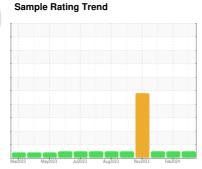


OIL ANALYSIS REPORT



PETRO CANADA DURON SHP 15W40 (8 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

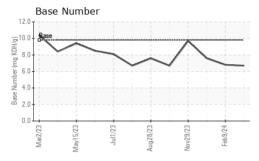
Fluid Condition

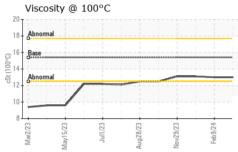
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sample Number Client Info GFL0112342 GFL010958 GFL0107195 Sample Date Client Info 29 Feb 2024 09 Feb 2024 16 Jan 2024 17 Jan 2029 18 Jan 2024 18			Mazoza	maybobb oubsto			
Sample Date	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 2300 2191 2029 Oil Age hrs Client Info 538 429 267 Oil Changed Client Info Changed Not Changd Not Changd Sample Status NORMAL NORMAL NORMAL NORMAL CONTAMINATION method Imitibase current history1 history2 Fuel WC Method >3.0 <1.0 <1.0 <1.0 <1.0 Water WC Method NEG NEG NEG NEG NEG Glycol WC Method Imitibase current history1 history2 Iron ppm ASTM 05185m >120 18 13 11 Iron ppm ASTM 05185m >20 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	Sample Number		Client Info		GFL0112342	GFL0109958	GFL0107195
Oil Age hrs Client Info 538 429 267 Oil Changed Client Info Changed Not Changd	Sample Date		Client Info		29 Feb 2024	09 Feb 2024	16 Jan 2024
Oil Age hrs Client Info 538 429 267 Oil Changed Client Info Changed Not Changd	Machine Age	hrs	Client Info		2300	2191	2029
Cilient Info Changed Not Changed Not Changed NoRMAL NEG	Oil Age	hrs	Client Info		538	429	267
NORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 history2 history2 water WC Method >3.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	•		Client Info		Changed	Not Changd	Not Changd
Fuel	-				_	Ü	Ŭ.
Fuel		ION	method	limit/hase			
Water WC Method >0.2 NEG NEG NEG Glycol WC Method NEG NEG NEG 0.0 WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >120 18 13 11 Chromium ppm ASTM D5185m >20 <1							
WEAR METALS							
WEAR METALS				>0.2			
Irron	Glycol		WC Method		NEG	NEG	0.0
Chromium	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>120	18	13	11
Titanium	Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Silver	Nickel	ppm	ASTM D5185m	>5	2	<1	1
Aluminum	Titanium	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	Silver	ppm	ASTM D5185m	>2	<1	<1	0
Lead	Aluminum		ASTM D5185m	>20	9	8	6
Copper ppm ASTM D5185m >330 5 4 4 Tin ppm ASTM D5185m >15 1 <1	Lead				0		0
Tin	Copper		ASTM D5185m	>330	5	4	4
Vanadium ppm ASTM D5185m <1 0 <1 Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 5 4 5 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 60 64 60 63 Mangaese ppm ASTM D5185m 0 1 <1 <1 <1 Magnesium ppm ASTM D5185m 1070 1015 1025 1085 Phosphorus ppm ASTM D5185m 1150 1060 1066 1122 Zinc ppm ASTM D5185m 1270 1222 1203 1332 Sulfur ppm ASTM D5185m 2060 2943 2773 3256 CONTAMINANTS method limit/base current <th< td=""><th>Tin</th><td></td><td>ASTM D5185m</td><td>>15</td><th></th><td><1</td><td><1</td></th<>	Tin		ASTM D5185m	>15		<1	<1
Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 5 4 5 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 60 64 60 63 Manganese ppm ASTM D5185m 0 1 <1	Vanadium		ASTM D5185m		<1		<1
Boron ppm ASTM D5185m 0 0 0 0 0 0 0 0 0	Cadmium				<1		
Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 60 64 60 63 Manganese ppm ASTM D5185m 0 1 <1 <1 Magnesium ppm ASTM D5185m 1010 879 869 986 Calcium ppm ASTM D5185m 1070 1015 1025 1085 Phosphorus ppm ASTM D5185m 1150 1060 1066 1122 Zinc ppm ASTM D5185m 1270 1222 1203 1332 Sulfur ppm ASTM D5185m 2060 2943 2773 3256 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 3 5 Sodium ppm ASTM D5185m 2 1 <1 Potassium ppm ASTM D5185m 20 <th>ADDITIVES</th> <th></th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	ADDITIVES		method	limit/base	current	history1	history2
Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 60 64 60 63 Manganese ppm ASTM D5185m 0 1 <1 <1 Magnesium ppm ASTM D5185m 1010 879 869 986 Calcium ppm ASTM D5185m 1070 1015 1025 1085 Phosphorus ppm ASTM D5185m 1150 1060 1066 1122 Zinc ppm ASTM D5185m 1270 1222 1203 1332 Sulfur ppm ASTM D5185m 2060 2943 2773 3256 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 3 5 Sodium ppm ASTM D5185m 2 1 <1 Potassium ppm ASTM D5185m 20 <th>Boron</th> <th>ppm</th> <th>ASTM D5185m</th> <th>0</th> <th>5</th> <th>4</th> <th>5</th>	Boron	ppm	ASTM D5185m	0	5	4	5
Molybdenum ppm ASTM D5185m 60 64 60 63 Manganese ppm ASTM D5185m 0 1 <1 <1 Magnesium ppm ASTM D5185m 1010 879 869 986 Calcium ppm ASTM D5185m 1070 1015 1025 1085 Phosphorus ppm ASTM D5185m 1150 1060 1066 1122 Zinc ppm ASTM D5185m 1270 1222 1203 1332 Sulfur ppm ASTM D5185m 2060 2943 2773 3256 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m 25 6 3 5 Sodium ppm ASTM D5185m 2 1 <1 Potassium ppm ASTM D5185m 2 2 1 <1 INFRA-RED method limit/base current <th>Barium</th> <td></td> <td>ASTM D5185m</td> <td>0</td> <th></th> <td>0</td> <td>0</td>	Barium		ASTM D5185m	0		0	0
Manganese ppm ASTM D5185m 0 1 <1 <1 Magnesium ppm ASTM D5185m 1010 879 869 986 Calcium ppm ASTM D5185m 1070 1015 1025 1085 Phosphorus ppm ASTM D5185m 1150 1060 1066 1122 Zinc ppm ASTM D5185m 1270 1222 1203 1332 Sulfur ppm ASTM D5185m 2060 2943 2773 3256 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 3 5 Sodium ppm ASTM D5185m >20 25 22 18 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.3 0.3 0.2 Nitration Abs/cm *ASTM					64	60	63
Magnesium ppm ASTM D5185m 1010 879 869 986 Calcium ppm ASTM D5185m 1070 1015 1025 1085 Phosphorus ppm ASTM D5185m 1150 1060 1066 1122 Zinc ppm ASTM D5185m 1270 1222 1203 1332 Sulfur ppm ASTM D5185m 2060 2943 2773 3256 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 3 5 Sodium ppm ASTM D5185m >20 25 22 18 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.3 0.3 0.2 Nitration Abs/cm *ASTM D7624 >20 8.4 8.2 7.0 Sulfation Abs/.1mm	-				-		
Calcium ppm ASTM D5185m 1070 1015 1025 1085 Phosphorus ppm ASTM D5185m 1150 1060 1066 1122 Zinc ppm ASTM D5185m 1270 1222 1203 1332 Sulfur ppm ASTM D5185m 2060 2943 2773 3256 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 3 5 Sodium ppm ASTM D5185m 2 1 <1	•				879	869	986
Phosphorus ppm ASTM D5185m 1150 1060 1066 1122 Zinc ppm ASTM D5185m 1270 1222 1203 1332 Sulfur ppm ASTM D5185m 2060 2943 2773 3256 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 3 5 Sodium ppm ASTM D5185m 2 1 <1							
Zinc ppm ASTM D5185m 1270 1222 1203 1332 Sulfur ppm ASTM D5185m 2060 2943 2773 3256 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 3 5 Sodium ppm ASTM D5185m 2 1 <1 Potassium ppm ASTM D5185m >20 25 22 18 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.3 0.3 0.2 Nitration Abs/cm *ASTM D7624 >20 8.4 8.2 7.0 Sulfation Abs/.1mm *ASTM D7415 >30 18.6 18.5 18.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM							
Sulfur ppm ASTM D5185m 2060 2943 2773 3256 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 3 5 Sodium ppm ASTM D5185m 2 1 <1							
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 3 5 Sodium ppm ASTM D5185m 2 1 <1	Sulfur						
Silicon ppm ASTM D5185m >25 6 3 5 Sodium ppm ASTM D5185m 2 1 <1	CONTAMINAN		method	limit/base	current	history1	history2
Sodium ppm ASTM D5185m 2 1 <1							
Potassium ppm ASTM D5185m >20 25 22 18 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.3 0.3 0.2 Nitration Abs/cm *ASTM D7624 >20 8.4 8.2 7.0 Sulfation Abs/.1mm *ASTM D7415 >30 18.6 18.5 18.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.1 13.9 13.3							
INFRA-RED				>20			
Soot % % *ASTM D7844 >4 0.3 0.3 0.2 Nitration Abs/cm *ASTM D7624 >20 8.4 8.2 7.0 Sulfation Abs/.1mm *ASTM D7415 >30 18.6 18.5 18.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.1 13.9 13.3		1-1-	method	limit/base			
Nitration Abs/cm *ASTM D7624 >20 8.4 8.2 7.0 Sulfation Abs/.1mm *ASTM D7415 >30 18.6 18.5 18.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.1 13.9 13.3		0/_					
Sulfation Abs/.1mm *ASTM D7415 >30 18.6 18.5 18.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.1 13.9 13.3							
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.1 13.9 13.3							
Oxidation Abs/.1mm *ASTM D7414 >25 14.1 13.9 13.3							
Base Number (BN) mg KOH/g ASTM D2896 9.8 6.7 6.8 7.6	Oxidation						
	Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.7	6.8	7.6



OIL ANALYSIS REPORT

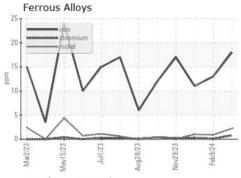


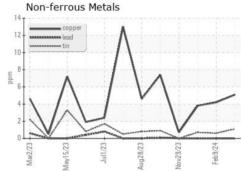


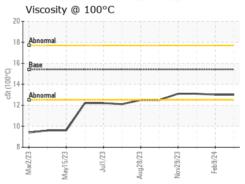
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

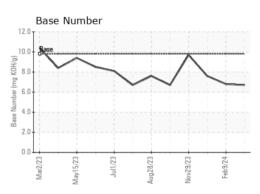
FLUID PROPI	ERTIES	method				history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.0	13.0	13.1

GRAPHS













Certificate L2367

Laboratory Sample No.

: GFL0112342 Lab Number : 06105733 Unique Number : 10903963 Test Package : FLEET

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

: 01 Mar 2024 Diagnosed : 01 Mar 2024 - Wes Davis

GFL Environmental - 010 - Stockbridge

1280 Rum Creek Parkway

Stockbridge, GA US 30281

Contact: TECHNICIAN ACCOUNT wcgfldemo@gmail.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)

T:

F: