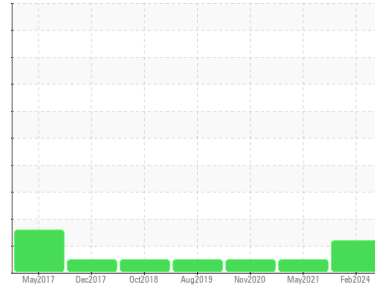


# OIL ANALYSIS REPORT

## Sample Rating Trend



**FUEL**



Machine Id  
**CATERPILLAR 906M 30-50 (S/N 906M-H66-US)**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON XL SYN BLEND 15W40 (3 GAL)**

## DIAGNOSIS

### Recommendation

We advise that you check the fuel injection system. Oil and 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 moderate amount of fuel present in the oil.

### Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>PCA0056818</b>	PCA0035987	PCA0024055
Sample Date	Client Info	<b>06 Feb 2024</b>	28 May 2021	03 Nov 2020
Machine Age	hrs	<b>3838</b>	3282	2662
Oil Age	hrs	<b>199</b>	620	440
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
Sample Status		<b>ABNORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
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 >100	<b>4</b>	10	8
Chromium	ppm ASTM D5185m >20	<b>0</b>	<1	<1
Nickel	ppm ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm ASTM D5185m >2	<b>0</b>	0	0
Silver	ppm ASTM D5185m >2	<b>0</b>	<1	0
Aluminum	ppm ASTM D5185m >25	<b>&lt;1</b>	3	<1
Lead	ppm ASTM D5185m >40	<b>0</b>	<1	<1
Copper	ppm ASTM D5185m >330	<b>0</b>	<1	14
Tin	ppm ASTM D5185m >15	<b>0</b>	<1	<1
Antimony	ppm ASTM D5185m	<b>---</b>	0	0
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	<1	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 1	<b>29</b>	16	4
Barium	ppm ASTM D5185m 1	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>53</b>	62	55
Manganese	ppm ASTM D5185m 1	<b>0</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>815</b>	855	835
Calcium	ppm ASTM D5185m 1070	<b>1124</b>	1171	1050
Phosphorus	ppm ASTM D5185m 1150	<b>967</b>	1029	974
Zinc	ppm ASTM D5185m 1270	<b>1178</b>	1213	1147
Sulfur	ppm ASTM D5185m 2060	<b>3460</b>	2713	2511

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>4</b>	2	3
Sodium	ppm ASTM D5185m	<b>&lt;1</b>	1	1
Potassium	ppm ASTM D5185m >20	<b>0</b>	2	0
Fuel	% ASTM D3524 >5	<b>▲ 5.6</b>	<1.0	<1.0

## INFRA-RED

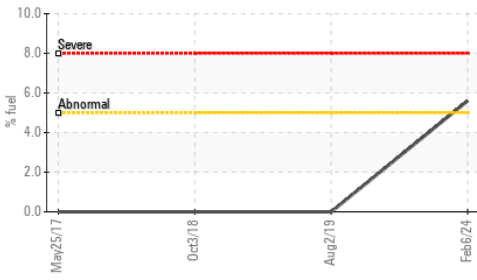
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.1</b>	0.2	0.2
Nitration	Abs/cm *ASTM D7624 >20	<b>6.9</b>	7.7	9.5
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>17.9</b>	19.2	19.5

## FLUID DEGRADATION

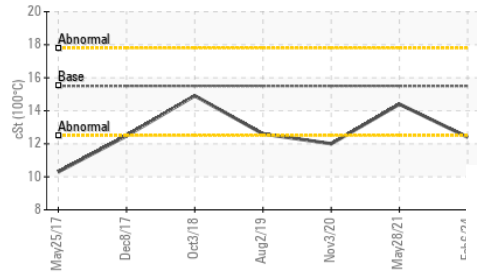
method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>13.8</b>	14.9	15.8
Base Number (BN)	mg KOH/g ASTM D2896 9.6	<b>8.0</b>	---	---

# OIL ANALYSIS REPORT

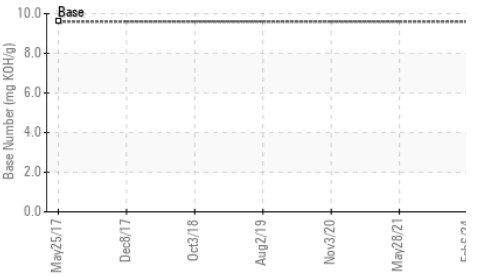
### ▲ Fuel Dilution



### ▲ Viscosity @ 100°C



### Base Number

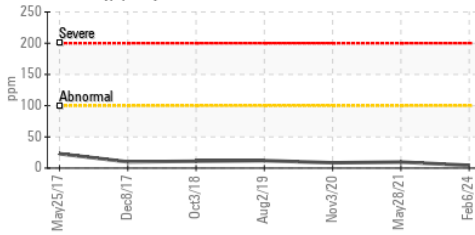


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

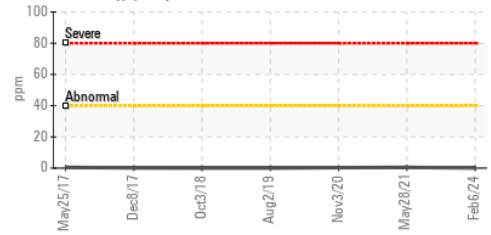
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	▲ 12.4	14.4	12.0

### GRAPHS

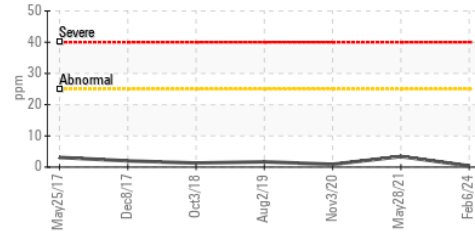
#### Iron (ppm)



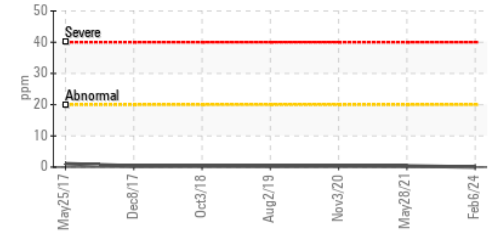
#### Lead (ppm)



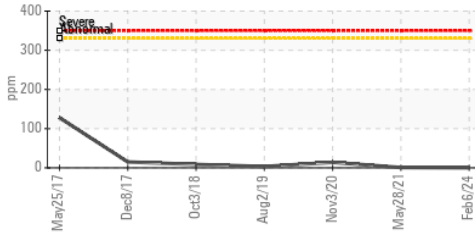
#### Aluminum (ppm)



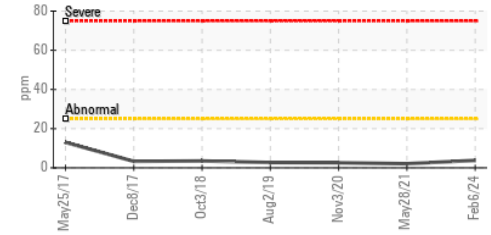
#### Chromium (ppm)



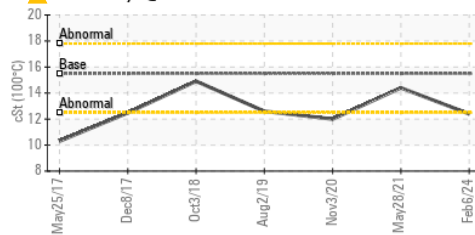
#### Copper (ppm)



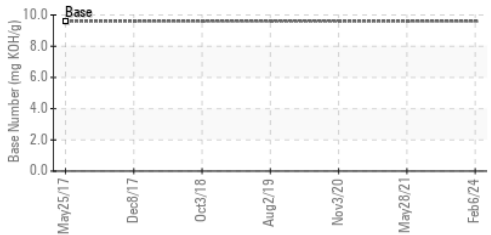
#### Silicon (ppm)



### ▲ Viscosity @ 100°C



### Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0056818      **Received** : 18 Mar 2024  
**Lab Number** : 06120502      **Tested** : 20 Mar 2024  
**Unique Number** : 10929335      **Diagnosed** : 20 Mar 2024 - Don Baldrige  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel, TBN )

**JOHNSON DAVIS CONTRACTORS**  
 604 HILBRATH DR  
 LANTANA, FL  
 US 33462  
 Contact: GENE GARDNER  
 ggardner@johnsondavis.com

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)

T: (561)588-1170

F: