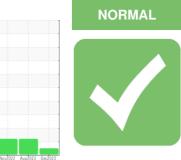


OIL ANALYSIS REPORT

Sample Rating Trend



Component **Diesel Engine** Fluid

Machine Id 4550M

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

DIAGNOSIS	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Recommendation	Sample Number		Client Info		GFL0107079	GFL0082751	GFL0063230
Resample at the next service interval to monitor.	Sample Date		Client Info		20 Dec 2023	07 Aug 2023	18 Nov 2022
Wear	Machine Age	hrs	Client Info		20462	20445	19364
All component wear rates are normal.	Oil Age	hrs	Client Info		600	600	600
Contamination	Oil Changed		Client Info		Not Changd	Changed	Changed
There is no indication of any contamination in the	Sample Status				NORMAL	ATTENTION	ATTENTION
oil.	CONTAMINAT	ON	method	limit/base	current	history1	history2
Fluid Condition							
The BN result indicates that there is suitable	Fuel		WC Method		<1.0	<1.0	<1.0
alkalinity remaining in the oil. The condition of the	Water		WC Method	>0.2	NEG	NEG	NEG
oil is suitable for further service.	Glycol		WC Method		NEG	NEG	NEG
	WEAR METAL	S	method	limit/base	current	history1	history2
	Iron	ppm	ASTM D5185m	>90	3	48	42
	Chromium	ppm	ASTM D5185m	>20	<1	1	2
	Nickel	ppm	ASTM D5185m	>2	0	1	0
	Titanium	ppm	ASTM D5185m	>2	0	0	<1
	Silver	ppm	ASTM D5185m	>2	0	0	0
	Aluminum	ppm	ASTM D5185m	>20	2	2	6
	Lead	ppm	ASTM D5185m	>40	0	0	<1
	Copper	ppm	ASTM D5185m	>330	0	<1	2
	Tin	ppm	ASTM D5185m	>15	0	0	<1
	Vanadium	ppm	ASTM D5185m		0	0	0
	Cadmium	ppm	ASTM D5185m		0	0	0
	ADDITIVES		method	limit/base	current	history1	history2
	Boron	ppm	ASTM D5185m	0	<1	5	3
	Barium	ppm	ASTM D5185m	0	0	1	0
	Molybdenum	ppm	ASTM D5185m	60	57	64	66
	Manganese	ppm	ASTM D5185m	0	0	<1	<1
	Magnesium	ppm	ASTM D5185m	1010	896	907	950
	Calcium	ppm	ASTM D5185m	1070	1018	1070	1142
	Phosphorus	ppm	ASTM D5185m	1150	1004	1004	1037
	Zinc	ppm	ASTM D5185m	1270	1166	1201	1279

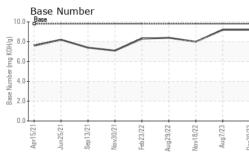
Sulfur CONT Silicon Sodium

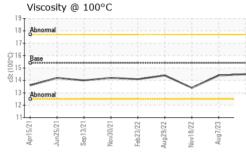
			20.0	1.0	<110	<110
		WC Method	>0.2	NEG	NEG	NEG
		WC Method		NEG	NEG	NEG
R METALS	S	method	limit/base	current	history1	history2
	ppm	ASTM D5185m	>90	3	48	42
m	ppm	ASTM D5185m	>20	<1	1	2
	ppm	ASTM D5185m	>2	0	1	0
	ppm	ASTM D5185m	>2	0	0	<1
	ppm	ASTM D5185m	>2	0	0	0
n	ppm	ASTM D5185m	>20	2	2	6
	ppm	ASTM D5185m	>40	0	0	<1
	ppm	ASTM D5185m	>330	0	<1	2
	ppm	ASTM D5185m	>15	0	0	<1
n	ppm	ASTM D5185m		0	0	0
ı	ppm	ASTM D5185m		0	0	0
TIVES		method	limit/base	current	history1	history2
	ppm	ASTM D5185m	0	<1	5	3
	ppm	ASTM D5185m	0	0	1	0
num	ppm	ASTM D5185m	60	57	64	66
ese	ppm	ASTM D5185m	0	0	<1	<1
um	ppm	ASTM D5185m	1010	896	907	950
	ppm	ASTM D5185m	1070	1018	1070	1142
rus	ppm	ASTM D5185m	1150	1004	1004	1037
	ppm	ASTM D5185m	1270	1166	1201	1279
	ppm	ASTM D5185m	2060	3355	3213	3448
AMINAN	TS	method	limit/base	current	history1	history2
AMINAN	TS ppm	method ASTM D5185m		current 4	history1 14	history2 12
AWIINAN						

Potassium	ppm	ASTM D5185m	>20	2	12	11
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	0.1	0.2	0.8
Nitration	Abs/cm	*ASTM D7624	>20	4.8	6.6	12.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.6	18.7	23.7
FLUID DEGRAD	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.1	14.4	20.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.2	9.2	8.0



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
Nov18/22 Aug7/23 Dec20/23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Aut	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
	Free Water	scalar	*Visual		NEG	NEG	NEG
	FLUID PROPE	RTIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	15.4	14.5	14.4	13.4
	GRAPHS						
	Ferrous Alloys						
3 5	50		1				
Nov18/22 Aug7/23	40 - nickel						
NA A	30						
	udd	1					
	20						
	10						
				1			
		22	22	53			
	Apr15/21 Jun25/21 Sep13/21 Nov30/21	Feb23/22	Aug 29/22 Nov18/22 Aug 7/23	Dec20/23			
	Non-ferrous Metal						
		.					
	copper						
	8 -						
	6						
	E d						
	2						
	0 Financial and a second		A DESCRIPTION OF THE OWNER OWNER OF THE OWNER OWNER OF THE OWNER OWNE				
	Apr15/21 Jun25/21 Sep13/21	Feb23/22 -	Aug 29/22 - Nov18/22 - Aug 7/23 -	Dec20/23			
	Apr Juni Sep	Eeb2	Aug ₂ Nov1 Aug	Dec2			
	Viscosity @ 100°C				Base Number		
	19 18 Abarrent			10.0	Base		
	18 Abnormal			- 8.0			
	i i i			B/HOX			
	Base 115 13 14			0.0 Base Number (mg KOH/g)			
	tg 14		> /				
	13 Abnormal		\checkmark	ase N			
	12 -	· · · · · · · · · · · · · · · · · · ·		° 2.0			
		5			<u> </u>	2	3 3 5
	Apr15/21 Jun25/21 Sep13/21 Nov30/21	Feb23/22	Aug 29/22 Nov18/22 Aug 7/23	Dec20/23	Apr15/21 Jun25/21 Sep13/21	Nov30/21 Feb23/22 Aug29/22	Vov18/22 - Aug7/23 - Dec20/23 -
	No Se A	£.,	Au Au	De	Ju Se	Ne Fe	Nc De
Laboratory	: WearCheck USA - 5				GFL E	nvironmental -	
Sample No.		Recieve		Dec 2023			888 Baldwin
Lab Number Unique Number		Diagnos Diagnosi		Dec 2023 s Davis			Pontiac, MI US 48340
Test Package	: FLEET	Jaynos		5 2413		Contact: F	licky Matthews
•	contact Customer Servi	ico at 1-8	200-237-1360	2			s@aflenv.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)

Certificate L2367

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F: