OIL ANALYSIS REPORT

360 OIL DIAGNOSTICS — TECHNICAL EXPERTISE

NORMAL ✓

Area
(TEMP) Walgreens - Yard Horse
Machine Id
[Walgreens - Yard Horse] 136A81261
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (11 GAL)

DIAGNOSIS

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

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0118795	PCA0118743	PCA0118733
Sample Date	Client Info		07 May 2024	08 Apr 2024	06 Mar 2024
Machine Age	hrs	Client Info	9441	9136	8778
Oil Age	hrs	Client Info	663	358	646
Oil Changed		Client Info	Changed	Not Changd	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

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

WEAR METALS

		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	24	15	27
Chromium	ppm	ASTM D5185m	>20	2	2	1
Nickel	ppm	ASTM D5185m	>4	<1	2	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	3
Lead	ppm	ASTM D5185m	>40	0	1	1
Copper	ppm	ASTM D5185m	>330	<1	1	3
Tin	ppm	ASTM D5185m	>15	0	1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		<1	1	0

ADDITIVES

		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	0
Barium	ppm	ASTM D5185m	0	0	<1	0
Molybdenum	ppm	ASTM D5185m	60	59	59	52
Manganese	ppm	ASTM D5185m	0	<1	1	<1
Magnesium	ppm	ASTM D5185m	1010	979	865	849
Calcium	ppm	ASTM D5185m	1070	1072	1019	972
Phosphorus	ppm	ASTM D5185m	1150	991	1031	826
Zinc	ppm	ASTM D5185m	1270	1274	1120	1033
Sulfur	ppm	ASTM D5185m	2060	3566	2968	2969

CONTAMINANTS

		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	3	3	2
Sodium	ppm	ASTM D5185m		<1	<1	2
Potassium	ppm	ASTM D5185m	>20	<1	1	4

INFRA-RED

		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	1.7	1.1	1.7
Nitration	Abs/cm	*ASTM D7624	>20	11.9	9.2	11.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.6	22.7	26.2

FLUID DEGRADATION

		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	28.2	22.0	27.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	5.8	7.0	5.5

OIL ANALYSIS REPORT

FT-IR (Direct Trend)

Base Number

Viscosity @ 100°C
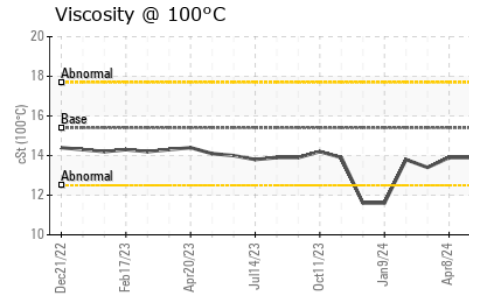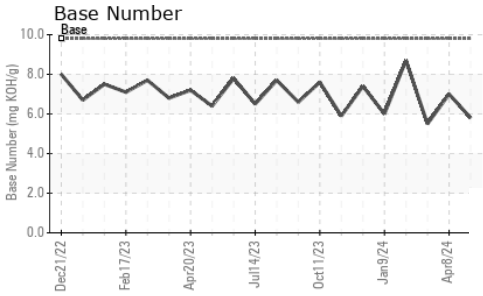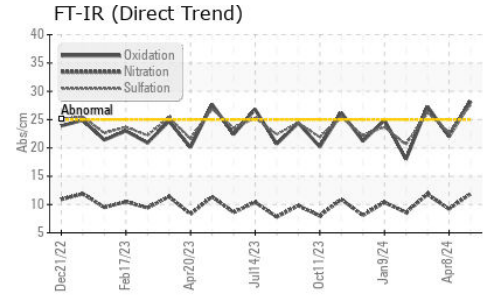
VISUAL

VISUAL	method		limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	**13.9**	13.9	13.4

GRAPHS
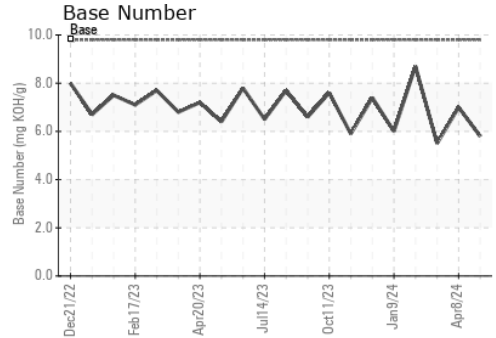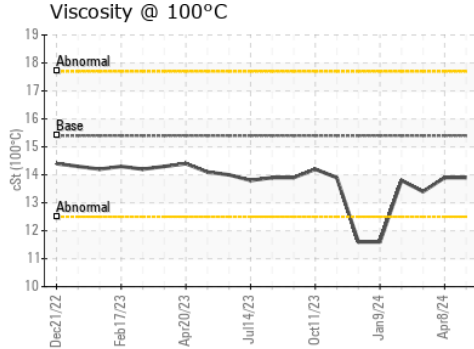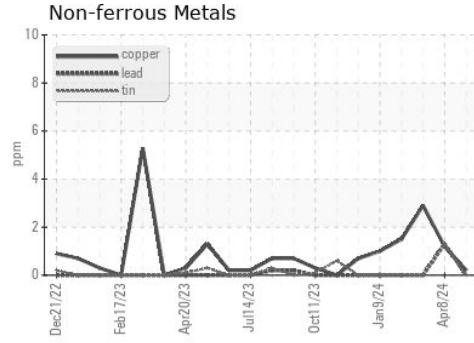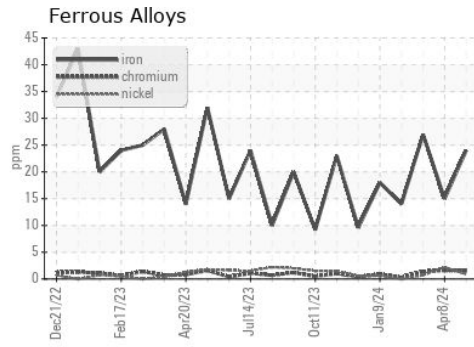
Ferrous Alloys

Non-ferrous Metals

Viscosity @ 100°C

Base Number

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)