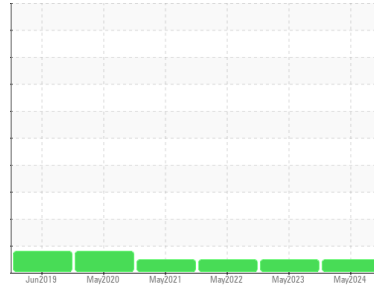




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Area

**(EQ4543) N**

Machine Id

**Webster Lake Water Pump Station (S/N 73279888)**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON UHP 5W40 (22 QTS)**

### 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>WC0934059</b>	WC0810877	WC0696098
Sample Date	Client Info	<b>08 May 2024</b>	18 May 2023	10 May 2022
Machine Age	hrs	<b>0</b>	451	317
Oil Age	hrs	<b>4474</b>	160	317
Oil Changed	Client Info	<b>Not Chngd</b>	Not Chngd	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>7</b>	6	2
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	0	<1
Nickel	ppm ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm ASTM D5185m >2	<b>1</b>	<1	<1
Silver	ppm ASTM D5185m >2	<b>2</b>	<1	<1
Aluminum	ppm ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Lead	ppm ASTM D5185m >40	<b>2</b>	<1	<1
Copper	ppm ASTM D5185m >330	<b>2</b>	1	1
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	<1	0
Antimony	ppm ASTM D5185m	<b>---</b>	---	---
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>&lt;1</b>	<1	0

### ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 65	<b>62</b>	65	77
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 65	<b>53</b>	51	52
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1160	<b>1047</b>	1042	1074
Calcium	ppm ASTM D5185m 820	<b>1053</b>	1051	1083
Phosphorus	ppm ASTM D5185m 1160	<b>1090</b>	1052	1130
Zinc	ppm ASTM D5185m 1260	<b>1336</b>	1388	1278
Sulfur	ppm ASTM D5185m 3000	<b>4236</b>	4051	3266

### CONTAMINANTS

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

### INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm *ASTM D7624 >20	<b>7.2</b>	7.5	5.9
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>18.7</b>	18.7	18.0

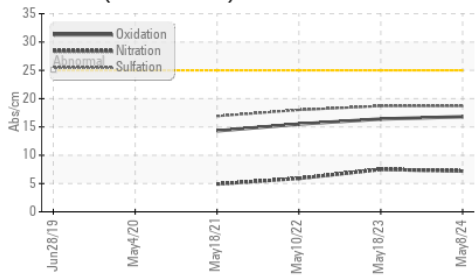
### FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>16.8</b>	16.4	15.5
Base Number (BN)	mg KOH/g ASTM D2896 11.0	<b>9.2</b>	9.5	9.3

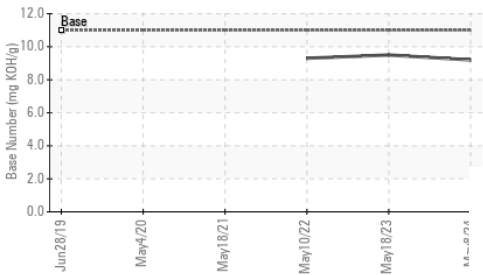


# OIL ANALYSIS REPORT

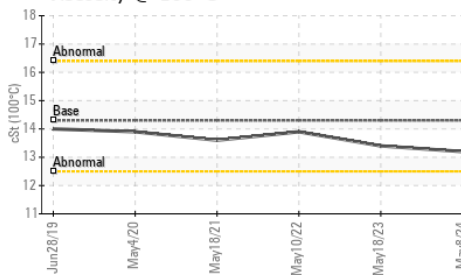
FT-IR (Direct Trend)



Base Number



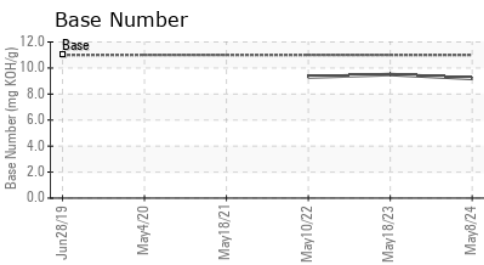
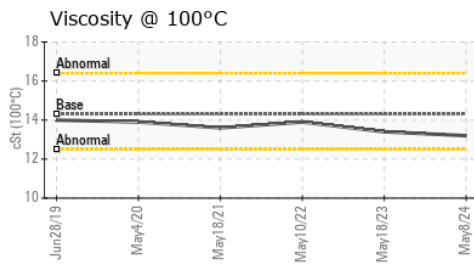
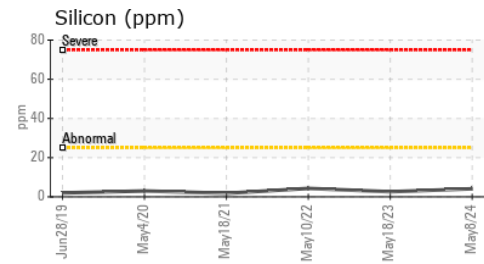
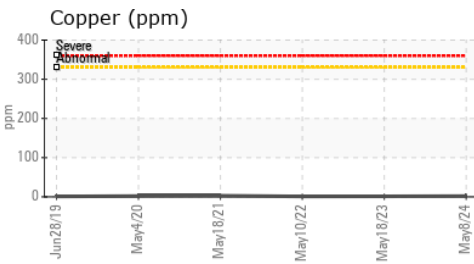
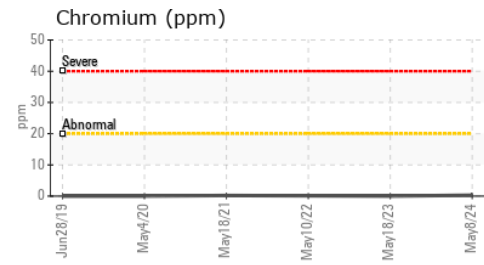
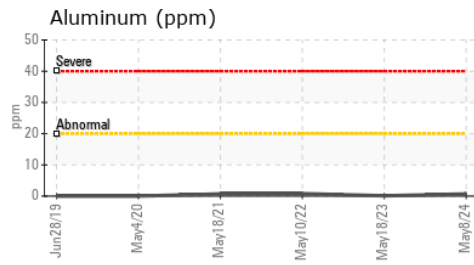
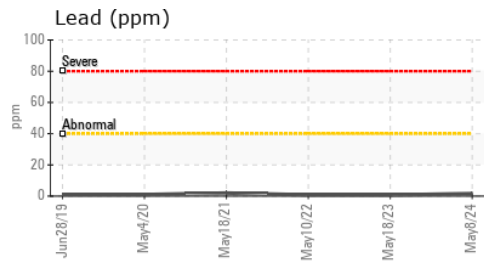
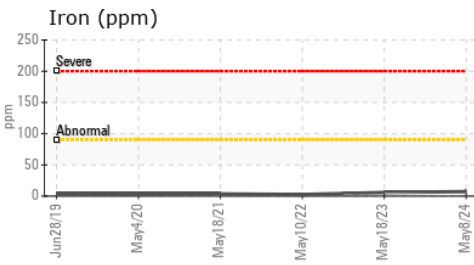
Viscosity @ 100°C



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	14.3	13.2	13.4	13.9

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0934059      **Received** : 13 May 2024  
**Lab Number** : 06176876      **Tested** : 14 May 2024  
**Unique Number** : 11022929      **Diagnosed** : 14 May 2024 - Sean Felton  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**MONROE COUNTY WATER AUTHORITY**  
 4799 DEWEY AVE  
 ROCHESTER, NY  
 US 14612  
 Contact: SCOTT TRAIL  
 scott.trail@mcwa.com  
 T: (585)775-5257  
 F:

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)