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>3</b>	10	19
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	1	5
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>0</b>	4	<1
Calcium	ppm	ASTM D5185m		<b>18</b>	78	14
Phosphorus	ppm	ASTM D5185m		<b>207</b>	530	320
Zinc	ppm	ASTM D5185m		<b>6</b>	46	6
Sulfur	ppm	ASTM D5185m		<b>10625</b>	16731	18272

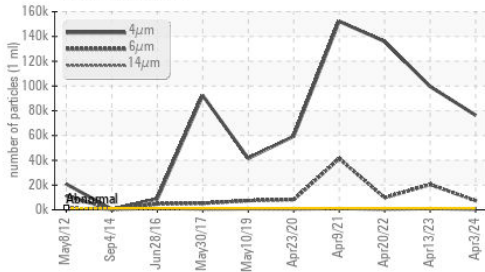
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	<b>&lt;1</b>	0	2
Sodium	ppm	ASTM D5185m		<b>1</b>	1	0
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	2
Water	%	ASTM D6304	>0.2	<b>0.004</b>	0.009	0.003
ppm Water	ppm	ASTM D6304	>2000	<b>42</b>	95.0	30.7

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>1300	<b>▲ 76360</b>	▲ 99605	▲ 135964
Particles >6µm		ASTM D7647	>320	<b>▲ 7342</b>	▲ 20449	▲ 9766
Particles >14µm		ASTM D7647	>80	<b>45</b>	▲ 602	55
Particles >21µm		ASTM D7647	>20	<b>8</b>	▲ 107	11
Particles >38µm		ASTM D7647	>4	<b>0</b>	▲ 7	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>17/15/13	<b>▲ 23/20/13</b>	▲ 24/22/16	▲ 24/20/13

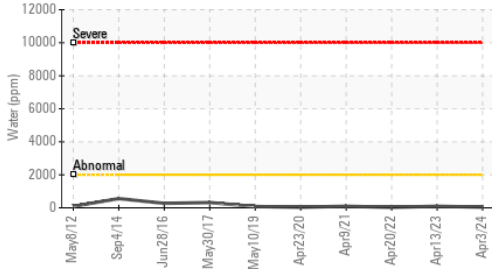
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.64</b>	1.25	1.93

# OIL ANALYSIS REPORT

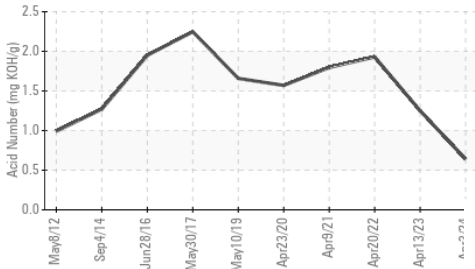
## Particle Trend



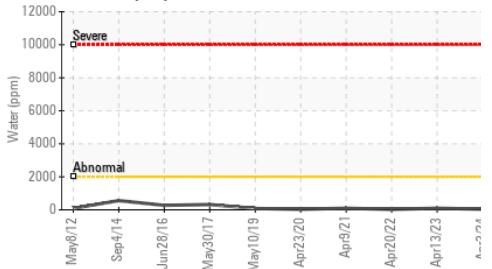
## Water (KF)



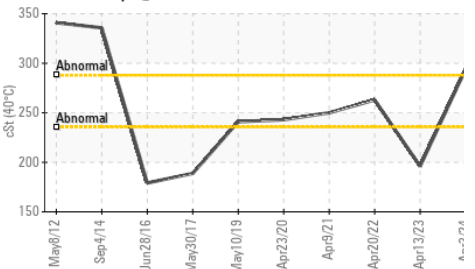
## Acid Number



## Water (KF)



## Viscosity @ 40°C



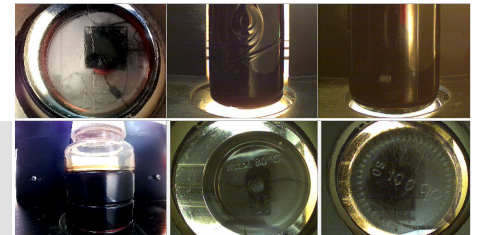
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	294	▲ 196.0	263

SAMPLE IMAGES	method	limit/base	current	history1	history2
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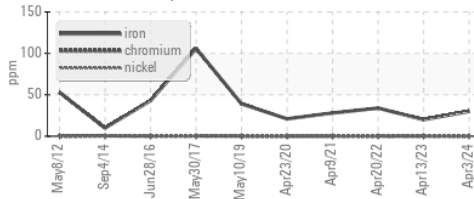
Color

Bottom

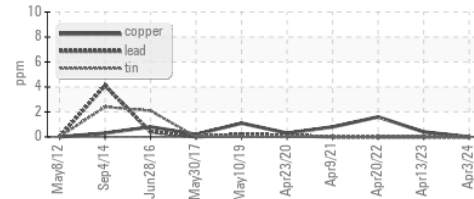


## GRAPHS

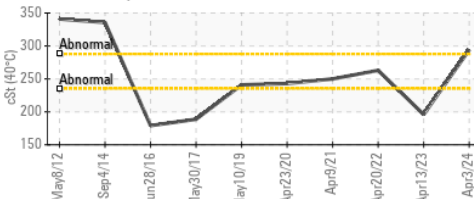
### Ferrous Alloys



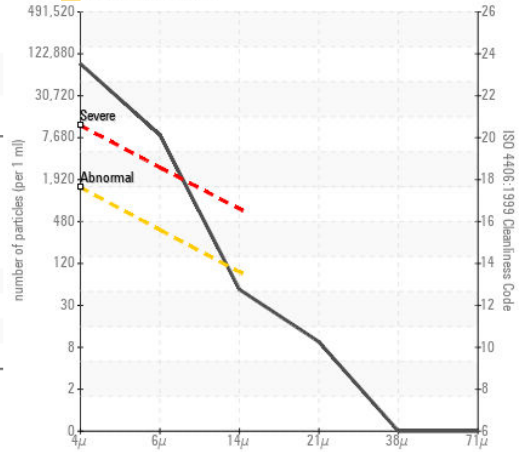
### Non-ferrous Metals



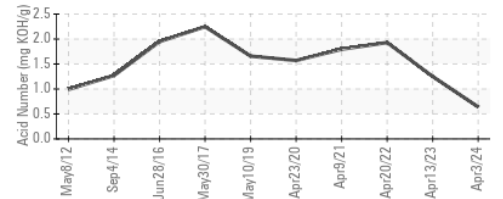
### Viscosity @ 40°C



### Particle Count



### Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : ST43205

Lab Number : 06143060

Unique Number : 10967868

Test Package : IND 2 ( Additional Tests: KF, PrtCount )

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)

Received : 09 Apr 2024

Tested : 10 Apr 2024

Diagnosed : 11 Apr 2024 - Jonathan Hester

HYDRAULIC SUPPLY COMPANY

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