



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area

[807940]

Machine Id

**SPARTAN P154**

Component

**Front Diesel Engine**

Fluid

**PETRO CANADA 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0711594</b>	WC972292	WC946254
Sample Date		Client Info		<b>27 Nov 2023</b>	27 Sep 2016	30 Sep 2015
Machine Age	kms	Client Info		<b>10000</b>	162821	153235
Oil Age	kms	Client Info		<b>10000</b>	0	0
Filter Age	kms	Client Info		<b>10000</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>100	<b>27</b>	16	16
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	1	1
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	5	4
Copper	ppm	ASTM D5185(m)	>330	<b>1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

## CONTAMINATION

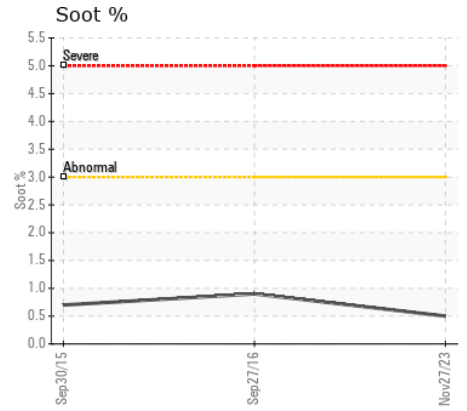
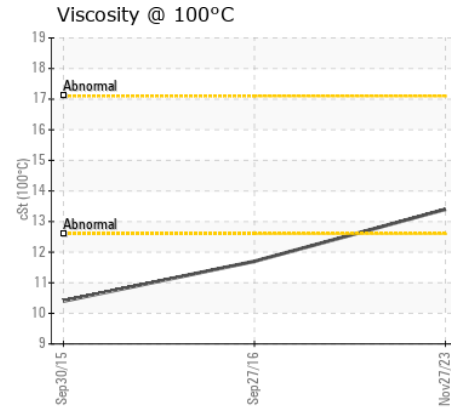
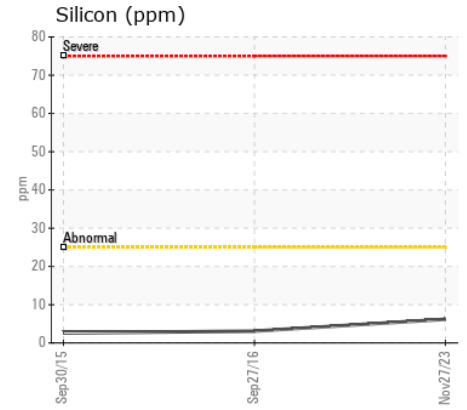
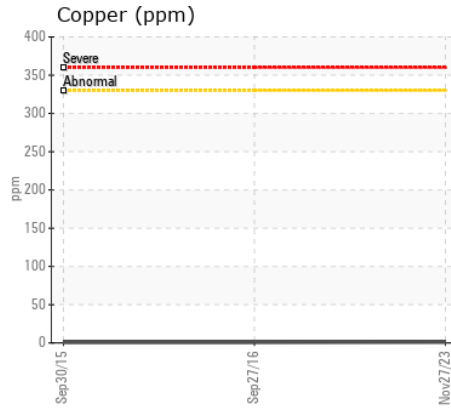
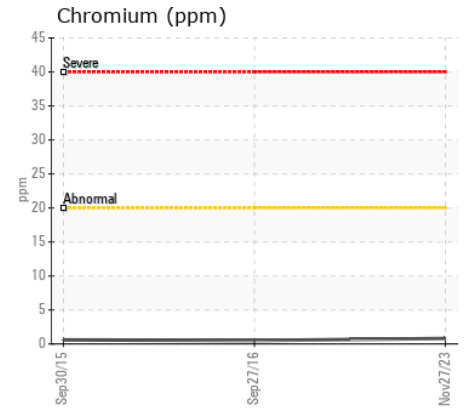
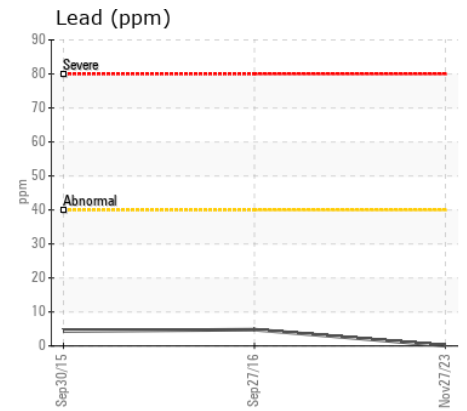
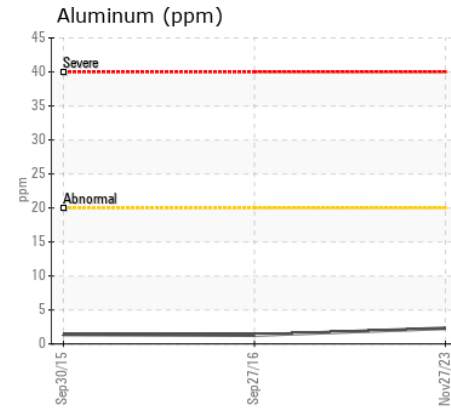
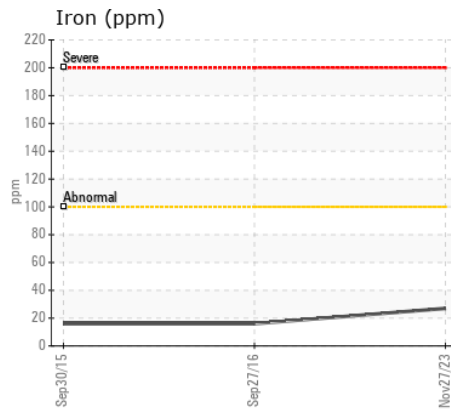
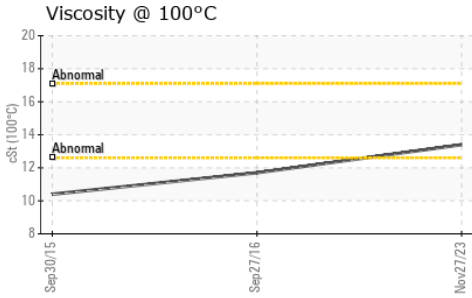
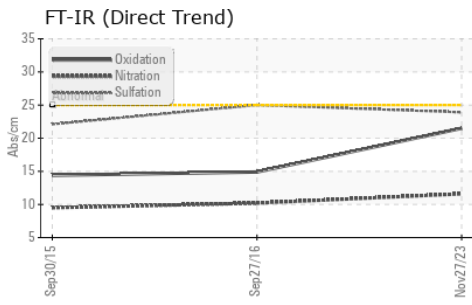
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>6</b>	3	3
Potassium	ppm	ASTM D5185(m)	>20	<b>4</b>	2	<1
Fuel		WC Method	>5	<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
Soot %	%	ASTM D7844*	>3	<b>0.5</b>	0.9	0.7
Nitration	Abs/cm	ASTM D7624*	>20	<b>11.6</b>	10.2	9.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>23.9</b>	25.0	22.1
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>3</b>	2	1
Boron	ppm	ASTM D5185(m)		<b>&lt;1</b>	1	8
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>64</b>	26	17
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)		<b>1024</b>	510	351
Calcium	ppm	ASTM D5185(m)		<b>1142</b>	1444	1574
Phosphorus	ppm	ASTM D5185(m)		<b>1012</b>	935	924
Zinc	ppm	ASTM D5185(m)		<b>1235</b>	1105	1062
Sulfur	ppm	ASTM D5185(m)		<b>2503</b>	2877	3080
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>21.5</b>	14.9	14.4
Visc @ 100°C	cSt	ASTM D7279(m)		<b>13.4</b>	11.7	10.4



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0711594  
**Lab Number** : 02640645  
**Unique Number** : 5789807  
**Test Package** : MOB 1 ( Additional Tests: Visual )  
**Received** : 10 Jun 2024  
**Tested** : 10 Jun 2024  
**Diagnosed** : 10 Jun 2024 - Kevin Marson

**CITY OF MISSISSAUGA FIRE DEPT**  
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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.