

OIL ANALYSIS REPORT

Sample Rating Trend

ISO

Machine Id

7791254 (S/N 1576) Compressor

Fluid KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Oil and 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 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.

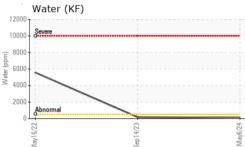
Sample Date Client Info 06 May 2024 14 Sep 2023 16 May 2022 Machine Age hrs Client Info 4164 2787 1082 Dil Age hrs Client Info 0 0 1082 Dil Changed N/A Not Changed Not Changed ABNORMAL ABNORMAL VEAR METALS method limi/base current history1 Mot Changed Opm ASTM D5155m >50 0 <1 0 0 Sikel ppm ASTM D5155m >3 0 0 <1 0 Siker ppm ASTM D5155m >3 0 0 <1 0 <1 0 <1 0 <1 0 <1 0 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 1 1	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Date Client Info 06 May 2024 14 Sep 2023 16 May 2022 Machine Age hrs Client Info 4164 2787 1082 Dil Age hrs Client Info 0 0 1082 Dil Changed N/A Not Changed Not Changed ABNORMAL ABNORMAL VEAR METALS method limi/base current history1 Mot Changed Opm ASTM D5155m >50 0 <1 0 0 Sikel ppm ASTM D5155m >3 0 0 <1 0 Siker ppm ASTM D5155m >3 0 0 <1 0 <1 0 <1 0 <1 0 <1 0 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 1 1	Sample Number		Client Info		KCPA017553	KCPA000725	KCP51352D
Machine Age hrs Client Info 4164 2787 1082 Di Age hrs Client Info 0 0 1082 Di Age Krs Client Info Changed N/A Not Changed Sample Status I Imit/base Current ABNORMAL ABNORMAL ABNORMAL VEAR METALS method Imit/base current history1 Mictory2 ron ppm ASTM D5165m >30 0 <1 0 Chromium ppm ASTM D5165m >33 0 0 <1 Raininum ppm ASTM D5165m >33 0 0 <1 Silver ppm ASTM D5165m >10 0 <1 0 Lead ppm ASTM D5165m >10 <1 <1 <1 Qanadium ppm ASTM D5165m >10 <1 <1 <1 ADDITIVES method Imit/base current history1 history2 Adamadium ppm ASTM D5165m 0 <1 <1 <1 Adamadium ppm ASTM D5165m 0 <1 <1 <1 Adamadium ppm	Sample Date		Client Info		06 May 2024	14 Sep 2023	16 May 2022
Dil Changed Client Info Changed N/A Not Changd Sample Status Image Note Changed ABNORMAL ABN	Machine Age	hrs	Client Info		4164		1082
Sample Status Image: Status ABNORMAL ABNORMAL ABNORMAL ABNORMAL ABNORMAL WEAR METALS method limit/base current history1 history2 ron ppm ASTM D5185m >50 0 <1 0 Shror ppm ASTM D5185m >3 0 0 <1 Wickel ppm ASTM D5185m >3 0 0 <1 Silver ppm ASTM D5185m >2 0 0 <1 Auminum ppm ASTM D5185m >10 <1 0 <1 Agendum ppm ASTM D5185m >10 <1 <1 <1 Copper ppm ASTM D5185m 0 0 0 <1 Adation ppm ASTM D5185m 0 0 <1 <1 Adation ppm ASTM D5185m 0 0 <1 <1 Adation ppm ASTM D5185m 0	Oil Age	hrs	Client Info		0	0	1082
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ron ppm ASTM D5185m >50 0 <1	Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Dromium ppm ASTM D5185m >10 0 0 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >3 0 0 <1	Iron	ppm	ASTM D5185m	>50	0	<1	0
Titanium ppm ASTM D5185m >3 0 0 <1 Silver ppm ASTM D5185m >2 0 0 1 Numinum ppm ASTM D5185m >10 0 0 <1 Lead ppm ASTM D5185m >10 <1 0 <1 Sopper ppm ASTM D5185m >50 5 8 <1 Copper ppm ASTM D5185m >10 <1 <1 <1 <1 Zadmium ppm ASTM D5185m 0 0 0 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 1 <1 <1	Chromium	ppm	ASTM D5185m	>10	0	0	<1
Silver ppm ASTM D5185m >2 0 0 1 Aluminum ppm ASTM D5185m >10 0 <1	Nickel	ppm	ASTM D5185m	>3	0	0	<1
Numinum ppm ASTM D5185m >10 0 <11	Titanium	ppm	ASTM D5185m	>3	0	0	<1
Lead ppm ASTM D5185m >10 <1	Silver	ppm	ASTM D5185m	>2	0	0	1
Copper ppm ASTM D5185m >50 5 8 <1	Aluminum	ppm	ASTM D5185m	>10	0	0	<1
Copper ppm ASTM D5185m >50 5 8 <1	Lead					0	<1
Tin ppm ASTM D5185m >10 <1	Copper		ASTM D5185m	>50	5	8	<1
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Dadmium ppm ASTM D5185m 0 0 <1	Vanadium						
Boron ppm ASTM D5185m 0 0 0 0 0 Barium ppm ASTM D5185m 90 <1 0 16 Molybdenum ppm ASTM D5185m 0 0 <1 <1 Magnese ppm ASTM D5185m 100 23 29 64 Calcium ppm ASTM D5185m 0 0 2 0 Phosphorus ppm ASTM D5185m 0 12 2 0 Sulfur ppm ASTM D5185m 23500 21002 22090 23392 CONTAMINANTS method limit/base current history1 history2 Soliton ppm ASTM D5185m >25 2 <1 2 Solitom ppm ASTM D5185m >20 <1 2 <1 Potassium ppm ASTM D5185m >20 <1 2 <1 Vater % ASTM D6304 >0.05	Cadmium					0	<1
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Molybdenum ppm ASTM D5185m 0 0 <1 <1 Manganese ppm ASTM D5185m 100 23 29 64 Calcium ppm ASTM D5185m 0 0 2 0 Phosphorus ppm ASTM D5185m 0 1 4 3 Zinc ppm ASTM D5185m 0 12 2 0 Sulfur ppm ASTM D5185m 0 12 2 0 Sulfur ppm ASTM D5185m 0 12 2 0 Solfur ppm ASTM D5185m 0 12 2 0 Solfur ppm ASTM D5185m 23500 21002 22090 23392 CONTAMINANTS method limit/base current history1 history2 Soldium ppm ASTM D5185m >20 <1 2 <1 Vater % ASTM D6304 >0.05 0.009 0.017 588 ppm ASTM D7647 >1300 27403 <	Boron	ppm	ASTM D5185m	0	0	0	0
Manganese ppm ASTM D5185m 0 <1	Barium	ppm	ASTM D5185m	90	<1	0	16
Magnesium ppm ASTM D5185m 100 23 29 64 Calcium ppm ASTM D5185m 0 0 2 0 Phosphorus ppm ASTM D5185m 0 1 4 3 Zinc ppm ASTM D5185m 0 12 2 0 Sulfur ppm ASTM D5185m 23500 21002 22090 23392 CONTAMINANTS method limit/base current history1 history2 Solicon ppm ASTM D5185m >25 2 <1 2 Solicon ppm ASTM D5185m >20 <1 2 <1 Potassium ppm ASTM D6304 >0.05 0.009 0.017 ▲ 0.558 opm Water ppm ASTM D7647 51306 Particles >4µm ASTM D7647 >1300 27403 Particles >4µm ASTM D7647 >80 1015 Particles >21µm ASTM D7647 >20 36	Molybdenum	ppm	ASTM D5185m	0	0	<1	<1
Calcium ppm ASTM D5185m 0 0 1 4 3 Phosphorus ppm ASTM D5185m 0 1 4 3 Zinc ppm ASTM D5185m 0 12 2 0 Sulfur ppm ASTM D5185m 23500 21002 22090 23392 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 2 <1 2 Sodium ppm ASTM D5185m >20 <1 2 <1 Potassium ppm ASTM D5185m >20 <1 2 <1 Vater % ASTM D6304 >0.05 0.009 0.017 ▲ 0.558 ppm ASTM D647 >1300 ▲ 27403 Particles >4µm ASTM D7647 >1300 ▲ 27403 Particles >14µm ASTM D7647 >20 ▲ 36	Manganese	ppm	ASTM D5185m		0	<1	2
Phosphorus ppm ASTM D5185m 0 1 4 3 Zinc ppm ASTM D5185m 0 12 2 0 Sulfur ppm ASTM D5185m 23500 21002 22090 23392 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 2 <1 2 Sodium ppm ASTM D5185m >25 2 <1 2 Sodium ppm ASTM D5185m >20 <1 2 <1 Potassium ppm ASTM D5185m >20 <1 2 <1 Vater % ASTM D6304 >0.05 0.009 0.017 ▲ 0.558 ppm Water ppm ASTM D7647 51306 Particles >4µm ASTM D7647 >1300 27403 Particles >14µm ASTM D7647 20 36	Magnesium	ppm	ASTM D5185m	100	23	29	64
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Sulfur ppm ASTM D5185m 23500 21002 22090 23392 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 2 <1	Phosphorus	ppm	ASTM D5185m	0	1	4	3
CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>252<12SodiumppmASTM D5185m>20<12<1PotassiumppmASTM D5185m>20<12<1Nater%ASTM D5185m>20<12<1Water%ASTM D6304>0.050.0090.017▲ 0.558ppmASTM D6304>50096174.9▲ 5580FLUID CLEANLINESSmethodlimit/basecurrenthistory1history2Particles >4µmASTM D764751306Particles >6µmASTM D7647>1015Particles >14µmASTM D7647>20▲ 36Particles >21µmASTM D7647>30Particles >71µmASTM D7647 <t< th=""><th>Zinc</th><td>ppm</td><td>ASTM D5185m</td><td>0</td><th>12</th><td>2</td><td>0</td></t<>	Zinc	ppm	ASTM D5185m	0	12	2	0
Solicon ppm ASTM D5185m >25 2 <1	Sulfur	ppm	ASTM D5185m	23500	21002	22090	23392
Sodium ppm ASTM D5185m 6 9 4 Potassium ppm ASTM D5185m >20 <1 2 <1 Water % ASTM D6304 >0.05 0.009 0.017 ▲ 0.558 opm Water ppm ASTM D6304 >500 96 174.9 ▲ 5580 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 51306	CONTAMINANTS	;	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 <1	Silicon	ppm	ASTM D5185m	>25	2	<1	2
Water % ASTM D6304 >0.05 0.009 0.017 0.558 opm Water ppm ASTM D6304 >500 96 174.9 5580 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 51306 Particles >6µm ASTM D7647 >1300 27403 Particles >14µm ASTM D7647 >80 1015 Particles >21µm ASTM D7647 >20 366 Particles >38µm ASTM D7647 >4 1 Particles >38µm ASTM D7647 >3 0 Particles >71µm ASTM D7647 >3 0 Dil Cleanliness ISO 4406 (c) >/17/13 23/22/17 FLUID DEGRADATION method limit/base current history1 history2	Sodium	ppm	ASTM D5185m		6	9	4
Opm Water ppm ASTM D6304 >500 96 174.9 5580 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 51306 Particles >6µm ASTM D7647 >1300 27403 Particles >6µm ASTM D7647 >80 1015 Particles >14µm ASTM D7647 >20 36 Particles >21µm ASTM D7647 >4 1 Particles >38µm ASTM D7647 >4 1 Particles >71µm ASTM D7647 >3 0 Particles >71µm ISO 4406 (c) /17/13 23/22/17 Dil Cleanliness Isotod (c) Iimit/base current history1 history2	Potassium	ppm	ASTM D5185m	>20	<1	2	<1
FLUID CLEANLINESSmethodlimit/basecurrenthistory1history2Particles >4µmASTM D764751306Particles >6µmASTM D7647>130027403Particles >14µmASTM D7647>801015Particles >21µmASTM D7647>2036Particles >38µmASTM D7647>41Particles >71µmASTM D7647>30Dil CleanlinessISO 4406 (c)>/17/1323/22/17FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2	Water	%	ASTM D6304	>0.05	0.009	0.017	▲ 0.558
Particles >4µm ASTM D7647 51306 Particles >6µm ASTM D7647 >1300 27403 Particles >14µm ASTM D7647 >80 1015 Particles >14µm ASTM D7647 >20 36 Particles >21µm ASTM D7647 >20 36 Particles >38µm ASTM D7647 >4 1 Particles >71µm ASTM D7647 >3 0 Dil Cleanliness ISO 4406 (c) >/17/13 23/22/17 FLUID DEGRADATION method limit/base current history1 history2	ppm Water	ppm	ASTM D6304	>500	96	174.9	▲ 5580
Particles >6µm ASTM D7647 >1300 ▲ 27403 Particles >14µm ASTM D7647 >80 ▲ 1015 Particles >21µm ASTM D7647 >20 ▲ 36 Particles >21µm ASTM D7647 >20 ▲ 36 Particles >38µm ASTM D7647 >4 1 Particles >71µm ASTM D7647 >3 0 Dil Cleanliness ISO 4406 (c) >/17/13 ▲ 23/22/17 FLUID DEGRADATION method limit/base current history1 history2	FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >14μm ASTM D7647 >80 ▲ 1015 Particles >21μm ASTM D7647 >20 ▲ 36 Particles >38μm ASTM D7647 >4 1 Particles >38μm ASTM D7647 >4 1 Particles >71μm ASTM D7647 >3 0 Dil Cleanliness ISO 4406 (c) >/17/13 ▲ 23/22/17 FLUID DEGRADATION method limit/base current history1 history2	Particles >4µm						
Particles >21μm ASTM D7647 >20 ▲ 36 Particles >38μm ASTM D7647 >4 1 Particles >371μm ASTM D7647 >3 0 Dil Cleanliness ISO 4406 (c) >/17/13 ▲ 23/22/17 FLUID DEGRADATION method limit/base current history1 history2	Particles >6µm		ASTM D7647	>1300			
Particles >38μm ASTM D7647 >4 1 Particles >71μm ASTM D7647 >3 0 Dil Cleanliness ISO 4406 (c) >/17/13 A 23/22/17 FLUID DEGRADATION method limit/base current history1 history2							
Particles >71µm ASTM D7647 >3 0 Dil Cleanliness ISO 4406 (c) >/17/13 ▲ 23/22/17 FLUID DEGRADATION method limit/base current history1 history2	Particles >21µm			>20	<u> </u>		
Dil Cleanliness ISO 4406 (c) >/17/13 23/22/17 FLUID DEGRADATION method limit/base current history1 history2	Particles >38µm				1		
FLUID DEGRADATION method limit/base current history1 history2	Particles >71µm				-		
	Oil Cleanliness		ISO 4406 (c)	>/17/13	23/22/17		
Acid Number (AN) mg KOH/g ASTM D8045 1.0 0.31 0.30 0.37	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.31	0.30	0.37

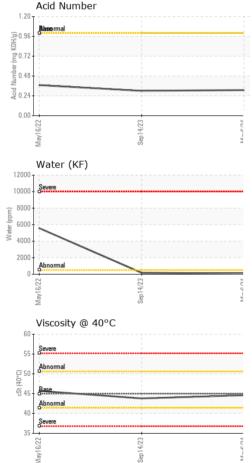
Contact/Location: Service Manager - HOMFAL Page 1 of 2

KAESER COMPRESSORS Built for a lifetime."

Particle Trend ^{60k} ^{50k} ^{6μm} ^{14μm}

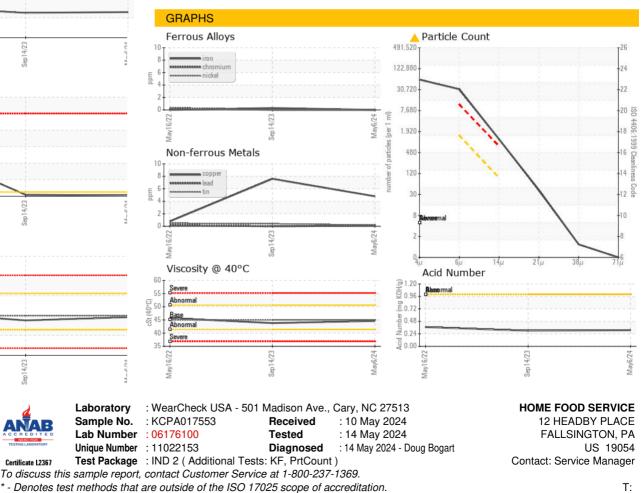
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OIL ANALYSIS REPORT

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	🔺 MODER	🔺 MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	- HAZY
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	▲ 0.2%
Free Water	scalar	*Visual		NEG	NEG	▲ 1.0
FLUID PROPERT	IES	method	limit/base	current	history1	history2
FLUID PROPERT Visc @ 40°C	T <mark>IES</mark> cSt	method ASTM D445	limit/base 45	current 44.6	history1 43.8	history2 45.7
	cSt					
Visc @ 40°C	cSt	ASTM D445	45	44.6	43.8	45.7



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Report Id: HOMFAL [WUSCAR] 06176100 (Generated: 05/14/2024 10:20:30) Rev: 1

Contact/Location: Service Manager - HOMFAL

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