

# **OIL ANALYSIS REPORT**

Sample Rating Trend



## Machine Id OR1022

Component Rear Differential

Fluid PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

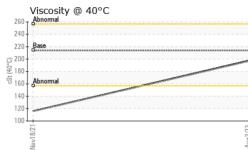
#### Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0087363	GFL0030483	
Sample Date		Client Info		02 Aug 2023	18 Nov 2021	
Machine Age	hrs	Client Info		14483	13151	
Oil Age	hrs	Client Info		1332	2000	
Oil Changed		Client Info		Not Changd	Changed	
Sample Status				NORMAL	ABNORMAL	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>500	56	251	
Chromium	ppm	ASTM D5185(m)		<1	2	
Nickel	ppm	ASTM D5185(m)	>10	0	<1	
Titanium	ppm	ASTM D5185(m)		<1	1	
Silver	ppm	ASTM D5185(m)		0	0	
Aluminum	ppm	ASTM D5185(m)	>25	6	24	
Lead	ppm	ASTM D5185(m)	>25	0	<1	
Copper	ppm	ASTM D5185(m)	>100	2	8	
Tin	ppm	ASTM D5185(m)	>100	0	0	
Antimony	ppm	ASTM D5185(m)	>5	0	<1	
Vanadium	ppm	ASTM D5185(m)	20	0	<1	
Beryllium	ppm	ASTM D5185(m)		0	0	
Cadmium	ppm	ASTM D5185(m)		0	0	
	ppm		11 11 /1		-	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	2	1	3	
Barium	ppm	ASTM D5185(m)	0	0	<1	
Molybdenum	ppm	ASTM D5185(m)	0	<1	<1	
Manganese	ppm	ASTM D5185(m)	0	<1	3	
Magnesium	ppm	ASTM D5185(m)	9	12	19	
Calcium	ppm	ASTM D5185(m)	3114	3130	3078	
Phosphorus	ppm	ASTM D5185(m)	1099	1119	1086	
Zinc	ppm	ASTM D5185(m)	1245	1240	1224	
Sulfur	ppm	ASTM D5185(m)	7086	12321	8498	
Lithium	ppm	ASTM D5185(m)		<1	<1	
CONTAMINAN	ITS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>75	27	144	
Sodium	ppm	ASTM D5185(m)		2	7	
Potassium	ppm	ASTM D5185(m)	>20	2	9	
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	VLITE	
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	
Precipitate	scalar	Visual*	NONE	NONE	NONE	
Silt	scalar	Visual*	NONE	NONE	VLITE	
Debris	scalar	Visual*	NONE	VLITE	NONE	
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	
Appearance	scalar	Visual*	NORML	NORML	NORML	
Odor	scalar	Visual*	NORML	NORML	NORML	
Emulsified Water	scalar	Visual*	>.2	NEG	NEG	
Free Water	scalar	Visual*		NEG	NEG	
3:36:23) Rev: 1					Submitted By: C	harles Bergeron



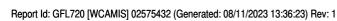
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	FLUID PRO	PERTIES	method	limit/base	current	history1	history2
	Visc @ 40°C	cSt	ASTM D7279(m)	213.9	197	<b>1</b> 16	
	SAMPLE IM	AGES	method	limit/base	current	history1	history2
	Color						no image
Aug2/23	Bottom						no image
	GRAPHS						
200	Iron (ppm)			12	Lead (ppm)		
150	Smiara			10	Severe		
	1			8			
뵵 100	Abnormal			dd 6	0 -		
50				2	0 - Abnormal		
	0 <sup>1</sup>				04		
	Nov18/2			Aug2/23	Nov18/21		
12	Aluminum (pp	m)		3	Chromium (	opm)	
10	Severe			2	Sminn		
	80			2 E			
<u> </u>	60 - 10 -			Ed 1	Abnormal		
	20 - Abnormal				5-		
	0 2 2 2 2 2 3 2 1 0			Aug2/23	8/21		
	Nov18/2			Aug	Nov18/21		
25	Copper (ppm)			25	Silicon (ppm	)	
20	00 - Severe			20	Severe		
15 E	50 -			15 E	0-		
<sup>8</sup> 10	00 - Abnormal			<sup>8</sup> 10	Abnormal		
Ę	50 -			5			
	8/21			Aug2/23	8/21		
	Nov18/21			Aug	Nov18/2		
30	Viscosity @ 40	°C		350	Additives		
25	Abnormal			300		rus	
cSt (40°C)	Base			250	0 - Zinc	]	
रहे रहे	Abhormai	_		200	0		
				150	******************************		
10				100 Hug2/23			
tory	: WearCheck - C8	R-1175 Applet	w Line Bur		71 5H9 GEI En	vironmental - 720 -	l afleche - l an
No.	: GFL0087363	Received	: 11	Aug 2023		17125	Lafleche Roa
	: <mark>02575432</mark> : 5620483	Diagnose Diagnosti		Aug 2023 s Davis		Mo	ose Creek, 0 CA K0C 1V
ackage	: MOB 1	-					narles Berger
	ntact Customer S	and a at 1 00					on@gflenv.co

To discuss this samp 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.

Submitted By: Charles Bergeron



CALA

ISO 17025:2017 Accredited Laboratory

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