



# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**

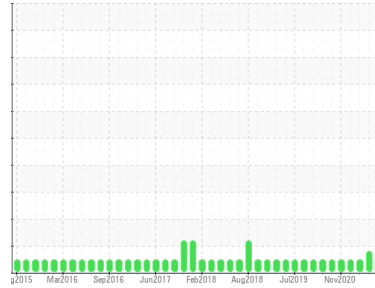


Area  
**1 White Oil/029 #2HTU/P Pump/401C 2 Stage HTU Charge**

Machine Id  
**N/A 29GP401C**

Component  
**Gearbox**

Fluid  
**PETRO CANADA ENDURATEX SYNTHETIC EP 220 (100 LTR)**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

### Fluid Condition

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>WC0902164</b>	WC0783263	WC0568060
Sample Date	Client Info		<b>25 Feb 2024</b>	17 Feb 2023	06 Jan 2022
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	ATTENTION	NORMAL

## CONTAMINATION

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

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>200	<b>14</b>	8	7
Chromium	ppm	ASTM D5185(m)	>15	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<b>&lt;1</b>	<1	0
Lead	ppm	ASTM D5185(m)	>100	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>200	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>25	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	33	<b>34</b>	35	31
Barium	ppm	ASTM D5185(m)	5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	5	<b>&lt;1</b>	<1	<1
Calcium	ppm	ASTM D5185(m)	5	<b>&lt;1</b>	0	<1
Phosphorus	ppm	ASTM D5185(m)	437	<b>412</b>	443	426
Zinc	ppm	ASTM D5185(m)	5	<b>7</b>	8	2
Sulfur	ppm	ASTM D5185(m)	5000	<b>4944</b>	4817	4771
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

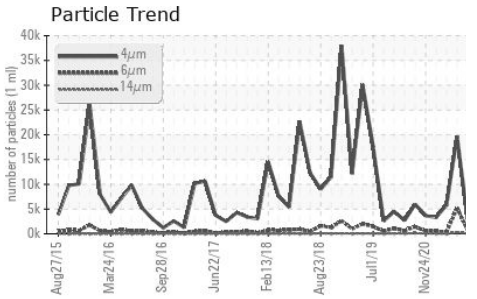
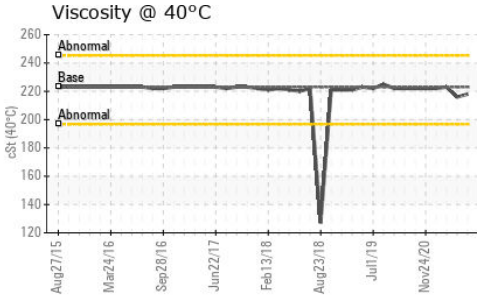
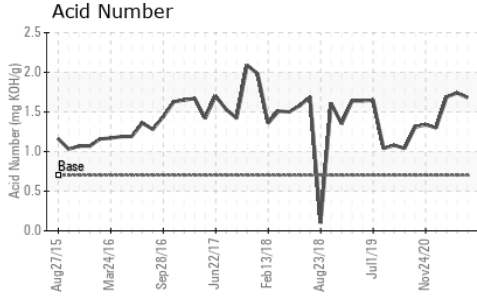
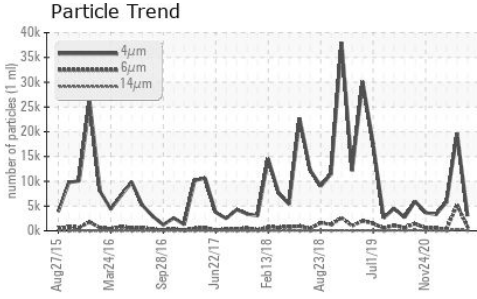
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>50	<b>&lt;1</b>	<1	<1
Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	1

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		<b>3024</b>	19673	5819
Particles >6µm	ASTM D7647	>5000	<b>758</b>	5223	336
Particles >14µm	ASTM D7647	>640	<b>42</b>	274	10
Particles >21µm	ASTM D7647	>160	<b>11</b>	53	2
Particles >38µm	ASTM D7647	>40	<b>1</b>	3	0
Particles >71µm	ASTM D7647	>10	<b>1</b>	2	0
Oil Cleanliness	ISO 4406 (c)	>--/19/16	<b>19/17/13</b>	21/20/15	20/16/10



# OIL ANALYSIS REPORT

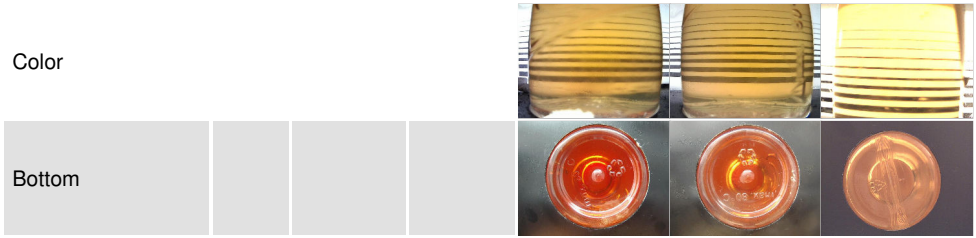


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.7	<b>1.68</b>	1.74	1.69

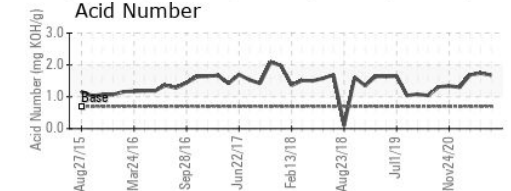
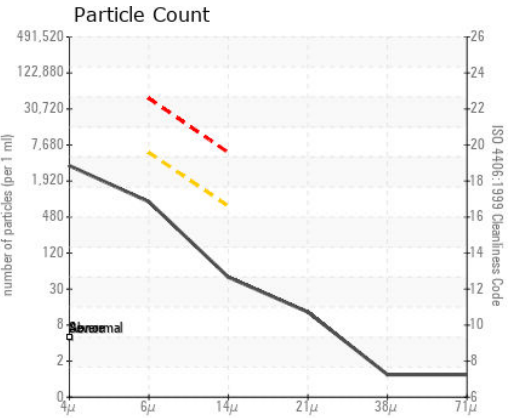
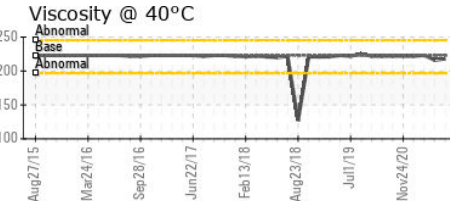
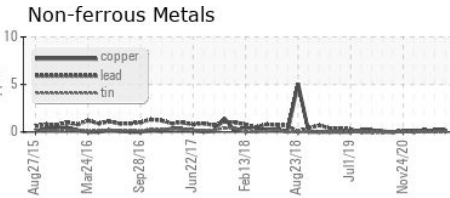
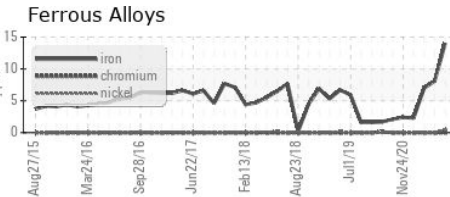
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	223	<b>218</b>	216	223

## SAMPLE IMAGES



## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0902164 **Received** : 11 Mar 2024  
**Lab Number** : **02621257** **Tested** : 12 Mar 2024  
**Unique Number** : 5746376 **Diagnosed** : 12 Mar 2024 - Wes Davis  
**Test Package** : IND 2 ( Additional Tests: TAN Man )

**Petro Canada Lubricants Inc.**  
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 F: (905)822-6025

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.