

OIL ANALYSIS REPORT

Sample Rating Trend



Area **Process Cheese [98843093]** Machine Id **BLENDER 1** Component

Gearbox Fluid GEAR OIL ISO 320 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

All component wear rates are normal.

Contamination

Moderate concentration of visible dirt/debris present in the oil.

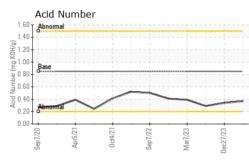
Fluid Condition

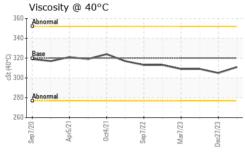
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sample Number Client Info PCA0117984 PCA0114268 PCA009686 Sample Date Client Info 22 Feb 2024 27 Dec 2023 24 May 2023 Machine Age hrs Client Info 0 0 0 Oil Age hrs Client Info 0 0 0 Oil Age hrs Client Info 0 0 0 0 Oil Age Client Info 0 0 0 0 0 Oil Age Client Info 0 0 0 0 0 Sample Status method limit/base current history! Mistory! Water WC Method >.200 0 <1			otproto	April Galact	our maroro o		
Sample Date Client Info 22 Feb 2024 27 Dec 2023 24 May 2023 Machine Age hrs Client Info 0 0 0 Dil Age hrs Client Info 0 0 0 Sample Status Client Info Filtered Filtered Filtered Filtered Sample Status ContrAtMINATION method Imit/base current history1 history2 Water WC Method >0.2 NEG NEG NEG WEAR METALS method Imit/base current history1 history2 Vice ppm ASTM 05185m >15 0 0 0 Nickel ppm ASTM 05185m >15 0 0 0 Lead ppm ASTM 05185m >220 0 0 0 0 Vanadium ppm ASTM 05185m >200 0 0 0 Vanadium ppm ASTM 05185m 50 0 0	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 0 0 0 Oil Qanged Client Info 0 0 0 0 Sample Status Client Info Filtered Filtered Filtered Filtered Sample Status Client Info Sample Status NCR ABNORMAL ABNORMAL CONTAMINATION method Imitbase current history1 history1 Water WC Method >0.2 NEG NEG NEG WEAR METALS method Imitbase current history1 history1 Nickel ppm ASTM 05185m >200 0 -1 0 Nickel ppm ASTM 05185m >10 0 0 -1 Aluminum ppm ASTM 05185m >20 0 0 -1 Quandium ppm ASTM 05185m >20 0 0 0 Claramum ppm ASTM 05185m >20 0 0 -1	Sample Number		Client Info		PCA0117984	PCA0114268	PCA0096862
Oil Age hrs Client Info 0 0 0 Oil Changed Client Info Filtered Filtered Filtered Filtered Sample Status Image Image Image NoRMAL ABNORMAL CONTAMINATION method Imit/base current history1 history2 Water WC Method >0.2 NEG NEG NEG Othornium ppm ASTM 05185m >200 0 <1	Sample Date		Client Info		22 Feb 2024	27 Dec 2023	24 May 2023
Oil Changed Client Info Filtered Filtered	Machine Age	hrs	Client Info		0	0	0
Sample Status ABNORMAL NORMAL ABNORMAL CONTAMINATION method limit/base current history1 history2 Water WC Method >0.2 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >515 0 0 0 Chromium ppm ASTM D5185m >15 0 0 0 Silver ppm ASTM D5185m >220 0 0 -1 0 Copper ppm ASTM D5185m >220 0 0 0 -1 Cadmium ppm ASTM D5185m >200 0 0 0 0 Cadmium ppm ASTM D5185m >200 0 0 0 0 Cadmium ppm ASTM D5185m 50 0 0 0 0 Manadum ppm ASTM D5185m 50	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 Iron ppm ASTM D5185m >200 0 <1	Oil Changed		Client Info		Filtered	Filtered	Filtered
Water WC Method >0.2 NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >200 0 <1	Sample Status				ABNORMAL	NORMAL	ABNORMAL
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >200 0 <1	CONTAMINAT	ION	method	limit/base	current	history1	history2
ron ppm ASTM D5185m >200 0 <1 0 Nickel ppm ASTM D5185m >15 <1	Water		WC Method	>0.2	NEG	NEG	NEG
Dromium ppm ASTM D5185m >15 <1 <1 <1 <1 Nickel ppm ASTM D5185m >15 0 0 0 Silver ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m 225 0 2 -1 Lead ppm ASTM D5185m >200 0 0 -1 Copper ppm ASTM D5185m >200 0 0 0 Cadmium ppm ASTM D5185m >200 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 15 0 0 0 Magaaese ppm ASTM D5185m 50 <1	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >15 0 0 0 Titanium ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m >25 0 2 -1 Lead ppm ASTM D5185m >200 0 0 -1 Copper ppm ASTM D5185m >200 0 0 -1 Vanadium ppm ASTM D5185m >200 0 0 0 0 Cadmium ppm ASTM D5185m 50 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 15 0 0 0 Magnesum ppm ASTM D5185m 50 1 <1	Iron	ppm	ASTM D5185m	>200	0	<1	0
Titanium ppm ASTM D5185m 0 0 0 Silver ppm ASTM D5185m S25 0 2 <1	Chromium	ppm	ASTM D5185m	>15	<1	<1	<1
Silver ppm ASTM D5185m 0 0 <1 Aluminum ppm ASTM D5185m >25 0 2 <1	Nickel	ppm	ASTM D5185m	>15	0	0	0
Silver ppm ASTM D5185m 0 0 <1 Aluminum ppm ASTM D5185m >25 0 2 <1	Titanium		ASTM D5185m		0	0	0
Aluminum ppm ASTM D5185m >25 0 2 <1 Lead ppm ASTM D5185m >100 0 0 <1	Silver		ASTM D5185m			0	<1
Lead ppm ASTM D5185m >100 0 0 <11 Copper ppm ASTM D5185m >200 0 0 0 0 Tin ppm ASTM D5185m >25 0 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 0 Cadmium ppm ASTM D5185m 50 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 50 0 0 0 0 Manganese ppm ASTM D5185m 15 0 0 10 10 Calcium ppm ASTM D5185m 50 1 <1 0 7 Sulfur ppm ASTM D5185m 50 1 <100 0 <100 CONTAMINANTS method limit/base current history1 history2	Aluminum			>25		2	<1
Copper ppm ASTM D5185m >200 0 0 0 Tin ppm ASTM D5185m >25 0 0 <1	Lead		ASTM D5185m	>100	0	0	
Tin ppm ASTM D5185m >25 0 0 <1 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 50 0 0 0 Barium ppm ASTM D5185m 15 0 0 <1						0	
Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 50 0 0 0 0 Barium ppm ASTM D5185m 15 0 0 <1	Tin				-		
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 50 0 0 0 0 Barium ppm ASTM D5185m 15 0 0 0 0 Manganese ppm ASTM D5185m 15 0 0 <1 Magnesium ppm ASTM D5185m 50 <1 0 10 Calcium ppm ASTM D5185m 50 <1 0 0 0 Magnesium ppm ASTM D5185m 50 1 <1 0 0 Calcium ppm ASTM D5185m 50 1 <1 0 0 Stifur ppm ASTM D5185m 12500 1085 1130 1006 CONTAMINANTS method limit/base current history1 history2 Stolium ppm	Vanadium						
Boron ppm ASTM D5185m 50 0 0 0 Barium ppm ASTM D5185m 15 0 0 0 Molybdenum ppm ASTM D5185m 15 0 0 <1	Cadmium						
Barium ppm ASTM D5185m 15 0 0 0 Molybdenum ppm ASTM D5185m 15 0 0 <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 15 0 0 <1 Manganese ppm ASTM D5185m 50 <1	Boron	ppm	ASTM D5185m	50	0	0	0
Manganese ppm ASTM D5185m <1 0 <1 Magnesium ppm ASTM D5185m 50 <1	Barium	ppm	ASTM D5185m	15	0	0	0
Magnesium ppm ASTM D5185m 50 <1 0 10 Calcium ppm ASTM D5185m 50 1 <1	Molybdenum	ppm	ASTM D5185m	15	0	0	<1
Calcium ppm ASTM D5185m 50 1 <1 0 Phosphorus ppm ASTM D5185m 350 434 451 489 Zinc ppm ASTM D5185m 100 0 0 7 Sulfur ppm ASTM D5185m 12500 1085 1130 1006 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 2 3 2 Sodium ppm ASTM D5185m >20 0 <1	Manganese	ppm	ASTM D5185m		<1	0	<1
Phosphorus ppm ASTM D5185m 350 434 451 489 Zinc ppm ASTM D5185m 100 0 0 7 Sulfur ppm ASTM D5185m 12500 1085 1130 1006 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 2 3 2 Sodium ppm ASTM D5185m >50 2 3 2 Sodium ppm ASTM D5185m >20 0 <1	Magnesium	ppm	ASTM D5185m	50	<1	0	10
Zinc ppm ASTM D5185m 100 0 0 7 Sulfur ppm ASTM D5185m 12500 1085 1130 1006 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 2 3 2 Sodium ppm ASTM D5185m >50 2 3 2 Sodium ppm ASTM D5185m >50 2 3 2 Sodium ppm ASTM D5185m >20 0 <1	Calcium	ppm	ASTM D5185m	50	1	<1	0
Sulfur ppm ASTM D5185m 12500 1085 1130 1006 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 2 3 2 Sodium ppm ASTM D5185m >50 2 3 2 Sodium ppm ASTM D5185m >50 2 3 2 Sodium ppm ASTM D5185m >50 2 3 2 Potassium ppm ASTM D5185m >20 0 <11 1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >1300 183 Particles >6µm ASTM D7647 >30 42 Particles >14µm ASTM D7647 >80 3 Particles >21µm ASTM D7647 >3 1	Phosphorus	ppm	ASTM D5185m	350	434	451	489
CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>50232SodiumppmASTM D5185m>50232PotassiumppmASTM D5185m>200<1	Zinc	ppm	ASTM D5185m	100	0	0	7
Silicon ppm ASTM D5185m >50 2 3 2 Sodium ppm ASTM D5185m 0 0 0 <1	Sulfur	ppm	ASTM D5185m	12500	1085	1130	1006
Sodium ppm ASTM D5185m 0 0 <1 Potassium ppm ASTM D5185m<>20 0 <1	CONTAMINAN	ITS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 0 <1 1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >1300 183 Particles >6µm ASTM D7647 >320 42 Particles >6µm ASTM D7647 >80 6 Particles >14µm ASTM D7647 >20 3 Particles >21µm ASTM D7647 >20 3 Particles >38µm ASTM D7647 >4 1 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >17/15/13 15/13/10 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.85 0.37 0.34 0.29 <	Silicon	ppm	ASTM D5185m	>50	2	3	2
FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >1300 183 Particles >6µm ASTM D7647 >320 42 Particles >6µm ASTM D7647 >80 6 Particles >14µm ASTM D7647 >80 6 Particles >21µm ASTM D7647 >20 3 Particles >21µm ASTM D7647 >20 3 Particles >38µm ASTM D7647 >4 1 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >17/15/13 15/13/10 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.85 0.37 0.34 0.29	Sodium	ppm	ASTM D5185m		0	0	<1
Particles >4μm ASTM D7647 >1300 183 Particles >6μm ASTM D7647 >320 42 Particles >14μm ASTM D7647 >80 6 Particles >14μm ASTM D7647 >80 6 Particles >21μm ASTM D7647 >20 3 Particles >21μm ASTM D7647 >4 3 Particles >38μm ASTM D7647 >4 1 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >17/15/13 15/13/10 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.85 0.37 0.34 0.29	Potassium	ppm	ASTM D5185m	>20	0	<1	1
Particles >6µm ASTM D7647 >320 42 Particles >14µm ASTM D7647 >80 6 Particles >14µm ASTM D7647 >20 3 Particles >21µm ASTM D7647 >20 3 Particles >38µm ASTM D7647 >4 1 Particles >38µm ASTM D7647 >3 0 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >17/15/13 15/13/10 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.85 0.37 0.34 0.29	FLUID CLEAN	LINESS	method	limit/base	current	history1	history2
Particles >14µm ASTM D7647 >80 6 Particles >21µm ASTM D7647 >20 3 Particles >21µm ASTM D7647 >20 3 Particles >38µm ASTM D7647 >4 1 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >17/15/13 15/13/10 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.85 0.37 0.34 0.29	Particles >4µm		ASTM D7647	>1300		183	
Particles >21µm ASTM D7647 >20 3 Particles >38µm ASTM D7647 >4 1 Particles >38µm ASTM D7647 >4 1 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >17/15/13 15/13/10 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.85 0.37 0.34 0.29	Particles >6µm		ASTM D7647	>320		42	
Particles >38μm ASTM D7647 >4 1 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >17/15/13 15/13/10 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.85 0.37 0.34 0.29	Particles >14µm		ASTM D7647	>80		6	
Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >17/15/13 15/13/10 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.85 0.37 0.34 0.29	Particles >21µm		ASTM D7647	>20		3	
Oil Cleanliness ISO 4406 (c) >17/15/13 15/13/10 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.85 0.37 0.34 0.29	Particles >38µm		ASTM D7647	>4		1	
FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.85 0.37 0.34 0.29	Particles >71µm		ASTM D7647	>3		0	
Acid Number (AN) mg KOH/g ASTM D8045 0.85 0.37 0.34 0.29	Oil Cleanliness		ISO 4406 (c)	>17/15/13		15/13/10	
	FLUID DEGRAI		method	limit/base	current	history1	history2
:19:55) Rev: 1 Contact/Location: Service Manager - KRASPRM	Acid Number (AN)	mg KOH/g	ASTM D8045	0.85	0.37	0.34	0.29
				Co	ntact/l ocation:	Service Manage	r - KRASPRM



OIL ANALYSIS REPORT





VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	🔺 MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	A MODER	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	0.2%
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	320	311	305	309
SAMPLE IMAG	iES	method	limit/base	current	history1	history2
Color						
Bottom						

