



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
KOMATSU KOMATSU PC-210

Component
Diesel Engine

Fluid
TRC PRO-SPEC III SYNTHETIC BLEND 15W40 (24 LTR)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.
Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR02616941	TR02468200	---
Sample Date		Client Info		02 Feb 2024	01 Oct 2021	---
Machine Age	hrs	Client Info		5600	4281	---
Oil Age	hrs	Client Info		500	800	---
Filter Age	hrs	Client Info		500	300	---
Oil Changed		Client Info		N/A	Changed	---
Filter Changed		Client Info		N/A	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	61	55	---
Chromium	ppm	ASTM D5185(m)	>20	<1	2	---
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)	>3	<1	0	---
Aluminum	ppm	ASTM D5185(m)	>20	4	4	---
Lead	ppm	ASTM D5185(m)	>40	0	<1	---
Copper	ppm	ASTM D5185(m)	>330	5	14	---
Tin	ppm	ASTM D5185(m)	>15	0	<1	---
Vanadium	ppm	ASTM D5185(m)		0	<1	---

CONTAMINATION

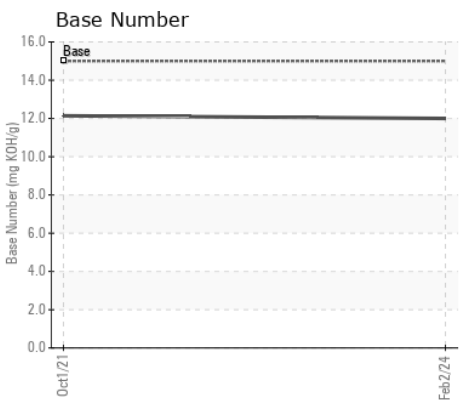
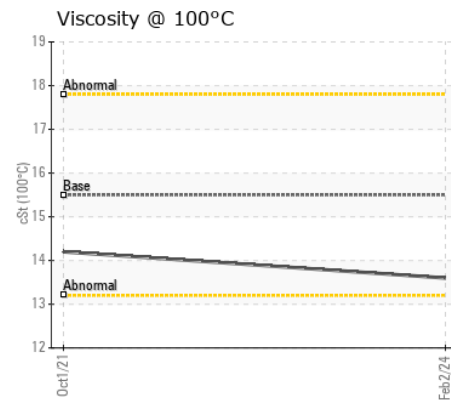
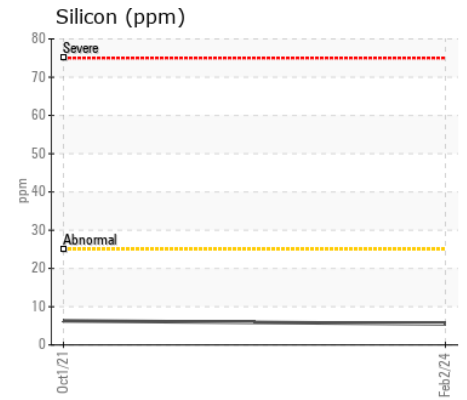
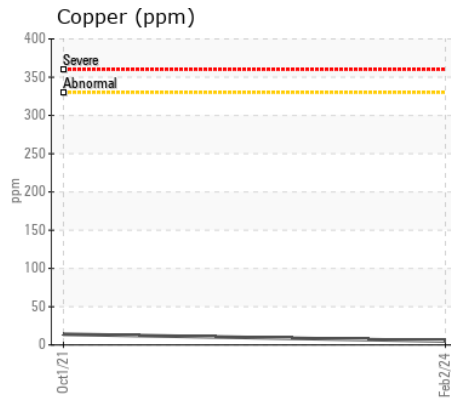
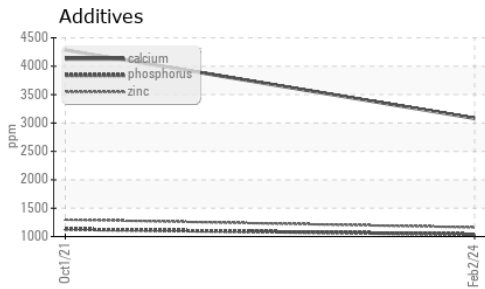
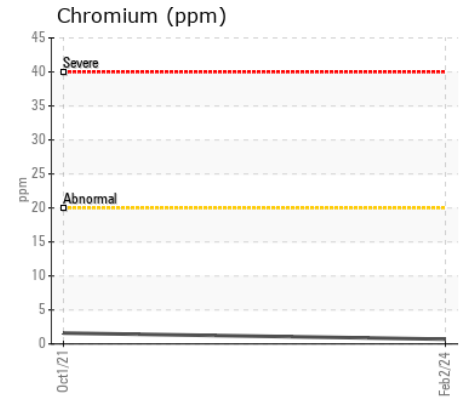
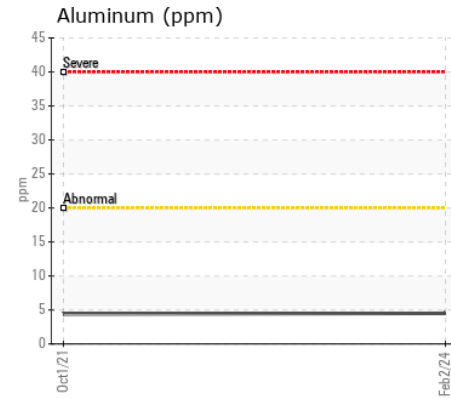
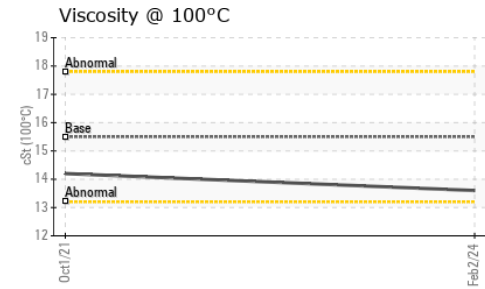
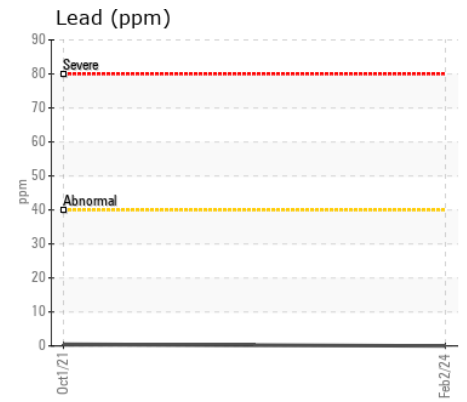
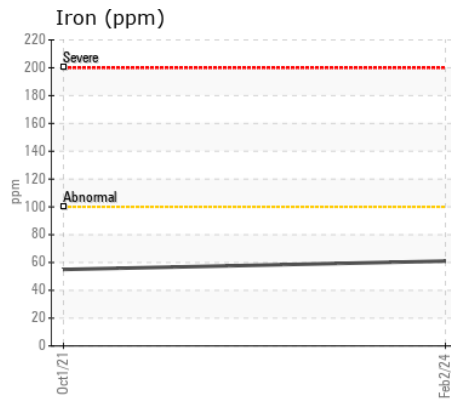
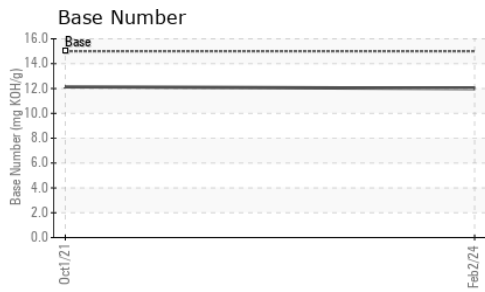
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	6	6	---
Potassium	ppm	ASTM D5185(m)	>20	1	2	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	ASTM D7844*	>3	0.3	0.2	---
Nitration	Abs/cm	ASTM D7624*	>20	10.3	13.0	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.9	23.3	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	---

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil.
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		2	4	---
Boron	ppm	ASTM D5185(m)		42	31	---
Barium	ppm	ASTM D5185(m)		0	0	---
Molybdenum	ppm	ASTM D5185(m)		205	102	---
Manganese	ppm	ASTM D5185(m)		0	<1	---
Magnesium	ppm	ASTM D5185(m)		15	47	---
Calcium	ppm	ASTM D5185(m)	4500	3082	4285	---
Phosphorus	ppm	ASTM D5185(m)		1039	1130	---
Zinc	ppm	ASTM D5185(m)	1400	1162	1298	---
Sulfur	ppm	ASTM D5185(m)		3706	3508	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.1	18.0	---
Base Number (BN)	mg KOH/g	ASTM D2896*	15	12.00	12.14	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	13.6	14.2	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : TR02616941
Lab Number : 02616941
Unique Number : 5734051
Test Package : MOB 2
Received : 21 Feb 2024
Tested : 22 Feb 2024
Diagnosed : 22 Feb 2024 - Kevin Marson

POLAR ENTERPRISE
 BOX 36, GRP 8
 HADASHVILLE, MB
 CA R0E 0X0
 Contact: Trevor Panych

To discuss this sample report, contact Customer Service at 1-800-827-0711.

* - 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)

T: (204)326-8683

F: