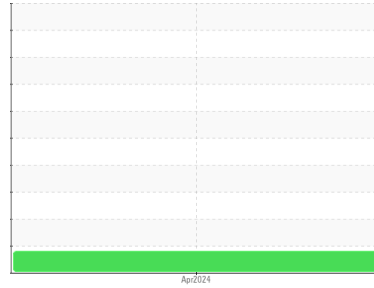


# OIL ANALYSIS REPORT

Sample Rating Trend



**OFF SPEC**



Machine Id  
**OR890**  
Component  
**Left Final Drive**  
Fluid  
**PETRO CANADA ENDURATEX EP 220 (--- GAL)**

## DIAGNOSIS

### Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The oil viscosity is higher than typical. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>PC0087892</b>	---	---
Sample Date	Client Info		<b>20 Apr 2024</b>	---	---
Machine Age	hrs	Client Info	<b>8510</b>	---	---
Oil Age	hrs	Client Info	<b>0</b>	---	---
Oil Changed	Client Info		<b>Changed</b>	---	---
Sample Status			<b>ABNORMAL</b>	---	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		<b>59</b>	---	---
Iron	ppm	ASTM D5185(m) >500	<b>124</b>	---	---
Chromium	ppm	ASTM D5185(m) >10	<b>1</b>	---	---
Nickel	ppm	ASTM D5185(m) >10	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185(m)	<b>1</b>	---	---
Silver	ppm	ASTM D5185(m)	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185(m) >25	<b>17</b>	---	---
Lead	ppm	ASTM D5185(m) >25	<b>0</b>	---	---
Copper	ppm	ASTM D5185(m) >50	<b>17</b>	---	---
Tin	ppm	ASTM D5185(m) >10	<b>&lt;1</b>	---	---
Antimony	ppm	ASTM D5185(m) >5	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	---	---
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	---	---
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	---	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 60	<b>22</b>	---	---
Barium	ppm	ASTM D5185(m) 0	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185(m) 0	<b>0</b>	---	---
Manganese	ppm	ASTM D5185(m) 0	<b>1</b>	---	---
Magnesium	ppm	ASTM D5185(m) 0	<b>26</b>	---	---
Calcium	ppm	ASTM D5185(m) 0	<b>80</b>	---	---
Phosphorus	ppm	ASTM D5185(m) 270	<b>389</b>	---	---
Zinc	ppm	ASTM D5185(m) 0	<b>24</b>	---	---
Sulfur	ppm	ASTM D5185(m) 11200	<b>4744</b>	---	---
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	---	---

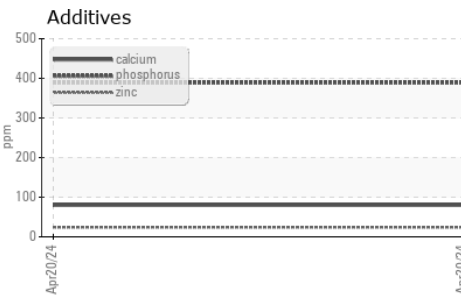
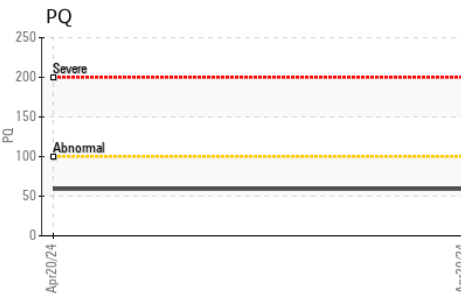
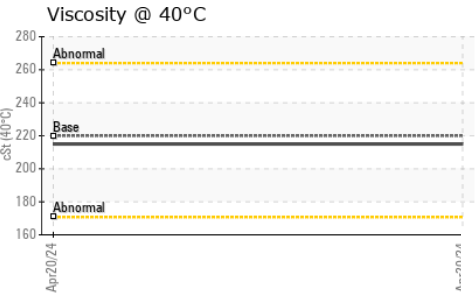
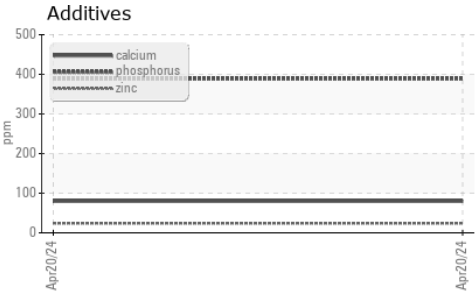
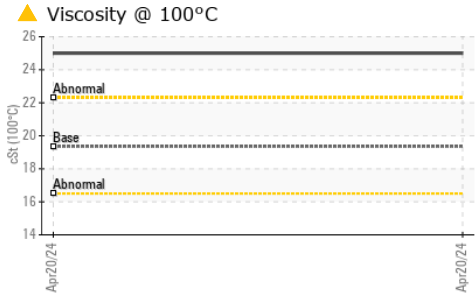
## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >75	<b>74</b>	---	---
Sodium	ppm	ASTM D5185(m)	<b>5</b>	---	---
Potassium	ppm	ASTM D5185(m) >20	<b>6</b>	---	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974* 0.40	<b>0.56</b>	---	---

# OIL ANALYSIS REPORT



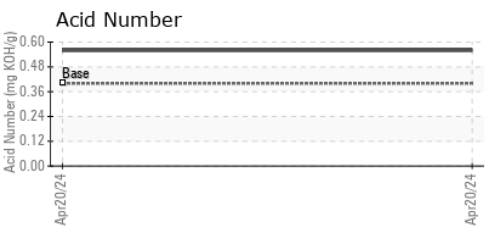
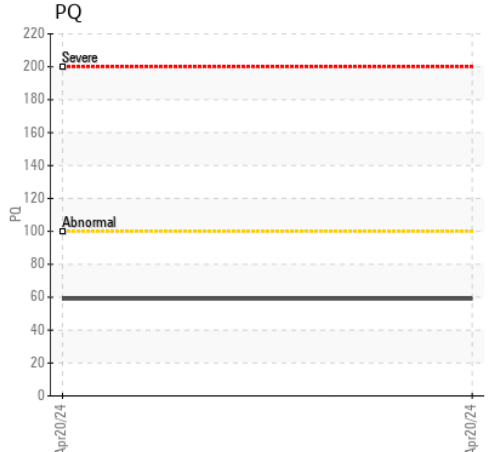
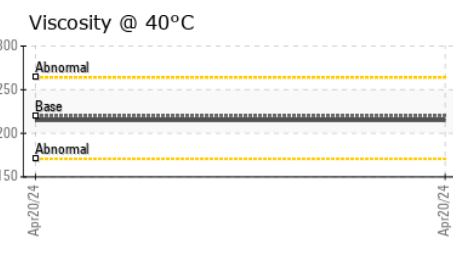
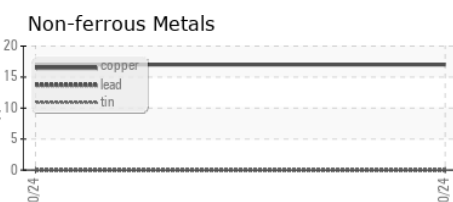
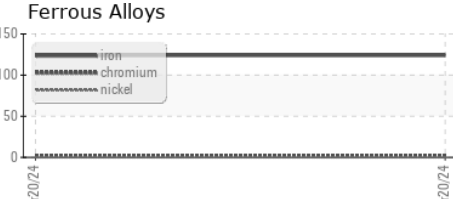
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	VLITE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	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 @ 40°C	cSt	ASTM D7279(m)	220	215	---
Visc @ 100°C	cSt	ASTM D7279(m)	19.35	▲ 25.0	---
Viscosity Index (VI)	Scale	ASTM D2270*	99	▲ 146	---

## SAMPLE IMAGES

	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0087892  
**Lab Number** : 02631373  
**Unique Number** : 5772526  
**Test Package** : IND 2 ( Additional Tests: KV100, TAN Man, VI )  
**Received** : 25 Apr 2024  
**Tested** : 25 Apr 2024  
**Diagnosed** : 26 Apr 2024 - Kevin Marson

Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations  
 151 Ram Forest Rd,  
 Stouffville, ON  
 CA L4A 2G8  
 Contact: Shannon Abbott  
 sabbott@gipi.com  
 T: (905)750-5900  
 F:

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.