

Machine Id
DR176
Component
Diesel Engine
Fluid
PETRO CANADA DURON UHP 5W40 (42 LTR)

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0082039	PC0053489	PC0051598
Sample Date		Client Info		19 Nov 2023	24 Sep 2021	26 Aug 2021
Machine Age	hrs	Client Info		9661	7159	6939
Oil Age	hrs	Client Info		250	0	0
Filter Age	hrs	Client Info		250	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	34	23	33
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<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	2	4
Lead	ppm	ASTM D5185(m)	>40	2	<1	<1
Copper	ppm	ASTM D5185(m)	>330	4	2	2
Tin	ppm	ASTM D5185(m)	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

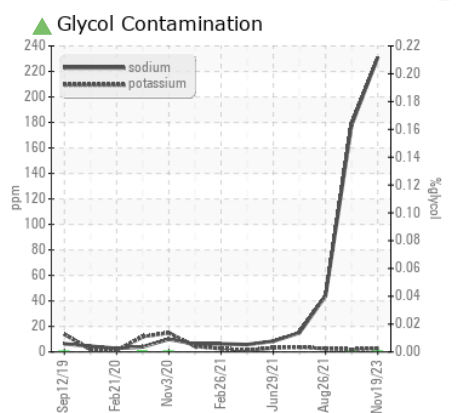
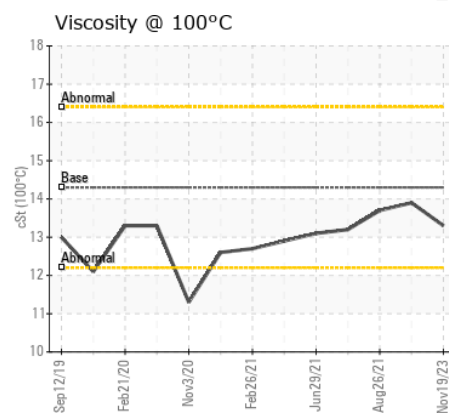
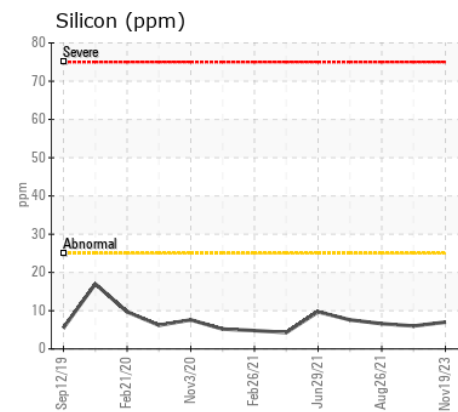
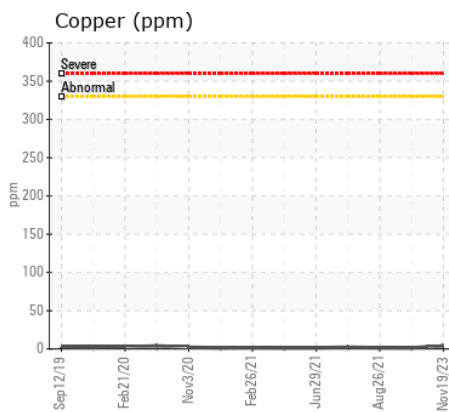
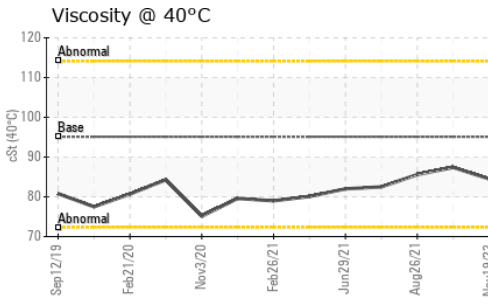
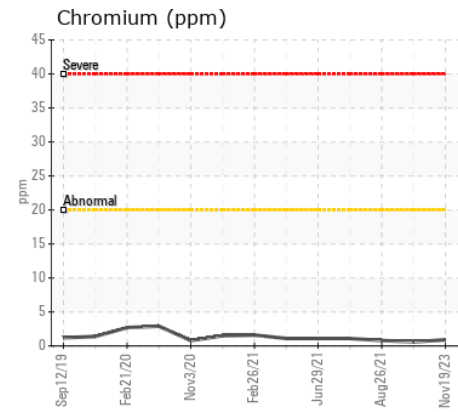
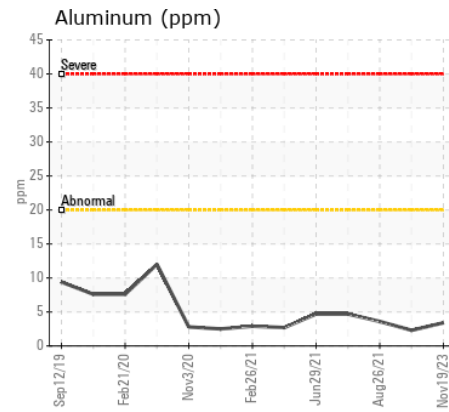
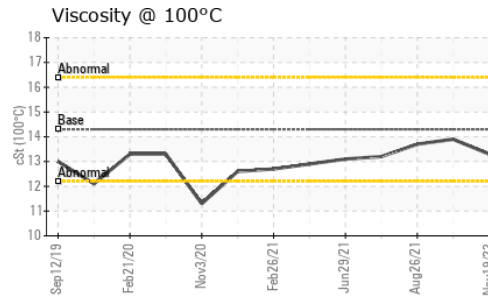
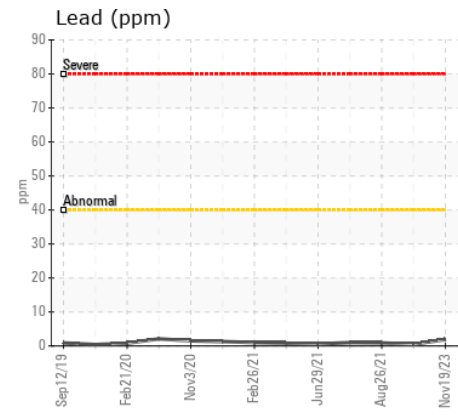
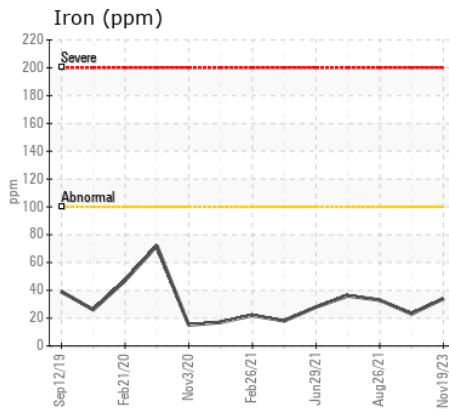
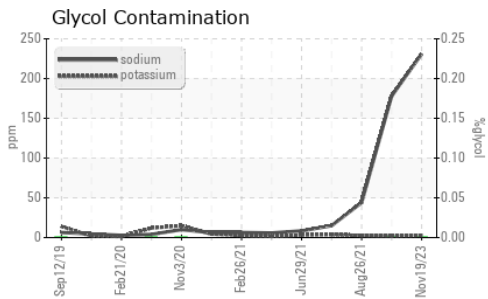
Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	7	6	7
Potassium	ppm	ASTM D5185(m)	>20	3	2	3
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	0.0	NEG
Soot %	%	ASTM D7844*	>3	0.5	0.1	0.2
Nitration	Abs/cm	ASTM D7624*	>20	12.3	9.8	10.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	24.2	22.6	22.3
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service (see recommendation).

Sodium	ppm	ASTM D5185(m)		▲ 231	178	44
Boron	ppm	ASTM D5185(m)	65	16	24	18
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	65	96	85	69
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	1160	1117	1198	1246
Calcium	ppm	ASTM D5185(m)	820	847	863	893
Phosphorus	ppm	ASTM D5185(m)	1160	1010	1088	1122
Zinc	ppm	ASTM D5185(m)	1260	1227	1244	1295
Sulfur	ppm	ASTM D5185(m)	3000	2866	2902	2902
Oxidation	Abs/.1mm	ASTM D7414*	>25	22.2	19.9	20.6
Visc @ 40°C	cSt	ASTM D7279(m)	95.1	84.5	87.4	85.6
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	13.3	13.9	13.7
Viscosity Index (VI)	Scale	ASTM D2270*	169	159	163	163



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations
Sample No. : PC0082039 **Received** : 10 Jan 2024 151 Ram Forest Rd,
Lab Number : 02607720 **Diagnosed** : 11 Jan 2024 Stouffville, ON
Unique Number : 5708806 **Diagnostician** : Kevin Marson CA L4A 2G8
Test Package : MOB 1 (Additional Tests: Glycol, KV40, VI) Contact: Shannon Abbott
 To discuss this sample report, contact Customer Service at 1-800-268-2131. sabbott@gipi.com
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: (905)750-5900
 Validity of results and interpretation are based on the sample and information as supplied. F: