



TriStar 3000 V6.08 A

Unit 1 Port 3

Serial #: 1586

Page 1

Sample: LSN 294331
Operator: MG
Submitter: Boral
File: C:\...\TRISTAR\000-972.SMP

Started: 27/11/2023 1:47:53PM
Completed: 27/11/2023 6:34:01PM
Report Time: 27/11/2023 9:46:00PM
Warm Free Space: 8.2063 cm³ Measured
Equilibration Interval: 15 s
Sample Density: 1.000 g/cm³

Analysis Adsorptive: N2
Analysis Bath Temp.: 77.350 K
Sample Mass: 1.3200 g
Cold Free Space: 24.6157 cm³ Measured
Low Pressure Dose: None
Automatic Degas: No

Comments: Ecotec S Fume-2023-SA-0309 LSN294331-REQ109201

Isotherm Tabular Report

Relative Pressure (P/Po)	Absolute Pressure (mmHg)	Quantity Adsorbed (cm ³ /g STP)	Elapsed Time (h:min)	Saturation Pressure (mmHg)
0.024475350	18.90219	3.5712	03:54	772.29480
0.029779341	22.99843	3.7133	04:07	
0.053151118	41.04833	4.1566	04:13	
0.107970431	83.38500	4.7925	04:19	
0.149025019	115.09125	5.1432	04:25	
0.199712359	154.23682	5.5182	04:30	
0.250895855	193.76556	5.8666	04:35	
0.302387354	233.53218	6.2050	04:40	
			04:45	

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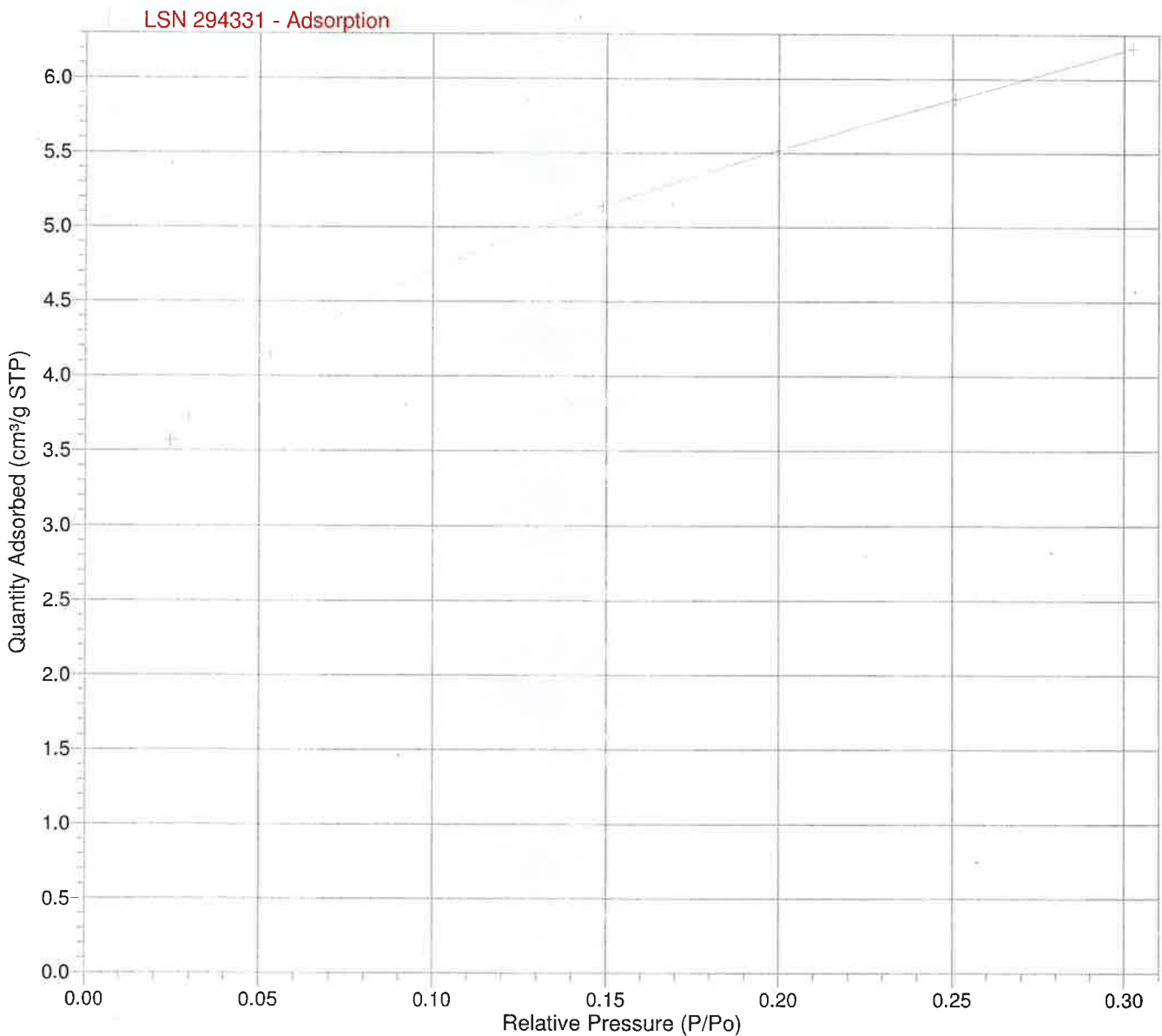
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Isotherm Linear Plot



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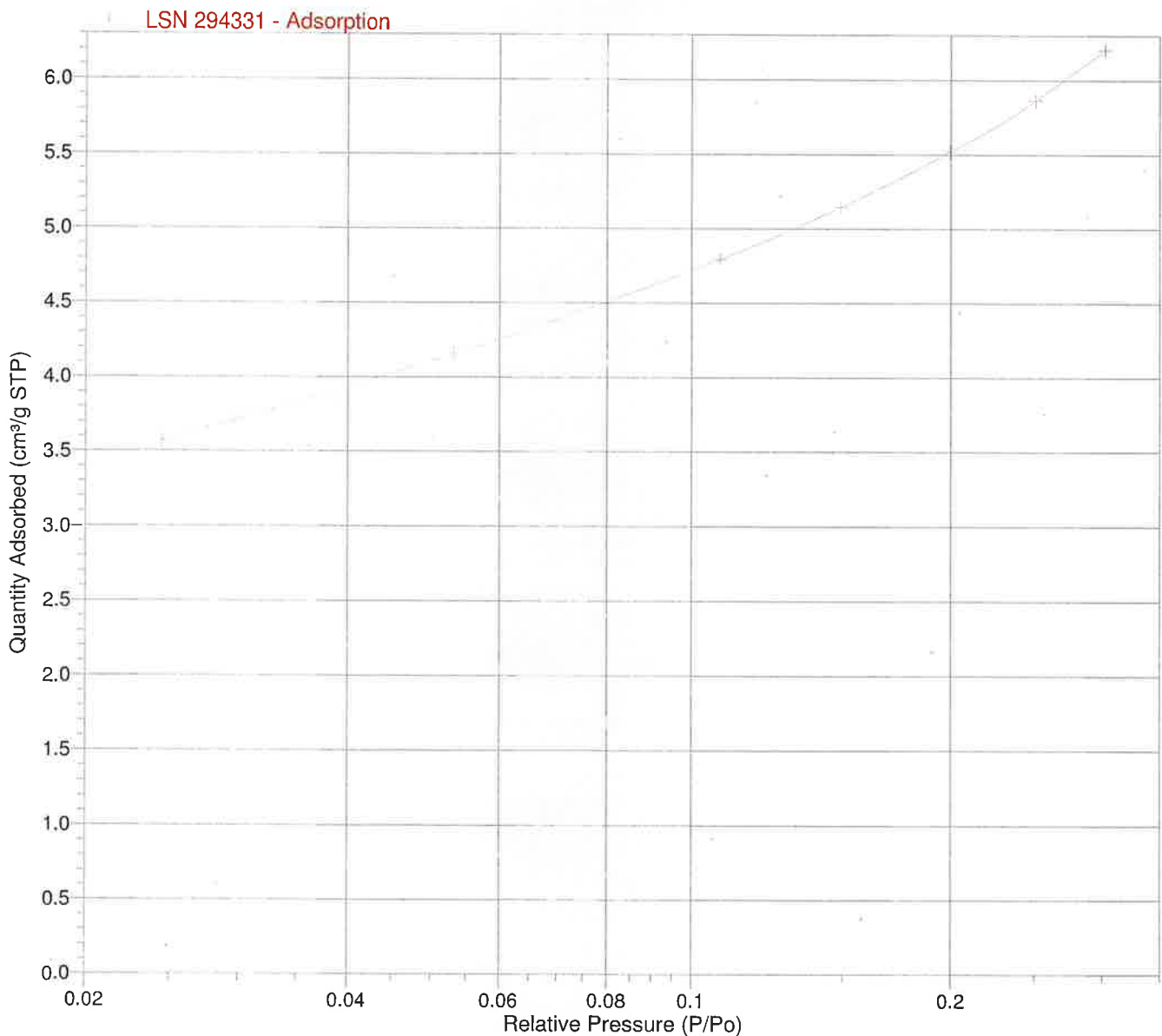
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Isotherm Log Plot





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BET Surface Area Report

BET Surface Area: 19.6537 ± 0.1963 m²/g
Slope: 0.219934 ± 0.002182 g/cm³ STP
Y-Intercept: 0.001562 ± 0.000365 g/cm³ STP
C: 141.834686
Qm: 4.5148 cm³/g STP
Correlation Coefficient: 0.9998524
Molecular Cross-Sectional Area: 0.1620 nm²

Relative Pressure (P/Po)	Quantity Adsorbed (cm ³ /g STP)	1/[Q(Po/P - 1)]
0.053151118	4.1566	0.013505
0.107970431	4.7925	0.025256
0.149025019	5.1432	0.034049
0.199712359	5.5182	0.045223
0.250895855	5.8666	0.057090

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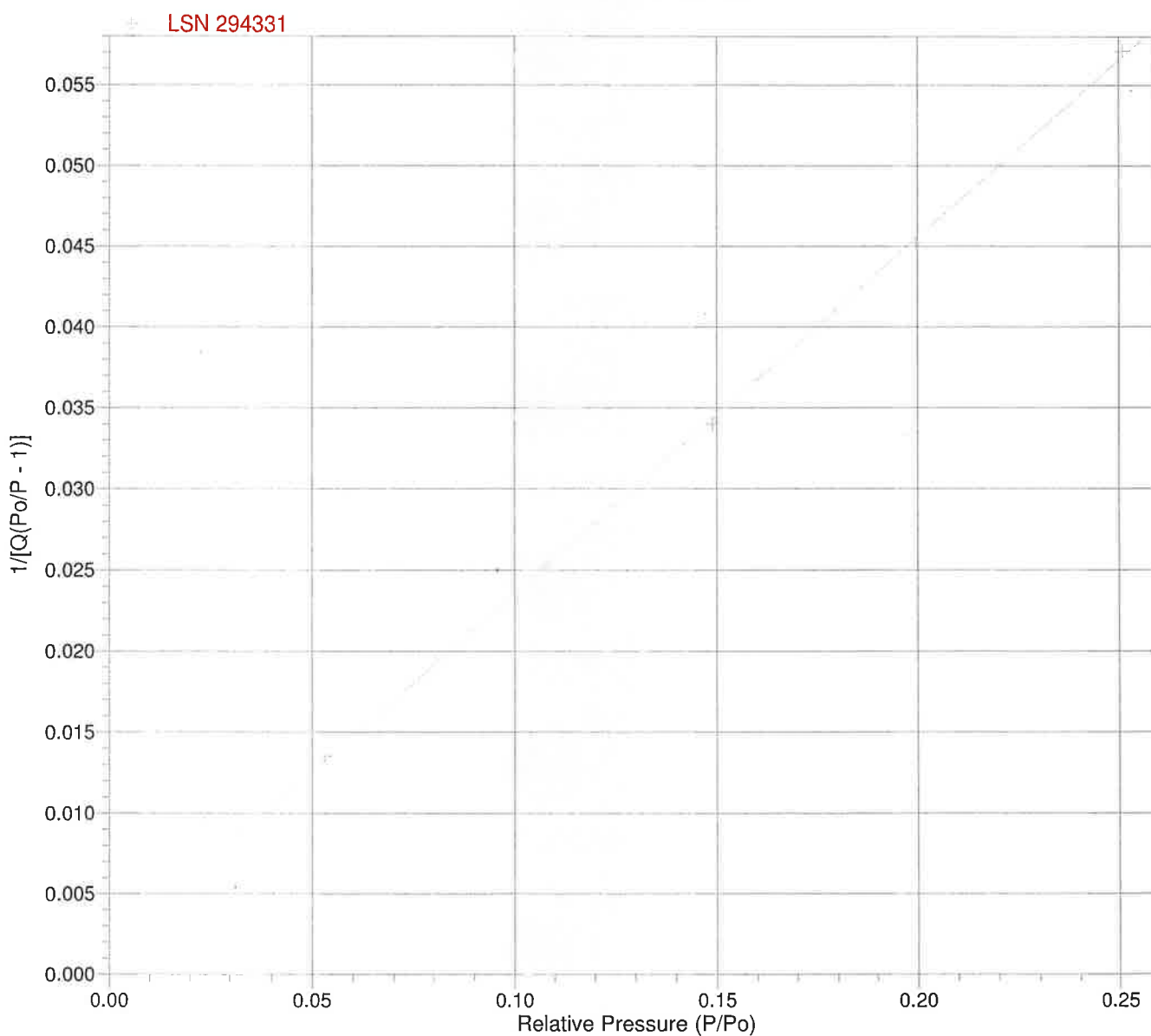
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BET Surface Area Plot





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Langmuir Surface Area Report

Langmuir Surface Area: 25.8209 ± 0.7842 m²/g
Slope: 0.168592 ± 0.005120 g/cm³ STP
Y-Intercept: 2.606656 ± 0.451026 mmHg·g/cm³ STP
b: 0.064677 1/mmHg
Qm: 5.9315 cm³/g STP
Correlation Coefficient: 0.998160
Molecular Cross-Sectional Area: 0.1620 nm²

Pressure (mmHg)	Quantity Adsorbed (cm ³ /g STP)	P/Q (mmHg·g/cm ³ STP)
18.90219	3.5712	5.293
22.99843	3.7133	6.194
41.04833	4.1566	9.875
83.38500	4.7925	17.399
115.09125	5.1432	22.377
154.23682	5.5182	27.951

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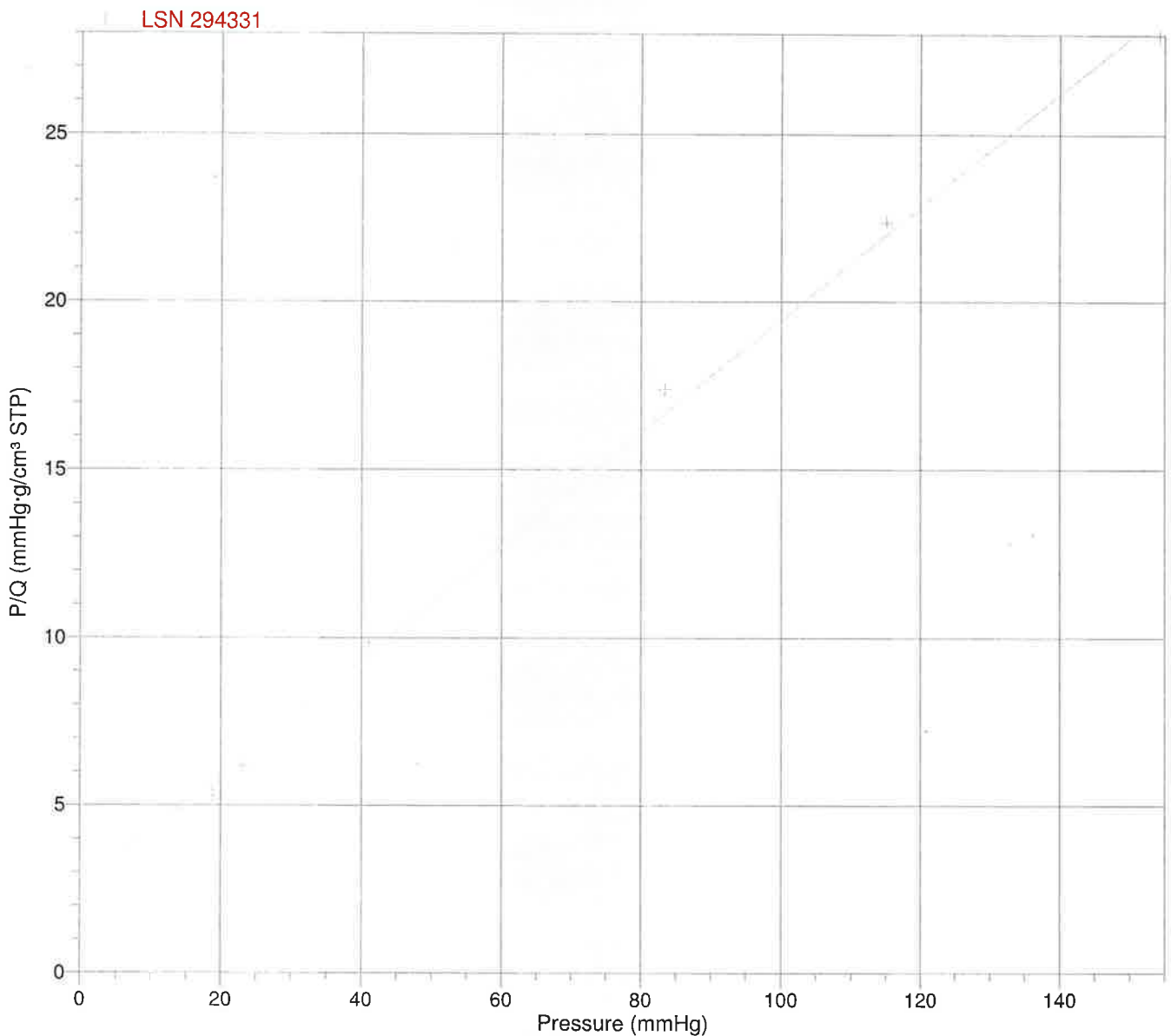
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Langmuir Surface Area Plot





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Summary Report

Surface Area

Single point surface area at $P/P_0 = 0.250895855$: 19.1311 m²/g

BET Surface Area: 19.6537 m²/g

Langmuir Surface Area: 25.8209 m²/g