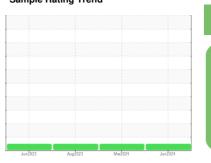


OIL ANALYSIS REPORT

Sample Rating Trend









Machine Id 926056-1457 Component Diesel Engine

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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil

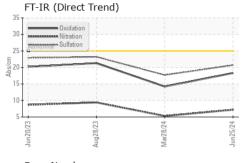
Fluid Condition

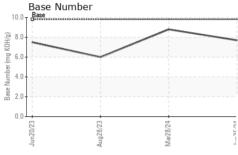
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

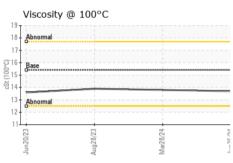
10111 1011-101						
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0103528	GFL0103567	GFL0085334
Sample Date		Client Info		25 Jun 2024	28 Mar 2024	28 Aug 2023
Machine Age	hrs	Client Info		9554	9188	8400
Oil Age	hrs	Client Info		9188	8400	8400
Oil Changed		Client Info		Not Changd	Changed	Changed
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	>120	4	2	13
Chromium	ppm	ASTM D5185m	>20	0	0	<1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	1	1	0
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	2	<1	2
Tin	ppm	ASTM D5185m	>15	0	0	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	1	1	0
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	60	57	59
Manganese	ppm	ASTM D5185m	0	<1	0	<1
Magnesium	nnm					
Calcium	ppm	ASTM D5185m	1010	1075	960	973
Calcium	ppm		1010 1070		960 1080	973 1068
				1075		
Phosphorus	ppm	ASTM D5185m	1070	1075 1174	1080	1068
Phosphorus Zinc	ppm ppm	ASTM D5185m ASTM D5185m	1070 1150	1075 1174 1129	1080 997	1068 987
Phosphorus Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	1070 1150 1270	1075 1174 1129 1451	1080 997 1238	1068 987 1275 3309
Phosphorus Zinc Sulfur	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1070 1150 1270 2060	1075 1174 1129 1451 3927	1080 997 1238 3554 history1	1068 987 1275 3309 history2
Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	1070 1150 1270 2060 limit/base	1075 1174 1129 1451 3927 current	1080 997 1238 3554 history1	1068 987 1275 3309 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	1070 1150 1270 2060 limit/base	1075 1174 1129 1451 3927 current	1080 997 1238 3554 history1	1068 987 1275 3309 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm TS ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	1070 1150 1270 2060 limit/base >25	1075 1174 1129 1451 3927 current 3	1080 997 1238 3554 history1 2	1068 987 1275 3309 history2 4
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm TS ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	1070 1150 1270 2060 limit/base >25 >20	1075 1174 1129 1451 3927 current 3 2	1080 997 1238 3554 history1 2 2	1068 987 1275 3309 history2 4 6
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1070 1150 1270 2060 limit/base >25 >20	1075 1174 1129 1451 3927 current 3 2 1	1080 997 1238 3554 history1 2 2 0	1068 987 1275 3309 history2 4 6 0
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D5185m	1070 1150 1270 2060 limit/base >25 >20 limit/base	1075 1174 1129 1451 3927 current 3 2 1 current	1080 997 1238 3554 history1 2 2 0 history1 0.1	1068 987 1275 3309 history2 4 6 0 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415	1070 1150 1270 2060 limit/base >25 >20 limit/base >4 >20	1075 1174 1129 1451 3927 current 3 2 1 current 0.2 7.2	1080 997 1238 3554 history1 2 2 0 history1 0.1 5.3	1068 987 1275 3309 history2 4 6 0 history2 0.4 9.4
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415	1070 1150 1270 2060 limit/base >25 >20 limit/base >4 >20 >30	1075 1174 1129 1451 3927 current 3 2 1 current 0.2 7.2 20.7	1080 997 1238 3554 history1 2 2 0 history1 0.1 5.3 17.7	1068 987 1275 3309 history2 4 6 0 history2 0.4 9.4 23.2



OIL ANALYSIS REPORT



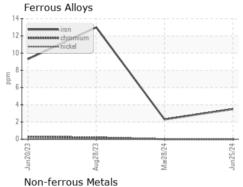


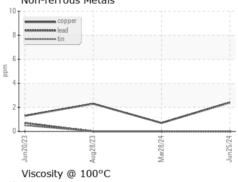


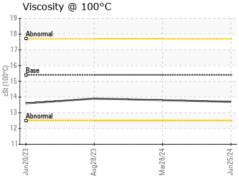
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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

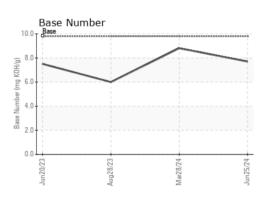
FLUID PROPERTIES		method				history2	
Visc @ 100°C	cSt	ASTM D445	15.4	13.7	13.8	13.9	

GRAPHS













Laboratory Sample No.

Lab Number : 06223297 Unique Number : 11101494

: GFL0103528

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 28 Jun 2024

Tested : 01 Jul 2024 Diagnosed : 01 Jul 2024 - Wes Davis

19908 N. State Rd 29 Chillicothe, IL

US 61523 Contact: Bryan Link blink@gflenv.com

Test Package : FLEET Certificate 12367 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: GFL958A [WUSCAR] 06223297 (Generated: 07/01/2024 08:39:46) Rev: 1

Submitted By: DREW MOOBERRY

GFL Environmental - 958A - Chillicothe Wigand

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