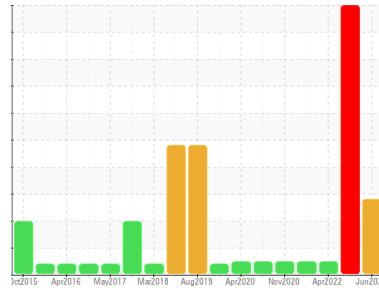


OIL ANALYSIS REPORT



Area
[66779]
 Machine Id
OHT045
 Component
Left Final Drive
 Fluid
PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)

Sample Rating Trend



WATER



DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. (Customer Sample Comment: PM-3 sampled fluid)

▲ Wear

Bearing and/or bushing wear is indicated.

▲ Contamination

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

● Fluid Condition

The oil viscosity is lower than normal. Confirm oil type.

SAMPLE INFORMATION

method	limit/base	current	history1	history2	
Sample Number	Client Info	PCA0126270	PCA0062025	PCA0037525	
Sample Date	Client Info	25 Jun 2024	18 Jan 2023	14 Apr 2022	
Machine Age	hrs	Client Info	3951	3426	2905
Oil Age	hrs	Client Info	3951	3426	2905
Oil Changed	Client Info	N/A	N/A	N/A	
Sample Status		ABNORMAL	SEVERE	NORMAL	

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >800	35	90	31
Chromium	ppm	ASTM D5185m >10	2	1	<1
Nickel	ppm	ASTM D5185m >5	<1	<1	<1
Titanium	ppm	ASTM D5185m >15	0	<1	<1
Silver	ppm	ASTM D5185m >2	<1	<1	0
Aluminum	ppm	ASTM D5185m >75	3	4	3
Lead	ppm	ASTM D5185m >10	5	▲ 10	1
Copper	ppm	ASTM D5185m >75	▲ 133	▲ 75	6
Tin	ppm	ASTM D5185m >8	2	2	<1
Antimony	ppm	ASTM D5185m >50	---	---	---
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	<1	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 2	11	23	3
Barium	ppm	ASTM D5185m 0	0	<1	0
Molybdenum	ppm	ASTM D5185m 0	2	4	2
Manganese	ppm	ASTM D5185m 0	0	1	<1
Magnesium	ppm	ASTM D5185m 9	14	34	43
Calcium	ppm	ASTM D5185m 3114	2463	2673	3097
Phosphorus	ppm	ASTM D5185m 1099	870	892	1040
Zinc	ppm	ASTM D5185m 1245	1146	1273	1148
Sulfur	ppm	ASTM D5185m 7086	3361	5438	4161

CONTAMINANTS

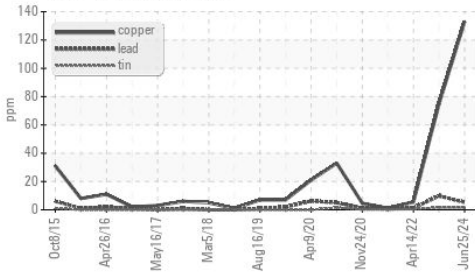
method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >400	12	40	24
Sodium	ppm	ASTM D5185m	19	65	1
Potassium	ppm	ASTM D5185m >20	3	5	0
Water	%	ASTM D6304 >0.2	▲ 0.382	▲ 1.11	---
ppm Water	ppm	ASTM D6304 >2000	▲ 3820	▲ 11100	---

VISUAL

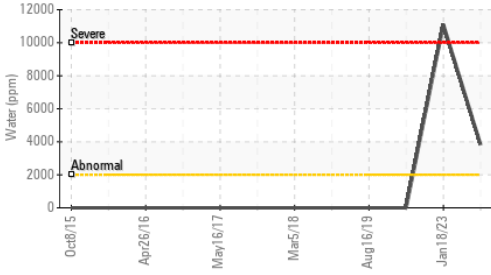
method	limit/base	current	history1	history2	
White Metal	scalar	*Visual NONE	NONE	LIGHT	MODER
Yellow Metal	scalar	*Visual NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual NONE	NONE	NONE	NONE
Silt	scalar	*Visual NONE	NONE	NONE	NONE
Debris	scalar	*Visual NONE	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual NONE	NONE	NONE	NONE
Appearance	scalar	*Visual NORML	NORML	● HAZY	NORML
Odor	scalar	*Visual NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual >0.2	0.2%	▲ 0.2%	NEG
Free Water	scalar	*Visual	NEG	▲ 5.0	NEG

OIL ANALYSIS REPORT

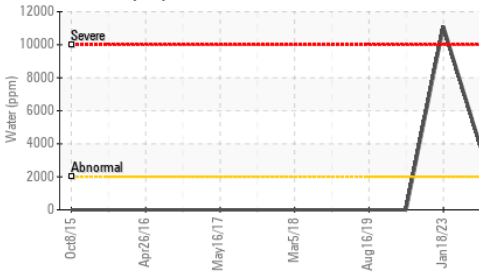
▲ Non-ferrous Metals



▲ Water (KF)



▲ Water (KF)



FLUID PROPERTIES method limit/base current history1 history2

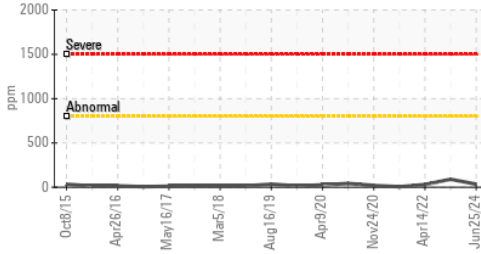
Visc @ 40°C cSt ASTM D445 213.9 ● 90.8 142 159

SAMPLE IMAGES method limit/base current history1 history2

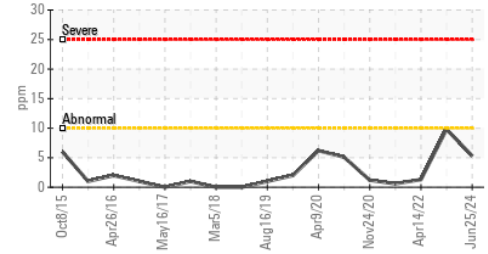
Color	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image

GRAPHS

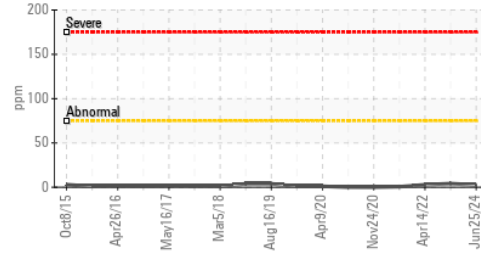
Iron (ppm)



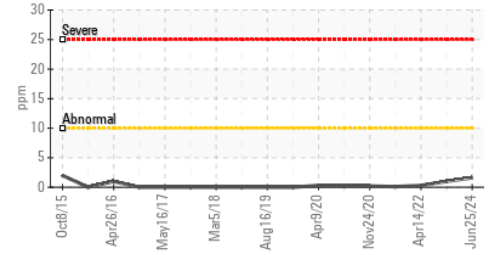
Lead (ppm)



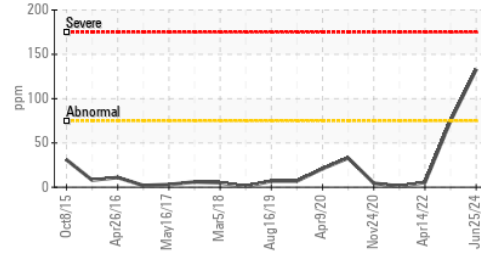
Aluminum (ppm)



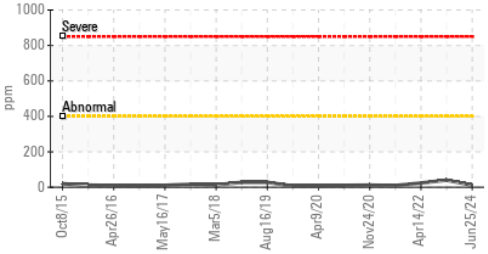
Chromium (ppm)



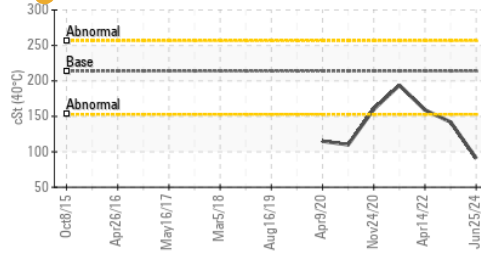
▲ Copper (ppm)



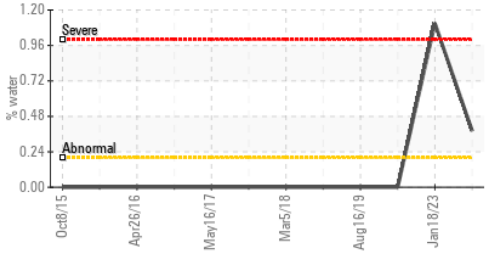
Silicon (ppm)



● Viscosity @ 40°C



▲ Water



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : PCA0126270

Lab Number : 06226607

Unique Number : 11110100

Test Package : MOB 1 (Additional Tests: KF)

Received : 02 Jul 2024

Tested : 03 Jul 2024

Diagnosed : 05 Jul 2024 - Don Baldrige

Kemp Quarries - Kemp Stone - Neosho

19148 Ingersol Lane

Neosho, MO

US 64850

Contact: NEOSHO NOTIFICATIONS

neosho@kempstone.com

T:

F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)