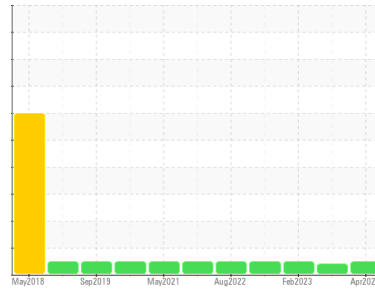




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**CONSTRUCTORS, INC**

Machine Id  
**090778**

Component  
**Diesel Engine**

Fluid  
**MOBIL DELVAC 1300 SUPER 10W30 (--- 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.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>SBP0005754</b>	SBP0004774	SBP0002339
Sample Date	Client Info		<b>03 Apr 2024</b>	19 Jul 2023	07 Feb 2023
Machine Age	hrs	Client Info	<b>11457</b>	11098	9841
Oil Age	hrs	Client Info	<b>359</b>	760	795
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	ATTENTION	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>100	<b>16</b>	17	20
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>1</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	2	0
Lead	ppm	ASTM D5185m	>40	<b>1</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>2</b>	1	<1
Tin	ppm	ASTM D5185m	>15	<b>1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>44</b>	39	0
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>40</b>	46	63
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>557</b>	642	954
Calcium	ppm	ASTM D5185m		<b>1678</b>	1730	1119
Phosphorus	ppm	ASTM D5185m		<b>868</b>	812	1021
Zinc	ppm	ASTM D5185m		<b>1020</b>	1044	1276
Sulfur	ppm	ASTM D5185m		<b>2885</b>	2974	2992

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	<b>6</b>	4	4
Sodium	ppm	ASTM D5185m		<b>4</b>	4	<1
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	1

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.7</b>	13.9	6.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.0</b>	25.3	22.0

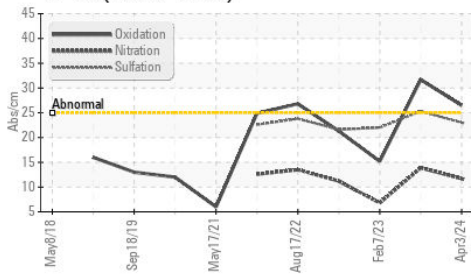
## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>26.5</b>	31.7	15.2
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	<b>8.1</b>	8.1	8.8

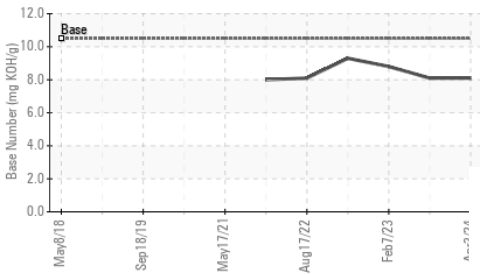


# OIL ANALYSIS REPORT

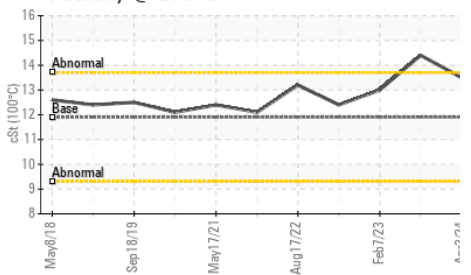
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

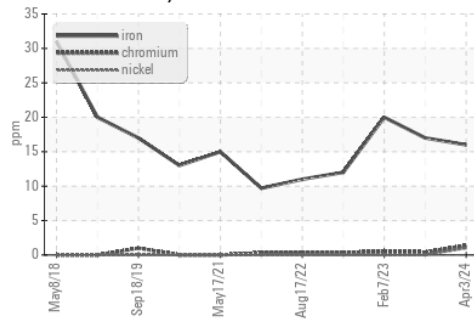


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

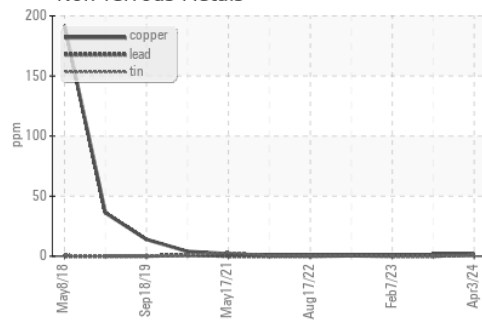
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	11.9	13.5	14.4

## GRAPHS

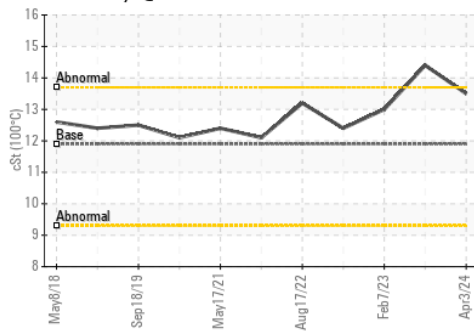
Ferrous Alloys



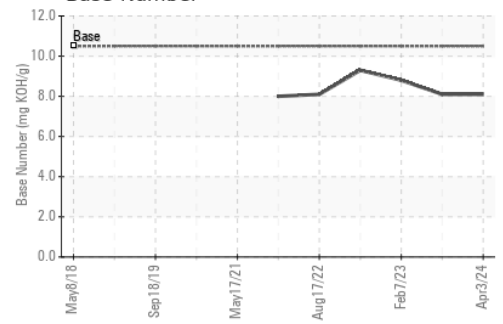
Non-ferrous Metals



Viscosity @ 100°C



Base Number



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : SBP0005754      **Received** : 09 Apr 2024  
**Lab Number** : 06143522      **Tested** : 10 Apr 2024  
**Unique Number** : 10968330      **Diagnosed** : 12 Apr 2024 - Jonathan Hester  
**Test Package** : FLEET

**Constructors Inc. - 603659**  
 1815 Y Street  
 Lincoln, NE  
 US 68508  
 Contact: Loren Michael  
 LorenM@constructorslincoln.com

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)