

### **OIL ANALYSIS REPORT**



Machine Id

## CDM104443

Gear Unit Fluid GEAR OIL (PAG) ISO 220 (24 LTR)

#### DIAGNOSIS

#### A Recommendation

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 use off-line filtration with water adsorbent filters to attempt to remove the water from this oil. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

#### Wear

All component wear rates are normal.

#### Contamination

There is a moderate concentration of water present in the oil.

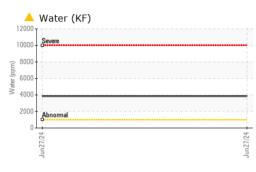
#### Fluid Condition

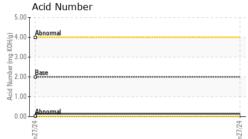
The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

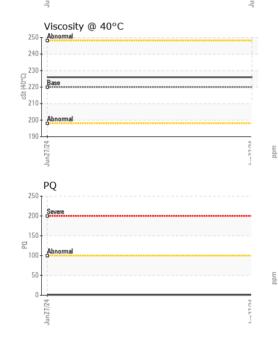
SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0942013		
Sample Date		Client Info		27 Jun 2024		
Machine Age	yrs	Client Info		2		
Oil Age	yrs	Client Info		2		
Oil Changed		Client Info		Not Changd		
Sample Status				ABNORMAL		
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		1		
Iron	ppm	ASTM D5185(m)	>150	0		
Chromium	ppm	ASTM D5185(m)	>10	0		
Nickel	ppm	ASTM D5185(m)	>10	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	0		
Copper	ppm	ASTM D5185(m)	>50	0		
Tin	ppm	ASTM D5185(m)	>10	0		
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)	5	<1		
Barium	ppm	ASTM D5185(m)	5	0		
Molybdenum	ppm	ASTM D5185(m)	5	0		
Manganese	ppm	ASTM D5185(m)		0		
Magnesium	ppm	ASTM D5185(m)	5	0		
Calcium	ppm	ASTM D5185(m)	5	11		
Phosphorus	ppm	ASTM D5185(m)	775	939		
Zinc	ppm	ASTM D5185(m)	5	2		
Sulfur	ppm	ASTM D5185(m)	2000	45		
Lithium	ppm	ASTM D5185(m)		<1		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	0		
Sodium	ppm	ASTM D5185(m)		0		
Potassium	ppm	ASTM D5185(m)	>20	0		
Water	%	ASTM D6304*	>0.1	<u> </u>		
ppm Water	ppm	ASTM D6304*	>1000	<b>A</b> 3854		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	2.00	0.14		



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		method	limit/base	current	history1	histor
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Precipitate	scalar	Visual*	NONE	NONE		
Silt	scalar	Visual*	NONE	NONE		
Debris	scalar	Visual*	NONE	NONE		
Sand/Dirt	scalar	Visual*	NONE	NONE		
Appearance	scalar	Visual*	NORML			
Odor	scalar	Visual*	NORML	NORML		
Emulsified Water	scalar	Visual*	>0.1	NEG		
Free Water	scalar	Visual*		NEG		
FLUID PROPER	RTIES	method	limit/base	current	history1	histor
Visc @ 40°C	cSt	ASTM D7279(m)	220	226		
SAMPLE IMAG	ES	method	limit/base	current	history1	histor
Color					no image	no imag
Bottom					no image	no imag
GRAPHS Ferrous Allovs				РО		
GRAPHS Ferrous Alloys			22	PQ		
Ferrous Alloys			20	0 0 0 0		
Ferrous Alloys			18	0 - Severe		
Ferrous Alloys			20 18 16 16 14 12 12 12	00 - Severe		
Ferrous Alloys	als		20 18 16	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
Ferrous Alloys	als		20 18 70 70 70 70 70 70 70 70 70 70 70 70 70	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
Ferrous Alloys	als		20 14 14 14 14 14 14 14 14 14 14 14 14 14	0 - Savere 0 - Savere 0		
Ferrous Alloys	als		20 14 14 12 12 12 12 12 12 12 12 12 12 12 12 12	2		
Ferrous Alloys	als		20 14 14 12 12 12 12 12 12 12 12 12 12 12 12 12	0 - Savere 0 - Savere 0		
Ferrous Alloys	als		20 18 14 14 10 10 10 10	2		
Ferrous Alloys	als		20 18 16 16 17 17 17 17 10 10 10 10 10 10 10 10 10 10 10 10 10	0 Severe   0 Severe   0 -   0 -   0 -   0 -   0 -   0 -   0 -   0 -   0 -   0 -		
Ferrous Alloys	als		20 18 14 14 14 12 12 12 12 12 12 14 14 14 14 14 14 14 14 14 14 14 14 14	0 Severe   0 Severe   0 -   0 -   0 -   0 -   0 -   0 -   0 -   0 -   0 -   0 -		
Ferrous Alloys			47/200 10 10 10 10 10 10 10 10 10	Acid Number		
Ferrous Alloys			47/200 10 10 10 10 10 10 10 10 10	Acid Number		
Ferrous Alloys			PH0 P12/12unn P12/12unn P10 P10 P10 P10 P10 P10 P10 P10	Acid Number		
Ferrous Alloys			PH0 P12/12unn P12/12unn P10 P10 P10 P10 P10 P10 P10 P10	Acid Number		
Ferrous Alloys			PH0 P12/12unn P12/12unn P10 P10 P10 P10 P10 P10 P10 P10	Acid Number		
Ferrous Alloys			PH0 P12/12unn P12/12unn P10 P10 P10 P10 P10 P10 P10 P10	Acid Number		
Ferrous Alloys			47/200 10 10 10 10 10 10 10 10 10	Acid Number		

Accredited Laboratory Unique Number : 58 Test Package : IND 2 ( Additional Tests: KF, 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.

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CALA

ISO 17025:2017

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