



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Machine Id
1091KINGSTON
Component
Diesel Engine
Fluid
PETRO CANADA XR 4 SAE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0910583	WC0647798	WC0515820
Sample Date		Client Info		27 Feb 2024	22 Feb 2022	16 Feb 2021
Machine Age	hrs	Client Info		396	0	350
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>100	2	1	2
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	2	<1	1
Lead	ppm	ASTM D5185(m)	>40	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>330	1	1	2
Tin	ppm	ASTM D5185(m)	>15	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

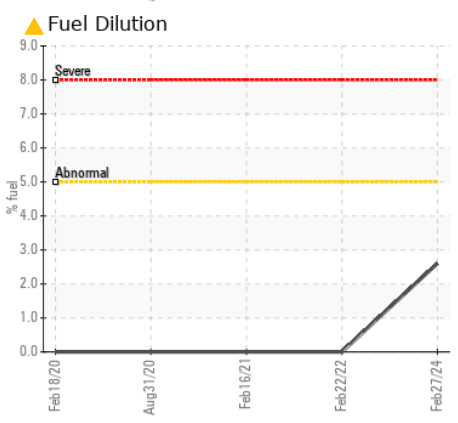
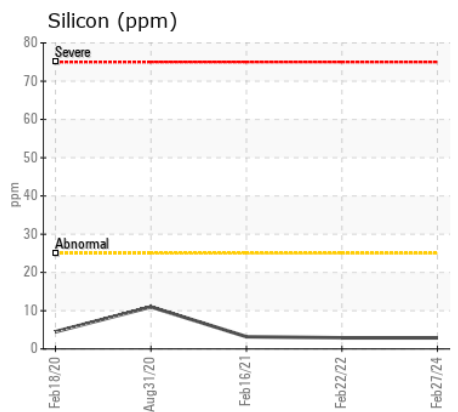
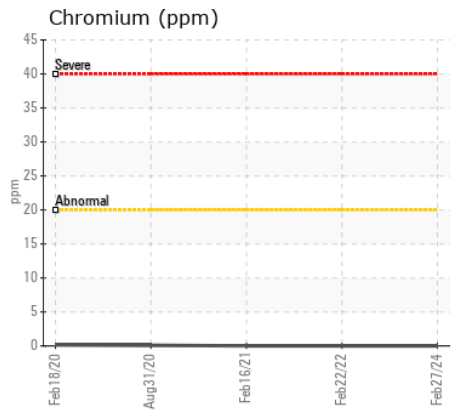
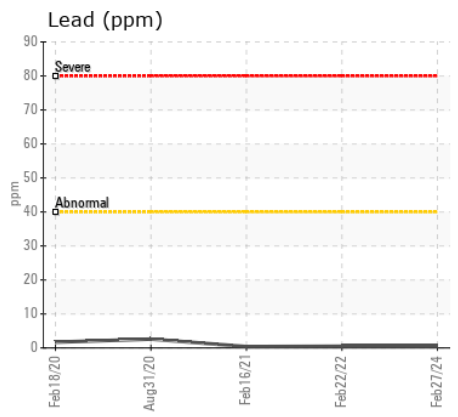
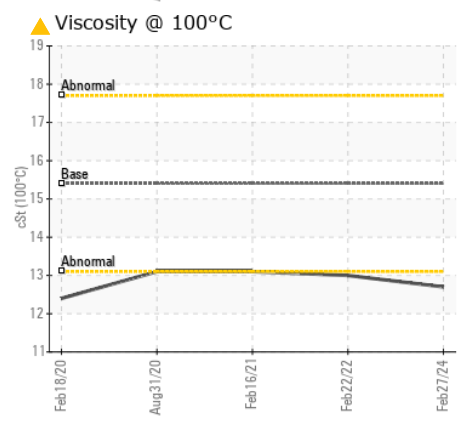
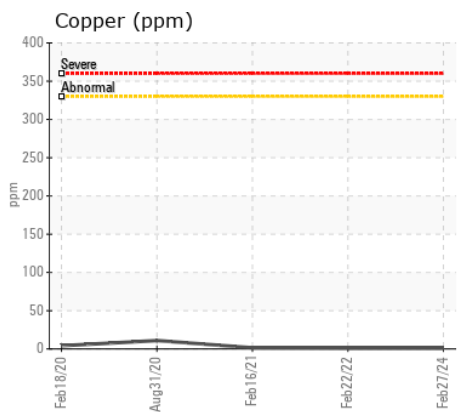
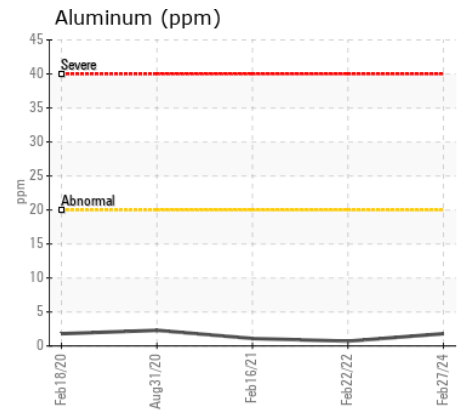
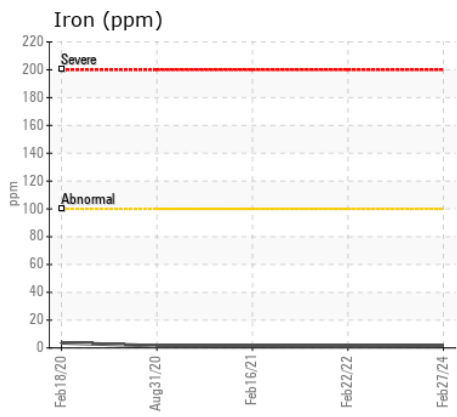
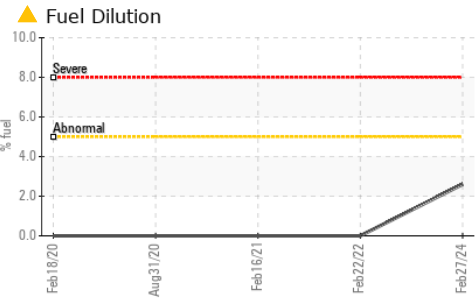
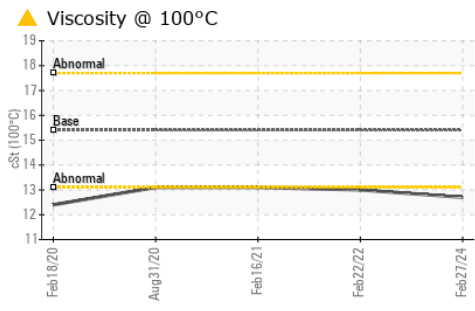
Light fuel dilution occurring.

Silicon	ppm	ASTM D5185(m)	>25	3	3	3
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Fuel	%	ASTM D7593*	>5	▲ 2.6	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	4.8	5.0	4.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.6	20.3	18.9
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<1	1	2
Boron	ppm	ASTM D5185(m)	1	● 57	8	34
Barium	ppm	ASTM D5185(m)	1	0	0	0
Molybdenum	ppm	ASTM D5185(m)	1	65	59	60
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)	10	● 892	996	889
Calcium	ppm	ASTM D5185(m)	3032	1089	1023	1122
Phosphorus	ppm	ASTM D5185(m)	1054	1014	1076	989
Zinc	ppm	ASTM D5185(m)	1332	1109	1209	1199
Sulfur	ppm	ASTM D5185(m)	3985	2877	2839	2895
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.6	14.2	13.5
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 12.7	13.0	13.1



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0910583
Lab Number : 02619218
Unique Number : 5736328
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)
Received : 01 Mar 2024
Tested : 04 Mar 2024
Diagnosed : 04 Mar 2024 - Wes Davis

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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.