



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
KOBELCO 300 12-05 (S/N 500189)
 Component
Gearbox
 Fluid
TRC 890 VARI-PURPOSE SAE80W90 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06177362	---	---
Sample Date		Client Info		03 May 2024	---	---
Machine Age	hrs	Client Info		5345	---	---
Oil Age	hrs	Client Info		4346	---	---
Filter Age	hrs	Client Info		4346	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---

WEAR

Gear wear is indicated. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	▲ 333	---	---
Chromium	ppm	ASTM D5185m	>10	5	---	---
Nickel	ppm	ASTM D5185m	>10	<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>25	3	---	---
Lead	ppm	ASTM D5185m	>50	<1	---	---
Copper	ppm	ASTM D5185m	>200	2	---	---
Tin	ppm	ASTM D5185m	>10	<1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

Elemental level of silicon (Si) above normal indicating ingress of seal material.

Silicon	ppm	ASTM D5185m	>50	▲ 70	---	---
Potassium	ppm	ASTM D5185m	>20	16	---	---
Water		WC Method	>0.2	NEG	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---

FLUID CONDITION

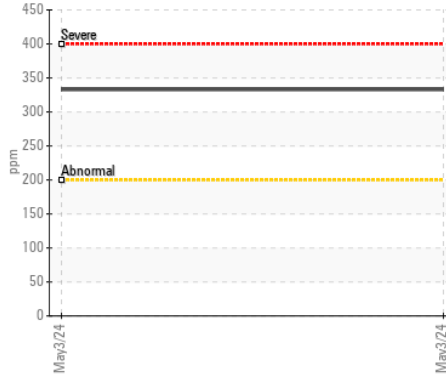
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	---	---
Boron	ppm	ASTM D5185m		19	---	---
Barium	ppm	ASTM D5185m		2	---	---
Molybdenum	ppm	ASTM D5185m		<1	---	---
Manganese	ppm	ASTM D5185m		6	---	---
Magnesium	ppm	ASTM D5185m		2	---	---
Calcium	ppm	ASTM D5185m		39	---	---
Phosphorus	ppm	ASTM D5185m	1000	745	---	---
Zinc	ppm	ASTM D5185m		28	---	---
Sulfur	ppm	ASTM D5185m	17000	21875	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.90	---	---
Visc @ 40°C	cSt	ASTM D445	207	137	---	---
Visc @ 100°C	cSt	ASTM D445	18	14.4	---	---
Viscosity Index (VI)	Scale	ASTM D2270	98	103	---	---

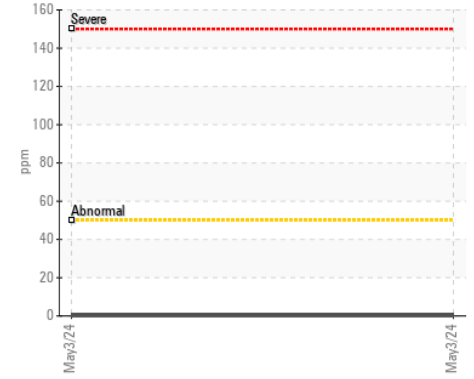
▲ Ferrous Alloys



▲ Iron (ppm)



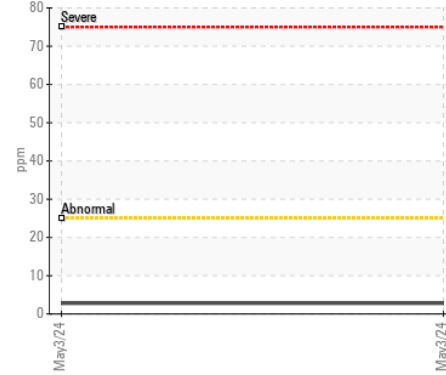
Lead (ppm)



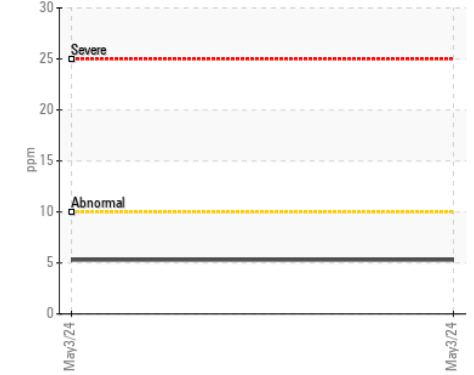
▲ Silicon (ppm)



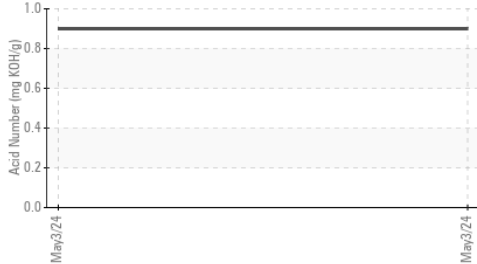
Aluminum (ppm)



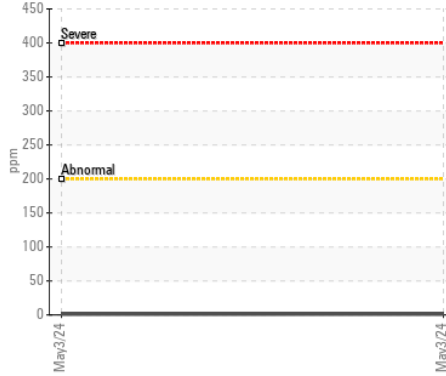
Chromium (ppm)



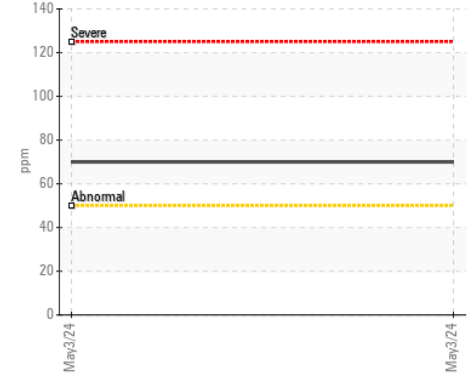
Acid Number



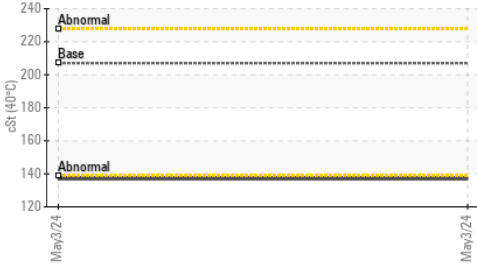
Copper (ppm)



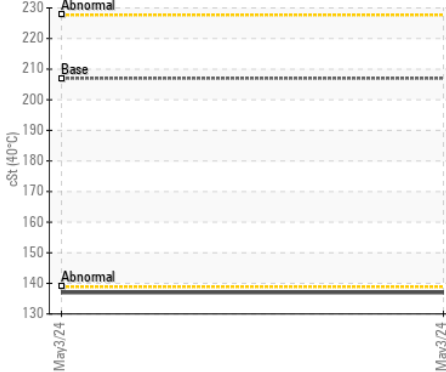
▲ Silicon (ppm)



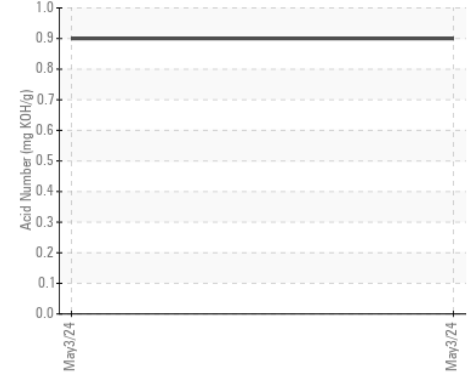
Viscosity @ 40°C



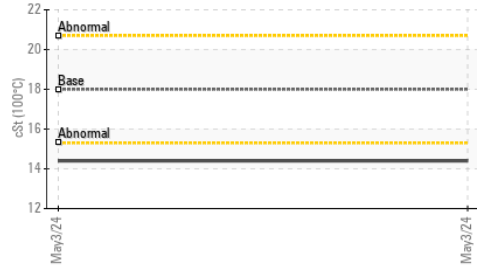
Viscosity @ 40°C



Acid Number



Viscosity @ 100°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06177362 **Received** : 13 May 2024
Lab Number : 06177362 **Tested** : 14 May 2024
Unique Number : 11023415 **Diagnosed** : 15 May 2024 - Don Baldrige
Test Package : MOB 2 (Additional Tests: KV100, VI)

KASKI LOGGING
 22411 HE CEDAR CREEK RD
 AMBOY, WA
 US 98601
 Contact: NATHAN BYRD

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:
F: