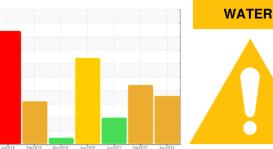


# **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

# KAESER SM 7.5 6264643 (S/N 1029)

Compressor

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

### **DIAGNOSIS**

### Recommendation

The filter change at the time of sampling has been noted. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample.

All component wear rates are normal.

### Contamination

Moderate concentration of visible dirt/debris present in the oil. There is a light concentration of water present in the oil. Free water present.

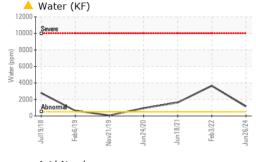
### **Fluid Condition**

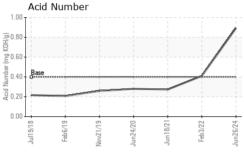
The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

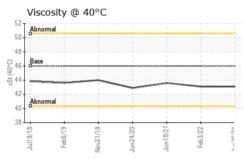
Machine Age         hrs         Client Info         19683         15304         13490           Oil Age         hrs         Client Info         897         1000         3000           Oil Changed         Client Info         Not Changd         Not Changd         Changed           Sample Status         method         limit/base         current         history1         history1           Iron         ppm         ASTM D5185m         >50         <1         <1         <1           Chromium         ppm         ASTM D5185m         >50         <1         <1         <1           Nickel         ppm         ASTM D5185m         >10         0         0         0           Nickel         ppm         ASTM D5185m         >3         <1         0         0           Silver         ppm         ASTM D5185m         >3         0         0         <1           Aluminum         ppm         ASTM D5185m         >10         0         <1         0           Lead         ppm         ASTM D5185m         >10         0         0         0           Copper         ppm         ASTM D5185m         >10         0         0         0      <	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age         hrs         Client Info         19683         15304         13490           Oil Age         hrs         Client Info         897         1000         3000           Oil Changed         Client Info         Not Changd         Not Changd         Changed           Sample Status         Method         Immit/base         current         history1         Changed           WEAR METALS         method         Immit/base         current         history1         history1           Iron         ppm         ASTM D5185m         >50         <1         <1         <1           Chromium         ppm         ASTM D5185m         >10         0         0         0           Okcel         ppm         ASTM D5185m         >3         <1         0         0           Silver         ppm         ASTM D5185m         >3         0         0         <1         0           Aluminum         ppm         ASTM D5185m         >10         0         <1         0           Copper         ppm         ASTM D5185m         >10         0         <1         0           Calcium         ppm         ASTM D5185m         >0         0         <1 <t< td=""><td>Sample Number</td><td></td><td>Client Info</td><td></td><td>KCPA020678</td><td>KC94811</td><td>KC98211</td></t<>	Sample Number		Client Info		KCPA020678	KC94811	KC98211
Oil Age         hrs         Client Info         897         1000         3000           Oil Changed         Client Info         Not Changd         Not Changd         Changed Changed           Sample Status         method         limit/base         current         history1         ABNORMAL           WEAR METALS         method         limit/base         current         history1         history1           Iron         ppm         ASTM D5185m         >50         <1         <1         <1           Chromium         ppm         ASTM D5185m         >10         0         0         0           Nickel         ppm         ASTM D5185m         >3         <1         0         0           Silver         ppm         ASTM D5185m         >3         <1         0         0           Aluminum         ppm         ASTM D5185m         >10         0         <1         0           Lead         ppm         ASTM D5185m         >10         0         <1         0           Copper         ppm         ASTM D5185m         >10         0         0         0           Vanadium         ppm         ASTM D5185m         0         0         0         0	Sample Date		Client Info		26 Jun 2024	03 Feb 2022	18 Jun 2021
Cilient Info	Machine Age	hrs	Client Info		19683	15304	13490
MEMORMAL         ABNORMAL         ASTMORD         Call         1         2         1         0	Oil Age	hrs	Client Info		897	1000	3000
WEAR METALS         method         limit/base         current         history1         history1           Iron         ppm         ASTM D5185m         >50         <1	Oil Changed		Client Info		Not Changd	Not Changd	Changed
Iron	Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Chromium         ppm         ASTM D5185m         >10         0         0         0           Nickel         ppm         ASTM D5185m         >3         <1         0         0           Titanium         ppm         ASTM D5185m         >3         0         0         0           Silver         ppm         ASTM D5185m         >2         0         0         <1           Aluminum         ppm         ASTM D5185m         >10         0         <1         0           Lead         ppm         ASTM D5185m         >10         0         <1         0           Copper         ppm         ASTM D5185m         >10         0         <0         0           Tin         ppm         ASTM D5185m         >10         0         0         0           Antimony         ppm         ASTM D5185m         >10         0         0         0           Vanadium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         <1         1           Barium         ppm         ASTM D5185m         0         0         0 <td>WEAR METALS</td> <td></td> <td>method</td> <td>limit/base</td> <td>current</td> <td>history1</td> <td>history2</td>	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>50	<1	<1	<1
Titanium         ppm         ASTM D5185m         ≥3         0         0         0           Silver         ppm         ASTM D5185m         >2         0         0         <1           Aluminum         ppm         ASTM D5185m         >10         0         <1         0           Lead         ppm         ASTM D5185m         >10         0         0         0           Copper         ppm         ASTM D5185m         >50         23         12         28           Tin         ppm         ASTM D5185m         >50         23         12         28           Tin         ppm         ASTM D5185m         >10         0         0         0           Antimony         ppm         ASTM D5185m          0         0         0           Vanadium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         1           ADDITIVES         method         limit/base         current         history1         history1           Barium         ppm         ASTM D5185m         0         0         0         0 </td <td>Chromium</td> <td>ppm</td> <td>ASTM D5185m</td> <td>&gt;10</td> <td>0</td> <td>0</td> <td>0</td>	Chromium	ppm	ASTM D5185m	>10	0	0	0
Silver	Nickel	ppm	ASTM D5185m	>3	<1	0	0
Aluminum         ppm         ASTM D5185m         >10         0         <1         0           Lead         ppm         ASTM D5185m         >10         0         0         0           Copper         ppm         ASTM D5185m         >50         23         12         28           Tin         ppm         ASTM D5185m         >10         0         0         0           Antimony         ppm         ASTM D5185m          0         0         0           Vanadium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         1           ADDITIVES         method         limit/base         current         history1         history1           Boron         ppm         ASTM D5185m         0         <1	Titanium	ppm	ASTM D5185m	>3	0	0	0
Aluminum         ppm         ASTM D5185m         >10         0         <1         0           Lead         ppm         ASTM D5185m         >10         0         0         0           Copper         ppm         ASTM D5185m         >50         23         12         28           Tin         ppm         ASTM D5185m         >10         0         0         0           Antimony         ppm         ASTM D5185m          0         0         0           Vanadium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         <1	Silver	ppm	ASTM D5185m	>2	0	0	<1
Copper         ppm         ASTM D5185m         >50         23         12         28           Tin         ppm         ASTM D5185m         >10         0         0         0           Antimony         ppm         ASTM D5185m          0         0           Vanadium         ppm         ASTM D5185m         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         <1	Aluminum	ppm	ASTM D5185m	>10	0	<1	
Copper         ppm         ASTM D5185m         >50         23         12         28           Tin         ppm         ASTM D5185m         >10         0         0         0           Antimony         ppm         ASTM D5185m         ——         0         0         0           Vanadium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         -1         11           ADDITIVES         method         limit/base         current         history1         history1         history1           Boron         ppm         ASTM D5185m         0         -1         11         1           Barium         ppm         ASTM D5185m         90         0         0         0         0           Manganese         ppm         ASTM D5185m         0         -1         0         0           Magnesium         ppm         ASTM D5185m         90         2         11         2         2           Calcium         ppm         ASTM D5185m         2         0         0         0         0         0           Phosphorus         ppm	Lead	ppm	ASTM D5185m	>10	0	0	0
Antimony         ppm         ASTM D5185m          0         0           Vanadium         ppm         ASTM D5185m         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         <1	Copper		ASTM D5185m	>50	23	12	28
Vanadium         ppm         ASTM D5185m         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         <1           ADDITIVES         method         limit/base         current         history1         history1           Boron         ppm         ASTM D5185m         0         <1         11           Barium         ppm         ASTM D5185m         90         0         0           Molybdenum         ppm         ASTM D5185m         0         0         0           Manganese         ppm         ASTM D5185m         0         <1         0           Magnesium         ppm         ASTM D5185m         90         2         11         2           Calcium         ppm         ASTM D5185m         2         0         0         0           Phosphorus         ppm         ASTM D5185m         2         0         1         1           Zinc         ppm         ASTM D5185m         30         79         45           Sulfur         ppm         ASTM D5185m         21486         14132         16460           CONTAMINANTS         method         limit/base         current	Γin	ppm	ASTM D5185m	>10	0	0	0
Cadmium         ppm         ASTM D5185m         0         0         <1           ADDITIVES         method         limit/base         current         history1         history3           Barron         ppm         ASTM D5185m         0         <1	Antimony	ppm	ASTM D5185m			0	0
ADDITIVES         method         limit/base         current         history1         history1           Boron         ppm         ASTM D5185m         0         <1	/anadium	ppm	ASTM D5185m		0	0	0
Boron   ppm   ASTM D5185m   0	Cadmium	ppm	ASTM D5185m		0	0	<1
Barium         ppm         ASTM D5185m         90         0         0         0           Molybdenum         ppm         ASTM D5185m         0         0         0           Manganese         ppm         ASTM D5185m         0         <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         0         0         0           Magnese         ppm         ASTM D5185m         0         <1	Boron	ppm	ASTM D5185m		0	<1	11
Manganese         ppm         ASTM D5185m         0         <1         0           Magnesium         ppm         ASTM D5185m         90         2         11         2           Calcium         ppm         ASTM D5185m         2         0         0         0           Phosphorus         ppm         ASTM D5185m         2         0         1         1           Zinc         ppm         ASTM D5185m         30         79         45         45           Sulfur         ppm         ASTM D5185m         21486         14132         16460           CONTAMINANTS         method         limit/base         current         history1         history           Silicon         ppm         ASTM D5185m         >25         0         0         <1	Barium	ppm	ASTM D5185m	90	0	0	0
Magnesium         ppm         ASTM D5185m         90         2         11         2           Calcium         ppm         ASTM D5185m         2         0         0         0           Phosphorus         ppm         ASTM D5185m         2         0         1           Zinc         ppm         ASTM D5185m         30         79         45           Sulfur         ppm         ASTM D5185m         21486         14132         16460           CONTAMINANTS         method         limit/base         current         history1         history           Silicon         ppm         ASTM D5185m         >25         0         0         <1           Sodium         ppm         ASTM D5185m         >25         0         0         <1           Potassium         ppm         ASTM D5185m         >20         0         0         0           Water         %         ASTM D6304         >0.05         0.115         0.366         0.163           ppm Water         ppm         ASTM D6304         >500         1150         3660         1630           FLUID DEGRADATION         method         limit/base         current         history1         history1	Molybdenum	ppm	ASTM D5185m		0	0	0
Calcium         ppm         ASTM D5185m         2         0         0         0           Phosphorus         ppm         ASTM D5185m         2         0         1           Zinc         ppm         ASTM D5185m         30         79         45           Sulfur         ppm         ASTM D5185m         21486         14132         16460           CONTAMINANTS         method         limit/base         current         history1         history1           Silicon         ppm         ASTM D5185m         >25         0         0         <1	Manganese	ppm	ASTM D5185m		0	<1	0
Phosphorus         ppm         ASTM D5185m         2         0         1           Zinc         ppm         ASTM D5185m         30         79         45           Sulfur         ppm         ASTM D5185m         21486         14132         16460           CONTAMINANTS         method         limit/base         current         history1         history           Soliicon         ppm         ASTM D5185m         >25         0         0         <1	Magnesium	ppm	ASTM D5185m	90	2	11	2
Zinc         ppm         ASTM D5185m         30         79         45           Sulfur         ppm         ASTM D5185m         21486         14132         16460           CONTAMINANTS         method         limit/base         current         history1         history           Silicon         ppm         ASTM D5185m         >25         0         0         <1	Calcium	ppm	ASTM D5185m	2	0	0	0
Sulfur         ppm         ASTM D5185m         21486         14132         16460           CONTAMINANTS         method         limit/base         current         history1         history           Silicon         ppm         ASTM D5185m         >25         0         0         <1	Phosphorus	ppm	ASTM D5185m		2	0	1
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         0         0         <1	Zinc	ppm	ASTM D5185m		30	79	45
Sollicon         ppm         ASTM D5185m         >25         0         0         <1           Sodium         ppm         ASTM D5185m         <1         1         2           Potassium         ppm         ASTM D5185m         >20         0         0         0           Water         %         ASTM D6304         >0.05         ▲ 0.115         ▲ 0.366         ▲ 0.163           ppm Water         ppm         ASTM D6304         >500         ▲ 1150         ▲ 3660         ▲ 1630           FLUID DEGRADATION         method         limit/base         current         history         history	Sulfur	ppm	ASTM D5185m		21486	14132	16460
Sodium         ppm         ASTM D5185m         <1         1         2           Potassium         ppm         ASTM D5185m         >20         0         0         0           Water         %         ASTM D6304         >0.05         ▲ 0.115         ▲ 0.366         ▲ 0.163           opm Water         ppm         ASTM D6304         >500         ▲ 1150         ▲ 3660         ▲ 1630           FLUID DEGRADATION         method         limit/base         current         history1         history	CONTAMINANTS	3	method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         0         0         0           Water         %         ASTM D6304         >0.05         ▲ 0.115         ▲ 0.366         ▲ 0.163           opm Water         ppm         ASTM D6304         >500         ▲ 1150         ▲ 3660         ▲ 1630           FLUID DEGRADATION         method         limit/base         current         history         history	Silicon	ppm	ASTM D5185m	>25	0	0	<1
Water         %         ASTM D6304         >0.05         ▲ 0.115         ▲ 0.366         ▲ 0.163           opm Water         ppm         ASTM D6304         >500         ▲ 1150         ▲ 3660         ▲ 1630           FLUID DEGRADATION         method         limit/base         current         history1         history	Sodium	ppm	ASTM D5185m		<1	1	2
ppm Water ppm ASTM D6304 >500 ▲ 1150 ▲ 3660 ▲ 1630  FLUID DEGRADATION method limit/base current history1 history	Potassium	ppm	ASTM D5185m	>20	0	0	0
FLUID DEGRADATION method limit/base current history1 history	Water	%	ASTM D6304	>0.05	<u> </u>	<b>△</b> 0.366	<b>△</b> 0.163
	opm Water	ppm	ASTM D6304	>500	<u> </u>	▲ 3660	<u> </u>
Acid Number (AN)         mg KOH/g         ASTM D8045         0.4         0.892         0.41         0.273	FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	0.892	0.41	0.273

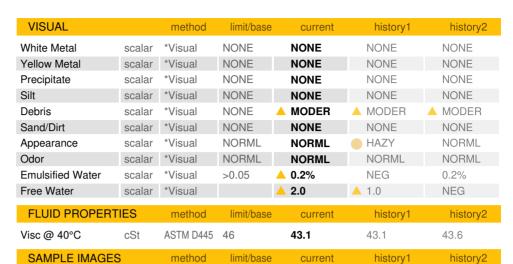


## **OIL ANALYSIS REPORT**

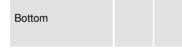


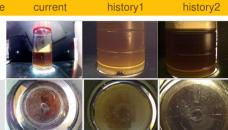




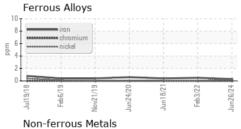


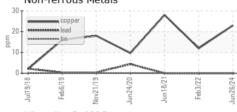
Color

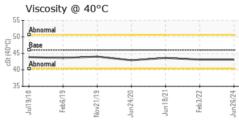


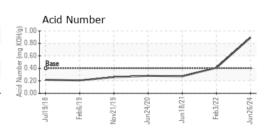


### **GRAPHS**













Certificate 12367

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Lab Number : 06238405

: KCPA020678 Unique Number : 11127239

Received : 16 Jul 2024 **Tested** Diagnosed Test Package : IND 2 ( Additional Tests: KF, PrtCount )

: 18 Jul 2024 : 18 Jul 2024 - Don Baldridge

OLATHE, KS US 66061 Contact: DONALD WILSON donald.wilson@pepsico.com

**PEPSI BEVERAGES CO** 

1775 E KANSAS CITY RD

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: