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Online results

<https://sofia.sgs.com>

SAMPLE		23T39437	
Sampling date:	09/13/2023	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 02209451/G001

Equipment description: Grease

Component description: 99609 - ELLISTON, VA, GREASE

Fleet no / Ref.: 99609 - Elliston, VA

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.

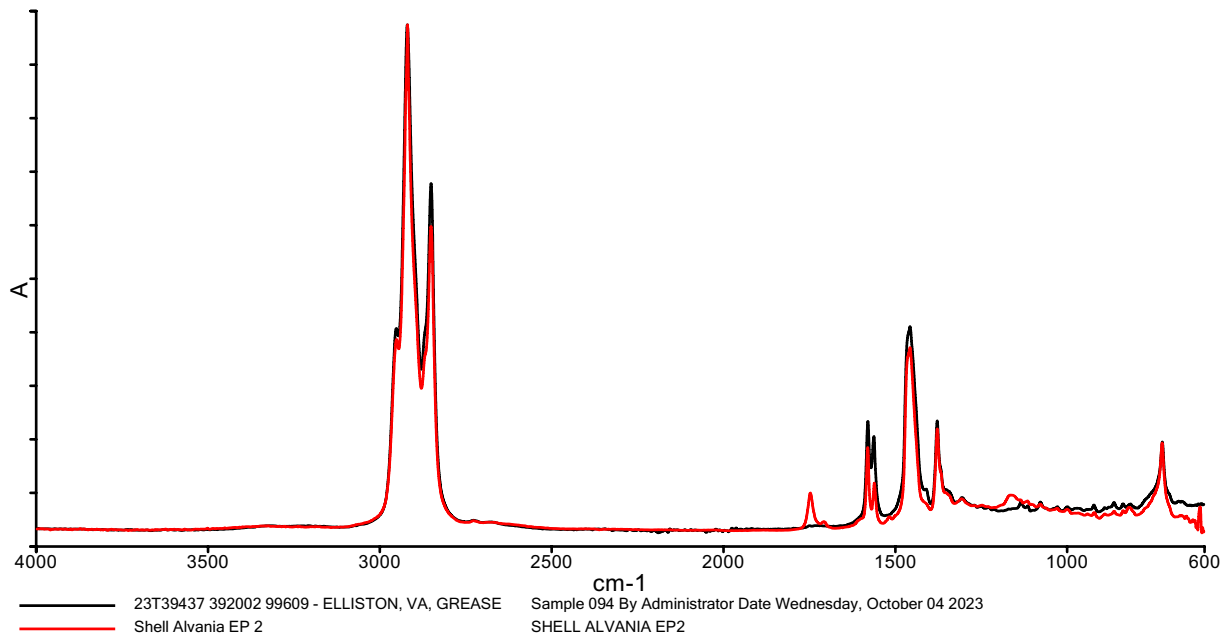
TESTS	Limits		RESULTS
	Min	Max	
ASTM D7303 ICP of Grease			
Aluminum ppm			60.6
Antimony ppm			3134.4
Barium ppm			238.8
Boron ppm			53.2
Calcium ppm			32337.0
Cadmium ppm			1.4
Chromium ppm			62.7
Copper ppm			18.4
Iron ppm			15208.7
Lead ppm			3.4
Lithium ppm			2303.1
Magnesium ppm			268.4
Manganese ppm			99.8
Molybdenum ppm			4.7
Nickel ppm			132.6
Phosphorus ppm			155.8
Potassium ppm			1179.6
Silicon ppm			209.1
Sodium ppm			135.6
Sulfur ppm			5350.4
Tin ppm			13.6
Zinc ppm			292.9
Silver ppm			<0.5
ASTM D6304			
Water content ppm			371
ASTM D2265			
Dropping Point °C			188.7
FTIR Scan by ATR			
Fourier Transform Infrared			ENCLOSED
ASTM D1403 1/4 scale 25°C/77°F			
Worked Penetration mm/10			267

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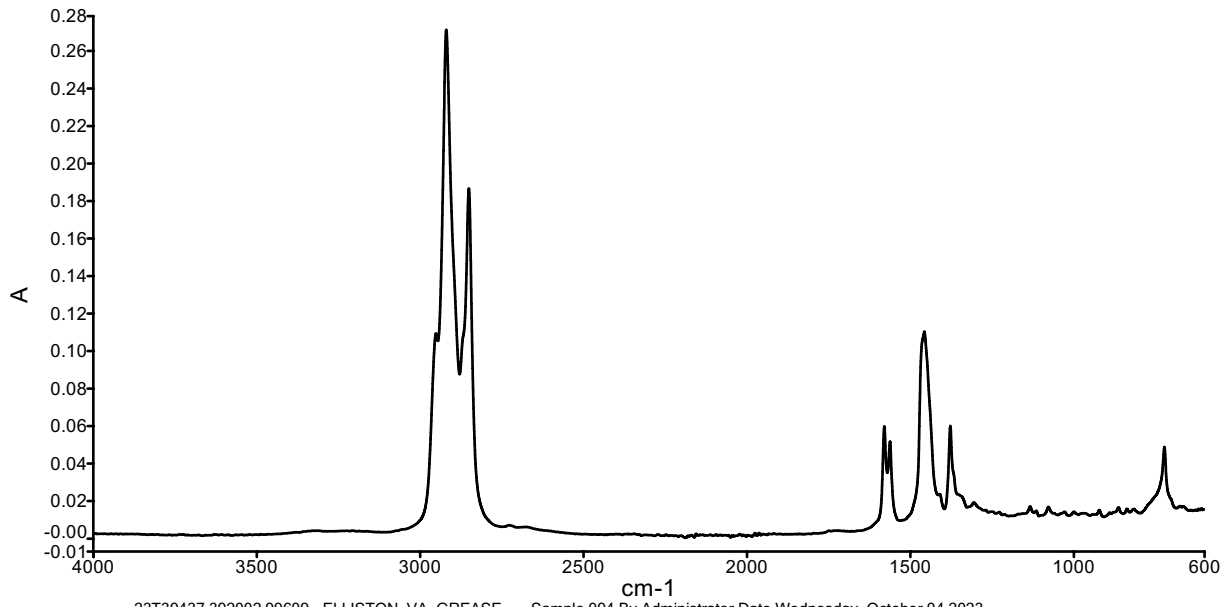
Analyst
Date

Administrator
Wednesday, October 11, 2023 11:32 AM



Analyst
Date

Administrator
Wednesday, October 11, 2023 11:49 AM



23T39437 392002 99609 - ELLISTON, VA, GREASE Sample 094 By Administrator Date Wednesday, October 04 2023