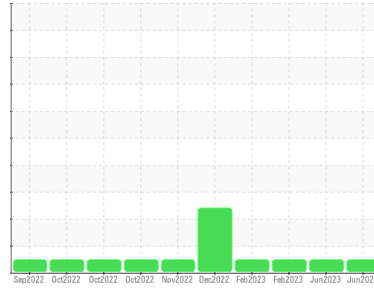


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
LONGHORN C
Machine Id
LONGHORN C (S/N 1645612)
Component
Natural Gas Engine
Fluid
PETRO CANADA SENTRON LD 3000 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. 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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number	Client Info		PCA0080849	PCA0080848	PCA0080850
Sample Date	Client Info		27 Jun 2023	13 Jun 2023	25 Feb 2023
Machine Age	hrs	Client Info	3326	2988	2617
Oil Age	hrs	Client Info	1385	1046	676
Oil Changed	Client Info		N/A	Not Changd	Oil Added
Sample Status			NORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >50	8	7	5
Chromium	ppm	ASTM D5185m >4	0	0	<1
Nickel	ppm	ASTM D5185m >2	0	0	0
Titanium	ppm	ASTM D5185m	0	0	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >9	<1	<1	<1
Lead	ppm	ASTM D5185m >30	0	0	1
Copper	ppm	ASTM D5185m >35	2	1	2
Tin	ppm	ASTM D5185m >4	0	<1	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m 5	0	0	<1
Barium	ppm	ASTM D5185m 1	0	0	0
Molybdenum	ppm	ASTM D5185m 2	1	<1	1
Manganese	ppm	ASTM D5185m 1	<1	<1	1
Magnesium	ppm	ASTM D5185m 5	14	9	12
Calcium	ppm	ASTM D5185m 1220	1412	1355	1284
Phosphorus	ppm	ASTM D5185m 298	320	294	285
Zinc	ppm	ASTM D5185m 350	385	366	359
Sulfur	ppm	ASTM D5185m 1995	2718	2959	2477

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >+100	4	5	4
Sodium	ppm	ASTM D5185m	4	2	2
Potassium	ppm	ASTM D5185m >20	<1	0	1
Fuel	%	ASTM D3524 >4.0	0.2	0.2	0.5

INFRA-RED

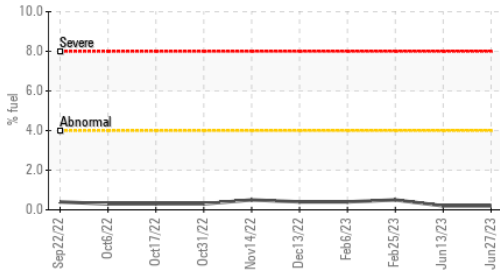
	method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844	0.1	0	0.1
Nitration	Abs/cm	*ASTM D7624 >20	9.6	7.9	6.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	18.2	16.8	15.2

FLUID DEGRADATION

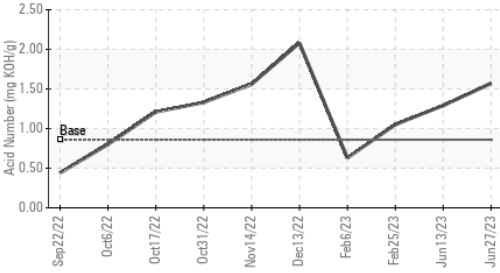
	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414 >25	15.1	12.7	10.7
Acid Number (AN)	mg KOH/g	ASTM D8045 0.86	1.57	1.29	1.05
Base Number (BN)	mg KOH/g	ASTM D2896 3.85	2.77	2.81	2.96

OIL ANALYSIS REPORT

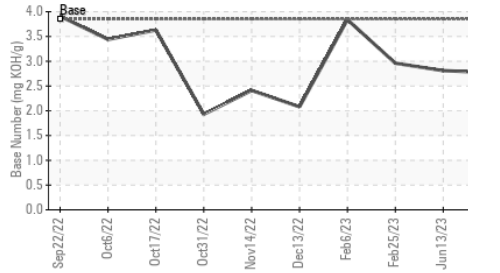
Fuel Dilution



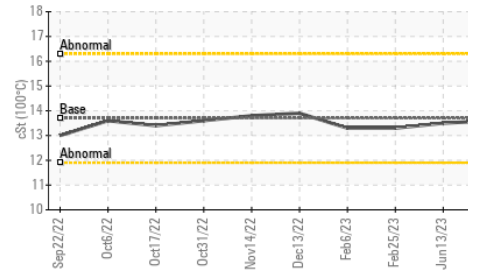
Acid Number



Base Number



Viscosity @ 100°C



VISUAL

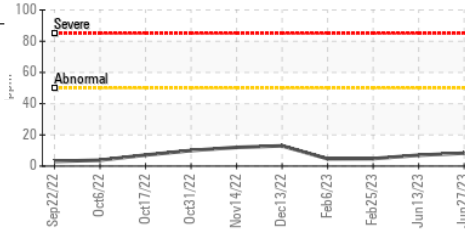
	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES

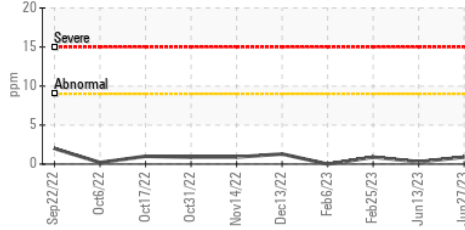
	method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	13.7	13.5	13.3

GRAPHS

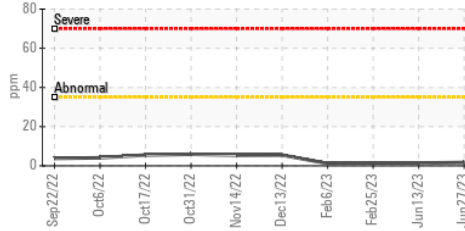
Iron (ppm)



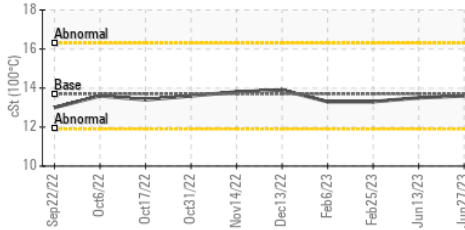
Aluminum (ppm)



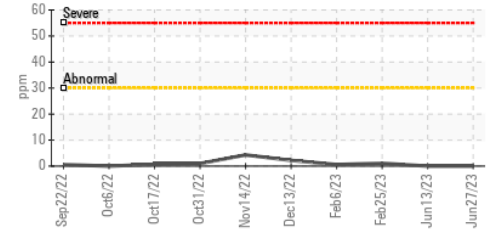
Copper (ppm)



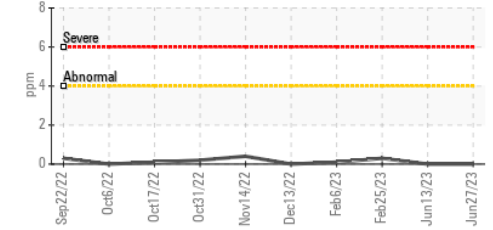
Viscosity @ 100°C



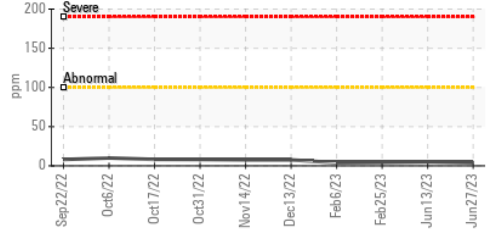
Lead (ppm)



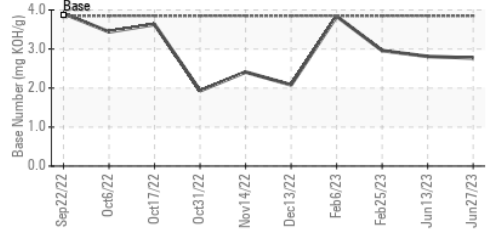
Chromium (ppm)



Silicon (ppm)



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0080849 **Received** : 03 Jul 2023
Lab Number : 05889764 **Diagnosed** : 05 Jul 2023
Unique Number : 10545574 **Diagnostician** : Wes Davis
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

DIVERSIFIED OIL & GAS - CURWENSVILLE
 325 WALNUT ST FL2
 CURWENSVILLE, PA
 US 16833
 Contact: ZACH MCGARY
 zmcgary@dgoc.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)

T:
F: