



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**HAL PANNELL (S/N RG-6081A303563)**  
Component  
**Port Genset**  
Fluid  
**CHEVRON DELO 710 LE (7 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0069586</b>	MW0069620	MW0066380
Sample Date		Client Info		<b>05 Jun 2024</b>	21 May 2024	16 Apr 2024
Machine Age	hrs	Client Info		<b>4573</b>	2687	2276
Oil Age	hrs	Client Info		<b>483</b>	376	425
Filter Age	hrs	Client Info		<b>483</b>	376	425
Oil Changed		Client Info		<b>Changed</b>	N/A	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>14</b>	15	14
Chromium	ppm	ASTM D5185m	>4	<b>1</b>	2	1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>5	<b>0</b>	1	0
Aluminum	ppm	ASTM D5185m	>12	<b>2</b>	2	2
Lead	ppm	ASTM D5185m	>17	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>70	<b>&lt;1</b>	1	1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

There is no indication of any contamination in the oil.

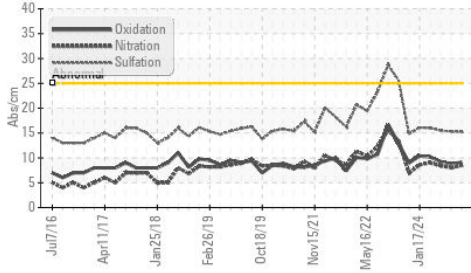
Silicon	ppm	ASTM D5185m	>25	<b>5</b>	7	5
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	2
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0.3</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.5</b>	8.0	8.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>15.2</b>	15.3	15.5
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

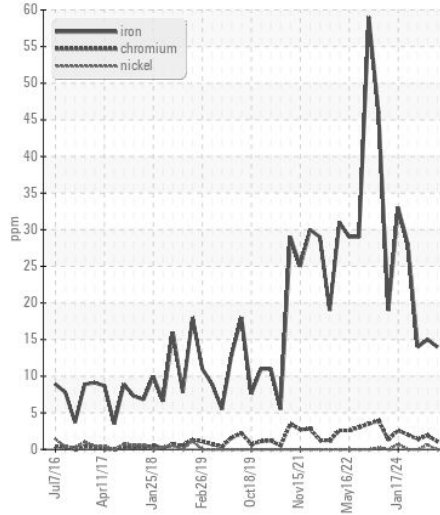
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>2</b>	<1	0
Boron	ppm	ASTM D5185m		<b>31</b>	38	38
Barium	ppm	ASTM D5185m		<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m		<b>42</b>	48	47
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	0
Magnesium	ppm	ASTM D5185m		<b>28</b>	45	12
Calcium	ppm	ASTM D5185m		<b>3279</b>	3331	3330
Phosphorus	ppm	ASTM D5185m		<b>18</b>	49	11
Zinc	ppm	ASTM D5185m	10	<b>22</b>	44	5
Sulfur	ppm	ASTM D5185m		<b>2413</b>	2266	2187
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>9.1</b>	8.8	9.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.2	<b>6.0</b>	6.0	6.2
Visc @ 100°C	cSt	ASTM D445	15.5	<b>13.9</b>	14.0	14.2

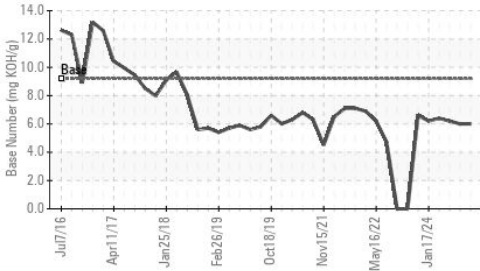
**FT-IR (Direct Trend)**



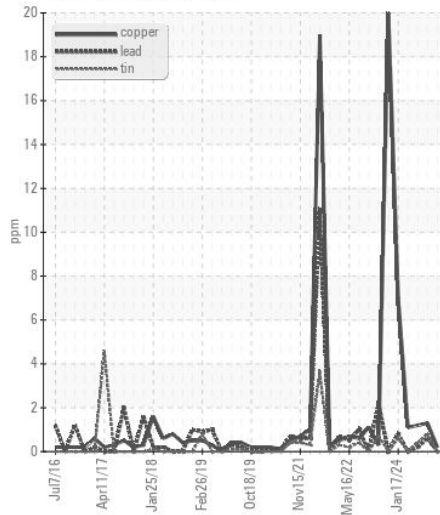
**Ferrous Alloys**



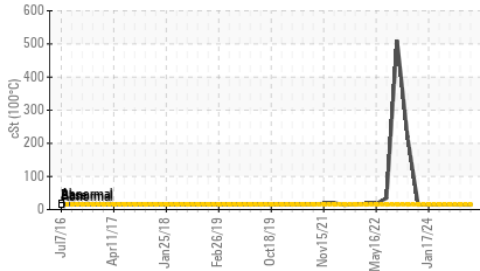
**Base Number**



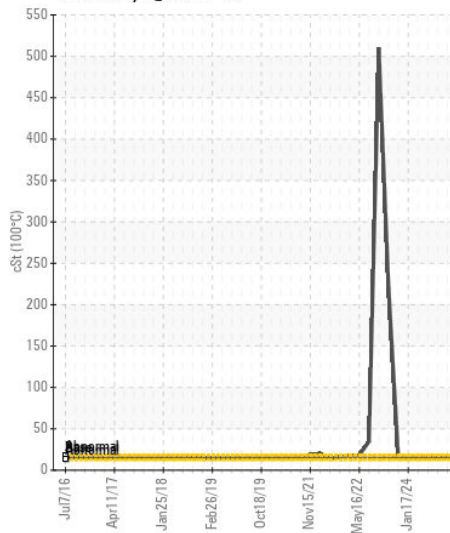
**Non-ferrous Metals**



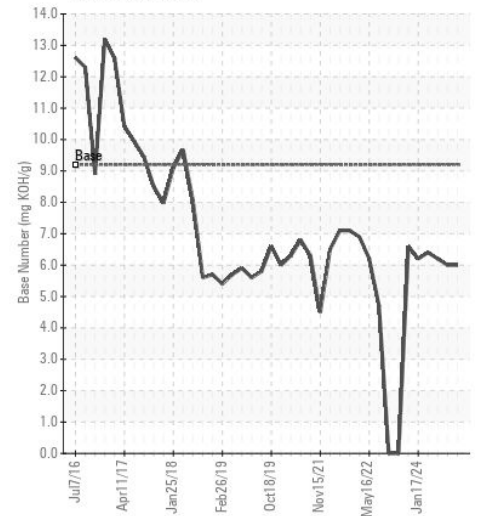
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0069586  
**Lab Number** : 06231305  
**Unique Number** : 11114798  
**Test Package** : MAR 2

**Received** : 09 Jul 2024  
**Tested** : 10 Jul 2024  
**Diagnosed** : 10 Jul 2024 - Wes Davis

**AMERICAN COMMERCIAL LINES**  
 PO BOX 610, 1701 E. MARKET STREET  
 JEFFERSONVILLE, IN  
 US 47130  
 Contact: RONALD SCHNEIDER  
 ronald.schneider@bargeacbl.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)

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