

## **OIL ANALYSIS REPORT**

Sample Rating Trend

NORMAL

### Area [450292065] **PMPG L.O. BEFORE FILTER**

Gearbox Fluid {not provided} (--- GAL)

#### DIAGNOSIS

#### Recommendation

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. 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 32 range, advise investigate. The condition of the oil is acceptable for the time in service.

				May2024				
SAMPLE INFOR	ΜΑΤΙΟΝ	method	limit/base	current	history1	history2		
Sample Number		Client Info	in the babb	PC0081225				
Sample Date		Client Info		14 May 2024				
Machine Age	hrs	Client Info		0				
Oil Age	hrs	Client Info		0				
Oil Changed		Client Info		N/A				
Sample Status				NORMAL				
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)	>150	0				
Chromium	ppm	ASTM D5185(m)	>100	0				
Nickel	ppm	ASTM D5185(m)		0				
Titanium	ppm	ASTM D5185(m)		0				
Silver	ppm	ASTM D5185(m)		0				
Aluminum	ppm	ASTM D5185(m)	>5	0				
Lead	ppm	ASTM D5185(m)	>65	0				
Copper	ppm	ASTM D5185(m)	>80	<1				
Tin	ppm	ASTM D5185(m)	>8	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)		<1				
Barium	ppm	ASTM D5185(m)		0				
Molybdenum	ppm	ASTM D5185(m)		0				
Manganese	ppm	ASTM D5185(m)		0				
Magnesium	ppm	ASTM D5185(m)		<1				
Calcium	ppm	ASTM D5185(m)		0				
Phosphorus	ppm	ASTM D5185(m)		265				
Zinc	ppm	ASTM D5185(m)		<1				
Sulfur	ppm	ASTM D5185(m)		753				
Lithium	ppm	ASTM D5185(m)		<1				
CONTAMINAN	ITS	method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	>20	0				
Sodium	ppm	ASTM D5185(m)		0				
Potassium	ppm	ASTM D5185(m)	>20	0				
FLUID DEGRAI	DAT <u>IO</u> N	method	limit/base	current	history1	history2		
Acid Number (AN)	mg KOH/g	ASTM D974*		0.02				
	ing NOT rg	7.0 HW D374		0.02				



Abnormal 25

Viscosity @ 300 T Abnormal 250

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5 0 May14/24

50 0. May14/24

PQ 250. Severe 200 150 Р

Abnormal 100 50 0 4/24 May1.

0.03

(B/HO) B/HOX B/HOX

a E 0.01-Pio 0.01 0.00 L May14/24

b D)

# **OIL ANALYSIS REPORT**

/iscosity @ 100°C		VISUAL		method	limit/base	current	history1	history2
Normal		White Metal	scalar	Visual*	NONE	NONE		
		Yellow Metal	scalar	Visual*	NONE	NONE		
rormal		Precipitate	scalar	Visual*	NONE	NONE		
		Silt	scalar	Visual*	NONE	NONE		
		Debris	scalar	Visual*	NONE	NONE		
		Sand/Dirt	scalar	Visual*	NONE	NONE		
	May14/24	Appearance	scalar	Visual*	NORML	NORML		
	May	Odor	scalar	Visual*	NORML	NORML		
scosity @ 40°C		Emulsified Water	scalar	Visual*	>0.2	NEG		
normal		Free Water	scalar	Visual*		NEG		
normal		FLUID PROPE	RTIES	method	limit/base	current	history1	history2
		Visc @ 40°C	cSt	ASTM D7279(m)		33.8		
		Visc @ 100°C	cSt	ASTM D7279(m)		5.7		
		Viscosity Index (VI)	Scale	ASTM D2270*		108		
	_	SAMPLE IMAG	ES	method	limit/base	current	history1	history2
	May14/24				1			,
		Color					no image	no image
		0000				40 100 -	no inage	no image
1978								
/ere								
		Bottom					no image	no image
normal								
		GRAPHS						
		Ferrous Alloys				PQ		
	1	°I			220	T ;		
		8 Iron			200	Severe		
id Number	bhm	4			180	-		
		2-			160			
		24			¥Z 140			
		May14/24			PD PD P14/24			
		Non-ferrous Metals	5		ے <sup>م</sup> ے 100	Abnormal		
	1	0 T			80			
		8 - copper			60			
	ud	6			40			
	C. H. F.	2			20			
	N.A.				0 24	*		
		May14/24			May14/24	May14/24		Mav14/24
		≅ Viscosity @ 40°C			Z			Mar
	30	Abnormal			 ©0 03	Acid Numbe	r	
	- 20	Abnormal			(B/H0.03 NH03 0.02			
	() 20 (+) 10 10				Ĕ 0 02			
	र्छ 10	0 -			4 0.01	•		
		0 L			0.01 90.01 90.01 90.0			
		May14/24			May14/24	May14/24		May14/24
		May			May	May		May
Laboratory Test P To discuss this sample	le No. : P lumber : 0 Number : 5 Package : N e report, col	787460 IAR 2 ( Additional Te <i>ntact Customer Servi</i>	Recei Teste Diagn sts: KV1 ce at 1-8	ved : 28   d : 30   iosed : 30   00, TAN Mar   00-268-2131	May 2024 ) May 2024 May 2024 - Kevi n, VI ) 1.	in Marson	joshyne	35 Water Strret St. John`s, NL CA A1C 1B6 ct: Josh Hynes s@suncor.com
Test denoted (*) outsi Validity of results and								(709)778-3575 (709)724-2835

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Contact/Location: Josh Hynes - TERHAM