

## **OIL ANALYSIS REPORT**



Sample Rating Trend





Recommendation

Contamination

Fluid Condition

Wear

oil.

Machine Id

Resample at the next service interval to monitor.

There is no indication of any contamination in the

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

All component wear rates are normal.

acceptable for the time in service.

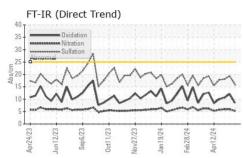
BRCM01BE (S/N GZJ00658) Biogas Engine

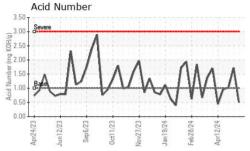
CHEVRON HDAX 9500 GAS ENGINE OIL 40 (--- GAL)

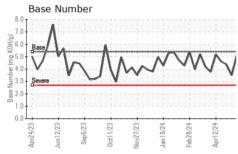
SAMPLE INFORM	<b>MATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0760844	WC0760828	WC0760825
Sample Date		Client Info		10 May 2024	03 May 2024	26 Apr 2024
Machine Age	hrs	Client Info		76572	76426	76204
Oil Age	hrs	Client Info		57	471	249
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	SEVERE	MARGINAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	<u>\</u> 4 0	<1.0	<1.0	<1.0
Water		WC Method	2 1.0	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS			line it /le e e e	-	-	
		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>14	<1	3	2
Chromium	ppm	ASTM D5185m	>3	0	0	<1
Nickel	ppm	ASTM D5185m		0	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	-	0	0	0
Aluminum	ppm	ASTM D5185m	>5	1	2	2
Lead	ppm	ASTM D5185m	>8	0	<1	<1
Copper	ppm	ASTM D5185m	>5	0	<1	<1
Tin	ppm	ASTM D5185m	>3	0	4	<b>A</b> 3
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	<1
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	7	7
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		10	6	6
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		14	27	24
Calcium	ppm	ASTM D5185m		1836	1931	1690
Phosphorus	ppm	ASTM D5185m		270	315	299
Zinc	ppm	ASTM D5185m		325	369	352
Sulfur	ppm	ASTM D5185m		2125	2743	2282
CONTAMINANTS	;	method	limit/base	current	history1	history2
	ppm	method ASTM D5185m	limit/base	current 56	history1	history2 138
Silicon						
Silicon Sodium	ppm	ASTM D5185m	>180	56	▲ 221	138
	ppm ppm	ASTM D5185m ASTM D5185m	>180 >20	56 2	▲ 221 2	138 0
Silicon Sodium Potassium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	>180 >20 >20	56 2 2	▲ 221 2 2	138 0 2
Silicon Sodium Potassium INFRA-RED	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method	>180 >20 >20	56 2 2 current	▲ 221 2 2 history1	138 0 2 history2
Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> *ASTM D7844	>180 >20 >20	56 2 2 current 0	▲ 221 2 2 history1 0	138 0 2 history2 0
Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> *ASTM D7844 *ASTM D7624	>180 >20 >20	56 2 2 current 0 5.3	▲ 221 2 2 history1 0 5.9	138 0 2 history2 0 5.9 18.1
Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> *ASTM D7844 *ASTM D7624 *ASTM D7415	>180 >20 >20 limit/base	56 2 2 current 0 5.3 16.0	▲ 221 2 2 history1 0 5.9 19.3	138 0 2 history2 0 5.9
Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA Oxidation	ppm ppm ppm % Abs/cm Abs/cm	ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415 method *ASTM D7414	>180 >20 >20 limit/base	56 2 2 current 0 5.3 16.0 current	▲ 221 2 2 history1 0 5.9 19.3 history1	138 0 2 history2 0 5.9 18.1 history2
Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415 method *ASTM D7414	>180 >20 >20 limit/base	56 2 2 current 0 5.3 16.0 current 8.5	▲ 221 2 2 history1 0 5.9 19.3 history1 12.1	138 0 2 history2 0 5.9 18.1 history2 10.6

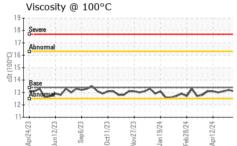


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VISUAL		method	limit/base	current	history1	history2
Yellow Metal	scalar scalar scalar	*Visual *Visual *Visual	NONE NONE	NONE NONE NONE	MODER NONE NONE	NONE NONE NONE
	scalar	*Visual	NONE	NONE	NONE	NONE
	scalar	*Visual	NONE	NONE	NONE	NONE
	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Ddor	scalar	*Visual	NORML	NORML	NORML	NORML
	scalar	*Visual		NEG	NEG	NEG
	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERTI		method	limit/base	current	history1	history2
	cSt	ASTM D445	13.4	13.1	13.2	13.1
GRAPHS Iron (ppm)				Lead (ppm)		
Tababa provincia a segura de la composición de		Dansaal	15	T1000000000000000		
Severe		(real rates)	10	Severe		
Abnormal			mdd	Abnormal	1~	
- MA	m	M.	5	N	N	M
un 12/23	1/23	3/24 -		Apr24/23 un12/23 Sep6/23	1/23	8/24
Apr24/23 Jun12/23 Sep6/23 Oct11/23	Nov27/23	Jan 19/24 Feb 28/24 Aor12/24	5	Apr24/23 Jun12/23 Sep6/23	Oct11/23 Nov27/23 Jan19/24	Feb28/24 Apr12/24
Aluminum (ppm)			r	Chromium (p	pm)	
Severe			4	Severe		
Abnormal A			_ 3	Abnormal		
Abnormal						
~M	sa	$\sim$	1			
						~
24/23 12/23 66/23	27/23	19/24 28/24	0	24/23	27/23	28/24
Apr24/23 Jun12/23 Sep6/23	Nov27/23	Jan 19/24 Feb28/24 Aor12/24	0	Apr24/23	0ct11/23	Feb28/24
Copper (ppm)	Nov27/23	Jan 19/24	400	Sep6/23	0ct11/23 Nov27/23	Feb28/24
E271 H200 Copper (ppm)	Nov27/23	Jan 19/24 Feb 28/24 Apri 2/24			0ct11/23	Feb28/24
Copper (ppm)	Nov27/23 -	Jan 19/24 + Feb28/24 + April 2/24 +	400		0dt11/23	Feb28/24
E271H20dy Copper (ppm)	Nov21/23	Jan 19/24	400		0ct11/23	Feb28/24
Copper (ppm)	Nov27/23	Feb28/24	400 300 	Silicon (ppm)	0dt11/23	MM
E214130		h	400 300 토 200 100	Silicon (ppm)	M	MM
Apr24/23 Jun12/23 Sep6/23 Cobber (bbw) Sep6/23 Oct11/23		Jan 19/24 - Jan 19/24 - Jan 19/24 - Feb 28/24 - Feb 28	400 300 토 200 100	Api24/23 Jun12/23 Sep6/23	0ct11/23 0ct11/23 0ct11/23 Nov27/23 Nov27/23 Jan19/24 0ct11/23	MM
EZIF204 Copper (ppm) Copper (ppm) EZIF204 EZIF204 EZIF204 Viscosity @ 100°C		h	400 300 夏200 100 ~ 0 80	Silicon (ppm)	M	MM
Copper (ppm) EZITIAN Copper (ppm) Copper (ppm) EZITIAN Copper (ppm) Copper (ppm)		h	400 300 夏200 100 ~ 0 80	Api24/23 Jun12/23 Sep6/23	M	MM
EZUFZION Copper (ppm) Copper (ppm) EZUFZION		h	400 300 夏200 100 ~ 0 80	Api24/23 Jun12/23 Sep6/23	M	MM
EZITIDO Copper (ppm) Severe Abnomal EZITIDO Copper (ppm) EZITIDO EZITIDO EZITIDO Viscosity @ 100°C		h	400 300 夏200 100 ~ 0 80	Api24/23 Jun12/23 Sep6/23	M	MM
EZUFZION Copper (ppm) Copper (ppm) EZUFZION		h	400 300 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Silicon (ppm)	M	MM
EZIHIPO EZI	CIT23-0V	h	400 300 Et 200 100 0 (b)(HOJ bul) 4.0 upquiny eeg 0.0	Silicon (ppm)	M	Feb28/24

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 **EDL NA Recips-Brown County** Sample No. : WC0760844 BROWN COUNTY POWER STATION, 9427 BEYERS RD Received : 14 May 2024 Lab Number : 06178990 Tested : 15 May 2024 GEORGETOWN, OH Unique Number : 11030316 Diagnosed : 16 May 2024 - Don Baldridge US 45121 Test Package : MOB 2 Contact: MITCHELL BUTLER Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. Mitchell.Butler@edlenergy.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T:

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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Submitted By: BRETT PONTIUS

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