

PROBLEM SUMMARY

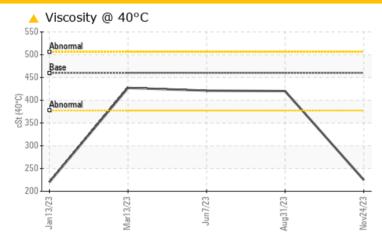
Area [412827297] Viscera Table Upper Gearbox

Gearbox

KLUBER KLUBEROIL 4 UH1-460 N (--- GAL)

Sample Rating Trend **VISCOSITY**

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Due to this condition we recommend the following action... We advise an early resample to confirm this situation. NOTE: The current sample results do not match this units historical trend, indicating the sample may not be from this component/unit.

PROBLEMATIC T	EST RE	SULTS				
Sample Status				ABNORMAL	ABNORMAL	NORMAL
Visc @ 40°C	cSt	ASTM D7279(m)	460	^ 225	420	421

Customer Id: CARGUE **Sample No.:** WC0881695 Lab Number: 02601064 Test Package: IND 2

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
Resample			?	We advise an early resample to confirm this situation.
Alert			?	NOTE: The current sample results do not match this units historical trend, indicating the sample may not be from this component/unit.

HISTORICAL DIAGNOSIS

31 Aug 2023 Diag: Kevin Marson

WATER



We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.All component wear rates are normal. Free water present. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.



07 Jun 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



13 Mar 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



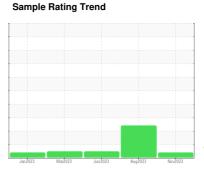


OIL ANALYSIS REPORT

Area [412827297] Viscera Table Upper Gearbox

Gearbox

KLUBER KLUBEROIL 4 UH1-460 N (--- GAL)





DIAGNOSIS

Recommendation

Due to this condition we recommend the following action... We advise an early resample to confirm this situation. NOTE: The current sample results do not match this units historical trend, indicating the sample may not be from this component/unit.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

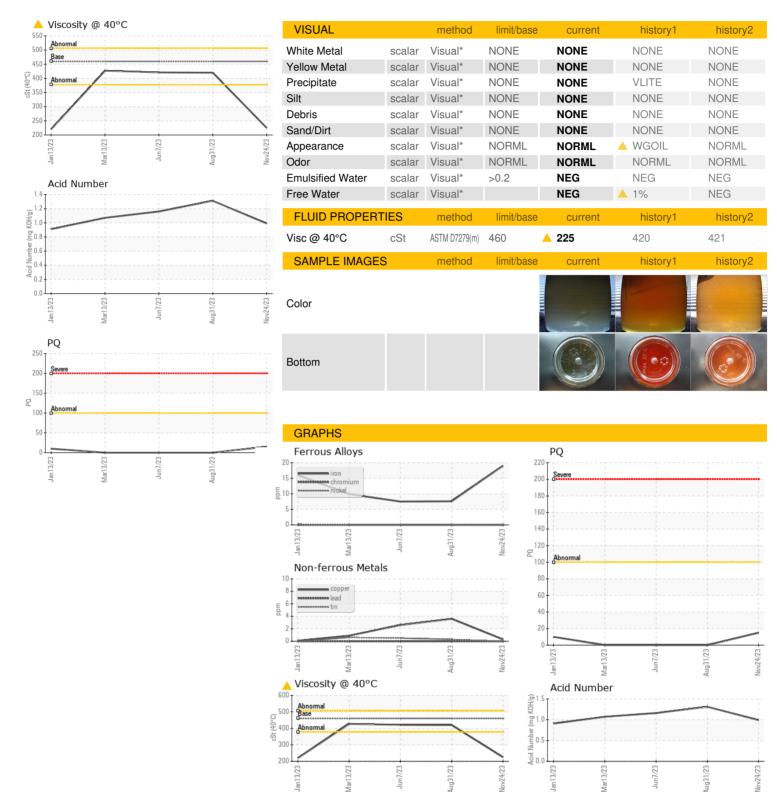
▲ Fluid Condition

Viscosity of sample indicates oil is within ISO 220 range, advise investigate. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Machine Age hrs Client Info 0 0 0 Oil Age hrs Client Info 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status Client Info N/A N/A N/A N/A ABNORMAL ABNORMAL NORMAL CONTAMINATION method limit/base current history1 history2 WEAR METALS method limit/base current history1 history2 PQ ASTM D5185/m >2200 19 8 8 8 Chromium ppm			Jan2023	Mar2023	Jun2023 Aug2023	Nov2023	
Sample Date Client Info 24 Nov 2023 31 Aug 2023 07 Jun 2023	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 0 0 0 0 Oil Age hrs Client Info 0 0 0 0 Oil Changed Client Info N/A N/A N/A Sample Status Image: Client Info N/A N/A N/A ASTM D8184* Band Total ABNORMAL ABNORMAL NORMAL Water WC Method 0-2.2 NEG NEG NEG WEAR METALS method limit/base current history2 history2 PQ ASTM D8184* 15 0 0 0 Vicon ppm ASTM D8188(m) >15 0 0 0 Chromium ppm ASTM D8188(m) 15 <1	Sample Number		Client Info		WC0881695	WC0812004	WC0821179
Oil Age hrs Client Info N/A N/A N/A N/A Sample Status Client Info N/A N/A N/A N/A N/A CONTAMINATION method limit/base current history1 history2 Water WC Method >0.2 NEG NEG NEG WEAR METALS method limit/base current history1 history2 PQ ASTM D8184* 15 0 0 0 Iron ppm ASTM D8185(m) >20.0 19 8 8 Chromium ppm ASTM D8185(m) >15 0 0 0 Chromium ppm ASTM D8185(m) >15 <1	Sample Date		Client Info		24 Nov 2023	31 Aug 2023	07 Jun 2023
Oil Changed Client Info N/A ABNORMAL NORMAL N	Machine Age	hrs	Client Info		0	0	0
Sample Status	Oil Age	hrs	Client Info		0	0	0
CONTAMINATION method limit/base current history1 history2 Water WC Method >0.2 NEG NEG NEG WEAR METALS method limit/base current history1 history2 PQ ASTM D81844* 15 0 0 0 Iron ppm ASTM D8185(m) >15 0 0 0 Chromium ppm ASTM D8185(m) >15 0 0 0 Nickel ppm ASTM D8185(m) >15 <1 0 0 Silver ppm ASTM D8185(m) >25 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	Oil Changed		Client Info		N/A	N/A	N/A
Water WC Method >0.2 NEG NEG NEG WEAR METALS method limit/base current history1 history2 PQ ASTM D8184* 15 0 0 Iron ppm ASTM D8185(m) >10 0 0 Chromium ppm ASTM D8185(m) >15 0 0 0 Nickel ppm ASTM D8185(m) >15 <1	Sample Status				ABNORMAL	ABNORMAL	NORMAL
WEAR METALS method limit/base current history1 history2 PQ ASTM D8184* 15 0 0 Iron ppm ASTM D5185(m) >200 19 8 8 Chromium ppm ASTM D5185(m) >15 0 0 0 Nickel ppm ASTM D5185(m) >15 <1 0 0 Titanium ppm ASTM D5185(m) >15 <1 0 0 Aluminum ppm ASTM D5185(m) >25 <1 <1 <1 <1 Lead ppm ASTM D5185(m) >20 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	CONTAMINATION	V	method	limit/base	current	history1	history2
PQ	Water		WC Method	>0.2	NEG	NEG	NEG
Chromium	WEAR METALS		method	limit/base	current	history1	history2
Chromium ppm ASTM D5185(m) >15 0 0 0 Nickel ppm ASTM D5185(m) >15 <1	PQ		ASTM D8184*		15	0	0
Chromium ppm ASTM D5185(m) >15 0 0 0 Nickel ppm ASTM D5185(m) >15 <1		ppm		>200			8
Titanium ppm ASTM D5185(m) 0 0 0 Silver ppm ASTM D5185(m) <1	Chromium		(/	>15	0	0	0
Titanium ppm ASTM D5185(m) 0 0 0 Silver ppm ASTM D5185(m) <1	Nickel		. ,	>15		0	0
Silver	Titanium		ASTM D5185(m)		0	0	0
Lead	Silver		ASTM D5185(m)		<1	0	0
Copper ppm ASTM D5185(m) >200 <1	Aluminum	ppm	ASTM D5185(m)	>25	<1	<1	<1
Tin ppm ASTM D5185(m) >25 0 <1	Lead	ppm	ASTM D5185(m)	>100	0	0	0
Antimony ppm ASTM D5185(m) >5 0 0 0 Vanadium ppm ASTM D5185(m) 0 0 0 0 Beryllium ppm ASTM D5185(m) 0 0 0 0 Cadmium ppm ASTM D5185(m) 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) <1	Copper	ppm	ASTM D5185(m)	>200	<1	4	3
Vanadium ppm ASTM D5185(m) 0 0 0 0 Beryllium ppm ASTM D5185(m) 0 0 0 0 Cadmium ppm ASTM D5185(m) 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) <1 1 <1 Barium ppm ASTM D5185(m) <1 0 0 Molybdenum ppm ASTM D5185(m) 0 0 0 0 Magnesium ppm ASTM D5185(m) 0 <1 <1 <1 Magnesium ppm ASTM D5185(m) 3 0 0 0 Calcium ppm ASTM D5185(m) 1 9 6 Phosphorus ppm ASTM D5185(m) 580 648 680 Zinc ppm ASTM D5185(m) 20 6 4 Sulfur ppm <th>Tin</th> <th>ppm</th> <th>ASTM D5185(m)</th> <th>>25</th> <th>0</th> <th><1</th> <th><1</th>	Tin	ppm	ASTM D5185(m)	>25	0	<1	<1
Beryllium ppm ASTM D5185(m) 0 0 0 Cadmium ppm ASTM D5185(m) 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) <1	Antimony	ppm	ASTM D5185(m)	>5	0	0	0
Cadmium ppm ASTM D5185(m) 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) <1 1 <1 Barium ppm ASTM D5185(m) <1 0 0 Molybdenum ppm ASTM D5185(m) 0 0 0 Manganese ppm ASTM D5185(m) 3 0 0 Magnesium ppm ASTM D5185(m) 3 0 0 Calcium ppm ASTM D5185(m) 580 648 680 Phosphorus ppm ASTM D5185(m) 580 648 680 Zinc ppm ASTM D5185(m) 602 609 601 Lithium ppm ASTM D5185(m) <1 <1 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >50 16	Vanadium	ppm	ASTM D5185(m)		0	0	0
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) <1 1 <1 Barium ppm ASTM D5185(m) <1 0 0 Molybdenum ppm ASTM D5185(m) 0 0 0 Manganese ppm ASTM D5185(m) 3 0 0 Magnesium ppm ASTM D5185(m) 3 0 0 Calcium ppm ASTM D5185(m) 1 9 6 Phosphorus ppm ASTM D5185(m) 580 648 680 Zinc ppm ASTM D5185(m) 20 6 4 Sulfur ppm ASTM D5185(m) 602 609 601 Lithium ppm ASTM D5185(m) <1 <1 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >20 <1	Beryllium	ppm	ASTM D5185(m)		0	0	0
Boron ppm ASTM D5185(m) <1	Cadmium	ppm	ASTM D5185(m)		0	0	0
Barium ppm ASTM D5185(m) <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185(m) 0 0 0 Manganese ppm ASTM D5185(m) 0 <1	Boron	ppm	ASTM D5185(m)		<1	1	<1
Manganese ppm ASTM D5185(m) 0 <1	Barium	ppm	ASTM D5185(m)		<1	0	0
Magnesium ppm ASTM D5185(m) 3 0 0 Calcium ppm ASTM D5185(m) 1 9 6 Phosphorus ppm ASTM D5185(m) 580 648 680 Zinc ppm ASTM D5185(m) 20 6 4 Sulfur ppm ASTM D5185(m) 602 609 601 Lithium ppm ASTM D5185(m) <1	Molybdenum	ppm	ASTM D5185(m)		0	0	0
Calcium ppm ASTM D5185(m) 1 9 6 Phosphorus ppm ASTM D5185(m) 580 648 680 Zinc ppm ASTM D5185(m) 20 6 4 Sulfur ppm ASTM D5185(m) 602 609 601 Lithium ppm ASTM D5185(m) <1 <1 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >50 16 13 12 Sodium ppm ASTM D5185(m) >20 <1 <1 <1 Potassium ppm ASTM D5185(m) >20 <1 <1 0	Manganese	ppm	ASTM D5185(m)		0	<1	<1
Phosphorus ppm ASTM D5185(m) 580 648 680 Zinc ppm ASTM D5185(m) 20 6 4 Sulfur ppm ASTM D5185(m) 602 609 601 Lithium ppm ASTM D5185(m) <1 <1 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >50 16 13 12 Sodium ppm ASTM D5185(m) <1 1 <1 Potassium ppm ASTM D5185(m) >20 <1 <1 0 FLUID DEGRADATION method limit/base current history1 history2	Magnesium	ppm	ASTM D5185(m)		3	0	0
Zinc ppm ASTM D5185(m) 20 6 4 Sulfur ppm ASTM D5185(m) 602 609 601 Lithium ppm ASTM D5185(m) <1 <1 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >50 16 13 12 Sodium ppm ASTM D5185(m) <1 1 <1 Potassium ppm ASTM D5185(m) >20 <1 <1 0 FLUID DEGRADATION method limit/base current history1 history2	Calcium	ppm	ASTM D5185(m)		1	9	6
Sulfur ppm ASTM D5185(m) 602 609 601 Lithium ppm ASTM D5185(m) <1	Phosphorus	ppm	ASTM D5185(m)		580	648	680
Lithium ppm ASTM D5185(m) <1	Zinc	ppm	ASTM D5185(m)		20	6	4
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >50 16 13 12 Sodium ppm ASTM D5185(m) <1 1 <1 Potassium ppm ASTM D5185(m) >20 <1 <1 0 FLUID DEGRADATION method limit/base current history1 history2	Sulfur	ppm	. ,			609	601
Silicon ppm ASTM D5185(m) >50 16 13 12 Sodium ppm ASTM D5185(m) <1	Lithium	ppm	ASTM D5185(m)		<1	<1	<1
Sodium ppm ASTM D5185(m) <1	CONTAMINANTS	}	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185(m) >20 <1	Silicon	ppm	ASTM D5185(m)	>50	16	13	12
Potassium ppm ASTM D5185(m) >20 <1	Sodium		ASTM D5185(m)		<1		<1
			ASTM D5185(m)	>20		<1	
Acid Number (AN) mg KOH/g ASTM D974* 0.99 1.31 1.16	FLUID DEGRADA	NOITA	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D974*		0.99	1.31	1.16



OIL ANALYSIS REPORT





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number **Unique Number**

: 02601064

: WC0881695

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received Diagnosed

: 05 Dec 2023

: 07 Dec 2023

: Kevin Marson

: 5694149 Diagnostician Test Package : IND 2 (Additional Tests: TAN Man)

To discuss this sample report, contact Customer Service at 1-800-268-2131. 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.

Cargill Meat Solutions 165 Dunlop Drive

Guelph, ON CA N1L 1P4 Contact: Jakub Posluszny jakub_posluszny@cargill.com

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