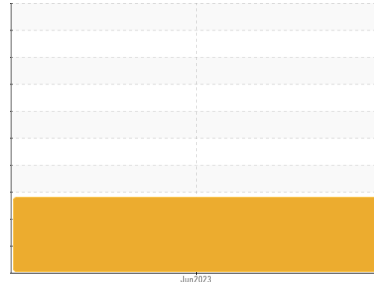


OIL ANALYSIS REPORT

Sample Rating Trend



Area
G.LOPES CONSTRUCTION INC./OFF-ROAD
 Machine Id
R20
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

- Recommendation**
We advise that you check the fuel injection system. Resample at the next service interval to monitor.
- Wear**
All component wear rates are normal.
- Contamination**
Elemental level of silicon (Si) above normal indicating ingress of seal material. Light fuel dilution occurring.
- Fluid Condition**
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number	Client Info		PCA0098315	---	---
Sample Date	Client Info		28 Jun 2023	---	---
Machine Age	hrs	Client Info	1015	---	---
Oil Age	hrs	Client Info	1015	---	---
Oil Changed	Client Info		N/A	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION

	method	limit/base	current	history 1	history 2
Glycol	WC Method		NEG	---	---

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >100	35	---	---
Chromium	ppm	ASTM D5185m >20	5	---	---
Nickel	ppm	ASTM D5185m >4	0	---	---
Titanium	ppm	ASTM D5185m	<1	---	---
Silver	ppm	ASTM D5185m >3	0	---	---
Aluminum	ppm	ASTM D5185m >20	9	---	---
Lead	ppm	ASTM D5185m >40	0	---	---
Copper	ppm	ASTM D5185m >330	11	---	---
Tin	ppm	ASTM D5185m >15	<1	---	---
Vanadium	ppm	ASTM D5185m	<1	---	---
Cadmium	ppm	ASTM D5185m	0	---	---

ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m 0	110	---	---
Barium	ppm	ASTM D5185m 0	0	---	---
Molybdenum	ppm	ASTM D5185m 60	72	---	---
Manganese	ppm	ASTM D5185m 0	<1	---	---
Magnesium	ppm	ASTM D5185m 1010	495	---	---
Calcium	ppm	ASTM D5185m 1070	1875	---	---
Phosphorus	ppm	ASTM D5185m 1150	842	---	---
Zinc	ppm	ASTM D5185m 1270	1152	---	---
Sulfur	ppm	ASTM D5185m 2060	3633	---	---

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	▲ 46	---	---
Sodium	ppm	ASTM D5185m	7	---	---
Potassium	ppm	ASTM D5185m >20	2	---	---
Fuel	%	ASTM D3524 >5	▲ 3.8	---	---

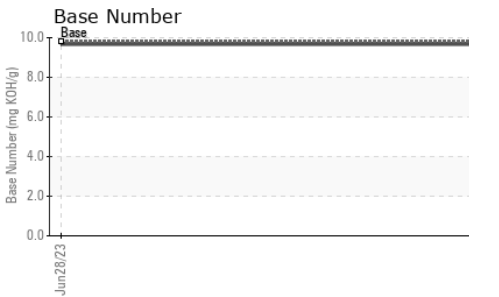
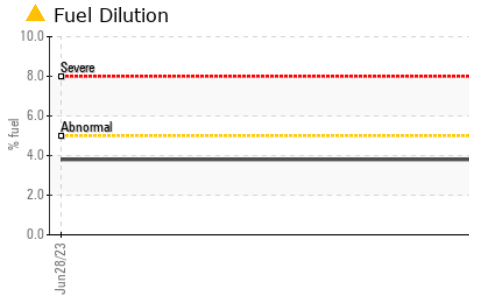
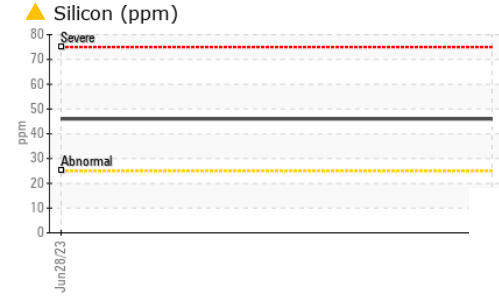
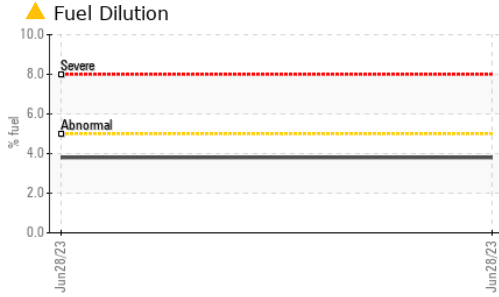
INFRA-RED

	method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844 >3	0.1	---	---
Nitration	Abs/cm	*ASTM D7624 >20	10.1	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	20.1	---	---

FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414 >25	13.7	---	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	9.67	---	---

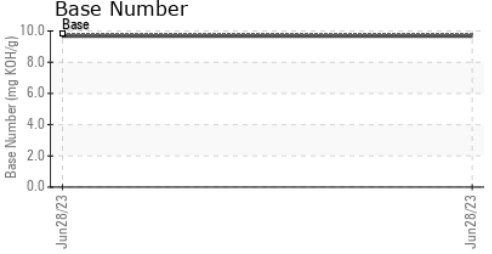
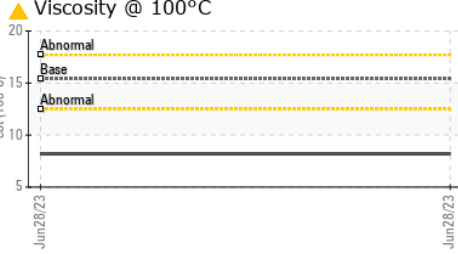
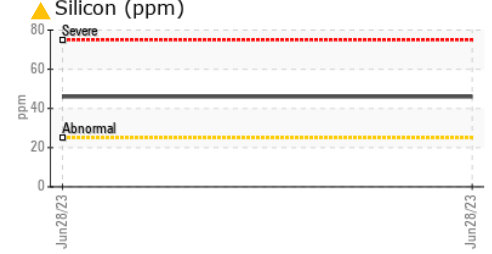
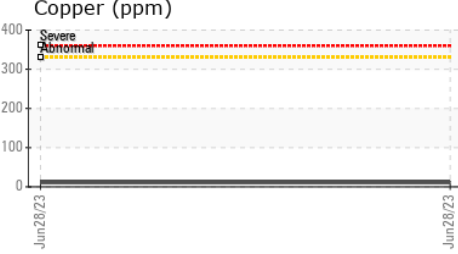
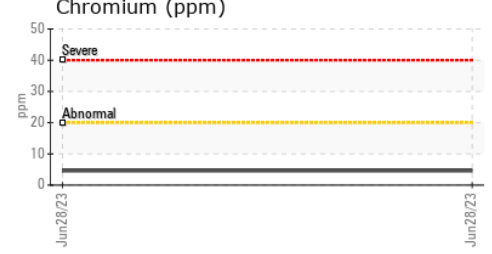
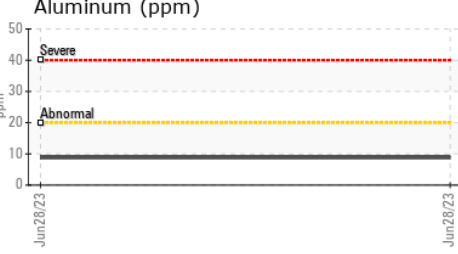
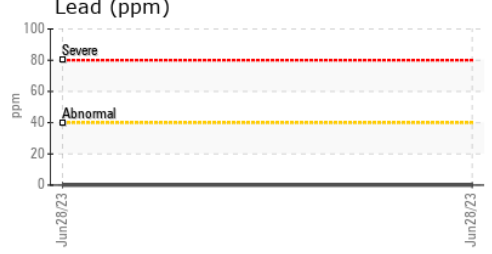
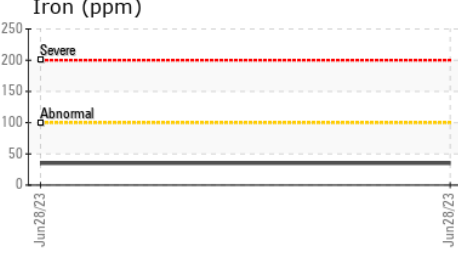
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
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	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	15.4 ▲ 8.2	---	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0098315 **Received** : 30 Jun 2023
Lab Number : 05887985 **Diagnosed** : 04 Jul 2023
Unique Number : 10538468 **Diagnostician** : Don Baldrige
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

G LOPES CONSTRUCTION
 565 WINTHROP ST
 TAUNTON, MA
 US 02780
 Contact: BUTCH MCGRATH
 bmcgrath@glopes.com

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)