

Machine Id
WESTERN STAR R-717
Component
Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0081826	PC0082855	PC0060751
Sample Date		Client Info		14 Apr 2024	25 Sep 2023	18 Jul 2023
Machine Age	kms	Client Info		172815	121663	96891
Oil Age	kms	Client Info		51152	24772	38179
Filter Age	kms	Client Info		51152	24772	38179
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>200	49	31	25
Chromium	ppm	ASTM D5185(m)	>6	4	3	4
Nickel	ppm	ASTM D5185(m)	>3	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	<1	0	<1
Silver	ppm	ASTM D5185(m)	>2	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>50	16	7	7
Lead	ppm	ASTM D5185(m)	>10	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>50	25	20	25
Tin	ppm	ASTM D5185(m)	>6	2	2	2
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	VLITE
Yellow Metal	scalar	Visual*	NONE	VLITE	---	NONE

CONTAMINATION

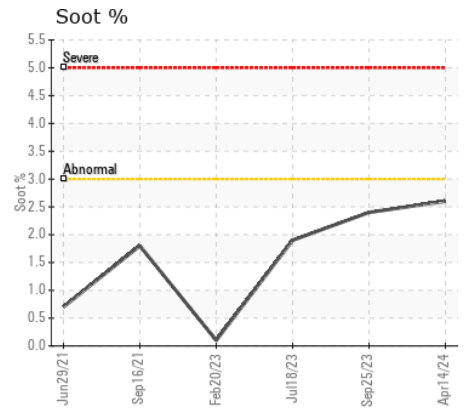
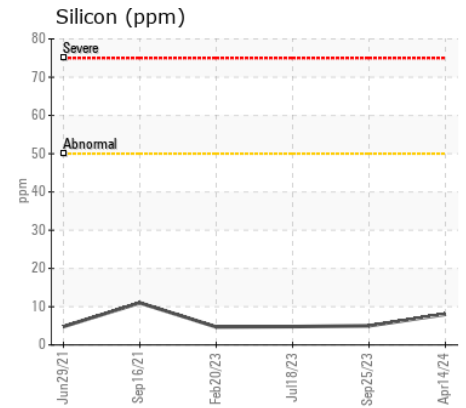
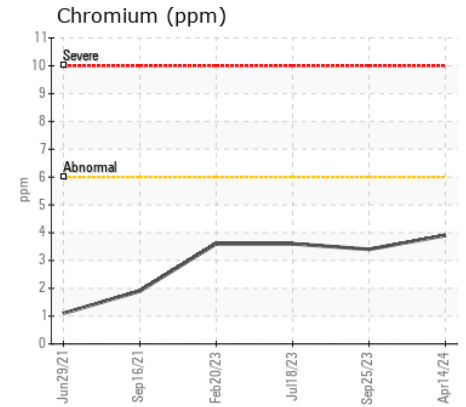
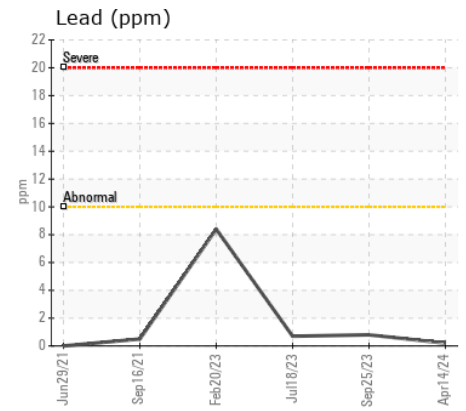
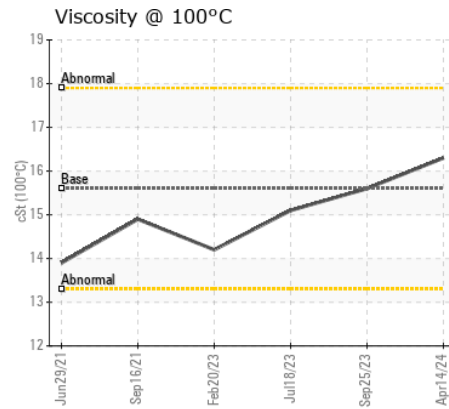
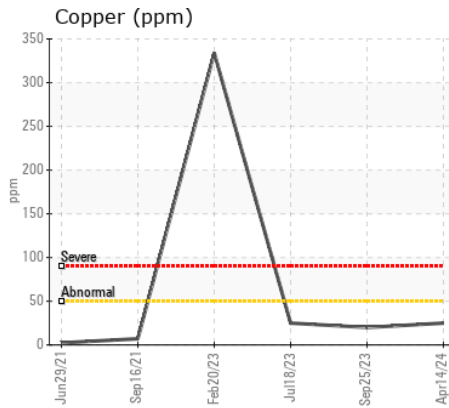
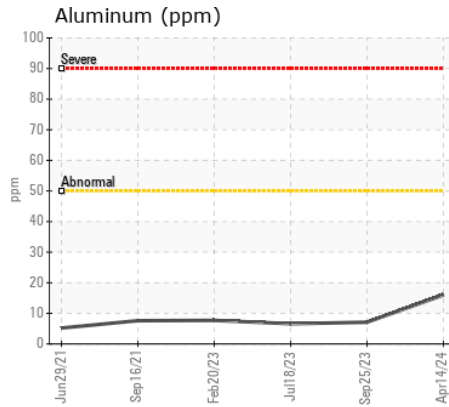
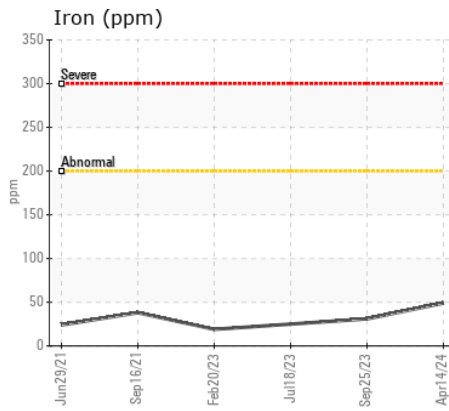
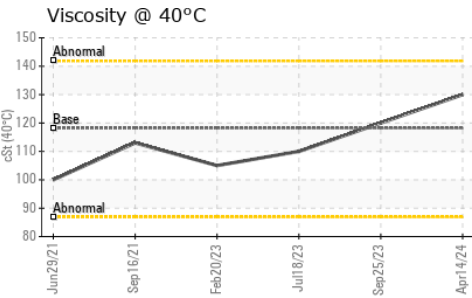
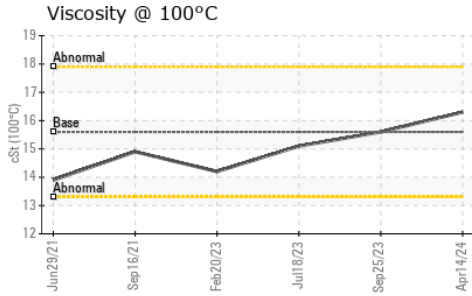
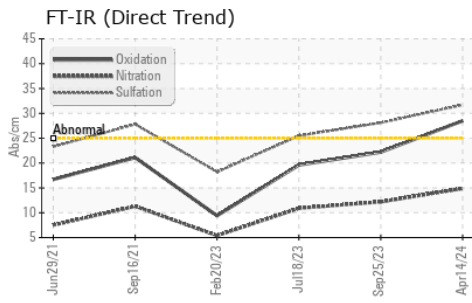
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>50	8	5	5
Potassium	ppm	ASTM D5185(m)	>20	2	25	1
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	2.6	2.4	1.9
Nitration	Abs/cm	ASTM D7624*	>20	14.9	12.2	10.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	31.7	28.1	25.5
Silt	scalar	Visual*	NONE	NONE	---	NONE
Debris	scalar	Visual*	NONE	NONE	---	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	---	NONE
Appearance	scalar	Visual*	NORML	NORML	---	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		4	4	5
Boron	ppm	ASTM D5185(m)	0	3	3	3
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	76	68	65
Manganese	ppm	ASTM D5185(m)	0	1	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	1096	1064	1051
Calcium	ppm	ASTM D5185(m)	1070	1213	1162	1100
Phosphorus	ppm	ASTM D5185(m)	1150	1089	1061	1020
Zinc	ppm	ASTM D5185(m)	1270	1341	1300	1245
Sulfur	ppm	ASTM D5185(m)	2060	2075	2145	2006
Oxidation	Abs/.1mm	ASTM D7414*	>25	28.5	22.2	19.6
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	130	120	110
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	16.3	15.6	15.1
Viscosity Index (VI)	Scale	ASTM D2270*	139	133	136	143



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0081826
Lab Number : 02636284
Unique Number : 5785446
Test Package : MOB 1 (Additional Tests: KV40, VI, Visual)
Received : 17 May 2024
Tested : 17 May 2024
Diagnosed : 21 May 2024 - Kevin Marson
*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.*

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