

Machine Id
M3 (S/N 1457409)
Component
Biogas Engine
Fluid
PETRO CANADA SENTRON LD 8000 (--- GAL)

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0120744	PCA0120753	PCA0120739
Sample Date		Client Info		01 Jul 2024	09 Jun 2024	17 May 2024
Machine Age	hrs	Client Info		12845	12345	11845
Oil Age	hrs	Client Info		8419	7919	7419
Filter Age	hrs	Client Info		0	0	7419
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>45	13	13	13
Chromium	ppm	ASTM D5185m	>2	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	2	2
Lead	ppm	ASTM D5185m	>5	3	3	5
Copper	ppm	ASTM D5185m	>14	1	<1	<1
Tin	ppm	ASTM D5185m	>13	2	2	3
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

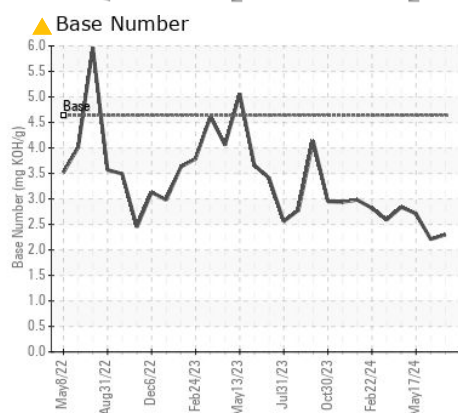
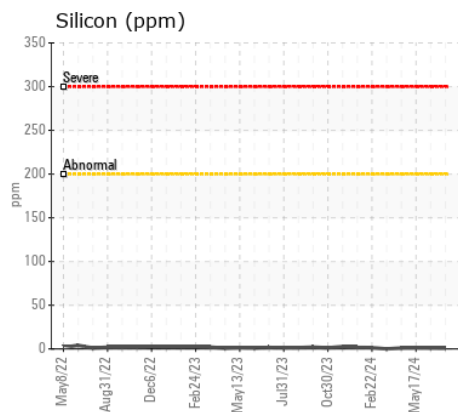
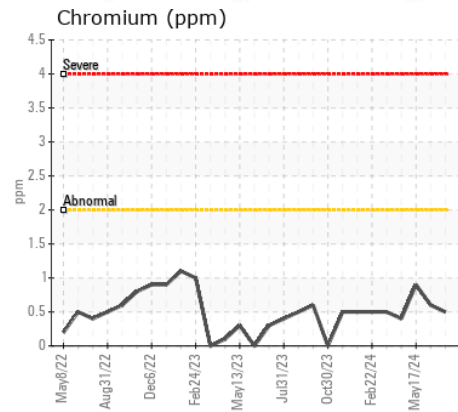
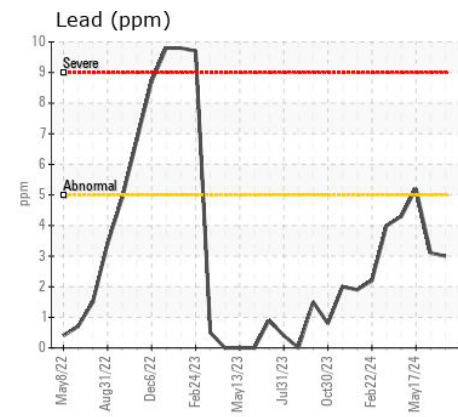
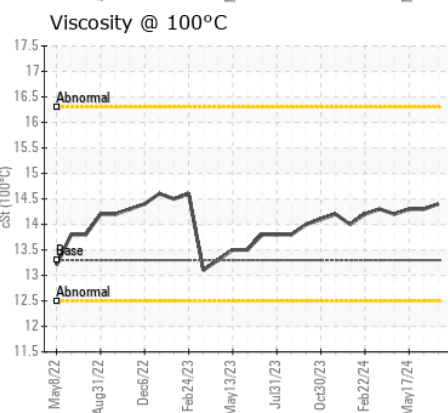
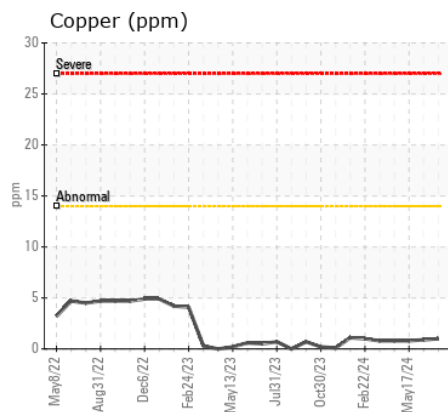
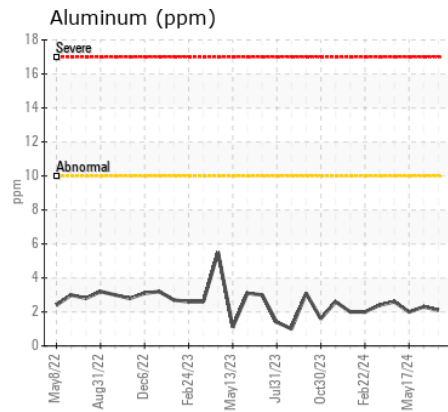
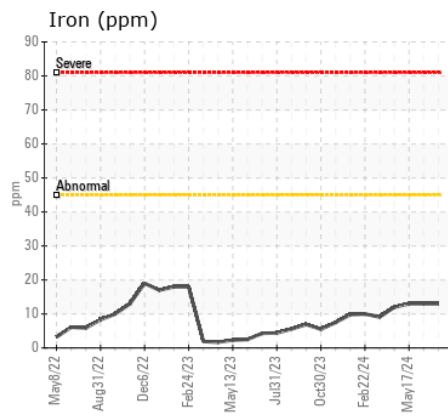
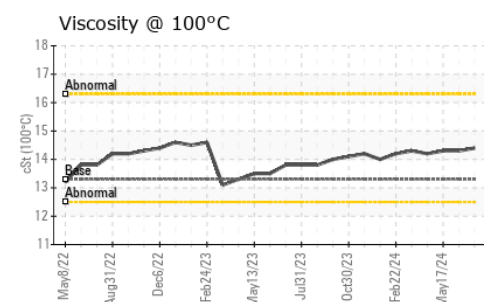
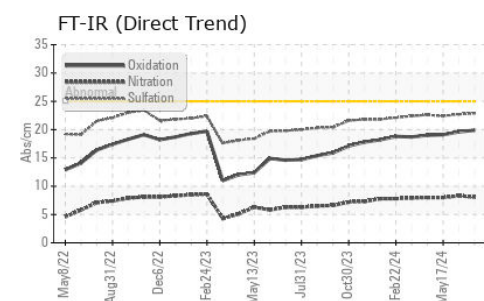
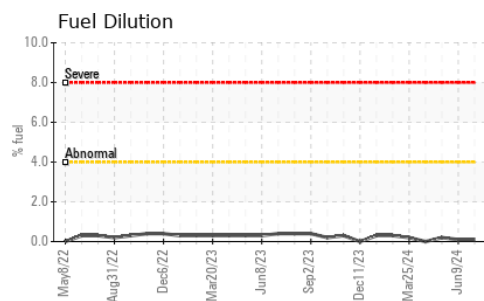
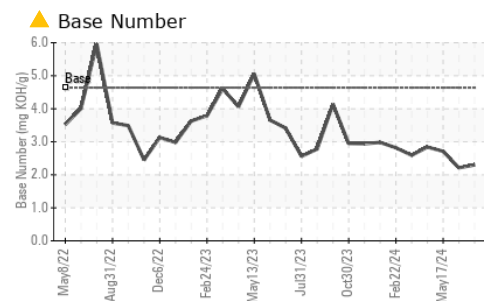
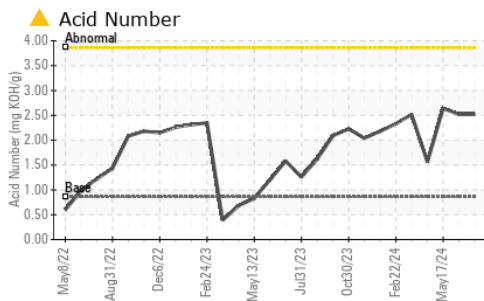
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>200	1	1	1
Potassium	ppm	ASTM D5185m	>20	1	1	<1
Fuel	%	ASTM D3524	>4.0	0.1	0.1	0.2
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.1	8.3	8.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.9	22.7	22.4
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

FLUID CONDITION

The BN level is low. The AN level is at the top-end of the recommended limit.

Sodium	ppm	ASTM D5185m		6	5	5
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	<1
Molybdenum	ppm	ASTM D5185m		<1	<1	1
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		10	11	12
Calcium	ppm	ASTM D5185m	1351	1754	1793	1704
Phosphorus	ppm	ASTM D5185m	302	308	317	308
Zinc	ppm	ASTM D5185m	358	409	435	419
Sulfur	ppm	ASTM D5185m	2758	3181	3334	3200
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.9	19.6	19.1
Acid Number (AN)	mg KOH/g	ASTM D8045	0.86	▲ 2.52	▲ 2.52	2.64
Base Number (BN)	mg KOH/g	ASTM D2896	4.64	▲ 2.30	▲ 2.21	2.71
Visc @ 100°C	cSt	ASTM D445	13.3	14.4	14.3	14.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0120744 **Received** : 10 Jul 2024
Lab Number : 06232395 **Tested** : 12 Jul 2024
Unique Number : 11115888 **Diagnosed** : 12 Jul 2024 - Sean Felton
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

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To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)