

## **OIL ANALYSIS REPORT**

#### Sample Rating Trend





#### Component Diesel Engine Fluid

DIESEL ENGINE OIL SAE 15W40 (--- GAL)

### DIAGNOSIS

#### 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.

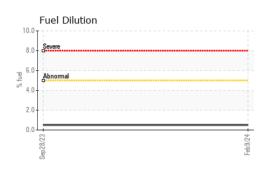
#### Fluid Condition

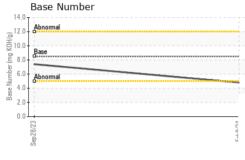
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

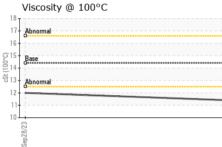
			Sep2023	Feb2024		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0118966	PCA0106447	
Sample Date		Client Info		09 Feb 2024	28 Sep 2023	
Machine Age	mls	Client Info		30000	15000	
Oil Age	mls	Client Info		30000	15000	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINATI	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	83	49	
Chromium	ppm	ASTM D5185m	>20	<1	<1	
Nickel	ppm	ASTM D5185m	>4	2	<1	
Titanium	ppm	ASTM D5185m		<1	0	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>20	4	<1	
Lead	ppm	ASTM D5185m	>40	4	1	
Copper	ppm	ASTM D5185m	>330	9	7	
Tin	ppm	ASTM D5185m	>15	2	<1	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	0	2	
	ppm ppm					
Boron		ASTM D5185m	250	0	2	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	250 10	0 <1	2 2	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	250 10	0 <1 72	2 2 67	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	0 <1 72 1	2 2 67 <1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450	0 <1 72 1 1076	2 2 67 <1 921	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000	0 <1 72 1 1076 1224	2 2 67 <1 921 1095	  
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150	0 <1 72 1 1076 1224 1084	2 2 67 <1 921 1095 1003	   
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350	0 <1 72 1 1076 1224 1084 1497	2 2 67 <1 921 1095 1003 1209	   
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250	0 <1 72 1 1076 1224 1084 1497 2878	2 2 67 <1 921 1095 1003 1209 2962	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	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	250 10 100 450 3000 1150 1350 4250	0 <1 72 1 1076 1224 1084 1497 2878 current	2 2 67 <1 921 1095 1003 1209 2962 history1	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 Limit/base	0 <1 72 1 1076 1224 1084 1497 2878 current 13	2 2 67 <1 921 1095 1003 1209 2962 history1 8	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	250 10 100 450 3000 1150 1350 4250 <b>limit/base</b> >25 >158 >20	0 <1 72 1 1076 1224 1084 1497 2878 current 13 6	2 2 67 <1 921 1095 1003 1209 2962 history1 8 3	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 <b>limit/base</b> >25 >158 >20	0 <1 72 1 1076 1224 1084 1497 2878 <u>current</u> 13 6 1	2 2 67 <1 921 1095 1003 1209 2962 history1 8 3 3	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 <b>limit/base</b> >25 >158 >20 >5	0 <1 72 1 1076 1224 1084 1497 2878 current 13 6 1 1 0.5	2 2 67 <1 921 1095 1003 1209 2962 history1 8 3 3 3 0.5	     history2  
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 <b>Iimit/base</b> >25 >5 <b>Iimit/base</b> >3	0 <1 72 1 1076 1224 1084 1497 2878 current 13 6 1 1 0.5 current	2 2 67 <1 921 1095 1003 1209 2962 history1 8 3 3 0.5 history1	    history2    history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm <b>TS</b> ppm ppm %	ASTM D5185m ASTM D3524 <b>method</b> *ASTM D7844	250 10 100 450 3000 1150 1350 4250 <b>Iimit/base</b> >25 >5 <b>Iimit/base</b> >3	0 <1 72 1 1076 1224 1084 1497 2878 <i>current</i> 13 6 1 0.5 <i>current</i> 0.7	2 2 67 <1 921 1095 1003 1209 2962 history1 8 3 3 0.5 history1 0.5	     history2    history2  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Solicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 <b>limit/base</b> >25 >158 >20 55 <b>limit/base</b> >3 >20	0 <1 72 1 1076 1224 1084 1497 2878 <i>current</i> 13 6 1 0.5 <i>current</i> 0.7 9.9	2 2 67 <1 921 1095 1003 1209 2962 history1 8 3 3 0.5 history1 0.5 7.8	     history2    history2    history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 <b>binit/base</b> >25 >158 >20 >5 <b>binit/base</b> >3 >20 >3 >20	0 <1 72 1 1076 1224 1084 1497 2878 <i>current</i> 13 6 1 0.5 <i>current</i> 0.7 9.9 22.9	2 2 67 <1 921 1095 1003 1209 2962 history1 8 3 3 0.5 history1 0.5 7.8 18.8	      history2   history2  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm % % Abs/cm Abs/cm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 <b>imit/base</b> >25 >3 >20 <b>imit/base</b> >3 >20 >30	0 <1 72 1 1076 1224 1084 1497 2878 <i>current</i> 13 6 1 0.5 <i>current</i> 0.7 9.9 22.9 <i>current</i>	2 2 67 <1 921 1095 1003 1209 2962 history1 8 3 3 0.5 history1 0.5 7.8 18.8 history1	      history2   history2  history2  history2

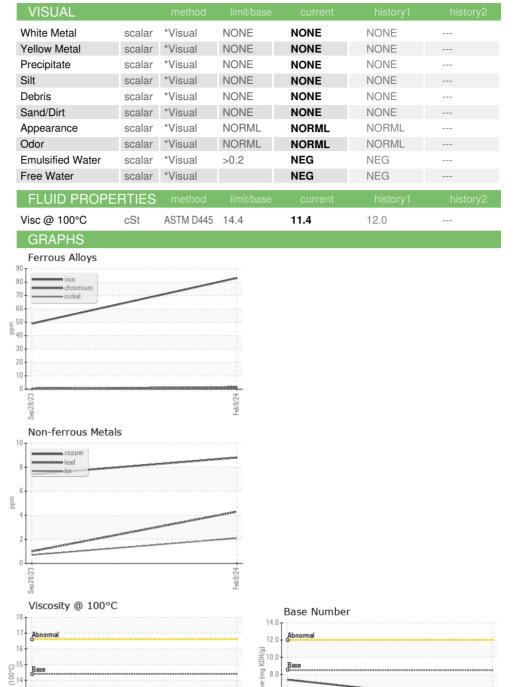


# **OIL ANALYSIS REPORT**









6.0 Base 4 ( 2.0

0.0

Sep28/23

Feb 9/24

:01 Mar 2024

: 07 Mar 2024



Unique Number : 10910114 Diagnosed : 07 Mar 2024 - Jonathan Hester Test Package : FLEET ( Additional Tests: FuelDilution, PercentFuel ) Contact: Service Manager Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. \* - 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

Received

Tested

. الح<sup>5</sup> 13

10

Laboratory

Sample No.

Lab Number : 06106617

Sep 28/23

: PCA0118966

Contact/Location: Service Manager - PERCANNC

**PERDUE FARMS INC - GARAGE** 

189 PERDUE WAY

CANDOR, NC

US 27229

T:

F: