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Online results

SAMPLE 23T38740

Sampling date:	09/12/2023	Equipment (km/h):	0
Reception date:	10/03/2023	Lubricant (km/h):	0
Diagnosis date:	10/11/2023	Top-up (l):	0
Lubricant in use:	GREASE	Test suite:	ICP+WAKF+DRPC+FTAT+WKP3

PO EQUIPMENT 02209450/G001

Equipment description:	Grease
Component description:	NEW CASTLE, GREASE
Fleet no / Ref.:	New Castle - Grease
Ref ID:	
Sample Ref	ESI, OMAHA, NE

DIAGNOSIS

Result(s) meet the listed acceptance criteria of AAR M-942 specification for dropping point and cone penetration. However, Silicon and wear indicates there may be dirt in the lubricant. Bushing / Bearing wear is detected. FTIR scan is attached and suggests mineral oil, lithium based grease. Reference for Shell Alvania EP D and Mobil Arapen RB 320 is not available, but the greases are very similar in properties (lithium calcium grease). ICP analysis also confirms presence of lithium and calcium.

National Transportation Safety Board
McAtee Nancy

USA

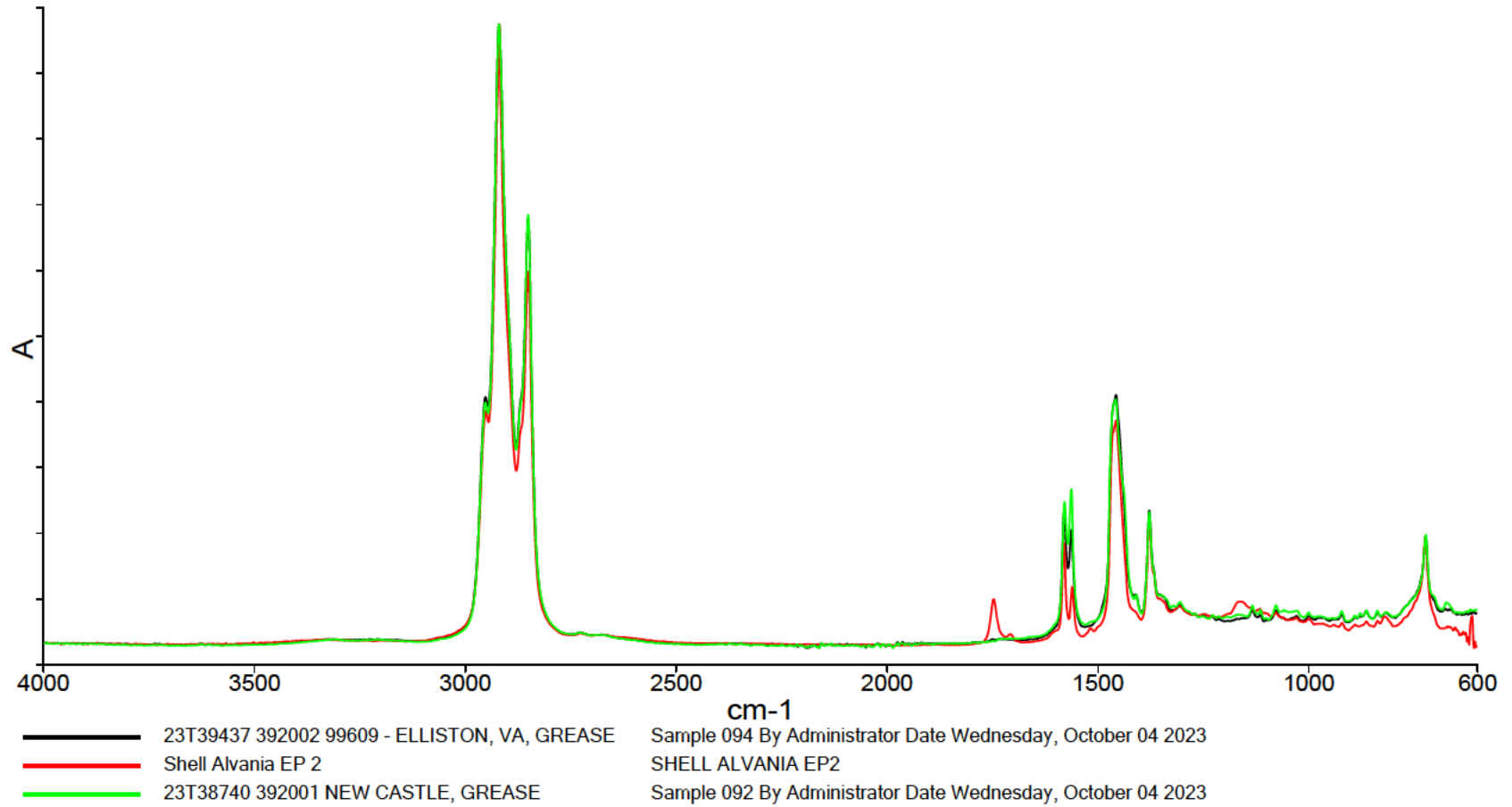
TESTS	Limits		RESULTS
	Min	Max	
ASTM D7303 ICP of Grease			
Aluminum ppm			233.0
Antimony ppm			127.4
Barium ppm			11208.9
Boron ppm			81.7
Calcium ppm			55972.7
Cadmium ppm			1.4
Chromium ppm			90.6
Copper ppm			24.4
Iron ppm			12938.0
Lead ppm			<0.5
Lithium ppm			1852.4
Magnesium ppm			538.8
Manganese ppm			107.2
Molybdenum ppm			10.2
Nickel ppm			50.7
Phosphorus ppm			355.6
Potassium ppm			99.7
Silicon ppm			280.4
Sodium ppm			727.4
Sulfur ppm			3096.6
Tin ppm			13.0
Zinc ppm			422.6
Silver ppm			0.5
ASTM D6304			
Water content ppm			304
ASTM D2265			
Dropping Point °C			167.7
FTIR Scan by ATR			
Fourier Transform Infrared			ENCLOSED
ASTM D1403 1/4 scale 25°C/77°F			
Worked Penetration mm/10			308

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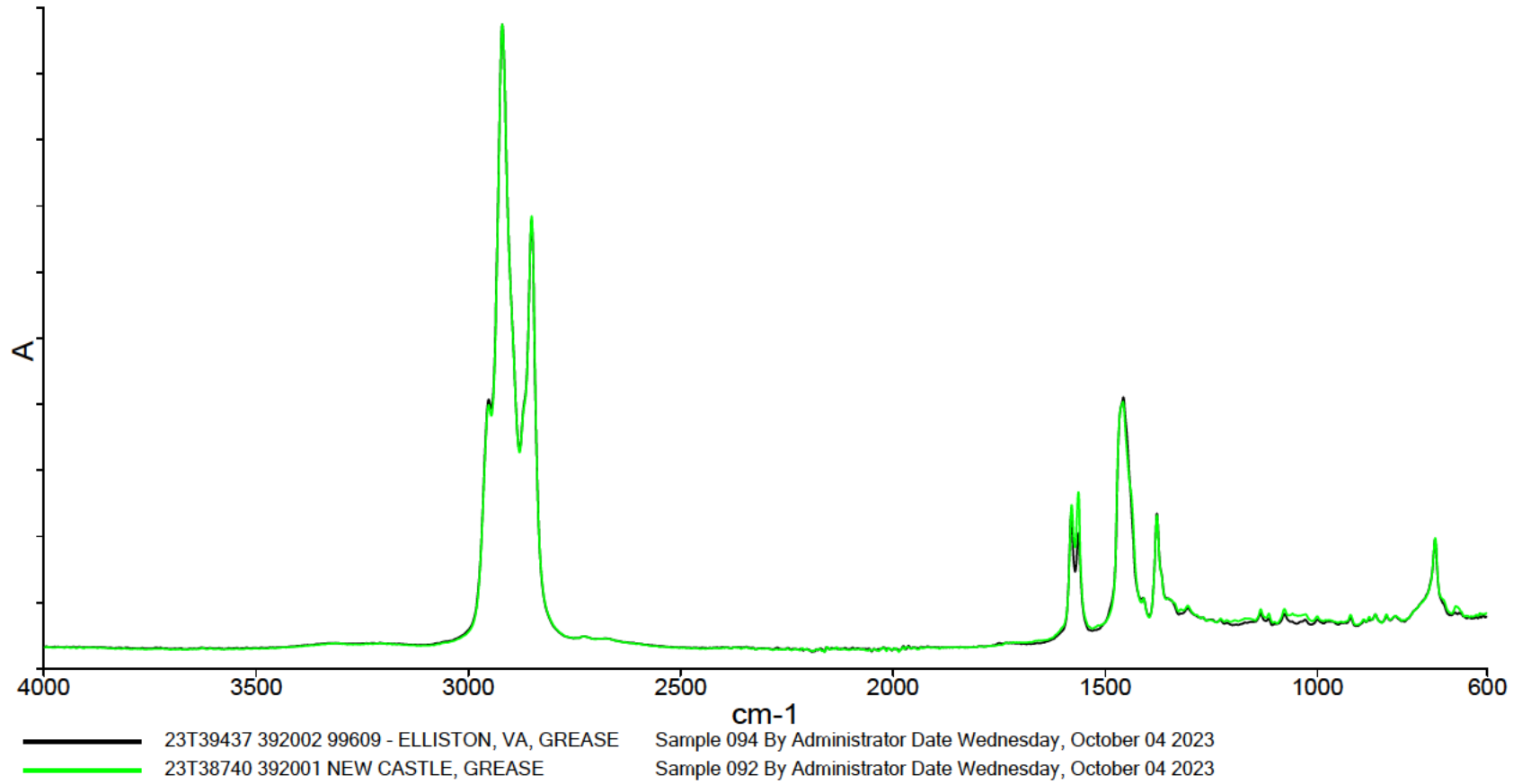
Analyst
Date

Administrator
Wednesday, October 11, 2023 11:39 AM



Analyst
Date

Administrator
Wednesday, October 11, 2023 11:46 AM



Analyst
Date

Administrator
Wednesday, October 11, 2023 11:51 AM

