

Machine Id
SPARTAN TRP4/24156

Component
Right Diesel Engine

Fluid
PETRO CANADA DURON HP 15W40 (27 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PC0075287	AP97008	AP109952
Sample Date	Client Info			04 Jul 2023	05 Mar 2020	07 Mar 2019
Machine Age	kms	Client Info		61468	15513	10230
Oil Age	kms	Client Info		0	0	0
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>3.0		<1.0	<1.0	<1.0
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>75	11	3	7
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	0
Nickel	ppm	ASTM D5185(m)	>4	0	0	0
Titanium	ppm	ASTM D5185(m)	>2	0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<1	<1	0
Aluminum	ppm	ASTM D5185(m)	>15	2	<1	1
Lead	ppm	ASTM D5185(m)	>25	<1	<1	1
Copper	ppm	ASTM D5185(m)	>100	2	6	28
Tin	ppm	ASTM D5185(m)	>4	0	0	0
Antimony	ppm	ASTM D5185(m)		0	<1	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

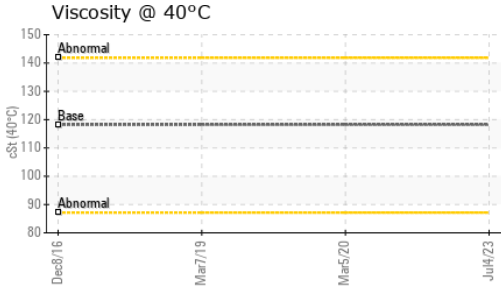
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	4	100	95
Barium	ppm	ASTM D5185(m)	0	<1	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	60	58	46
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	956	1049	768
Calcium	ppm	ASTM D5185(m)	1070	1024	985	1229
Phosphorus	ppm	ASTM D5185(m)	1150	979	1034	991
Zinc	ppm	ASTM D5185(m)	1270	1189	1212	1152
Sulfur	ppm	ASTM D5185(m)	2060	2538	2969	3003
Lithium	ppm	ASTM D5185(m)		<1	<1	0

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	3	2	4
Sodium	ppm	ASTM D5185(m)		1	0	1
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	0.1	0	0
Nitration	Abs/cm	ASTM D7624*	>20	7.4	6.6	6.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.9	22.8	20.0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.7	14.7	15.0

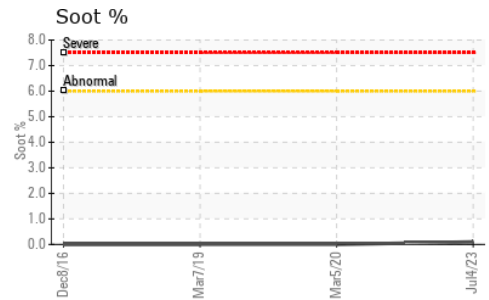
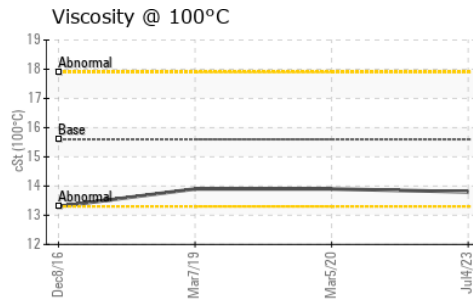
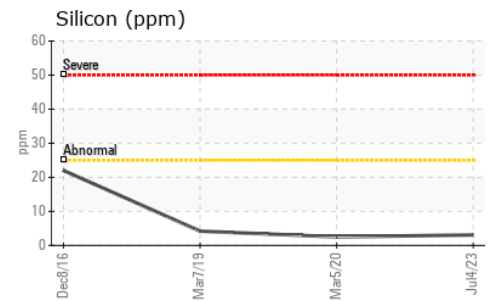
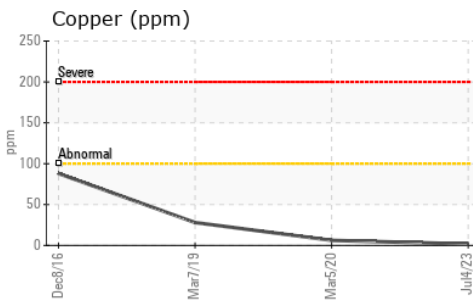
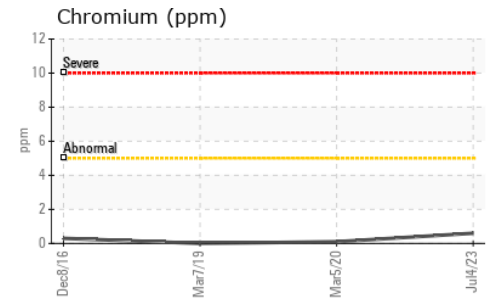
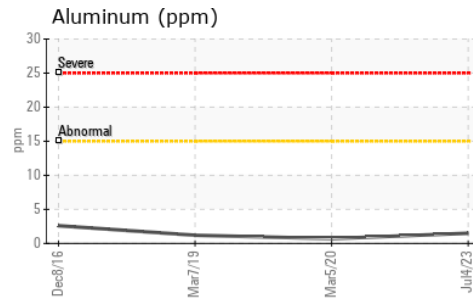
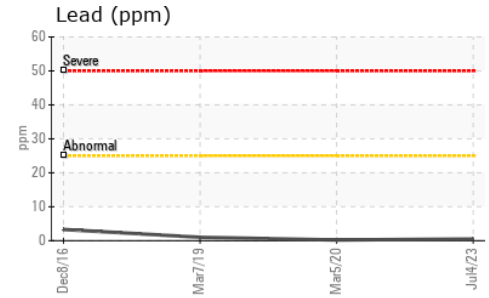
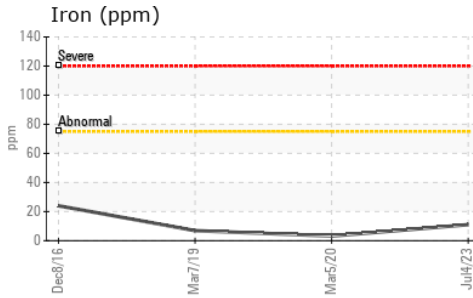
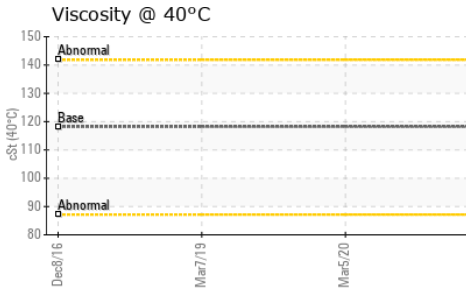
OIL ANALYSIS REPORT



VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	101	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	13.8	13.9	13.9
Viscosity Index (VI)	Scale	ASTM D2270*	139	137	---	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0075287 **Received** : 06 Nov 2023
Lab Number : **02594122** **Diagnosed** : 06 Nov 2023
Unique Number : 5671201 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: KV40, VI)

TORONTO FIRE SERVICES
 40 TORYORK DRIVE
 TORONTO, ON
 CA M9L 1X6
 Contact: Antonio Rodrigues
 antonio.rodrigues@tonroto.ca
 T:
 F: (416)338-9207

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.