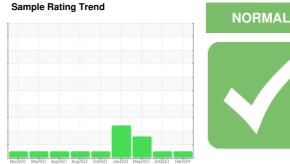


## **OIL ANALYSIS REPORT**





## KEMP QUARRIES / BCS - GRAVETTE [68011] OHT107 Component

Rear Differential

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

RO TO-4 SAE 50 (	( GAL)	Nov2020 Ma	w2021 Aug2021 Aug2022	Oct2022 Jan2023 May2023 Oct20	23 Feb2024	
SAMPLE INFOF	RMATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0108901	PCA0087033	PCA008572
Sample Date		Client Info		14 Feb 2024	30 Oct 2023	12 May 202
Machine Age	hrs	Client Info		25681	25681	25099
Oil Age	hrs	Client Info		24114	25681	25099
Oil Changed		Client Info		Changed	N/A	N/A
Sample Status				NORMAL	NORMAL	MARGINAL
CONTAMINA	ΓΙΟΝ	method	limit/base	current	history1	history2
Water		WC Method	>.2	NEG	NEG	NEG
WEAR METAI	LS	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	84	71	54
Chromium	ppm	ASTM D5185m	>3	<1	0	<1
Nickel	ppm	ASTM D5185m	>3	0	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>30	2	<1	0
Lead	ppm	ASTM D5185m	>13	0	0	0
Copper	ppm	ASTM D5185m	>103	20	20	10
Tin	ppm	ASTM D5185m	>5	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	0	4	7
Barium	ppm	ASTM D5185m	0	0	0	11
Molybdenum	ppm	ASTM D5185m	0	0	0	1
Manganese	ppm	ASTM D5185m	0	1	0	<1
Magnesium	ppm	ASTM D5185m	9	24	22	35
Calcium	ppm	ASTM D5185m	3114	2635	2697	2593
Phosphorus	ppm	ASTM D5185m	1099	929	1022	937
Zinc	ppm	ASTM D5185m	1245	1211	1196	1062
Sulfur	ppm	ASTM D5185m	7086	5717	5802	6002
CONTAMINA	NTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>100	21	24	22
Sodium	ppm	ASTM D5185m		0	3	3
Potassium	ppm	ASTM D5185m	>20	0	0	<1
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
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	NONE	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	>.2	NEG	NEG	0.2%
Free Water	scalar	*Visual		NEG	NEG	NEG

## DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment:  $\mbox{Pm4}$  )

### Wear

All component wear rates are normal.

#### Contamination

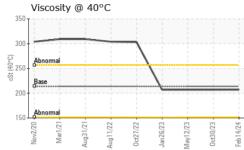
There is no indication of any contamination in the oil.

#### Fluid Condition

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



# **OIL ANALYSIS REPORT**



	FLUID PROPE	RTIES method	limit/base	current	history1	history2
<b>`</b>	Visc @ 40°C	cSt ASTM D44	5 213.9	207	207	207
$\lambda$	SAMPLE IMAG	ES method	limit/base	current	history1	history2
0cd21/22 Jan 26(23 May/2/23 0cd30/23 Feb 14/24	Color			no image	no image	no image
	Bottom			no image	no image	no image
	GRAPHS					
	Iron (ppm)			Lead (ppm)		
	800 - Severe		2	Saura		
	E 600 Abnormal 400		ā1	0 - 5 - Abnormal 0 -		
	Mov2/20 Mar1/21 Aug31/21	0ct21/22 +		Nov2/20 000	Aug 11/22 + )	/lay12/23
	A A	0ct2 Jan2 May1	Dott3	Н	-	May12/23 0ct30/23
	Aluminum (ppm)		1 1	Chromium (p	ipm)	
	40 <u>5</u> 30 20		d.			
	Nov2/20 0 01 Mar1/21 Aug31/21	0ct27/22   Jan26/23   May12/23	0ct30/23	Nov2/20	Aug11/22 + Oct27/22 + Jan26/23 +	May12/230ct30/230
	<sup>™</sup> <sup>™</sup> <sup>™</sup> <sup>Bn</sup> A	0ct Jan	Teb 0ct	<sup>∞</sup> Silicon (ppm)		May
	200 Severe	1 1 1	20			
	150		15			
	E 100 - Abnormal		특 10	0 - Abnormal		
	50		5	0		
	Nov2/20	0ct27/22 - Jan26/23 - May12/23 -	0ct30/23 -	Mar1/21	Aug11/22 0ct27/22 Jan26/23	May12/23 + 0ct30/23 +
	W BNA BNA Viscosity @ 40°C	Octi Jan <i>i</i> Mayi	Feb.		Aug Oct	May' Oct
	<sup>350</sup>		350	and the second s		
	300-		300 250	assassass phosphor	21	
	G 00 € 250 8 8 8 Base	$\mathbf{\lambda}$	······ 틆 200			
	200 - Abnormal		100		il in a state of the state of t	angalan angalan kanganan sana
	Mar1/21 Aug31/21.	0ct27/22 Jan26/23 May12/23	0ct30/23 -	Mar1/21+ Aug31/21+	Aug11/22 + 0ct27/22 + Jan26/23 +	May12/23 - 0ct30/23 -
Laboratory Sample No. Lab Number Unique Number Test Package	: WearCheck USA - 501 : PCA0108901 : 06101208 : 10899438	Madison Ave., Ca Received : Tested :		Kemp Qu	uarries - Benton Cour 1	