

Machine Id

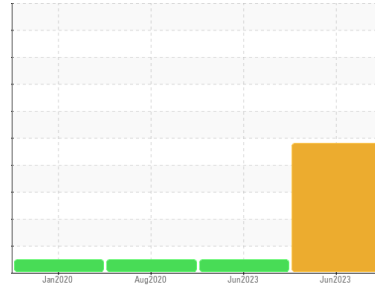
D-32

Component

Diesel Engine

Fluid

PETRO CANADA DURON UHP 5W30 (--- GAL)



DIAGNOSIS

Recommendation

Nous vous recommandons de vérifier la source de la fuite de fluide de refroidissement. Nous vous recommandons de vidanger l'huile de ce composant si vous ne l'avez pas déjà fait. Nous vous recommandons de rincer complètement le composant avant de le remplir l'huile. Nous vous recommandons d'échantillonner de nouveau dès que possible afin de contrôler la situation. Veuillez préciser la marque et le modèle du composant lors du prochain échantillon.

Wear

Les taux d'usure de tous les composants sont normaux.

Contamination

Le test de glycol est positif. Il y a une légère concentration de glycol dans l'huile.

Fluid Condition

Le résultat pour le BN indique que la réserve d'alcalinité est acceptable pour l'huile. L'huile ne peut plus être utilisée en raison de la présence de contaminants.

SAMPLE INFORMATION		method	limit/base	current	history 1	history 2
Sample Number	Client Info			PC0074361	PC0074366	PC0020281
Sample Date	Client Info			28 Jun 2023	15 Jun 2023	06 Aug 2020
Machine Age	hrs	Client Info		28502	28393	21510
Oil Age	hrs	Client Info		27808	590	170
Oil Changed	Client Info			N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history 1	history 2
Fuel	WC Method		>5	<1.0	<1.0	<1.0

WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185(m)	>100	36	29	7
Chromium	ppm	ASTM D5185(m)	>20	2	2	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	0	0
Titanium	ppm	ASTM D5185(m)		<1	<1	0
Silver	ppm	ASTM D5185(m)	>3	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>20	5	4	2
Lead	ppm	ASTM D5185(m)	>40	2	2	0
Copper	ppm	ASTM D5185(m)	>330	7	6	<1
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

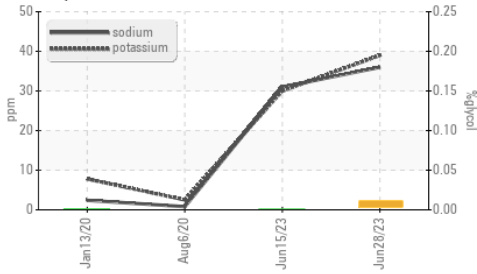
ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185(m)	0	9	8	27
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	64	63	61	56
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	1160	1090	1074	1080
Calcium	ppm	ASTM D5185(m)	820	918	887	799
Phosphorus	ppm	ASTM D5185(m)	1160	1017	1002	1021
Zinc	ppm	ASTM D5185(m)	1260	1198	1192	1203
Sulfur	ppm	ASTM D5185(m)	3000	2596	2633	2820
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185(m)	>25	13	11	6
Sodium	ppm	ASTM D5185(m)		▲ 36	31	<1
Potassium	ppm	ASTM D5185(m)	>20	▲ 39	30	2
Glycol	%	ASTM D7922*		▲ 0.011	0.0	NEG

INFRA-RED		method	limit/base	current	history 1	history 2
Soot %	%	ASTM D7844*	>3	0.7	0.6	0.2
Nitration	Abs/cm	ASTM D7624*	>20	13.8	12.9	8.8
Sulfation	Abs./1mm	ASTM D7415*	>30	26.3	24.8	20.2

OIL ANALYSIS REPORT

▲ Glycol Contamination



FLUID DEGRADATION

method	limit/base	current	history 1	history 2
Oxidation	Abs./1mm ASTM D7414*	>25	24.2	18.0
Base Number (BN)	mg KOH/g ASTM D2896*	11.0	6.82	9.66

VISUAL

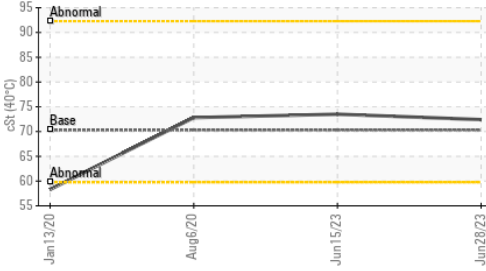
method	limit/base	current	history 1	history 2
Emulsified Water	scalar Visual*	>0.2	NEG	NEG
Free Water	scalar Visual*		NEG	NEG

FLUID PROPERTIES

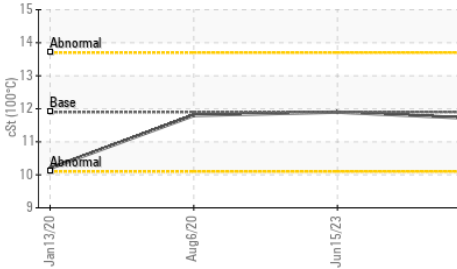
method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt ASTM D7279(m)	70.3	72.4	73.5
Visc @ 100°C	cSt ASTM D7279(m)	11.9	11.7	11.8
Viscosity Index (VI)	Scale ASTM D2270*	161	156	157

GRAPHS

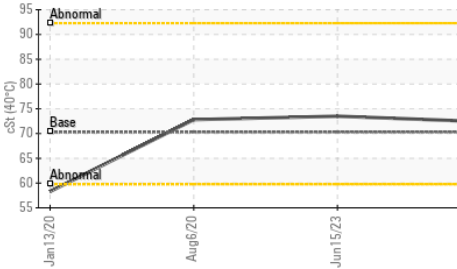
Viscosity @ 40°C



Viscosity @ 100°C



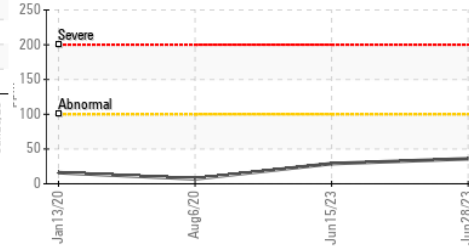
Viscosity @ 40°C



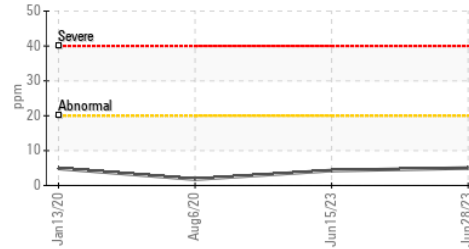
Viscosity @ 100°C



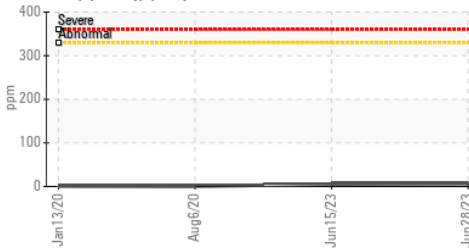
Iron (ppm)



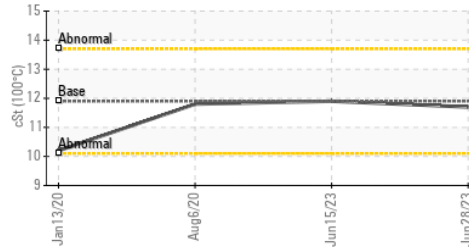
Aluminum (ppm)



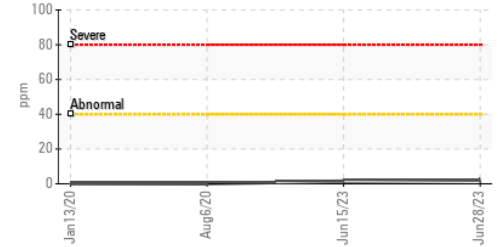
Copper (ppm)



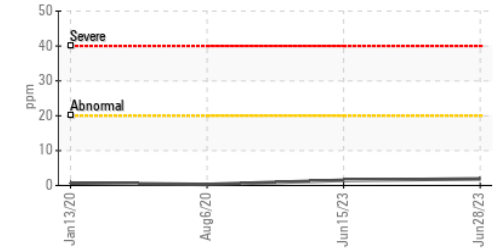
Viscosity @ 100°C



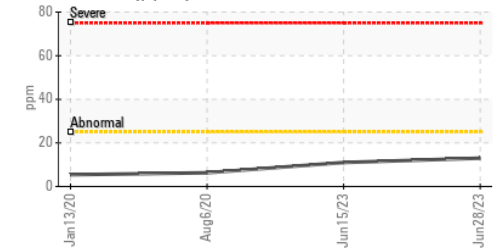
Lead (ppm)



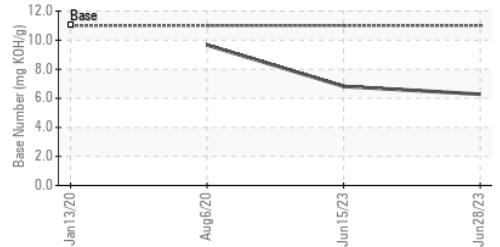
Chromium (ppm)



Silicon (ppm)



Base Number



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0074361
Lab Number : 02568445
Unique Number : 5605491
Test Package : MOB 2 (Additional Tests: Glycol, KV40, VI)

Received : 07 Jul 2023
Diagnosed : 11 Jul 2023
Diagnostician : Kevin Marson

BOULE L INC
 9799 METROPOLITAIN E
 ANJOU, QC
 CA H1J 0A4
 Contact: Sylvain Villeneuve
 svilleneuve@boulegroup.com

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.

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F: