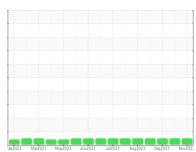


OIL ANALYSIS REPORT





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



Sample Rating Trend



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the

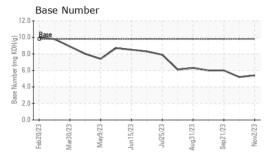
Fluid Condition

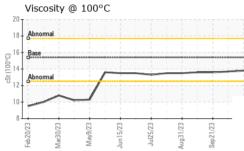
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Company Comp	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 1789 1641 1486 1486 1489 1641 1486 1489 1641 1486 1489 1641 1486 1489 1641 1486 1489 1641 1486 1489 1641 1486 1488 1489 1488 1	Sample Number		Client Info		GFL0087975	GFL0092413	GFL0089902
Dil Age	Sample Date		Client Info		02 Nov 2023	12 Oct 2023	21 Sep 2023
Dil Changed Client Info Not Changed NORMAL NORM	Machine Age	hrs	Client Info		1789	1641	1486
CONTAMINATION	Oil Age	hrs	Client Info		303	155	401
CONTAMINATION method limit/base current history1 history2 Fuel 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	Oil Changed		Client Info		Not Changd	Not Changd	Changed
We We We We We We We We	Sample Status				NORMAL	NORMAL	NORMAL
NEG WEAR METALS method limit/base current history1 history2 history2 necessary necessary	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >120 48 41 32 Chromium ppm ASTM D5185m >20 2 2 2 Nickel ppm ASTM D5185m >5 5 4 3 Titanium ppm ASTM D5185m >2 <1 <1 0 Silver ppm ASTM D5185m >2 <1 <1 0 Aluminum ppm ASTM D5185m >20 4 6 6 Lead ppm ASTM D5185m >20 4 6 6 Lead ppm ASTM D5185m >20 4 6 6 Lead ppm ASTM D5185m >20 4 6 6 Copper ppm ASTM D5185m 0 <1 0 0 Calcium ppm ASTM D5185m 0 <1 0 0	Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Chromium	Glycol		WC Method		NEG	NEG	NEG
Chromium	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>120	48	41	32
Silver	Chromium	ppm	ASTM D5185m	>20	2	2	2
Silver	Nickel	ppm	ASTM D5185m	>5	5	4	3
Aluminum	Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Lead	Silver	ppm	ASTM D5185m	>2	<1	<1	<1
Copper	Aluminum	ppm	ASTM D5185m	>20	4	6	6
Tin	Lead	ppm	ASTM D5185m	>40	<1	0	0
Vanadium ppm ASTM D5185m 0 <1 0 Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 3 3 4 Barium ppm ASTM D5185m 0 5 0 0 Molybdenum ppm ASTM D5185m 60 71 68 65 Manganese ppm ASTM D5185m 0 2 2 2 Magnesium ppm ASTM D5185m 1010 962 953 966 Calcium ppm ASTM D5185m 1070 1181 1115 1110 Phosphorus ppm ASTM D5185m 1270 1248 1174 1241 Sulfur ppm ASTM D5185m 2060 2458 2239 2420 CONTAMINANTS method limit/base current history1<	Copper	ppm	ASTM D5185m	>330	22	22	18
ADDITIVES	Tin	ppm	ASTM D5185m	>15	2	1	2
ADDITIVES	Vanadium	ppm	ASTM D5185m		0	<1	0
Boron ppm ASTM D5185m 0 3 3 4	Cadmium	ppm	ASTM D5185m		<1	0	0
Sarium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 60 71 68 65 Manganese ppm ASTM D5185m 0 2 2 2 Magnesium ppm ASTM D5185m 1010 962 953 966 Calcium ppm ASTM D5185m 1070 1181 1115 1110 Phosphorus ppm ASTM D5185m 1150 982 943 953 Zinc ppm ASTM D5185m 1270 1248 1174 1241 Sulfur ppm ASTM D5185m 2060 2458 2239 2420 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 17 16 14 Sodium ppm ASTM D5185m >20 16 12 11 INFRA-RED method limit/base current history1 history2 Soot % *ASTM D7844 >4	Boron	ppm	ASTM D5185m	0	3	3	4
Manganese ppm ASTM D5185m 0 2 2 2 Magnesium ppm ASTM D5185m 1010 962 953 966 Calcium ppm ASTM D5185m 1070 1181 1115 1110 Phosphorus ppm ASTM D5185m 1150 982 943 953 Zinc ppm ASTM D5185m 1270 1248 1174 1241 Sulfur ppm ASTM D5185m 2060 2458 2239 2420 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 17 16 14 Sodium ppm ASTM D5185m >20 16 12 11 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 1.2 1.2 1 Witration Abs/cm *ASTM D74	Barium	ppm	ASTM D5185m	0	5	0	0
Magnesium ppm ASTM D5185m 1010 962 953 966 Calcium ppm ASTM D5185m 1070 1181 1115 1110 Phosphorus ppm ASTM D5185m 1150 982 943 953 Zinc ppm ASTM D5185m 1270 1248 1174 1241 Sulfur ppm ASTM D5185m 2060 2458 2239 2420 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 17 16 14 Sodium ppm ASTM D5185m 3 8 6 Potassium ppm ASTM D5185m >20 16 12 11 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 12.2 11.5 11.2 Sulfation Abs/.1mm *ASTM D7415 >30	Molybdenum	ppm	ASTM D5185m	60	71	68	65
Calcium ppm ASTM D5185m 1070 1181 1115 1110 Phosphorus ppm ASTM D5185m 1150 982 943 953 Zinc ppm ASTM D5185m 1270 1248 1174 1241 Sulfur ppm ASTM D5185m 2060 2458 2239 2420 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 17 16 14 Sodium ppm ASTM D5185m 3 8 6 Potassium ppm ASTM D5185m >20 16 12 11 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 1.2 1.2 1 Nitration Abs/.1mm *ASTM D7415 >30 25.0 23.8 23.4 FLUID DEGRADATION method l	Manganese	ppm	ASTM D5185m	0	2	2	2
Phosphorus ppm ASTM D5185m 1150 982 943 953 Zinc ppm ASTM D5185m 1270 1248 1174 1241 Sulfur ppm ASTM D5185m 2060 2458 2239 2420 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 17 16 14 Sodium ppm ASTM D5185m >20 16 12 11 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 1.2 1.2 1 Nitration Abs/cm *ASTM D7624 >20 12.2 11.5 11.2 Sulfation Abs/.1mm *ASTM D7415 >30 25.0 23.8 23.4 FLUID DEGRADATION method limit/base current history1 history2 Dxidation Abs/.1mm <th>Magnesium</th> <th>ppm</th> <th>ASTM D5185m</th> <th>1010</th> <th>962</th> <th>953</th> <th>966</th>	Magnesium	ppm	ASTM D5185m	1010	962	953	966
Transport Tran	Calcium	ppm	ASTM D5185m	1070	1181	1115	1110
Sulfur ppm ASTM D5185m 2060 2458 2239 2420 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 17 16 14 Sodium ppm ASTM D5185m 3 8 6 Potassium ppm ASTM D5185m >20 16 12 11 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 1.2 1.2 1 Nitration Abs/cm *ASTM D7624 >20 12.2 11.5 11.2 Sulfation Abs/.1mm *ASTM D7415 >30 25.0 23.8 23.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.8 21.5 20.7	Phosphorus	ppm	ASTM D5185m	1150	982	943	953
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 17 16 14 Sodium ppm ASTM D5185m 3 8 6 Potassium ppm ASTM D5185m >20 16 12 11 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 1.2 1.2 1 Nitration Abs/cm *ASTM D7624 >20 12.2 11.5 11.2 Sulfation Abs/.1mm *ASTM D7415 >30 25.0 23.8 23.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.8 21.5 20.7	Zinc	ppm	ASTM D5185m	1270	1248		
Silicon ppm ASTM D5185m >25 17 16 14 Sodium ppm ASTM D5185m 3 8 6 Potassium ppm ASTM D5185m >20 16 12 11 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 1.2 1.2 1 Nitration Abs/cm *ASTM D7624 >20 12.2 11.5 11.2 Sulfation Abs/.1mm *ASTM D7415 >30 25.0 23.8 23.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.8 21.5 20.7	Sulfur		ASTM D5185m	2060	2458	2239	2420
Sodium ppm ASTM D5185m 3 8 6 Potassium ppm ASTM D5185m >20 16 12 11 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 1.2 1.2 1 Nitration Abs/cm *ASTM D7624 >20 12.2 11.5 11.2 Sulfation Abs/.1mm *ASTM D7415 >30 25.0 23.8 23.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.8 21.5 20.7		TS			current	history1	history2
Potassium ppm ASTM D5185m >20 16 12 11 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 1.2 1.2 1 Nitration Abs/cm *ASTM D7624 >20 12.2 11.5 11.2 Sulfation Abs/.1mm *ASTM D7415 >30 25.0 23.8 23.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.8 21.5 20.7	Silicon	ppm	ASTM D5185m	>25		16	14
INFRA-RED	Sodium	ppm	ASTM D5185m		3	8	6
Soot % % *ASTM D7844 >4 1.2 1.2 1 Nitration Abs/cm *ASTM D7624 >20 12.2 11.5 11.2 Sulfation Abs/.1mm *ASTM D7415 >30 25.0 23.8 23.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.8 21.5 20.7	Potassium	ppm	ASTM D5185m	>20	16	12	11
Nitration Abs/cm *ASTM D7624 >20 12.2 11.5 11.2 Sulfation Abs/.1mm *ASTM D7415 >30 25.0 23.8 23.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.8 21.5 20.7	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 25.0 23.8 23.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.8 21.5 20.7	Soot %	%	*ASTM D7844	>4	1.2	1.2	1
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 22.8 21.5 20.7	Nitration	Abs/cm	*ASTM D7624	>20	12.2	11.5	11.2
Oxidation	Culfation	Abs/.1mm	*ASTM D7415	>30	25.0	23.8	23.4
	Sullation						
Base Number (BN) mg KOH/g ASTM D2896 9.8 5.4 5.2 6.0			method	limit/base	current	history1	history2
		DATION					



OIL ANALYSIS REPORT

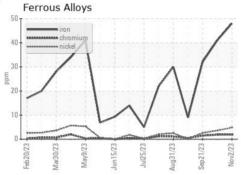


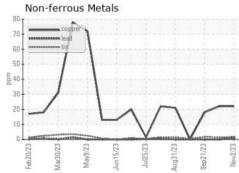


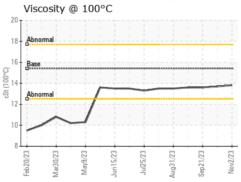
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

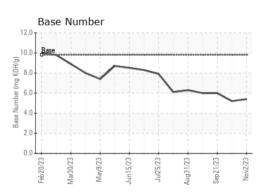
FLUID PROPE	EKIIES	metnoa	ilmit/base	current	nistory i	nistory2
Visc @ 100°C	cSt	ASTM D445	15.4	13.8	13.7	13.6

GRAPHS













Certificate L2367

Report Id: GFL955 [WUSCAR] 06000378 (Generated: 11/07/2023 19:31:38) Rev: 1

Laboratory Sample No. Lab Number Unique Number : 10728738 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : GFL0087975 : 06000378

Received : 07 Nov 2023 Diagnosed : 07 Nov 2023 Diagnostician : Wes Davis

GFL Environmental - 955 - Montgomery

1121 Wilbanks St Montgomery, AL US 36108

Contact: LISA REEVES

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: