



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
2227061
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (--- QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0124563	PCA0113264	PCA0109366
Sample Date		Client Info		14 Apr 2024	08 Jan 2024	06 Nov 2023
Machine Age	mls	Client Info		86361	64874	43386
Oil Age	mls	Client Info		45000	21388	43386
Filter Age	mls	Client Info		45000	21388	43386
Oil Changed		Client Info		Changed	Not Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	ABNORMAL

WEAR

Valve wear is indicated. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	38	17	46
Chromium	ppm	ASTM D5185m	>20	<1	<1	1
Nickel	ppm	ASTM D5185m	>4	▲ 7	1	2
Titanium	ppm	ASTM D5185m		8	<1	<1
Silver	ppm	ASTM D5185m	>3	2	4	8
Aluminum	ppm	ASTM D5185m	>20	10	7	31
Lead	ppm	ASTM D5185m	>40	0	6	<1
Copper	ppm	ASTM D5185m	>330	228	381	▲ 350
Tin	ppm	ASTM D5185m	>15	1	2	4
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

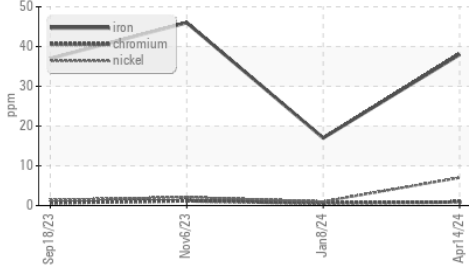
Silicon	ppm	ASTM D5185m	>25	12	9	▲ 49
Potassium	ppm	ASTM D5185m	>20	21	16	83
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	10.7	9.1	11.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.5	19.4	23.7
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	>0.2	NEG	NEG	NEG

FLUID CONDITION

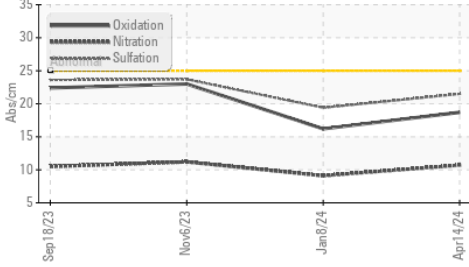
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		4	3	2
Boron	ppm	ASTM D5185m	2	9	7	48
Barium	ppm	ASTM D5185m	0	0	0	13
Molybdenum	ppm	ASTM D5185m	50	61	57	106
Manganese	ppm	ASTM D5185m	0	2	1	3
Magnesium	ppm	ASTM D5185m	950	930	830	697
Calcium	ppm	ASTM D5185m	1050	1263	1072	1425
Phosphorus	ppm	ASTM D5185m	995	997	906	730
Zinc	ppm	ASTM D5185m	1180	1226	1023	889
Sulfur	ppm	ASTM D5185m	2600	2767	2802	2302
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.7	16.2	23.0
Base Number (BN)	mg KOH/g	ASTM D2896		5.5	6.7	6.3
Visc @ 100°C	cSt	ASTM D445	12.00	10.2	10.3	9.8

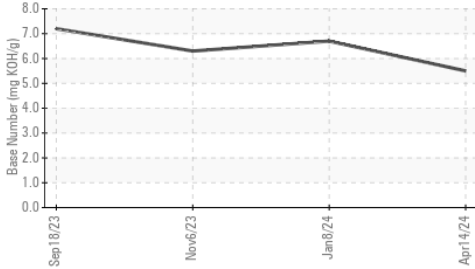
▲ Ferrous Alloys



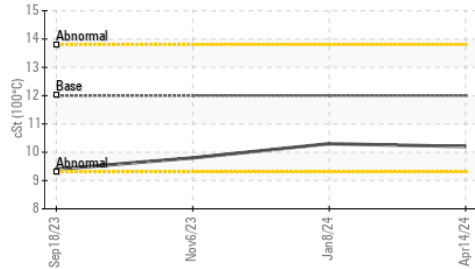
FT-IR (Direct Trend)



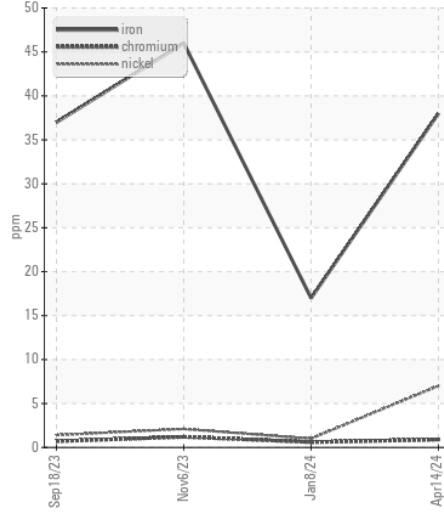
Base Number



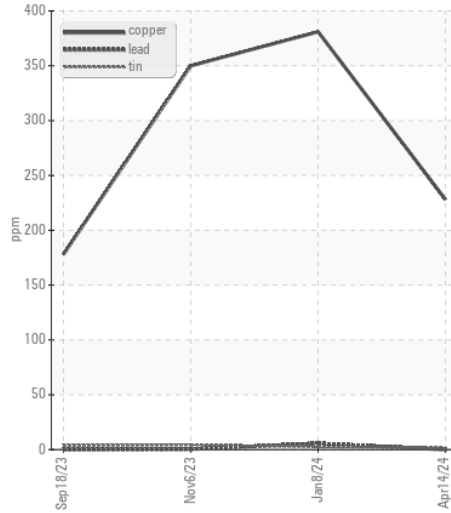
Viscosity @ 100°C



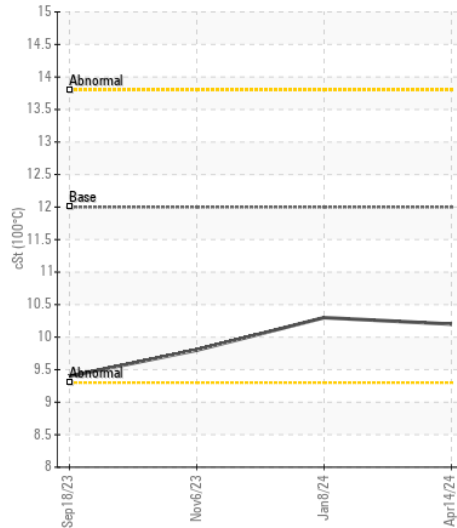
▲ Ferrous Alloys



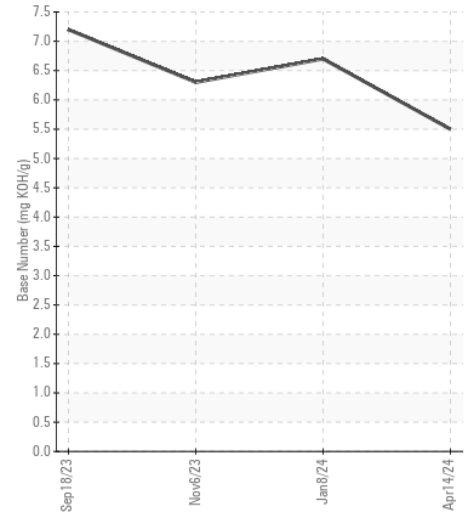
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : PCA0124563

Lab Number : 06219391

Unique Number : 11097588

Test Package : FLEET

Received : 25 Jun 2024

Tested : 25 Jun 2024

Diagnosed : 26 Jun 2024 - Don Baldrige

PERDUE FARMS - GEORGETOWN

20621 SAVANAH RD

GEORGETOWN, DE

US 19947

Contact: ROBERT LOCKWOOD

Robert.Lockwood@Perdue.com

T:

F:

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)