

### **FUEL REPORT**

# SIS 24 - 4818 TITAN ROBERTS RD

Diesel Fuel

{not provided} (--- GAL)

#### DIAGNOSIS

#### Recommendation

Recommend pre-filtering before use. All laboratory tests indicate that this sample meets specifications for No.2 ultra-low-sulfur diesel fuel.

#### Corrosion

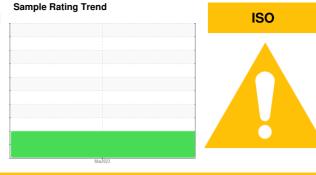
All metal levels are normal indicating no corrosion in the system.

#### Contaminants

There is a high amount of particulates present in the fuel. There is no bacteria or fungus (yeast and/or mold) indicated in the sample. The water content is negligible.

#### **Fuel Condition**

Sulfur value derived by ASTM D5453 method for ULSD validation. Sulfur level is acceptable for ULSD specification.



Sample Number    Client Info    WC0798112        Sample Date    Client Info    08 Mar 2023        Sample Status    Client Info    0        PHYSICAL PROPERTIES    method    limit/base    current    history1    history2      Specific Gravity    'ASTM D1289    0.842        Specific Gravity    'ASTM D1500    L3.5        SULF QAO"C    cst    ASTM D445    2.46        SULFUR CONTENT    method    limit/base    current    history1    history2      Sufur    ppm    ASTM D5453    0         DISTILLATION    method    limit/base    current    history1    history2      Sivifur (UVF)    ppm    ASTM D5453    0         DISTILLATION    method    limit/base    current    history1    history2      Sivisisiliation Point    CC	SAMPLE INFORM		method	limit/base	current	history1	history2
Sample Date    Client Info    08 Mar 2023        Adchine Age    hrs    Client Info    0        PHYSICAL PROPERTIES    method    limit/base    current    history1    history2      Specific Gravity    'ASTM D128    0.842        Specific Gravity    'ASTM D128    Orang        Specific Gravity    'ASTM D150    L3.5        Stored Qo°C    oSt    ASTM D445    2.466        SULFUR CONTENT    method    limit/base    current    history1    history2      Sulfur    ppm    ASTM D5185m    0         DISTILLATION    method    limit/base    current    history1    history2      Sulfur (UVF)    ppm    ASTM D5185m    0        DiStillAboin    C    ASTM D86    201        Sulfur (UVF)    ppm    ASTM D86    21							
Adachine Age Sample Status    hrs    Client Info    0        PHYSICAL PROPERTIES    method    limit/base    current    history1    history2      Specific Gravity    'ASTM D1288    0.842         Systep Color    text    'Visual Screen    Orang        STM Color    scalar    'ASTM D1288    0.842        SYSTM Color    scalar    'ASTM D1028    0.842        SYSTM Color    scalar    'ASTM D1028    0.842        SULFUR CONTENT    method    limit/base    current    history1    history2      Sulfur (UVF)    pm    ASTM D1858    0         DISTILLATION    method    limit/base    current    history1    history2      Nišo bisiliation Point    °C    ASTM D86    201        Sys Distiliation Point    °C    ASTM D86    210     <	•						
Sample Status    ABNORMAL        PHYSICAL PROPERTIES    method    limit/base    current    history1    history2      Specific Gravity    'ASTM D1286    0.842        Specific Gravity    'Visual Screen    Orang        SSTM Color    scalar    'ASTM D1500    L3.5        Sife Q 40°C    CST    ASTM D160    L3.5        SULFUR CONTENT    method    limit/base    current    history1    history2      Sulfur (UVF)    ppm    ASTM D5185m    0        DISTILLATION    method    limit/base    current    history1    history2      O'S bistill Point    °C    ASTM D86    105        D/S bistillation Point    °C    ASTM D86    210        O'S bistill Point    °C    ASTM D86    217        O'S bistill Point    °C    ASTM D86    217 <td></td> <td>hrs</td> <td></td> <td></td> <td></td> <td></td> <td></td>		hrs					
PHYSICAL PROPERTIES  method  limit/base  current  history1  history2    Specific Gravity  'ASTM D1288  0.842      Sulf Color  scalar  'ASTM D1500  L3.5      Stor Q 40°C  oct  ASTM D1500  L3.5      Sulf Q 0°C  oct  ASTM D1500  L3.5      SULFUR CONTENT  method  limit/base  current  history1  history2    Sulfur  ppm  ASTM D5185m  0      DISTILLATION  method  limit/base  current  history1  history2    Swlfur  (VF)  ppm  ASTM D565  165      DISTILLATION  method  limit/base  current  history1  history2    Swlfur  O         DISTILLATION  method  limit/base  current  history1  history2    Swlfur  Ppm  ASTM D86  2010	0	1115			-		
Specific Gravity    'ASTM D1288    0.842        Sulf Color    scalar    'ASTM D1500    L3.5        SSTM Color    scalar    'ASTM D445    2.46        Sulfur    ps    'PINCC Cadulated    59        SULFUR CONTENT    method    limit/base    current    history1    history2      Sulfur    ppm    ASTM D5165m    0         DISTILLATION    method    limit/base    current    history1    history2      Nifur    ppm    ASTM D86    165        DISTILLATION    method    limit/base    current    history1    history2      Nifui Boint    °C    ASTM D86    201         10% Distill Point    °C    ASTM D86    210         10% Distill Point    °C    ASTM D86    232	-						
Tuel Color    text    Visual Screen    Orang        SSTM Color    scalar    'ASTM D1500    L3.5        Mise @ 40°C    CSt    ASTM D445    2.46        SULFUR CONTENT    method    limit/base    current    history1    history2      Sulfur    ppm    ASTM D5453    0        DISTILLATION    method    limit/base    current    history1    history2      More Distill Point    °C    ASTM D86    165        More Distill Point    °C    ASTM D86    190        More Distill Point    °C    ASTM D86    210        More Distill Point    °C    ASTM D86    232        More Distill Point    °C    ASTM D86    232        More Distill Point    °C    ASTM D86    232        More Distill Point    °C<	PHYSICAL PROP	ERTIES	method	limit/base	current	history1	history2
ASTM Color    scalar    *ASTM D1500    L3.5 <i>Aisc @ 40°C</i> CSt    ASTM D445    2.46        SULFUR CONTENT    method    limit/base    current    history1    history2      SULFUR CONTENT    method    limit/base    current    history1    history2      Sulfur (UVF)    ppm    ASTM D5855    0        DISTILLATION    method    limit/base    current    history1    history2      pital Boiling Point    °C    ASTM D86    190        0% Distillation Point    °C    ASTM D86    201        20% Distill Point    °C    ASTM D86    217        20% Distill Point    °C    ASTM D86    232        20% Distill Point    °C    ASTM D86    247        20% Distill Point    °C    ASTM D86    291        20% Di	Specific Gravity		*ASTM D1298		0.842		
Visc @ 40°C    CSt    ASTM D445    2.46        SULFUR CONTENT    method    limit/base    current    history1    history2      Sulfur    ppm    ASTM D5185m    0        DISTILLATION    method    limit/base    current    history1    history2      Distill Point    °C    ASTM D5453    10        DISTILLATION    method    limit/base    current    history1    history2      Distill Point    °C    ASTM D86    190        0% Distill Point    °C    ASTM D86    201        0% Distill Point    °C    ASTM D86    217        0% Distill Point    °C    ASTM D86    247        0% Distill Point    °C    ASTM D86    291        0% Distill Point    °C    ASTM D86    291        0% Distill Point    °C	Fuel Color	text	*Visual Screen		Orang		
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Sulfur    ppm    ASTM D5185m    0        Sulfur (UVF)    ppm    ASTM D5453    10        DISTILLATION    method    limit/base    current    history1    history2      nitial Boiling Point    °C    ASTM D86    165        0% Distillation Point    °C    ASTM D86    201        0% Distillation Point    °C    ASTM D86    201        0% Distill Point    °C    ASTM D86    217        0% Distill Point    °C    ASTM D86    232        0% Distill Point    °C    ASTM D86    247        0% Distill Point    °C    ASTM D86    2191        0% Distill Point    °C    ASTM D86    2191        0% Distill Point    °C    ASTM D86    317        0% Distill Point    °	Pensky-Martens Flash Point	°C	*PMCC Calculated		59		
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DISTILLATIONmethodlimit/basecurrenthistory1history2nitial Boiling Point°CASTM D861656% Distillation Point°CASTM D8619010% Distill Point°CASTM D8620115% Distillation Point°CASTM D8621020% Distill Point°CASTM D8621120% Distill Point°CASTM D8623220% Distill Point°CASTM D8624720% Distill Point°CASTM D8626120% Distill Point°CASTM D8627620% Distill Point°CASTM D8629120% Distill Point°CASTM D8630820% Distill Point°CASTM D8631720% Distill Point°CASTM D8634320% Distillation Point°CASTM D8635120% Distillation Point°CASTM D8635120% Distillation Residue%ASTM D860.620stillation Loss%ASTM D860.620stillation Loss%ASTM D77736.620stillation Loss%ASTM D77736.620stil	Sulfur	ppm	ASTM D5185m		0		
Initial Boiling Point    °C    ASTM D86    165        3% Distillation Point    °C    ASTM D86    190        10% Distill Point    °C    ASTM D86    201        15% Distillation Point    °C    ASTM D86    210        20% Distill Point    °C    ASTM D86    217        20% Distill Point    °C    ASTM D86    232        20% Distill Point    °C    ASTM D86    247        20% Distill Point    °C    ASTM D86    261        20% Distill Point    °C    ASTM D86    291        20% Distill Point    °C    ASTM D86    308        20% Distill Point    °C    ASTM D86    343        20% Distill Point    °C    ASTM D86    351        2011    °C	Sulfur (UVF)	ppm	ASTM D5453		10		
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70% Distill Point    °C    ASTM D86    291        80% Distill Point    °C    ASTM D86    308        85% Distillation Point    °C    ASTM D86    317        90% Distill Point    °C    ASTM D86    328        90% Distillation Point    °C    ASTM D86    343        95% Distillation Point    °C    ASTM D86    351        95% Distillation Residue    %    ASTM D86    351        Distillation Loss    %    ASTM D86    0.6        IGNITION QUALITY    method    limit/base    current    history1    history2      API Gravity    ASTM D1777    36.6         CONTAMINANTS    method    limit/base    current    history1    history2      Silicon    ppm    ASTM D5185m    <0.1	50% Distill Point	°C	ASTM D86		261		
Book    Distill Point    °C    ASTM D86    308        85% Distillation Point    °C    ASTM D86    317        90% Distill Point    °C    ASTM D86    328        90% Distill Point    °C    ASTM D86    343        95% Distillation Point    °C    ASTM D86    351        55% Distillation Point    °C    ASTM D86    351        Distillation Residue    %    ASTM D86    0.6        Distillation Loss    %    ASTM D86    0.6        IGNITION QUALITY    method    limit/base    current    history1    history2      API Gravity    ASTM D4737    <40.0	60% Distill Point	°C	ASTM D86		276		
ASTM Distillation Point°CASTM D8631720% Distill Point°CASTM D8632825% Distillation Point°CASTM D8634325% Distillation Point°CASTM D8635125% Distillation Residue%ASTM D86351Distillation Residue%ASTM D860.6Distillation Loss%ASTM D860.6IGNITION QUALITYmethodlimit/basecurrenthistory1history2API GravityASTM D777736.6CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m<	70% Distill Point	°C	ASTM D86		291		
00% Distill Point°CASTM D8632805% Distillation Point°CASTM D86343Final Boiling Point°CASTM D86351Distillation Residue%ASTM D860.6Distillation Loss%ASTM D860.6IGNITION QUALITYmethodlimit/basecurrenthistory1history2API GravityASTM D77736.6Cetane IndexASTM D4737<40.0	80% Distill Point	°C	ASTM D86		308		
35% Distillation Point°CASTM D86343Final Boiling Point°CASTM D86351Distillation Residue%ASTM D861.4Distillation Loss%ASTM D860.6IGNITION QUALITYmethodlimit/basecurrenthistory1history2API GravityASTM D777736.6Cetane IndexASTM D4737<40.0	85% Distillation Point	°C	ASTM D86		317		
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Distillation Loss%ASTM D860.6IGNITION QUALITYmethodlimit/basecurrenthistory1history2API GravityASTM D777736.6Cetane IndexASTM D4737<40.0	Final Boiling Point	°C	ASTM D86		351		
IGNITION QUALITYmethodlimit/basecurrenthistory1history2API GravityASTM D777736.6Cetane IndexASTM D4737<40.0	Distillation Residue	%	ASTM D86		1.4		
API Gravity    ASTM D7777    36.6        Cetane Index    ASTM D4737    <40.0	Distillation Loss	%	ASTM D86		0.6		
Cetane Index    ASTM D4737    <40.0	IGNITION QUALIT	ΓY	method	limit/base	current	history1	history2
Cetane Index    ASTM D4737    <40.0    47.9        CONTAMINANTS    method    limit/base    current    history1    history2      Silicon    ppm    ASTM D5185m    <1.0    0        Sodium    ppm    ASTM D5185m    <0.1    0        Potassium    ppm    ASTM D5185m    <0.1    0        Vater    %    ASTM D6304    <0.05    0.004        %    Gasoline    %    *In-House    <0.50    0.0	API Gravity		ASTM D7777		36.6		
Solicon    ppm    ASTM D5185m    <1.0    0        Sodium    ppm    ASTM D5185m    <0.1	Cetane Index			<40.0			
Solicon    ppm    ASTM D5185m    <1.0    0        Sodium    ppm    ASTM D5185m    <0.1	CONTAMINANTS		method	limit/base	current	history1	history2
Sodium    ppm    ASTM D5185m    <0.1    0        Potassium    ppm    ASTM D5185m    <0.1	Silicon						
Potassium    ppm    ASTM D5185m    <0.1    0        Vater    %    ASTM D6304    <0.05    0.004        opm Water    ppm    ASTM D6304    <500    40.5        % Gasoline    %    *In-House    <0.50    0.0	Sodium						
Water    %    ASTM D6304    <0.05    0.004        oppm Water    ppm    ASTM D6304    <500							
opm Water    ppm    ASTM D6304    <500    40.5        % Gasoline    %    *In-House    <0.50    0.0	Water						
% Gasoline % *In-House <0.50 0.0	ppm Water						
	% Gasoline						
	% Biodiesel	%	*In-House	<20.0	1.9		



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number of particles (per 1

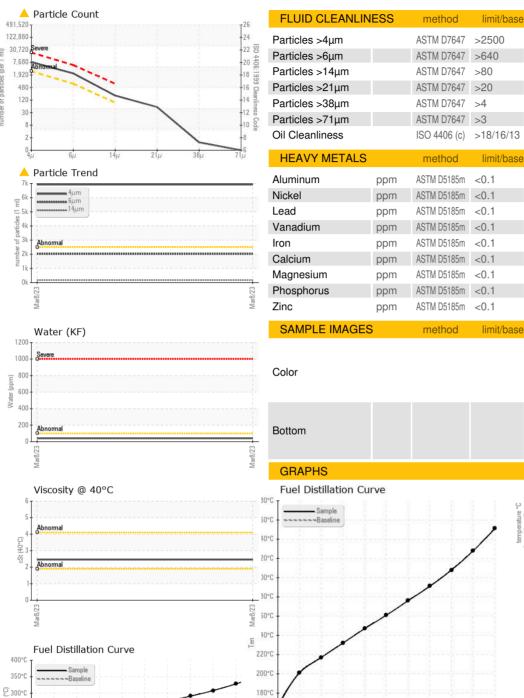
250°0

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150°

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## FUEL REPORT



>2500 6922 2018 175 ▲ 49 1 0 >18/16/13 🔺 20/18/15 history2 limit/base current historv1 0 0 0 0 0 0 0 0 0

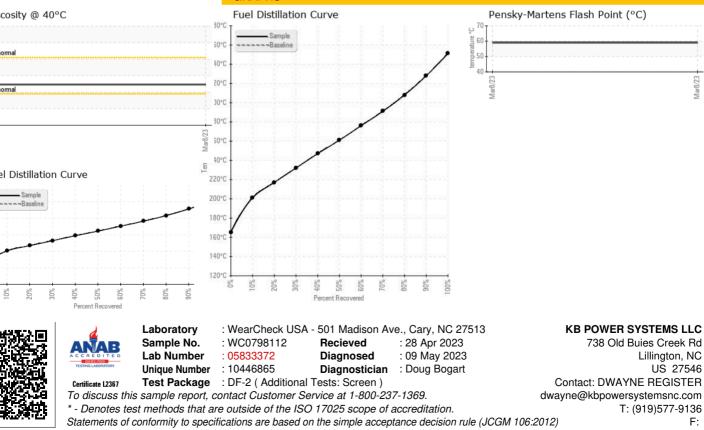




history1

current

history2



Contact/Location: DWAYNE REGISTER - KBPHOL