

# **OIL ANALYSIS REPORT**

### Sample Rating Trend



Machine Id 8223084 (S/N 1182) Component

**Compressor** 

KAESER SIGMA (OEM) M-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.

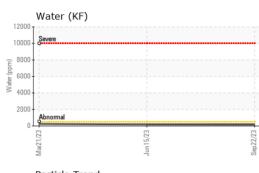
## Fluid Condition

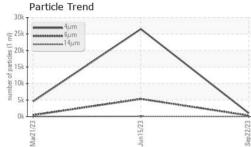
The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

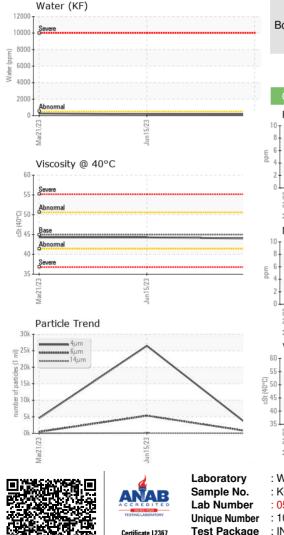
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		KC102982	KC100953	KC112382
Sample Date		Client Info		22 Sep 2023	15 Jun 2023	21 Mar 2023
Machine Age	hrs	Client Info		911	568	337
Oil Age	hrs	Client Info		911	568	337
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				NORMAL	ABNORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<1	0	<1
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>3	0	0	0
Titanium	ppm	ASTM D5185m	>3	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	4	2	2
Lead	ppm	ASTM D5185m	>10	<1	0	0
Copper	ppm	ASTM D5185m	>50	6	1	<1
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		0	<1	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	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m	0	۰ <1	<1	0
Magnesium	ppm	ASTM D5185m	100	22	39	64
Calcium	ppm	ASTM D5185m	0	0	0	0
Phosphorus	ppm	ASTM D5185m	0	2	5	3
Zinc	ppm	ASTM D5185m	0	44	10	7
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	2	<1	0
Sodium	ppm	ASTM D5185m	20	14	10	9
Potassium	ppm	ASTM D5185m	>20	24	26	39
Water	%	ASTM D6304	>0.05	0.017	0.019	0.025
ppm Water	ppm	ASTM D6304	>500	178.1	191.2	252.5
FLUID CLEANLIN		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		1029	26493	4572
•		ASTM D7647 ASTM D7647	. 1200	314	<u>∠0493</u>	447
Particles >6µm Particles >14µm						
Particles >21µm		ASTM D7647 ASTM D7647	>80 >20	27 7	▲ 90 15	12 3
Particles >38µm		ASTM D7647 ASTM D7647	>20	0	0	1
		ASTM D7647 ASTM D7647	>4 >3	0	0	0
Particles >71µm Oil Cleanliness		ISO 4406 (c)	>/17/13	0 17/15/12	22/20/14	19/16/11
		( )		17/13/12		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.28	0.42	0.35



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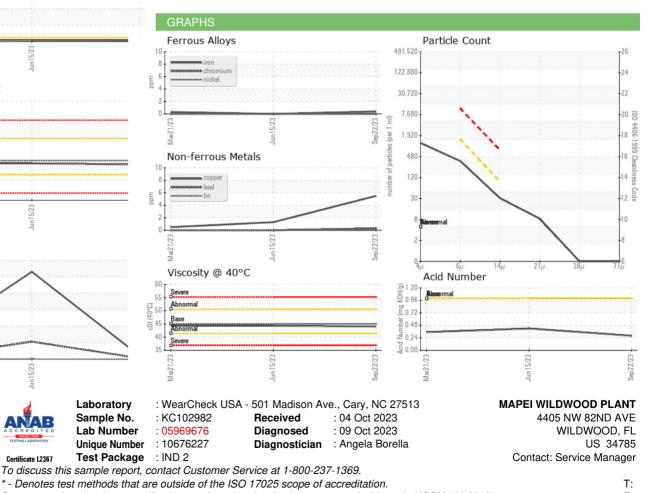






VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONENONEYellow Metalscalar*VisualNONENONENONENONENONEPrecipitatescalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.05NEGNEGNEGFree Waterscalar*Visual>0.05NEGNEGNEGVisc @ 40°CcStASTM D4454544.044.344.3SAMPLE IMAGESmethodlimit/basecurrenthistory1history2ColorScalar*Visualimit/basecurrenthistory1history2							
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.05NEGNEGNEGFree Waterscalar*VisualNEGNEGNEGNEGVisc @ 40°CcStASTM D4454544.044.344.3SAMPLE IMAGESmethodlimit/basecurrenthistory1history2	VISUAL		method	limit/base	current	history1	history2
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Debrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.05NEGNEGNEGFree Waterscalar*Visual>0.05NEGNEGNEGFree Waterscalar*VisualNEGNEGNEGFLUID PROPERTIESmethodlimit/basecurrenthistory1history2Visc @ 40°CcStASTM D4454544.044.344.3SAMPLE IMAGESmethodlimit/basecurrenthistory1history2	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.05NEGNEGNEGFree Waterscalar*VisualImit/basecurrenthistory1history2Visc @ 40°CcStASTM D4454544.044.344.3SAMPLE IMAGESmethodlimit/basecurrenthistory1history2	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.05NEGNEGNEGFree Waterscalar*VisualNEGNEGNEGNEGFLUID PROPERTIESmethodlimit/basecurrenthistory1history2Visc @ 40°CcStASTM D4454544.044.344.3SAMPLE IMAGESmethodlimit/basecurrenthistory1history2	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Odor       scalar       *Visual       NORML       NORML       NORML       NORML         Emulsified Water       scalar       *Visual       >0.05       NEG       NEG       NEG         Free Water       scalar       *Visual       >0.05       NEG       NEG       NEG         FLUID PROPERTIES       method       limit/base       current       history1       history2         Visc @ 40°C       cSt       ASTM D445       45       44.0       44.3       44.3         SAMPLE IMAGES       method       limit/base       current       history1       history2	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Emulsified Water       scalar       *Visual       >0.05       NEG       NEG       NEG         Free Water       scalar       *Visual       MEG       NEG       NEG       NEG         FLUID PROPERTIES       method       limit/base       current       history1       history2         Visc @ 40°C       cSt       ASTM D445       45       44.0       44.3       44.3         SAMPLE IMAGES       method       limit/base       current       history1       history2	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Free Waterscalar*VisualNEGNEGNEGFLUID PROPERTIESmethodlimit/basecurrenthistory1history2Visc @ 40°CcStASTM D4454544.044.344.3SAMPLE IMAGESmethodlimit/basecurrenthistory1history2	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
FLUID PROPERTIES       method       limit/base       current       history1       history2         Visc @ 40°C       cSt       ASTM D445       45       44.0       44.3       44.3         SAMPLE IMAGES       method       limit/base       current       history1       history2	Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
Visc @ 40°C cSt ASTM D445 45 44.0 44.3 44.3 SAMPLE IMAGES method limit/base current history1 history2	Free Water	scalar	*Visual		NEG	NEG	NEG
SAMPLE IMAGES method limit/base current history1 history2	FLUID PROPERT	IES	method	limit/base	current	history1	history2
	Visc @ 40°C	cSt	ASTM D445	45	44.0	44.3	44.3
Color	SAMPLE IMAGES	5	method	limit/base	current	history1	history2
	Color						

Bottom



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

Contact/Location: Service Manager - MAPWIL