

Machine Id
1312
Component
Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

RECOMMENDATION

Check for low coolant level. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. No other corrective action is recommended at this time.

WEAR

All component wear rates are normal.

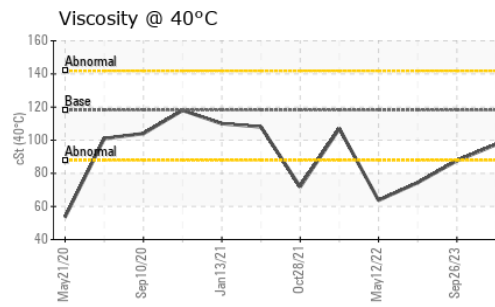
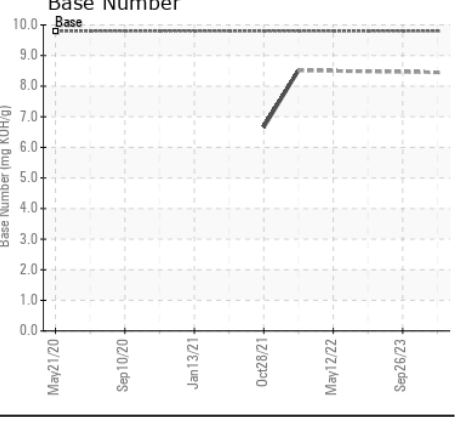
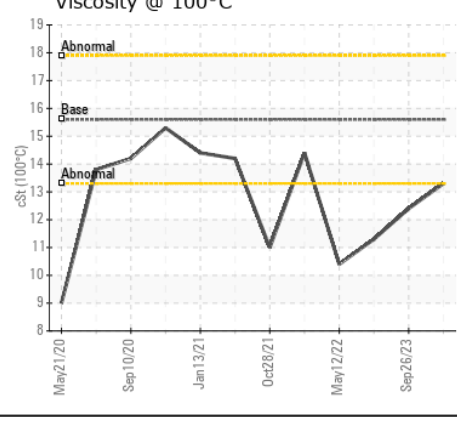
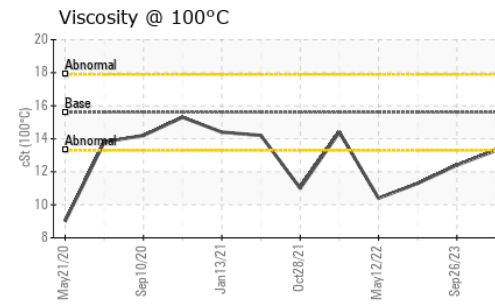
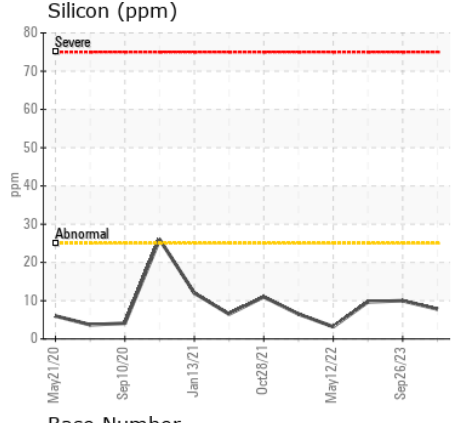
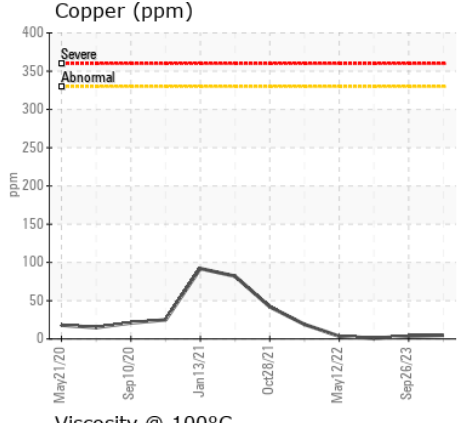
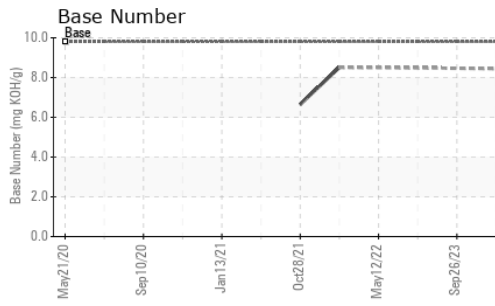
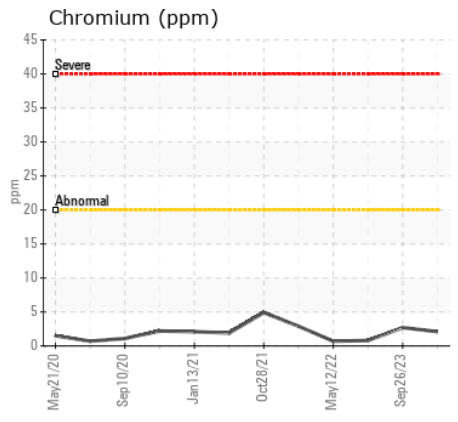
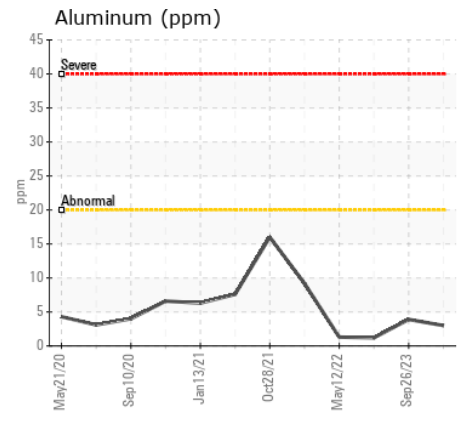
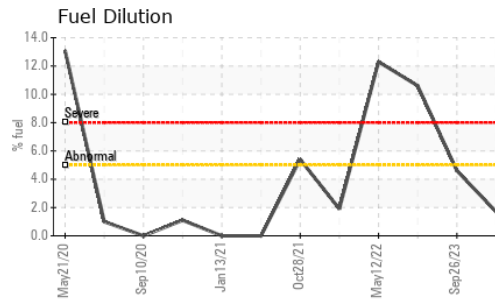
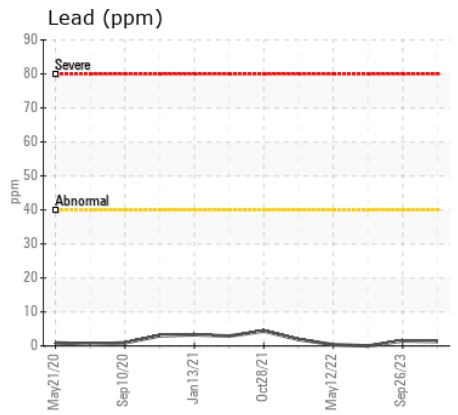
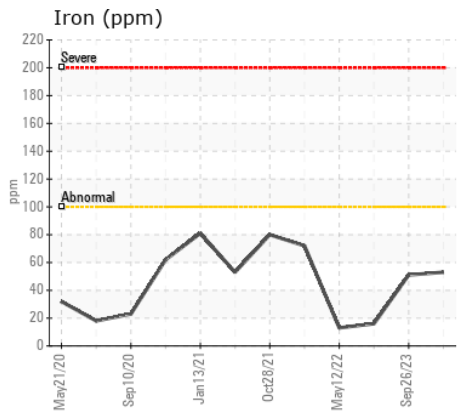
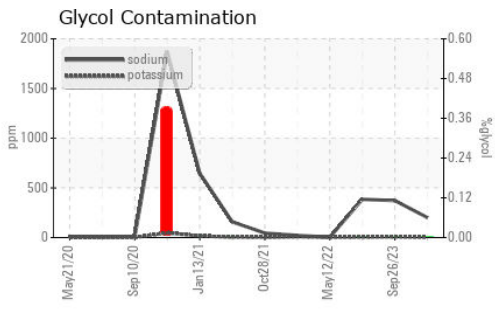
CONTAMINATION

Light fuel dilution occurring. Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. 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 acceptable for the time in service (see recommendation).

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0080276	PC0032174	PC0031574
Sample Date		Client Info		09 Jan 2024	26 Sep 2023	20 Jun 2023
Machine Age	kms	Client Info		656153	642127	628035
Oil Age	kms	Client Info		14076	13893	13324
Filter Age	kms	Client Info		14076	13893	13324
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	ATTENTION	SEVERE
Iron	ppm	ASTM D5185(m)	>100	53	51	16
Chromium	ppm	ASTM D5185(m)	>20	2	3	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	<1	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	3	4	1
Lead	ppm	ASTM D5185(m)	>40	1	2	0
Copper	ppm	ASTM D5185(m)	>330	5	4	1
Tin	ppm	ASTM D5185(m)	>15	<1	<1	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Silicon	ppm	ASTM D5185(m)	>25	8	10	10
Potassium	ppm	ASTM D5185(m)	>20	2	6	4
Fuel	%	ASTM D7593*	>5	1.7	▲ 4.6	■ 10.6
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	0.0	0.0
Soot %	%	ASTM D7844*	>3	2.8	0	1
Nitration	Abs/cm	ASTM D7624*	>20	12.6	7.7	7.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	27.1	17.1	20.8
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)		▲ 201	▲ 372	▲ 385
Boron	ppm	ASTM D5185(m)	0	5	11	34
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	65	67	48
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	948	854	567
Calcium	ppm	ASTM D5185(m)	1070	1135	1133	1286
Phosphorus	ppm	ASTM D5185(m)	1150	1034	970	948
Zinc	ppm	ASTM D5185(m)	1270	1232	1175	1037
Sulfur	ppm	ASTM D5185(m)	2060	2610	2474	2469
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.8	11.0	13.8
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	8.45	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	97.4	87.6	▲ 74.4
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	13.3	12.4	▲ 11.3
Viscosity Index (VI)	Scale	ASTM D2270*	139	135	137	143



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0080276 **Received** : 10 Jan 2024
Lab Number : 02607716 **Diagnosed** : 12 Jan 2024
Unique Number : 5708802 **Diagnostician** : Kevin Marson
Test Package : MOB 2 (Additional Tests: FUELDILUTION, Glycol, KV40, PercentFuel, VI)

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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.