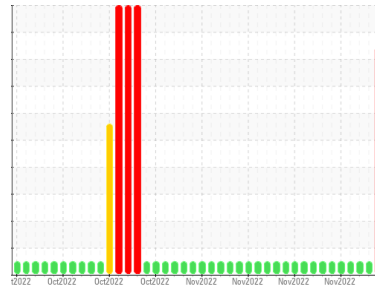




OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Area
WCLSNC
 Machine Id
QC DE NC 08012022
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0768007	WC0768006	WC0759433
Sample Date	Client Info			06 Dec 2022	05 Dec 2022	30 Nov 2022
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			N/A	N/A	N/A
Sample Status				SEVERE	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		13	8	11
Iron	ppm	ASTM D5185m		11	9	8
Chromium	ppm	ASTM D5185m		2	2	2
Nickel	ppm	ASTM D5185m		0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m		2	2	1
Lead	ppm	ASTM D5185m		5	5	3
Copper	ppm	ASTM D5185m		1	<1	2
Tin	ppm	ASTM D5185m		<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		41	31	37
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		98	96	93
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		557	563	515
Calcium	ppm	ASTM D5185m		1713	1707	1617
Phosphorus	ppm	ASTM D5185m		753	758	710
Zinc	ppm	ASTM D5185m		928	1014	909
Sulfur	ppm	ASTM D5185m		3049	3163	3174

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m		30	26	29
Sodium	ppm	ASTM D5185m		▲ 1577	1474	1773
Potassium	ppm	ASTM D5185m		▲ 8	5	0
Fuel	%	ASTM D3524		0.4	0.1	0.3
Glycol	%	*ASTM D2982		● 0.10	NEG	NEG

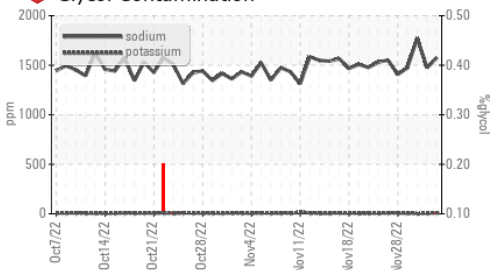
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624		12.5	12.3	12.5
Sulfation	Abs/.1mm	*ASTM D7415		24.6	24.4	24.7

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414		18.5	18.2	18.4
Acid Number (AN)	mg KOH/g	ASTM D8045		0.31	0.43	0.43
Base Number (BN)	mg KOH/g	ASTM D2896		10.64	10.4	10.5

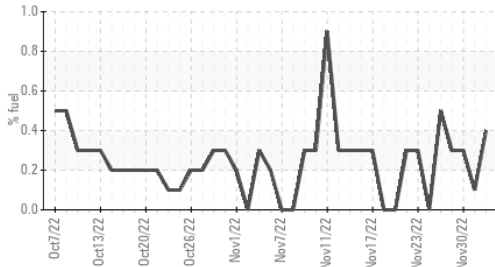


OIL ANALYSIS REPORT

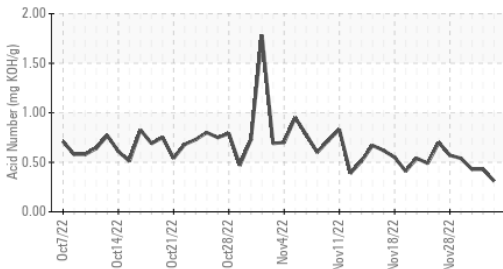
Glycol Contamination



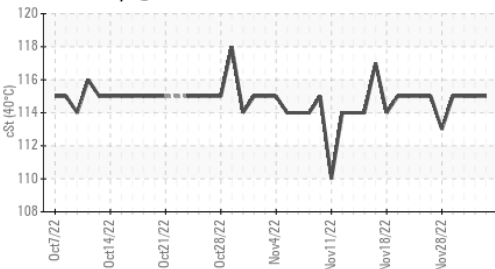
Fuel Dilution



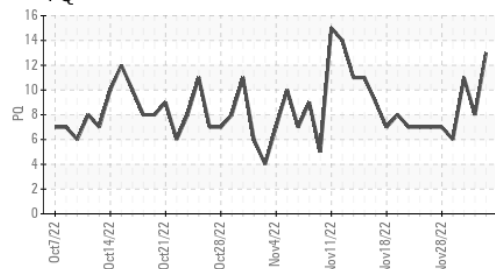
Acid Number



Viscosity @ 40°C



PQ

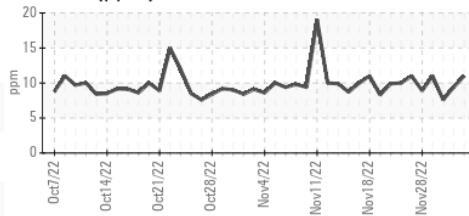


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

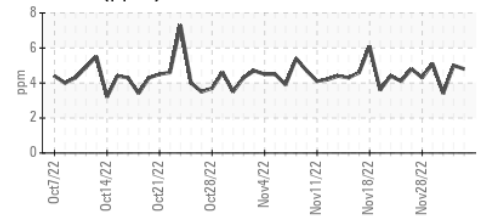
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	115	115	115
Visc @ 100°C	cSt	ASTM D445	14.8	14.7	14.7
Viscosity Index (VI)	Scale	ASTM D2270	132	131	131

GRAPHS

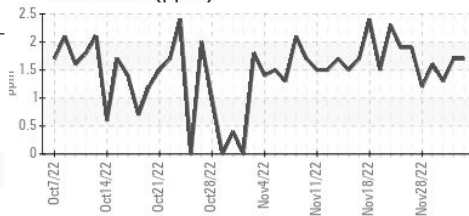
Iron (ppm)



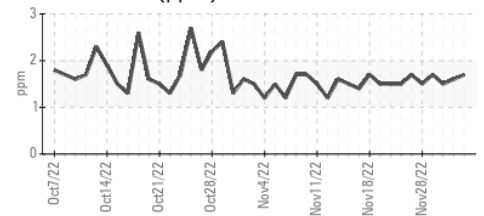
Lead (ppm)



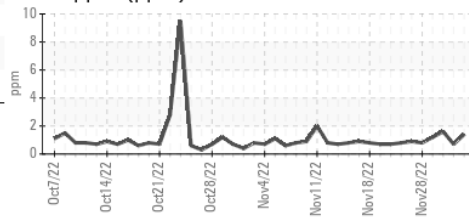
Aluminum (ppm)



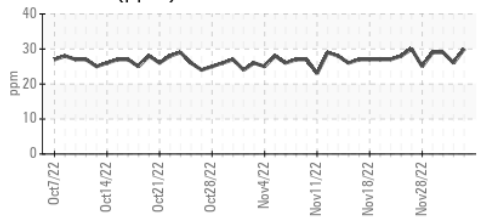
Chromium (ppm)



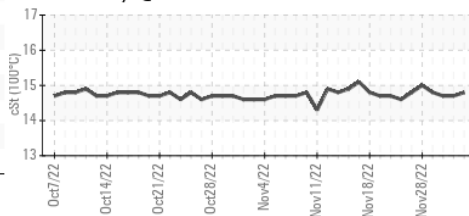
Copper (ppm)



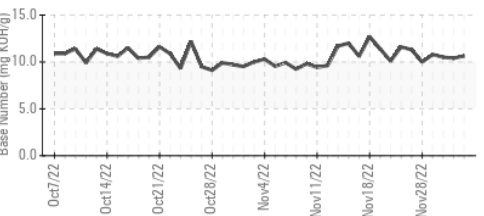
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0768007
Lab Number : 05709912
Unique Number : 10244487
Test Package : MOB 2 (Additional Tests: FuelDilution, Glycol, KV40, PercentFuel, PQ, VI)

WEARCHECK LUBRICATION SERVICES QA ACCOUNT
 501 Madison Ave
 Cary, NC
 US 27513

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: (919)379-4102
 F: (919)379-4050