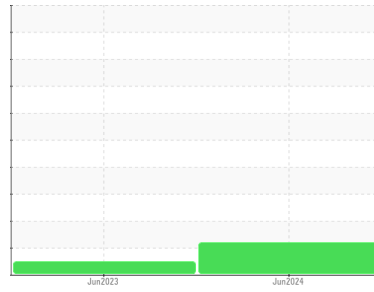


OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION



Machine Id
WESTERN STAR 155
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (12 GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PCA0115336	PCA0100660	---
Sample Date	Client Info			07 Jun 2024	14 Jun 2023	---
Machine Age	mls	Client Info		228351	129612	---
Oil Age	mls	Client Info		50000	52994	---
Oil Changed	Client Info			Changed	Changed	---
Sample Status				ABNORMAL	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<1.0	<1.0	---
Water	WC Method	>0.2		NEG	NEG	---
Glycol	WC Method			NEG	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	37	62	---
Chromium	ppm	ASTM D5185m	>20	2	3	---
Nickel	ppm	ASTM D5185m	>4	<1	<1	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>20	9	10	---
Lead	ppm	ASTM D5185m	>40	<1	0	---
Copper	ppm	ASTM D5185m	>330	6	29	---
Tin	ppm	ASTM D5185m	>15	<1	2	---
Vanadium	ppm	ASTM D5185m		0	0	---
Cadmium	ppm	ASTM D5185m		<1	0	---

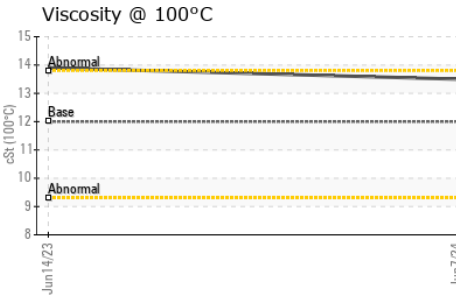
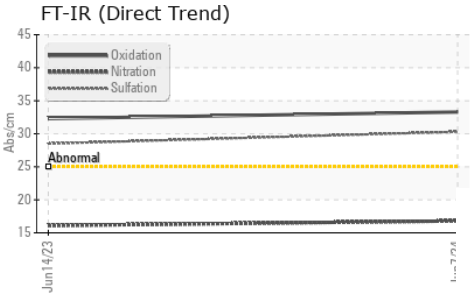
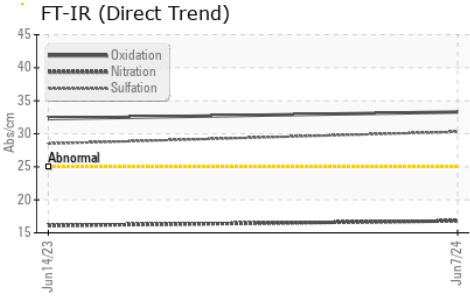
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	<1	28	---
Barium	ppm	ASTM D5185m	0	1	0	---
Molybdenum	ppm	ASTM D5185m	50	68	72	---
Manganese	ppm	ASTM D5185m	0	1	<1	---
Magnesium	ppm	ASTM D5185m	950	942	976	---
Calcium	ppm	ASTM D5185m	1050	1257	1480	---
Phosphorus	ppm	ASTM D5185m	995	1026	1093	---
Zinc	ppm	ASTM D5185m	1180	1170	1394	---
Sulfur	ppm	ASTM D5185m	2600	2461	2920	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	8	13	---
Sodium	ppm	ASTM D5185m		4	2	---
Potassium	ppm	ASTM D5185m	>20	17	21	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	1	1.1	---
Nitration	Abs/cm	*ASTM D7624	>20	16.8	16.1	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	30.3	28.5	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	33.3	32.3	---
Base Number (BN)	mg KOH/g	ASTM D2896		▲ 2.8	5.2	---

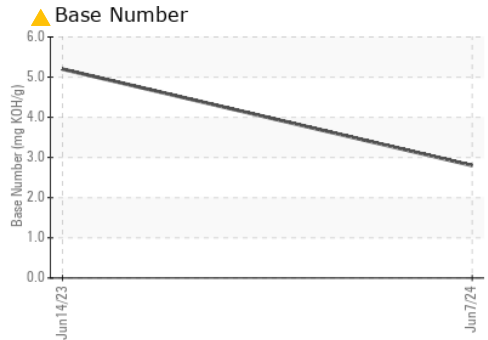
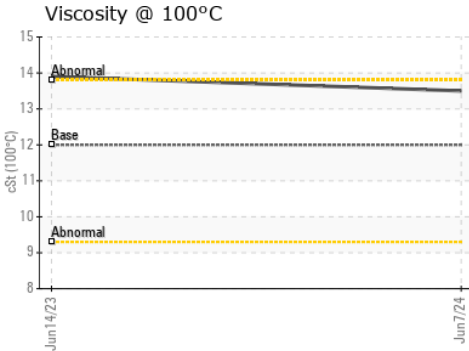
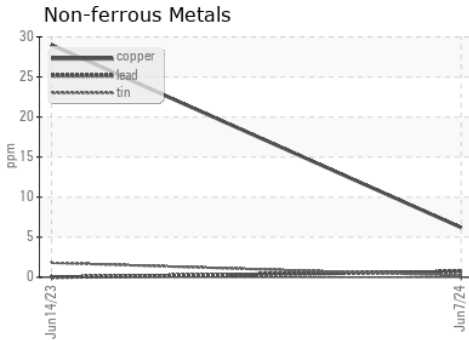
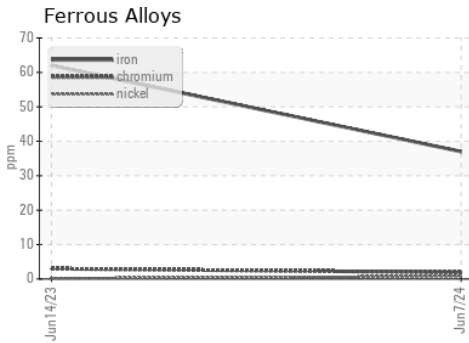
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	13.5	13.9

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0115336 **Received** : 18 Jul 2024
Lab Number : 06239978 **Tested** : 18 Jul 2024
Unique Number : 11128812 **Diagnosed** : 19 Jul 2024 - Don Baldrige
Test Package : FLEET

A Truck Repair
 9349 China Grove Church Road
 Pineville, NC
 US 28134
 Contact: Vlad Melnichuk
 shop@migway.com
 T: (980)255-3200
 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)