

OIL ANALYSIS REPORT



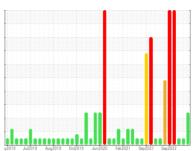
DEGRADATION



EDLTAY TAYM02BE (S/N 1256574) Component

Biogas Engine

CHEVRON HDAX 9500 GAS ENGINE OIL 40 (180 GAL)





DIAGNOSIS

Recommendation

The oil is near the end of it's useful service life. recommend schedule an oil change. Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

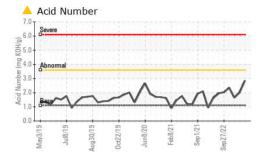
Fluid Condition

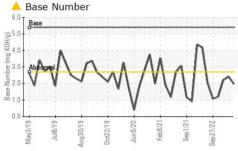
The AN level is above the recommended limit. The BN level is low.

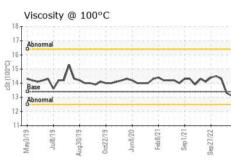
ENGINE OIL 40 (180 GAL)						
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0901614	WC0901579	WC0526602
Sample Date		Client Info		13 Mar 2024	05 Mar 2024	20 Jan 2023
Machine Age	hrs	Client Info		350986	6538	694
Oil Age	hrs	Client Info		614	431	694
Oil Changed		Client Info		N/A	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
CONTAMINATION	١	method	limit/base	current	history1	history2
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>15	7	4	4
Chromium	ppm	ASTM D5185m	>4	<1	<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	>6	2	2	2
Lead	ppm	ASTM D5185m	>20	0	0	0
Copper	ppm	ASTM D5185m	>6	1	1	2
Γin	ppm	ASTM D5185m	>4	4	2	1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	4
				^	0	
Barium	ppm	ASTM D5185m		0	0	1
	ppm ppm	ASTM D5185m ASTM D5185m		4	4	1
Molybdenum						
Molybdenum Manganese	ppm	ASTM D5185m		4	4	1
Molybdenum Manganese Magnesium	ppm	ASTM D5185m ASTM D5185m		4 <1	4 <1	1 <1
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		4 <1 8	4 <1 16	1 <1 7
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		4 <1 8 1869	4 <1 16 1734	1 <1 7 1663
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		4 <1 8 1869 286	4 <1 16 1734 254	1 <1 7 1663 277
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	4 <1 8 1869 286 317	4 <1 16 1734 254 318	1 <1 7 1663 277 340
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >181	4 <1 8 1869 286 317 5021	4 <1 16 1734 254 318 3652	1 <1 7 1663 277 340 3688
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		4 <1 8 1869 286 317 5021 current	4 <1 16 1734 254 318 3652 history1	1 <1 7 1663 277 340 3688 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m	>181	4 <1 8 1869 286 317 5021 current	4 <1 16 1734 254 318 3652 history1 6	1 <1 7 1663 277 340 3688 history2 20
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	>181 >20	4 <1 8 1869 286 317 5021 current 11 6	4 <1 16 1734 254 318 3652 history1 6 4	1 <1 7 1663 277 340 3688 history2 20 0
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>181 >20 >20	4 <1 8 1869 286 317 5021 current 11 6 10	4 <1 16 1734 254 318 3652 history1 6 4 12	1 <1 7 1663 277 340 3688 history2 20 0 2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>181 >20 >20 imit/base >2	4 <1 8 1869 286 317 5021 current 11 6 10 current	4 <1 16 1734 254 318 3652 history1 6 4 12 history1	1 <1 7 1663 277 340 3688 history2 20 0 2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m method *ASTM D7844	>181 >20 >20 imit/base >2	4 <1 8 1869 286 317 5021 current 11 6 10 current 0.1	4 <1 16 1734 254 318 3652 history1 6 4 12 history1 0	1 <1 7 7 1663 277 340 3688 history2 20 0 2 history2 0
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m	>181 >20 >20 >20 limit/base >2 >20	4 <1 8 1869 286 317 5021 current 11 6 10 current 0.1 4.9	4	1
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415	>181 >20 >20 limit/base >2 >20 >30	4 <1 8 1869 286 317 5021 current 11 6 10 current 0.1 4.9 23.7	4	1
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method *ASTM D7844 *ASTM D7624 *ASTM D7415 Method	>181 >20 >20 imit/base >2 >20 imit/base >30 limit/base	4 <1 8 1869 286 317 5021 current 11 6 10 current 4.9 23.7 current	4 <1 16 1734 254 318 3652 history1 6 4 12 history1 0 4.8 20.8 history1	1



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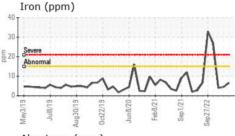




VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	VLITE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
	and the seal	Para State and a		Internal	In the America	
FLUID PROPERTIES		method	limit/base	current	history1	history2

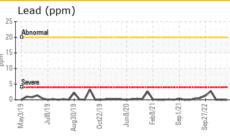
13.1

Visc @	100°C
GRAF	PHS



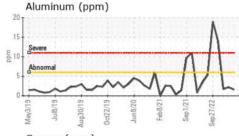
cSt

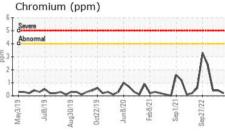
ASTM D445 13.4

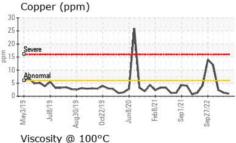


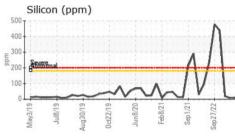
13.3

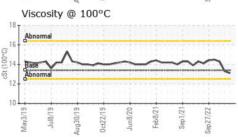
14.3

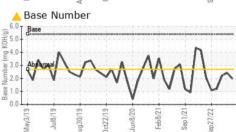
















Certificate L2367

Laboratory Sample No. Unique Number : 10937393

Test Package : MOB 2

: WC0901614 Lab Number : 06123242

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received **Tested**

: 19 Mar 2024

: 20 Mar 2024 : 22 Mar 2024 - Sean Felton

EDL NA Recips-Taylor County TAYLOR COUNTY POWER STATION, COUNTY ROAD 33 & STEWART ROAD

MAUK, GA US 31058

Contact: STEVEN BABB steven.babb@edlenergy.com T:

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)

Diagnosed

F: