

## **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

# **POWER HOUSE**

Component

Diesel Engine

**CHEVRON 15W40 (--- GAL)** 

#### Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. Please specify the component make and model with your next sample.

#### Wear

All component wear rates are normal.

### Contamination

Light fuel dilution occurring. No other contaminants were detected in the oil.

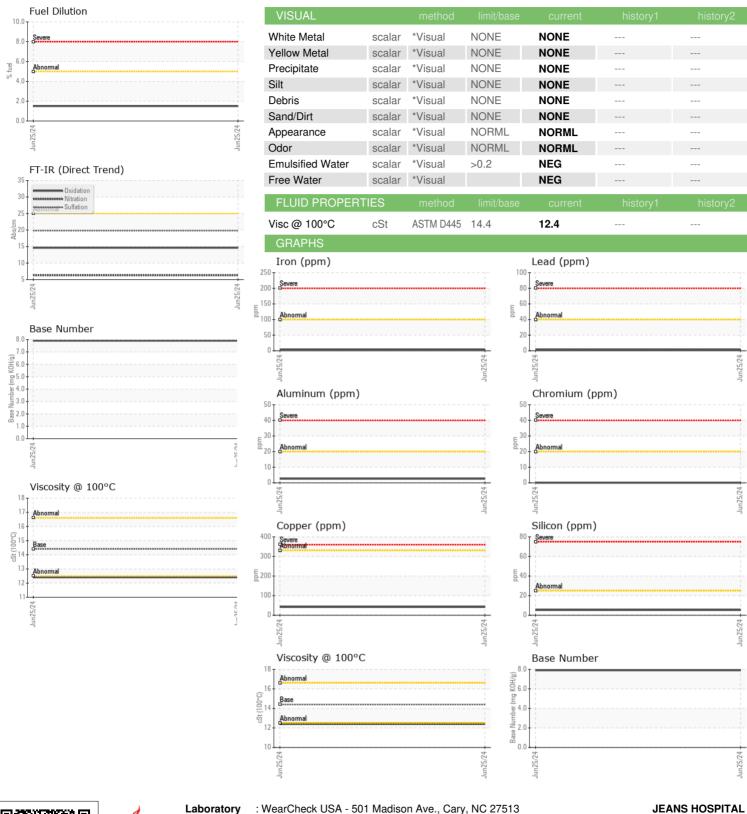
#### **Fluid Condition**

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

SAMPLE INFORMATION					Jun2024		
Sample Number   Client Info   WC0628053	SAMDLE INFOR	MATION	mothod	limit/base	current	history1	history?
Sample Date   Client Info   25 Jun 2024		VIATION		IIIIIIVDase			
Machine Age         hrs         Client Info         1831             Oil Age         hrs         Client Info         0             Oil Changed         Client Info         Changed             Sample Status         NORMAL             CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         NEG              WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >20         0             Nickel         ppm         ASTM D5185m         >20         0             Nickel         ppm         ASTM D5185m         >3         0             Aluminum         ppm         ASTM D5185m         >3         0             Aluminum         ppm         ASTM D5185m         >40         1             Aluminum							
Oil Changed Oil Changed Client Info         Changed Changed Changed Changed Changed Changed Control Info         Changed Chan	•	lawa					
Contained   Client Info   Changed   Changed   Contained   Contai							
CONTAMINATION   method   minit/base   current   history1   history2		1115			-		
CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.2         NEG	-		Ciletit IIIIO				
Water         WC Method         >0.2         NEG             Glycol         WC Method         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >100         4             Chromium         ppm         ASTM D5185m         >20         0             Nickel         ppm         ASTM D5185m         >4         0             Silver         ppm         ASTM D5185m         0             Silver         ppm         ASTM D5185m         >40         1             Aluminum         ppm         ASTM D5185m         >40         1             Lead         ppm         ASTM D5185m         >330         42             Copper         ppm         ASTM D5185m         0         1             Vanadium         ppm         ASTM D5185m         0             ADDITIVES         <							
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >100         4             Nickel         ppm         ASTM D5185m         >20         0             Titanium         ppm         ASTM D5185m         >4         0             Silver         ppm         ASTM D5185m         >3         0             Aluminum         ppm         ASTM D5185m         >30         0             Aluminum         ppm         ASTM D5185m         >40         1             Lead         ppm         ASTM D5185m         >330         42             Copper         ppm         ASTM D5185m         0         1             Tin         ppm         ASTM D5185m         0              Vanadium         ppm         ASTM D5185m         0              ADDITIVES         method         limil/base         current		N	method	limit/base	current	history1	history2
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >100         4             Chromium         ppm         ASTM D5185m         20         0             Nickel         ppm         ASTM D5185m         20         0             Titanium         ppm         ASTM D5185m         >3         0             Aluminum         ppm         ASTM D5185m         >3         0             Aluminum         ppm         ASTM D5185m         >40         1             Lead         ppm         ASTM D5185m         >40         1             Copper         ppm         ASTM D5185m         >15         <1				>0.2			
Iron	Glycol		WC Method		NEG		
Chromium	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>100	4		
Titanium	Chromium	ppm	ASTM D5185m	>20	0		
Stiver	Nickel	ppm	ASTM D5185m	>4	0		
Aluminum         ppm         ASTM D5185m         >20         3             Copper         ppm         ASTM D5185m         >40         1             Tin         ppm         ASTM D5185m         >15         <1	Titanium	ppm	ASTM D5185m		0		
Lead	Silver	ppm	ASTM D5185m	>3	0		
Copper         ppm         ASTM D5185m         >330         42             Tin         ppm         ASTM D5185m         >15         <1	Aluminum	ppm	ASTM D5185m	>20	3		
Tin ppm ASTM D5185m >1.5 <1	Lead	ppm	ASTM D5185m	>40	1		
Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         344             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         97             Manganese         ppm         ASTM D5185m         97             Magnesium         ppm         ASTM D5185m         500             Calcium         ppm         ASTM D5185m         1470             Phosphorus         ppm         ASTM D5185m         787             Zinc         ppm         ASTM D5185m         969             Sulfur         ppm         ASTM D5185m         >25         5            CONTAMINANTS         method         limit/base         current         history1	Copper	ppm	ASTM D5185m	>330	42		
Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         344             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         97             Manganese         ppm         ASTM D5185m         <1	Tin	ppm		>15			
ADDITIVES	Vanadium	ppm			0		
Boron	Cadmium	ppm	ASTM D5185m		0		
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         97             Manganese         ppm         ASTM D5185m         <1             Magnesium         ppm         ASTM D5185m         500             Calcium         ppm         ASTM D5185m         1470             Phosphorus         ppm         ASTM D5185m         787             Zinc         ppm         ASTM D5185m         969             Sulfur         ppm         ASTM D5185m         3319             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >50         3             Potassium         ppm         ASTM D5185m         >20         3             Fuel         %         ASTM D324         >5         1.5             INFRA-RED         method	Boron	ppm	ASTM D5185m		344		
Manganese         ppm         ASTM D5185m         <1             Magnesium         ppm         ASTM D5185m         500             Calcium         ppm         ASTM D5185m         1470             Phosphorus         ppm         ASTM D5185m         787             Zinc         ppm         ASTM D5185m         969             Sulfur         ppm         ASTM D5185m         3319             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >20         3             Potassium         ppm         ASTM D5185m         >20         3             Fuel         %         ASTM D3524         >5         1.5             INFRA-RED         method         limit/base         current         history1         history2           Soot %	Barium	ppm	ASTM D5185m		0		
Magnesium         ppm         ASTM D5185m         500             Calcium         ppm         ASTM D5185m         1470             Phosphorus         ppm         ASTM D5185m         787             Zinc         ppm         ASTM D5185m         969             Sulfur         ppm         ASTM D5185m         3319             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >50         3             Potassium         ppm         ASTM D5185m         >20         3             Fuel         %         ASTM D3524         >5         1.5             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7624         >20         6.3             Sulfati	Molybdenum	ppm	ASTM D5185m		97		
Calcium         ppm         ASTM D5185m         1470             Phosphorus         ppm         ASTM D5185m         787             Zinc         ppm         ASTM D5185m         969             Sulfur         ppm         ASTM D5185m         3319             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >50         3             Potassium         ppm         ASTM D5185m         >20         3             Fuel         %         ASTM D5185m         >20         3             Fuel         %         ASTM D5185m         >20         3             Fuel         %         ASTM D5185m         >5         1.5             Soot %         %         *ASTM D7844         >3         0.1 <td< td=""><td>•</td><td>ppm</td><td>ASTM D5185m</td><td></td><th>&lt;1</th><td></td><td></td></td<>	•	ppm	ASTM D5185m		<1		
Phosphorus         ppm         ASTM D5185m         787             Zinc         ppm         ASTM D5185m         969             Sulfur         ppm         ASTM D5185m         3319             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >50         3             Potassium         ppm         ASTM D5185m         >20         3             Fuel         %         ASTM D5185m         >20         3             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.1             Nitration         Abs/cm         *ASTM D7624         >20         6.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         19.8	-						
Zinc         ppm         ASTM D5185m         969             Sulfur         ppm         ASTM D5185m         3319             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >50         3             Potassium         ppm         ASTM D5185m         >20         3             Fuel         %         ASTM D3524         >5         1.5             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.1             Nitration         Abs/.mm         *ASTM D7624         >20         6.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         19.8             FLUID DEGRADATION         method         limit/base         current         his		ppm			-		
Sulfur         ppm         ASTM D5185m         3319             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >50         3             Potassium         ppm         ASTM D5185m         >20         3             Fuel         %         ASTM D3524         >5         1.5             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.1             Nitration         Abs/cm         *ASTM D7624         >20         6.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         19.8             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25 </td <td></td> <td></td> <td></td> <td></td> <th>_</th> <td></td> <td></td>					_		
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >50         3             Potassium         ppm         ASTM D5185m         >20         3             Fuel         %         ASTM D3524         >5         1.5             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.1             Nitration         Abs/cm         *ASTM D7624         >20         6.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         19.8             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.6							
Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >50         3             Potassium         ppm         ASTM D5185m         >20         3             Fuel         %         ASTM D3524         >5         1.5             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.1             Nitration         Abs/cm         *ASTM D7624         >20         6.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         19.8             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.6			ASTM D5185m		3319		
Sodium         ppm         ASTM D5185m         >50         3             Potassium         ppm         ASTM D5185m         >20         3             Fuel         %         ASTM D3524         >5         1.5             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.1             Nitration         Abs/cm         *ASTM D7624         >20         6.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         19.8             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.6	CONTAMINANTS	3	method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         3             Fuel         %         ASTM D3524         >5         1.5             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.1             Nitration         Abs/cm         *ASTM D7624         >20         6.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         19.8             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.6		ppm	ASTM D5185m	>25			
Fuel         %         ASTM D3524         >5         1.5             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.1             Nitration         Abs/cm         *ASTM D7624         >20         6.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         19.8             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.6		ppm		>50			
INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.1             Nitration         Abs/cm         *ASTM D7624         >20         6.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         19.8             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.6							
Soot %         %         *ASTM D7844         >3         0.1             Nitration         Abs/cm         *ASTM D7624         >20         6.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         19.8             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.6	Fuel	%	ASTM D3524	>5	1.5		
Nitration         Abs/cm         *ASTM D7624         >20         6.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         19.8             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.6	INFRA-RED		method	limit/base	current	history1	history2
Sulfation         Abs/.1mm         *ASTM D7415         >30         19.8             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.6	Soot %	%	*ASTM D7844	>3	0.1		
FLUID DEGRADATION method limit/base current history1 history2  Oxidation Abs/.1mm *ASTM D7414 >25 14.6	Nitration	Abs/cm	*ASTM D7624	>20	6.3		
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.8		
	FLUID DEGRADA	NOITA	method	limit/base	current	history1	history2
	Oxidation	Ahs/ 1mm	*ASTM D7414	>25	14.6		
		/ 100/. 1111111					



## **OIL ANALYSIS REPORT**





Certificate 12367

Laboratory Sample No.

: WC0628053 Lab Number : 06220584 Unique Number : 11098781

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 25 Jun 2024 **Tested** 

: 28 Jun 2024 Diagnosed : 28 Jun 2024 - Wes Davis Test Package : MOB 1 ( Additional Tests: FuelDilution, PercentFuel, TBN )

760 CENTRAL AVE. PHILADELPHIA, PA US 19111 Contact: DOMINICK NOCITO DOMINIC.NOCITO@TUNS.TEMPLE.EDU

To discuss this sample report, contact Customer Service at 1-800-237-1369.  $^st$  - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

T: (215)768-4510

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) Report Id: JEAPHI [WUSCAR] 06220584 (Generated: 06/28/2024 11:16:35) Rev: 1

Contact/Location: DOMINICK NOCITO - JEAPHI