

Machine Id  
**FALK VAC-PAN-3**

Component  
**Gearbox**

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

**DIAGNOSIS**

**Recommendation**

We recommend you service the filters on this component if applicable. 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 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			<b>ST43247</b>	ST44315	ST42012
Sample Date	Client Info			<b>03 Apr 2024</b>	20 Apr 2022	09 Apr 2021
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	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	<b>86</b>	148	199
Chromium	ppm	ASTM D5185m	>15	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>15	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m		<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>25	<b>&lt;1</b>	2	0
Lead	ppm	ASTM D5185m	>100	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>200	<b>&lt;1</b>	4	<1
Tin	ppm	ASTM D5185m	>25	<b>0</b>	0	0
Antimony	ppm	ASTM D5185m	>5	<b>---</b>	---	0
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>1</b>	59	66
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	5	8
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	2
Magnesium	ppm	ASTM D5185m		<b>15</b>	<1	<1
Calcium	ppm	ASTM D5185m		<b>168</b>	9	22
Phosphorus	ppm	ASTM D5185m		<b>296</b>	452	522
Zinc	ppm	ASTM D5185m		<b>54</b>	13	11
Sulfur	ppm	ASTM D5185m		<b>11290</b>	19408	19953

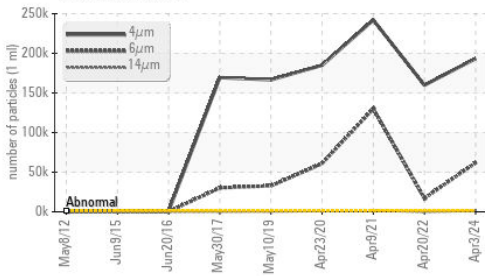
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	<b>3</b>	7	6
Sodium	ppm	ASTM D5185m		<b>2</b>	0	0
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	<1
Water	%	ASTM D6304	>0.2	<b>0.004</b>	0.005	0.009
ppm Water	ppm	ASTM D6304	>2000	<b>43</b>	55.0	90.4

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>1300	<b>▲ 193370</b>	▲ 159807	▲ 242004
Particles >6µm		ASTM D7647	>320	<b>▲ 61910</b>	▲ 17045	▲ 130125
Particles >14µm		ASTM D7647	>80	<b>▲ 1167</b>	23	▲ 1346
Particles >21µm		ASTM D7647	>20	<b>▲ 364</b>	3	▲ 124
Particles >38µm		ASTM D7647	>4	<b>▲ 25</b>	0	3
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>17/15/13	<b>▲ 25/23/17</b>	▲ 24/21/12	▲ 25/24/18

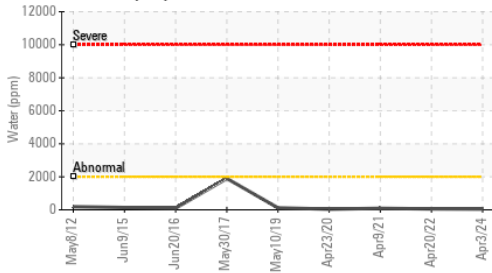
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.53</b>	1.84	1.455

# OIL ANALYSIS REPORT

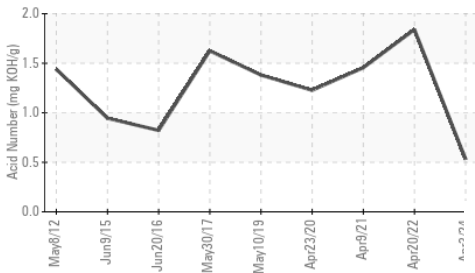
## ▲ Particle Trend



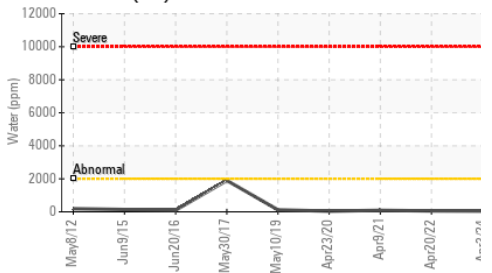
## Water (KF)



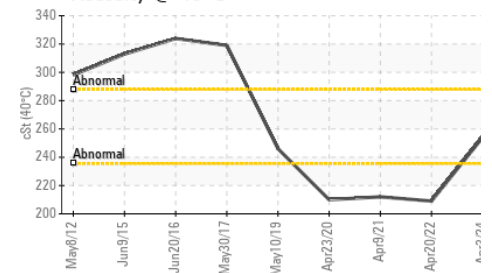
## Acid Number



## 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	LIGHT
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

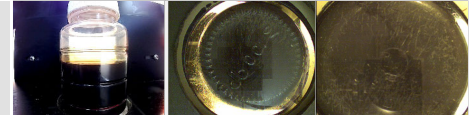
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	254	209	212

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

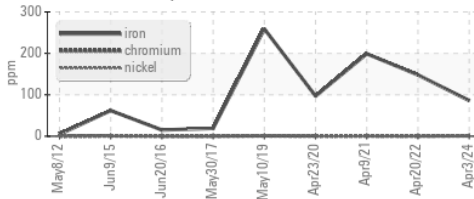


Bottom

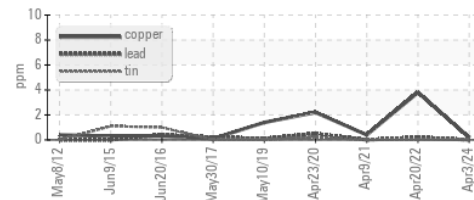


## GRAPHS

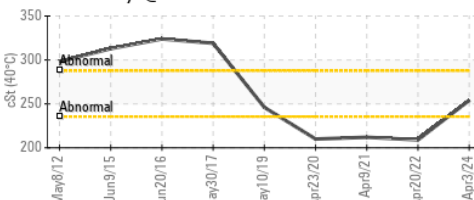
### Ferrous Alloys



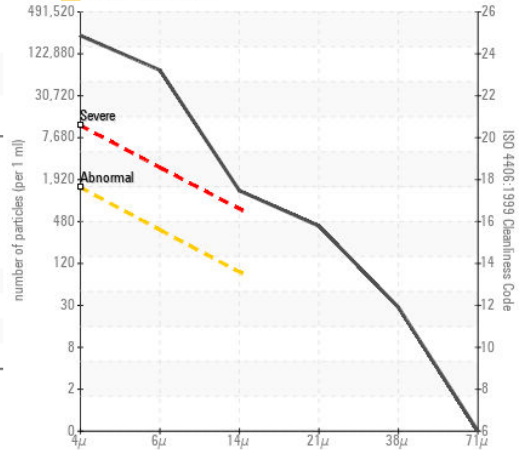
### Non-ferrous Metals



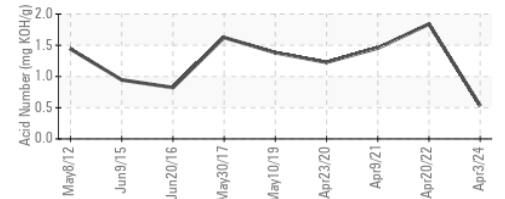
### Viscosity @ 40°C



### ▲ Particle Count



### Acid Number



Certificate L2367

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

**Sample No.** : ST43247

**Lab Number** : 06143075

**Unique Number** : 10967883

**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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