

Laboratory Analytical Report



03 May 2023

Mr. Rob Rumbaugh

J&R Industrial Engine

PO Box 891688

Oklahoma City, OK 73189

WO: P3E0014

RE: Job 18187

Enclosed are the results of analyses for samples received by the laboratory on 5/2/2023. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jorge Gamarra".

Jorge Gamarra For Russell Britten

President

Original (P)





4619 N. Santa Fe Ave
 Oklahoma City, OK 73118
 405.488.2400 Phone
 405.488.2404 Fax
 www.oilab.com

J&R Industrial Engine
 PO Box 891688
 Oklahoma City OK, 73189

Project Number: Job 18187
 Project Manager: Mr. Rob Rumbaugh

Reported:
 05/03/23 16:07

P3E0014-01 (Oil)

Sampled: 5/2/2023 4:00:00PM
 Sample Name: EE206200340

Parameter	Result	Reporting Limit	Units	Analyzed	Method	Qualifiers
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General Parameters in Oil

Total Acid Number	0.52	0.02	mg of KOH/g	05/03/23	ASTM D974	
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Metals in Oil

Aluminum	11	1	ppm	05/03/23	ASTM D5185 Mod	
Chromium	4	1	ppm	05/03/23	ASTM D5185 Mod	
Copper	14	1	ppm	05/03/23	ASTM D5185 Mod	
Iron	38	1	ppm	05/03/23	ASTM D5185 Mod	
Lead	8	1	ppm	05/03/23	ASTM D5185 Mod	
Silicon	10	1	ppm	05/03/23	ASTM D5185 Mod	

FTIR Analysis

Fuel Dilution	Negative		N/A	05/03/23	ASTM E2412-10 M	
Antifreeze Contamination	Negative		N/A	05/03/23	ASTM E2412-10 M	
Water Contamination	Negative		N/A	05/03/23	ASTM E2412-10 M	
Oil Oxidation	Negative		N/A	05/03/23	ASTM E2412-10 M	
Oil Nitration	Negative		N/A	05/03/23	ASTM E2412-10 M	

ETI-Oilab, LLC

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jorge Gamarra For Russell Britten, President



P3E0014
 Original
 OIL_OKC_RPTMRL_rev7.0.rpt



Sample Receipt Form: P3E0014

ETI-Oilab, LLC

Printed: 5/2/2023 4:36:34PM

P-3-E-0014

Client: J&R Industrial Engine	Project Manager: Mr. Rob Rumbaugh
Project: Oilab Testing	Project Number: Job 18187

Report To:
 J&R Industrial Engine
 Mr. Rob Rumbaugh
 PO Box 891688
 Oklahoma City, OK 73189

Invoice To:
 J&R Industrial Engine
 Mr. Rob Rumbaugh
 PO Box 891688
 Oklahoma City, OK 73189

Phone: (405) 692-3946

Phone: (405) 692-3946

Date Due: 05/03/23 17:00 (1 day TAT)

Received By: Reese Hatheway

Date Received: 05/02/23 16:27

Samples Received at:	28.8°C				
Custody seals	No	Received on ice	No	Sufficient sample	Yes
Containers intact	Yes	Sample or temp blank frozen	No		
COC/Labels agree	Yes	Headspace in VOA vials	No		
Preservation confirmed	No	Correct containers	Yes		

Analysis	Due	TAT	Expires	Comments
P3E0014-01 EE206200340 [Oil] Sampled 05/02/23 16:00 CST				
(oil) Lube Oil Analysis (Basic Wear)	05/03/23 17:00	1	06/01/23 16:00	

Analysis groups included in this work order

(oil) Lube Oil Analysis (Basic Wear)

Al in Oil (ICP-OES)	Chromium in Oil (ICP-OES)	Cu in Oil (ICP-OES)	FTIR Scan for Wear Metals
Iron in Oil (ICP-OES)	Lead in Oil (ICP-OES)	Si in Oil (ICP-OES)	Total Acid Number

Estimated analysis pricing included in work order P3E0014

Analysis	Samples	List Price	Rush Charge	Total Price
(oil) Lube Oil Analysis (Basic Wear)	1	\$ 60.00	\$45.00	\$90.00
			Total	\$90.00

