

## **OIL ANALYSIS REPORT**



Machine Id

#### DR182 Component

Gearbox Fluid GEAR OIL ISO 220 (--- LTR)

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

#### Fluid Condition

Viscosity of sample indicates oil is within ISO 46 range, advise investigate. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PC0087899		
Sample Date		Client Info		15 May 2024		
Machine Age	hrs	Client Info		9509		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				ABNORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
PQ		ASTM D8184*		0		
Iron	ppm	ASTM D5185(m)	>200	5		
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	<1		
Lead	ppm	ASTM D5185(m)	>50	1		
Copper	ppm	ASTM D5185(m)	>200	<1		
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)	50	4		
Barium	ppm	ASTM D5185(m)	15	0		
Molybdenum	ppm	ASTM D5185(m)	15	0		
Manganese	ppm	ASTM D5185(m)		0		
Magnesium	ppm	ASTM D5185(m)	50	3		
Calcium	ppm	ASTM D5185(m)	50	7		
Phosphorus	ppm	ASTM D5185(m)	350	389		
Zinc	ppm	ASTM D5185(m)	100	17		
Sulfur	ppm	ASTM D5185(m)	12500	1993		
Lithium	ppm	ASTM D5185(m)		<1		
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	0		
Sodium	ppm	ASTM D5185(m)		3		
Potassium	ppm	ASTM D5185(m)	>20	<1		
FLUID DEGRAD	DATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.85	0.11		



(40°C) 120 cSt 100 cSt

150 20

1.40 1.20 1.00 1.00 0.80 0.60

U 0.40

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		White Metal						
		winte meta	scalar	Visual*	NONE	NONE		
		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		
	15/24	Appearance	scalar	Visual*	NORML	NORML		
	May	Odor	scalar	Visual*	NORML	NORML		
		Emulsified Water	scalar	Visual*	>0.2	NEG		
		Free Water	scalar	Visual*		NEG		
		FLUID PROPE	RTIES	method	limit/base	current	history1	history2
		Visc @ 40°C	cSt	ASTM D7279(m)	220	<b>45.0</b>		
		Visc @ 100°C	cSt	ASTM D7279(m)	19.0	<u> </u>		
		Viscosity Index (VI)	Scale	ASTM D2270*	96	139		
	_	SAMPLE IMAG	FS	method	limit/base	current	historv1	history2
	y15/24							
	Ma							
		Color					no image	no image
		Bottom					no image	no image
		GRAPHS						
*****						PO		
	1 5 70 4	<sup>10</sup> T			22			
	A.A.	8 - iron			20	00 - Severe		
		a 4			18	30 -		
		2			16	50		
		54 D	*******	**********************	* 14	10 -		
		ay15/			12 av 15/	20		
			c			00 - Abnormal		
		<sup>10</sup> T			8	30 -		
		8 - copper			6	50 -		
	5	a 4			4	+0		
	1 L 12	2			2	20 -		
	N.N.	54 L 0			24	0		
		lay15/			lay15/	ay 15/2		
		Viscosity @ 40°C			2			
		250 Abnormal			 ₽2.0			
	3				9 1.5	Abnormal		
	t (40°	100			<u>ل</u> ے او 1.0	00 - Base		
	ég	50-				50 - Abnormal		
		0			0.0 Acid			
		y15/2			v15/2	y15/2		
	ple No.	: WearCheck - C8-1175 : PC0087899		ived : 28	gton, ON L7		. ,	286 · Shoring & Found Ram Forest I Stouffville, (
					May 2024 - Ke	vin Maraan		CA L4A 2
Accredited Unia	le Number	: 5/8/400	DIAOU	losed out	11/1av 2024 - NH	VIII Maisun		
Laboratory	le Number : Package :	: 5787400 : IND 2 ( Additional Tes	Diagr ts: KV10				Co	ntact: Bill Ac
	Sam	Correction Control of the second seco	Silt Debris Sand/Dirt Appearance Odor Emulsified Water Free Water FLUID PROPE Visc @ 40°C Visc @ 100°C Visc @ 100°C Viscosity Index (VI) SAMPLE IMAC Color Bottom GRAPHS Ferrous Alloys Out of the second	Sitt scalar Debris scalar Sand/Dirt scalar Appearance scalar Odor scalar Free Water scalar Free Water scalar Free Water scalar Full D PROPERTIES Visc @ 40°C cSt Visc @ 100°C cSt Visc @ 10°C cSt Visc @ 10°C cSt Sample No. : WearCheck - C8-1175 Appleb : PC0087899 Rece	Silt scalar Visual* Debris scalar Visual* Appearance scalar Visual* Appearance scalar Visual* Codor scalar Visual* Emulsified Water scalar Visual* Free Water scalar Visual* Full D PROPERTIES method Visc @ 40°C cSt ASTM 02270* SAMPLE IMAGES method Color Bottom GRAPHS Ferrous Alloys 	Sitt scalar Visual* NONE Sand/Dit scalar Visual* NONE Sand/Dit scalar Visual* NONE Scalar Visual* NONE Debris scalar Visual* NONE Scalar Visual* NONE Debris scalar Visual* NONE Scalar Visual* NORML Emulsified Water scalar Visual* NORML Emulsified Water scalar Visual* NORML Emulsified Water scalar Visual* NORML Emulsified Water scalar Visual* NORML Scalar Visual* NORML Emulsified Water scalar Visual* NORML Scalar Visual* NORML Emulsified Water scalar Visual* NORML Scalar Visual* NORML Emulsified Water scalar Visual* NORML More ferrous Metals Viscosity @ 40°C Viscosity @ 40°C Viscosity @ 40°C Viscosity @ 40°C Viscosity @ 40°C Viscosity @ 40°C Viscosity @ 40°C Wiscosity @ 40°C W	Sit scalar Visual* NONE NONE Sand/Dirt scalar Visual* NONE VLITE Sand/Dirt scalar Visual* NONE NONE Appearance scalar Visual* NORML NORML Odor scalar Visual* NORML NORML Odor Scalar Visual* NORML NORML Odor C cSt ASTMD279(m) 220 4 45.0 Visc@ 40°C cSt ASTMD279(m) 19.0 4 7.7 Viscosity Index (VI) Scale ASTMD270(m) 19.0 4 7.7 Viscosity Index (VI) Scale AST	Sitt  scalar  Visual  NONE

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Contact/Location: Bill Acton - GFL286 Page 2 of 2