



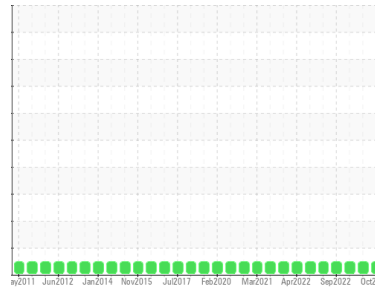
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**AMR-Cheyenne**  
Machine Id  
**VOLVO L90E 67837**  
Component  
**Diesel Engine**  
Fluid  
**CHEVRON 15W40 (6 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>DJJ0010726</b>	DJJ0010727	DJJ0010728
Sample Date	Client Info			<b>26 Oct 2023</b>	20 Mar 2023	27 Dec 2022
Machine Age	hrs	Client Info		<b>13259</b>	12710	12455
Oil Age	hrs	Client Info		<b>500</b>	250	250
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>6.0		<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.1		<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>10</b>	7	6
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>2</b>	2	<1
Lead	ppm	ASTM D5185m	>20	<b>1</b>	1	0
Copper	ppm	ASTM D5185m	>15	<b>1</b>	2	0
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>401</b>	341	317
Barium	ppm	ASTM D5185m		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>99</b>	100	88
Manganese	ppm	ASTM D5185m		<b>0</b>	1	0
Magnesium	ppm	ASTM D5185m		<b>429</b>	503	410
Calcium	ppm	ASTM D5185m		<b>1322</b>	1493	1383
Phosphorus	ppm	ASTM D5185m		<b>841</b>	832	857
Zinc	ppm	ASTM D5185m		<b>1000</b>	1044	1034
Sulfur	ppm	ASTM D5185m		<b>3098</b>	3100	2832

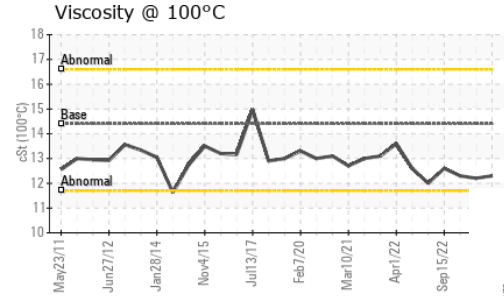
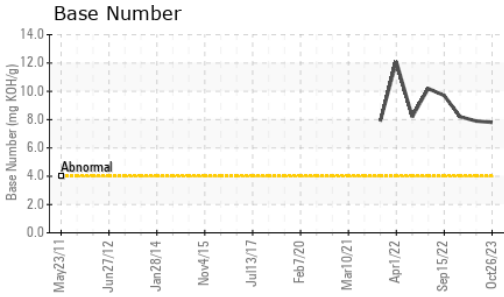
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	<b>11</b>	9	6
Sodium	ppm	ASTM D5185m	>50	<b>&lt;1</b>	2	0
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	2	1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.5</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.1</b>	6.7	6.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.2</b>	20.9	20.2

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.5</b>	14.4	14.4
Base Number (BN)	mg KOH/g	ASTM D2896		<b>7.8</b>	7.9	8.2



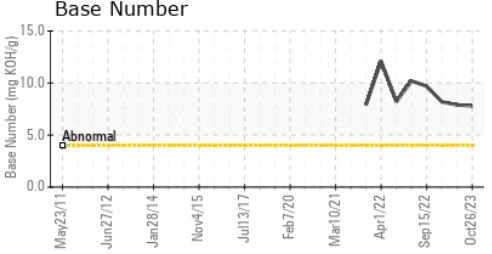
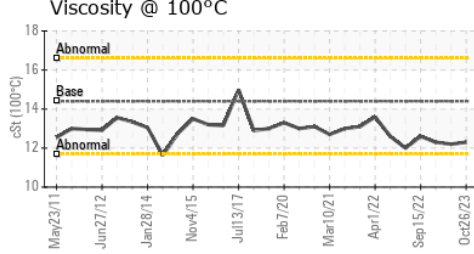
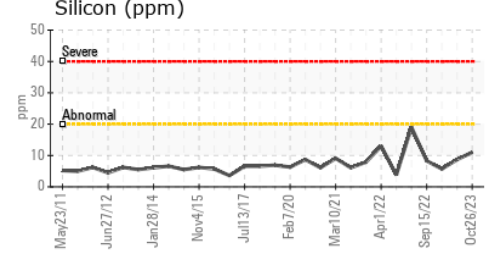
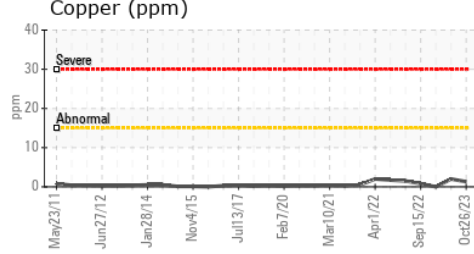
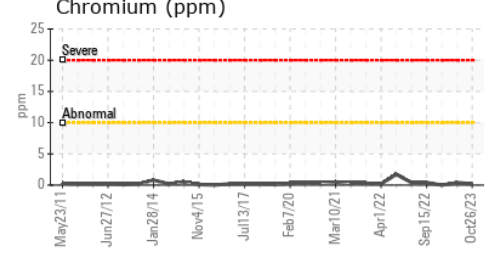
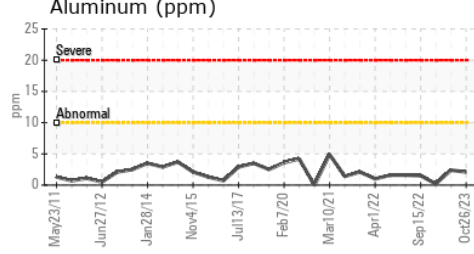
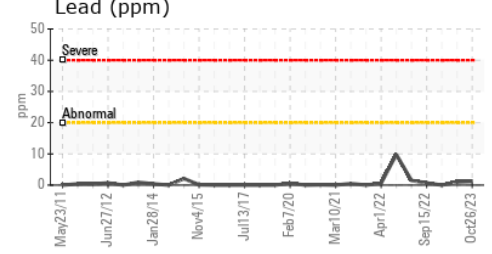
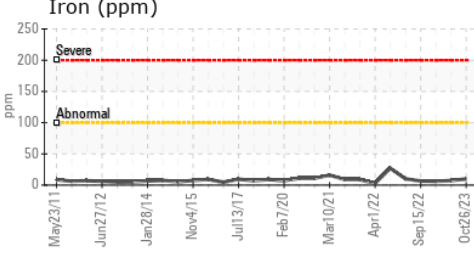
# OIL ANALYSIS REPORT



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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	14.4	<b>12.3</b>	12.2	12.3

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DJJ0010726 **Received** : 17 Nov 2023  
**Lab Number** : 06011399 **Diagnosed** : 20 Nov 2023  
**Unique Number** : 10750543 **Diagnostician** : Wes Davis  
**Test Package** : MOBCE ( Additional Tests: TBN )

**ADVANTAGE METALS RECYCLING - CHEYENNE**  
 1015 S. PACKARD ST  
 KANSAS CITY, KS  
 US 66105  
 Contact: BRIAN JACOBS  
 BRIAN.JACOBS@ADVANTAGERECYCLING.COM  
 T: (816)808-4711  
 F:

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)