



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL



Area
PCS - PORTABLE CRUSHING SERVICES
Machine Id
CATERPILLAR 545KW3412 GN01
Component
Right Diesel Engine
Fluid
CHEVRON DELO 400 SDE SAE 15W40 (50 QTS)

RECOMMENDATION

The 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		KL0013962	KL0013019	KL0009687
Sample Date		Client Info		09 Jan 2024	03 Oct 2023	29 Jun 2023
Machine Age	hrs	Client Info		36703	36191	35838
Oil Age	hrs	Client Info		50	1221	868
Filter Age	hrs	Client Info		50	1221	868
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				ATTENTION	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	0	15	29
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	1	0
Titanium	ppm	ASTM D5185m	>2	0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	0	1
Lead	ppm	ASTM D5185m	>40	0	2	3
Copper	ppm	ASTM D5185m	>330	31	162	162
Tin	ppm	ASTM D5185m	>15	0	<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

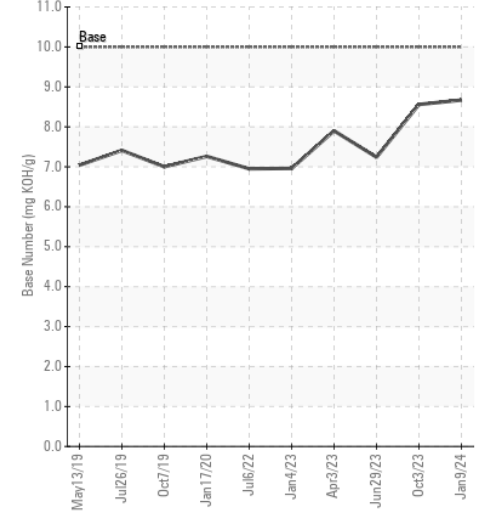
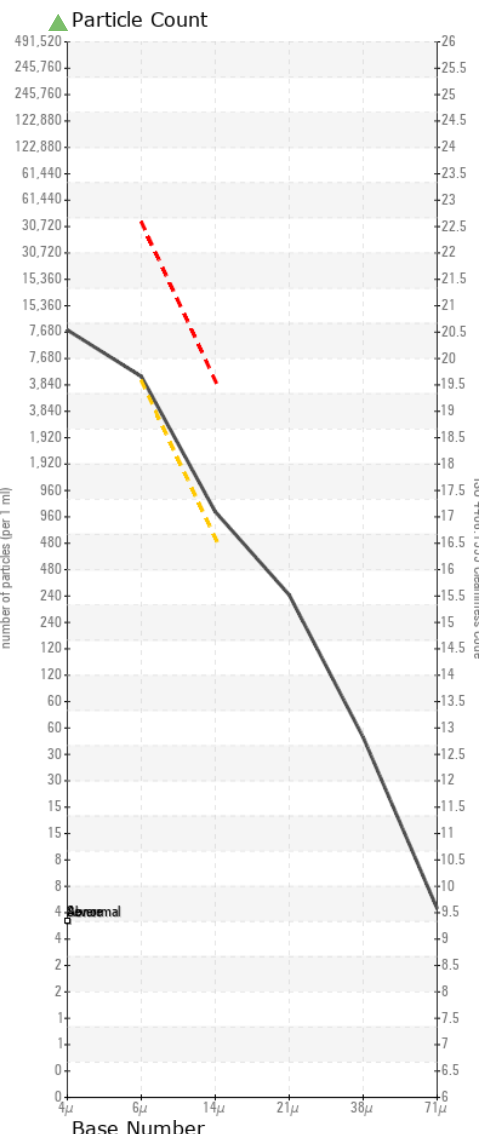
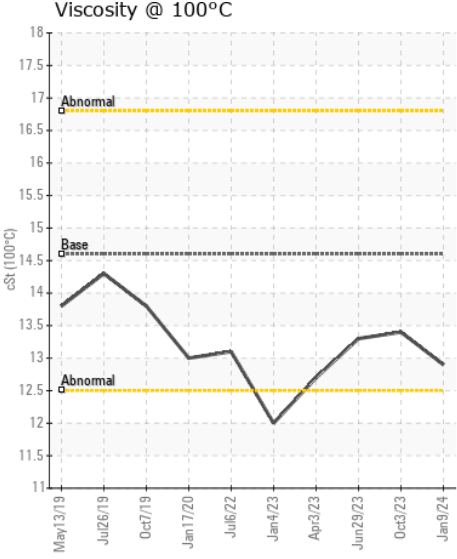
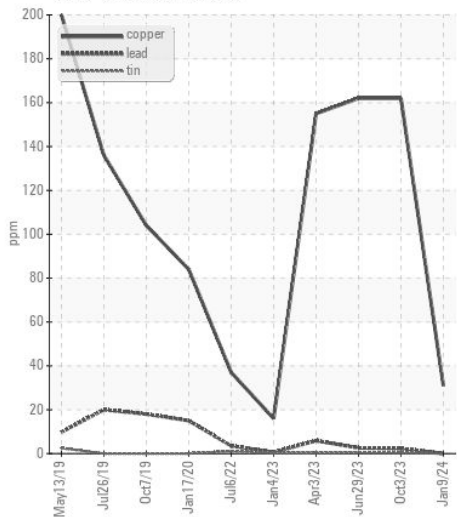
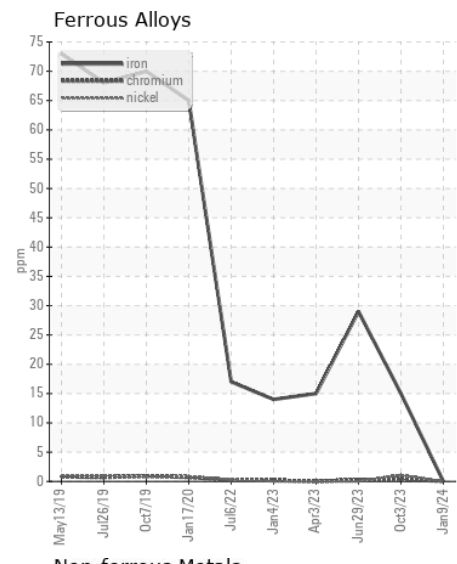
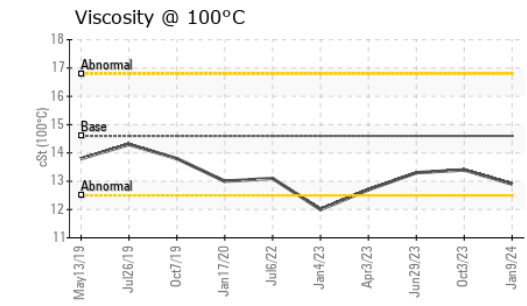
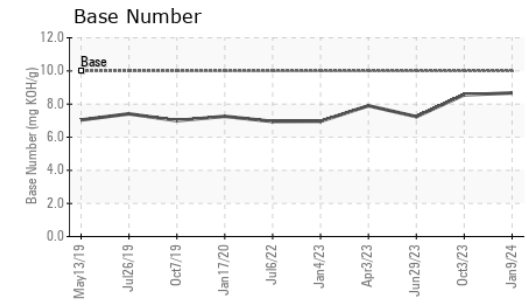
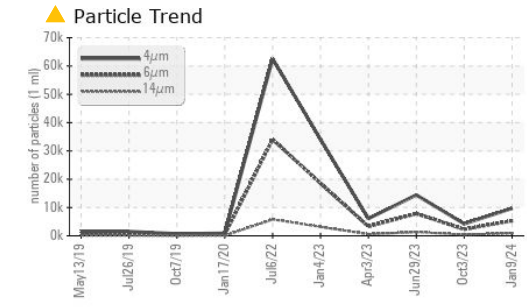
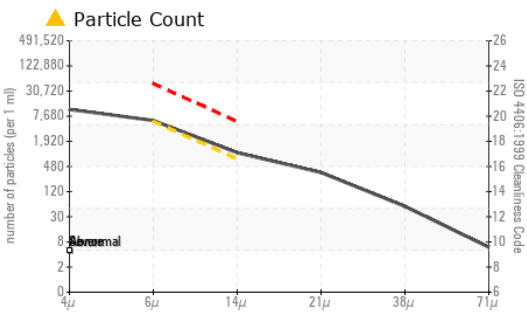
There is a light amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>25	3	5	6
Potassium	ppm	ASTM D5185m	>20	0	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	0.3	0.4
Nitration	Abs/cm	*ASTM D7624	>20	5.2	7.7	8.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.5	22.3	24.4
Particles >4µm		ASTM D7647		9709	4228	14434
Particles >6µm		ASTM D7647	>5000	▲ 5289	2303	▲ 7863
Particles >14µm		ASTM D7647	>640	▲ 900	392	▲ 1338
Particles >21µm		ASTM D7647	>160	▲ 303	132	▲ 451
Particles >38µm		ASTM D7647	>40	47	20	▲ 70
Particles >71µm		ASTM D7647	>10	5	2	7
Oil Cleanliness		ISO 4406 (c)	>19/16	▲ 20/17	18/16	▲ 20/18
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		4	3	11
Boron	ppm	ASTM D5185m		339	309	279
Barium	ppm	ASTM D5185m		0	0	2
Molybdenum	ppm	ASTM D5185m		76	93	100
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		386	388	362
Calcium	ppm	ASTM D5185m		1460	1481	1609
Phosphorus	ppm	ASTM D5185m	760	948	968	953
Zinc	ppm	ASTM D5185m	800	1139	1202	1131
Sulfur	ppm	ASTM D5185m	3000	3566	3915	4718
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.5	19.4	23.7
Base Number (BN)	mg KOH/g	ASTM D2896	10	8.67	8.56	7.24
Visc @ 100°C	cSt	ASTM D445	14.6	12.9	13.4	13.3



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0013962 **Received** : 16 Jan 2024
Lab Number : 06061357 **Diagnosed** : 18 Jan 2024
Unique Number : 10832739 **Diagnostician** : Wes Davis
Test Package : MOB 2 (Additional Tests: PrtCount)

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

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)