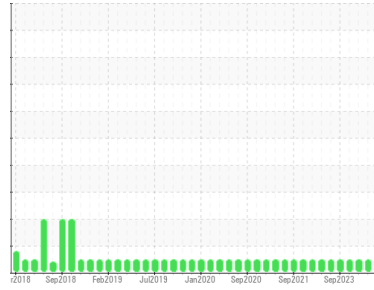


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

**Fwd Machinery Space [450356312]**

Machine Id

**Generator - PKSG Engine Crank Case (S/N Sample Tag CD-86101-S1)**

Component

**Diesel Engine**

Fluid

**PETRO CANADA BP ENERGOL DS3 154 (2670 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

### Wear

Component wear rates appear to be normal (unconfirmed).

### 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>PC0080682</b>	WC	PC0076311
Sample Date	Client Info	<b>05 Jun 2024</b>	10 Mar 2024	22 Jan 2024
Machine Age	hrs	<b>0</b>	0	0
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method >0.1	<b>NEG</b>	NEG	NEG
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >25	<b>6</b>	6	6
Chromium	ppm ASTM D5185(m) >5	<b>0</b>	0	0
Nickel	ppm ASTM D5185(m) >5	<b>&lt;1</b>	0	0
Titanium	ppm ASTM D5185(m) >2	<b>0</b>	0	0
Silver	ppm ASTM D5185(m) >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185(m) >10	<b>2</b>	1	2
Lead	ppm ASTM D5185(m) >5	<b>0</b>	0	0
Copper	ppm ASTM D5185(m) >5	<b>&lt;1</b>	<1	<1
Tin	ppm ASTM D5185(m) >5	<b>0</b>	0	0
Antimony	ppm ASTM D5185(m)	<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) 0	<b>2</b>	1	1
Barium	ppm ASTM D5185(m) 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185(m) 0	<b>&lt;1</b>	0	0
Manganese	ppm ASTM D5185(m)	<b>&lt;1</b>	0	<1
Magnesium	ppm ASTM D5185(m) 15	<b>22</b>	20	19
Calcium	ppm ASTM D5185(m) 5500	<b>5261</b>	5330	5335
Phosphorus	ppm ASTM D5185(m) 580	<b>870</b>	859	885
Zinc	ppm ASTM D5185(m) 650	<b>975</b>	955	954
Sulfur	ppm ASTM D5185(m) 8500	<b>9677</b>	9868	10399
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1

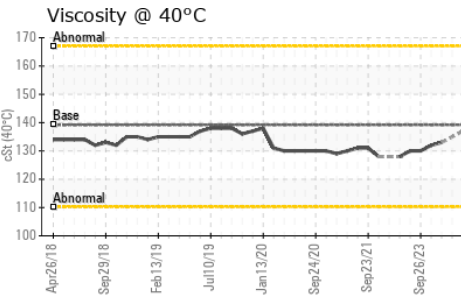
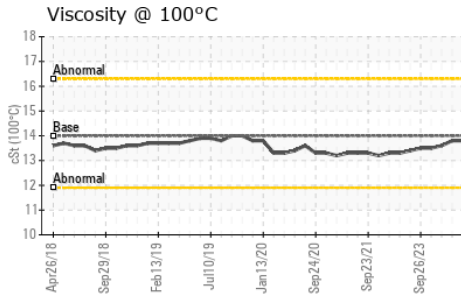
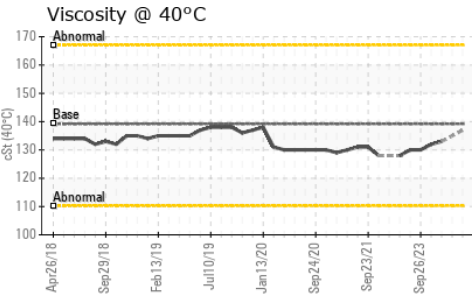
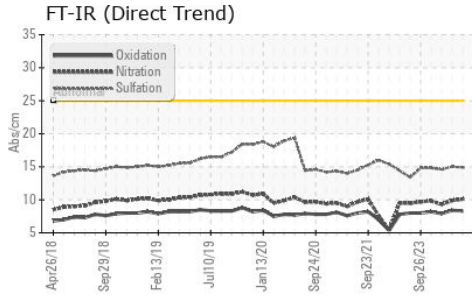
## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >20	<b>4</b>	4	5
Sodium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1
Potassium	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1

## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >2	<b>0.1</b>	0.1	0
Nitration	Abs/cm ASTM D7624* >20	<b>10.1</b>	9.9	9.3
Sulfation	Abs./1mm ASTM D7415* >30	<b>14.9</b>	15.0	14.6

# OIL ANALYSIS REPORT

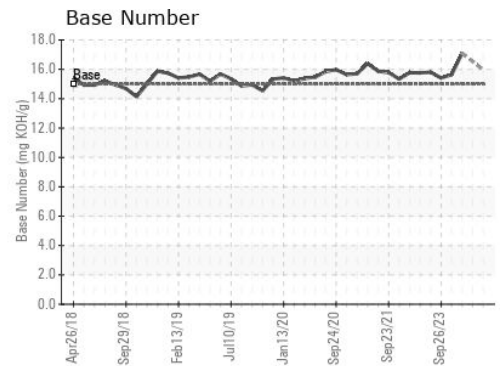
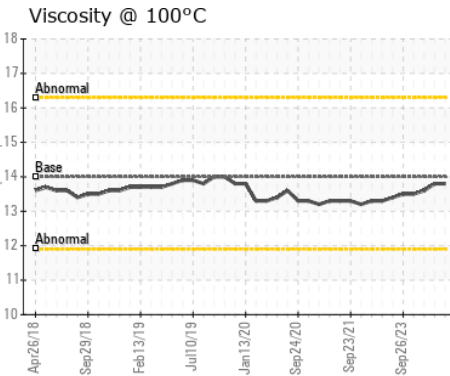
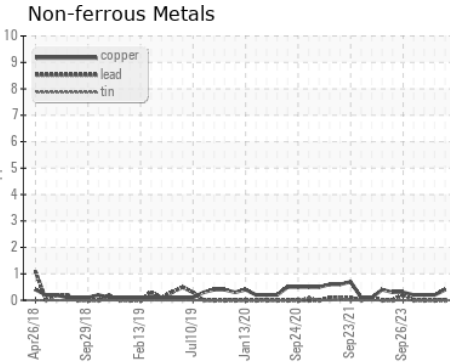
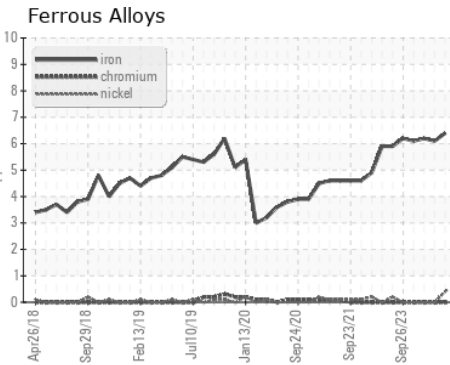


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>8.3</b>	8.4	7.9
Base Number (BN)	mg KOH/g	ASTM D2896*	15	<b>15.97</b>	---	17.10

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	<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)	139.2	<b>137</b>	---	133
Visc @ 100°C	cSt	ASTM D7279(m)	14.0	<b>13.8</b>	13.8	13.6
Viscosity Index (VI)	Scale	ASTM D2270*	99	<b>96</b>	---	97

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0080682 **Received** : 24 Jun 2024  
**Lab Number** : **02643672** **Tested** : 25 Jun 2024  
**Unique Number** : 5801211 **Diagnosed** : 25 Jun 2024 - Kevin Marson  
**Test Package** : IND 2 ( Additional Tests: KV40, VI )

**Suncor - Terra Nova Projects**  
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 CA A1C 1B6  
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 joshhynes@suncor.com  
 T: (709)778-3575  
 F: (709)724-2835

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.