

OIL ANALYSIS REPORT

Sample Rating Trend

....le

NORMAL

Machine Id

KAESER SFC 75ST 4305554 (S/N 1001)

Component Compressor

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

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Fluid Condition

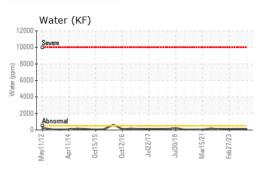
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

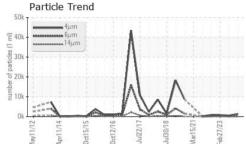
Sample Number Client Info KC131654 KC120631 KC103308 Sample Date Client Info 16 Jun 2024 12 Jun 2023 27 Feb 2023 Sample Date Client Info 67382 60629 56698 Dil Changed Client Info 670382 60629 56698 Dil Changed Client Info Changed N/A Not Changed Sample Status method im//base current history1 NorMAL WEAR METALS method im//base current history1 history2 from ppm ASTM 05185m >10 0 0 -1 Nickel ppm ASTM 05185m >2 0 0 -1 Nickel ppm ASTM 05185m >10 0 -1 0 Silver ppm ASTM 05185m >10 0 0 0 Cadmium ppm ASTM 05185m >10 0 0 0 Cadmium ppm ASTM	SAMPLE INFORM		method	limit/base	current	history1	history2
Sample Date Client Into 16 Jun 2024 12 Jun 2023 27 Feb 2023 Machine Age hrs Client Info 67382 60629 56698 Dil Age hrs Client Info 6000 0 4295 Dil Changed Client Info Changed N/A Not Changed Sample Status method Imit/base current history1 history2 fron ppm ASTM 05185m >50 0 <1 1 Nickel ppm ASTM 05185m >3 0 <1 1 Nickel ppm ASTM 05185m >3 <1 0 0 Silver ppm ASTM 05185m >10 0 <1 1 Lead ppm ASTM 05185m >10 0 0 0 Copper ppm ASTM 05185m 0 0 0 0 Auminum ppm ASTM 05185m 0 0 0 0 Audiminum <th></th> <th></th> <th></th> <th>mmbase</th> <th></th> <th></th> <th></th>				mmbase			
Machine Age hrs Client Info 67382 60629 58698 Dil Age hrs Client Info Coon 4295 Dil Age Nrs Client Info Changed N/A Not Changed Sample Status Info Constance NORMAL NORMAL NORMAL WEAR METALS method Imit/base current history1 history2 tron ppm ASTM D5185m<>10 0 <1	,						
Dil Age hrs Client Info 6000 0 4295 Dil Changed Client Info Changed N/A Not Changed Sample Status rethod limit/base current history1 history2 fron ppm ASTM D5185m >50 0 <1	-	la va					
Oil Changed Sample Status Client Info Changed NORMAL N/A Not Changed NORMAL WEAR METALS method limit/base current history1 history2 fron ppm ASTM D5185m >50 0 <1	•						
Sample Status method imit/base current history1 history2 Iron ppm ASTM D5185m >50 0 <1	-	nrs					
WEAR METALS method imit/base current history1 history2 from ppm ASTM D5185m >50 0 <1	•		Client Into		-		÷
ron ppm ASTM D5185m >50 0 <1					NORMAL	NORMAL	-
Dromium ppm ASTM D5185m >10 0 0 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >3 0 <1 <1 Titanium ppm ASTM D5185m >3 <1	Iron	ppm	ASTM D5185m	>50	-		
Titanium ppm ASTM D5185m >3 <1 0 0 Silver ppm ASTM D5185m >2 0 <1	Chromium	ppm	ASTM D5185m	>10	-	0	<1
Silver ppm ASTM D5185m >2 0 0 <1 Aluminum ppm ASTM D5185m >10 0 <1	Nickel	ppm			0	<1	<1
Aluminum ppm ASTM D5185m >10 0 <1 1 Lead ppm ASTM D5185m >10 0 <1	Titanium	ppm	ASTM D5185m	>3	<1	0	0
Lead ppm ASTM D5185m >10 0 <1 0 Copper ppm ASTM D5185m >50 5 3 2 Tin ppm ASTM D5185m >10 0 0 0 Antimony ppm ASTM D5185m <1	Silver	ppm	ASTM D5185m	>2	0	0	<1
Copper ppm ASTM D5185m >50 5 3 2 Tin ppm ASTM D5185m >10 0 0 0 Antimony ppm ASTM D5185m Vanadium ppm ASTM D5185m <1	Aluminum	ppm	ASTM D5185m	>10	0	<1	1
Tin ppm ASTM D5185m >10 0 0 0 Antimony ppm ASTM D5185m Vanadium ppm ASTM D5185m <1	Lead	ppm	ASTM D5185m	>10	0	<1	0
Antimony ppm ASTM D5185m Vanadium ppm ASTM D5185m <1	Copper	ppm	ASTM D5185m	>50	5	3	2
Vanadium ppm ASTM D5185m <1 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Maganese ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 2 0 0 <1	Tin	ppm	ASTM D5185m	>10	0	0	0
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 90 0 2 2 Molybdenum ppm ASTM D5185m 0 0 0 0 Magnesse ppm ASTM D5185m 90 7 18 34 Calcium ppm ASTM D5185m 90 7 18 34 Calcium ppm ASTM D5185m 90 7 18 34 Calcium ppm ASTM D5185m 2 0 0 <1	Antimony	ppm	ASTM D5185m				
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 90 0 2 2 Molybdenum ppm ASTM D5185m 0 0 0 0 Magnese ppm ASTM D5185m 90 7 18 34 Calcium ppm ASTM D5185m 90 7 18 34 Calcium ppm ASTM D5185m 90 7 18 34 Calcium ppm ASTM D5185m 20 0 <1	Vanadium	ppm	ASTM D5185m		<1	0	0
Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m 90 0 2 2 Molybdenum ppm ASTM D5185m 0 0 0 0 Manganese ppm ASTM D5185m 90 7 18 34 Calcium ppm ASTM D5185m 90 7 18 34 Calcium ppm ASTM D5185m 90 7 18 34 Calcium ppm ASTM D5185m <1	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 90 0 2 2 Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m <1 <1 <1 Magnesium ppm ASTM D5185m 90 7 18 34 Calcium ppm ASTM D5185m 2 0 0 <1 Phosphorus ppm ASTM D5185m 2 0 0 <1 Phosphorus ppm ASTM D5185m <1 <1 3 3 Zinc ppm ASTM D5185m <6 8 14 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 0 2 4 Water % ASTM D6304 >0.05 0.011 0.010 0.013 opm Math D5647 1300 542 771 Partricles >4µm	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0 0 0 0 Manganese ppm ASTM D5185m <1	Boron	ppm	ASTM D5185m		0	0	0
Manganese ppm ASTM D5185m <1 <1 <1 <1 Magnesium ppm ASTM D5185m 90 7 18 34 Calcium ppm ASTM D5185m 2 0 0 <1	Barium	ppm	ASTM D5185m	90	0	2	2
Magnesium ppm ASTM D5185m 90 7 18 34 Calcium ppm ASTM D5185m 2 0 0 <1	Molybdenum	ppm	ASTM D5185m		0	0	0
Calcium ppm ASTM D5185m 2 0 0 <1 Phosphorus ppm ASTM D5185m <1	Manganese	ppm	ASTM D5185m		<1	<1	<1
Phosphorus ppm ASTM D5185m <1 <1 3 Zinc ppm ASTM D5185m 6 8 14 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 <1 0 0 Sodium ppm ASTM D5185m >25 <1 0 0 Sodium ppm ASTM D5185m >20 0 2 4 Water % ASTM D6304 >0.05 0.011 0.010 0.013 opm Water ppm ASTM D6304 >500 118 106.5 133.5 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >1300 542 771 Particles >4µm ASTM D7647 >20 4 3 14 Particles >14µm ASTM D7647 >20 4 3 14 Particles >38µm	Magnesium	ppm	ASTM D5185m	90	7	18	34
Zinc ppm ASTM D5185m 6 8 14 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 <1	Calcium	ppm	ASTM D5185m	2	0	0	<1
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 <1	Phosphorus	ppm	ASTM D5185m		<1	<1	3
Silicon ppm ASTM D5185m >25 <1 0 0 Sodium ppm ASTM D5185m >20 8 12 19 Potassium ppm ASTM D5185m >20 0 2 4 Water % ASTM D6304 >0.05 0.011 0.010 0.013 opm Water ppm ASTM D6304 >500 118 106.5 133.5 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >1300 319 150 301 Particles >6µm ASTM D7647 >80 19 16 41 Particles >14µm ASTM D7647 >20 4 3 14 Particles >38µm ASTM D7647 >3 0 0 0 Particles >71µm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 17/15/11 16/14/11 17/15/13	Zinc	ppm	ASTM D5185m		6	8	14
Sodium ppm ASTM D5185m 8 12 19 Potassium ppm ASTM D5185m >20 0 2 4 Water % ASTM D6304 >0.05 0.011 0.010 0.013 opm Water ppm ASTM D6304 >500 118 106.5 133.5 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 1300 542 771 Particles >6µm ASTM D7647 >1300 542 771 Particles >6µm ASTM D7647 >80 19 16 41 Particles >14µm ASTM D7647 >20 4 3 14 Particles >21µm ASTM D7647 >4 0 0 1 Particles >71µm ASTM D7647 >3 0 0 0 Oli Cleanliness ISO 4406 (c) >/17/13 17/15/11 16/14/11 17/15/13 FLUID DEGRADATION method<	CONTAMINANTS	6	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 0 2 4 Water % ASTM D6304 >0.05 0.011 0.010 0.013 opm Water ppm ASTM D6304 >500 118 106.5 133.5 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 1300 542 771 Particles >6µm ASTM D7647 >1300 319 150 301 Particles >14µm ASTM D7647 >80 19 16 41 Particles >21µm ASTM D7647 >20 4 3 14 Particles >38µm ASTM D7647 >3 0 0 1 Particles >71µm ASTM D7647 >3 0 0 0 OIl Cleanliness ISO 4406 (c) >/17/13 17/15/11 16/14/11 17/15/13 FLUID DEGRADATION method limit/base current history1 history2	Silicon	ppm	ASTM D5185m	>25	<1	0	0
Water % ASTM D6304 >0.05 0.011 0.010 0.013 opm Water ppm ASTM D6304 >500 118 106.5 133.5 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 1300 542 771 Particles >6µm ASTM D7647 >1300 319 150 301 Particles >6µm ASTM D7647 >80 19 16 41 Particles >14µm ASTM D7647 >20 4 3 14 Particles >21µm ASTM D7647 >4 0 0 1 Particles >38µm ASTM D7647 >3 0 0 0 Particles >71µm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 17/15/11 16/14/11 17/15/13 FLUID DEGRADATION method limit/base current history1 history2	Sodium	ppm	ASTM D5185m		8	12	19
opp Maximum ppm ASTM D6304 >500 118 106.5 133.5 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 1300 542 771 Particles >6µm ASTM D7647 >1300 319 150 301 Particles >6µm ASTM D7647 >80 19 16 41 Particles >14µm ASTM D7647 >20 4 3 144 Particles >21µm ASTM D7647 >4 0 0 1 Particles >38µm ASTM D7647 >3 0 0 0 Particles >71µm ASTM D7647 3 0 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 17/15/11 16/14/11 17/15/13 FLUID DEGRADATION method limit/base current history1 history2	Potassium	ppm	ASTM D5185m	>20	0	2	4
FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 1300 542 771 Particles >6µm ASTM D7647 >1300 319 150 301 Particles >6µm ASTM D7647 >80 19 16 41 Particles >14µm ASTM D7647 >20 4 3 14 Particles >21µm ASTM D7647 >20 4 3 14 Particles >38µm ASTM D7647 >4 0 0 1 Particles >71µm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 17/15/11 16/14/11 17/15/13 FLUID DEGRADATION method limit/base current history1 history2	Water	%	ASTM D6304	>0.05	0.011	0.010	0.013
Particles >4μm ASTM D7647 1300 542 771 Particles >6μm ASTM D7647 >1300 319 150 301 Particles >14μm ASTM D7647 >80 19 16 41 Particles >21μm ASTM D7647 >20 4 3 14 Particles >21μm ASTM D7647 >20 4 3 14 Particles >21μm ASTM D7647 >20 4 3 14 Particles >38μm ASTM D7647 >4 0 0 1 Particles >71μm ASTM D7647 >3 0 0 0 Oli Cleanliness ISO 4406 (c) >/17/13 17/15/11 16/14/11 17/15/13 FLUID DEGRADATION method limit/base current history1 history2	ppm Water	ppm	ASTM D6304	>500	118	106.5	133.5
Particles >6µm ASTM D7647 >1300 319 150 301 Particles >14µm ASTM D7647 >80 19 16 41 Particles >21µm ASTM D7647 >20 4 3 14 Particles >21µm ASTM D7647 >20 4 0 0 1 Particles >38µm ASTM D7647 >4 0 0 1 Particles >71µm ASTM D7647 >3 0 0 0 Oli Cleanliness ISO 4406 (c) >/17/13 17/15/11 16/14/11 17/15/13 FLUID DEGRADATION method limit/base current history1 history2	FLUID CLEANLIN	NESS	method	limit/base	current	history1	history2
Particles >14µm ASTM D7647 >80 19 16 41 Particles >21µm ASTM D7647 >20 4 3 14 Particles >21µm ASTM D7647 >4 0 0 1 Particles >38µm ASTM D7647 >4 0 0 1 Particles >71µm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 17/15/11 16/14/11 17/15/13 FLUID DEGRADATION method limit/base current history1 history2	Particles >4µm		ASTM D7647		1300	542	771
Particles >21µm ASTM D7647 >20 4 3 14 Particles >38µm ASTM D7647 >4 0 0 1 Particles >38µm ASTM D7647 >4 0 0 1 Particles >71µm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 17/15/11 16/14/11 17/15/13 FLUID DEGRADATION method limit/base current history1 history2	Particles >6µm		ASTM D7647	>1300	319	150	301
Particles >38μm ASTM D7647 >4 0 0 1 Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 17/15/11 16/14/11 17/15/13 FLUID DEGRADATION method limit/base current history1 history2	Particles >14µm		ASTM D7647	>80	19	16	41
Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 17/15/11 16/14/11 17/15/13 FLUID DEGRADATION method limit/base current history1 history2	Particles >21µm		ASTM D7647	>20	4	3	14
Oil CleanlinessISO 4406 (c) >/17/1317/15/1116/14/1117/15/13FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2	Particles >38µm		ASTM D7647	>4	0	0	1
FLUID DEGRADATION method limit/base current history1 history2	Particles >71µm		ASTM D7647	>3	0	0	0
	Oil Cleanliness		ISO 4406 (c)	>/17/13	17/15/11	16/14/11	17/15/13
Acid Number (AN) mg KOH/g ASTM D8045 0.4 0.43 0.41 0.39	FLUID DEGRADA		method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	0.43	0.41	0.39

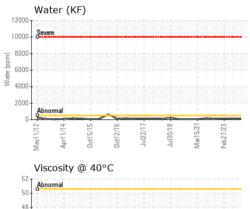
Contact/Location: MIKE GRAHAM - ACCCAN Page 1 of 2

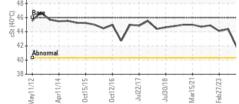


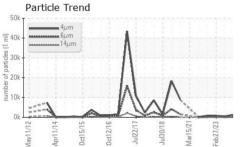
OIL ANALYSIS REPORT





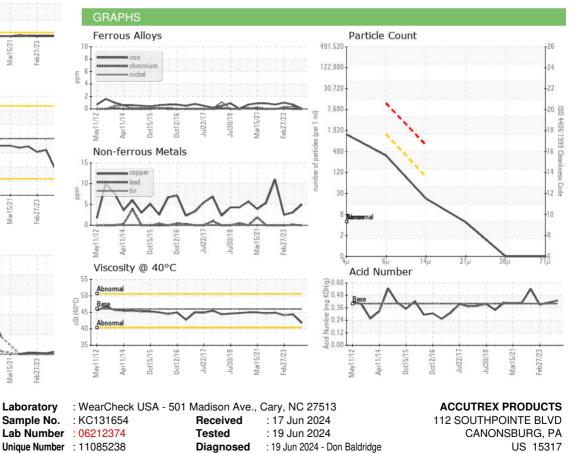








Bottom



Test Package : IND 2

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: (724)746-4300 F:

Contact: MIKE GRAHAM

Certificate 12367

Contact/Location: MIKE GRAHAM - ACCCAN Page 2 of 2