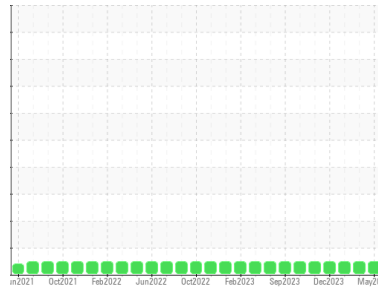


# OIL ANALYSIS REPORT

Area  
**Plymouth & Brockton**  
 Machine Id  
**434**  
 Component  
**Diesel Engine**  
 Fluid  
 **DIESEL ENGINE OIL SAE 40 (36 QTS)**

Sample Rating Trend



**NORMAL**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All 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			<b>PCA0109977</b>	PCA0104737	PCA0110055
Sample Date	Client Info			<b>10 May 2024</b>	30 Mar 2024	23 Jan 2024
Machine Age	mls Client Info			<b>304967</b>	293066	282462
Oil Age	mls Client Info			<b>12000</b>	24000	12000
Oil Changed	Client Info			<b>Not Changed</b>	Changed	Not Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>3.0		<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2		<b>NEG</b>	NEG	NEG
Glycol	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	<b>12</b>	13	10
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	1
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	2	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0

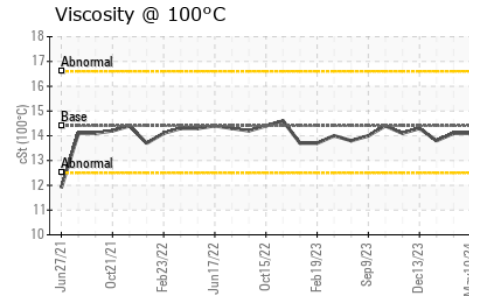
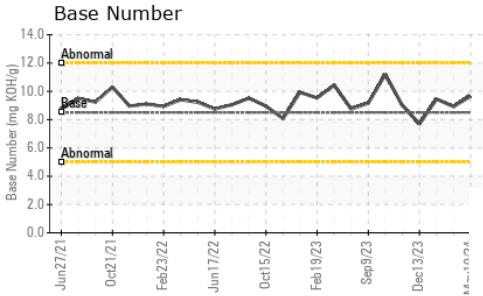
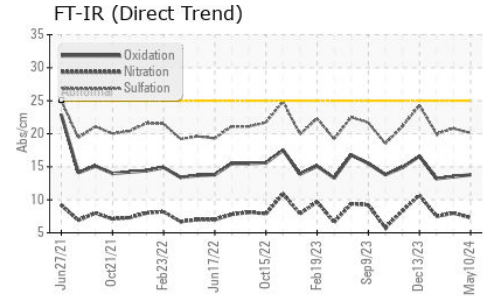
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	<b>8</b>	6	8
Barium	ppm	ASTM D5185m	10	<b>2</b>	0	3
Molybdenum	ppm	ASTM D5185m	100	<b>63</b>	60	63
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	450	<b>972</b>	1011	855
Calcium	ppm	ASTM D5185m	3000	<b>1144</b>	1226	1094
Phosphorus	ppm	ASTM D5185m	1150	<b>1170</b>	1111	968
Zinc	ppm	ASTM D5185m	1350	<b>1311</b>	1375	1127
Sulfur	ppm	ASTM D5185m	4250	<b>3534</b>	3851	3303

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>4</b>	4	3
Sodium	ppm	ASTM D5185m	>216	<b>&lt;1</b>	<1	0
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	3	2

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	<b>1.3</b>	1.8	1.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.3</b>	8.0	7.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.1</b>	20.8	20.0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.8</b>	13.5	13.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>9.65</b>	8.92	9.45

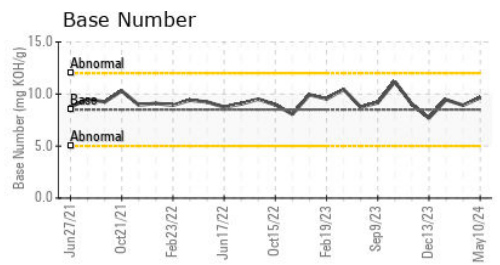
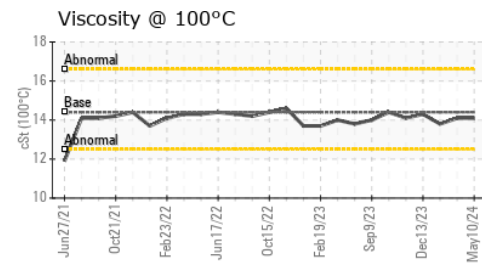
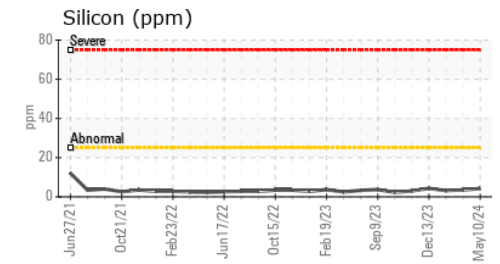
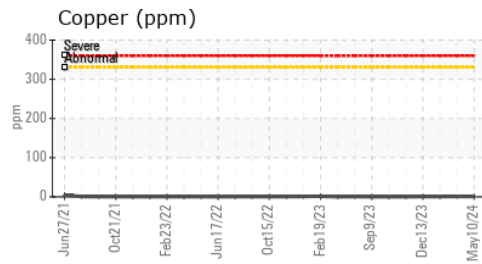
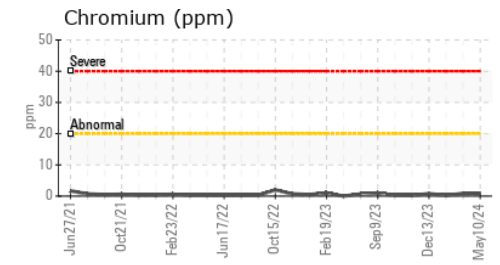
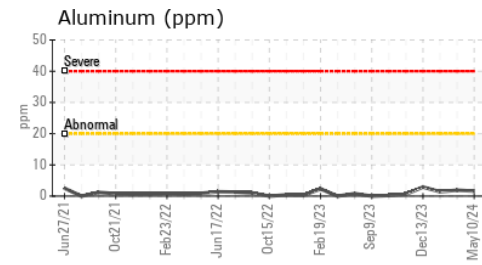
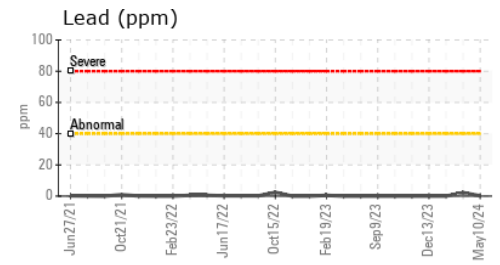
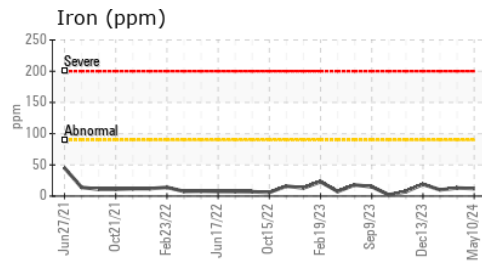
# OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	14.1	13.8

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0109977 **Received** : 31 May 2024  
**Lab Number** : **06196884** **Tested** : 03 Jun 2024  
**Unique Number** : 11059007 **Diagnosed** : 03 Jun 2024 - Wes Davis  
**Test Package** : MOB 2

**PLYMOUTH & BROCKTON**  
 8 INDUSTRIAL PARK RD  
 PLYMOUTH, MA  
 US 02360  
 Contact: Donald Pelquin  
 Dpelquin@P-B.com  
 T: (508)732-6039  
 F: (508)732-6091

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)