

PROBLEM SUMMARY

Sample Rating Trend

VISUAL METAL

Machine I GEA NIRO SOAVI HOMOGENIZER NS5132H (S/N 14710) Component

Gearbox

Fluid KLUBER KLUBEROIL 4 UH1-220 N (55 LTR)

COMPONENT CONDITION SUMMARY

No relevant graphs to display

RECOMMENDATION

We advise that you check for visible metal particles in the oil. Wear particles and/or ppm levels are abnormally high indicating the need to review OEM limits with attention to components that may generate this type of wear. Include all test results and maintenance activities that have been performed since the abnormal condition was first detected in this review. The oil change at the time of sampling has been noted. An inspection for the source(s) of wear may be warranted at this time. We recommend an early resample to monitor this condition. Re-sampling is suggested to confirm test results prior to significant maintenance activities being performed. Please indicate that this is a resample on your Sample Information Form (SIF).

PROBLEMATIC TEST RESULTS								
Sample Status				SEVERE				
Ferrous Rubbing	Scale 0-10	ASTM D7684*			8			
Ferrous Rolling	Scale 0-10	ASTM D7684*		4				
White Metal	scalar	Visual*	NONE	🛑 HEAVY				
PrtFilter						no image	no image	

Customer Id: COCPET Sample No.: PP Lab Number: 02580798 Test Package: IND 3



To manage this report scan the QR code

To discuss the diagnosis or test data: Kevin Marson +1 (289)291-4644 x4644 Kevin.Marson@wearcheck.com

To change component or sample information: Gloria Gonzalez +1 (289)291-4643 x4643 gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS								
Action	Status	Date	Done By	Description				
Inspect Wear Source			?	An inspection for the source(s) of wear may be warranted at this time.				
Monitor			?	Wear particles and/or ppm levels are abnormally high indicating the need to review OEM limits with attention to components that may generate this type of wear. Include all test results and maintenance activities that have been performed since the abnormal condition was first detected in this review.				
Resample			?	We recommend an early resample to monitor this condition. Re-sampling is suggested to confirm test results prior to significant maintenance activities being performed. Please indicate that this is a resample on your Sample Information Form (SIF).				
Alert			?	Wear particles and/or ppm levels are abnormally high indicating the need to review OEM limits with attention to components that may generate this type of wear. Include all test results and maintenance activities that have been performed since the abnormal condition was first detected in this review.				
Check For Visual Metal			?	We advise that you check for visible metal particles in the oil.				

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend

VISUAL METAL

X

GEA NIRO SOAVI HOMOGENIZER NS5132H (S/N 14710)

Gearbox

KLUBER KLUBEROIL 4 UH1-220 N (55 LTR)

DIAGNOSIS

Recommendation

We advise that you check for visible metal particles in the oil. Wear particles and/or ppm levels are abnormally high indicating the need to review OEM limits with attention to components that may generate this type of wear. Include all test results and maintenance activities that have been performed since the abnormal condition was first detected in this review. The oil change at the time of sampling has been noted. An inspection for the source(s) of wear may be warranted at this time. We recommend an early resample to monitor this condition. Re-sampling is suggested to confirm test results prior to significant maintenance activities being performed. Please indicate that this is a resample on your Sample Information Form (SIF).

🛑 Wear

Wear particle analysis indicates that the ferrous rolling and ferrous rubbing particles are abnormal. High concentration of visible metal present. Gear wear is indicated.

Contaminants

There is no indication of any contamination in the oil.

Oil Condition

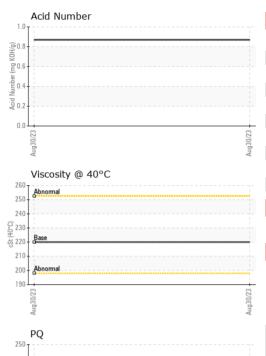
The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PP		
Sample Date		Client Info		30 Aug 2023		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		776		
Oil Changed		Client Info		Changed		
Sample Status				SEVERE		
WEAR METALS		method	limit/base	current	history1	history2
		ASTM D8184*	in the babb			
PQ			000	210		
Iron	ppm	ASTM D5185(m)	>200	137		
Chromium	ppm	ASTM D5185(m)	>15	0		
Nickel	ppm	()	>15	0		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>25	0		
Lead	ppm	ASTM D5185(m)	>100	14		
Copper	ppm	ASTM D5185(m)	>200	28		
Tin	ppm	ASTM D5185(m)	>25	7		
Antimony	ppm	ASTM D5185(m)	>5	0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		2		
Barium	ppm	ASTM D5185(m)		0		
Molybdenum	ppm	ASTM D5185(m)		0		
Manganese	ppm	ASTM D5185(m)		<1		
Magnesium	ppm	ASTM D5185(m)		0		
Calcium	ppm	ASTM D5185(m)		<1		
Phosphorus	ppm	ASTM D5185(m)		685		
Zinc	ppm	ASTM D5185(m)		11		
Sulfur	ppm	ASTM D5185(m)		859		
Lithium	ppm	ASTM D5185(m)		<1		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	21		
Sodium	ppm	ASTM D5185(m)		<1		
Potassium	ppm	ASTM D5185(m)	>20	0		
FLUID DEGRADA		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		0.87		



S,

OIL ANALYSIS REPORT



	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	Visual*	NONE	HEAVY		
	Yellow Metal	scalar	Visual*	NONE	NONE		
	Precipitate	scalar	Visual*	NONE	NONE		
	Silt	scalar	Visual*	NONE	NONE		
	Debris	scalar	Visual*	NONE	VLITE		
	Sand/Dirt	scalar	Visual*	NONE	NONE		
0/23	Appearance	scalar	Visual*	NORML	NORML		
Aug30/23	Odor	scalar	Visual*	NORML	NORML		
	Emulsified Water	scalar	Visual*	>0.2	NEG		
	Free Water	scalar	Visual*		NEG		
	FLUID PROPERT	TIES	method	limit/base	current	history1	history2
	Visc @ 40°C	cSt	ASTM D7279(m)	220	220		
-	SAMPLE IMAGES	S	method	limit/base	current	history1	history2
Aug30/23	Color					no image	no image
	Bottom					no image	no image
	PrtFilter					no image	no image
	GRAPHS						
	Ferrous Alloys			22	PQ		
	iron			20			
E	100 - chromium			18	30		
	30			16	50		
	0,23	**************	**********	EZ 14	10		
	Aug30/23			Aug30/23			
	Non-ferrous Metal	s		10	00 - Abnormal		
	³⁰ T				30 -		
1	20 - copper				50 -		
	a 10-				10 -		
	0		*****		20		
				30/23 -			
	Aug30/23			Aug30/23	Aug30/23		Aur30/23
	Viscosity @ 40°C			_	Acid Number		
	Abnormal			3 + Acid Number (mg KOH/g)	.0		
40°C)	240 - Base			Bun).			
) ಕ್ರ	200 - Abnormal			mper			
	180						
	Aug30/23			Aug30/23	Aug30/23		Aug30/23
Laboratory Sample No. Lab Number Unique Number	: WearCheck - C8-11 : PP I : 02580798 I	75 Applel Received Diagnose Diagnost	i : 06 ed : 11		L7L 5H9 COCA	81 LANSDOWN	CANADA INC
Laboratory			omAnalysis				

Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

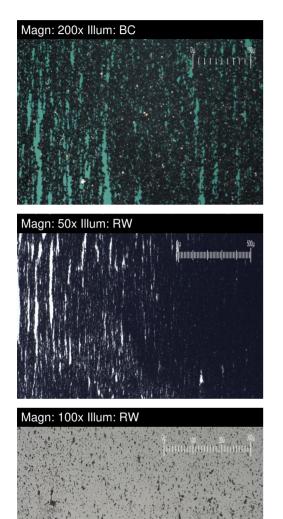
F: (705)742-4016



GEA NIRO SOAVI HOMOGENIZER NS5132H (S/N 14710)

Gearbox

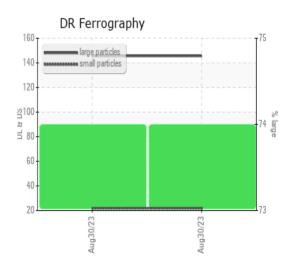
Fluid KLUBER KLUBEROIL 4 UH1-220 N (55 LTR)



DR-FERROGRAP	ΡΗΥ	method	limit/base	current	history1	history2
Large Particles		DR-Ferr*		145.6		
Small Particles		DR-Ferr*		21.8		
Total Particles		DR-Ferr*	>	167.4		
Large Particles Percentage	%	DR-Ferr*		74		
Severity Index		DR-Ferr*		18025		
FERROGRAPHY		method	limit/base	current	history1	history2
Ferrous Rubbing	Scale 0-10	ASTM D7684*		8	ž	, i i i i i i i i i i i i i i i i i i i
Ferrous Sliding	Scale 0-10	ASTM D7684*				
Ferrous Cutting	Scale 0-10	ASTM D7684*				
Ferrous Rolling	Scale 0-10	ASTM D7684*		4		
Ferrous Break-in	Scale 0-10	ASTM D7684*				
Ferrous Spheres	Scale 0-10	ASTM D7684*				
Ferrous Black Oxides	Scale 0-10	ASTM D7684*		2		
Ferrous Red Oxides	Scale 0-10	ASTM D7684*		_		
Ferrous Corrosive	Scale 0-10	ASTM D7684*		2		
Ferrous Other	Scale 0-10	ASTM D7684*		_		
Nonferrous Rubbing	Scale 0-10	ASTM D7684*				
Nonferrous Sliding	Scale 0-10	ASTM D7684*				
Nonferrous Cutting	Scale 0-10	ASTM D7684*				
Nonferrous Rolling	Scale 0-10	ASTM D7684*				
Nonferrous Other	Scale 0-10	ASTM D7684*				
Carbonaceous Material	Scale 0-10	ASTM D7684*				
Lubricant Degradation	Scale 0-10	ASTM D7684*		1		
Sand/Dirt	Scale 0-10	ASTM D7684*		1		
Fibres	Scale 0-10	ASTM D7684*				
Spheres	Scale 0-10	ASTM D7684*				
Other	Scale 0-10	ASTM D7684*		2		

WEAR

Wear particle analysis indicates that the ferrous rolling and ferrous rubbing particles are abnormal. High concentration of visible metal present. Gear wear is indicated.



This page left intentionally blank