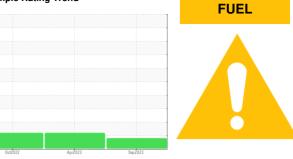


## **OIL ANALYSIS REPORT**

Sample Rating Trend





PETRO CANADA DURON SHP 15W40 (36 LTR)

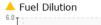
DIACNICOLO							
DIAGNOSIS	SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
A Recommendation	Sample Number		Client Info		GFL0094449	GFL0063936	GFL0055402
We recommend that you drain the oil from the	Sample Date		Client Info		29 Sep 2023	12 Apr 2023	26 Oct 2022
component if this has not already been done. We recommend an early resample to monitor this	Machine Age	hrs	Client Info		0	0	0
condition.	Oil Age	hrs	Client Info		0	0	0
Wear	Oil Changed		Client Info		N/A	Changed	Changed
All component wear rates are normal.	Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Contamination	CONTAMINA	ΓΙΟΝ	method	limit/base	current	history1	history2
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.	Glycol		WC Method		NEG	NEG	NEG
Fluid Condition	WEAR METAI	S	method	limit/base	current	history1	history2
The oil is no longer serviceable due to the presence of contaminants.	Iron	ppm	ASTM D5185(m)	>120	26	18	9
	Chromium	ppm	ASTM D5185(m)	>20	<1	<1	0
	Nickel	ppm	ASTM D5185(m)	>5	0	<1	<1
	Titanium	ppm	ASTM D5185(m)	>2	0	0	0
	Silver	ppm	ASTM D5185(m)	>2	<1	0	0
	Aluminum	ppm	ASTM D5185(m)	>20	<1	1	1
	Lead	ppm	ASTM D5185(m)	>40	3	1	2
	Copper	ppm	ASTM D5185(m)	>330	3	3	2
	Tin	ppm	ASTM D5185(m)	>15	0	<1	0
	Antimony	ppm	ASTM D5185(m)		0	0	0
	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	history1	history2
	Boron	ppm	ASTM D5185(m)	0	6	2	1
	Barium	ppm	ASTM D5185(m)	0	<1	0	0
	Molybdenum	ppm	ASTM D5185(m)	60	56	57	55
				00		57	55
	Manganese	ppm	ASTM D5185(m)		0	<1	<1
	Manganese Magnesium	ppm ppm	ASTM D5185(m) ASTM D5185(m)				
	0			0 1010	0	<1	<1
	Magnesium	ppm	ASTM D5185(m)	0 1010	0 889	<1 935	<1 896
	Magnesium Calcium	ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 1010 1070	0 889 1007	<1 935 1072	<1 896 1019
	Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 1010 1070 1150	0 889 1007 892	<1 935 1072 1035	<1 896 1019 1025
	Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 1010 1070 1150 1270	0 889 1007 892 1087	<1 935 1072 1035 1145	<1 896 1019 1025 1107
	Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 1010 1070 1150 1270	0 889 1007 892 1087 2298	<1 935 1072 1035 1145 2576	<1 896 1019 1025 1107 2502
	Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 1010 1070 1150 1270 2060 limit/base	0 889 1007 892 1087 2298 <1	<1 935 1072 1035 1145 2576 <1	<1 896 1019 1025 1107 2502 <1
	Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method	0 1010 1070 1150 1270 2060 limit/base	0 889 1007 892 1087 2298 <1 current	<1 935 1072 1035 1145 2576 <1 history1	<1 896 1019 1025 1107 2502 <1 kistory2
	Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) MASTM D5185(m) ASTM D5185(m)	0 1010 1070 1150 1270 2060 limit/base >25	0 889 1007 892 1087 2298 <1 current 2	<1 935 1072 1035 1145 2576 <1 history1	<1 896 1019 1025 1107 2502 <1 history2 2
	Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm vTS	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 1010 1070 1150 1270 2060 limit/base >25 >20	0 889 1007 892 1087 2298 <1 current 2 2 2	<1 935 1072 1035 1145 2576 <1 history1 2 1	<1 896 1019 1025 1107 2502 <1 kistory2 2 2 2
	Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 1010 1070 1150 1270 2060 limit/base >25 >20	0 889 1007 892 1087 2298 <1 current 2 2 2 0 0 4.4	<1 935 1072 1035 1145 2576 <1 <u>history1</u> 2 1 0	<1 896 1019 1025 1107 2502 <1 kistory2 2 2 2 2 2 4 1
	Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 1010 1070 1150 1270 2060 limit/base >25 >20 >3.0 limit/base	0 889 1007 892 1087 2298 <1 current 2 2 2 0 0 4.4	<1 935 1072 1035 1145 2576 <1 history1 2 1 0 5.3	<1 896 1019 1025 1107 2502 <1 history2 2 2 2 2 <1 ▲ 4.5
	Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm vTS ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 1010 1070 1150 1270 2060 limit/base >25 >20 >20 >3.0 limit/base >4	0 889 1007 892 1087 2298 <1 current 2 2 2 0 0 ▲ 4.4 current	<1 935 1072 1035 1145 2576 <1  history1 2 1 0  5.3	<1 896 1019 1025 1107 2502 <1 history2 2 2 2 <1 ▲ 4.5 history2
	Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm vTS ppm ppm ppm %	ASTM D5185(m) ASTM D7593*	0 1010 1070 1150 1270 2060 limit/base >25 >20 >20 >3.0 limit/base >4	0 889 1007 892 1087 2298 <1 2298 <1 22 2 0 4.4 4.4 2.8	<1 935 1072 1035 1145 2576 <1  bistory1 2 1 0  5.3 bistory1 1.6	<1 896 1019 1025 1107 2502 <1 history2 2 2 2 <1 ▲ 4.5 history2 0.9
	Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7593* Composite ASTM D7624* ASTM D7624* ASTM D7415*	0 1010 1070 1150 1270 2060 limit/base >25 >20 >3.0 limit/base >4 >20	0 889 1007 892 1087 2298 <1 2298 <1 220 0 2 2 0 4.4 2.8 9.0	<1 935 1072 1035 1145 2576 <1  bistory1 2 1 0  5.3 bistory1 1.6 8.4	<1 896 1019 1025 1107 2502 <1 history2 2 2 2 <1 ▲ 4.5 history2 0.9 6.2

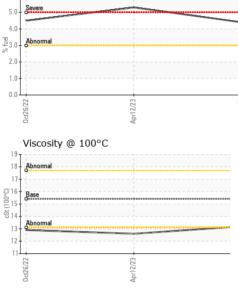
Report Id: GFL222 [WCAMIS] 02586622 (Generated: 10/05/2023 09:29:07) Rev: 1

Submitted By: Kim Thompson



## **OIL ANALYSIS REPORT**





VISUAL method limit/base history1 history2 current NEG NEG NEG **Emulsified Water** Visual\* >0.2 scalar Free Water scalar Visual\* NEG NEG NEG **FLUID PROPERTIES** method limit/base current history<sup>-</sup> history2 cSt Visc @ 100°C 13.2 12.6 **12.9** ASTM D7279(m) 15.4 **GRAPHS** Iron (ppm) Lead (ppm) 300 80 250 70 201 60 6 Ed <sup>50</sup> E 150 Ab 100 30 20 50 10 n. Π. Apr12/23 Aluminum (ppm) Chromium (ppm) 50 40 35 30 30 21 15 10 10 Silicon (ppm) Copper (ppm) 400 80 350 70 300 60 250 50 E 200 ۲ 40 150 30 Ab 100 20 50 10 Apr12/23 Viscosity @ 100°C Fuel Dilution 19 6 18 5.0 4.0 <u>ः</u> १६ °001) 15 14 19 3.0 2.0 1.0 12 0.0 Apr12/23 Sep29/23 Apr12/23 r+76/77 : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 222 - Sandhill : GFL0094449 Received : 04 Oct 2023 SANDHILL DISPOSAL & RECYCLING DIVIS, 19 COMMERCE ROAD : 02586622 Diagnosed : 05 Oct 2023

 
 Accredited Laboratory
 Unique Number
 : 5655688
 Diagnostician
 : Wes Davis

 Test Package
 : MOB 1 (Additional Tests: PercentFuel)

 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.
 ILL DISPOSAL & RECYCLING DIVIS, 19 COMMERCE HOAD ORANGEVILLE, ON CA L9W 3X5 Contact: GLENN COOK gcook@gflenv.com T: (519)940-4167 F:



6I

CALA

ISO 17025:2017

Laboratory

Sample No.

Lab Number