



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
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

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0014737	KL0013789	KL0013962
Sample Date		Client Info		09 Jul 2024	10 Apr 2024	09 Jan 2024
Machine Age	hrs	Client Info		37672	37207	36703
Oil Age	hrs	Client Info		1019	554	50
Filter Age	hrs	Client Info		1019	554	50
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Filter Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				NORMAL	ATTENTION	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	30	21	0
Chromium	ppm	ASTM D5185m	>20	0	<1	0
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	3	2
Lead	ppm	ASTM D5185m	>40	2	3	0
Copper	ppm	ASTM D5185m	>330	129	239	31
Tin	ppm	ASTM D5185m	>15	0	1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

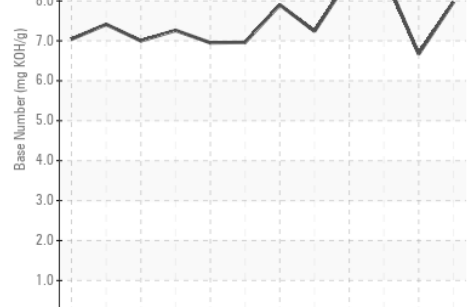
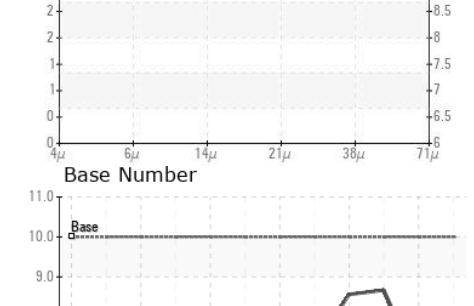
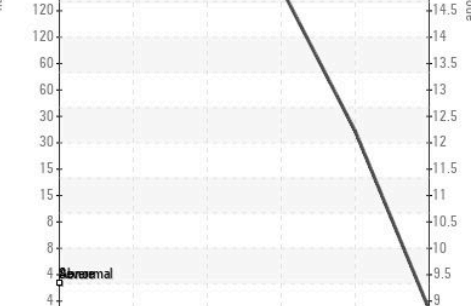
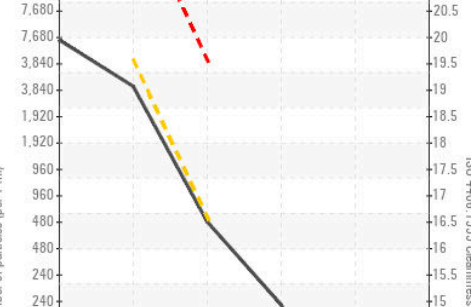
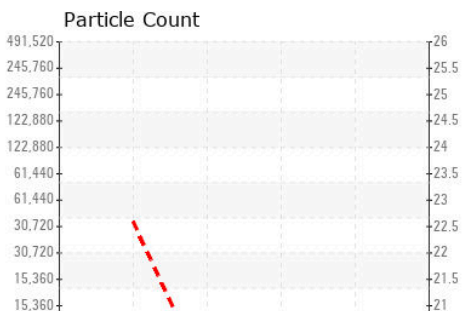
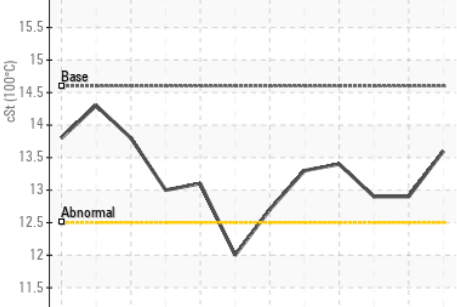
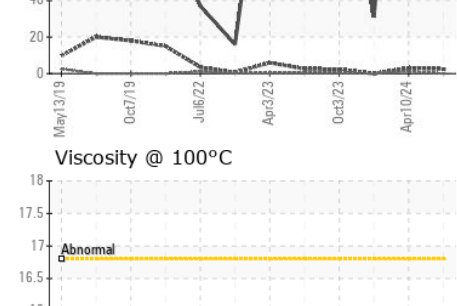
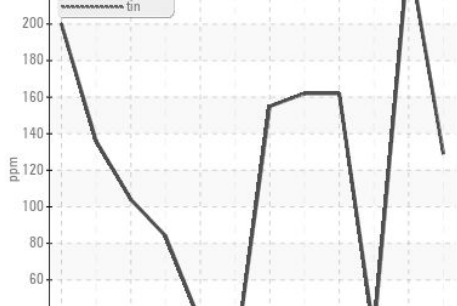
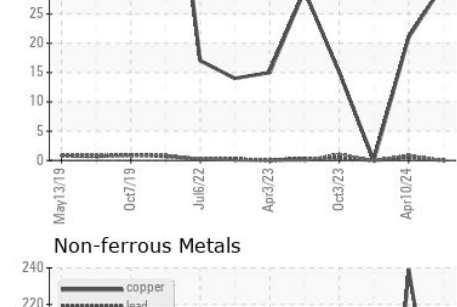
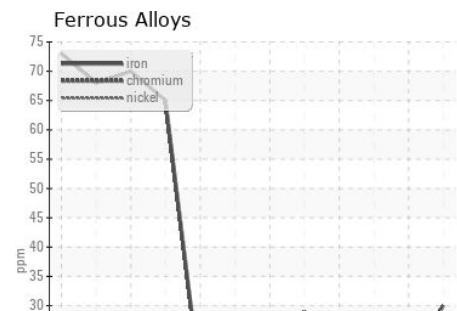
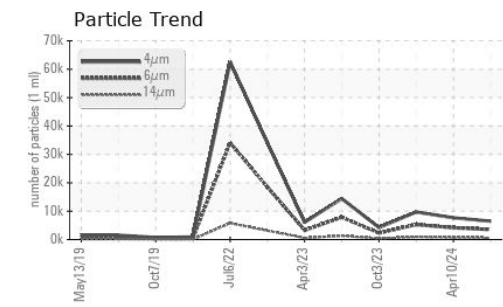
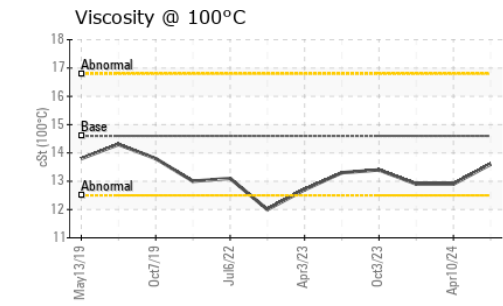
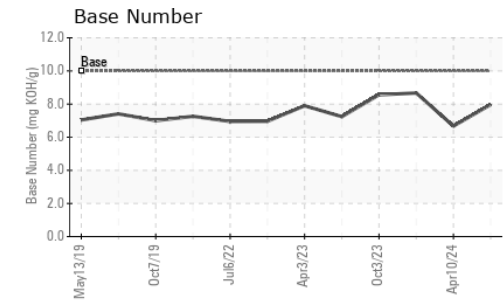
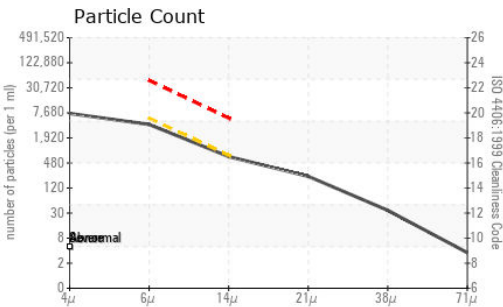
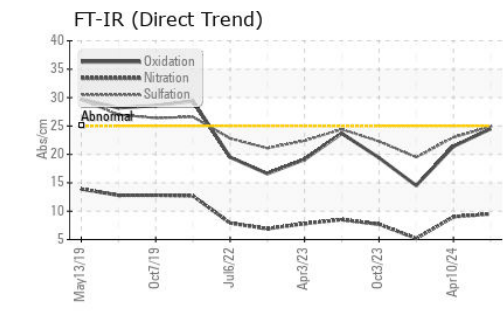
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>25	5	6	3
Potassium	ppm	ASTM D5185m	>20	<1	23	0
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	0.4	0.3	0.1
Nitration	Abs/cm	*ASTM D7624	>20	9.5	9.0	5.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.9	23.0	19.5
Particles >4µm		ASTM D7647		6472	7656	9709
Particles >6µm		ASTM D7647	>5000	3526	4171	5289
Particles >14µm		ASTM D7647	>640	600	710	900
Particles >21µm		ASTM D7647	>160	202	239	303
Particles >38µm		ASTM D7647	>40	31	37	47
Particles >71µm		ASTM D7647	>10	3	4	5
Oil Cleanliness		ISO 4406 (c)	>19/16	19/16	19/17	20/17
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		15	39	4
Boron	ppm	ASTM D5185m		230	282	339
Barium	ppm	ASTM D5185m		0	1	0
Molybdenum	ppm	ASTM D5185m		83	84	76
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		433	437	386
Calcium	ppm	ASTM D5185m		1716	1554	1460
Phosphorus	ppm	ASTM D5185m	760	1028	1047	948
Zinc	ppm	ASTM D5185m	800	1237	1214	1139
Sulfur	ppm	ASTM D5185m	3000	4241	3777	3566
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.5	21.4	14.5
Base Number (BN)	mg KOH/g	ASTM D2896	10	7.97	6.67	8.67
Visc @ 100°C	cSt	ASTM D445	14.6	13.6	12.9	12.9



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0014737 **Received** : 16 Jul 2024
Lab Number : 06238005 **Tested** : 17 Jul 2024
Unique Number : 11126839 **Diagnosed** : 17 Jul 2024 - Wes Davis
Test Package : MOB 2 (Additional Tests: PrtCount)

PIKES PEAK PERFORMANCE PRODUCTS
 7888 BULLET RD
 PEYTON, CO
 US 80831

Certificate L2367 **Contact:** SCOTT RIGGS
 To discuss this sample report, contact Customer Service at 1-800-237-1369. **riggs.pikespeakperformance@gmail.com**
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. **T:** (303)434-0126
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) **F:** x: