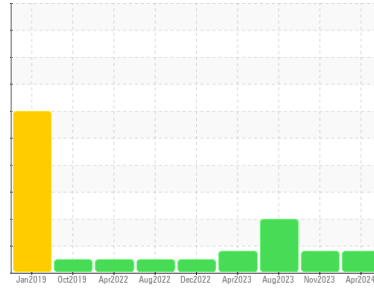


OIL ANALYSIS REPORT

Area
KEMP QUARRIES / RIVER VALLEY ARKOMA
 Machine Id
OHT102
 Component
Front Right Final Drive
 Fluid
PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)

Sample Rating Trend



DIAGNOSIS

- Recommendation**
No corrective action is recommended at this time. Resample at the next service interval to monitor.
- Wear**
The copper level is abnormal. All other 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 INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0034664	PCA0084412	PCA0083941
Sample Date	Client Info		03 Apr 2024	06 Nov 2023	22 Aug 2023
Machine Age	hrs	Client Info	29902	29340	29115
Oil Age	hrs	Client Info	29115	29115	29115
Oil Changed	Client Info		Not Chngd	Not Chngd	Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >500	169	139	130
Chromium	ppm	ASTM D5185m >10	<1	<1	<1
Nickel	ppm	ASTM D5185m >10	0	<1	<1
Titanium	ppm	ASTM D5185m	0	<1	<1
Silver	ppm	ASTM D5185m	0	<1	0
Aluminum	ppm	ASTM D5185m >25	1	2	<1
Lead	ppm	ASTM D5185m >25	0	0	2
Copper	ppm	ASTM D5185m >50	▲ 234	▲ 172	▲ 158
Tin	ppm	ASTM D5185m >10	8	5	5
Vanadium	ppm	ASTM D5185m	0	<1	<1
Cadmium	ppm	ASTM D5185m	0	<1	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	58	66	93
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 0	3	2	2
Manganese	ppm	ASTM D5185m 0	1	1	1
Magnesium	ppm	ASTM D5185m 9	10	11	5
Calcium	ppm	ASTM D5185m 3114	3321	3389	● 3508
Phosphorus	ppm	ASTM D5185m 1099	943	958	951
Zinc	ppm	ASTM D5185m 1245	1053	1104	● 1084
Sulfur	ppm	ASTM D5185m 7086	5652	5443	● 6687

CONTAMINANTS

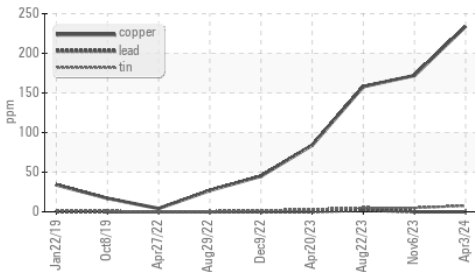
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >75	18	18	18
Sodium	ppm	ASTM D5185m	1	0	<1
Potassium	ppm	ASTM D5185m >20	0	2	1

VISUAL

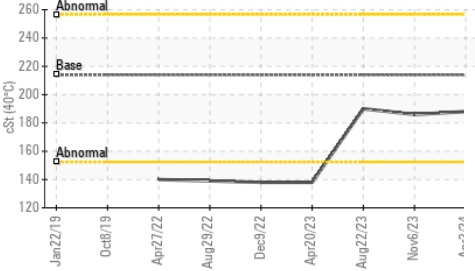
	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	MODER	LIGHT	LIGHT
Yellow Metal	scalar	*Visual NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual NONE	NONE	NONE	NONE
Silt	scalar	*Visual NONE	MODER	NONE	NONE
Debris	scalar	*Visual NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual NONE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

OIL ANALYSIS REPORT

Non-ferrous Metals



Viscosity @ 40°C



FLUID PROPERTIES

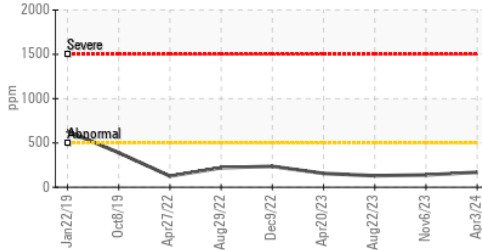
method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D445	213.9	188	186

SAMPLE IMAGES

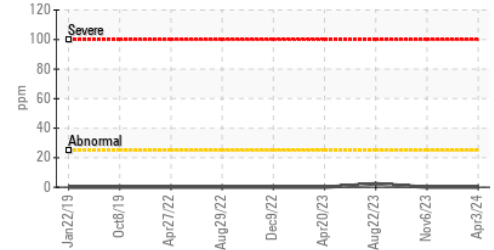
method	limit/base	current	history1	history2
Color			no image	no image
Bottom			no image	no image

GRAPHS

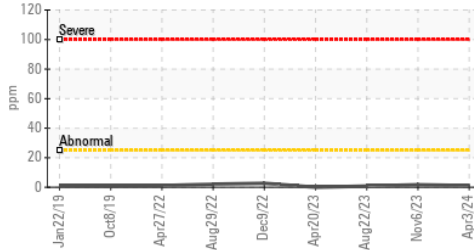
Iron (ppm)



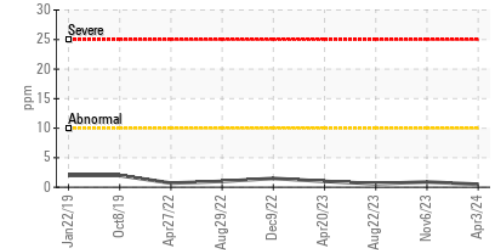
Lead (ppm)



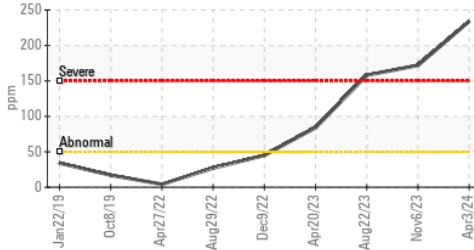
Aluminum (ppm)



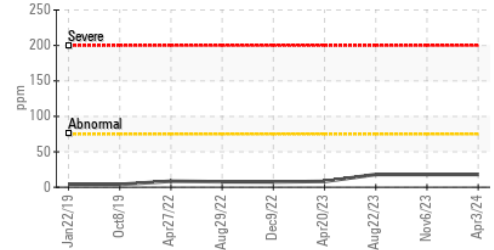
Chromium (ppm)



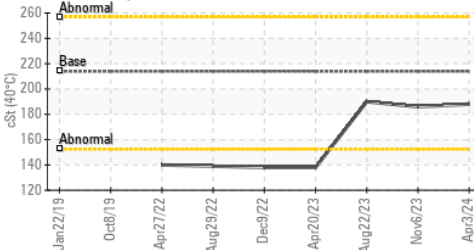
Copper (ppm)



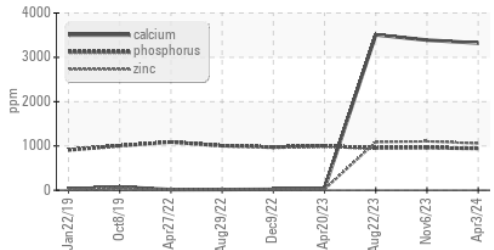
Silicon (ppm)



Viscosity @ 40°C



Additives



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0034664
Lab Number : 06142538
Unique Number : 10967346
Test Package : MOB 1

Received : 08 Apr 2024
Tested : 09 Apr 2024
Diagnosed : 11 Apr 2024 - Don Baldrige

Kemp Quarries - River Valley - Arkoma
 12971 HWY 9a
 Shawnee, OK
 US 74804
 Contact:
 arkomashop@kempquarries.net

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)