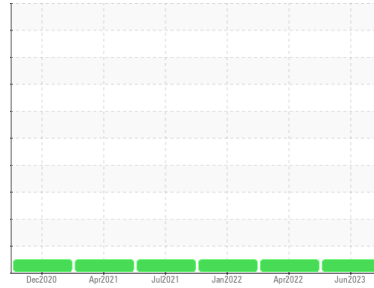


OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
EBI DE COSTA RICA
Machine Id
VOLVO ECR145CL ECR145CL
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (16 LTR)

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		PC0073899	PC0055915	PC0055658
Sample Date	Client Info		02 Jun 2023	08 Apr 2022	07 Jan 2022
Machine Age	hrs	Client Info	13815	11873	11352
Oil Age	hrs	Client Info	250	250	250
Oil Changed	Client Info		Changed	N/A	N/A
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>6.0	<1.0	<1.0	<1.0
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >100	9	16	11
Chromium	ppm	ASTM D5185(m) >10	<1	<1	<1
Nickel	ppm	ASTM D5185(m) >10	0	<1	<1
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m) >2	<1	0	0
Aluminum	ppm	ASTM D5185(m) >10	1	1	1
Lead	ppm	ASTM D5185(m) >20	<1	<1	<1
Copper	ppm	ASTM D5185(m) >15	<1	<1	<1
Tin	ppm	ASTM D5185(m) >10	0	<1	<1
Antimony	ppm	ASTM D5185(m)	0	0	0
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 0	2	2	1
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 60	58	60	54
Manganese	ppm	ASTM D5185(m) 0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	995	1033	1041
Calcium	ppm	ASTM D5185(m) 1070	1025	1075	1092
Phosphorus	ppm	ASTM D5185(m) 1150	1058	1051	1064
Zinc	ppm	ASTM D5185(m) 1270	1190	1229	1223
Sulfur	ppm	ASTM D5185(m) 2060	2546	2551	2640
Lithium	ppm	ASTM D5185(m)	<1	0	<1

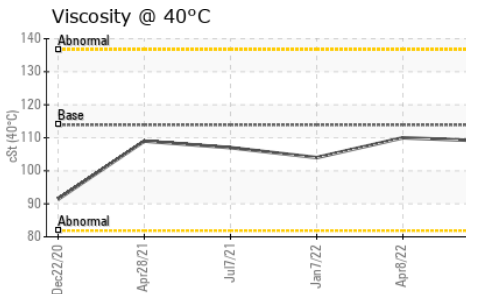
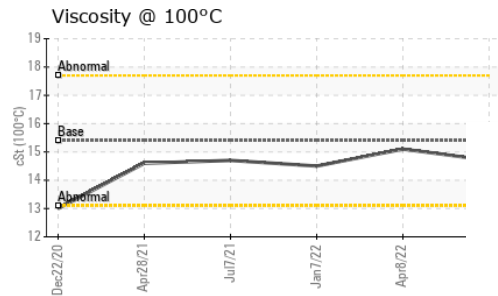
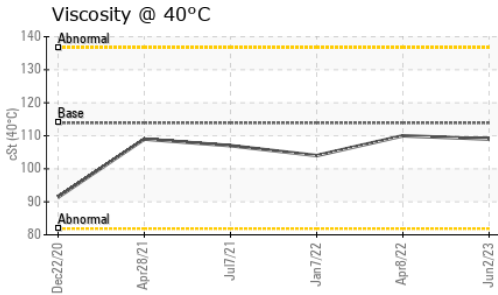
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >20	4	4	5
Sodium	ppm	ASTM D5185(m)	2	1	2
Potassium	ppm	ASTM D5185(m) >20	<1	<1	<1

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	0.6	1.2	0.5
Nitration	Abs/cm	ASTM D7624* >20	6.1	7.2	6.5
Sulfation	Abs/.1mm	ASTM D7415* >30	18.6	21.5	19.4

OIL ANALYSIS REPORT

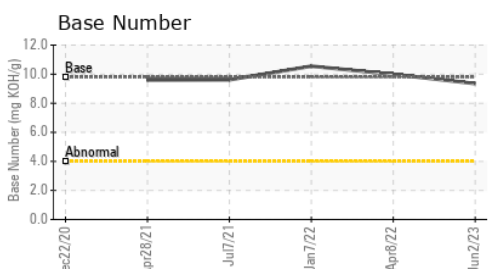
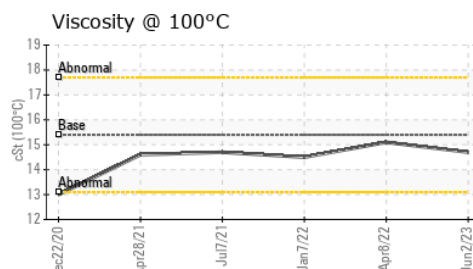
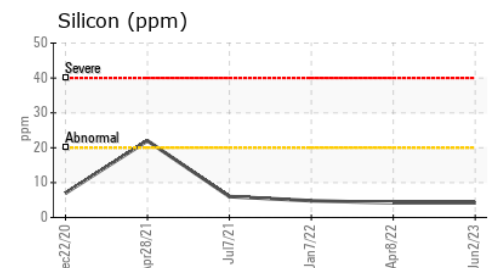
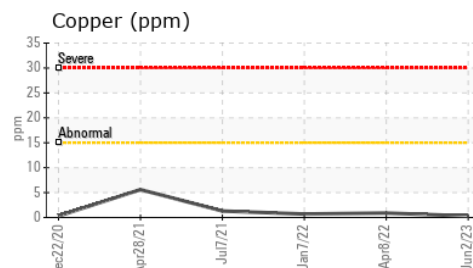
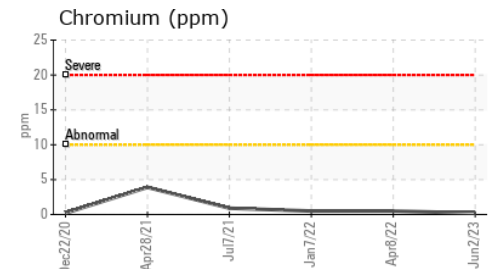
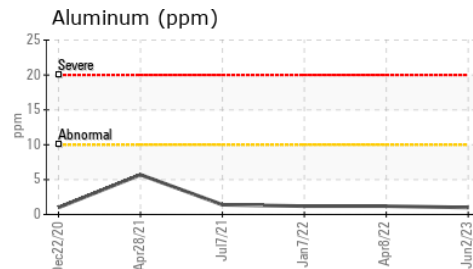
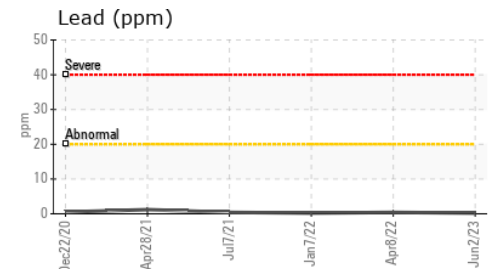
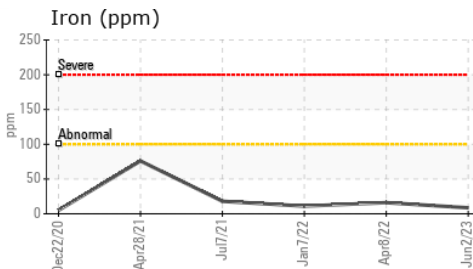


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	13.3	13.5	13.2
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	9.35	9.99	10.55

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	113.9	109	110	104
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	14.7	15.1	14.5
Viscosity Index (VI)	Scale	ASTM D2270*	142	139	143	143

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **INDUSTRIAS del PETROLEO CANAD. SA**
Sample No. : PC0073899 **Received** : 13 Jul 2023
Lab Number : 02569547 **Diagnosed** : 17 Jul 2023
Unique Number : 5606593 **Diagnostician** : Wes Davis
Test Package : MOB 2 (Additional Tests: KV40, VI)

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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