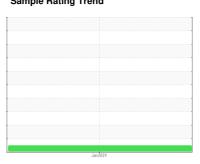


# **OIL ANALYSIS REPORT**

Sample Rating Trend



**NORMAL** 



Machine Id **\$300-3650** 

Component **Diesel Engine** 

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

### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

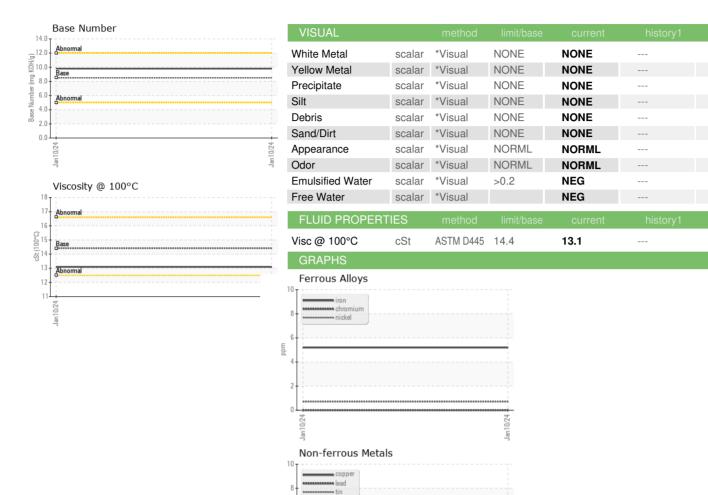
### **Fluid Condition**

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

Sample Date   Client Info   10 Jan 2024							
Sample Number   Client Info   RLB0000034					Jan 2024		
Client Info	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age	Sample Number		Client Info		RLB0000034		
Dil Age	Sample Date		Client Info		10 Jan 2024		
Client Info   Changed   Client Info   NORMAL   CONTAMINATION   Method   Imilibase   current   history1   history2   Contamination   Contamin	Machine Age	hrs	Client Info		5494		
CONTAMINATION   method   limit/base   current   history1   history2	Oil Age	hrs	Client Info		250		
Fuel	Oil Changed		Client Info		Changed		
Fuel	Sample Status				NORMAL		
Water Glycol         WC Method         >0.2         NEG	CONTAMINATION	V	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0		
WEAR METALS	Water		WC Method	>0.2	NEG		
ASTM D5185m   STM D5185m   ST	Glycol		WC Method		NEG		
ASTM D5185m   >20	WEAR METALS		method	limit/base	current	history1	history2
ASTM D5185m   ASTM D5185m   ASTM D5185m   Doctor	ron	ppm		>100	5		
Description	Chromium	ppm	ASTM D5185m	>20	0		
Saliver	Nickel	ppm	ASTM D5185m	>4	<1		
Astronomega	Titanium	ppm	ASTM D5185m		0		
December   December	Silver	ppm	ASTM D5185m	>3	0		
Copper	Aluminum	ppm	ASTM D5185m	>20	3		
Acade   Acad	_ead	ppm	ASTM D5185m	>40	0		
Vanadium         ppm         ASTM D5185m         <1             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         250         2             Barium         ppm         ASTM D5185m         10         0             Molybdenum         ppm         ASTM D5185m         100         58             Manganese         ppm         ASTM D5185m         100         58             Magnesium         ppm         ASTM D5185m         450         912             Magnesium         ppm         ASTM D5185m         3000         1026             Phosphorus         ppm         ASTM D5185m         3000         1026             Zinc         ppm         ASTM D5185m         1350         1253             Sulfur         ppm         ASTM D5185m         >25         6	Copper	ppm	ASTM D5185m	>330	<1		
ADDITIVES	Γin	ppm	ASTM D5185m	>15	<1		
ADDITIVES	/anadium	ppm	ASTM D5185m		<1		
Soron   ppm   ASTM D5185m   250   2	Cadmium	ppm	ASTM D5185m		0		
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         100         58             Manganese         ppm         ASTM D5185m         <1	Boron	ppm	ASTM D5185m	250	2		
Manganese         ppm         ASTM D5185m         <1             Magnesium         ppm         ASTM D5185m         450         912             Calcium         ppm         ASTM D5185m         3000         1026             Phosphorus         ppm         ASTM D5185m         1150         1006             Zinc         ppm         ASTM D5185m         1350         1253             Sulfur         ppm         ASTM D5185m         4250         3194             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         6             Sodium         ppm         ASTM D5185m         >158         <1	Barium	ppm	ASTM D5185m	10	0		
Magnesium         ppm         ASTM D5185m         450         912             Calcium         ppm         ASTM D5185m         3000         1026             Phosphorus         ppm         ASTM D5185m         1150         1006             Zinc         ppm         ASTM D5185m         1350         1253             Sulfur         ppm         ASTM D5185m         4250         3194             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         6             Sodium         ppm         ASTM D5185m         >158         <1	Molybdenum	ppm	ASTM D5185m	100	58		
Description	Manganese	ppm	ASTM D5185m		<1		
Phosphorus         ppm         ASTM D5185m         1150         1006             Zinc         ppm         ASTM D5185m         1350         1253             Sulfur         ppm         ASTM D5185m         4250         3194             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         6             Godium         ppm         ASTM D5185m         >158         <1             Potassium         ppm         ASTM D5185m         >20         0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.2             Nitration         Abs/cm         *ASTM D7624         >20         6.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         18.9             FLUID DEGRADATION         method <t< td=""><td>Magnesium</td><td>ppm</td><td>ASTM D5185m</td><td>450</td><th>912</th><td></td><td></td></t<>	Magnesium	ppm	ASTM D5185m	450	912		
Zinc   ppm   ASTM D5185m   1350   1253       Sulfur   ppm   ASTM D5185m   4250   3194	Calcium	ppm	ASTM D5185m	3000	1026		
Sulfur         ppm         ASTM D5185m         4250         3194             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         6             Sodium         ppm         ASTM D5185m         >158         <1             Potassium         ppm         ASTM D5185m         >20         0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.2             Sulfation         Abs/.1mm         *ASTM D7624         >20         6.3             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.5	Phosphorus	ppm	ASTM D5185m	1150	1006		
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         6             Sodium         ppm         ASTM D5185m         >158         <1	Zinc	ppm	ASTM D5185m	1350	1253		
Solition   ppm   ASTM D5185m   >25   6	Sulfur	ppm	ASTM D5185m	4250	3194		
Sodium	CONTAMINANTS	;	method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.2             Nitration         Abs/cm         *ASTM D7624         >20         6.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         18.9             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.5	Silicon	ppm	ASTM D5185m	>25	6		
INFRA-RED	Sodium	ppm	ASTM D5185m	>158	<1		
Soot %         %         *ASTM D7844 >3         0.2             Nitration         Abs/cm         *ASTM D7624 >20         6.3             Sulfation         Abs/.1mm         *ASTM D7415 >30         18.9             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414 >25         14.5	Potassium	ppm	ASTM D5185m	>20	0		
Nitration         Abs/cm         *ASTM D7624         >20         6.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         18.9             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.5	INFRA-RED		method	limit/base	current	history1	history2
Sulfation         Abs/.1mm         *ASTM D7415         >30         18.9             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.5	Soot %	%	*ASTM D7844	>3	0.2		
FLUID DEGRADATION method limit/base current history1 history2  Oxidation Abs/.1mm *ASTM D7414 >25 14.5	Nitration	Abs/cm	*ASTM D7624	>20	6.3		
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30	18.9		
	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	14.5		
	Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.8		



## **OIL ANALYSIS REPORT**



Viscosity @ 100°C





Certificate L2367

Laboratory Sample No. Lab Number Unique Number

: RLB0000034 : 06074376 : 10856467 Test Package : FLEET

cSt (100°C)

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : 30 Jan 2024 Recieved Diagnosed : 31 Jan 2024 : Wes Davis Diagnostician

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Base Number

12.0 (mg KOH/g) 0.8

6.0 Base 2.0 0.0

> US 58801 Contact: CHRIS SCHROEDER shop@chamleypipe.com T: (701)425-7136 F:

**CHAMLEY PIPE & SALVAGE** 

5228 134TH AVE NW

WILLISTON, ND

\* - 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)