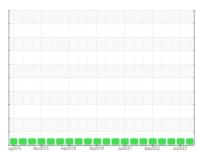


OIL ANALYSIS REPORT



Sample Rating Trend







4493 Component

Right Diesel Engine

PETRO CANADA DURON X

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

Light fuel dilution occurring. No other contaminants were detected in the oil.

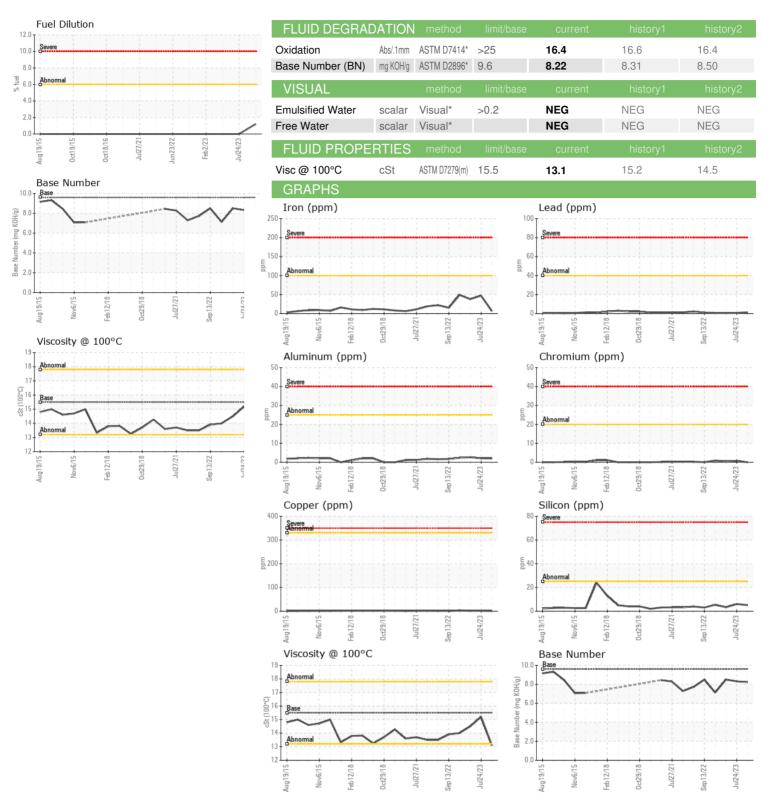
Fluid Condition

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

Sample Number Client Info CFL0084295 GFL0084297 GFL0076 Sample Date Client Info 25 Jul 2023 24 Jul 2023 25 Apr 202 Anachine Age kms Client Info 0 0 0 594 Oil Age kms Client Info 0 0 0 594 Oil Changed Client Info N/A N/A Changed NORMAL NORMAL NORMA	SYN BLEND 15W40	(36 LTR)	ug2015 No	v2015 Feb2018 O	12018 Jul2021 Sep2022	Jui2023	
Sample Date Client Info 25 Jul 2023 24 Jul 2023 25 Apr 2028 Machine Age kms Client Info 676520 990083 35918 Oil Age kms Client Info O	SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
Machine Age kms Client Info 676520 990083 35918 Oil Age kms Client Info 0 0 5944 Oil Changed Client Info N/A N/A N/A Sample Status NORMAL NORMAL CONTAMINATION method limit/base current history1 history1 Glycol WC Method NEG NEG NEG WEAR METALS method limit/base current history1 history1 Iron ppm ASTM 05188(m) >20 0 <1	Sample Number		Client Info		GFL0084295	GFL0084297	GFL0077604
Oil Age kms Client Info N/A N/A N/A Changed Sample Status Client Info N/A N/A N/A Changed CONTAMINATION method limit/base current history1 history1 Giycol WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185(m) >100 6 47 38 Chromium ppm ASTM D5185(m) >20 0 <1 <1 Nickel ppm ASTM D5185(m) >20 0 <1 <1 Nickel ppm ASTM D5185(m) >2 0 0 <1 <1 Silver ppm ASTM D5185(m) >2 0 0 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	Sample Date		Client Info		25 Jul 2023	24 Jul 2023	25 Apr 2023
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CONTAMINATION	Oil Age	kms	Client Info		0	0	594
CONTAMINATION method limit/base current history1 history1 history1 method limit/base current history1 histo	Oil Changed		Client Info		N/A	N/A	Changed
NEG Neg	Sample Status				NORMAL		NORMAL
WEAR METALS	CONTAMINA	TION	method	limit/base	current	history1	history2
Iron	Glycol		WC Method		NEG	NEG	NEG
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Nickel	Iron	ppm	ASTM D5185(m)	>100	6	47	38
Titanium ppm ASTM D5185(m) 0 0 <1 Silver ppm ASTM D5185(m) >2 0 0 0 Aluminum ppm ASTM D5185(m) >25 2 2 3 Lead ppm ASTM D5185(m) >40 1 <1	Chromium	ppm	ASTM D5185(m)	>20	0	<1	<1
Titanium ppm ASTM D5185(m) 0 0 <1 Silver ppm ASTM D5185(m) >2 0 0 0 Aluminum ppm ASTM D5185(m) >25 2 2 3 Lead ppm ASTM D5185(m) >40 1 <1	Nickel		\ /	>2	<1	<1	
Silver	Titanium	ppm			0	0	<1
Aluminum ppm ASTM D5185(m) >25 2 2 3 Lead ppm ASTM D5185(m) >40 1 <1	Silver		ASTM D5185(m)	>2	0		0
Lead ppm ASTM D5185(m) >40 1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	Aluminum		ASTM D5185(m)	>25	2	2	3
Copper ppm ASTM D5185(m) >330 <1 2 2 Tin ppm ASTM D5185(m) >15 <1			()		1	<1	<1
Tin ppm ASTM D5185(m) >15 <1 <1 <1 <1 O Antimony ppm ASTM D5185(m) = 0 <1 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 history1 Boron ppm ASTM D5185(m) 1 2 2 2 2 Barium ppm ASTM D5185(m) 1 0 0 0 Molybdenum ppm ASTM D5185(m) 1 0 0 0 Molybdenum ppm ASTM D5185(m) 1 0 0 0 Magnesium ppm ASTM D5185(m) 1 <1 <1 <1 Magnesium ppm ASTM D5185(m) 1010 945 910 924 Calcium ppm ASTM D5185(m) 1070 1016 1019 1070 Phosphorus ppm ASTM D5185(m) 1270 1147 1132 1143 Sulfur ppm ASTM D5185(m) 1270 1147 1132 1143 Sulfur ppm ASTM D5185(m) 2060 2372 2468 2574 Lithium ppm ASTM D5185(m) >25 5 6 3 Sodium ppm ASTM D5185(m) >20 <1 <1 <1 CONTAMINANTS method limit/base current history1 history Fuel % ASTM D7834' >3 0 ▲ 3.3 2.5 Nitration Abs/cm ASTM D7624' >20 7.2 11.6 11.6	Copper		. ,				
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Molybdenum ppm ASTM D5185(m) 60 56 56 58 Manganese ppm ASTM D5185(m) 1 <1 <1 <1 <1 Magnesium ppm ASTM D5185(m) 1010 945 910 924 Calcium ppm ASTM D5185(m) 1070 1016 1019 1070 Phosphorus ppm ASTM D5185(m) 1150 1006 1020 1072 Zinc ppm ASTM D5185(m) 1270 1147 1132 1143 Sulfur ppm ASTM D5185(m) 2060 2372 2468 2574 Lithium ppm ASTM D5185(m) 2060 2372 2468 2574 Lithium ppm ASTM D5185(m) <1 <1 <1 <1 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185(m) >20 <1 <1 <1 0	Boron	ppm	ASTM D5185(m)	1	2	2	2
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Fuel % ASTM D7593* >6.0 1.2 <1.0 <1.0 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* >3 0 ▲ 3.3 2.5 Nitration Abs/cm ASTM D7624* >20 7.2 11.6 11.6	Potassium		. ,	>20	<1	<1	
Soot % % ASTM D7844* >3 0 ▲ 3.3 2.5 Nitration Abs/cm ASTM D7624* >20 7.2 11.6 11.6	Fuel		. ,		1.2	<1.0	<1.0
Nitration Abs/cm ASTM D7624* >20 7.2 11.6 11.6	INFRA-RED		method	limit/base	current	history1	history2
Nitration Abs/cm ASTM D7624* >20 7.2 11.6 11.6	Soot %	%	ASTM D7844*	>3	0	▲ 3.3	2.5
	Sulfation	Abs/.1mm	ASTM D7415*	>30	20.5	26.0	23.5



OIL ANALYSIS REPORT





CALA ISO 17025:2017 Accredited

Laboratory Sample No. Lab Number **Unique Number**

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County : 02573645

: GFL0084295 : 5618696

Received Diagnosed

: 02 Aug 2023 : 03 Aug 2023 Diagnostician : Kevin Marson

Test Package: MOB 2 (Additional Tests: FuelDilution, PercentFuel)

Rocky View County, AB

Contact: GFL Calgary calgarymaintenance@gflenv.com

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.

F: (403)369-6163

220 Carmek Blvd

CA T1X 1X1

T:

Submitted By: GFL Calgary