

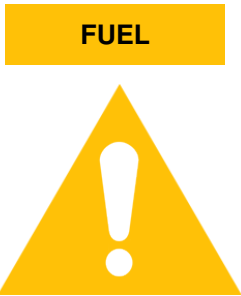
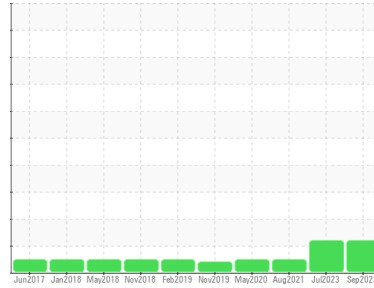


PROBLEM SUMMARY



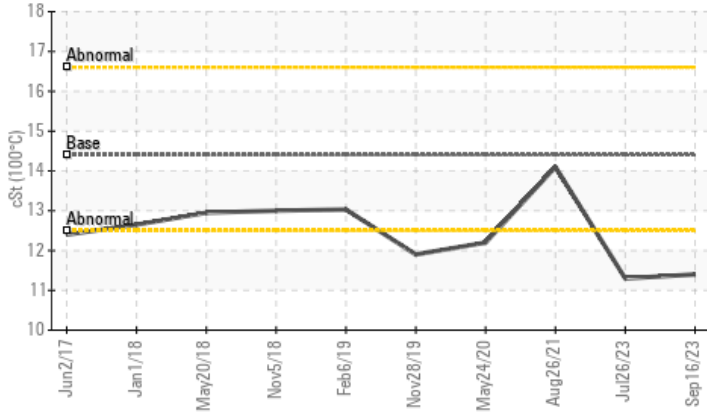
Area
IRIG [5963379]
 Machine Id
 IRIG-GENR-GN-1105 IRIG-GENR-GN-1105 COLD START GEN-UTILITY MOD
 Component
Diesel Engine
 Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (10 GAL)

Sample Rating Trend

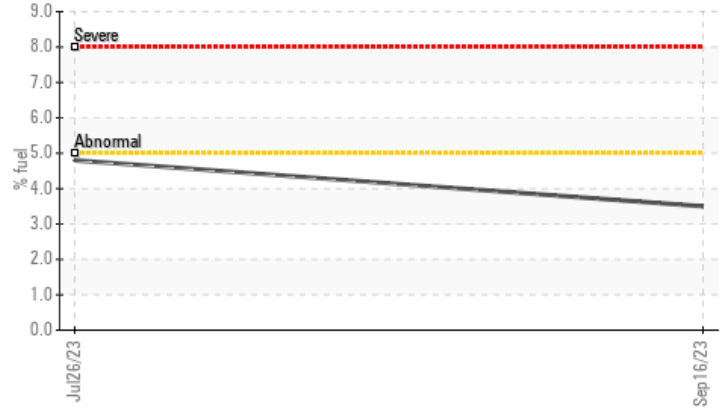


COMPONENT CONDITION SUMMARY

▲ Viscosity @ 100°C



▲ Fuel Dilution



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	NORMAL
Fuel	%	ASTM D3524	>5	▲ 3.5	▲ 4.8	<1.0
Visc @ 100°C	cSt	ASTM D445	14.4	▲ 11.4	▲ 11.3	14.1

Customer Id: BPEMPU
 Sample No.: HLC0002793
 Lab Number: 05964309
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

26 Jul 2023 Diag: Don Baldrige

FUEL



We advise that you check the fuel injection system. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report



26 Aug 2021 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



24 May 2020 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



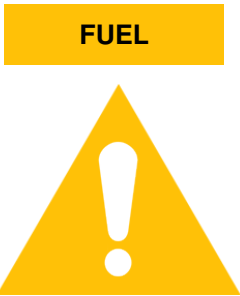
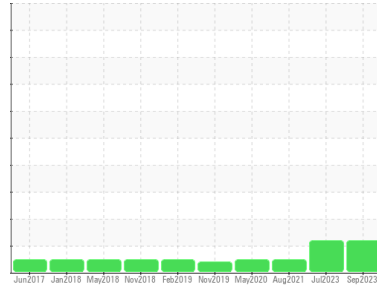


OIL ANALYSIS REPORT



Area
IRIG [5963379]
 Machine Id
IRIG-GENR-GN-1105 IRIG-GENR-GN-1105 COLD START GEN-UTILITY MOD
 Component
Diesel Engine
 Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (10 GAL)

Sample Rating Trend



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**
 Light fuel dilution occurring. No other contaminants were detected 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		HLC0002793	HLC0002730	HLC0001267
Sample Date	Client Info		16 Sep 2023	26 Jul 2023	26 Aug 2021
Machine Age	hrs	Client Info	2549	2517	2034
Oil Age	hrs	Client Info	32	500	0
Oil Changed	Client Info		Not Chngd	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	2	11	7
Chromium	ppm	ASTM D5185m >20	0	0	<1
Nickel	ppm	ASTM D5185m >2	0	0	0
Titanium	ppm	ASTM D5185m >2	<1	<1	<1
Silver	ppm	ASTM D5185m >2	0	0	<1
Aluminum	ppm	ASTM D5185m >25	2	<1	1
Lead	ppm	ASTM D5185m >40	0	2	<1
Copper	ppm	ASTM D5185m >330	5	206	4
Tin	ppm	ASTM D5185m >15	<1	0	<1
Antimony	ppm	ASTM D5185m	---	---	0
Vanadium	ppm	ASTM D5185m	0	<1	<1
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 151	119	78	90
Barium	ppm	ASTM D5185m 0.4	0	0	0
Molybdenum	ppm	ASTM D5185m 250	<1	2	<1
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m 0	749	732	776
Calcium	ppm	ASTM D5185m 2046	1303	1388	1463
Phosphorus	ppm	ASTM D5185m 1043	693	677	747
Zinc	ppm	ASTM D5185m 943	800	823	888
Sulfur	ppm	ASTM D5185m 5012	3071	3274	2861

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	3	4	4
Sodium	ppm	ASTM D5185m	2	4	2
Potassium	ppm	ASTM D5185m >20	1	3	2
Fuel	%	ASTM D3524 >5	▲ 3.5	▲ 4.8	<1.0

INFRA-RED

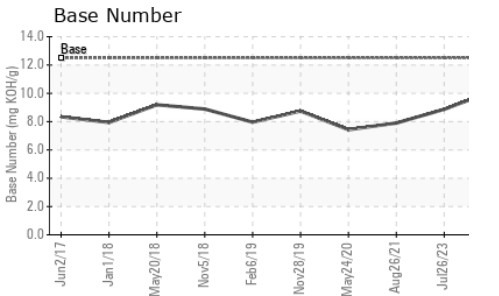
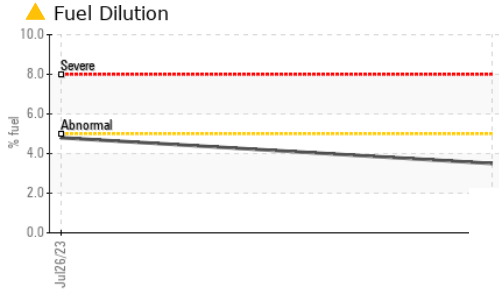
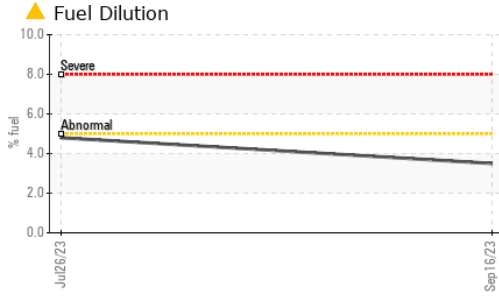
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.1	0.3	0.1
Nitration	Abs/cm	*ASTM D7624 >20	6.1	8.9	8.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	16.6	19.7	19.3

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	10.9	15.5	15.5
Base Number (BN)	mg KOH/g	ASTM D2896 12.5	10.14	8.87	7.90



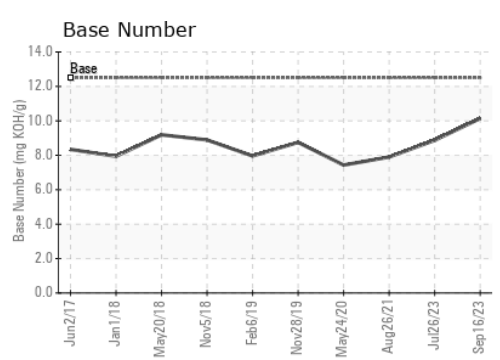
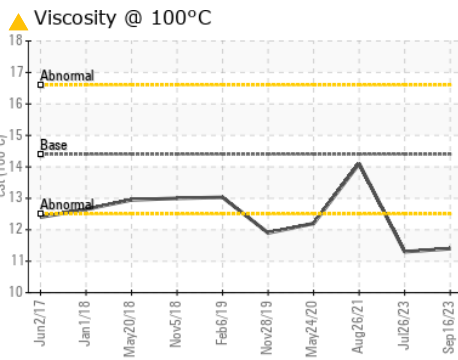
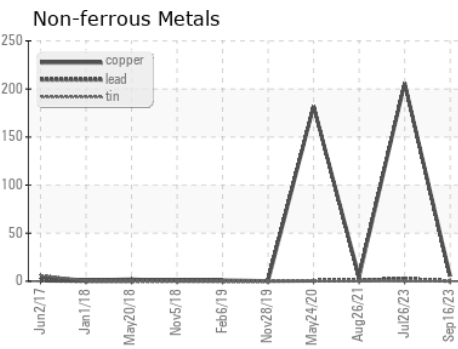
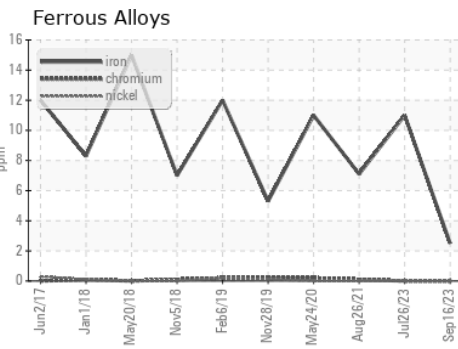
OIL ANALYSIS REPORT



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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	▲ 11.4	▲ 11.3

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : HLC0002793 **Received** : 28 Sep 2023
Lab Number : 05964309 **Diagnosed** : 03 Oct 2023
Unique Number : 10670860 **Diagnostician** : Wes Davis
Test Package : IND 2 (Additional Tests: PercentFuel)

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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)