



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Area
PCS - PORTABLE CRUSHING SERVICES
Machine Id
KOMATSU WA470 LD05 - PCS
Component
Diesel Engine
Fluid
CHEVRON DELO 400 SDE SAE 15W40 (10 QTS)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0013956	KL0013097	KL0009612
Sample Date		Client Info		09 Jan 2024	03 Oct 2023	29 Jun 2023
Machine Age	hrs	Client Info		7844	7322	7123
Oil Age	hrs	Client Info		50	449	250
Filter Age	hrs	Client Info		50	449	250
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				ABNORMAL	ATTENTION	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	91	68	85
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	0	1
Lead	ppm	ASTM D5185m	>40	6	3	1
Copper	ppm	ASTM D5185m	>330	12	4	3
Tin	ppm	ASTM D5185m	>15	1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

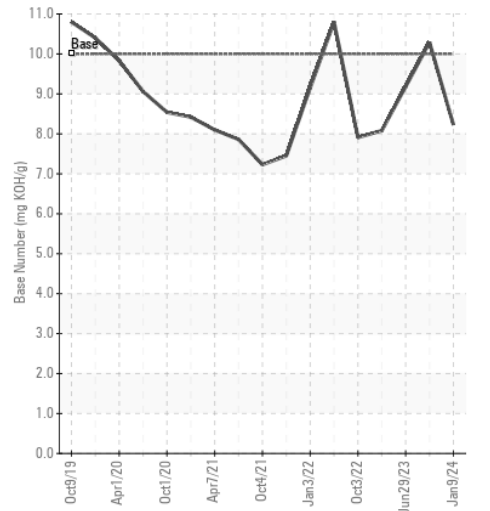
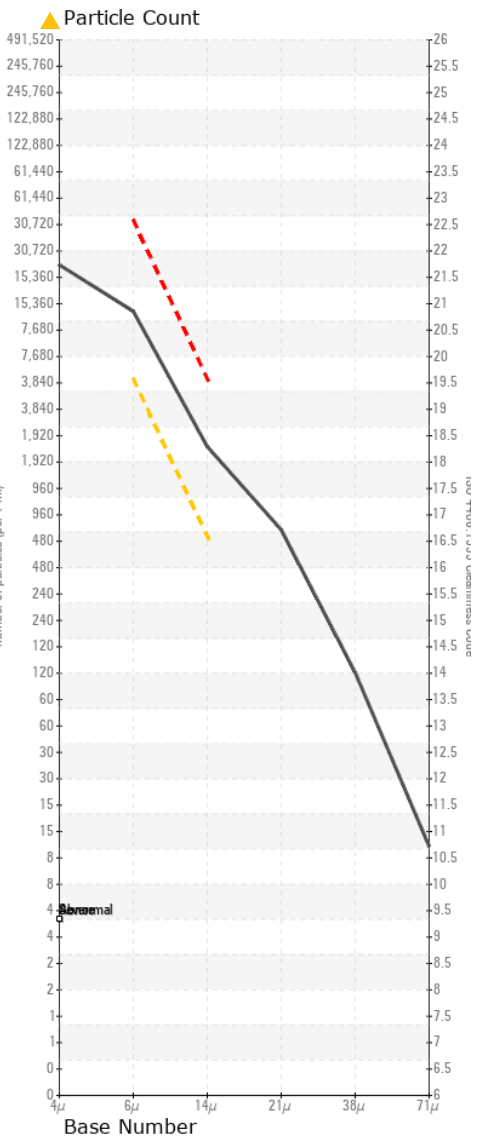
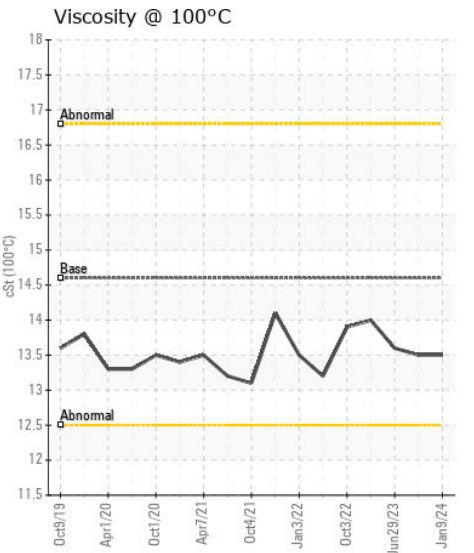
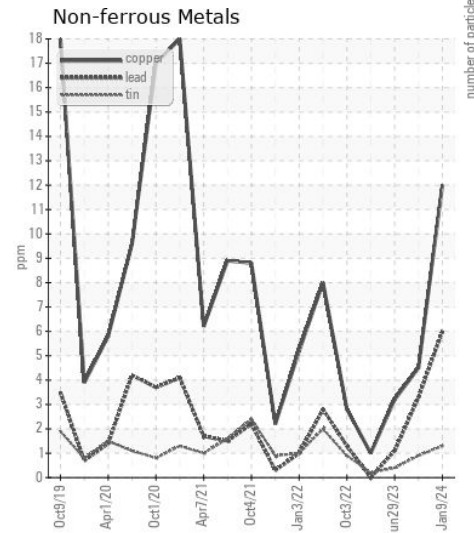
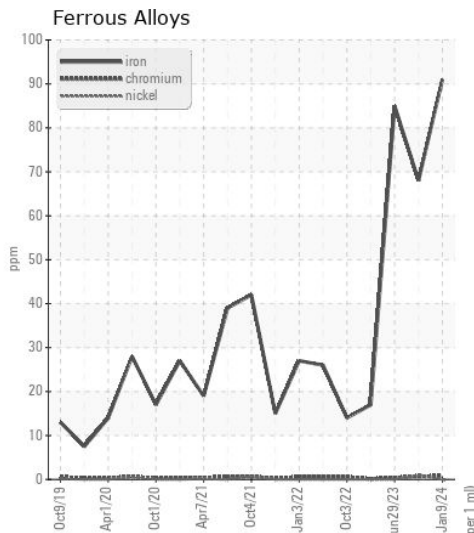
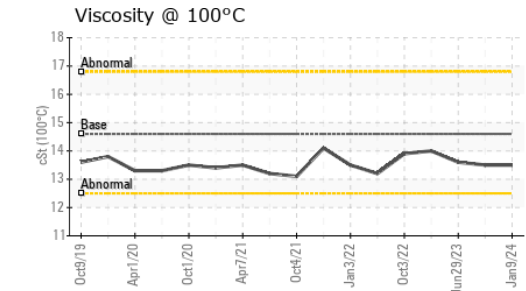
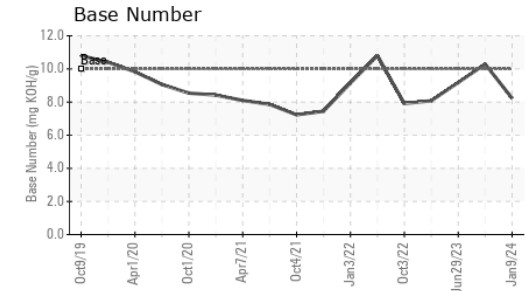
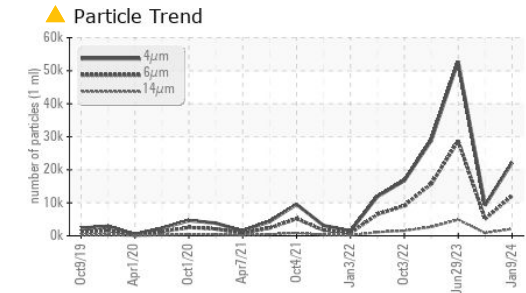
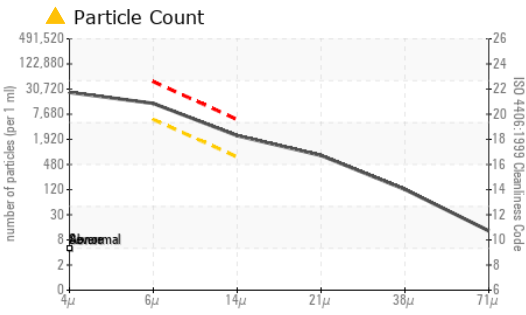
There is a moderate amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

Silicon	ppm	ASTM D5185m	>25	7	6	6
Potassium	ppm	ASTM D5185m	>20	5	6	6
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	1.3	0.6	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.2	6.1	5.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.8	20.6	20.2
Particles >4µm		ASTM D7647		22184	9309	52798
Particles >6µm		ASTM D7647	>5000	▲ 12085	▲ 5071	▲ 28762
Particles >14µm		ASTM D7647	>640	▲ 2057	▲ 863	▲ 4895
Particles >21µm		ASTM D7647	>160	▲ 693	▲ 291	▲ 1649
Particles >38µm		ASTM D7647	>40	▲ 107	▲ 45	▲ 255
Particles >71µm		ASTM D7647	>10	▲ 11	▲ 5	▲ 26
Oil Cleanliness		ISO 4406 (c)	>19/16	▲ 21/18	▲ 20/17	▲ 22/19
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.

Sodium	ppm	ASTM D5185m		6	2	3
Boron	ppm	ASTM D5185m		261	388	503
Barium	ppm	ASTM D5185m		0	0	2
Molybdenum	ppm	ASTM D5185m		89	89	89
Manganese	ppm	ASTM D5185m		2	<1	<1
Magnesium	ppm	ASTM D5185m		389	370	353
Calcium	ppm	ASTM D5185m		1498	1425	1478
Phosphorus	ppm	ASTM D5185m	760	1050	1042	1039
Zinc	ppm	ASTM D5185m	800	1276	1270	1202
Sulfur	ppm	ASTM D5185m	3000	3639	3963	3976
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.6	14.4	14.9
Base Number (BN)	mg KOH/g	ASTM D2896	10	8.23	10.29	9.18
Visc @ 100°C	cSt	ASTM D445	14.6	13.5	13.5	13.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0013956 **Received** : 16 Jan 2024
Lab Number : 06061369 **Diagnosed** : 18 Jan 2024
Unique Number : 10832751 **Diagnostician** : Wes Davis
Test Package : MOB 2 (Additional Tests: PrtCount)

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)

PIKES PEAK PERFORMANCE PRODUCTS
 7888 BULLET RD
 PEYTON, CO
 US 80831
 Contact: SCOTT RIGGS
 rriggs.pikespeakperformance@gmail.com
 T: (303)434-0126
 F: x: