



Area
SUE KOSSOW
Machine Id
[SUE KOSSOW] 007 641018-7
Component
Port Genset
Fluid
CHEVRON DELO 400 LE 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0042972	MW0042973	MW0043329
Sample Date		Client Info		06 Jan 2024	01 Dec 2023	10 Aug 2023
Machine Age	hrs	Client Info		30310	30310	30230
Oil Age	hrs	Client Info		210	210	30
Filter Age	hrs	Client Info		210	210	30
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Filter Changed		Client Info		Not Changd	Not Changd	N/A
Sample Status				SEVERE	SEVERE	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	4	4	2
Chromium	ppm	ASTM D5185m	>4	0	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>12	2	3	2
Lead	ppm	ASTM D5185m	>17	0	<1	0
Copper	ppm	ASTM D5185m	>70	3	<1	0
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

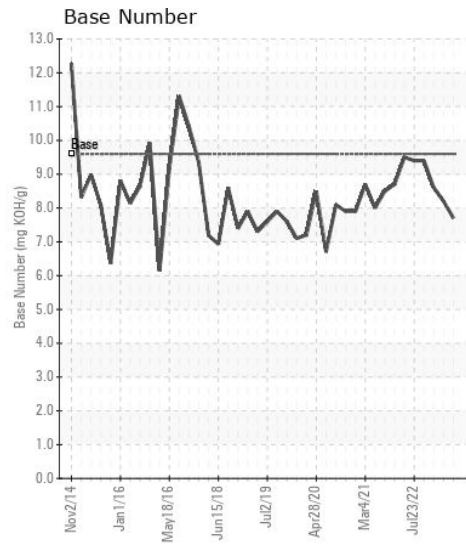
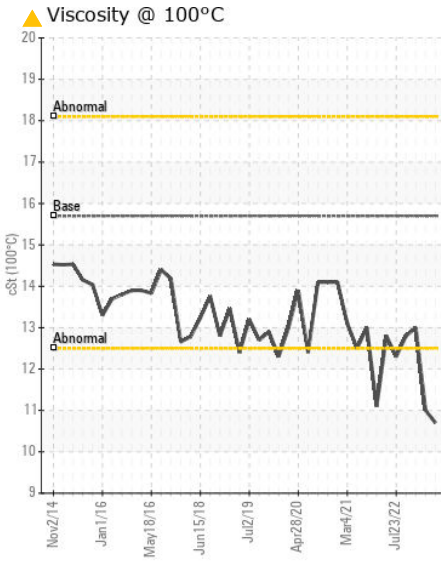
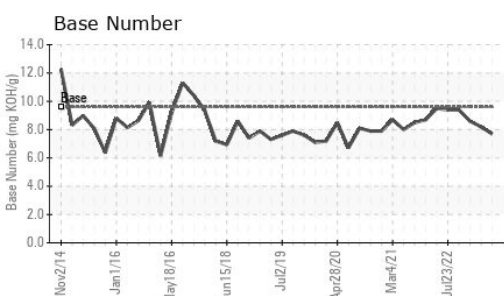
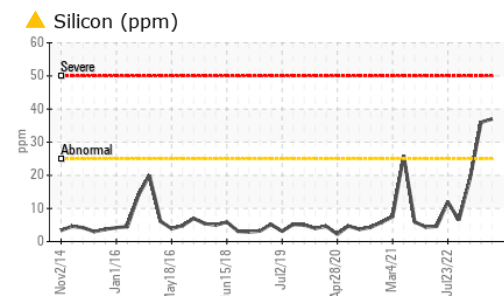
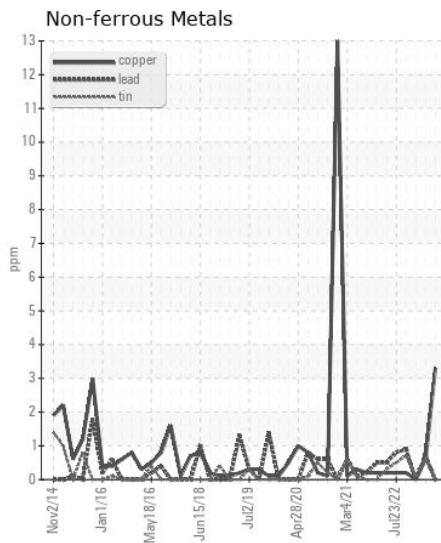
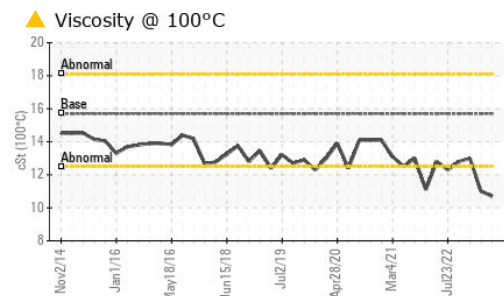
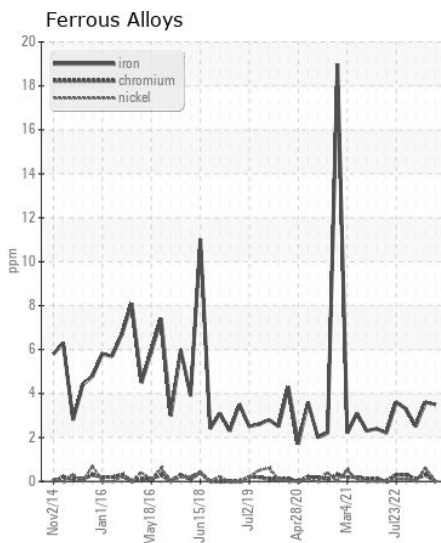
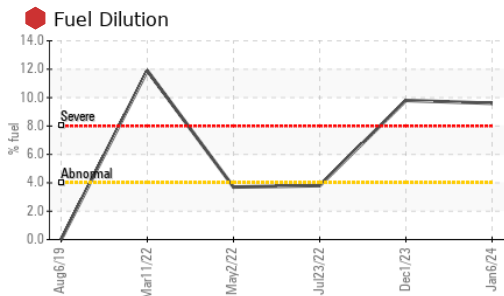
There is a high amount of fuel present in the oil. Elemental level of silicon (Si) above normal.

Silicon	ppm	ASTM D5185m	>25	▲ 37	▲ 36	19
Potassium	ppm	ASTM D5185m	>20	<1	2	<1
Fuel	%	ASTM D3524	>4.0	● 9.6	● 9.8	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.7	8.5	5.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.1	22.0	21.2
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		<1	0	<1
Boron	ppm	ASTM D5185m		275	310	384
Barium	ppm	ASTM D5185m		0	11	0
Molybdenum	ppm	ASTM D5185m		107	111	109
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		554	547	603
Calcium	ppm	ASTM D5185m		1506	1444	1538
Phosphorus	ppm	ASTM D5185m	1200	623	615	646
Zinc	ppm	ASTM D5185m	1300	740	750	767
Sulfur	ppm	ASTM D5185m	3200	2242	2469	2780
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.8	18.5	14.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.6	7.7	8.2	8.6
Visc @ 100°C	cSt	ASTM D445	15.7	▲ 10.7	▲ 11.0	13.0



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0042972 **Received** : 12 Jan 2024
Lab Number : 06060009 **Diagnosed** : 16 Jan 2024
Unique Number : 10831391 **Diagnostician** : Don Baldrige
Test Package : MAR 2 (Additional Tests: PercentFuel)

INGRAM BARGE
 900 S 3RD ST
 PADUCAH, KY
 US 42003
 Contact: ANTHONY VAN CURA
 anthony.vancura@ingrambarga.com
 T: (270)415-4467
 F: (615)695-3697

Certificate L2367
 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)