

OIL ANALYSIS REPORT

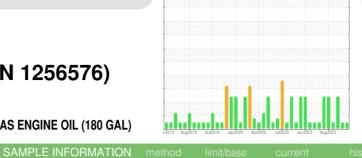
Sample Rating Trend



EDLTAY TAYM01BE (S/N 1256576) Component

Biogas Engine

CHEVRON HDAX 6500 LFG GAS ENGINE OIL (180 GAL)





NORMAL

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.

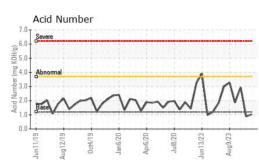
Fluid Condition

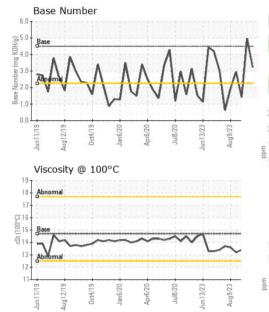
The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sample Number		Client Info		WC0788232	WC0788223	WC0788215
Sample Date		Client Info		16 Nov 2023	03 Nov 2023	18 Oct 2023
Machine Age	hrs	Client Info		54540	6173	54540
Oil Age	hrs	Client Info		200	0	54340
Oil Changed		Client Info		N/A	Changed	N/A
Sample Status				NORMAL	NORMAL	ABNORMAL
CONTAMINATION	۷	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	0	0	2
Chromium	ppm	ASTM D5185m	>4	0	0	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>5	0	<1	0
Aluminum	ppm	ASTM D5185m	>6	<1	<1	<1
Lead	ppm	ASTM D5185m	>20	0	0	<1
Copper	ppm	ASTM D5185m	>6	0	0	0
Tin	ppm	ASTM D5185m	>4	2	0	4
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	0
Barium	ppm	ASTM D5185m		0	2	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		6	7	2
Calcium	ppm	ASTM D5185m		1848	1524	1784
Phosphorus	ppm	ASTM D5185m		279	244	267
Zinc	ppm	ASTM D5185m		345	320	350
Sulfur	ppm	ASTM D5185m		2889	1605	3697
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m		24	4	8
Sodium	ppm	ASTM D5185m	>20	1	1	<1
Potassium	ppm	ASTM D5185m	>20	5	3	<1
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>2	0	0	0
Nitration	Abs/cm	*ASTM D7624	>20	5.0	4.9	5.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.9	15.4	27.2
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	8.9	7.7	13.1
Acid Number (AN)	mg KOH/g	ASTM D8045	1.2	1.03	0.88	2 .95
Base Number (BN)	mg KOH/g	ASTM D2896	4.5	3.23	4.96	▲ 1.41
3:21:46) Rev: 1					Submitted By	: Daniel Dauzat



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			method				history2
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
A	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
1 11	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
11/1 www	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	_ Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
20 - 23 - 23 -	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Apr6/20 Jun13/23 Aug9/23	Odor		*Visual	NORML	NORML	NORML	NORML
		scalar					
	Emulsified Water	scalar	*Visual	>.2	NEG	NEG	NEG
	Free Water	scalar	*Visual		NEG	NEG	NEG
	FLUID PROPER	TIES	method	limit/base	current	history1	history2
A ALAA A	Visc @ 100°C	cSt	ASTM D445	14.7	13.3	13.1	13.4
	GRAPHS						
	Iron (ppm)			25	Lead (ppm)		
	20 Severe			20	Abnormal		
Apr6/20 Jul8/20 Aug9/23	Alternation		10001000				
A Ju A	E 15 - Apnormal		٨	E 15			
	· · · ·						
		VW	VL-	5	Severe	^	
		20	23+		61 61	20	23
	Jun11/19 Aug12/19 Oct4/18	Apr6/20	Jul8/20 - Jun13/23 - Aua9/23 -		Jun 11/19 Aug 12/19 Oct4/19	Jan6/20 Apr6/20 Jul8/20	Jun13/23 Aug9/23
	¬ ⊲ Aluminum (ppm)		7		Chromium (pp	(m)	с -
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	8-		٨	4	Abnormal		
Apr6/20 - Jul8/20 - Jul8/20 - Mug9/23 - Aug9/23 -	und 6 - Abnormal		1	udd 3			
Apr6/20 Jul8/20 Jun13/23 Aug9/23	4	NJY	1	2			A .
		¥ V	4	k o		ma	M
	Aug12/19	Apr6/20	Jul8/20 In13/23	U	ug12/19	Jan6/20 -	lun 13/23 - Aug 9/23 -
	g12 Dct4	Apr6	Jul8/20 - Jun13/23 - Aua9/23 -	1	Jun 11/19 - Aug 12/19 - Oct4/19 -	Jan6/20 Apr6/20 Jul8/20	Jun 13/23 Aug 9/23
					2 CL		
	N. A.				Silicon (nnm)		
	Copper (ppm)			250	Silicon (ppm)		
	Copper (ppm)				132220000000000000		
	Copper (ppm)			200	Silicon (ppm)		
	Copper (ppm)			200	132220000000000000		
	Copper (ppm)	٨		200 <u>E</u> 150 100	132220000000000000	<u>с</u> 1 л.	
	Copper (ppm)	An	<u></u>	200	132220000000000000	h	
	Copper (ppm)			200 E 150 100 50			
	Copper (ppm)	Apr6/20	Jul8.20 + 2	200 E 150 100 50		Jan6/20 Apr6/20 Jul8/20	
	Copper (ppm)		Julii 200 - Dental Julii 200 - D	200 E 150 100 50	Aug12/19	Jan6/20 Apr6/20	L + + + + + + + + + + + + + + + + + + +
	Copper (ppm)		Jul8/20+>	200 § 150 100 50 0		Jan620 Apr6/20 Jul8/20	
	Copper (ppm)		Jun 13/20	200 § 150 100 50 0	Severe Subionitian 61/11/100 Base Number	Jan6/20 Apr6/20 Jul8/20	
	Copper (ppm)		2020-20 2020-2020-2020-2020 2020-2020-2	200 § 150 100 50 0	Aug12/19	Jan 6.20 An 6.20 Jul 8.20	
	Copper (ppm)		228iu 228iu 228iu 228iu 228iu 228iu	200 § 150 100 50 0	Severe Subionitian 61/11/100 Base Number	Jan6/20 Aor6/20 Jul8/20	
	Copper (ppm) Copper (ppm)		228JuL 228JuL 228JuL 228JuL 228JuL	200 § 150 100 50 0	Severe Subionitian 61/11/100 Base Number	Anti/20-	
	Copper (ppm) Copper (ppm) Abnomal Abnomal 61/1 un Viscosity @ 100° Abnomal Abnomal Base Abnomal Abnomal Abnomal Abnomal		Juß/20-7 Juni 3/23 Store Auders	200 Ed 150 50 0 (0)HO(S)0 100 50 0 0 0 0 0 0 0 0 0 0 0 0 0	Severe Subionitian 61/11/100 Base Number	Apr6/20-	
	Copper (ppm) Copper (ppm)	с		200 <u>u</u> 150 50 0 (0)HOJ bul 130 0 0 0 0 0 0 0 0 0 0 0 0 0	Base Number	M	Jun 13/23 5 Aug 9/23
	Copper (ppm) Copper (ppm)	с		200 <u>u</u> 150 50 0 (0)HOJ bul 130 0 0 0 0 0 0 0 0 0 0 0 0 0	Base Number	Jan6/20 - Dan6/20 - Dan6/2	Jun 13/23 5 Aug 9/23
	Copper (ppm) Copper (ppm) Severe	с		200 <u>u</u> 150 50 0 (0)HOJ bul 130 0 0 0 0 0 0 0 0 0 0 0 0 0	Base Number	M	Aug9/23
Laboratory	Copper (ppm) Copper (ppm)	C Ozigury	Jul8/20 Jun 13/23 Aur09/23	200 Ed 100 50 0 (0)(0)(0)(0)(0)(0)(0)(0)(0)(0)(0)(0)(0)(	Base Number	M	Jun13/23 + Aug9/23 + Aug9/24 +
Laboratory Sample No.	Copper (ppm) Copper (ppm)	C Ozigury	CZ8mr EZEDIN Son Ave., Ca	200 Ed 100 50 0 (0)(0)(0)(0)(0)(0)(0)(0)(0)(0)(0)(0)(0)(	Base Number	Jan 6/20 Apr 6/20 Juli8/20	EZIGBINY EZIGBINY EZIGBINY EZIGBINY EZIGBINY EZIGBINY EZIGBINY
Sample No. Lab Number	Copper (ppm) Copper (ppm) Co	C OZygo OZygo V V SO1 Madia	CZ80mr EZEUIN Soon Ave., Ca 2 : 20 I	200 50 50 50 50 0 50 0 50 0 50 0 50 0 50 0 0 50 0 0 50 0 0 50 0 0 0 0 0 0 0 0 0 0 0 0 0	Base Number	OZiguer DL NA Recips-	EZIE I UII EZIE I UII
Sample No. Lab Number Unique Number	Copper (ppm) Copper (ppm) Co	C OZgody 501 Madia Received	CZ00mr CZ00mr son Ave., Ca d : 20 f ed : 22 f	ry, NC 27513 Nov 2023	Base Number	OZgun OZgun DL NA Recips- TY POWER STATION, COUNTY	EZIE LIUN EZIE L
Sample No. Lab Number Unique Number Test Package	Copper (ppm) Copper (ppm) Co	C 501 Madia Received Diagnos Diagnost	con Ave., Ca d : 20 f ed : 22 f ician : Jon	ry, NC 27513 Nov 2023 athan Hester	Base Number	DL NA Recips- TY POWER STATION, COUNTY Contact: 5	EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELUN EZELEN EZELUN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZELEN EZ
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