

### **OIL ANALYSIS REPORT**



Machine Id

# 3922407 (S/N 1021)

#### Component Compressor Fluid KAESER SIGMA (OEM) M-460 (--- GAL)

#### DIAGNOSIS

#### Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. 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         28 May 2024             Machine Age         hrs         Client Info         6000             Oil Age         hrs         Client Info         6000             Sample Status         Client Info         Changed             WEAR METALS         method         Imit/base         current         history1         history2           Iron         ppm         ASTM 05185m         >50         <1             Nickel         ppm         ASTM 05185m         >3         <1             Aluminum         ppm         ASTM 05185m         >3         <1             Aluminum         ppm         ASTM 05185m         >10         <1             Aluminum         ppm         ASTM 05185m         >10         <1             Agendum         ppm         ASTM 05185m         >10         <1             Agendum         ppm         ASTM 05185m         0         <1 <t< th=""><th>SAMPLE INFORM</th><th>IATION</th><th>method</th><th>limit/base</th><th>current</th><th>history1</th><th>history2</th></t<>	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Machine Age         hrs         Client Info         42293             Oil Age         hrs         Client Info         6000             Sample Status         Client Info         Changed             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM 05185m         >50         <1             Nickel         ppm         ASTM 05185m         >30         <1             Sliver         ppm         ASTM 05185m         >2         <1             Copper         ppm         ASTM 05185m         >10         <1             ACadmium         ppm         ASTM 05185m         >10         <1             ADDITIVES         method         Imit/base         current         history1         history2           Barium         ppm         ASTM 05185m         0         0             ADDITIVES         method         Imit/base         current         history1         history2 <th>Sample Number</th> <th></th> <th>Client Info</th> <th></th> <th>KCPA014464</th> <th></th> <th></th>	Sample Number		Client Info		KCPA014464		
Oil Age         hrs         Client Info         6000             Oil Changed         Client Info         Changed             Sample Status         Image              WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM 05185m         >50         <1	Sample Date		Client Info		28 May 2024		
Cilie Changed         Client Info         Changed             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185n         >50         <1	Machine Age	hrs	Client Info		42293		
Sample Status         method         imit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >50         <1	Oil Age	hrs	Client Info		6000		
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >50         <1	Oil Changed		Client Info		Changed		
Iron       ppm       ASTM D5185m       >50       <1          Chromium       ppm       ASTM D5185m       >10       <1	Sample Status				ABNORMAL		
Ppm         ASTM D5185m         >10         <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel         ppm         ASTM D5185m         >3         <1             Titanium         ppm         ASTM D5185m         >3         <1	Iron	ppm	ASTM D5185m	>50	<1		
Titanium       ppm       ASTM D5185m       >3       <1           Silver       ppm       ASTM D5185m       >2       <1	Chromium	ppm	ASTM D5185m	>10	<1		
Silver       ppm       ASTM D5185m       >2       <1	Nickel	ppm	ASTM D5185m	>3	<1		
Aluminum       ppm       ASTM D5185m       >10       2           Lead       ppm       ASTM D5185m       >10       <1	Titanium	ppm	ASTM D5185m	>3	<1		
Lead         ppm         ASTM D5185m         >10         <1            Copper         ppm         ASTM D5185m         >50         29             Vanadium         ppm         ASTM D5185m         >10         <1	Silver	ppm	ASTM D5185m	>2	<1		
Copper         ppm         ASTM D5185m         >50         29             Tin         ppm         ASTM D5185m         >10         <1	Aluminum	ppm	ASTM D5185m	>10	2		
Tin       ppm       ASTM D5185m       >10       <1	Lead	ppm	ASTM D5185m	>10	<1		
Vanadium         ppm         ASTM D5185m         <1             Cadmium         ppm         ASTM D5185m         <1	Copper	ppm	ASTM D5185m	>50	29		
CadmiumppmASTM D5185m<1ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m00BariumppmASTM D5185m90<1	Tin	ppm	ASTM D5185m	>10	<1		
ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0             Barium         ppm         ASTM D5185m         90         <1	Vanadium	ppm	ASTM D5185m		<1		
Boron         ppm         ASTM D5185m         0             Barium         ppm         ASTM D5185m         90         <1	Cadmium	ppm	ASTM D5185m		<1		
Barium         ppm         ASTM D5185m         90         <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum       ppm       ASTM D5185m       0       <1	Boron	ppm	ASTM D5185m	0	0		
Manganese         ppm         ASTM D5185m         <1             Magnesium         ppm         ASTM D5185m         100         <1	Barium	ppm	ASTM D5185m	90	<1		
Magnesium       ppm       ASTM D5185m       100       <1	Molybdenum	ppm	ASTM D5185m	0	<1		
Calcium       ppm       ASTM D5185m       0       0           Phosphorus       ppm       ASTM D5185m       0       0           Zinc       ppm       ASTM D5185m       0       0           Sulfur       ppm       ASTM D5185m       23500       13712           CONTAMINANTS       method       limit/base       current       history1       history2         Silicon       ppm       ASTM D5185m       >25       <1	Manganese	ppm	ASTM D5185m		<1		
PhosphorusppmASTM D5185m00ZincppmASTM D5185m00SulfurppmASTM D5185m2350013712CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>25<1	Magnesium	ppm	ASTM D5185m	100	<1		
Zinc       ppm       ASTM D5185m       0       0           Sulfur       ppm       ASTM D5185m       23500       13712           CONTAMINANTS       method       limit/base       current       history1       history2         Silicon       ppm       ASTM D5185m       >25       <1           Sodium       ppm       ASTM D5185m       >20       1           Potassium       ppm       ASTM D6304       >0.05       0.049           Water       %       ASTM D6304       >500       490           FLUID CLEANLINESS       method       limit/base       current       history1       history2         Particles >4µm       ASTM D7647       26390           Particles >4µm       ASTM D7647       >1300       9300           Particles >4µm       ASTM D7647       >20       31           Particles >21µm       ASTM D7647       >20       31           Particles >38µm       ASTM D7647       >3       0 <th< td=""><td>Calcium</td><td>ppm</td><td>ASTM D5185m</td><td>0</td><th>0</th><td></td><td></td></th<>	Calcium	ppm	ASTM D5185m	0	0		
SulfurppmASTM D5185m2350013712CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>25<1	Phosphorus	ppm	ASTM D5185m	0	0		
CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>25<1	Zinc	ppm	ASTM D5185m	0	0		
Silicon       ppm       ASTM D5185m       >25       <1           Sodium       ppm       ASTM D5185m       >20       1           Potassium       ppm       ASTM D5185m       >20       1           Water       %       ASTM D6304       >0.05       0.049           water       ppm       ASTM D6304       >500       490           ppm Water       ppm       ASTM D6304       >500       490           FLUID CLEANLINESS       method       limit/base       current       history1       history2         Particles >4µm       ASTM D7647       >1300       9300           Particles >6µm       ASTM D7647       >80       250           Particles >1µm       ASTM D7647       >20       31           Particles >38µm       ASTM D7647       >3       0           Particles >71µm       ASTM D7647       >3       0           Oil Cleanliness       ISO 4406 (c)      /17/13       22/20/15	Sulfur	ppm	ASTM D5185m	23500	13712		
Sodium         ppm         ASTM D5185m         0             Potassium         ppm         ASTM D5185m         >20         1             Water         %         ASTM D6304         >0.05         0.049             ppm Water         ppm         ASTM D6304         >500         490             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         26390             Particles >6µm         ASTM D7647         >1300         9300             Particles >6µm         ASTM D7647         >80         250             Particles >14µm         ASTM D7647         >20         31             Particles >38µm         ASTM D7647         >3         0             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >/17/13         22/20/15	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         1             Water         %         ASTM D6304         >0.05         0.049             ppm         Water         ppm         ASTM D6304         >500         490             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         26390             Particles >6µm         ASTM D7647         >1300         9300             Particles >6µm         ASTM D7647         >80         250             Particles >14µm         ASTM D7647         >80         250             Particles >21µm         ASTM D7647         >80         250             Particles >38µm         ASTM D7647         >4         1             Oil Cleanliness         ISO 4406 (c)         >/17/13         22/20/15             FLUID DEGRADATION         method         limit/base         current         history1	Silicon	ppm	ASTM D5185m	>25	<1		
Water       %       ASTM D6304       >0.05       0.049           ppm Water       ppm       ASTM D6304       >500       490           FLUID CLEANLINESS       method       limit/base       current       history1       history2         Particles >4µm       ASTM D7647       26390           Particles >6µm       ASTM D7647       >1300       9300           Particles >14µm       ASTM D7647       >80       250           Particles >14µm       ASTM D7647       >20       31           Particles >21µm       ASTM D7647       >20       31           Particles >38µm       ASTM D7647       >3       0           Particles >71µm       ASTM D7647       >3       0           Oil Cleanliness       ISO 4406 (c)       >/17/13       22/20/15           FLUID DEGRADATION       method       limit/base       current       history1       history2	Sodium	ppm	ASTM D5185m		0		
ppm Water         ppm         ASTM D6304         >500         490             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         26390             Particles >6µm         ASTM D7647         >1300         9300             Particles >6µm         ASTM D7647         >80         250             Particles >14µm         ASTM D7647         >80         250             Particles >21µm         ASTM D7647         >20         31             Particles >38µm         ASTM D7647         >4         1             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)        /17/13         22/20/15             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       26390           Particles >6µm       ASTM D7647       >1300       9300           Particles >6µm       ASTM D7647       >80       250           Particles >14µm       ASTM D7647       >20       31           Particles >21µm       ASTM D7647       >20       31           Particles >38µm       ASTM D7647       >4       1           Particles >38µm       ASTM D7647       >3       0           Oil Cleanliness       ISO 4406 (c)       >/17/13       22/20/15           FLUID DEGRADATION       method       limit/base       current       history1       history2	Water	%	ASTM D6304	>0.05	0.049		
Particles >4μm       ASTM D7647       26390           Particles >6μm       ASTM D7647       >1300       9300           Particles >6μm       ASTM D7647       >1300       9300           Particles >14μm       ASTM D7647       >80       250           Particles >21μm       ASTM D7647       >20       31           Particles >21μm       ASTM D7647       >4       1           Particles >38μm       ASTM D7647       >4       1           Particles >71μm       ASTM D7647       >3       0           Oil Cleanliness       ISO 4406 (c)       >/17/13       22/20/15           FLUID DEGRADATION       method       limit/base       current       history1       history2	ppm Water	ppm	ASTM D6304	>500	490		
Particles >6μm       ASTM D7647       >1300       ▲ 9300           Particles >14μm       ASTM D7647       >80       ▲ 250           Particles >21μm       ASTM D7647       >20       ▲ 31           Particles >21μm       ASTM D7647       >20       ▲ 31           Particles >38μm       ASTM D7647       >4       1           Particles >71μm       ASTM D7647       >3       0           Oil Cleanliness       ISO 4406 (c)       >/17/13       ▲ 22/20/15           FLUID DEGRADATION       method       limit/base       current       history1       history2	FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >14µm       ASTM D7647       >80       ▲ 250           Particles >21µm       ASTM D7647       >20       ▲ 31           Particles >38µm       ASTM D7647       >4       1           Particles >38µm       ASTM D7647       >4       1           Particles >71µm       ASTM D7647       >3       0           Oil Cleanliness       ISO 4406 (c)       >/17/13       ▲ 22/20/15           FLUID DEGRADATION       method       limit/base       current       history1       history2	Particles >4µm		ASTM D7647				
Particles >21μm         ASTM D7647         >20         ▲ 31             Particles >38μm         ASTM D7647         >4         1             Particles >37μm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >/17/13         ▲ 22/20/15             FLUID DEGRADATION         method         limit/base         current         history1         history2	Particles >6µm		ASTM D7647	>1300	<u> </u>		
Particles >38μm         ASTM D7647         >4         1             Particles >71μm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >/17/13         A 22/20/15             FLUID DEGRADATION         method         limit/base         current         history1         history2							
Particles >71μm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >/17/13         22/20/15             FLUID DEGRADATION         method         limit/base         current         history1         history2	Particles >21µm		ASTM D7647	>20	<u> </u>		
Oil Cleanliness         ISO 4406 (c)         >/17/13         ▲ 22/20/15             FLUID DEGRADATION         method         limit/base         current         history1         history2	Particles >38µm		ASTM D7647	>4	1		
FLUID DEGRADATION method limit/base current history1 history2	Particles >71µm		ASTM D7647	>3	0		
	Oil Cleanliness		ISO 4406 (c)	>/17/13	<u> </u>		
Acid Number (AN) mg KOH/g ASTM D8045 1.0 0.55	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.55		



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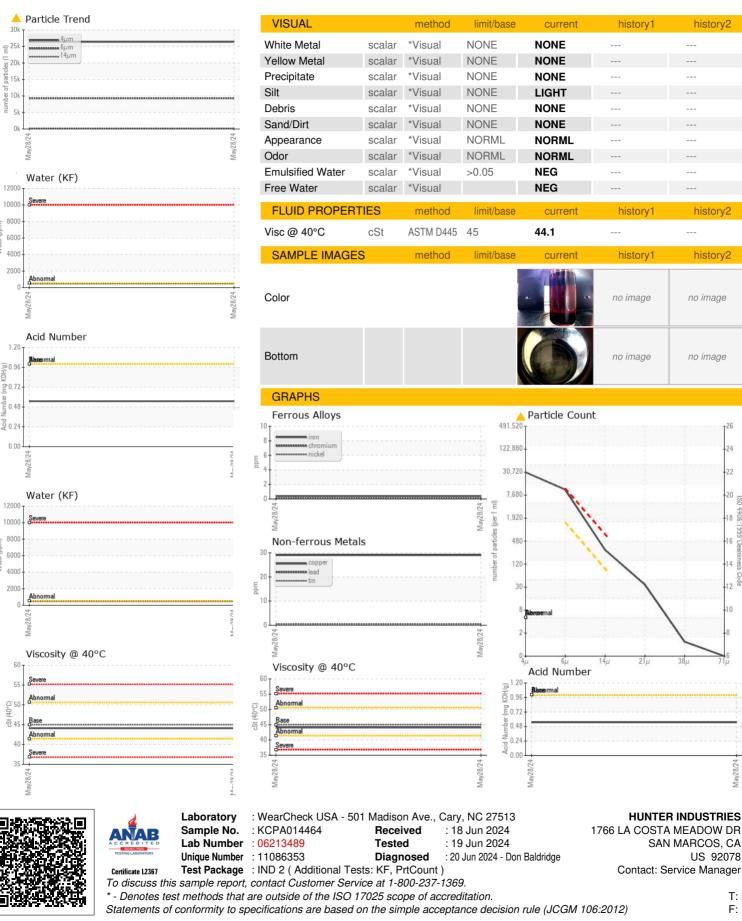
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Built for a lifetime

## **OIL ANALYSIS REPORT**



Contact/Location: Service Manager - HUNSANCA

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