

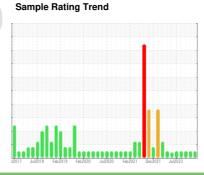
OIL ANALYSIS REPORT

(EIB677) ALEXANDER CITY 10818

Component

Diesel Engine

PETRO CANADA DURON SHP 15W40 (11 GAL)





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

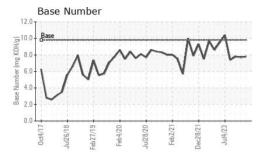
Fluid Condition

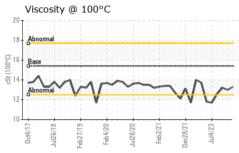
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0080716	GFL0079753	GFL0089917
Sample Date		Client Info		19 Feb 2024	13 Dec 2023	27 Nov 2023
Machine Age	hrs	Client Info		16187	15632	15488
Oil Age	hrs	Client Info		1785	15632	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>75	13	12	11
Chromium	ppm	ASTM D5185m	>5	<1	<1	0
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>15	3	2	2
Lead	ppm	ASTM D5185m	>25	1	<1	0
Copper	ppm	ASTM D5185m	>100	<1	<1	<1
Tin	ppm	ASTM D5185m	>4	<1	0	0
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	16	12	12
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	71	59	63
Manganese	ppm	ASTM D5185m	0	<1	0	0
Magnesium	ppm	ASTM D5185m	1010	4404	070	
Calcium	nnm			1104	876	1002
Phosphorus	ppm	ASTM D5185m	1070	1104 1184	982	1002 1173
i nospriorus	ppm	ASTM D5185m ASTM D5185m	1070 1150			
Zinc				1184	982	1173
<u>'</u>	ppm	ASTM D5185m	1150	1184 1165	982 830	1173 1141
Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m	1150 1270	1184 1165 1533	982 830 1162	1173 1141 1438
Zinc Sulfur	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	1150 1270 2060 limit/base	1184 1165 1533 3627	982 830 1162 2869	1173 1141 1438 3451
Zinc Sulfur CONTAMINAN	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method	1150 1270 2060 limit/base	1184 1165 1533 3627 current	982 830 1162 2869 history1	1173 1141 1438 3451 history2
Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	1150 1270 2060 limit/base >25	1184 1165 1533 3627 current	982 830 1162 2869 history1	1173 1141 1438 3451 history2
Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm TS ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	1150 1270 2060 limit/base >25	1184 1165 1533 3627 current 7	982 830 1162 2869 history1 7 26	1173 1141 1438 3451 history2 7 25
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm TS ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	1150 1270 2060 limit/base >25 >20	1184 1165 1533 3627 current 7 24 <1	982 830 1162 2869 history1 7 26 <1	1173 1141 1438 3451 history2 7 25 <1
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method	1150 1270 2060 limit/base >25 >20 limit/base	1184 1165 1533 3627 current 7 24 <1	982 830 1162 2869 history1 7 26 <1	1173 1141 1438 3451 history2 7 25 <1
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m Method *ASTM D7844	1150 1270 2060 limit/base >25 >20 limit/base >6	1184 1165 1533 3627 current 7 24 <1 current 0.3	982 830 1162 2869 history1 7 26 <1 history1	1173 1141 1438 3451 history2 7 25 <1 history2
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm TS ppm ppm ppm ppm Abs/cm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624	1150 1270 2060 limit/base >25 >20 limit/base >6 >20	1184 1165 1533 3627 current 7 24 <1 current 0.3 7.5	982 830 1162 2869 history1 7 26 <1 history1 0.3 7.7	1173 1141 1438 3451 history2 7 25 <1 history2 0.3 7.4
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm TS ppm ppm ppm ppm Abs/cm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415	1150 1270 2060 limit/base >25 >20 limit/base >6 >20 >30	1184 1165 1533 3627 current 7 24 <1 current 0.3 7.5 18.3	982 830 1162 2869 history1 7 26 <1 history1 0.3 7.7 18.4	1173 1141 1438 3451 history2 7 25 <1 history2 0.3 7.4 18.4
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE	ppm ppm ppm TS ppm ppm ppm ppm Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415 method	1150 1270 2060 limit/base >25 >20 limit/base >6 >20 >30 limit/base >25	1184 1165 1533 3627 current 7 24 <1 current 0.3 7.5 18.3 current	982 830 1162 2869 history1 7 26 <1 history1 0.3 7.7 18.4 history1	1173 1141 1438 3451 history2 7 25 <1 history2 0.3 7.4 18.4



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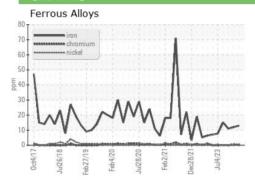


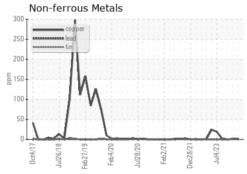


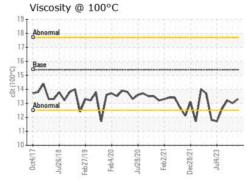
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

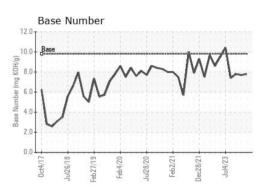
FLUID PROPI	ERTIES	method				history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.3	13.0	13.2

GRAPHS













Certificate L2367

Laboratory Sample No.

: GFL0080716 Lab Number : 06106599 Unique Number: 10910096 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 01 Mar 2024 **Tested** : 04 Mar 2024

Diagnosed : 04 Mar 2024 - Wes Davis

GFL Environmental - 172 - Montgomery-Alexander City-Tallahassee

Multiple Sites Montgomery, AL US 36108

Contact: BRANDON HURST brandonhurst@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-237-1369. * - 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)

Report Id: GFL172 [WUSCAR] 06106599 (Generated: 03/04/2024 16:53:03) Rev: 1

Submitted By: Lisa Reeves

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