



# WEAR CHECK

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area  
**2H28**  
Machine Id  
**PETERBILT 348 RTK9539 (S/N 2NP3XJ0XX6M346770)**  
Component  
**Diesel Engine**  
Fluid  
**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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ARI0007334</b>	ARI0004561	ARI04632393
Sample Date		Client Info		<b>04 Jan 2024</b>	19 Jul 2023	15 Jan 2019
Machine Age	mls	Client Info		<b>173053</b>	167435	74226
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>N/A</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	MARGINAL	SEVERE

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	<b>4</b>	11	24
Chromium	ppm	ASTM D5185m	>4	<b>0</b>	<1	1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>1</b>	4	9
Lead	ppm	ASTM D5185m	>45	<b>0</b>	0	1
Copper	ppm	ASTM D5185m	>85	<b>0</b>	<1	5
Tin	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

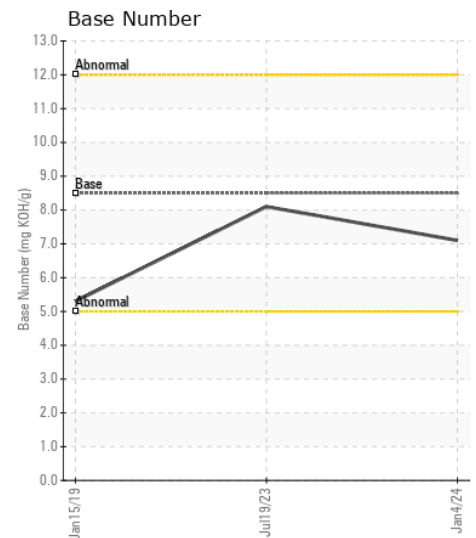
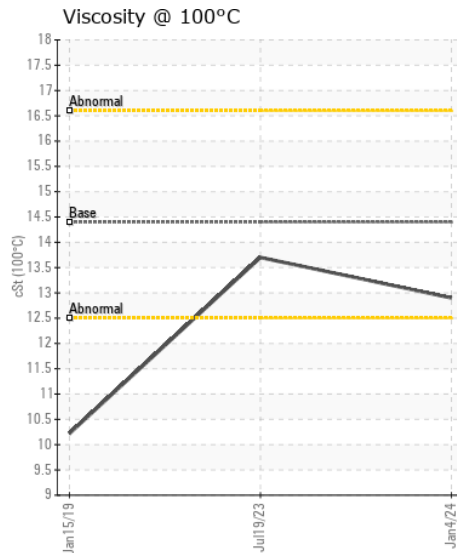
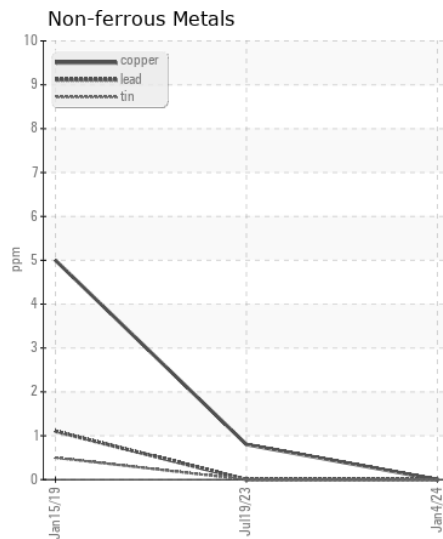
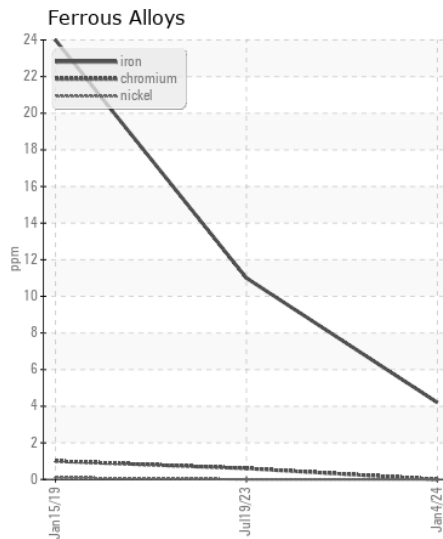
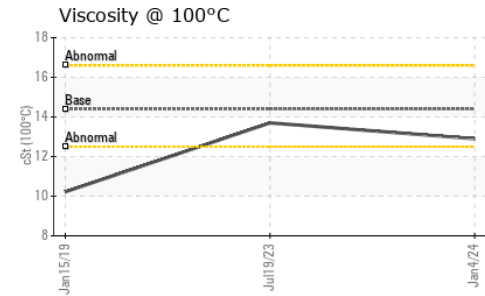
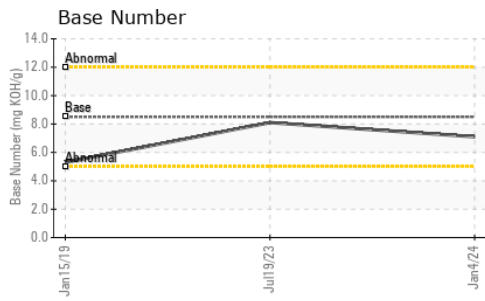
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	<b>4</b>	6	8
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	4	21
Fuel		WC Method	>5	<b>&lt;1.0</b>	▲ 3.1	◆ 10.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.3	0.8
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.3</b>	10.3	13
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.5</b>	22.7	27.6
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

### 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.

Sodium	ppm	ASTM D5185m	>158	<b>&lt;1</b>	3	4
Boron	ppm	ASTM D5185m	250	<b>370</b>	87	19
Barium	ppm	ASTM D5185m	10	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m	100	<b>82</b>	24	22
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>416</b>	787	227
Calcium	ppm	ASTM D5185m	3000	<b>1417</b>	1487	1805
Phosphorus	ppm	ASTM D5185m	1150	<b>997</b>	1101	905
Zinc	ppm	ASTM D5185m	1350	<b>1177</b>	1294	1013
Sulfur	ppm	ASTM D5185m	4250	<b>3200</b>	4547	2635
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.4</b>	18.2	27.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>7.1</b>	8.1	5.3
Visc @ 100°C	cSt	ASTM D445	14.4	<b>12.9</b>	13.7	▲ 10.22



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ARI0007334 **Received** : 12 Feb 2024  
**Lab Number** : 06085645 **Tested** : 12 Feb 2024  
**Unique Number** : 10873090 **Diagnosed** : 12 Feb 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**INSITUFORM TECHNOLOGIES, INC**  
 17988 EDISON AVE.  
 CHESTERFIELD, MO  
 US 63005  
 Contact: WILLIAM COWELL  
 WCOWELL@INSITUFORM.COM  
 T: (317)450-3774  
 F:

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)