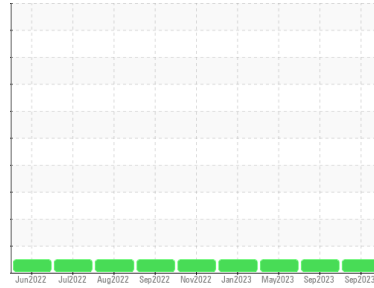


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**JAL NM**  
Machine Id  
**MRC-284**  
Component  
**Natural Gas Engine**  
Fluid  
**TULCO LUBSOIL GEO XL LOW ASH 40 (--- GAL)**

**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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>TO60001458</b>	TO60001460	TO2005836
Sample Date	Client Info			<b>30 Sep 2023</b>	06 Sep 2023	18 May 2023
Machine Age	hrs	Client Info		<b>12585</b>	13017	9435
Oil Age	hrs	Client Info		<b>0</b>	0	9435
Oil Changed	Client Info			<b>Not Changed</b>	Not Changed	Not Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>6</b>	5	3
Chromium	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	<b>&lt;1</b>	0	<1
Lead	ppm	ASTM D5185m	>30	<b>2</b>	0	6
Copper	ppm	ASTM D5185m	>35	<b>&lt;1</b>	<1	2
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

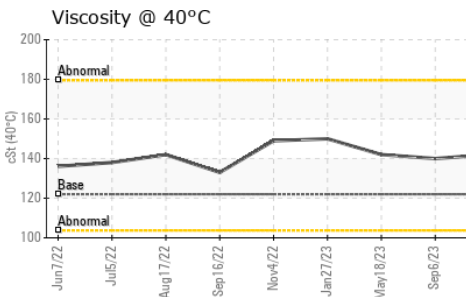
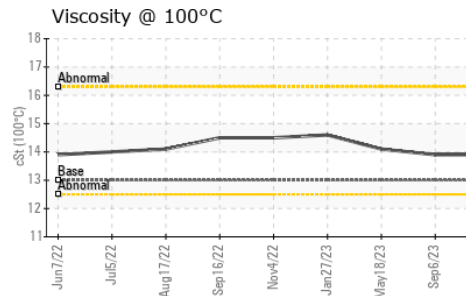
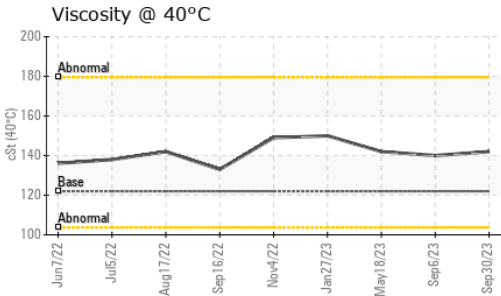
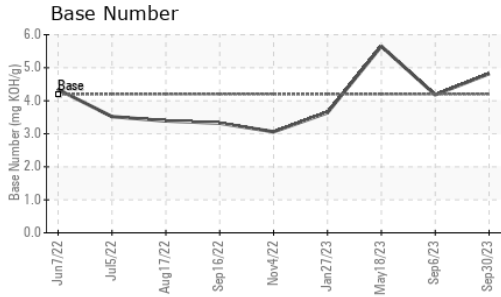
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	100	<b>86</b>	96	48
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	1	<b>&lt;1</b>	0	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185m	10	<b>0</b>	14	11
Calcium	ppm	ASTM D5185m	1150	<b>1406</b>	1323	1293
Phosphorus	ppm	ASTM D5185m	290	<b>287</b>	277	277
Zinc	ppm	ASTM D5185m	272	<b>362</b>	299	326
Sulfur	ppm	ASTM D5185m	1900	<b>1412</b>	1420	1969

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	<b>2</b>	2	1
Sodium	ppm	ASTM D5185m		<b>3</b>	4	1
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	1	2

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		<b>0</b>	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.1</b>	9.9	7.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>15.2</b>	17.8	17.6

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>12.0</b>	13.0	14.6
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.16</b>	0.84	0.504
Base Number (BN)	mg KOH/g	ASTM D2896	4.2	<b>4.82</b>	4.18	5.65

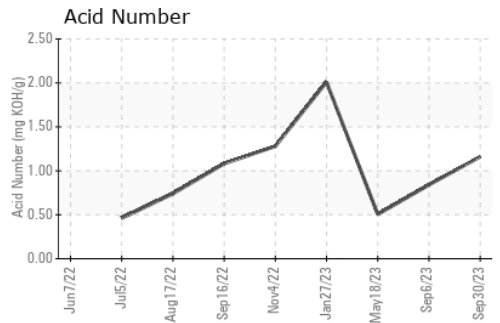
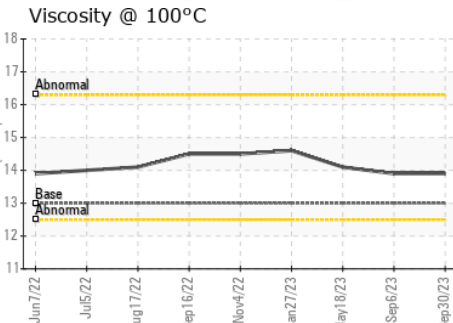
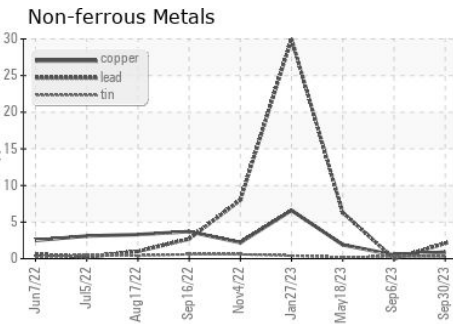
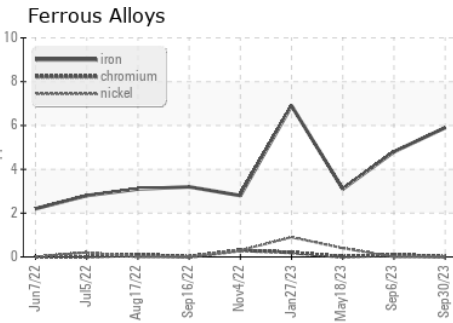
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
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
Free Water	scalar	*Visual		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	122	<b>142</b>	140	142
Visc @ 100°C	cSt	ASTM D445	13	<b>13.9</b>	13.9	14.1
Viscosity Index (VI)	Scale	ASTM D2270	103	<b>93</b>	95	95

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO60001458 **Received** : 16 Oct 2023  
**Lab Number** : **05980598** **Diagnosed** : 17 Oct 2023  
**Unique Number** : 10697893 **Diagnostician** : Wes Davis  
**Test Package** : IND 2 ( Additional Tests: FT-IR, KV40, VI )

**MIDLAND - EOG RESOURCES INC.**  
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 MIDLAND, TX  
 US 79706  
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 herman\_garza@eogresources.com  
 T: (432)686-3600  
 F:

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)