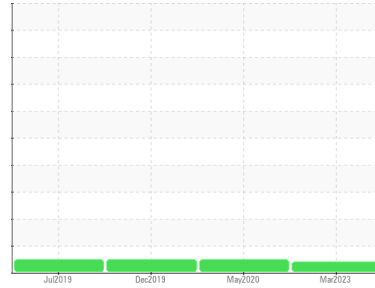


OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Area
CHELSEA
Machine Id
322

Component
Diesel Engine
Fluid

MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

DIAGNOSIS

Recommendation

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

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0066625	PCA0018641	PCA45329047
Sample Date	Client Info		06 Mar 2023	28 May 2020	04 Dec 2019
Machine Age	mls	Client Info	316635	72000	52000
Oil Age	mls	Client Info	244635	0	---
Oil Changed	Client Info		Changed	Changed	N/A
Sample Status			ATTENTION	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		NEG	NEG	0.0

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >65	47	23	23
Chromium	ppm	ASTM D5185m >5	4	2	3
Nickel	ppm	ASTM D5185m >3	0	<1	0
Titanium	ppm	ASTM D5185m >5	2	0	0
Silver	ppm	ASTM D5185m >2	0	<1	0
Aluminum	ppm	ASTM D5185m >35	27	17	28
Lead	ppm	ASTM D5185m >10	0	<1	0
Copper	ppm	ASTM D5185m >180	4	45	97
Tin	ppm	ASTM D5185m >8	<1	<1	2
Antimony	ppm	ASTM D5185m >35	---	0	---
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	4	25	20
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 0	57	31	36
Manganese	ppm	ASTM D5185m	1	<1	---
Magnesium	ppm	ASTM D5185m 0	897	501	466
Calcium	ppm	ASTM D5185m	1097	1529	1486
Phosphorus	ppm	ASTM D5185m	941	618	644
Zinc	ppm	ASTM D5185m	1225	775	713
Sulfur	ppm	ASTM D5185m	3029	1882	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	10	4	4
Sodium	ppm	ASTM D5185m	3	4	3
Potassium	ppm	ASTM D5185m >20	2	42	58
Fuel	%	ASTM D3524 >5	0.3	<1.0	<1.0

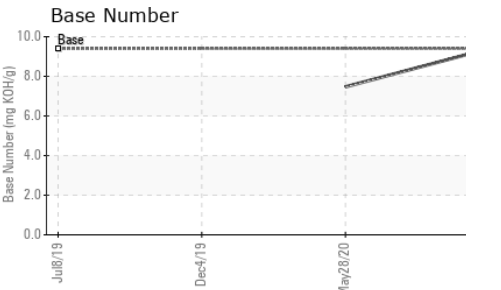
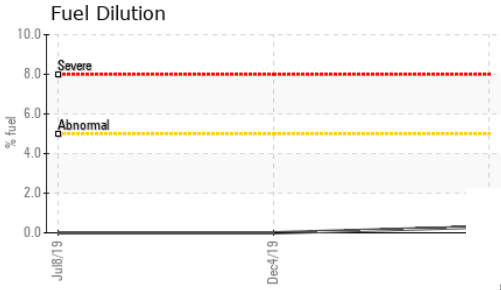
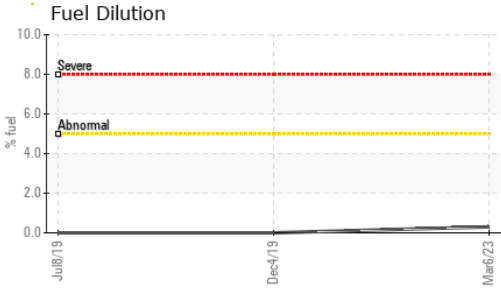
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	1	0.8	1.03
Nitration	Abs/cm	*ASTM D7624 >20	10.3	10.7	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	21.2	23.7	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	17.1	22	8
Base Number (BN)	mg KOH/g	ASTM D2896 9.4	9.40	7.47	---

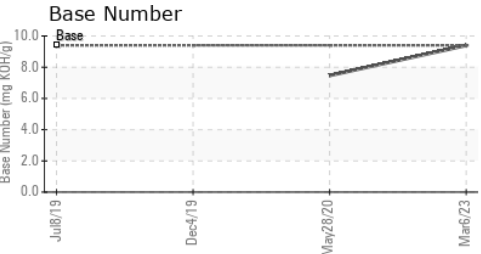
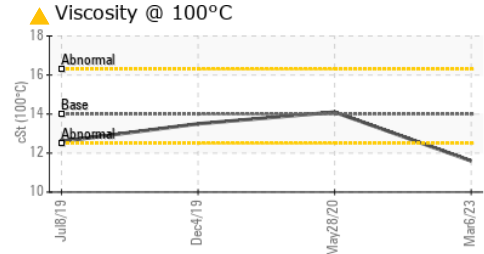
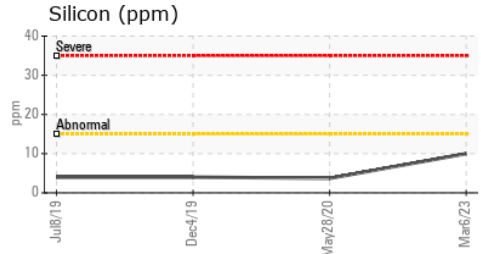
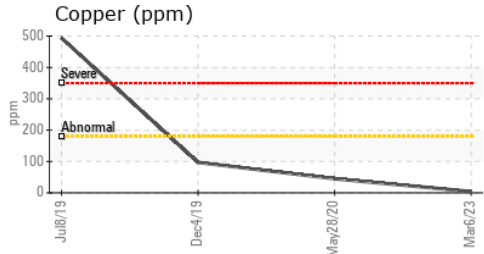
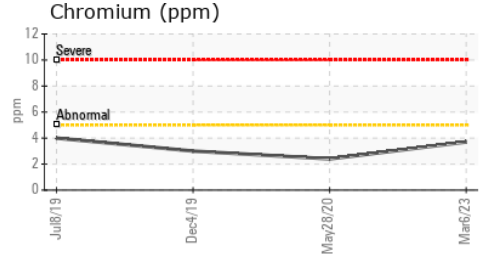
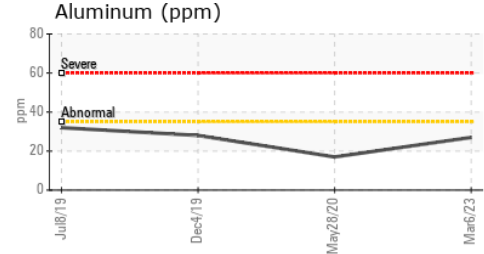
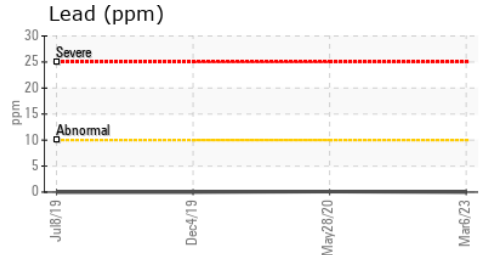
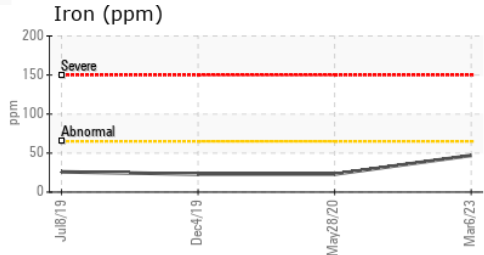
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	14	▲ 11.6	14.1	13.5

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0066625 **Received** : 16 Mar 2023
Lab Number : 05793606 **Diagnosed** : 20 Mar 2023
Unique Number : 10378277 **Diagnostician** : Sean Felton
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

DENNIS K BURKE INC - INTERNAL SAMPLES
 555 CONSTITUTION DR
 TAUNTON, MA
 US 02780
 Contact: GREG DUNKER

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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