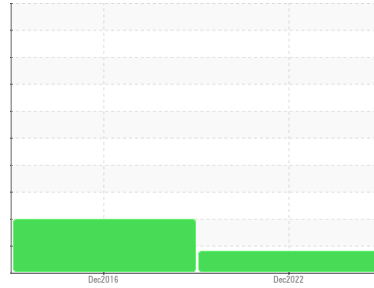


OIL ANALYSIS REPORT

Area
Boston
 Machine Id
Western Star 327
 Component
Diesel Engine
 Fluid
CITGO CITGARD 700 10W30 (--- GAL)

Sample Rating Trend



WEAR



DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

▲ Wear

The aluminum level is abnormal. All other component wear rates are normal.

Contamination

There is no indication of any contamination 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		PCA0066630	PCA70119722	---
Sample Date	Client Info		05 Dec 2022	23 Dec 2016	---
Machine Age	mls	Client Info	0	28477	---
Oil Age	mls	Client Info	0	---	---
Oil Changed	Client Info		N/A	N/A	---
Sample Status			ABNORMAL	ABNORMAL	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	---
Glycol	WC Method		NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	32	44	---
Chromium	ppm	ASTM D5185m >20	2	2	---
Nickel	ppm	ASTM D5185m >4	0	0	---
Titanium	ppm	ASTM D5185m	<1	---	---
Silver	ppm	ASTM D5185m >3	0	0	---
Aluminum	ppm	ASTM D5185m >20	▲ 23	▲ 25	---
Lead	ppm	ASTM D5185m >40	<1	0	---
Copper	ppm	ASTM D5185m >330	3	193	---
Tin	ppm	ASTM D5185m >15	<1	3	---
Antimony	ppm	ASTM D5185m	---	0	---
Vanadium	ppm	ASTM D5185m	0	---	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 6	7	4	---
Barium	ppm	ASTM D5185m 0	0	0	---
Molybdenum	ppm	ASTM D5185m 50	64	47	---
Manganese	ppm	ASTM D5185m	<1	---	---
Magnesium	ppm	ASTM D5185m 798	954	713	---
Calcium	ppm	ASTM D5185m 1222	1130	1148	---
Phosphorus	ppm	ASTM D5185m 984	1018	885	---
Zinc	ppm	ASTM D5185m 1196	1205	1092	---
Sulfur	ppm	ASTM D5185m 2783	3395	2296	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	4	1	---
Sodium	ppm	ASTM D5185m	2	4	---
Potassium	ppm	ASTM D5185m >20	33	▲ 67	---

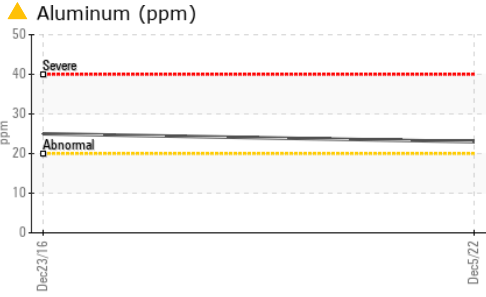
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.9	0.7	---
Nitration	Abs/cm	*ASTM D7624 >20	10.5	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.6	---	---

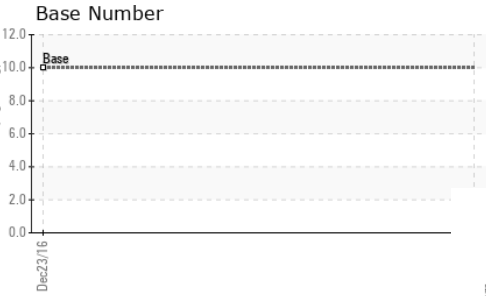
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	18.6	---	---
Base Number (BN)	mg KOH/g	ASTM D2896 10	4.93	---	---

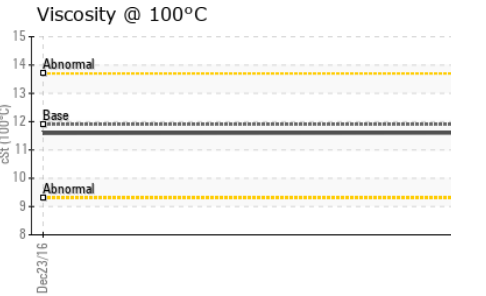
OIL ANALYSIS REPORT



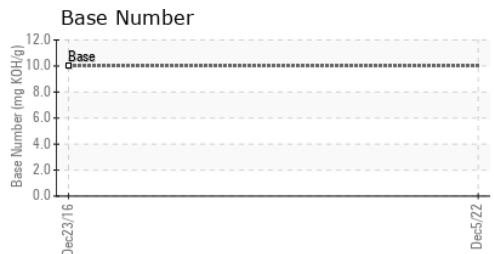
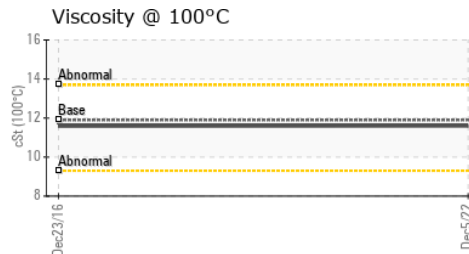
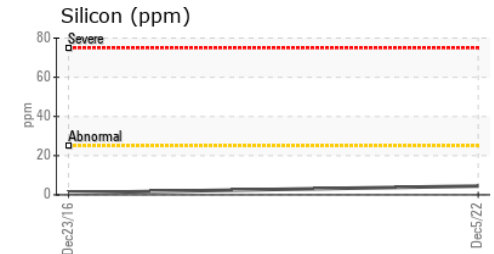
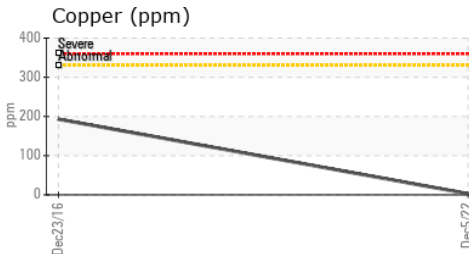
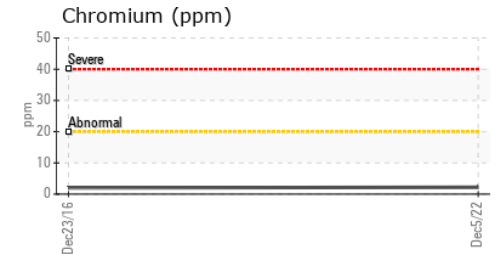
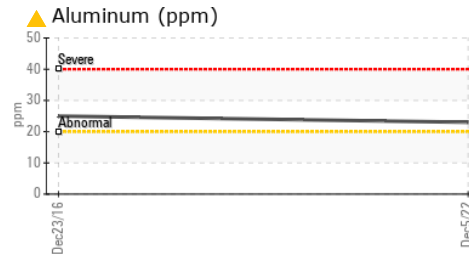
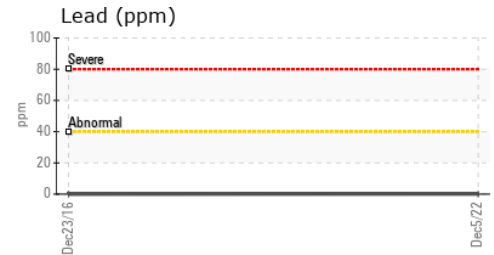
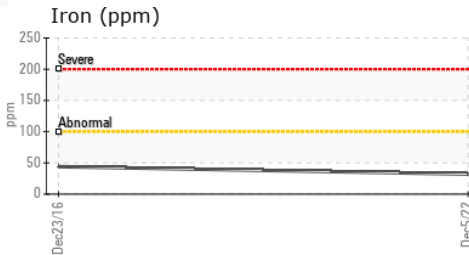
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	11.9	11.6	11.59



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0066630 **Received** : 06 Dec 2022
Lab Number : 05709927 **Diagnosed** : 08 Dec 2022
Unique Number : 10244502 **Diagnostician** : Don Baldrige
Test Package : MOB 2

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 TAUNTON, MA
 US 02780
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 greg.dunker@burkeoil.com
 T: (800)289-2875
 F: (617)889-6422

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)