

OIL ANALYSIS REPORT

Sample Rating Trend



721009-361464

Component Diesel Engine

Fluid PETRO CANADA DURON SHP 15W40 (--- GAL)

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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	NATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0065480	GFL0065485	GFL0065497
Sample Date		Client Info		03 Nov 2023	23 Oct 2023	06 Oct 2023
Machine Age	hrs	Client Info		150	13815	13815
Oil Age	hrs	Client Info		150	150	600
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATI	ON	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	13	35	6
Chromium	ppm	ASTM D5185m	>20	<1	2	0
Nickel	ppm	ASTM D5185m	>4	2	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	2
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	2	0
Lead	ppm	ASTM D5185m	>40	0	2	0
Copper	ppm	ASTM D5185m	>330	5	2	<1
Tin	ppm	ASTM D5185m	>15	0	2	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	23	2
Barium	ppm	ASTM D5185m	0	0	4	<1
Molybdenum	ppm	ASTM D5185m	60	61	53	58
Manganese	ppm	ASTM D5185m	0	<1	2	<1
Magnesium	ppm	ASTM D5185m	1010	948	681	845
Calcium	ppm	ASTM D5185m	1070	1068	1342	977
Phosphorus	ppm	ASTM D5185m	1150	923	928	993
Zinc	ppm	ASTM D5185m	1270		1050	1185
		AO INI DO IOUIII	1210	1241	1052	1100
Sulfur	ppm	ASTM D5185m	2060	1241 2898	3058	3283
Sulfur CONTAMINAN ⁻	ppm					
	ppm	ASTM D5185m	2060 limit/base	2898	3058	3283
CONTAMINAN	ppm TS	ASTM D5185m method	2060 limit/base	2898 current	3058 history1	3283 history2
CONTAMINAN [®] Silicon	ppm TS ppm	ASTM D5185m method ASTM D5185m	2060 limit/base >25	2898 current 9	3058 history1 15	3283 history2 4
CONTAMINAN ^T Silicon Sodium	ppm TS ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	2060 limit/base >25	2898 current 9 2	3058 history1 15 <1	3283 history2 4 6
CONTAMINAN [®] Silicon Sodium Potassium	ppm TS ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	2060 limit/base >25 >20 limit/base	2898 current 9 2 7	3058 history1 15 <1 2	3283 history2 4 6 2
CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm TS ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method	2060 limit/base >25 >20 limit/base >3	2898 current 9 2 7 current	3058 history1 15 <1 2 history1	3283 history2 4 6 2 history2
CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm TS ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844	2060 limit/base >25 >20 limit/base >3 >20	2898 current 9 2 7 current 0.3	3058 history1 15 <1 2 history1 0.4	3283 history2 4 6 2 history2 0.1
CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm TS ppm ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624	2060 limit/base >25 >20 limit/base >3 >20	2898 current 9 2 7 current 0.3 8.4	3058 history1 15 <1 2 history1 0.4 7.5	3283 history2 4 6 2 history2 0.1 4.7
CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm TS ppm ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7624	2060 limit/base >25 >20 limit/base >3 >20 >30 limit/base	2898 current 9 2 7 current 0.3 8.4 20.4	3058 history1 15 <1 2 history1 0.4 7.5 20.8	3283 history2 4 6 2 history2 0.1 4.7 17.1



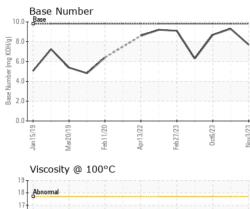
> 13 Abron 12

> > Jan15/19

Mar20/19

OIL ANALYSIS REPORT

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Feb11/20

Apr13/22

Feb27/23

0ct6/23 -

VISUAL		method	limit/base	current	history1	history
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORM
Odor	scalar	*Visual	NORML	NORML	NORML	NORM
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history
Visc @ 100°C	cSt	ASTM D445	15.4	13.4	13.0	14.0
GRAPHS Ferrous Alloys						
1 1						
iron	٨					
iron chromium nickel	٨					
io firm	\wedge					
io firm	\bigwedge		Λ			
io - iron chromium io - nickel	\bigwedge					
io + iron chromium io + nickel	\bigwedge	/				
ion chromium nickel	\bigwedge	_/	\mathbf{A}			
ion chromium nickel		27/23 ct6/23				
Jan 15/19 Mazor/19 Feb 11/20 Feb 11/20	Apri322	Feb27/23 Det6/23	Nov323			
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iron chromium nickel 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Fek27/23	CZCEDON			
Non-ferrous Metal		Feb27/23	CZ2EvoN			
iron chromium nickel 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Feb27/23	\langle			
ion iron ichromium nickel ion o o o o o o o o o o o o o o o o o o	s		\langle			
International and the second s	s	Feb27123	EZIZONA			
Non-ferrous Metal	s		Nov3/23	Base Number		

8.

Base Number (mg)

0.0

Jan 15/19

Mar20/19

(mg KOH/g)



 Certificate L2367
 Test Package
 : FLEET

 To discuss this sample report, contact Customer Service at 1-800-237-1369.
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 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Feb11/20

Apr13/22

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

Received

Diagnosed

Feb27/23 -

Diagnostician : Wes Davis

0ct6/23 -

Nov3/23 -

: 08 Nov 2023

: 09 Nov 2023

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Laboratory Sample No.

Lab Number

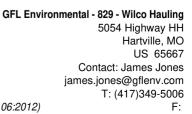
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Jan 15/19

Mar20/19

: GFL0065480

: 06002084



Feb27/23

Feb11/20

Apr13/22

0ct6/23 -

Nov3/23 -