



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	ATTENTION



Area
PCS - PORTABLE CRUSHING SERVICES
Machine Id
CATERPILLAR GN03 GENERATOR 03
Component
Front Diesel Engine
Fluid
CHEVRON DELO 400 SDE SAE 15W40 (148 QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0013958	KL0013020	KL0009688
Sample Date		Client Info		09 Jan 2024	03 Oct 2023	29 Jun 2023
Machine Age	hrs	Client Info		18592	18153	17776
Oil Age	hrs	Client Info		50	694	317
Filter Age	hrs	Client Info		50	694	317
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				ATTENTION	ATTENTION	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	17	4	4
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	3	0	<1
Lead	ppm	ASTM D5185m	>40	13	16	<1
Copper	ppm	ASTM D5185m	>330	255	170	11
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

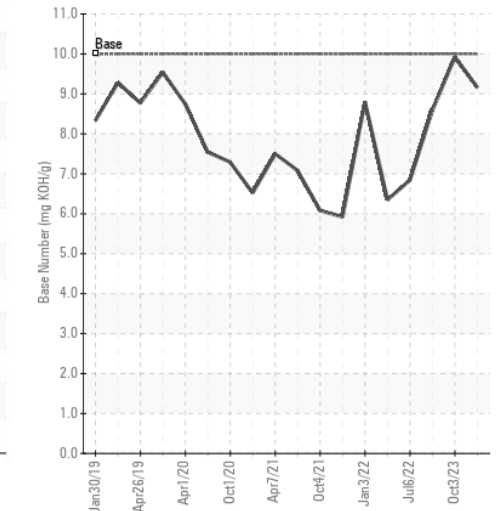
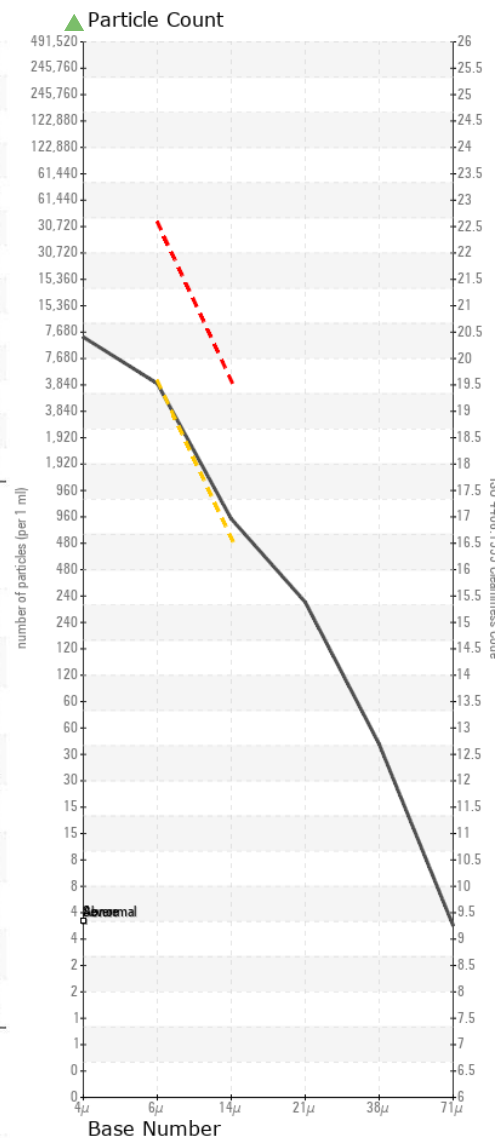
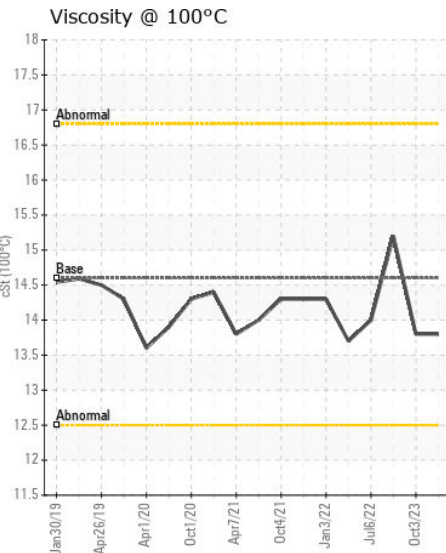
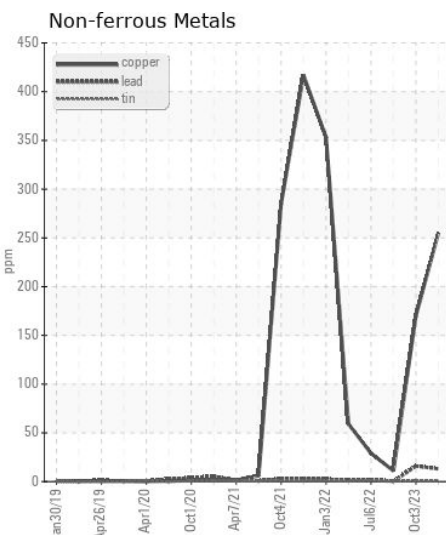
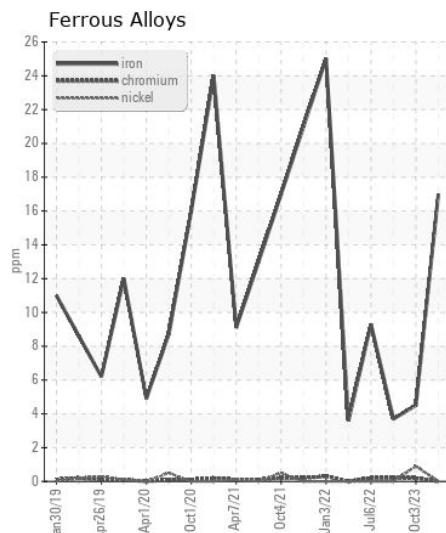
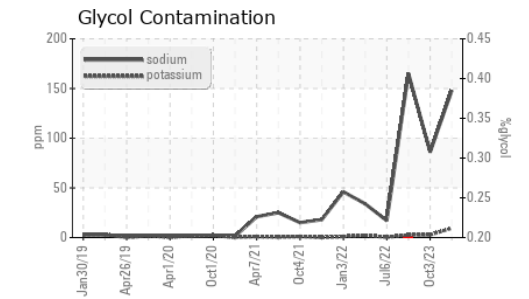
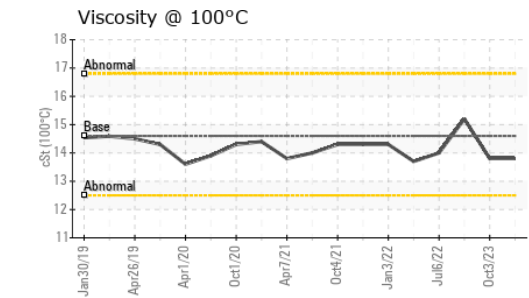
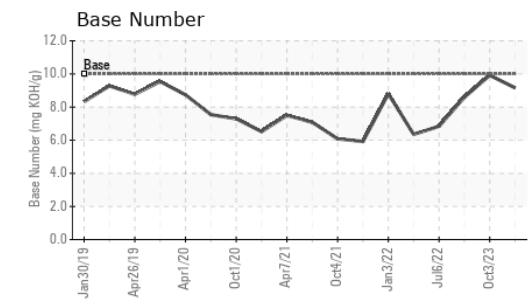
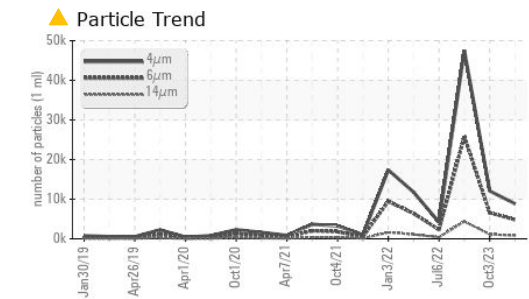
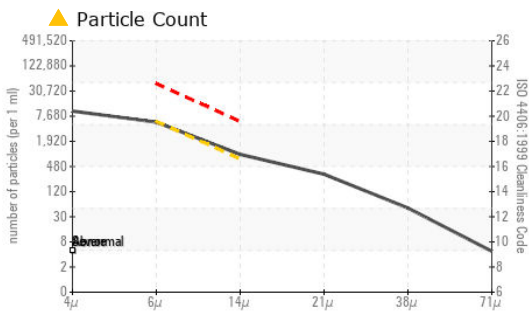
Sodium and/or potassium levels are high. There is a moderate amount of particulates present in the oil. Test for glycol is negative.

Silicon	ppm	ASTM D5185m	>25	4	4	7
Potassium	ppm	ASTM D5185m	>20	10	3	3
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	0.20
Soot %	%	*ASTM D7844	>3	1	0.7	0.2
Nitration	Abs/cm	*ASTM D7624	>20	10.6	7.9	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.5	20.6	13.1
Particles >4µm		ASTM D7647		8847	12066	47517
Particles >6µm		ASTM D7647	>5000	4820	▲ 6573	▲ 25885
Particles >14µm		ASTM D7647	>640	▲ 820	▲ 1119	▲ 4405
Particles >21µm		ASTM D7647	>160	▲ 276	▲ 377	▲ 1484
Particles >38µm		ASTM D7647	>40	▲ 43	▲ 58	▲ 229
Particles >71µm		ASTM D7647	>10	4	6	▲ 23
Oil Cleanliness		ISO 4406 (c)	>19/16	▲ 19/17	▲ 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	▲ MILKY
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	▲ 0.2%

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		▲ 148	86	▲ 165
Boron	ppm	ASTM D5185m		68	64	376
Barium	ppm	ASTM D5185m		0	0	2
Molybdenum	ppm	ASTM D5185m		112	107	106
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		213	237	344
Calcium	ppm	ASTM D5185m		1802	1439	1173
Phosphorus	ppm	ASTM D5185m	760	1005	1007	966
Zinc	ppm	ASTM D5185m	800	1212	1217	1175
Sulfur	ppm	ASTM D5185m	3000	3445	3672	3553
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.9	15.5	17.1
Base Number (BN)	mg KOH/g	ASTM D2896	10	9.16	9.92	8.59
Visc @ 100°C	cSt	ASTM D445	14.6	13.8	13.8	15.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0013958 **Received** : 16 Jan 2024
Lab Number : 06061356 **Diagnosed** : 18 Jan 2024
Unique Number : 10832738 **Diagnostician** : Jonathan Hester
Test Package : MOB 2 (Additional Tests: Glycol, 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)

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