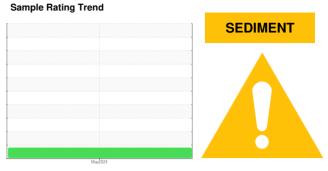


OIL ANALYSIS REPORT

SMART OIL 6000 HERTZ VD004324 - SUPERIOR FELT & FILTRATION

Component Compressor



DIAGNOSIS

Recommendation

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of visible silt present in the sample.

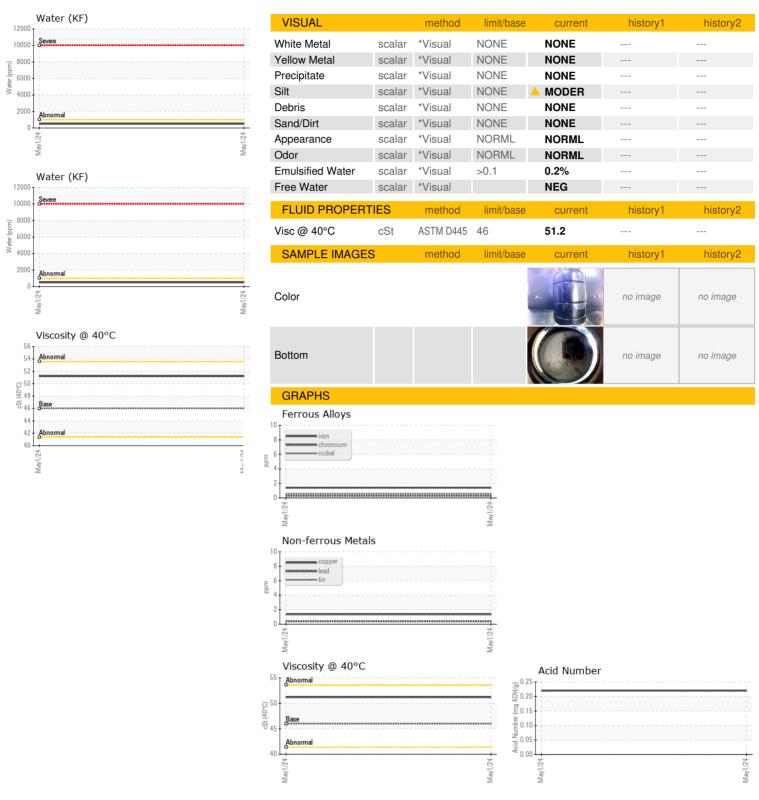
Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sample Number Client Info UC206184426 Sample Date Client Info 01 May 2024 Machine Age hrs Client Info 17702 Oil Age hrs Client Info 6000 Oil Changed Client Info Not Changd Sample Status RBNORMAL WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 1 Chromium ppm ASTM D5185m >10 <1 Nickel ppm ASTM D5185m >10 <1							
Sample Date Client Info 01 May 2024	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 17702 Oil Age hrs Client Info 6000 Oil Changed Client Info Not Changd Sample Status Method limit/base current history1 history2 Iron ppm ASTM D5185m >50 1 Chromium ppm ASTM D5185m >10 <1	Sample Number		Client Info		UCZ06184426		
Oil Age hrs Client Info 6000 Oil Changed Client Info Not Changd Sample Status method limit/base current history1 history2 Iron ppm ASTM D5185m >50 1 Chromium ppm ASTM D5185m >10 <1 Nickel ppm ASTM D5185m >10 <1 Silver ppm ASTM D5185m >1 Aluminum ppm ASTM D5185m >2.5 2 Aluminum ppm ASTM D5185m >2.5 2 Lead ppm ASTM D5185m >2.5 2 Copper ppm ASTM D5185m >50 1 Vanadium ppm ASTM D5185m <1 <	Sample Date		Client Info		01 May 2024		
Coling C	Machine Age	hrs	Client Info		17702		
WEAR METALS method limit/base current history2 Iron ppm ASTM D5185m >50 1 <th< td=""><td>Oil Age</td><td>hrs</td><td>Client Info</td><td></td><td>6000</td><td></td><td></td></th<>	Oil Age	hrs	Client Info		6000		
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 1 Chromium ppm ASTM D5185m >10 <1	Oil Changed		Client Info		Not Changd		
Iron	Sample Status				ABNORMAL		
Chromium ppm ASTM D5185m >10 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>50	1		
Titanium	Chromium	ppm	ASTM D5185m	>10	<1		
Silver	Nickel	ppm	ASTM D5185m		<1		
Ast	Titanium	ppm	ASTM D5185m		<1		
Lead	Silver	ppm	ASTM D5185m		<1		
Copper ppm ASTM D5185m >50 1 Tin ppm ASTM D5185m >15 1 Vanadium ppm ASTM D5185m <1	Aluminum	ppm	ASTM D5185m	>25	2		
Tin	Lead	ppm	ASTM D5185m	>25	<1		
Vanadium ppm ASTM D5185m <1 Cadmium ppm ASTM D5185m <1 ADDITIVES method limit/base current history2 Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m <1 Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m 20 4 Calcium ppm ASTM D5185m 20 4 Phosphorus ppm ASTM D5185m 619 Zinc ppm ASTM D5185m 526 Sulfur ppm ASTM D5185m 526 CONTAMINANTS method limit/base current history1	Copper	ppm	ASTM D5185m	>50	1		
Cadmium ppm ASTM D5185m <1 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m <1	Tin	ppm	ASTM D5185m	>15	1		
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m <1	Vanadium	ppm	ASTM D5185m		<1		
Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m <1	Cadmium	ppm	ASTM D5185m		<1		
Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m <1 Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m <1 Calcium ppm ASTM D5185m 20 4 Phosphorus ppm ASTM D5185m 619 Zinc ppm ASTM D5185m <1 Sulfur ppm ASTM D5185m 526 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 2 Sodium ppm ASTM D5185m >20 2 Potassium ppm ASTM D5185m >20 2 Water % A	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m <1 Manganese ppm ASTM D5185m <1	Boron	ppm	ASTM D5185m		0		
Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m <1	Barium	ppm	ASTM D5185m		0		
Magnesium ppm ASTM D5185m <1 Calcium ppm ASTM D5185m 20 4 Phosphorus ppm ASTM D5185m 619 Zinc ppm ASTM D5185m 526 Sulfur ppm ASTM D5185m 526 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 2 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D6304 >0.1 0.050 Water % ASTM D6304 >0.1 0.050 FLUID DEGRADATION method limit/base current history1 history2	Molybdenum	ppm	ASTM D5185m		<1		
Calcium ppm ASTM D5185m 20 4 Phosphorus ppm ASTM D5185m 619 Zinc ppm ASTM D5185m <1	Manganese	ppm	ASTM D5185m		<1		
Phosphorus ppm ASTM D5185m 619 Zinc ppm ASTM D5185m <1 Sulfur ppm ASTM D5185m 526 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 2 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 2 Water % ASTM D6304 >0.1 0.050 FLUID DEGRADATION method limit/base current history1 history2	Magnesium	ppm	ASTM D5185m		<1		
Zinc ppm ASTM D5185m <1 Sulfur ppm ASTM D5185m 526 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 2 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D6308 >20 2 Water % ASTM D6304 >0.1 0.050 ppm Water ppm ASTM D6304 >1000 500 FLUID DEGRADATION method limit/base current history1 history2	Calcium	ppm	ASTM D5185m	20	4		
Sulfur ppm ASTM D5185m 526 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 2 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 2 Water % ASTM D6304 >0.1 0.050 ppm Water ppm ASTM D6304 >1000 500 FLUID DEGRADATION method limit/base current history1 history2	Phosphorus	ppm	ASTM D5185m		619		
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 2 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 2 Water % ASTM D6304 >0.1 0.050 ppm Water ppm ASTM D6304 >1000 500 FLUID DEGRADATION method limit/base current history1 history2	Zinc	ppm	ASTM D5185m		<1		
Silicon ppm ASTM D5185m >25 2 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 2 Water % ASTM D6304 >0.1 0.050 ppm Water ppm ASTM D6304 >1000 500 FLUID DEGRADATION method limit/base current history1 history2	Sulfur	ppm	ASTM D5185m		526		
Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 2 Water % ASTM D6304 >0.1 0.050 ppm Water ppm ASTM D6304 >1000 500 FLUID DEGRADATION method limit/base current history1 history2	CONTANAINIANITO	2	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 2 Water % ASTM D6304 >0.1 0.050 ppm Water ppm ASTM D6304 >1000 500 FLUID DEGRADATION method limit/base current history1 history2	CONTAININAINTS	,	motriod				
Water % ASTM D6304 >0.1 0.050 ppm Water ppm ASTM D6304 >1000 500 FLUID DEGRADATION method limit/base current history1 history2				>25	2		
ppm Water ppm ASTM D6304 >1000 500 FLUID DEGRADATION method limit/base current history1 history2	Silicon	ppm	ASTM D5185m	>25			
FLUID DEGRADATION method limit/base current history1 history2	Silicon Sodium	ppm	ASTM D5185m ASTM D5185m		0		
	Silicon Sodium Potassium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	>20	0 2		
Acid Number (AN) mg KOH/g ASTM D8045 0.22	Silicon Sodium Potassium Water	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304	>20 >0.1	0 2 0.050		
7.10.0 1.10.1.10 (7.1.1.7)g.1.0.1.10 0.1.10 0.1.10 0.1.10 0.1.10 0.1.10 0.1.10 0.1.10 0.1.10 0.1.10 0.1.10	Silicon Sodium Potassium Water ppm Water	ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304	>20 >0.1 >1000	0 2 0.050 500		



OIL ANALYSIS REPORT







Laboratory Sample No.

: UCZ06184426 Lab Number : 06184426 Unique Number : 11035752

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 20 May 2024

Tested : 21 May 2024 Diagnosed

: 22 May 2024 - Don Baldridge

US 60031 Contact: Rachel Pesnikov rachel.pesnikov@zornair.com T: (847)599-1333

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ZORN COMPRESSOR EQUIPMENT

Test Package : IND 2 (Additional Tests: KF) Certificate 12367 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)

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GURNEE, IL