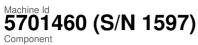


OIL ANALYSIS REPORT

Sample Rating Trend





Compressor

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

DIAGNOSIS

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.

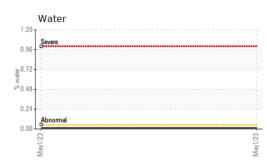
Fluid Condition

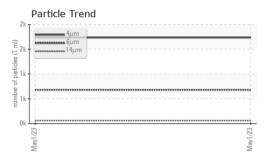
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

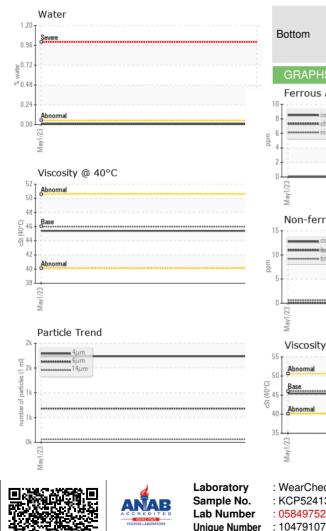
Sample Number Client Info KCP52413 Machine Age hrs Client Info 01 May 2023 Oil Age hrs Client Info 10869 Oil Age hrs Client Info Changed Sample Status Image Client Info Changed WEAR METALS method Imit/base current History1 History2 Iron ppm ASTM 05185m >30 0 Nickel ppm ASTM 05185m >30 0 Auminum ppm ASTM 05185m >10 0 Auminum ppm ASTM 05185m >0 11 Auminum ppm ASTM 05185m 0 Auminum ppm ASTM 05185m 0	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Date Client Info 01 May 2023 Machine Age hrs Client Info 51124 Oil Age hrs Client Info 10869 Sample Status Client Info Changed WEAR METALS method Imit/base current history1 history2 Iron ppm ASTM 05185m >50 0 Nickel ppm ASTM 05185m >3 0 Aluminum ppm ASTM 05185m >3 0 Aluminum ppm ASTM 05185m >10 0 Adaminum ppm ASTM 05185m >10 0 Adaminum ppm ASTM 05185m 0 Adaminum ppm ASTM 05185m 0 Adaminum							-
Machine Age hrs Client Info 51124 Oil Age hrs Client Info 10869 Sample Status Client Info Changed WEAR METALS method imit/base current history1 history2 Iron ppm ASTM D5185m >50 0 Nickel ppm ASTM D5185m >3 0 Aluminum ppm ASTM D5185m >3 0 Aluminum ppm ASTM D5185m >10 0 Copper ppm ASTM D5185m >10 <1	•						
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Oil Changed Client Info Changed NORMAL WEAR METALS method Imit/base current history1 history2 Iron ppm ASTM D5185m >50 0 Nickel ppm ASTM D5185m >3 0 Silver ppm ASTM D5185m >3 0 Aluminum ppm ASTM D5185m >3 0 Aluminum ppm ASTM D5185m >10 0 Cadmium ppm ASTM D5185m >10 0 Cadmium ppm ASTM D5185m 0 ADDITVES method Imit/base current history1 history2 Boron ppm ASTM D5185m 0 Malganesium ppm ASTM D5185m 0	•				• • • • • •		
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WEAR METALS method limit/base current history1 history2 Iron ppm ASTM 05185m >50 0 Nickel ppm ASTM 05185m >3 0 Nickel ppm ASTM 05185m >3 0 Aluminum ppm ASTM 05185m >2 0 Aduminum ppm ASTM 05185m >10 0 Lead ppm ASTM 05185m >10 0 Aduminum ppm ASTM 05185m >10 0 Vanadium ppm ASTM 05185m >10 0 ADDITIVES method limit/base current history1 history2 Barium ppm ASTM 05185m 0 ADDITIVES method limit/base	•		Cilent Inio				
Iron ppm ASTM D5185m >50 0 Nickel ppm ASTM D5185m >3 0 Nickel ppm ASTM D5185m >3 0 Silver ppm ASTM D5185m >2 0 Aluminum ppm ASTM D5185m >10 0 Aduminum ppm ASTM D5185m >10 0 Aduminum ppm ASTM D5185m >10 <1 Adadium ppm ASTM D5185m 0 ADDITIVES method Imit/base current history1 history2 Boron ppm ASTM D5185m 0 Adignesium ppm ASTM D5185m <1 Galeium ppm ASTM D5185m <2 0	Sample Status				NORMAL		
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Copper ppm ASTM D5185m >50 11 Tin ppm ASTM D5185m >10 <1	Aluminum	ppm	ASTM D5185m	>10	0		
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Tin ppm ASTM D5185m >10 <1 Vanadium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Malganese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 0 Zalcium ppm ASTM D5185m 90 <1	Copper	ppm	ASTM D5185m	>50	11		
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Barium ppm ASTM D5185m 90 0 Molybdenum ppm ASTM D5185m 0 Manganese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 90 <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0 Manganese ppm ASTM D5185m <1	Boron	ppm	ASTM D5185m		0		
Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m 90 <1	Barium	ppm	ASTM D5185m	90	0		
Marganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m 90 <1	Molybdenum	ppm	ASTM D5185m		0		
Magnesium ppm ASTM D5185m 90 <1 Calcium ppm ASTM D5185m 2 0 Phosphorus ppm ASTM D5185m <1	-		ASTM D5185m		<1		
Calcium ppm ASTM D5185m 2 0 Phosphorus ppm ASTM D5185m <1	-		ASTM D5185m	90	<1		
Phosphorus ppm ASTM D5185m <1 Zinc ppm ASTM D5185m 0 Sulfur ppm ASTM D5185m 17109 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 0 Sodium ppm ASTM D5185m >25 0 Sodium ppm ASTM D5185m >20 <1	Calcium		ASTM D5185m	2			
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Sulfur ppm ASTM D5185m 17109 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 0 Sodium ppm ASTM D5185m >25 0 Potassium ppm ASTM D5185m >20 <1			ASTM D5185m		0		
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Sodium ppm ASTM D5185m <1	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 <1 Water % ASTM D6304 >0.05 0.010 ppm ASTM D6304 >500 101.6 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 1735 Particles >6µm ASTM D7647 >1300 681 Particles >14µm ASTM D7647 >80 60 Particles >21µm ASTM D7647 >20 18 Particles >38µm ASTM D7647 >3 0 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >/17/13 18/17/13 FLUID DEGRADATION method limit/base current history1 history2 <td>Silicon</td> <td>ppm</td> <td>ASTM D5185m</td> <td>>25</td> <th>0</th> <td></td> <td></td>	Silicon	ppm	ASTM D5185m	>25	0		
Water % ASTM D6304 >0.05 0.010 ppm Water ppm ASTM D6304 >500 101.6 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 1735 Particles >6µm ASTM D7647 >1300 681 Particles >6µm ASTM D7647 >80 60 Particles >14µm ASTM D7647 >20 18 Particles >38µm ASTM D7647 >3 0 Particles >71µm ASTM D7647 -3 0 Oil Cleanliness ISO 4406 (c) >/17/13 18/17/13 FLUID DEGRADATION method limit/base current history1 history2	Sodium	ppm	ASTM D5185m		<1		
ppm Water ppm ASTM D6304 >500 101.6 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 1735 Particles >6µm ASTM D7647 >1300 681 Particles >14µm ASTM D7647 >20 18 Particles >21µm ASTM D7647 >20 18 Particles >38µm ASTM D7647 >3 0 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >/17/13 18/17/13 FLUID DEGRADATION method limit/base current history1 history2	Potassium	ppm	ASTM D5185m	>20	<1		
FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 1735	Water	%	ASTM D6304	>0.05	0.010		
Particles >4μm ASTM D7647 1735 Particles >6μm ASTM D7647 >1300 681 Particles >14μm ASTM D7647 >80 60 Particles >14μm ASTM D7647 >20 18 Particles >21μm ASTM D7647 >20 18 Particles >38μm ASTM D7647 >4 0 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >/17/13 18/17/13 FLUID DEGRADATION method limit/base current history1 history2	ppm Water	ppm	ASTM D6304	>500	101.6		
Particles >6μm ASTM D7647 >1300 681 Particles >14μm ASTM D7647 >80 60 Particles >14μm ASTM D7647 >80 60 Particles >21μm ASTM D7647 >20 18 Particles >38μm ASTM D7647 >4 0 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >/17/13 18/17/13 FLUID DEGRADATION method limit/base current history1 history2	FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
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Particles >21μm ASTM D7647 >20 18 Particles >38μm ASTM D7647 >4 0 Particles >38μm ASTM D7647 >4 0 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >/17/13 18/17/13 FLUID DEGRADATION method limit/base current history1 history2	Particles >6µm		ASTM D7647	>1300	681		
Particles >38μm ASTM D7647 >4 0 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >/17/13 18/17/13 FLUID DEGRADATION method limit/base current history1 history2	Particles >14µm		ASTM D7647	>80	60		
Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >/17/13 18/17/13 FLUID DEGRADATION method limit/base current history1 history2	Particles >21µm		ASTM D7647	>20	18		
Oil Cleanliness ISO 4406 (c) >/17/13 18/17/13 FLUID DEGRADATION method limit/base current history1 history2	Particles >38µm		ASTM D7647	>4	0		
Oil Cleanliness ISO 4406 (c) >/17/13 18/17/13 FLUID DEGRADATION method limit/base current history1 history2			ASTM D7647	>3	0		
					18/17/13		
Acid Number (AN) ma KOH/a ASTM D8045 0.4 0.48	FLUID DEGRADA		method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	0.48		

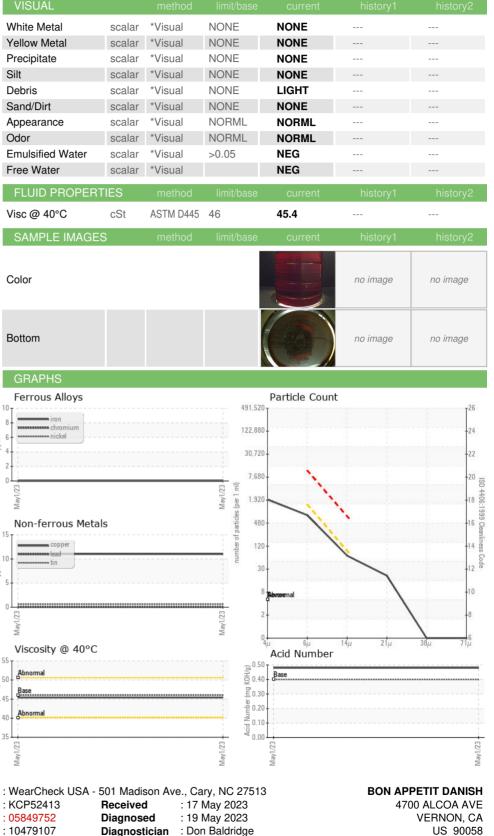


OIL ANALYSIS REPORT









US 90058 Contact: Service Manager

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.

Test Package : IND 2 (Additional Tests: KF, PrtCount)

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

Certificate L2367