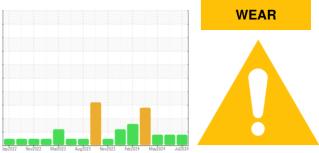


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

6840711 (S/N 1275)

Component Compressor Fluid KAESER SIGMA (OEM) S-460 (--- QTS)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

A Wear

The aluminum level is abnormal. All other 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.

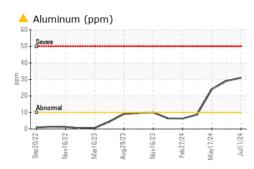
Fluid Condition

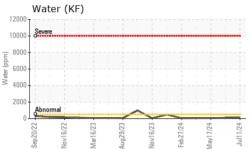
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

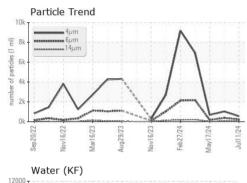
SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		KC132390	KCPA019176	KCPA018295
Sample Date		Client Info		11 Jul 2024	12 Jun 2024	17 May 2024
Machine Age	hrs	Client Info		8751	8512	8300
Oil Age	hrs	Client Info		6240	6001	5789
Oil Changed		Client Info		N/A	Not Changd	Not Changd
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	2	<1	<1
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>3	0	0	<1
Titanium	ppm	ASTM D5185m	>3	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>10	<u> </u>	<u> </u>	A 24
Lead	ppm	ASTM D5185m	>10	0	0	<1
Copper	ppm	ASTM D5185m	>50	2	<1	1
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	<1
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m	90	0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m	90	0	0	0
	1. 1			-		
Calcium	maa	ASTM D5185m	2	0	0	0
Calcium Phosphorus	ppm ppm	ASTM D5185m ASTM D5185m	2	-		Ū
Phosphorus	ppm	ASTM D5185m	2	110	165	146
Phosphorus Zinc	ppm ppm	ASTM D5185m ASTM D5185m		110 5	165 20	146 8
Phosphorus Zinc CONTAMINANTS	ppm ppm	ASTM D5185m ASTM D5185m method	limit/base	110 5 current	165 20 history1	146 8 history2
Phosphorus Zinc CONTAMINANTS Silicon	ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m	limit/base	110 5 current <1	165 20 history1 <1	- 146 8 history2 <1
Phosphorus Zinc CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base	110 5 current <1 6	165 20 history1 <1 6	146 8 history2 <1 4
Phosphorus Zinc CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >25 >20	110 5 current <1 6 3	165 20 history1 <1 6 1	146 8 history2 <1 4 1
Phosphorus Zinc CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >25 >20 >0.05	110 5 current <1 6 3 0.011	165 20 history1 <1 6 1 0.008	146 8 history2 <1 4 1 0.006
Phosphorus Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304	limit/base >25 >20 >0.05 >500	110 5 current <1 6 3 0.011 112	165 20 history1 <1 6 1 0.008 82	146 8 history2 <1 4 1 0.006 60
Phosphorus Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN	ppm ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304	limit/base >25 >20 >0.05	110 5 current <1 6 3 0.011 112 current	165 20 history1 <1 6 1 0.008 82 history1	146 8 history2 <1 4 1 0.006 60 history2
Phosphorus Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647	limit/base >25 >20 >0.05 >500 limit/base	110 5 current <1 6 3 0.011 112 current 541	165 20 history1 <1 6 1 0.008 82 history1 1031	146 8 history2 <1 4 1 0.006 60 history2 671
Phosphorus Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647	limit/base >25 >20 >0.05 >500 limit/base	110 5 current <1 6 3 0.011 112 current 541 228	165 20 history1 <1 6 1 0.008 82 history1 1031 373	146 8 history2 <1 4 1 0.006 60 history2 671 171
Phosphorus Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >25 >20 >0.05 >500 limit/base >1300 >80	110 5 current <1 6 3 0.011 112 current 541 228 33	165 20 history1 <1 6 1 0.008 82 history1 1031 373 40	146 8 history2 <1 4 1 0.006 60 history2 671 171 16
Phosphorus Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20	110 5 current <1 6 3 0.011 112 current 541 228 33 10	165 20 history1 <1 6 1 0.008 82 history1 1031 373 40 10	146 8 history2 <1 4 1 0.006 60 history2 671 171 16 5
Phosphorus Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20 >4	110 5 current <1 6 3 0.011 112 current 541 228 33 10 1	165 20 history1 <1 6 1 0.008 82 history1 1031 373 40 10 0	146 8 history2 <1 4 1 0.006 60 history2 671 171 16 5 1
Phosphorus Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20 >4 >3	110 5 current <1 6 3 0.011 112 current 541 228 33 10 1 1 0	165 20 history1 <1 6 1 0.008 82 history1 1031 373 40 10 0 0	146 8 history2 <1 4 1 0.006 60 history2 671 171 16 5 1 1 0
Phosphorus Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm Oil Cleanliness	ppm ppm ppm ppm % ppm ESS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20 >4	110 5 current <1 6 3 0.011 112 current 541 228 33 10 1	165 20 history1 <1 6 1 0.008 82 history1 1031 373 40 10 0	146 8 history2 <1 4 1 0.006 60 history2 671 171 16 5 1
Phosphorus Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm % ppm ESS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20 >4 >3	110 5 current <1 6 3 0.011 112 current 541 228 33 10 1 1 0	165 20 history1 <1 6 1 0.008 82 history1 1031 373 40 10 0 0	146 8 history2 <1 4 1 0.006 60 history2 671 171 16 5 1 0

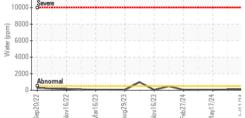


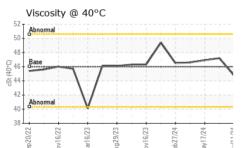
OIL ANALYSIS REPORT

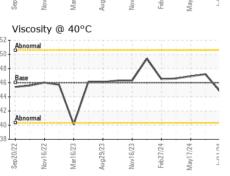




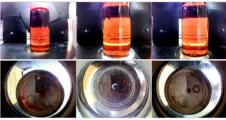




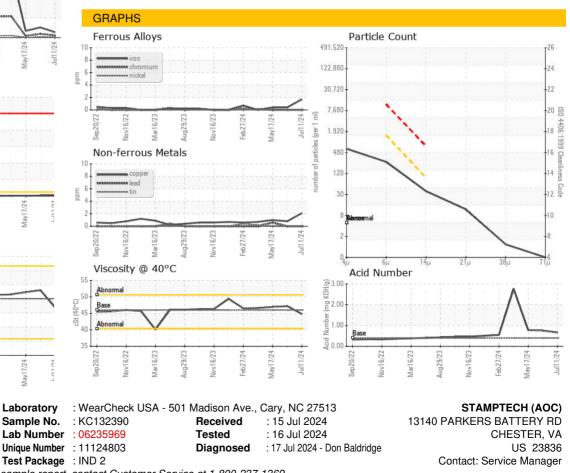




VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	44.8	47.2	46.9
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						



Bottom



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:

Certificate 12367

Contact/Location: Service Manager - STACHE Page 2 of 2