

Area  
**MICHAUDVILLE**

Machine Id  
**1597**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 10W30 (--- GAL)**

**RECOMMENDATION**

We advise that you check for the source of the coolant leak. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PC0088534</b>	PC0082467	PC0067160
Sample Date		Client Info		<b>03 Apr 2024</b>	26 Nov 2023	17 Nov 2022
Machine Age	hrs	Client Info		<b>24169</b>	23703	12720
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>23</b>	58	6
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	1	0
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>3</b>	4	2
Lead	ppm	ASTM D5185(m)	>40	<b>4</b>	25	<1
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	3	<1
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	1	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

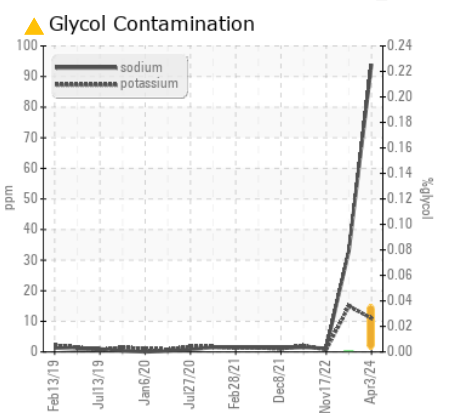
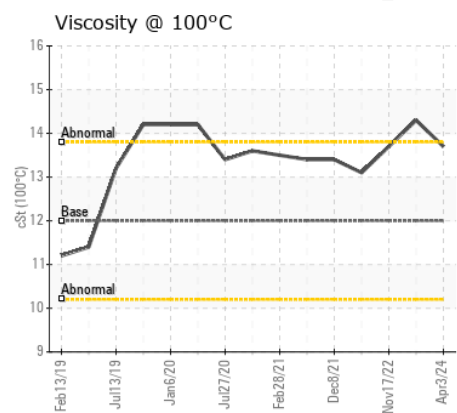
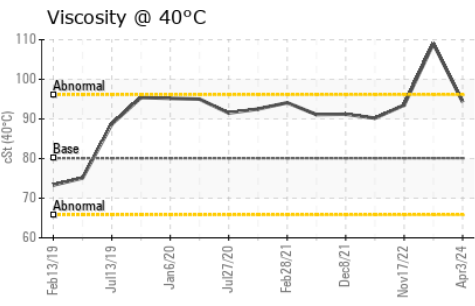
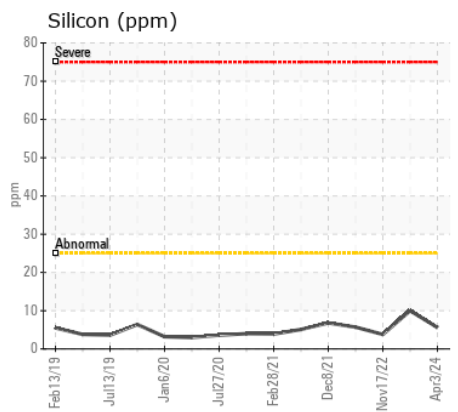
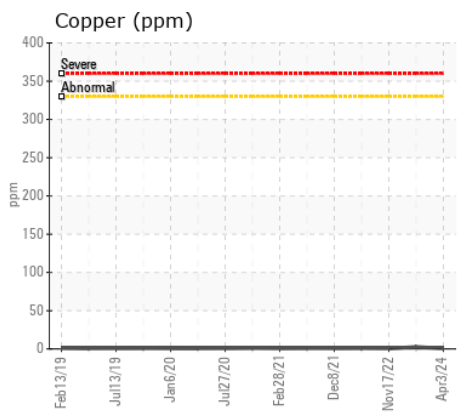
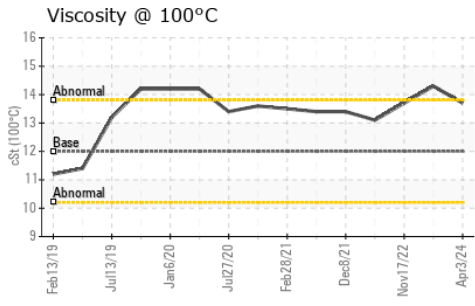
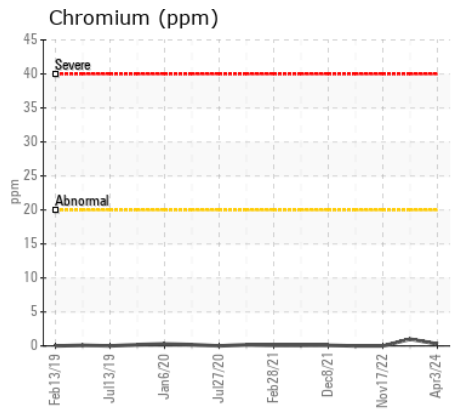
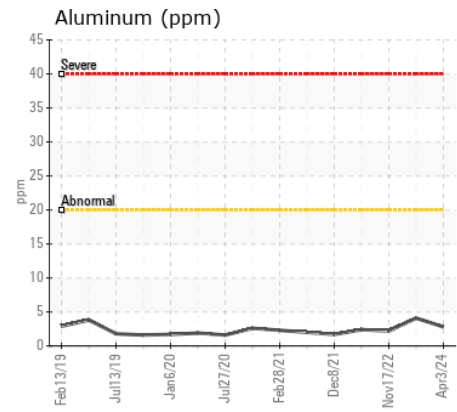
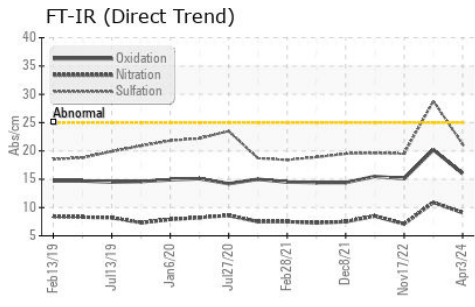
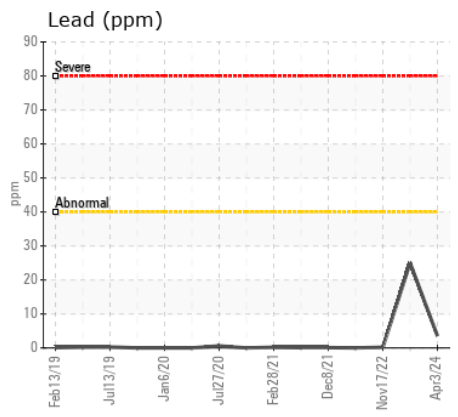
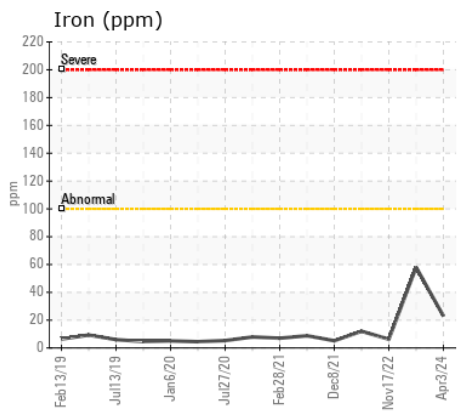
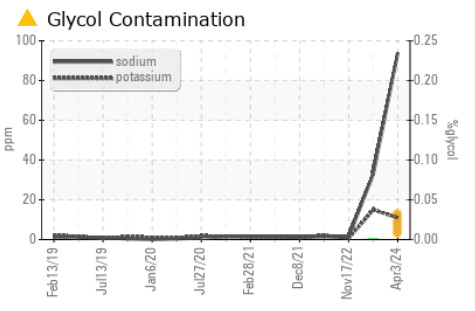
Test for glycol is positive. There is a light concentration of glycol present in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>6</b>	10	4
Potassium	ppm	ASTM D5185(m)	>20	<b>▲ 11</b>	15	<1
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	ASTM D7922*		<b>▲ 0.037</b>	0.0	NEG
Soot %	%	ASTM D7844*	>3	<b>0.3</b>	0.7	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.1</b>	10.9	7.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>21.2</b>	28.8	19.5
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		<b>● 94</b>	33	1
Boron	ppm	ASTM D5185(m)	2	<b>2</b>	11	2
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	50	<b>61</b>	32	56
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	<b>853</b>	266	923
Calcium	ppm	ASTM D5185(m)	1050	<b>1285</b>	2293	1092
Phosphorus	ppm	ASTM D5185(m)	995	<b>1007</b>	1022	1050
Zinc	ppm	ASTM D5185(m)	1180	<b>1196</b>	1260	1144
Sulfur	ppm	ASTM D5185(m)	2600	<b>2583</b>	2937	2610
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>16.0</b>	20.2	15.1
Visc @ 40°C	cSt	ASTM D7279(m)	80.1	<b>94.3</b>	<b>▲ 109</b>	93.5
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	<b>13.7</b>	<b>▲ 14.3</b>	13.7
Viscosity Index (VI)	Scale	ASTM D2270*	144	<b>147</b>	133	148



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0088534  
**Lab Number** : 02626567  
**Unique Number** : 5759699  
**Test Package** : MOB 1 ( Additional Tests: Glycol, KV40, VI )

**LES ENTREPRISES MICHAUDVILLE INC.**  
 270 RUE BRUNET  
 MONT ST-HILAIRE, QC  
 CA J3H 0M6  
 Contact: Martin Trudel  
 mtrudel@michaudville.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.