

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

KAESER 8043399 (S/N 1068)

Component Compressor Fluid

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

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 high amount of particulates present in the oil.

Fluid Condition

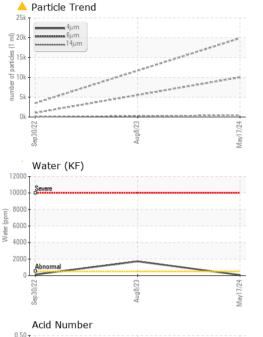
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

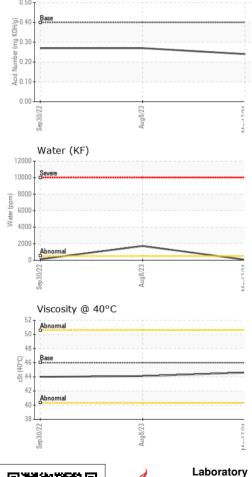
Sample Date Image of the section of the sectin of the section of the sectin of the section of the se	SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 11120 7197 2625 Oil Age hrs Client Info 0 0 2625 Oil Changed Client Info Not Changed	Sample Number		Client Info		KCPA018483	KCP48020	KCP50089
Olf Age hrs Client Info 0 0 2625 Olf Changed Client Info Not Changed Changed Changed Sample Status method limit/base current history1 history2 Iron ppm ASTM 05185m >50 0 0 <1	Sample Date		Client Info		17 May 2024	08 Aug 2023	30 Sep 2022
Oil Changed Sample Status Client Info Not Changd ABNORMAL Changed ABNORMAL Changed ATTENTION WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185n >50 0 0 <1	Machine Age	hrs	Client Info		11120	7197	2625
Sample Status method Imit/base current history1 ATTENTION WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 0 0 <1	Oil Age	hrs	Client Info		0	0	2625
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 0 0 <1	Oil Changed		Client Info		Not Changd	Changed	Changed
Iron ppm ASTM D5185m >50 0 0 <1 Chromium ppm ASTM D5185m >3 0 0 0 Nickel ppm ASTM D5185m >3 0 0 0 Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >10 2 <1	Sample Status				ABNORMAL	ABNORMAL	ATTENTION
Ppm ASTM D5185m >10 <1 0 0 Nickel ppm ASTM D5185m >3 0 0 0 Silver ppm ASTM D5185m >2 0 0 0 ASTM D5185m >2 0 0 0 0 Aluminum ppm ASTM D5185m >10 2 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >3 0 0 0 Titanium ppm ASTM D5185m >3 <1	Iron	ppm	ASTM D5185m	>50	0	0	<1
Titanium ppm ASTM D5185m >3 <1 <1 0 Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >10 2 <1	Chromium	ppm	ASTM D5185m	>10	<1	0	0
Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >10 2 <1	Nickel	ppm	ASTM D5185m	>3	0	0	0
Aluminum ppm ASTM D5185m >10 2 <1 <1 Lead ppm ASTM D5185m >10 <1	Titanium	ppm	ASTM D5185m	>3	<1	<1	0
Lead ppm ASTM D5185m >10 <1 <1 0 Copper ppm ASTM D5185m >50 7 177 9 Tin ppm ASTM D5185m >10 <1	Silver	ppm	ASTM D5185m	>2	0	0	0
Copper ppm ASTM D5185m >50 7 17 9 Tin ppm ASTM D5185m >10 <1	Aluminum	ppm	ASTM D5185m	>10	2	<1	<1
Tin ppm ASTM D5185m >10 <1 0 <1 Vanadium ppm ASTM D5185m 0 0 <1 <1 Cadmium ppm ASTM D5185m < <1 0 0 ADDITIVES method limit/base current history1 history1 history2 Boron ppm ASTM D5185m 90 <1 0 0 Barium ppm ASTM D5185m 90 <1 0 0 Magnaese ppm ASTM D5185m 90 10 91 30 Calcium ppm ASTM D5185m 90 10 90 30 Calcium ppm ASTM D5185m 2 <1 0 0 Phosphorus ppm ASTM D5185m 2 <1 0 0 Stilicon ppm ASTM D5185m >25 <1 <1 <1 Stilicon ppm ASTM D5185m >20 2 2 0 Stilicon ppm ASTM D5185m >20	Lead	ppm	ASTM D5185m	>10	<1	<1	0
Tin ppm ASTM D5185m >10 <1 0 <1 Vanadium ppm ASTM D5185m 0 0 <1 <1 Cadmium ppm ASTM D5185m < <1 0 0 ADDITIVES method limit/base current history1 history1 history2 Boron ppm ASTM D5185m 90 <1 0 0 Barium ppm ASTM D5185m 90 <1 0 0 Magnaese ppm ASTM D5185m 90 10 91 30 Calcium ppm ASTM D5185m 90 10 90 30 Calcium ppm ASTM D5185m 2 <1 0 0 Phosphorus ppm ASTM D5185m 2 <1 0 0 Stilicon ppm ASTM D5185m >25 <1 <1 <1 Stilicon ppm ASTM D5185m >20 2 2 0 Stilicon ppm ASTM D5185m >20	Copper		ASTM D5185m	>50	7	17	9
Vanadium ppm ASTM D5185m 0 <1 <1 Cadmium ppm ASTM D5185m <1	Tin				<1		<1
Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 90 <1 0 0 0 Molybdenum ppm ASTM D5185m 90 10 9 30 Calcium ppm ASTM D5185m 90 10 9 30 Calcium ppm ASTM D5185m 90 10 9 30 Calcium ppm ASTM D5185m 2 <1 0 0 Calcium ppm ASTM D5185m 2 <1 0 0 Sulfur ppm ASTM D5185m 2 <1 0 0 Sulfur ppm ASTM D5185m >25 <1 <1 <1 2 Sulfur ppm ASTM D5185m >20 2	Vanadium		ASTM D5185m		0	<1	<1
Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 90 <1	Cadmium		ASTM D5185m			0	0
Barium ppm ASTM D5185m 90 <1	ADDITIVES		method	limit/base	current	history1	history2
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Manganese ppm ASTM D5185m 0 <1 1 Magnesium ppm ASTM D5185m 90 10 9 30 Calcium ppm ASTM D5185m 2 <1	Barium	ppm	ASTM D5185m	90	<1	0	0
Magnesium ppm ASTM D5185m 90 10 9 30 Calcium ppm ASTM D5185m 2 <1	Molybdenum	ppm	ASTM D5185m		<1	0	0
Calcium ppm ASTM D5185m 2 <1 0 0 Phosphorus ppm ASTM D5185m 7 6 11 Zinc ppm ASTM D5185m 6 9 2 Sulfur ppm ASTM D5185m 14232 20109 20010 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 <1	Manganese	ppm	ASTM D5185m		0	<1	1
Phosphorus ppm ASTM D5185m 7 6 11 Zinc ppm ASTM D5185m 6 9 2 Sulfur ppm ASTM D5185m 14232 20109 20010 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 <1 <1 <1 Sodium ppm ASTM D5185m >25 <1 <1 <1 <1 Sodium ppm ASTM D5185m >20 2 <1 <1 <1 Potassium ppm ASTM D5185m >20 2 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0	Magnesium	ppm	ASTM D5185m	90	10	9	30
Zinc ppm ASTM D5185m 6 9 2 Sulfur ppm ASTM D5185m 14232 20109 20010 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 <1	Calcium	ppm	ASTM D5185m	2	<1	0	0
Sulfur ppm ASTM D5185m 14232 20109 20010 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 <1 <1 <1 Sodium ppm ASTM D5185m >25 <1 <1 <1 Potassium ppm ASTM D5185m >20 2 2 0 Water % ASTM D5185m >20 2 2 0 Water % ASTM D6304 >0.05 0.0066 0.172 0.012 ppm ASTM D6304 >500 67 1720 129.1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 1300 10030 3499 Particles >4µm ASTM D7647 >80 437 102 Particles >21µm ASTM D7647 >20 44 20 <td>Phosphorus</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <th>7</th> <td>6</td> <td>11</td>	Phosphorus	ppm	ASTM D5185m		7	6	11
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 <1	Zinc	ppm	ASTM D5185m		6	9	2
Silicon ppm ASTM D5185m >25 <1 <1 <1 Sodium ppm ASTM D5185m 20 2 2 0 Potassium ppm ASTM D5185m >20 2 2 0 Water % ASTM D6304 >0.05 0.006 0.172 0.012 ppm Water ppm ASTM D6304 >500 67 1720 129.1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 19882 3499 Particles >6µm ASTM D7647 >1300 10030 102 Particles >1µm ASTM D7647 >20 44 20 Particles >21µm ASTM D7647 >20 444 20 Particles >38µm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 21/21/16 19/17/14 FLUID DEGRADATION method limit/base current history1	Sulfur	ppm	ASTM D5185m		14232	20109	20010
Sodium ppm ASTM D5185m 4 4 15 Potassium ppm ASTM D5185m<>20 2 2 0 Water % ASTM D6304 >0.05 0.006 0.172 0.012 ppm Water ppm ASTM D6304 >500 67 ▲ 1720 129.1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 19882 3499 Particles >6µm ASTM D7647 >1300 ▲ 10030 1026 Particles >14µm ASTM D7647 >80 ▲ 437 102 Particles >21µm ASTM D7647 >20 ▲ 44 20 Particles >38µm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 21/21/16 19/17/14 FLUID DEGRADATION method limit/base current history1 history2	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 2 2 0 Water % ASTM D6304 >0.05 0.006 0.172 0.012 ppm Water ppm ASTM D6304 >500 67 1720 129.1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 19882 3499 Particles >6µm ASTM D7647 >1300 10030 1056 Particles >14µm ASTM D7647 >80 437 102 Particles >21µm ASTM D7647 >20 44 20 Particles >38µm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 21/21/16 19/17/14 FLUID DEGRADATION method limit/base current history1 history2	Silicon	ppm	ASTM D5185m	>25	<1	<1	<1
Water % ASTM D6304 >0.05 0.006 ▲ 0.172 0.012 ppm Water ppm ASTM D6304 >500 67 ▲ 1720 129.1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 19882 3499 Particles >6µm ASTM D7647 >1300 ▲ 10030 1056 Particles >14µm ASTM D7647 >80 ▲ 437 102 Particles >21µm ASTM D7647 >20 ▲ 44 20 Particles >38µm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 ▲ 21/21/16 19/17/14 FLUID DEGRADATION method limit/base current history1 history2	Sodium	ppm	ASTM D5185m		4	4	15
ppm Water ppm ASTM D6304 >500 67 ▲ 1720 129.1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 19882 3499 Particles >6µm ASTM D7647 >1300 ▲ 10030 1056 Particles >14µm ASTM D7647 >80 ▲ 437 102 Particles >21µm ASTM D7647 >20 ▲ 44 20 Particles >38µm ASTM D7647 >4 1 2 Particles >71µm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) /17/13 21/21/16 19/17/14 FLUID DEGRADATION method limit/base current history1 history2	Potassium	ppm	ASTM D5185m	>20	2	2	0
FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 19882 3499 Particles >6µm ASTM D7647 >1300 10030 1056 Particles >14µm ASTM D7647 >80 437 102 Particles >21µm ASTM D7647 >20 44 20 Particles >21µm ASTM D7647 >4 1 20 Particles >38µm ASTM D7647 >4 1 2 Particles >71µm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 21/21/16 19/17/14 FLUID DEGRADATION method limit/base current history1 history2	Water	%	ASTM D6304	>0.05	0.006	▲ 0.172	0.012
Particles >4μm ASTM D7647 19882 3499 Particles >6μm ASTM D7647 >1300 10030 1056 Particles >14μm ASTM D7647 >80 437 102 Particles >21μm ASTM D7647 >20 44 20 Particles >21μm ASTM D7647 >20 44 20 Particles >38μm ASTM D7647 >4 1 2 Particles >71μm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 21/21/16 19/17/14 FLUID DEGRADATION method limit/base current history1 history2	ppm Water	ppm	ASTM D6304	>500	67	▲ 1720	129.1
Particles >6µm ASTM D7647 >1300 ▲ 10030 1056 Particles >14µm ASTM D7647 >80 ▲ 437 102 Particles >21µm ASTM D7647 >20 ▲ 44 20 Particles >38µm ASTM D7647 >4 1 2 Particles >38µm ASTM D7647 >4 1 2 Particles >71µm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 ▲ 21/21/16 19/17/14 FLUID DEGRADATION method limit/base current history1 history2	FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
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Particles >71μm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 ▲ 21/21/16 ● 19/17/14 FLUID DEGRADATION method limit/base current history1 history2							
Oil Cleanliness ISO 4406 (c) >/17/13 ▲ 21/21/16 19/17/14 FLUID DEGRADATION method limit/base current history1 history2							
FLUID DEGRADATION method limit/base current history1 history2	Particles >71µm				-		
	Oil Cleanliness		ISO 4406 (c)	>/17/13	<u> </u>		19/17/14
Acid Number (AN) mg KOH/g ASTM D8045 0.4 0.24 0.27 0.27	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	0.24	0.27	0.27

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



OIL ANALYSIS REPORT

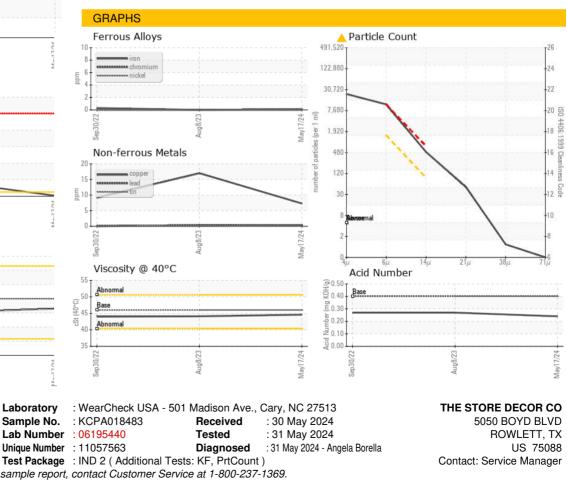




VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	MODER	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	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	0.2%	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	44.6	44.1	44.0
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color				0.		



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)

Report Id: THEROW [WUSCAR] 06195440 (Generated: 05/31/2024 17:04:57) Rev: 1

Certificate 12367

Contact/Location: Service Manager - THEROW

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