



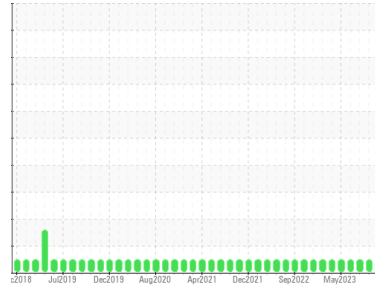
# PROBLEM SUMMARY

Sample Rating Trend

VISCOSITY

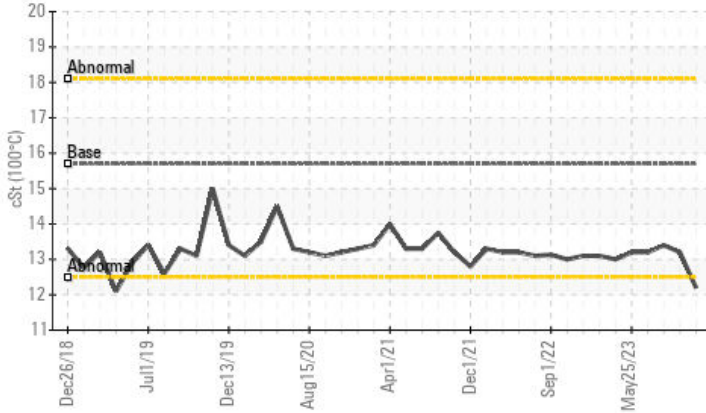


Area  
**SAMUEL B RICHMOND**  
 Machine Id  
**[SAMUEL B RICHMOND] 007 652589-7**  
 Component  
**Port Genset**  
 Fluid  
**CHEVRON DELO 400 LE 15W40 (5 GAL)**



## COMPONENT CONDITION SUMMARY

### ▲ Viscosity @ 100°C



## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status				<b>MARGINAL</b>	NORMAL	NORMAL
Visc @ 100°C	cSt	ASTM D445	15.7	▲ 12.2	13.2	13.4

Customer Id: INGPAD  
 Sample No.: MW0053838  
 Lab Number: 05964092  
 Test Package: MAR 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@wearcheckusa.com)

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

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

## HISTORICAL DIAGNOSIS

### 23 Aug 2023 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](#)



### 26 Jul 2023 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](#)



### 27 Jun 2023 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.

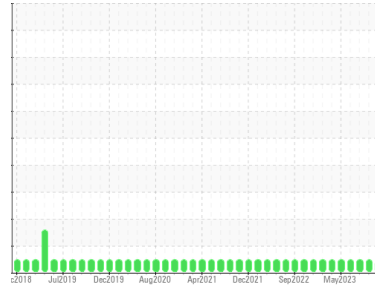
[view report](#)





# OIL ANALYSIS REPORT

Sample Rating Trend



## VISCOSITY



Area  
**SAMUEL B RICHMOND**  
 Machine Id  
**[SAMUEL B RICHMOND] 007 652589-7**  
 Component  
**Port Genset**  
 Fluid  
**CHEVRON DELO 400 LE 15W40 (5 GAL)**

### DIAGNOSIS

#### ▲ Recommendation

Oil and filter change at the time of sampling has been noted. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>MW0053838</b>	MW0053800	MW0053799
Sample Date	Client Info		<b>19 Sep 2023</b>	23 Aug 2023	26 Jul 2023
Machine Age	hrs	Client Info	<b>36772</b>	36438	342
Oil Age	hrs	Client Info	<b>342</b>	400	342
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>MARGINAL</b>	NORMAL	NORMAL

### CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		<b>NEG</b>	NEG	NEG

### WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>10</b>	6	5
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >2	<b>2</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m >5	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >12	<b>1</b>	2	2
Lead	ppm	ASTM D5185m >17	<b>1</b>	0	0
Copper	ppm	ASTM D5185m >70	<b>51</b>	0	<1
Tin	ppm	ASTM D5185m >15	<b>2</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

### ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>153</b>	349	355
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>71</b>	125	121
Manganese	ppm	ASTM D5185m	<b>2</b>	<1	<1
Magnesium	ppm	ASTM D5185m	<b>359</b>	683	683
Calcium	ppm	ASTM D5185m	<b>1765</b>	1688	1763
Phosphorus	ppm	ASTM D5185m 1200	<b>996</b>	711	710
Zinc	ppm	ASTM D5185m 1300	<b>1170</b>	854	918
Sulfur	ppm	ASTM D5185m 3200	<b>3339</b>	2982	3090

### CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>6</b>	6	6
Sodium	ppm	ASTM D5185m	<b>5</b>	1	0
Potassium	ppm	ASTM D5185m >20	<b>3</b>	<1	1
Fuel	%	ASTM D3524 >4.0	<b>0.7</b>	<1.0	<1.0

### INFRA-RED

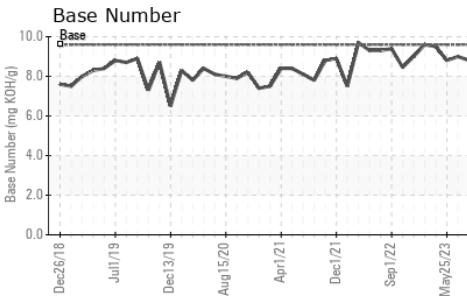
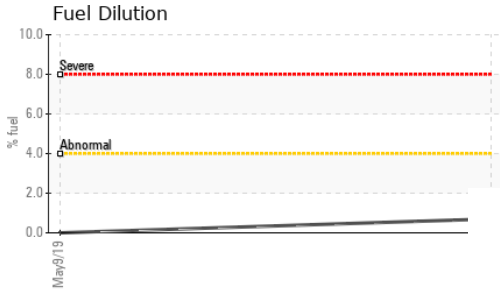
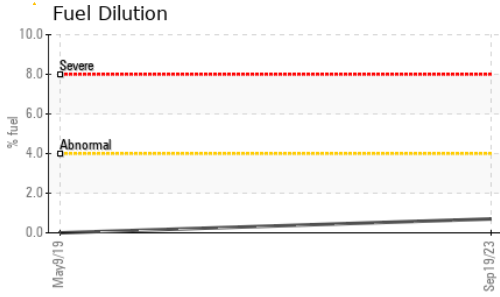
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.1</b>	7.1	6.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>23.4</b>	22.8	22.3

### FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>17.4</b>	16.4	16.1
Base Number (BN)	mg KOH/g	ASTM D2896 9.6	<b>9.1</b>	9.0	8.8



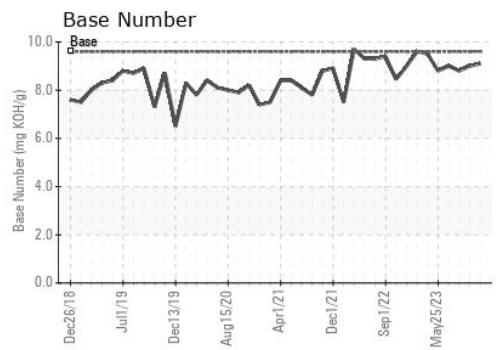
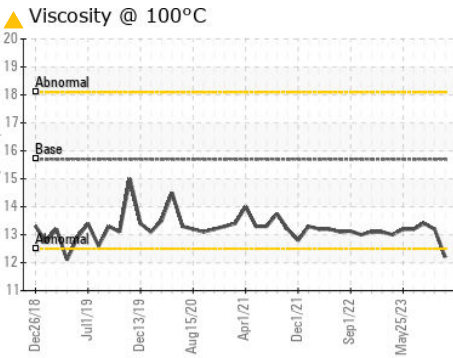
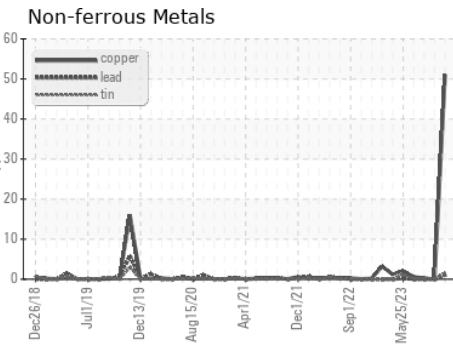
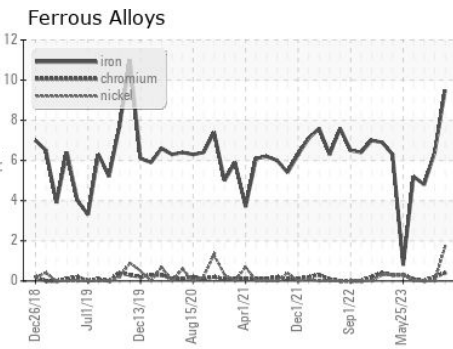
# OIL ANALYSIS REPORT



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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.7	▲ 12.2	13.2

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0053838 **Received** : 28 Sep 2023  
**Lab Number** : 05964092 **Diagnosed** : 02 Oct 2023  
**Unique Number** : 10670643 **Diagnostician** : Jonathan Hester  
**Test Package** : MAR 2 ( Additional Tests: FuelDilution, PercentFuel )

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)

**INGRAM BARGE**  
 900 S 3RD ST  
 PADUCAH, KY  
 US 42003

Contact: JEFF BISHOP  
 jeff.bishop@ingrambarge.com

T:  
 F: (615)695-3697