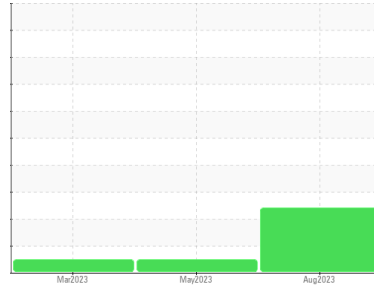




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
HER SON
 Machine Id
VOLVO Cummins ISX 450 T233 (S/N 4V4NC9TH5CN544881)
 Component
Diesel Engine
 Fluid
MOBIL DELVAC 1300 SUPER15W40 (45 LTR)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates present in the oil.

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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		KL0012781	KL0012363	KL0011375
Sample Date	Client Info		08 Aug 2023	22 May 2023	08 Mar 2023
Machine Age	kms	Client Info	1915999	1888721	1863857
Oil Age	kms	Client Info	52142	24864	1
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status			ABNORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>6.0	<1.0	<1.0	<1.0
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	66	25	3
Chromium	ppm	ASTM D5185m >20	2	1	<1
Nickel	ppm	ASTM D5185m >2	<1	0	<1
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m >2	0	0	<1
Aluminum	ppm	ASTM D5185m >25	6	2	1
Lead	ppm	ASTM D5185m >40	2	0	0
Copper	ppm	ASTM D5185m >330	1	<1	<1
Tin	ppm	ASTM D5185m >15	<1	<1	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	32	41	119
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 0	121	114	115
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m 0	680	716	775
Calcium	ppm	ASTM D5185m	1229	1219	1258
Phosphorus	ppm	ASTM D5185m	744	759	794
Zinc	ppm	ASTM D5185m	891	899	956
Sulfur	ppm	ASTM D5185m	2871	3610	4134

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	10	7	7
Sodium	ppm	ASTM D5185m	1	2	1
Potassium	ppm	ASTM D5185m >20	1	<1	<1

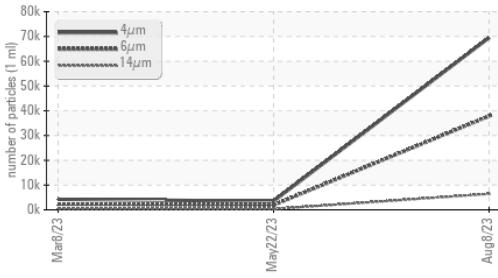
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	1.4	0.7	0.1
Nitration	Abs/cm	*ASTM D7624 >20	14.3	11.6	7.0
Sulfation	Abs./1mm	*ASTM D7415 >30	25.8	21.9	17.6

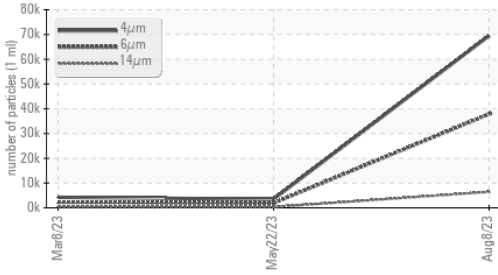


OIL ANALYSIS REPORT

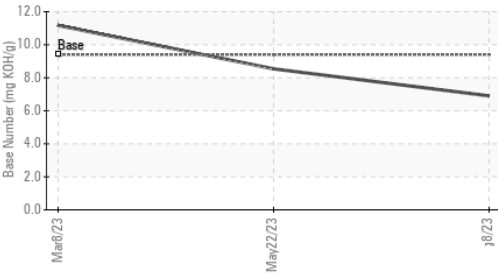
▲ Particle Trend



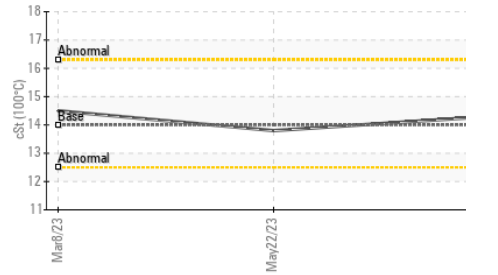
▲ Particle Trend



Base Number



Viscosity @ 100°C



FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		69467	3480	4246
Particles >6µm	ASTM D7647	>5000	▲ 37843	1896	2313
Particles >14µm	ASTM D7647	>640	▲ 6440	323	394
Particles >21µm	ASTM D7647	>160	▲ 2169	109	133
Particles >38µm	ASTM D7647	>40	▲ 335	17	20
Particles >71µm	ASTM D7647	>10	▲ 34	2	2
Oil Cleanliness	ISO 4406 (c)	>19/16	▲ 22/20	18/16	18/16

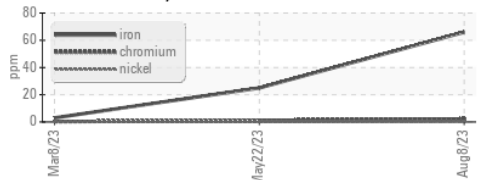
FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414	>25	24.8	19.7	13.3
Base Number (BN)	mg KOH/g ASTM D2896	9.4	6.90	8.54	11.17

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar *Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar *Visual	NONE	NONE	NONE	NONE
Precipitate	scalar *Visual	NONE	NONE	NONE	NONE
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
Free Water	scalar *Visual		NEG	NEG	NEG

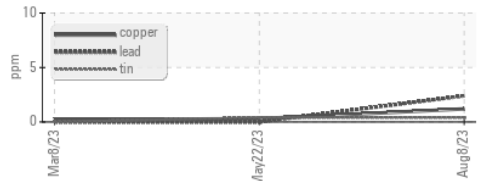
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt ASTM D445	14	14.3	13.8	14.5

GRAPHS

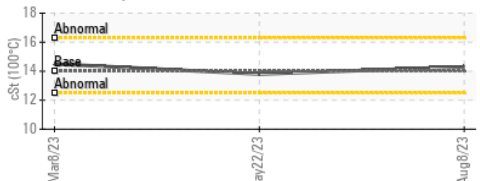
Ferrous Alloys



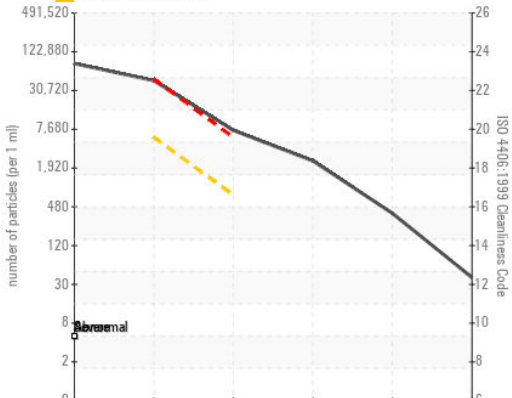
Non-ferrous Metals



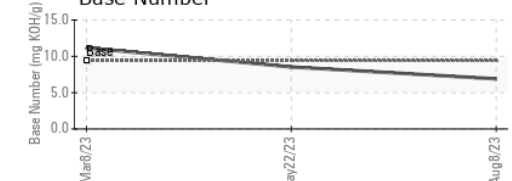
Viscosity @ 100°C



▲ Particle Count



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : KL0012781 Received : 22 Aug 2023
 Lab Number : 05931664 Diagnosed : 24 Aug 2023
 Unique Number : 10616935 Diagnostician : Don Baldrige
 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)

CONOR
 JUAREZ 348
 HERMOSILLO,
 MX 83140

Contact: EDUARDO GARCIA
 egarcia.comsa@gmail.com

T: (526)622-1581 x:81

F: x: