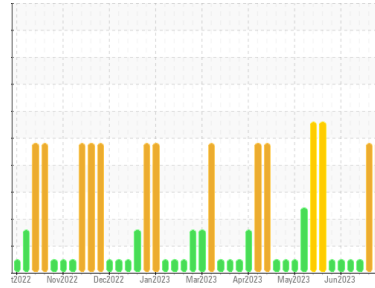




# OIL ANALYSIS REPORT

Sample Rating Trend



**DIRT**



Machine Id  
**SJNM02BE**  
 Component  
**Biogas Engine**  
 Fluid  
**CHEVRON HDAX 6500 LFG GAS ENGINE OIL (--- GAL)**

## DIAGNOSIS

### Recommendation

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0764418</b>	WC0764353	WC0764352
Sample Date	Client Info		<b>14 Jul 2023</b>	07 Jul 2023	30 Jun 2023
Machine Age	hrs	Client Info	<b>109202</b>	109067	108901
Oil Age	hrs	Client Info	<b>958</b>	823	657
Oil Changed	Client Info		<b>Changed</b>	Not Changd	Not Changd
Sample Status			<b>SEVERE</b>	SEVERE	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>15	<b>4</b>	3	3
Chromium	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>6	<b>1</b>	3	2
Lead	ppm	ASTM D5185m	>9	<b>10</b>	9	9
Copper	ppm	ASTM D5185m	>6	<b>2</b>	2	2
Tin	ppm	ASTM D5185m	>4	<b>5</b>	4	4
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	<1	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>3</b>	4	5
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>7</b>	8	8
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>23</b>	18	20
Calcium	ppm	ASTM D5185m		<b>2183</b>	2140	2081
Phosphorus	ppm	ASTM D5185m		<b>330</b>	307	307
Zinc	ppm	ASTM D5185m		<b>394</b>	354	382
Sulfur	ppm	ASTM D5185m		<b>2755</b>	2612	2315

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>181	<b>245</b>	215	187
Sodium	ppm	ASTM D5185m		<b>4</b>	2	0
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	2

## INFRA-RED

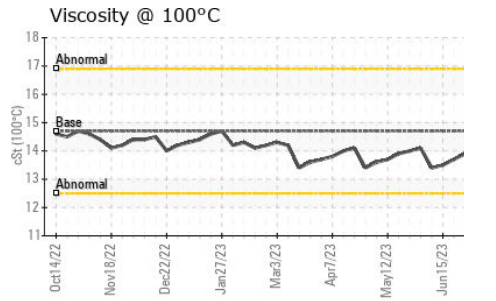
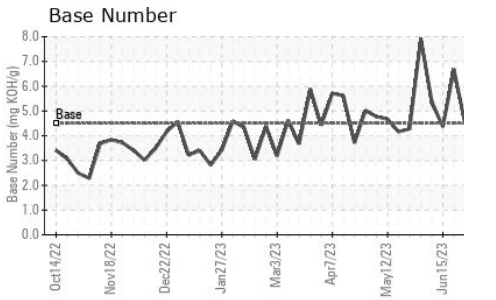
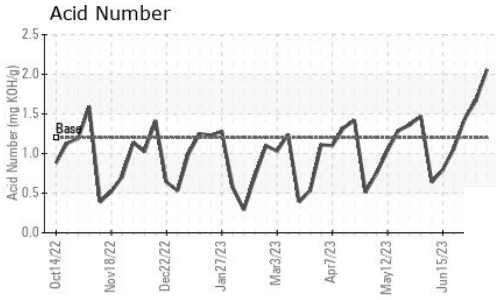
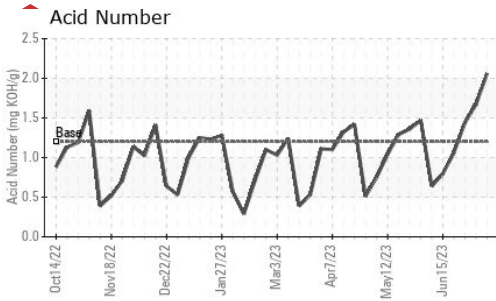
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.8</b>	7.4	7.2
Sulfation	Abs.1mm	*ASTM D7415	>30	<b>23.4</b>	23.1	22.1

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs.1mm	*ASTM D7414	>25	<b>19.2</b>	19.0	17.5
Acid Number (AN)	mg KOH/g	ASTM D8045	1.2	<b>2.06</b>	1.67	1.44
Base Number (BN)	mg KOH/g	ASTM D2896	4.5	<b>4.03</b>	5.29	4.50



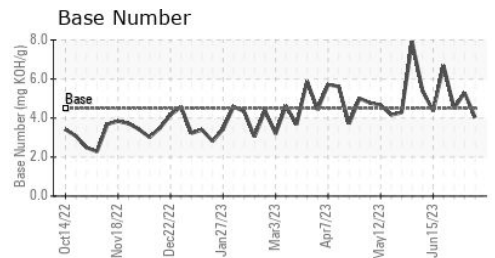
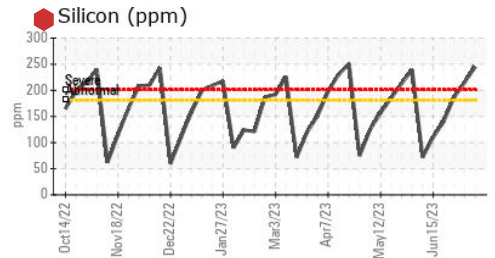
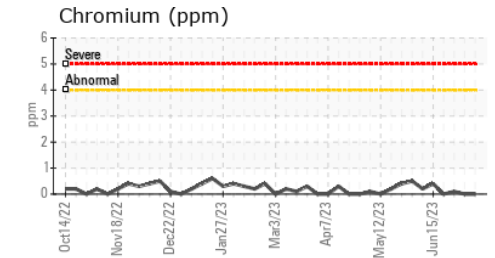
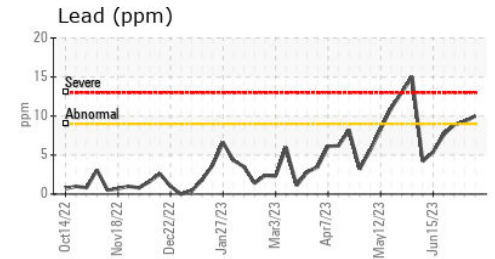
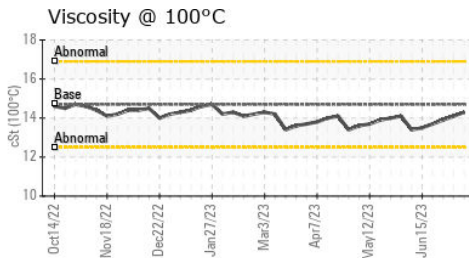
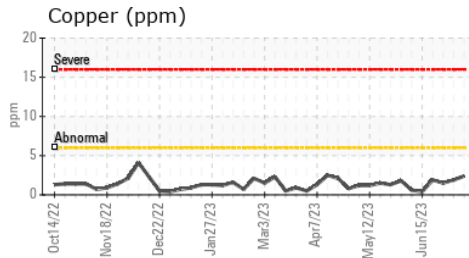
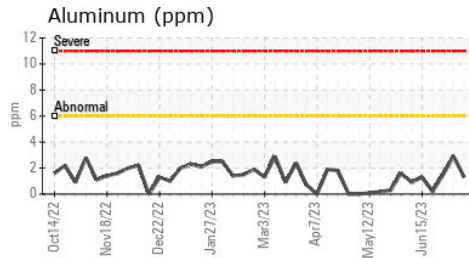
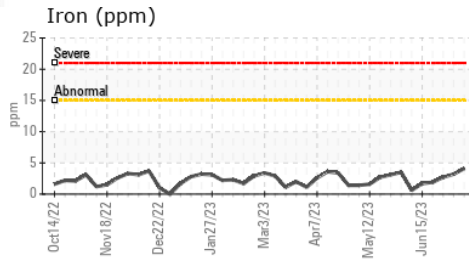
# OIL ANALYSIS REPORT



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	14.7	14.3	14.1

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : WC0764418 Received : 19 Jul 2023  
 Lab Number : 05902469 Diagnosed : 21 Jul 2023  
 Unique Number : 10563825 Diagnostician : Don Baldrige  
 Test Package : MOB 2

**EDL NA Recips-South Jordan**  
 South Jordan Powerstation, 10473 S. Bacchus Hwy.  
 South Jordan, UT  
 US 84095  
 Contact: Aaron Klein  
 aaron.klein@edlenergy.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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