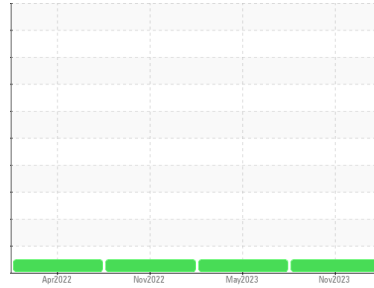




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**SPG 4160A ENGINE LUBE OIL**

Component  
**Diesel Engine**

Fluid  
**MOBIL DELVAC MX EXTRA 0W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>PP13932690</b>	PP13869146	PP13796084
Sample Date	Client Info		<b>25 Nov 2023</b>	30 May 2023	06 Nov 2022
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	NORMAL	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	0.0

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >100	<b>2</b>	2	2
Chromium	ppm	ASTM D5185(m) >20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m) >4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m) >3	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185(m) >20	<b>2</b>	2	2
Lead	ppm	ASTM D5185(m) >40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185(m) >330	<b>3</b>	2	3
Tin	ppm	ASTM D5185(m) >15	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	<b>1</b>	1	1
Barium	ppm	ASTM D5185(m)	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	<b>0</b>	<1	<1
Manganese	ppm	ASTM D5185(m)	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	<b>6</b>	7	5
Calcium	ppm	ASTM D5185(m)	<b>2082</b>	2093	1973
Phosphorus	ppm	ASTM D5185(m)	<b>887</b>	943	906
Zinc	ppm	ASTM D5185(m)	<b>1053</b>	1043	962
Sulfur	ppm	ASTM D5185(m)	<b>2981</b>	3075	2856
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

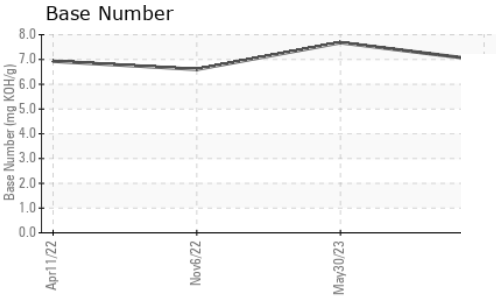
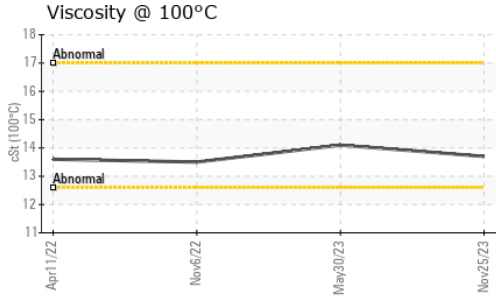
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	<b>9</b>	7	10
Sodium	ppm	ASTM D5185(m)	<b>2</b>	3	10
Potassium	ppm	ASTM D5185(m) >20	<b>1</b>	2	9

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624* >20	<b>6.2</b>	4.8	4.4
Sulfation	Abs/.1mm	ASTM D7415* >30	<b>15.9</b>	15.3	15.5



# OIL ANALYSIS REPORT

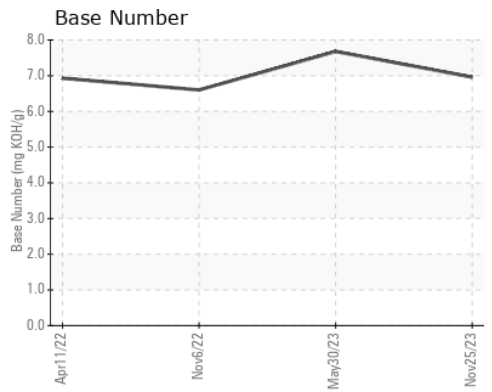
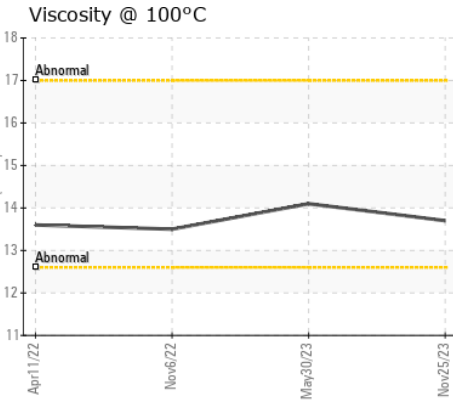
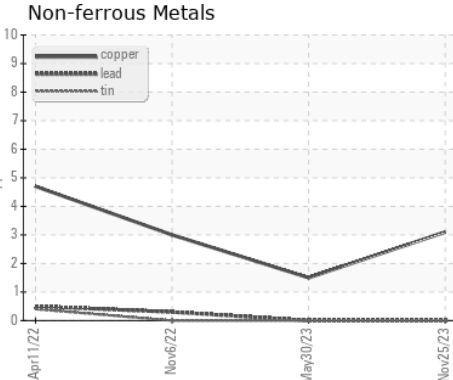
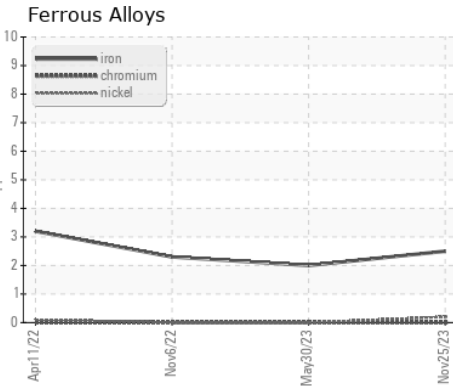


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>13.2</b>	11.8	11.7
Base Number (BN)	mg KOH/g	ASTM D2896*		<b>6.96</b>	7.68	6.60

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)		<b>13.7</b>	14.1	13.5

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PP13932690  
**Lab Number** : **02601388**  
**Unique Number** : 5694473  
**Test Package** : MAR 2

**ExxonMobil Canada East Ltd.**  
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 F:

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.