



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**KOMATSU WA200PZ-6 WA200PZ-6 (S/N KMTWA105K0107202)**

Component  
**Diesel Engine**

Fluid  
**TRC PRO-SPEC IV SYNTHETIC BLEND 15W40 (5 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR05957164	TR05887535	TR05728580
Sample Date		Client Info		13 Sep 2023	23 Jun 2023	16 Dec 2022
Machine Age	hrs	Client Info		9100	9000	8000
Oil Age	hrs	Client Info		150	1100	4000
Filter Age	hrs	Client Info		150	1100	4000
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	8	56	8
Chromium	ppm	ASTM D5185m	>20	<1	1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	4	2
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	4	33	1
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

**CONTAMINATION**

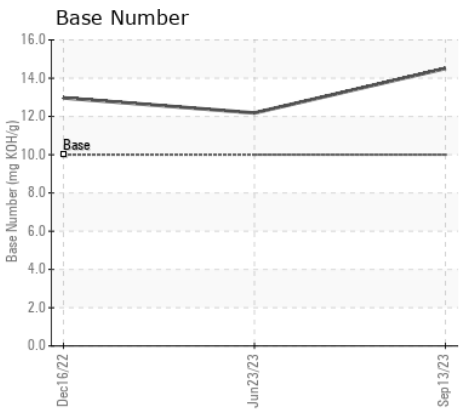
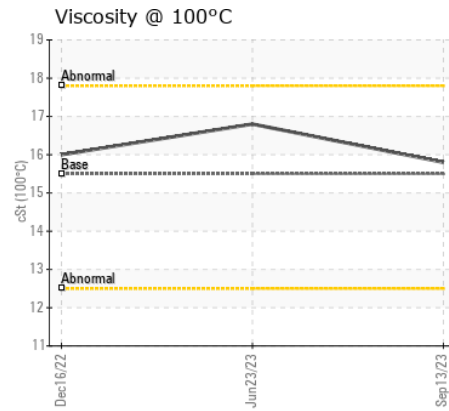
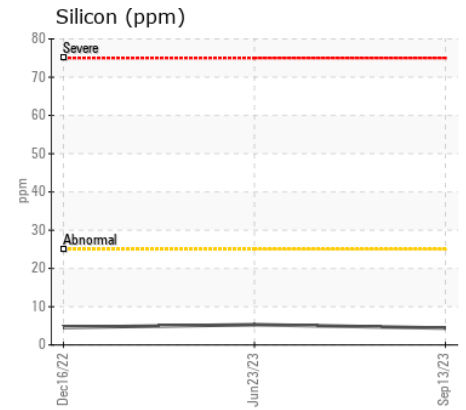
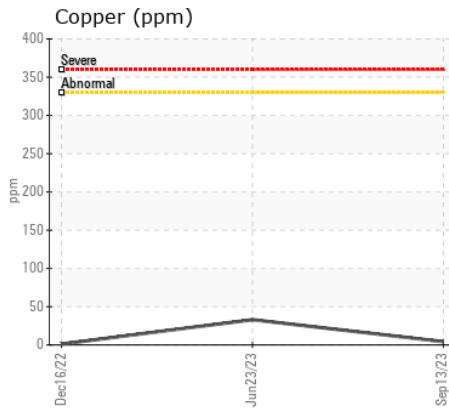
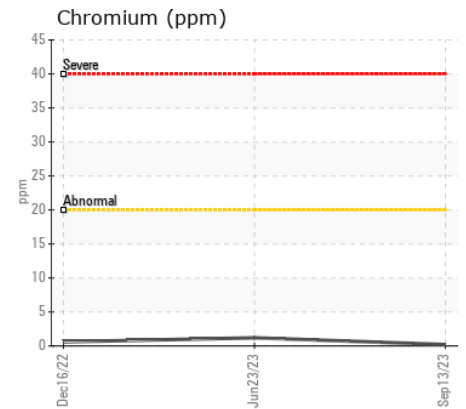
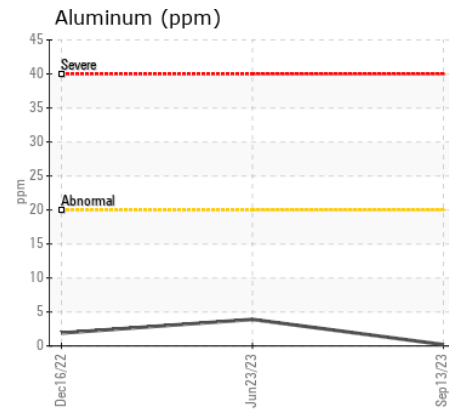
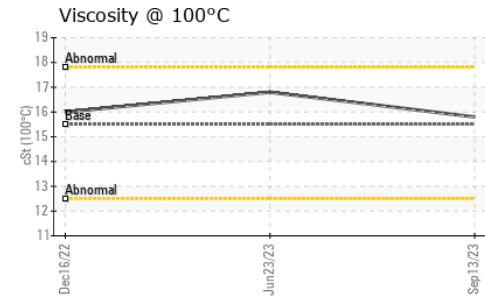
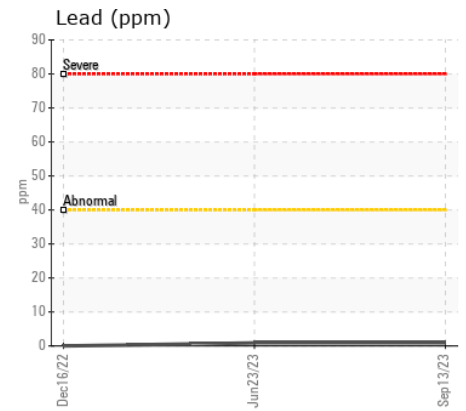
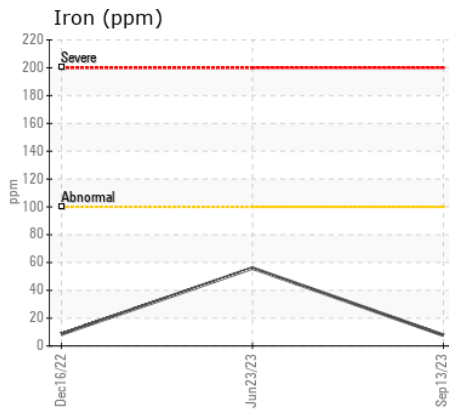
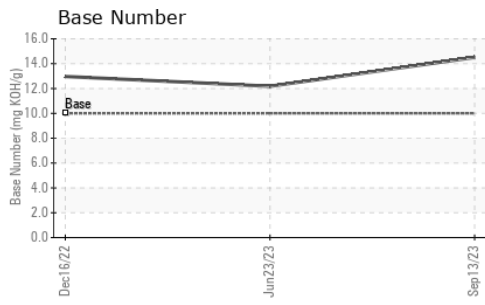
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	5	5
Potassium	ppm	ASTM D5185m	>20	3	2	2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0	1.2	0.4
Nitration	Abs/cm	*ASTM D7624	>20	14.7	11.0	9.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.0	25.2	19.2
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	>0.2	NEG	NEG	NEG

**FLUID CONDITION**

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 D5185m		2	3	2
Boron	ppm	ASTM D5185m		<1	15	5
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		119	124	115
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		17	20	16
Calcium	ppm	ASTM D5185m	2300	4613	4485	4017
Phosphorus	ppm	ASTM D5185m		922	951	870
Zinc	ppm	ASTM D5185m	1200	1120	1215	1044
Sulfur	ppm	ASTM D5185m		5144	5217	4871
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.1	16.0	10.5
Base Number (BN)	mg KOH/g	ASTM D2896	10	14.51	12.18	12.97
Visc @ 100°C	cSt	ASTM D445	15.5	15.8	16.8	16.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR05957164 **Received** : 20 Sep 2023  
**Lab Number** : 05957164 **Tested** : 25 Sep 2023  
**Unique Number** : 10658377 **Diagnosed** : 25 Sep 2023 - Wes Davis  
**Test Package** : MOB 2

**SPRAGUE RANCH**  
 6907 ROUTE 14  
 BROOKFIELD, VT  
 US 05036  
 Contact: SCOTT BURRELL

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: