



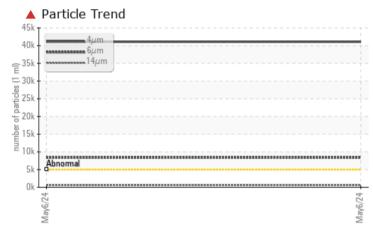
### **PROBLEM SUMMARY**

# PALFINGER 1100098174 - GRAHAMS TREE SERVICE

Hydraulic System

AW HYDRAULIC OIL ISO 32 (--- GAL)

#### COMPONENT CONDITION SUMMARY



#### RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 32. Please confirm.

#### PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	 
Particles >4µm	ASTM D7647	>5000	<b>41081</b>	 
Particles >6µm	ASTM D7647	>1300	<b>A</b> 8379	 
Particles >14µm	ASTM D7647	>160	<b>6</b> 2	 
Particles >21µm	ASTM D7647	>40	<b>A</b> 111	 
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>23/20/16</b>	 

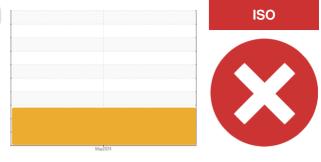
Customer Id: PALTIF Sample No.: WC0911895 Lab Number: 06235876 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data: Wes Davis +1 905-569-8600 x223 wesd@wearcheck.ca

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com



RECOMMENDED A	CTIONS			
Action	Status	Date	Done By	Description
Change Filter			?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Resample			?	Resample in 30-45 days to monitor this situation.
Alert			?	The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 32. Please confirm.
Information Required			?	The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 32. Please confirm.
Check Breathers			?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Dirt Access			?	We advise that you check all areas where contaminants can enter the system.
Filter Fluid			?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

HISTORICAL DIAGNOSIS



### **OIL ANALYSIS REPORT**

### Machine Id PALFINGER 1100098174 - GRAHAMS TREE SERVICE

Hydraulic System

AW HYDRAULIC OIL ISO 32 (--- GAL)

#### DIAGNOSIS

#### Recommendation

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 32. Please confirm.

#### Wear

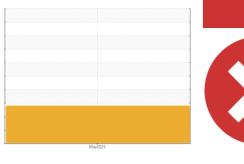
All component wear rates are normal.

#### Contamination

There is a high amount of particulates (2 to 100 microns in size) present in the oil.

#### Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.



Sample Rating Trend



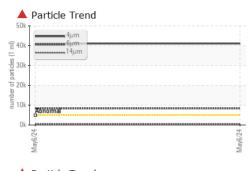
Sample Number         Client Info         WC0911895             Sample Date         Client Info         0             Machine Age         hrs         Client Info         0             Oil Age         hrs         Client Info         N/A             Oil Changed         Client Info         N/A              CONTAMINATION         method         Init/base         current         history1         history2           Water         WC Method         >0.1         NEG              CONTAMINATION         method         Init/base         current         history1         history2           Contamum         ppm         ASTM 05185m         >20         2             Chromium         ppm         ASTM 05185m         >10         <1             Nickel         ppm         ASTM 05185m         >10         <1             Auminum         ppm         ASTM 05185m         >10             Macadium         ppm <th>SAMPLE INFORM</th> <th>MATION</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age       hrs       Client Info       0           Oil Age       hrs       Client Info       N/A           Sample Status       Client Info       N/A           CONTAMINATION       method       Imit/base       current       history1       history2         Water       WC Method       >0.1       NEG           WEAR METALS       method       Imit/base       current       history1       history2         Iron       ppm       ASTM 05185n       >20       2           Tranum       ppm       ASTM 05185n       >10       <1	Sample Number		Client Info		WC0911895		
Ol Age         hrs         Client Info         0             Oil Changed         Client Info         N/A             Sample Status         Client Info         N/A             CONTAMINATION         method         Imit/base         current         history1         history1           Water         WC Method         >0.1         NEG             CONTAMINATION         method         Imit/base         current         history1         history2           Vear         WC Method         >0.1              Chromium         ppm         ASTM 05185m         >10         <1	Sample Date		Client Info		06 May 2024		
Oli Changed         Client Info         N/A             Sample Status         Imit Ubase         current         history1         history2           Water         WC Method         >0.1         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >20         2             Nickel         ppm         ASTM D5185m         >10         <1	Machine Age	hrs	Client Info		0		
Oil Changed         Client Info         N/A             Sample Status         Imit Ubase         current         history1         history2           Water         WC Method         >0.1         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >20         2             Nickel         ppm         ASTM D5185m         >10         <1	Oil Age	hrs	Client Info		0		
Sample Status         SEVERE             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         >10         <1	-		Client Info		N/A		
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         >20         2             Chromium         ppm         ASTM D5185m         >10         <1					SEVERE		
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WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >20         2             Chromium         ppm         ASTM D5185m         >10         <1             Nickel         ppm         ASTM D5185m         0              Silver         ppm         ASTM D5185m         0              Aduminum         ppm         ASTM D5185m         >10         2             Lead         ppm         ASTM D5185m         >10         <1             Vanadium         ppm         ASTM D5185m         >10         <1             Vanadium         ppm         ASTM D5185m         >10         <1             ADDITIVES         method         imit/base         current         history1         history2           Boron         ppm         ASTM D5185m         5         0             Adjobenum         ppm         ASTM D5185m         25							
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Chromium         ppm         ASTM D5185m         >10         <1             Nickel         ppm         ASTM D5185m         >10         <1							
Nickel         ppm         ASTM D5185m         >10         <1             Titanium         ppm         ASTM D5185m         0             Silver         ppm         ASTM D5185m         0             Aluminum         ppm         ASTM D5185m         >10         2             Lead         ppm         ASTM D5185m         >10         <1	-						
Titanium         ppm         ASTM D5185m                Silver         ppm         ASTM D5185m         0              Aluminum         ppm         ASTM D5185m         >10         2             Lead         ppm         ASTM D5185m         >10         <1							
Silver         ppm         ASTM D5185m         0             Aluminum         ppm         ASTM D5185m         >10         2             Lead         ppm         ASTM D5185m         >10         <1				>10			
Aluminum         ppm         ASTM D5185m         >10         2             Lead         ppm         ASTM D5185m         >10         <1							
Lead         ppm         ASTM D5185m         >10         <1             Copper         ppm         ASTM D5185m         >75         1             Tin         ppm         ASTM D5185m         >10         <1							
Copper         ppm         ASTM D5185m         >75         1             Tin         ppm         ASTM D5185m         >10         <1		ppm					
Tin         ppm         ASTM D5185m         >10         <1             Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         <1		ppm					
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Cadmium         ppm         ASTM D5185m         <1             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         5         0             Barium         ppm         ASTM D5185m         5         0             Molybdenum         ppm         ASTM D5185m         5         <1	Tin	ppm	ASTM D5185m	>10	<1		
ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         5         0             Barium         ppm         ASTM D5185m         5         0             Manganese         ppm         ASTM D5185m         5         <1	Vanadium	ppm	ASTM D5185m		0		
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Barium         ppm         ASTM D5185m         5         0             Molybdenum         ppm         ASTM D5185m         5         <1             Manganese         ppm         ASTM D5185m         25         15             Magnesium         ppm         ASTM D5185m         200         60             Calcium         ppm         ASTM D5185m         200         60             Calcium         ppm         ASTM D5185m         200         60             Calcium         ppm         ASTM D5185m         200         110             Zinc         ppm         ASTM D5185m         2500         1110             Sulfur         ppm         ASTM D5185m         220         1             Sodium         ppm         ASTM D5185m         >20         1             Potassium         ppm         ASTM D5185m         >20         1             FLUID CLEANLINESS         method         limit/base	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         5         <1             Manganese         ppm         ASTM D5185m         25         15             Magnesium         ppm         ASTM D5185m         200         60             Calcium         ppm         ASTM D5185m         200         60             Phosphorus         ppm         ASTM D5185m         300         332             Zinc         ppm         ASTM D5185m         370         450             Sulfur         ppm         ASTM D5185m         2500         1110             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         1             Potassium         ppm         ASTM D5185m         >20         1             Patricles >4µm         ASTM D7647         >5000         41081              Particles >6µm         ASTM D7647	Boron	ppm	ASTM D5185m	5	0		
Manganese         ppm         ASTM D5185m         25         15             Magnesium         ppm         ASTM D5185m         200         60             Calcium         ppm         ASTM D5185m         200         60             Phosphorus         ppm         ASTM D5185m         300         332             Zinc         ppm         ASTM D5185m         370         450             Sulfur         ppm         ASTM D5185m         2500         1110             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         1             Sodium         ppm         ASTM D5185m         >20         1             Potassium         ppm         ASTM D5185m         >20         1             Particles >4µm         ASTM D7647         >5000         41081             Particles >6µm         ASTM D7647         1	Barium	ppm	ASTM D5185m	5	0		
Magnesium       ppm       ASTM D5185m       25       15          Calcium       ppm       ASTM D5185m       200       60           Phosphorus       ppm       ASTM D5185m       300       332           Zinc       ppm       ASTM D5185m       370       450           Sulfur       ppm       ASTM D5185m       2500       1110           CONTAMINANTS       method       limit/base       current       history1       history2         Silicon       ppm       ASTM D5185m       >20       1           Sodium       ppm       ASTM D5185m       >20       1           Potassium       ppm       ASTM D5185m       >20       1           FLUID CLEANLINESS       method       limit/base       current       history1       history2         Particles >4µm       ASTM D7647       >5000       41081            Particles >4µm       ASTM D7647       >1300       8379            Particles >14µm       <		pp					
Calcium       ppm       ASTM D5185m       200       60           Phosphorus       ppm       ASTM D5185m       300       332           Zinc       ppm       ASTM D5185m       370       450           Sulfur       ppm       ASTM D5185m       2500       1110           Sulfur       ppm       ASTM D5185m       2500       1           CONTAMINANTS       method       limit/base       current       history1       history2         Silicon       ppm       ASTM D5185m       >20       1           Sodium       ppm       ASTM D5185m       >20       1           Potassium       ppm       ASTM D5185m       >20       1           FLUID CLEANLINESS       method       limit/base       current       history1       history2         Particles >4µm       ASTM D7647       >5000       41081           Particles >6µm       ASTM D7647       >100       \$562           Particles >21µm       ASTM D7647 <td></td> <td></td> <td>ASTM D5185m</td> <td>5</td> <td>&lt;1</td> <td></td> <td></td>			ASTM D5185m	5	<1		
Phosphorus         ppm         ASTM D5185m         300         332             Zinc         ppm         ASTM D5185m         370         450             Sulfur         ppm         ASTM D5185m         370         450             Sulfur         ppm         ASTM D5185m         2500         1110             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         1             Sodium         ppm         ASTM D5185m         >20         1             Potassium         ppm         ASTM D5185m         >20         1             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         >5000         41081             Particles >6µm         ASTM D7647         >1300         4379             Particles >1µm         ASTM D7647         40         111 <td>Molybdenum</td> <td>ppm</td> <td></td> <td>5</td> <td></td> <td></td> <td></td>	Molybdenum	ppm		5			
Zinc         ppm         ASTM D5185m         370         450             Sulfur         ppm         ASTM D5185m         2500         1110             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         1             Sodium         ppm         ASTM D5185m         >20         1             Potassium         ppm         ASTM D5185m         >20         1             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         >5000         41081             Particles >6µm         ASTM D7647         >1300         8379             Particles >6µm         ASTM D7647         >160         562             Particles >14µm         ASTM D7647         >40         111             Particles >38µm         ASTM D7647         3         0 <t< td=""><td>Molybdenum Manganese</td><td>ppm ppm</td><td>ASTM D5185m</td><td></td><td>0</td><td></td><td></td></t<>	Molybdenum Manganese	ppm ppm	ASTM D5185m		0		
Sulfur         ppm         ASTM D5185m         2500         1110             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         1             Sodium         ppm         ASTM D5185m         >20         1             Sodium         ppm         ASTM D5185m         >20         1             Potassium         ppm         ASTM D5185m         >20         1             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         >5000         ▲ 41081             Particles >6µm         ASTM D7647         >1300         ▲ 8379             Particles >14µm         ASTM D7647         >160         ▲ 562             Particles >21µm         ASTM D7647         >40         111             Particles >38µm         ASTM D7647         3         0	Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m	25	0 15		
CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>201SodiumppmASTM D5185m0PotassiumppmASTM D5185m>201FLUID CLEANLINESSmethodlimit/basecurrenthistory1history2Particles >4µmASTM D7647>5000▲ 41081Particles >6µmASTM D7647>1300▲ 8379Particles >6µmASTM D7647>160▲ 562Particles >14µmASTM D7647>40▲ 111Particles >38µmASTM D7647>30Particles >71µmASTM D7647>30Oil CleanlinessISO 4406 (c)>19/17/1423/20/16FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2	Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	25 200	0 15 60		
Silicon       ppm       ASTM D5185m       >20       1           Sodium       ppm       ASTM D5185m       0           Potassium       ppm       ASTM D5185m       >20       1           FLUID CLEANLINESS       method       limit/base       current       history1       history2         Particles >4µm       ASTM D7647       >5000       ▲ 41081           Particles >6µm       ASTM D7647       >1300       ▲ 8379           Particles >14µm       ASTM D7647       >160       ▲ 562           Particles >21µm       ASTM D7647       >40       111           Particles >38µm       ASTM D7647       >10       2           Particles >71µm       ASTM D7647       >3       0           Oil Cleanliness       ISO 4406 (c)       >19/17/14       23/20/16           FLUID DEGRADATION       method       limit/base       current       history1       history2	Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	25 200 300	0 15 60 332		  
Sodium         ppm         ASTM D5185m         0             Potassium         ppm         ASTM D5185m         >20         1             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         >5000         ▲ 41081             Particles >6µm         ASTM D7647         >1300         ▲ 8379             Particles >6µm         ASTM D7647         >160         ▲ 562             Particles >14µm         ASTM D7647         >40         ▲ 1111             Particles >21µm         ASTM D7647         >10         2             Particles >38µm         ASTM D7647         >3         0             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         23/20/16             FLUID DEGRADATION         method         limit/base         current         history1         history2     <	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	25 200 300 370	0 15 60 332 450		  
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Potassium         ppm         ASTM D5185m         >20         1             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         >5000         41081             Particles >6µm         ASTM D7647         >1300         8379             Particles >6µm         ASTM D7647         >160         562             Particles >1µm         ASTM D7647         >40         111             Particles >38µm         ASTM D7647         >10         2             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         23/20/16             FLUID DEGRADATION         method         limit/base         current         history1         history2	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b>	25 200 300 370 2500 <b>limit/base</b>	0 15 60 332 450 1110 current	  	   
Particles >4μm       ASTM D7647       >5000       ▲ 41081           Particles >6μm       ASTM D7647       >1300       ▲ 8379           Particles >14μm       ASTM D7647       >160       ▲ 562           Particles >21μm       ASTM D7647       >40       ▲ 111           Particles >21μm       ASTM D7647       >40       ▲ 111           Particles >38μm       ASTM D7647       >10       2           Particles >71μm       ASTM D7647       >3       0           Oil Cleanliness       ISO 4406 (c)       >19/17/14       ▲ 23/20/16           FLUID DEGRADATION       method       limit/base       current       history1       history2	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	25 200 300 370 2500 <b>limit/base</b> >20	0 15 60 332 450 1110 current 1	  	   
Particles >6µm       ASTM D7647       >1300       ▲ 8379           Particles >14µm       ASTM D7647       >160       ▲ 562           Particles >21µm       ASTM D7647       >40       ▲ 111           Particles >21µm       ASTM D7647       >40       ▲ 111           Particles >38µm       ASTM D7647       >10       2           Particles >71µm       ASTM D7647       >3       0           Oil Cleanliness       ISO 4406 (c)       >19/17/14       ▲ 23/20/16           FLUID DEGRADATION       method       limit/base       current       history1       history2	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m	25 200 300 370 2500 Iimit/base >20	0 15 60 332 450 1110 <u>current</u> 1 0	  	   
Particles >6µm       ASTM D7647       >1300       ▲ 8379           Particles >14µm       ASTM D7647       >160       ▲ 562           Particles >21µm       ASTM D7647       >40       ▲ 111           Particles >21µm       ASTM D7647       >40       ▲ 111           Particles >38µm       ASTM D7647       >10       2           Particles >71µm       ASTM D7647       >3       0           Oil Cleanliness       ISO 4406 (c)       >19/17/14       ▲ 23/20/16           FLUID DEGRADATION       method       limit/base       current       history1       history2	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	25 200 300 370 2500 <b>limit/base</b> >20	0 15 60 332 450 1110 <u>current</u> 1 0 1	   history1 	   history2 
Particles >14µm       ASTM D7647       >160       ▲ 562           Particles >21µm       ASTM D7647       >40       ▲ 111           Particles >38µm       ASTM D7647       >10       2           Particles >38µm       ASTM D7647       >3       0           Particles >71µm       ASTM D7647       >3       0           Oil Cleanliness       ISO 4406 (c)       >19/17/14       23/20/16           FLUID DEGRADATION       method       limit/base       current       history1       history2	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	25 200 300 370 2500 imit/base >20 imit/base	0 15 60 332 450 1110 <u>current</u> 1 0 1 1	   history1   history1	   history2   history2
Particles >21μm         ASTM D7647         >40         ▲ 111             Particles >38μm         ASTM D7647         >10         2             Particles >38μm         ASTM D7647         >3         0             Particles >71μm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         23/20/16             FLUID DEGRADATION         method         limit/base         current         history1         history2	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	25 200 300 370 2500 <b>limit/base</b> >20 <b>limit/base</b> >5000	0 15 60 332 450 1110	   history1  history1	   history2  history2
Particles >38μm         ASTM D7647         >10         2             Particles >71μm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         23/20/16             FLUID DEGRADATION         method         limit/base         current         history1         history2	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	25 200 300 2500 <b>Imit/base</b> >20 >20 <b>Imit/base</b> >20 >20	0 15 60 332 450 1110 <b>current</b> 1 0 1 1 0 1 2 4 1081 ▲ 41081 ▲ 8379	   history1   history1	   history2  history2
Particles >71μm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         23/20/16             FLUID DEGRADATION         method         limit/base         current         history1         history2	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	25 200 300 2500 <b>Imit/base</b> >20 >20 <b>Imit/base</b> >5000 >1300 >160	0 15 60 332 450 1110	   history1   history1	   history2   history2
Oil Cleanliness       ISO 4406 (c) >19/17/14 ▲ 23/20/16           FLUID DEGRADATION       method       limit/base       current       history1       history2	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	25 200 300 2500 2500 2500 >20 20 20 20 20 20 20 20 20 20 20 20 20 2	0 15 60 332 450 1110 Current 1 0 1 Current ↓ 41081 ▲ 8379 ▲ 562 ▲ 111	   history1   history1  history1	<ul> <li></li> <li></li> <li></li> <li>history2</li> <li></li> <li>history2</li> <li></li> <li></li></ul>
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	25 200 300 2500 2500 2500 >20 20 20 20 20 20 20 20 20 20 20 20 20 2	0 15 60 332 450 1110 Current 1 0 1 Current ↓ 41081 ▲ 8379 ▲ 562 ↓ 111 2	   history1    history1   	<ul> <li></li> <li></li> <li></li> <li>history2</li> <li></li> <li></li> <li>history2</li> <li></li> <li></li></ul>
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >4µm Particles >4µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	25 200 300 2500 2500 2500 >20 20 20 20 20 20 20 20 20 20 20 20 20 2	0 15 60 332 450 1110 Current 1 0 1 Current ↓ 41081 ▲ 8379 ▲ 562 ▲ 111 2 0	   history1    history1        -	<ul> <li></li> <li></li> <li></li> <li></li> <li>history2</li> <li></li> <li></li></ul>
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >38µm Particles >38µm Particles >71µm Oil Cleanliness	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	25 200 300 2500 2500 2500 >20 20 20 20 20 20 20 20 20 20 20 20 20 2	0 15 60 332 450 1110 Current 1 0 1 Current 4 41081 ▲ 8379 ▲ 562 ▲ 111 2 0 ▲ 23/20/16	   history1    history1     	<ul> <li></li> <li></li> <li></li> <li></li> <li>history2</li> <li></li> <li></li></ul>

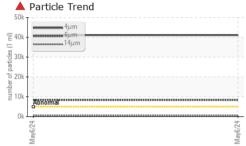
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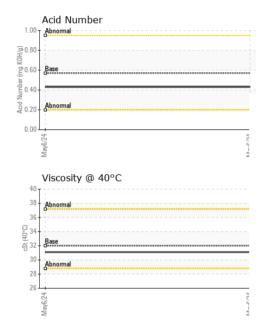
Contact/Location: ERIC HILL - PALTIF Page 3 of 4

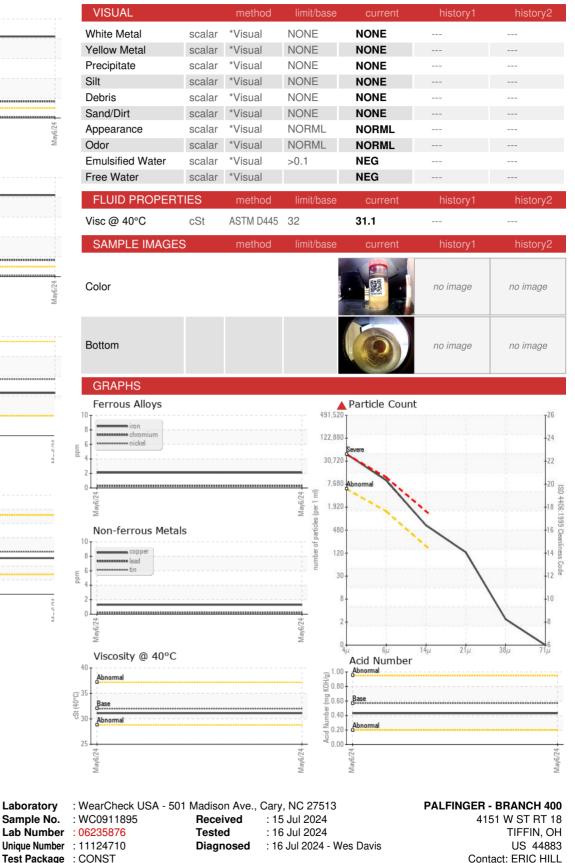


## **OIL ANALYSIS REPORT**









Test Package : CONST Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369.

Laboratory

Sample No.

\* - 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)

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