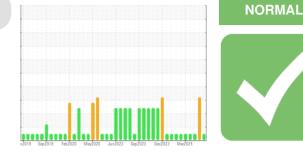


# **OIL ANALYSIS REPORT**



Sample Rating Trend



TAYM07BE (S/N 1256580) Biogas Engine

CHEVRON HDAX 9500 GAS ENGINE OIL 40 (200 GAL)

SAMPLE INFORMATION method limit/base

### DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

Area EDLTAY

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

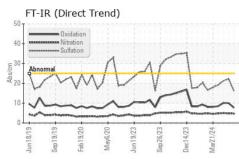
#### Fluid Condition

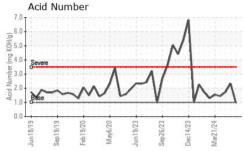
The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

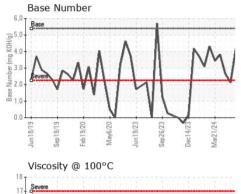
		method	IIIII/Dase	current	nistory i	nistoryz
Sample Number		Client Info		WC0901630	WC0901634	WC0901605
Sample Date		Client Info		25 Apr 2024	10 Apr 2024	03 Apr 2024
Machine Age	hrs	Client Info		112819	112819	112819
Oil Age	hrs	Client Info		144	835	667
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	SEVERE	NORMAL
			11 1. 11			
CONTAMINATION	N	method	limit/base	current	history1	history2
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method		NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>14	<1	4	<1
Chromium	ppm	ASTM D5185m	>3	0	2	<1
Nickel	ppm	ASTM D5185m		0	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>5	1	2	<1
Lead	ppm	ASTM D5185m	>6	0	2	0
Copper	ppm		>5	<1	1	<1
Tin	ppm		>6	0	4	2
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	<1	<1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		2	5	3
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		5	6	6
Calcium	ppm	ASTM D5185m		1806	1935	1751
Phosphorus	ppm	ASTM D5185m		249	274	237
Zinc	ppm	ASTM D5185m		292	331	292
Sulfur	ppm	ASTM D5185m		2454	4658	3386
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>180	3	13	11
Sodium	ppm	ASTM D5185m		2	3	4
Potassium	pp	no nin Borroom				
	ppm	ASTM D5185m	>20	<1	8	4
INFRA-RED			>20 limit/base	<1 current		4 history2
INFRA-RED Soot %		ASTM D5185m			8	
	ppm	ASTM D5185m method	limit/base	current	8 history1	history2
Soot %	ppm %	ASTM D5185m method *ASTM D7844	limit/base >2	current 0	8 history1 0	history2 0
Soot % Nitration	ppm % Abs/cm Abs/.1mm	ASTM D5185m method *ASTM D7844 *ASTM D7624	limit/base >2 >20	current 0 4.7	8 history1 0 4.8	history2 0 5.0
Soot % Nitration Sulfation	ppm % Abs/cm Abs/.1mm	ASTM D5185m method *ASTM D7844 *ASTM D7624 *ASTM D7415	limit/base >2 >20 >30	current 0 4.7 16.1	8 history1 0 4.8 22.2	history2 0 5.0 21.3
Soot % Nitration Sulfation FLUID DEGRADA Oxidation	ppm % Abs/cm Abs/.1mm TION	ASTM D5185m method *ASTM D7844 *ASTM D7624 *ASTM D7415 method	limit/base >2 >20 >30 limit/base	current 0 4.7 16.1 current	8 history1 0 4.8 22.2 history1	history2 0 5.0 21.3 history2
Soot % Nitration Sulfation FLUID DEGRADA	ppm % Abs/cm Abs/.1mm TION Abs/.1mm	ASTM D5185m method *ASTM D7844 *ASTM D7624 *ASTM D7415 method *ASTM D7414	limit/base >2 >20 >30 limit/base >15	current 0 4.7 16.1 current 7.7	8 history1 0 4.8 22.2 history1 10.0	history2 0 5.0 21.3 history2 10.1

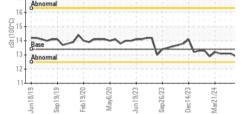


# **OIL ANALYSIS REPORT**

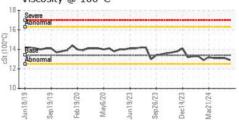


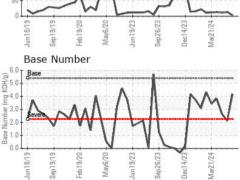






Copber (bbm)	VISUAL		method	limit/base	current	history1	history2
Precipitate scalar 'Visual NONE NONE NONE NONE NONE NONE Sitt scalar 'Visual NONE NONE NONE NONE NONE NONE NONE NON	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silt scalar Visual NONE NONE NONE NONE NONE NONE NONE Scalar Visual NONE NONE NONE NONE NONE NONE NONE NON	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Debris scalar *Visual NONE NONE NONE NONE NONE NONE Appearance scalar *Visual NORML	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt scalar Visual NONE NONE NONE NONE NONE NONE Appearance scalar Visual NORML	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance    scalar    *Visual    NORML    Normatin in i							
Odor  scalar  *Visual  NORML  NORML  NORML  NORML  NORML  NORML    Emulsified Water  scalar  *Visual  NEG  NEG  NEG  NEG    Free Water  scalar  *Visual  NEG  NEG  NEG  NEG    FLUID PROPERTIES  method  limit/base  current  history1  history2    Visc @ 100°C  cSt  ASTM D445  13.4  12.9  13.1  13.1    GRAPHS  Iron (ppm)					-		
Emulsified Water    scalar    *Visual    NEG    NEG    NEG    NEG      Free Water    scalar    *Visual    NEG    NEG    NEG    NEG      Fluil D PROPERTIES    method    limit/base    current    history1    history2      Visc @ 100°C    cSt    ASTM D445    13.4    12.9    13.1    13.1      GRAPHS      Iron (ppm)					-		
Free Water  scalar  *Visual  NEG  NEG  NEG    FLUID PROPERTIES  method  limit/base  current  history1  history2    Visc @ 100°C  cSt  ASTM D445  13.4  12.9  13.1  13.1    GRAPHS    Iron (ppm)  Image: Comparing the second of the				NORML	-		
FLUID PROPERTIES    method    limit/base    current    history1    history2      Visc @ 100°C    cSt    ASTM D445    13.4    12.9    13.1    13.1      GRAPHS    Image: State of the state o							
Visc @ 100°C cSt ASTM D445 13.4 12.9 13.1 13.1 $(CRAPHS)$							
GRAPHS Iron (ppm)							
Liron (ppm) Lead		cSt	ASTM D445	13.4	12.9	13.1	13.1
12      0      0      627172mW        0      0      627172mW      0      627172mW        0      0      627172mW      0      627172mW        0      0      627172mW      0      627172mW        0      0      0      0      0      0        0      0      0      0      0      0      0        0      0      0      0      0      0      0      0        0      <					Lood (nnm)		
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$ \frac{1}{1000} = $	· ~ ^	٨		E C	Abnormal		
$ \begin{array}{c} \begin{array}{c} \label{eq:constraint} \label{eq:constraint} \\ eq:constrain$		1					
$ \begin{array}{c} \label{eq:selection} \$	The second secon	5	MW	M		1	
Aluminum (ppm) 		9/23-	6/23 - 4/23 -	1.7/1		6/20	4/23
Severe Severe Severe Severe Copper Severe Copper Severe Copper Severe Copper Severe Severe Copper Severe Copper Severe Copper Severe Copper Severe Copper Severe Copper Severe Copper Severe Copper Severe Copper Severe Copper Severe Copper Severe Copper Severe	Jun1 Sep1 Feb1	lunt	Sep2 Dec1	IVIAI	Jun1 Sep1 Feb1	May Jun1 Sep2	Dec1 Mar2
servere Mark (2) 10 10 10 10 10 10 10 10 10 10						pm)	
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Aboo    Copper					4-		
2 2 4 4 5 5 4 5 5 5 5 5 5 5 5 5 5 5 5 5	0			dd			
E1/81/mu E1/81/	5 Abnormal	1	. 1		Δ	Λ.	MM
Copper (ppm) 5 5 5 5 5 5 5 5 5 5 5 5 5		~	<u>v</u> n	$\sim$			N.M.
Copper (ppm) 5 5 5 5 5 5 5 5 5 5 5 5 5	1/8/11 p19/2( b19/2(	n19/2:	p26/2: ec14/2:	all 2 1/ 2	p19/1	n19/21	sc14/2:
Severe	1880 (1887) (1887) (1887)	Ju	Se M			, .,	Mi.
Sep 19/18/10 Feb 19/20 Per phonomal Sep 2 b/21 Sep	Copper (ppm)		1300000000000	25		) 133355665555333	
Sep 19/19 Sep 26/23 Mark6/20 Mark6/20 Dec 14/23 Sep 26/23 Sep 26/23 Dec 14/23 Mark21/24 Feb 19/20 Feb 19/20 Feb 19/20 Mark21/24 Sep 26/23 Dec 14/23 Mark21/24 Ma	5 Severe			20	00 - Severe		
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Jun 18/19 Sep 19/19 May6/20 Jun 19/23 Sep 26/23 Sep 19/19 Feb 19/20 Mar/1/24 Feb 19/20 Mar/1/24 Mar/1/24 Mar/1/24 Mar/1/24 Mar/1/24 Mar/1/24 Mar/1/24 Sep 26/23 Sep 26/23 Mar/1/24	Abaamad			8-10	00	^	A
Jun18/19 Sep19/19 Feb19/20 Jun19/23 Sep26/23 Sep19/19/19 Feb19/20 Mar21/24 Feb19/20 Mar6/20 Mar6/20 Sep26/23 Sep26/23 Sep26/23 Sep26/23 Sep26/23	V~ W	1 -		9		11 .	1
			23		0 4 6L 6L 02	ZZ ZZ	24
	un18/ sep19/ <sup>c</sup> eb19//	un 19/.	Sep26/ Jec14//	/1 7 ID	lun18/ Sep19/	May6/ lun19/	)ec14/
	Viscosity @ 100°	100	0 1 2	4	Base Numbe	~ ~ ~	5 U





Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 **EDL NA Recips-Taylor County** Sample No. : WC0901630 Received : 26 Apr 2024 TAYLOR COUNTY POWER STATION, COUNTY ROAD 33 & STEWART ROAD Lab Number : 06161687 Tested : 29 Apr 2024 MAUK, GA Unique Number : 10997110 Diagnosed : 29 Apr 2024 - Sean Felton US 31058 Test Package : MOB 2 Contact: STEVEN BABB Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. steven.babb@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)

Report Id: ENEMAU [WUSCAR] 06161687 (Generated: 04/29/2024 13:36:25) Rev: 1

Submitted By: JASPEON WILLIAMS

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