

## **OIL ANALYSIS REPORT**





Machine Id 7558163 (S/N 1305) Component

Compressor

### 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

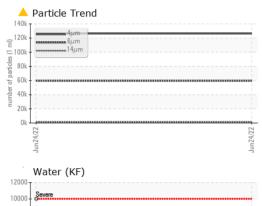
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

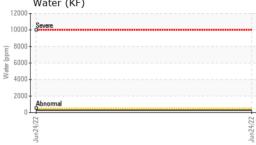
SAMPLE INFORM	<b>IATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		KCP18346		
Sample Date		Client Info		24 Jun 2022		
Machine Age	hrs	Client Info		1821		
Oil Age	hrs	Client Info		1821		
Oil Changed		Client Info		Changed		
Sample Status				ABNORMAL		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<1		
Chromium	ppm	ASTM D5185m	>10	0		
Nickel	ppm	ASTM D5185m	>3	0		
Titanium	ppm	ASTM D5185m	>3	0		
Silver	ppm	ASTM D5185m	>2	0		
Aluminum	ppm	ASTM D5185m	>10	<1		
Lead	ppm	ASTM D5185m	>10	0		
Copper	ppm	ASTM D5185m	>50	6		
Tin	ppm	ASTM D5185m	>10	0		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0		
Barium	ppm	ASTM D5185m	90	0		
Molybdenum	ppm	ASTM D5185m	0	0		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m	100	50		
Calcium	ppm	ASTM D5185m	0	0		
Phosphorus	ppm	ASTM D5185m	0	4		
Zinc	ppm	ASTM D5185m	0	2		
Sulfur	ppm	ASTM D5185m	23500	18133		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<1		
Sodium	ppm	ASTM D5185m		13		
Potassium	ppm	ASTM D5185m	>20	4		
Water	%	ASTM D6304	>0.05	0.028		
ppm Water	ppm	ASTM D6304	>500	281.4		
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		126302		
Particles >6µm		ASTM D7647	>1300	<b>6</b> 59450		
Particles >14µm		ASTM D7647	>80	<b>4</b> 1413		
Particles >21µm		ASTM D7647	>20	<u> </u>		
Particles >38µm		ASTM D7647	>4	2		
Particles >71µm		ASTM D7647	>3	0		
Oil Cleanliness		ISO 4406 (c)	>/17/13	<b>A</b> 24/23/18		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.31		

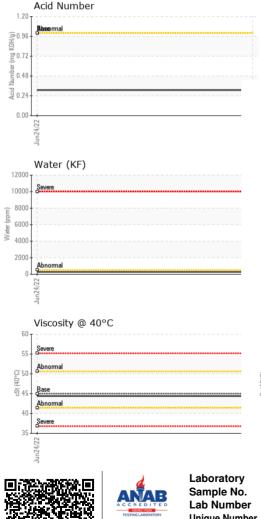


Built for a lifetime."

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VISUAL		method	limit/base	current	history1	history2
Vhite Metal	scalar	*Visual	NONE	NONE		
ellow Metal	scalar	*Visual	NONE	NONE		
recipitate	scalar	*Visual	NONE	NONE		
ilt	scalar	*Visual	NONE	NONE		
ebris	scalar	*Visual	NONE	LIGHT		
and/Dirt	scalar	*Visual	NONE	NONE		
ppearance	scalar	*Visual	NORML	NORML		
dor	scalar	*Visual	NORML	NORML		
mulsified Water	scalar	*Visual	>0.05	NEG		
ree Water	scalar	*Visual		NEG		
FLUID PROPERT	IES	method	limit/base	current	history1	history2
isc @ 40°C	cSt	ASTM D445	45	44.4		
SAMPLE IMAGE	S	method	limit/base	current	history1	history2
olor					no image	no image
ottom					no image	no image
					no image	no image
GRAPHS				Particle Count		
GRAPHS			491,520	Particle Count		
GRAPHS Ferrous Alloys				Particle Count		no image
GRAPHS Ferrous Alloys			491,520			-24
GRAPHS Ferrous Alloys			491,520 122,880 30,720			-24 -22
GRAPHS Ferrous Alloys			491,520 122,880 30,720 7,680			
GRAPHS Ferrous Alloys			491,520 122,880 30,720 7,680			-24 -24 -22 -20
GRAPHS Ferrous Alloys			491,520 122,880 30,720 7,680			-24 -24 -22 -20 -18
GRAPHS Ferrous Alloys	s		491,520 122,880 30,720 7,680			-24 -24 -22 -20
GRAPHS Ferrous Alloys	S		491,520 122,880 30,720 7,680			-24 -24 -22 -20 -18 -16
GRAPHS Ferrous Alloys	s		491,520 122,880 30,720 7,680 722/F2 up tube spipe 480 5			-24 -24 -22 -20 -18 -16 -14
GRAPHS Ferrous Alloys	S		491,520 122,880 30,720 7,680 7,680 7,680 7,680 7,680 7,680 1,920 1,920 480 120 30 30 30 20 7,00 122,80 30,720 7,680 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,90			-24 -24 -22 -20 -18 -16 -14 -12
GRAPHS Ferrous Alloys	S		491,520 122,880 30,720 7,680 7,680 7,680 7,680 7,680 7,680 1,920 1,920 480 120 30 30 30 20 7,00 122,80 30,720 7,680 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,920 1,90			-24 -24 -22 -20 -18 -16 -14 -12
GRAPHS Ferrous Alloys	S		491,520 122,880 30,720 7,680 7,680 7,680 7,680 7,680 1,920 89 90 90 90 90 90 90 90 90 90 90 90 90 90			-24 -24 -22 -20 -18 -16 -14 -12
GRAPHS Ferrous Alloys	5		491,520 122,880 30,720 7,680 7,680 7,680 7,680 7,680 7,680 1,920 480 120 120 30 8 30 7 20 7 8 30 7 20 7 8 30 7 20 7 8 30 7 20 8 30 7 20 8 30 7 20 7 20 8 30 7 20 8 30 7 20 7 20 8 30 7 20 7 20 8 30 7 20 7 20 7 20 7 20 7 20 7 20 7 20 7	Birreemal		26 -24 -22 -20 -18 -16 -14 -14 -12 -10 -8 -8
GRAPHS Ferrous Alloys	S		491,520 122,880 30,720 7,680 7,680 7,680 7,680 7,680 1,920 89 90 90 90 90 90 90 90 90 90 90 90 90 90	Bbreemal 4 6µ		-24 -24 -22 -20 -18 -16 -14 -14 -12 -10
GRAPHS Ferrous Alloys	s		491,520 122,880 30,720 7,680 7,680 7,680 7,680 7,680 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7	Bereemal Acid Number		-24 -24 -22 -20 -18 -16 -14 -12 -10 -8
GRAPHS Ferrous Alloys	s		491,520 122,880 30,720 7,680 7,680 7,680 7,680 7,680 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7,920 7	Bbreemal 4 6µ		-24 -24 -22 -20 -18 -16 -14 -12 -10 -8
Non-ferrous Metal	s		491,520 122,880 30,720 7,680 7,680 7,680 7,680 7,680 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7,040 7	Bereemal Acid Number		-24 -24 -22 -20 -18 -16 -14 -12 -10 -8

