

### **FUEL REPORT**

#### Sample Rating Trend

ISO

# ASCENT RM 2

Component Diesel Fuel Fluid DIESEL FUEL No. 1 (--- GAL)

#### DIAGNOSIS

#### A Recommendation

We advise that you filter this fluid before use. All laboratory tests indicate that this sample meets specifications for No.2 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. The water content is negligible. There is no bacteria or fungus (yeast and/or mold) indicated in the sample.

#### **Fuel Condition**

Sulfur value derived by ASTM D5453 method for ULSD validation.

				Sep2023		
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0798124		
Sample Date		Client Info		28 Sep 2023		
Machine Age	hrs	Client Info		0		
Sample Status				ATTENTION		
PHYSICAL PROP	ERTIES	method	limit/base	current	history1	history2
Specific Gravity		*ASTM D1298		0.845		
Fuel Color	text	*Visual Screen		Red		
ASTM Color	scalar	*ASTM D1500		L4.0		
Visc @ 40°C	cSt	ASTM D445	2.4	2.57		
Pensky-Martens Flash Point	°C	*PMCC Calculated		58		
SULFUR CONTER	NT	method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m		342		
Sulfur (UVF)	ppm	ASTM D5453		287		
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86		162		
5% Distillation Point	°C	ASTM D86		191		
10% Distill Point	°C	ASTM D86		202		
15% Distillation Point	°C	ASTM D86		212		
20% Distill Point	°C	ASTM D86		220		
30% Distill Point	°C	ASTM D86		235		
40% Distill Point	°C	ASTM D86		249		
50% Distill Point	°C	ASTM D86		263		
60% Distill Point	°C	ASTM D86		278		
70% Distill Point	°C	ASTM D86		293		
80% Distill Point	°C	ASTM D86		309		
85% Distillation Point	°C	ASTM D86		318		
90% Distill Point	°C	ASTM D86		328		
95% Distillation Point	°C	ASTM D86		342		
Final Boiling Point	°C	ASTM D86		351		
Distillation Residue	%	ASTM D86		1.4		
Distillation Loss	%	ASTM D86		0.5		
IGNITION QUALIT	Y	method	limit/base	current	history1	history2
API Gravity		ASTM D7777		36.0		
Cetane Index		ASTM D4737	<40.0	47.0		
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		
Water	%	ASTM D6304	<0.05	0.003		
ppm Water	ppm	ASTM D6304	<500	29.2		
% Gasoline	%	*In-House	<0.50	0.0		
% Biodiesel	%	*In-House	<20.0	3.3		



Viscosity @ 40°C

Viscosity @ 40°C

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cSt (40°C) Abno ma

> 0 Sep28/23.

cSt (40°C) Abr

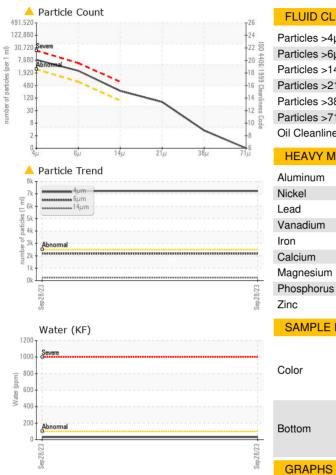
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Abnorma

Abnorma

## **FUEL REPORT**



Particles >4µm Particles >6µm Particles >14µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm Oil Cleanliness HEAVY METALS Aluminum Nickel Lead Vanadium Iron Calcium Magnesium Phosphorus Zinc SAMPLE IMAGES Color	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ISO 4406 (c) <b>method</b> ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>640 >80 >20 >4 >3 >18/16/13 imit/bas <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	Current           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           3           4           0	        	        
Particles >14µm Particles >21µm Particles >38µm Particles >38µm Oil Cleanliness HEAVY METALS Aluminum Nickel Lead Vanadium Iron Calcium Magnesium Phosphorus Zinc SAMPLE IMAGES Color	ppm ppm ppm ppm ppm ppm ppm	ASTM D7647 ASTM D7647 ASTM D7647 ISO 4406 (c) <b>method</b> ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>80 >20 >4 >3 >18/16/13 limit/base <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	<ul> <li>▲ 234</li> <li>▲ 69</li> <li>3</li> <li>0</li> <li>20/18/15</li> <li>Se current</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>3</li> <li>4</li> <li>0</li> </ul>	  history1        history1	   history2        history2
Particles >21µm Particles >38µm Particles >38µm Oil Cleanliness HEAVY METALS Aluminum Nickel Lead Vanadium Iron Calcium Magnesium Phosphorus Zinc SAMPLE IMAGES Color	ppm ppm ppm ppm ppm ppm ppm	ASTM D7647 ASTM D7647 ISO 4406 (c) <b>method</b> ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >4 >3 >18/16/13 limit/bas <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	<ul> <li>▲ 69</li> <li>3</li> <li>0</li> <li>20/18/15</li> <li>○ current</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>3</li> <li>4</li> <li>0</li> </ul>	  history1        history1	   history2        history2
Particles >38µm Particles >71µm Oil Cleanliness HEAVY METALS Aluminum Nickel Lead Vanadium Iron Calcium Magnesium Phosphorus Zinc SAMPLE IMAGES Color	ppm ppm ppm ppm ppm ppm ppm	ASTM D7647 ASTM D7647 ISO 4406 (c) ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>4 >3 >18/16/13 limit/bas<0.1	3 0 20/18/15 3 ▲ 20/18/15 50 Current 0 0 0 0 0 0 0 0 0 0 0 3 4 0	  history1          history1	 history2
Particles >71µm Oil Cleanliness HEAVY METALS Aluminum Nickel Lead Vanadium Iron Calcium Magnesium Phosphorus Zinc SAMPLE IMAGES Color	ppm ppm ppm ppm ppm ppm ppm	ASTM D7647 ISO 4406 (c) method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>3 >18/16/13 limit/bas <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	0 3 ▲ 20/18/15 50 Current 0 0 0 0 0 0 0 0 0 0 0 3 4 0	 history1        history1	 history2         
Oil Cleanliness HEAVY METALS Aluminum Nickel Lead Vanadium Iron Calcium Magnesium Phosphorus Zinc SAMPLE IMAGES Color	ppm ppm ppm ppm ppm ppm ppm	ISO 4406 (c) method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>18/16/13 limit/bas <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	3 ▲ 20/18/15 Se Current 0 0 0 0 0 0 0 0 0 0 3 4 0	 history1        history1	 history2        -
HEAVY METALS Aluminum Nickel Lead Vanadium Iron Calcium Magnesium Phosphorus Zinc SAMPLE IMAGES Color	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/bas <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	Current           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           3           4           0	history1 history1	history2 history2
Aluminum Nickel Lead Vanadium Iron Calcium Magnesium Phosphorus Zinc SAMPLE IMAGES Color	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	<0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	0 0 0 0 0 3 4 0	     history1	     history2
Nickel Lead Vanadium Iron Calcium Magnesium Phosphorus Zinc SAMPLE IMAGES Color	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	<0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	0 0 0 0 3 4 0	    history1	     history2
Lead Vanadium Iron Calcium Magnesium Phosphorus Zinc SAMPLE IMAGES Color	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	<0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	0 0 0 3 4 0	    history1	    history2
Vanadium Iron Calcium Magnesium Phosphorus Zinc SAMPLE IMAGES Color	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	<0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	0 0 3 4 0	    history1	    history2
Iron Calcium Magnesium Phosphorus Zinc SAMPLE IMAGES Color	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	<0.1 <0.1 <0.1 <0.1 <0.1	0 0 3 4 0	   history1	   history2
Calcium Magnesium Phosphorus Zinc SAMPLE IMAGES Color	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	<0.1 <0.1 <0.1 <0.1	0 3 4 0	   history1	   history2
Calcium Magnesium Phosphorus Zinc SAMPLE IMAGES Color	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	<0.1 <0.1 <0.1 <0.1	3 4 0	  history1	  history2
Magnesium Phosphorus Zinc SAMPLE IMAGES Color	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	<0.1 <0.1 <0.1	3 4 0	  history1	  history2
Phosphorus Zinc SAMPLE IMAGES Color	ppm ppm	ASTM D5185m ASTM D5185m	<0.1 <0.1	4 0	 history1	 history2
Zinc SAMPLE IMAGES Color	ppm	ASTM D5185m	<0.1	0	 history1	 history2
SAMPLE IMAGES						
Color		method				
					no image	no imago
Bottom						no image
					no image	no image
GRAPHS						
Fuel Distillation Cur	rve			Pensky-Mart	ens Flash Point ('	°C)
Sample				ي <sup>70</sup>		
Baseline				의 60 - 		
			/	40 40		
			1	8/23		
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WC0798124 R 05965853 D 10672404 D	Received Diagnose Diagnost Sts: Scree	l : 29 ed : 06 ician : Dor en)	Sep 2023 Oct 2023 ug Bogart		738 Old E Contact: DWAYI	Buies Creek F Lillington, N US 2754 NE REGISTE
	WearCheck USA - 5 WC0798124 F 05965853 E 10672404 E DF-2 ( Additional Tea	VearCheck USA - 501 Madis WC0798124 Received 05965853 Diagnose 10672404 Diagnost DF-2 ( Additional Tests: Scre- tact Customer Service at 1-80	Percent Recovered           WearCheck USA - 501 Madison Ave., Ca           WC0798124         Received         : 29           05965853         Diagnosed         : 06           10672404         Diagnostician         : Do           DF-2 (Additional Tests: Screen )         : tact Customer Service at 1-800-237-136	Percent Recovered         WearCheck USA - 501 Madison Ave., Cary, NC 27.         WC0798124       Received       : 29 Sep 2023         05965853       Diagnosed       : 06 Oct 2023         10672404       Diagnostician       : Doug Bogart         DF-2 (Additional Tests: Screen )	WearCheck USA - 501 Madison Ave., Cary, NC 27513 WC0798124 Received : 29 Sep 2023 05965853 Diagnosed : 06 Oct 2023 10672404 Diagnostician : Doug Bogart DF-2 ( Additional Tests: Screen ) tact Customer Service at 1-800-237-1369. dv	WearCheck USA - 501 Madison Ave., Cary, NC 27513 WC0798124 NC0798124 Diagnosed : 06 Oct 2023 10672404 Diagnostician : Doug Bogart DF-2 (Additional Tests: Screen ) KB POWER S 738 Old E 738 Old E Contact: DWAYE

Contact/Location: DWAYNE REGISTER - KBPHOL