



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
20-58
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON UHP 5W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0083265	PC0081768	PC0081734
Sample Date		Client Info		02 May 2024	18 Jan 2024	25 Oct 2023
Machine Age	kms	Client Info		675076	640717	598928
Oil Age	kms	Client Info		40000	41539	41928
Filter Age	kms	Client Info		40000	41539	41928
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>200	22	17	12
Chromium	ppm	ASTM D5185(m)	>20	2	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>30	7	2	2
Lead	ppm	ASTM D5185(m)	>30	0	0	<1
Copper	ppm	ASTM D5185(m)	>30	8	6	5
Tin	ppm	ASTM D5185(m)	>15	<1	<1	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

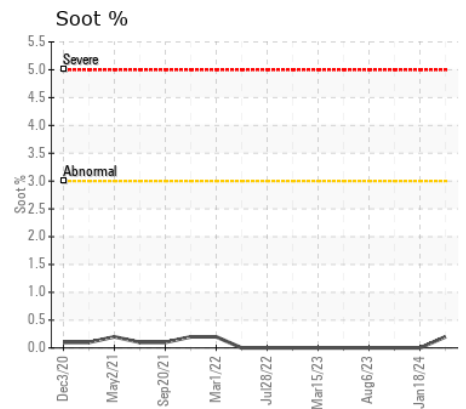
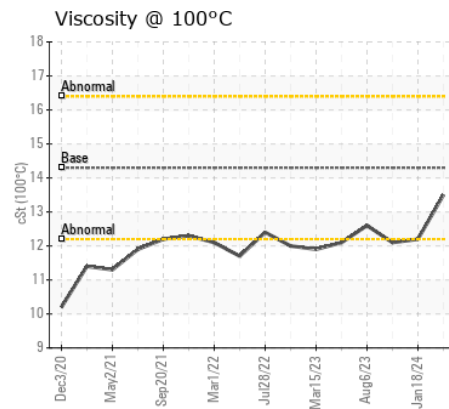
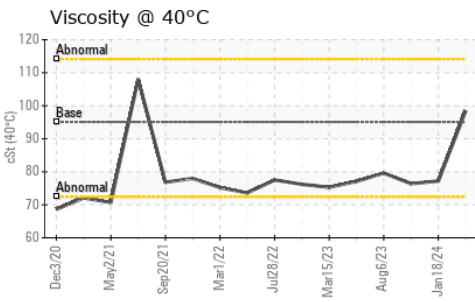
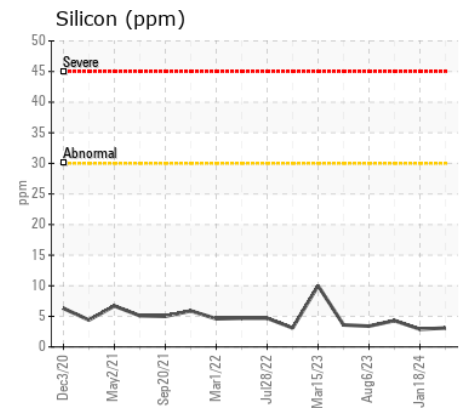
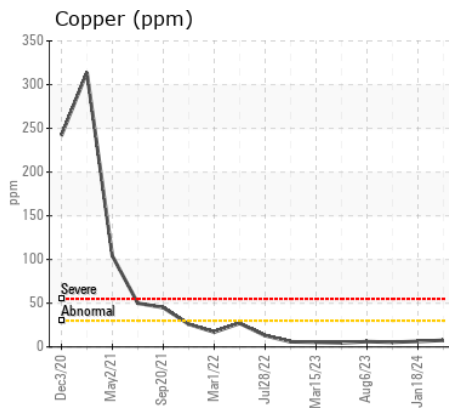
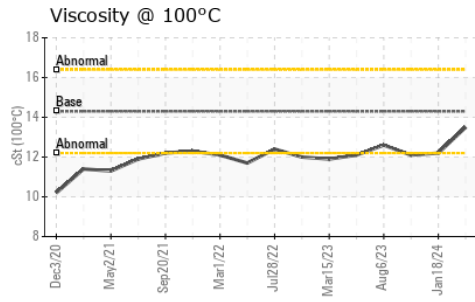
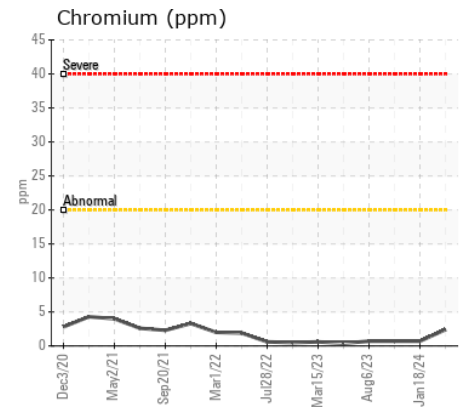
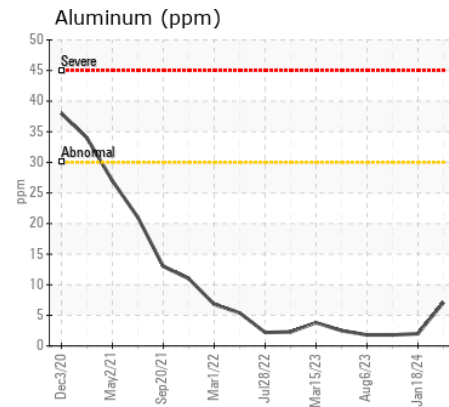
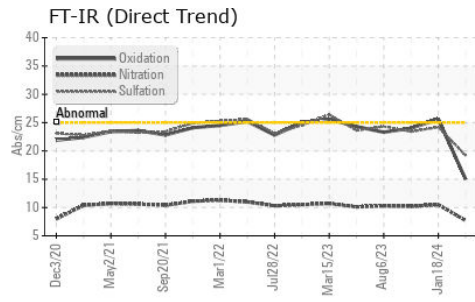
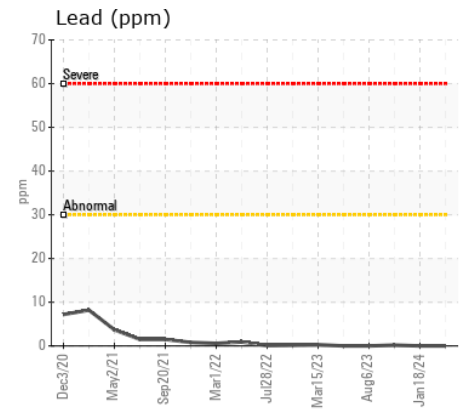
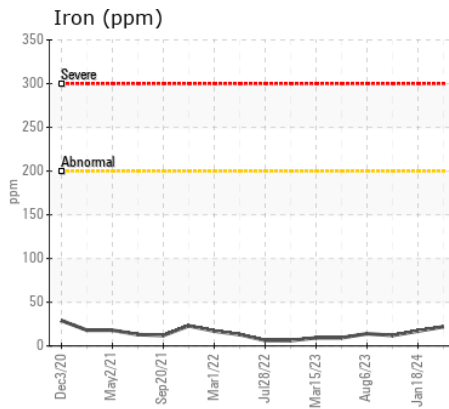
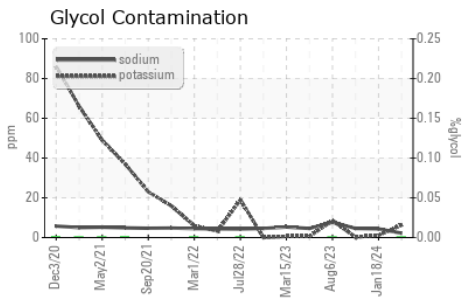
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>30	3	3	4
Potassium	ppm	ASTM D5185(m)	>20	6	1	<1
Fuel		WC Method	>3.0	<1.0	0.4	0.5
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.2	0	0
Nitration	Abs/cm	ASTM D7624*	>20	7.7	10.5	10.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.2	24.2	23.4
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Viscosity of sample indicates oil is within SAE 15W40 range, advise investigate. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		2	4	5
Boron	ppm	ASTM D5185(m)	65	2	20	19
Barium	ppm	ASTM D5185(m)	0	<1	0	<1
Molybdenum	ppm	ASTM D5185(m)	65	60	60	60
Manganese	ppm	ASTM D5185(m)	0	1	0	0
Magnesium	ppm	ASTM D5185(m)	1160	996	1188	1173
Calcium	ppm	ASTM D5185(m)	820	1085	902	892
Phosphorus	ppm	ASTM D5185(m)	1160	993	1035	1009
Zinc	ppm	ASTM D5185(m)	1260	1210	1253	1264
Sulfur	ppm	ASTM D5185(m)	3000	2368	2695	2535
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.0	25.6	24.0
Visc @ 40°C	cSt	ASTM D7279(m)	95.1	98.4	▲ 77.2	76.4
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	13.5	▲ 12.2	12.1
Viscosity Index (VI)	Scale	ASTM D2270*	169	137	154	154



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0083265
Lab Number : 02633377
Unique Number : 5774530
Test Package : MOB 1 (Additional Tests: Glycol, KV40, 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.