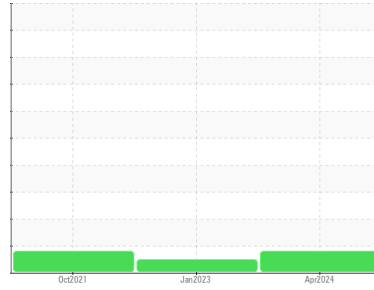




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id

4314532 (S/N 1200)

Component

Compressor

Fluid

KAESER SIGMA (OEM) FG-460 (--- GAL)

DIAGNOSIS

Recommendation

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

Wear

The copper level is abnormal. All other component wear rates are normal.

Contamination

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 acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			KCPA013743	KCP52330	KCP39260
Sample Date	Client Info			10 Apr 2024	31 Jan 2023	21 Oct 2021
Machine Age	hrs	Client Info		19343	15231	8855
Oil Age	hrs	Client Info		4112	0	3000
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	ATTENTION

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	6	7	<1
Chromium	ppm	ASTM D5185m	>10	<1	0	0
Nickel	ppm	ASTM D5185m	>3	<1	0	0
Titanium	ppm	ASTM D5185m	>3	<1	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>10	3	2	<1
Lead	ppm	ASTM D5185m	>10	<1	0	0
Copper	ppm	ASTM D5185m	>50	▲ 43	1	4
Tin	ppm	ASTM D5185m	>10	1	<1	0
Antimony	ppm	ASTM D5185m		---	---	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0

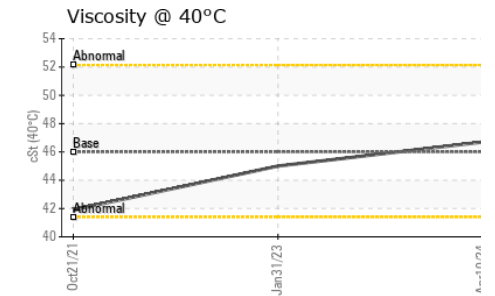
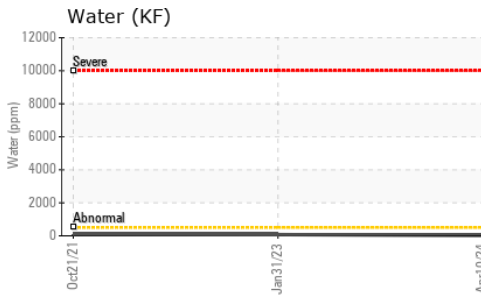
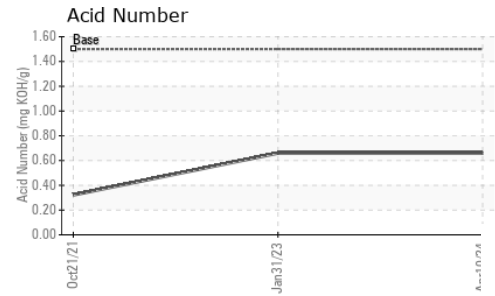
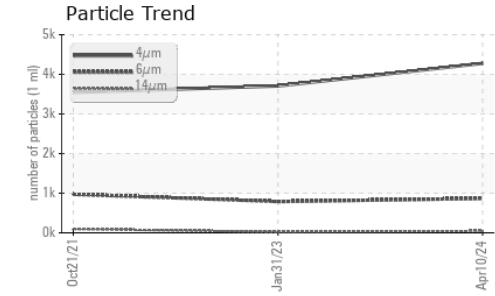
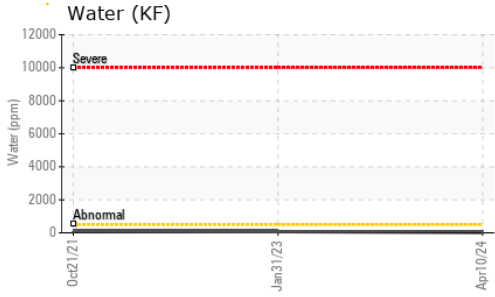
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	<1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	0	0
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		<1	7	<1
Calcium	ppm	ASTM D5185m		0	0	1
Phosphorus	ppm	ASTM D5185m	500	297	215	395
Zinc	ppm	ASTM D5185m		330	39	75
Sulfur	ppm	ASTM D5185m		847	7372	525

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<1	0	<1
Sodium	ppm	ASTM D5185m		0	1	2
Potassium	ppm	ASTM D5185m	>20	2	1	0
Water	%	ASTM D6304	>0.05	0.001	0.007	0.011
ppm Water	ppm	ASTM D6304	>500	14	74.6	110.9

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		4277	3707	3546
Particles >6µm		ASTM D7647	>1300	868	789	971
Particles >14µm		ASTM D7647	>80	46	21	● 96
Particles >21µm		ASTM D7647	>20	12	3	● 29
Particles >38µm		ASTM D7647	>4	1	1	2
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	19/17/13	19/17/12	● 17/14

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.5	0.66	0.66	0.322

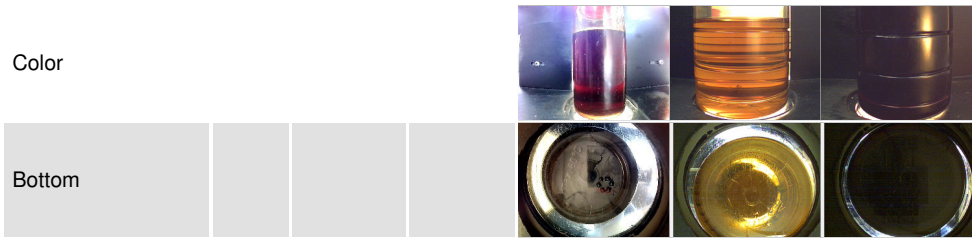
OIL ANALYSIS REPORT



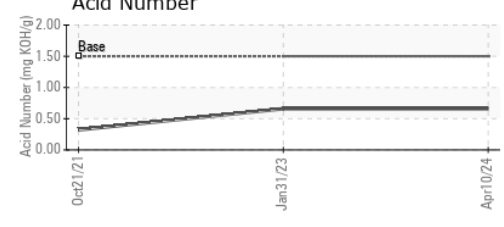
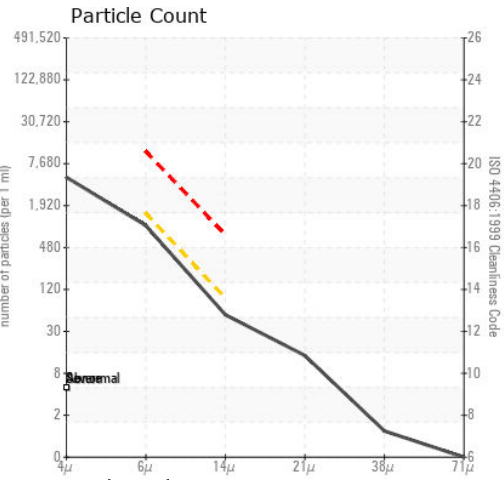
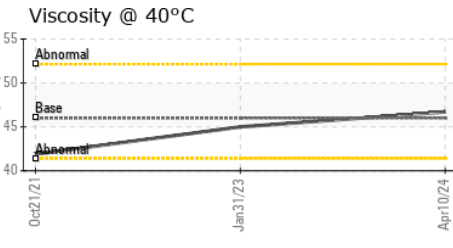
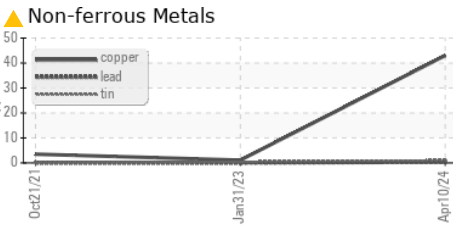
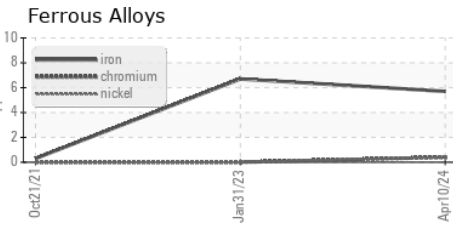
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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 46	46.7	45.0	41.9

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA013743 **Received** : 22 Apr 2024
Lab Number : 06156904 **Tested** : 23 Apr 2024
Unique Number : 10992327 **Diagnosed** : 24 Apr 2024 - Angela Borella
Test Package : IND 2 (Additional Tests: KF, PrtCount)

SUNRISE FRESH LLC
 237 N GOLDEN GATE AVE
 STOCKTON, CA
 US 95205
 Contact: Service Manager

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)

T:
F: