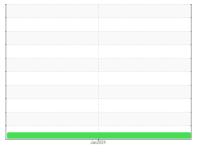


## **OIL ANALYSIS REPORT**

#### Sample Rating Trend







Propane Engine Fluid ENHANCE SYN BLAND 5W30 (--- GAL)

#### DIAGNOSIS

2140 Component

#### 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.

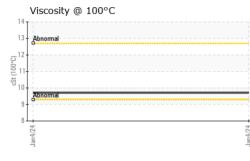
### Fluid Condition

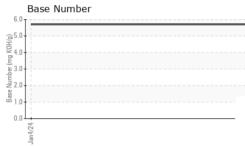
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sample NumberClient InfoVC0896023······Sample DateClient Info04 Jan 2024······Machine AgehrsClient Info5265······Oil AgehrsClient Info1······Oil Changed···Client InfoChanged······Sample StatusClient InfoNORMAL·········CONTAMINATIONmethodimit/basecurrenthistory1history2WareWC Methodsol.1NEG······CONTAMINATIONmethodimit/basecurrenthistory1history2IronppmASTM 05155sol.011······ChromiumppmASTM 05155sol.0·········NickelppmASTM 05155sol.0·········SilverppmASTM 05155sol.0·········JanadiumppmASTM 05155sol.0·········YandiumppmASTM 05155sol.0·········ASTM 05155sol.0···············ASTM 05155sol.0···············CorperppmASTM 05155sol.0············ASTM 05155·····················ASTM 05155··············	SAMPLE INFORM	NATION	method	limit/base	current	history1	history2
Sample Date         Image of the set of the	Sample Number		Client Info		WC0896023		
Machtine Age         hrs         Client Info         1             Oil Age         irs         Client Info         1             Oil Changed         Client Info         Changed             Sample Status         Imitebas         current         NoRMAL             CONTAMINATION         method         Imitebase         current         history1            Wear         WC Method         >0.1         NEG             Wear         method         Imitebase         current         history1            Kear METALS         method         Imitebase         current         history1            Nickel         ppm         ASTM D5185m         >25         <1             Silver         ppm         ASTM D5185m         >20         2             Aluminum         ppm         ASTM D5185m         >26         1             Copper         pm         ASTM D5185m         >26         1             Cadadium         ppm<			Client Info		04 Jan 2024		
Oil Changed Sample Status         Client Info         Changed NORMAL             CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.1         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >50         <1             Nickel         ppm         ASTM D5185m         >5         <1             Nickel         ppm         ASTM D5185m         >5         <1             Nickel         ppm         ASTM D5185m         >5         0             Silver         ppm         ASTM D5185m         >25         1             Cadmium         ppm         ASTM D5185m         >25         1             Cadmium         ppm         ASTM D5185m         >25         1             Cadmium         ppm         ASTM D5185m         >25         1 <th>Machine Age</th> <th>hrs</th> <th>Client Info</th> <th></th> <th>5265</th> <th></th> <th></th>	Machine Age	hrs	Client Info		5265		
Oil Changed Sample Status         Client Info         Changed NORMAL             CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.1         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >50         <1             Nickel         ppm         ASTM D5185m         >5         <1             Nickel         ppm         ASTM D5185m         >5         <1             Nickel         ppm         ASTM D5185m         >5         0             Silver         ppm         ASTM D5185m         >25         1             Cadmium         ppm         ASTM D5185m         >25         1             Cadmium         ppm         ASTM D5185m         >25         1             Cadmium         ppm         ASTM D5185m         >25         1 <th>Oil Age</th> <th>hrs</th> <th>Client Info</th> <th></th> <th>1</th> <th></th> <th></th>	Oil Age	hrs	Client Info		1		
CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.1         NEG             WEAR METALS         method         imit/base         current         history1         history2           Iron         ppm         ASTM D5165m         >100         11             Chromium         ppm         ASTM D5165m         >5         <1             Nickel         ppm         ASTM D5165m         >5         0             Nickel         ppm         ASTM D5165m         >5         0             Nickel         ppm         ASTM D5165m         >5         0             Aluminum         ppm         ASTM D5165m<>20         2             Copper         ppm         ASTM D5165m<>25         1             Cadmium         ppm         ASTM D5165m         <-1             Cadmium         ppm         ASTM D5165m         <1             Magnasium	-		Client Info		Changed		
Water         WC Method         >0.1         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D518m         >100         11             Chromium         ppm         ASTM D518m         >25         <1             Nickel         ppm         ASTM D518m         >5         <1             Silver         ppm         ASTM D518m         >5         0             Lead         ppm         ASTM D518m         >5         1             Copper         ppm         ASTM D518m         >25         1             Vanadium         ppm         ASTM D518m         >8         <1             Vanadium         ppm         ASTM D518m         <41             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D518m         51	Sample Status				NORMAL		
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM 05185m         >100         11             Chromium         ppm         ASTM 05185m         >25         <1             Nickel         ppm         ASTM 05185m         >5         <1             Silver         ppm         ASTM 05185m         >5         0             Lead         ppm         ASTM 05185m         >20         2             Copper         ppm         ASTM 05185m         >20         2             Lead         ppm         ASTM 05185m         >20         2             Copper         ppm         ASTM 05185m         >20         2             Cadmium         ppm         ASTM 05185m         >8         <1             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM 05185m         51        <	CONTAMINATION	N	method	limit/base	current	history1	history2
Iron         ppm         ASTM D5185m         >100         11             Chromium         ppm         ASTM D5185m         >25         <1             Nickel         ppm         ASTM D5185m         >5         <1             Silver         ppm         ASTM D5185m         >5         0             Aluminum         ppm         ASTM D5185m         >20         2             Lead         ppm         ASTM D5185m         >20         2             Copper         ppm         ASTM D5185m         >20         2             Vanadium         ppm         ASTM D5185m         >35         <1             ASTM D5185m         >8         <1	Water		WC Method	>0.1	NEG		
Chromium         ppm         ASTM D5185m         >25         <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel         ppm         ASTM D5185m         >5         <1             Titanium         ppm         ASTM D5185m         >5         0             Silver         ppm         ASTM D5185m         >5         0             Aluminum         ppm         ASTM D5185m         >20         2             Lead         ppm         ASTM D5185m         >25         1             Copper         ppm         ASTM D5185m         >35         <1	Iron	ppm	ASTM D5185m	>100	11		
Titanium         ppm         ASTM D5185m         <1             Silver         ppm         ASTM D5185m         >5         0             Aluminum         ppm         ASTM D5185m         >20         2             Lead         ppm         ASTM D5185m         >25         1             Copper         ppm         ASTM D5185m         >8         <1	Chromium	ppm	ASTM D5185m	>25	<1		
Silver         ppm         ASTM D5185m         >5         0             Aluminum         ppm         ASTM D5185m         >20         2             Lead         ppm         ASTM D5185m         >25         1             Copper         ppm         ASTM D5185m         >35         <1	Nickel	ppm	ASTM D5185m	>5	<1		
Atuminum         ppm         ASTM D5185m         >20         2             Lead         ppm         ASTM D5185m         >25         1             Copper         ppm         ASTM D5185m         >35         <1	Titanium	ppm	ASTM D5185m		<1		
Lead         ppm         ASTM D5185m         >25         1             Copper         ppm         ASTM D5185m         >35         <1	Silver	ppm	ASTM D5185m	>5	0		
Copper         ppm         ASTM D5185m         >35         <1             Tin         ppm         ASTM D5185m         >8         <1	Aluminum	ppm	ASTM D5185m	>20	2		
Tin         ppm         ASTM D5185m         >8         <1             Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         <11	Lead	ppm	ASTM D5185m	>25	1		
Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         <1             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         74             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         51             Magnesium         ppm         ASTM D5185m         S1             Magnesium         ppm         ASTM D5185m         S1             Magnesium         ppm         ASTM D5185m         S1             Magnesium         ppm         ASTM D5185m         S20             Calcium         ppm         ASTM D5185m         520             Sulfur         ppm         ASTM D5185m         520             Sulfur         ppm         ASTM D5185m         50         8	Copper	ppm	ASTM D5185m	>35	<1		
Cadmium         ppm         ASTM D5185m         <1             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         74             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         51             Manganese         ppm         ASTM D5185m         51             Magnesium         ppm         ASTM D5185m         381             Calcium         ppm         ASTM D5185m         520             Calcium         ppm         ASTM D5185m         520             Sulfur         ppm         ASTM D5185m         520             Sulfur         ppm         ASTM D5185m         >50         8             Sodium         ppm         ASTM D5185m         >20         2             Sodium         ppm         ASTM D5185m         >20	Tin	ppm	ASTM D5185m	>8	<1		
ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m74BariumppmASTM D5185m0MolybdenumppmASTM D5185m51ManganeseppmASTM D5185m51MagnesiumppmASTM D5185m381CalciumppmASTM D5185m520PhosphorusppmASTM D5185m520ZincppmASTM D5185m657SulfurppmASTM D5185m2156SulfurppmASTM D5185m2156SodiumppmASTM D5185m0PotassiumppmASTM D5185m202SodiumppmASTM D5185m>202INFRA-REDmethodlimit/basecurrenthistory1history2Soot %%'ASTM D76440NitrationAbs/cm'ASTM D7645>3013.0SulfationAbs/.tmm'ASTM D7415>3013.0Currenthistory1history2///////////////////////////////	Vanadium	ppm	ASTM D5185m		0		
Boron         ppm         ASTM D5185m         74             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         51             Manganese         ppm         ASTM D5185m         51             Magnesium         ppm         ASTM D5185m         381             Magnesium         ppm         ASTM D5185m         381             Calcium         ppm         ASTM D5185m         381             Calcium         ppm         ASTM D5185m         520             Zinc         ppm         ASTM D5185m         520             Sulfur         ppm         ASTM D5185m         520             Sulfur         ppm         ASTM D5185m         50         8             Sodium         ppm         ASTM D5185m         >20         2             INFRA-RED         method         Imit/base         current         hist	Cadmium	ppm	ASTM D5185m		<1		
Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         51             Manganese         ppm         ASTM D5185m         <1             Magnesium         ppm         ASTM D5185m         <1             Magnesium         ppm         ASTM D5185m         381             Calcium         ppm         ASTM D5185m         381             Calcium         ppm         ASTM D5185m         520             Zinc         ppm         ASTM D5185m         520             Sulfur         ppm         ASTM D5185m         520             Sulfur         ppm         ASTM D5185m         2156             Sodium         ppm         ASTM D5185m         >50         8             Sodium         ppm         ASTM D5185m         >20         2             INFRA-RED         method         limit/base         c	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         51             Manganese         ppm         ASTM D5185m         <1	Boron	ppm	ASTM D5185m		74		
Manganese         ppm         ASTM D5185m         <1             Magnesium         ppm         ASTM D5185m         381              Calcium         ppm         ASTM D5185m         1073              Phosphorus         ppm         ASTM D5185m         520              Zinc         ppm         ASTM D5185m         520              Sulfur         ppm         ASTM D5185m         657              Sulfur         ppm         ASTM D5185m         657              Sulfur         ppm         ASTM D5185m         2156              Solicon         ppm         ASTM D5185m         >50         8              Sodium         ppm         ASTM D5185m         >20         2             Potassium         ppm         ASTM D784         0             Nitration         Abs/.mm         *ASTM D7624         >2	Barium	ppm	ASTM D5185m		0		
Magnesium         ppm         ASTM D5185m         381             Calcium         ppm         ASTM D5185m         1073             Phosphorus         ppm         ASTM D5185m         520             Zinc         ppm         ASTM D5185m         520             Sulfur         ppm         ASTM D5185m         657             Sulfur         ppm         ASTM D5185m         657             Sulfur         ppm         ASTM D5185m         2156             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >50         8             Sodium         ppm         ASTM D5185m         >20         2             Potassium         ppm         ASTM D784         0             Nitration         Abs/cm         *ASTM D784         0             Soot %         %         *ASTM D7624         >20 <td>Molybdenum</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <th>51</th> <td></td> <td></td>	Molybdenum	ppm	ASTM D5185m		51		
Calcium         ppm         ASTM D5185m         1073             Phosphorus         ppm         ASTM D5185m         520             Zinc         ppm         ASTM D5185m         657             Sulfur         ppm         ASTM D5185m         2156             Soliton         ppm         ASTM D5185m         >50         8             Soliton         ppm         ASTM D5185m         >20         2             NFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         O             Nitration         Abs/cm         *ASTM D7415         >30         13.0 <th< td=""><td>Manganese</td><td>ppm</td><td>ASTM D5185m</td><td></td><th>&lt;1</th><td></td><td></td></th<>	Manganese	ppm	ASTM D5185m		<1		
Phosphorus         ppm         ASTM D5185m         520             Zinc         ppm         ASTM D5185m         657             Sulfur         ppm         ASTM D5185m         2156             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >50         8             Sodium         ppm         ASTM D5185m         >50         8             Sodium         ppm         ASTM D5185m         >50         8             Potassium         ppm         ASTM D5185m         >20         2             NFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0             Nitration         Abs/cm         *ASTM D7415         >30         13.0             FLUID DEGRADATION         Method         limit/base         current         history1         histor	Magnesium	ppm	ASTM D5185m		381		
Zinc         ppm         ASTM D5185m         657             Sulfur         ppm         ASTM D5185m         2156             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >50         8             Sodium         ppm         ASTM D5185m         >50         8             Sodium         ppm         ASTM D5185m         >50         8             Potassium         ppm         ASTM D5185m         >20         2             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7624         >20         4.1             Nitration         Abs/cm         *ASTM D7624         >20         4.1             Sulfation         Abs/.1mm         *ASTM D7624         >20         13.0             FLUID DEGRADATION         method         limit/base         current <td< td=""><td>Calcium</td><td>ppm</td><td>ASTM D5185m</td><td></td><th>1073</th><td></td><td></td></td<>	Calcium	ppm	ASTM D5185m		1073		
SulfurppmASTM D5185m2156CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>508SodiumppmASTM D5185m0PotassiumppmASTM D5185m>202INFRA-REDmethodlimit/basecurrenthistory1history2Soot %%*ASTM D78440NitrationAbs/cm*ASTM D7624>204.1SulfationAbs/lm*ASTM D7415>3013.0FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2OxidationAbs/.1mm*ASTM D7414>255.7	Phosphorus	ppm	ASTM D5185m		520		
CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>508SodiumppmASTM D5185m0PotassiumppmASTM D5185m>202INFRA-REDmethodlimit/basecurrenthistory1history2Soot %%*ASTM D78440NitrationAbs/cm*ASTM D7624>204.1SulfationAbs/lmm*ASTM D7415>3013.0FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2OxidationAbs/lmm*ASTM D7414>255.7	Zinc	ppm	ASTM D5185m		657		
Silicon         ppm         ASTM D5185m         >50         8             Sodium         ppm         ASTM D5185m         0              Potassium         ppm         ASTM D5185m         >20         2             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7624         >20         4.1             Nitration         Abs/cm         *ASTM D7624         >20         4.1             Sulfation         Abs/.1mm         *ASTM D7624         >20         4.1             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7614         >20         5.7	Sulfur	ppm	ASTM D5185m		2156		
Sodium         ppm         ASTM D5185m         0             Potassium         ppm         ASTM D5185m         >20         2             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0             Nitration         Abs/cm         *ASTM D7624         >20         4.1             Sulfation         Abs/.1mm         *ASTM D7415         >30         13.0             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         5.7	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         2             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0             Nitration         Abs/cm         *ASTM D7624         >20         4.1             Sulfation         Abs/.1mm         *ASTM D7415         >30         13.0             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         5.7	Silicon	ppm	ASTM D5185m	>50	8		
INFRA-REDmethodlimit/basecurrenthistory1history2Soot %%*ASTM D78440NitrationAbs/cm*ASTM D7624>204.1SulfationAbs/.1mm*ASTM D7415>3013.0FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2OxidationAbs/.1mm*ASTM D7414>255.7	Sodium	ppm	ASTM D5185m		0		
Soot %         %         *ASTM D7844         0             Nitration         Abs/cm         *ASTM D7624         >20         4.1             Sulfation         Abs/.1mm         *ASTM D7415         >30         13.0             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         5.7	Potassium	ppm	ASTM D5185m	>20	2		
Nitration         Abs/cm         *ASTM D7624         >20         4.1             Sulfation         Abs/.1mm         *ASTM D7415         >30         13.0             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         5.7	INFRA-RED		method	limit/base	current	history1	history2
Sulfation         Abs/.1mm         *ASTM D7415         >30         13.0             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         5.7	Soot %	%	*ASTM D7844		0		
FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.1mm     *ASTM D7414     >25     5.7	Nitration	Abs/cm	*ASTM D7624	>20	4.1		
Oxidation         Abs/.1mm         *ASTM D7414         >25         5.7	Sulfation	Abs/.1mm	*ASTM D7415	>30	13.0		
	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Base Number (BN)         mg KOH/g         ASTM D2896         5.7	Oxidation	Abs/.1mm	*ASTM D7414	>25	5.7		



# **OIL ANALYSIS REPORT**





VISUAL		method	limit/base	e current	history1	history2
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water Free Water	scalar	*Visual	>0.1	NEG		
	scalar	*Visual		NEG		
FLUID PROPERT	IES	method	limit/base	e current	history1	history2
Visc @ 100°C	cSt	ASTM D445		9.7		
GRAPHS						
Ferrous Alloys						
iron						
nickel						
8-						
6-						
4-						
2-						
0						
Jan4/24			Jan4/24 -			
Jan			Jan			
Non-ferrous Metals	5					
10 copper						
8 - Incommission lead						
6-						
4-						
2						
0 <sup>45</sup>			/24			
Jan 4/24			Jan4/24			
Viscosity @ 100°C				Base Number		
14 T				6.0 T		
13 Abnormal				5.0-		
12			KOH/6	4.0		
12			r (mg KOH/ç	4.0		
11-			umber (mg KOH(s	4.0		
11-			Jase Number (mg KOH/g	4.0		
11-			Base Number (mg KOH(	4.0 - 3.0 - 2.0 -		
11- 10- Abnormal			Jan4/24 Base Number (mg KOH/	4.0 3.0 2.0 1.0 0.0 E E E E E		Jan4,24



Unique Number : 10821225 Diagnostician : Jonathan Hester Test Package : CONST Contact: BYRON CHAPUIS Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. BYRON@FORKLIFTSELECT.COM \* - 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)

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

: 09 Jan 2024

: 10 Jan 2024

Recieved

Diagnosed

Laboratory Sample No.

Lab Number

: WC0896023

: 06055276

FORKLIFT SELECT

DENVER, CO

US 80239

Т:

F:

12875 E 42ND AVE, SUITE 50