

Vista Polymers
A Division of
Vista Chemical Company

Highway 25
Post Office Box 91

Aberdeen, Mississippi 39730-0091
Phone (601) 369-8111

A

CERTIFICATE OF ANALYSIS

VISTA

Date: September 29, 1992

Customer: United Technologies
800 E. Bridge Street
Plainwell, MI 49080

Product: 5415

Railcar No.: PLWX 44281

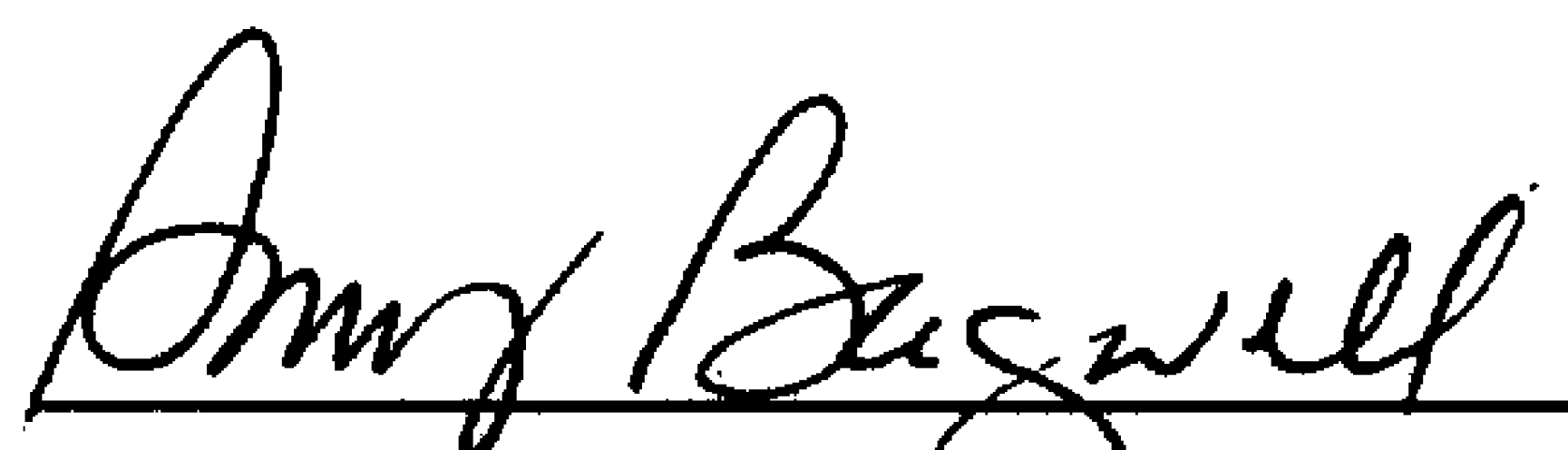
Attention: Quality Control Manager

Order No.: 0016359-000

Ship Date: September 25, 1992

Customer P.O. No.: 11214

<u>Property</u>	<u>Test Method</u>	<u>Specification</u>	<u>Analysis</u>
Moisture, %	ABR-1A	0.3 Max.	0.14
Hard Particles @ 7 Mins.	ABR-12	25 Max.	2
Contamination, BLK/BRN	ABR-5A	35/100 Max.	4 / 5
Bulk Density, gm/cc	ABR-2B	0.460 Min.	0.496
Brabender Dry Time, Mins.	ABR-7	4.0 - 5.5	4.6
Particle Size Distribution	ABR-3		
% On 40 Mesh		0.1 Max.	0.00
% On 200 Mesh		*NDS	3.8
% On Pan		2.0 Max.	1.9
*Specification is 15.0% Max. for the 200 Mesh plus Pan.			
Residual VCM, ppm	ABGC-26	0.2 Max.	0.279
Inherent Viscosity	ABR-10	1.00 - 1.04	1.02
METS IR, % of Control	ABR-13	95% Min.	131%



Amy E. Bagwell
Laboratory Supervisor

(601) 369-3624

VAB.0001202391

Vista Polymers

Highway 25

Aberdeen, MS 39730

PVC RAILCAR ANALYSIS

Load Date: 9-25-92Product: 5415Car No.: 44281Time Logged In: 0600Logged In By: ESSilo(s): 690, 691Ship Date: 9/25/92Order No: 0016359-000Customer: United Tech
CPO 11214
Plainwell, MINO Metal

Compartment	A		CA		CB		B	
Sample From	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top
Moisture %	.12		.08		.13		.14	
Contamination BL	<u>3</u>	<u>2</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>4</u>	<u>3</u>	<u>3</u>
BR	<u>7</u>	<u>5</u>	<u>5</u>	<u>8</u>	<u>5</u>	<u>6</u>	<u>8</u>	<u>7</u>
Bulk Density	.493		.492		.499		.500	
Hard Particle 5	<u>5</u>	—	—	—	—	—	—	—
7	<u>2</u>	—	—	—	—	—	—	—
Viscosity	1.020							
RVCM	.279							

Screen Analysis

Mesh	40	60	80	100	120	140	200	Pan
Weight	<u>0.0</u>	<u>1.00</u>	<u>18.58</u>	<u>12.02</u>	<u>11.59</u>	<u>3.97</u>	<u>1.91</u>	<u>.93</u>
% P	<u>0.0</u>	<u>2.0</u>	<u>37.2</u>	<u>24.0</u>	<u>23.2</u>	<u>7.9</u>	<u>3.8</u>	<u>1.9</u>

Drytime: 4.6Static Flow: 0, 8.3Avg. Microns: 170.4Color L: 100.74 a 0.09 b 1.33METS: 9789, 131.2Technician: MIT & KTT

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CERTIFICATE OF ANALYSIS

Date: August 20, 1992

Customer: United Technologies
800 E. Bridge St.
Plainwell, MI 49080

Product: 5415

Railcar No.: UTCX 46504

Attention: Quality Control Manager

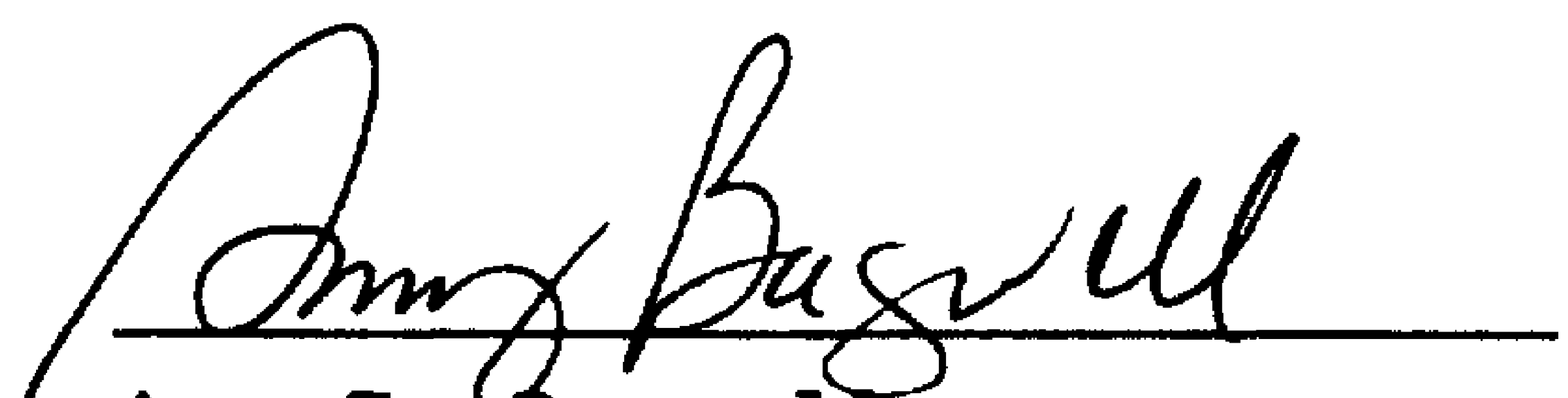
Order No.: 0013800-000

Ship Date: August 17, 1992

Customer P.O. No.: 11056

VISTA

<u>Property</u>	<u>Test Method</u>	<u>Analysis</u>
Moisture, %	ABR-1A	0.16
Bulk Density, GM/CC	ABR-2B	0.512
Brabender Dry Time, Mins.	ABR-7	4.9
Particle Size Distribution	ABR-3	
% On 40 Mesh		0.00
% On 200 Mesh		4.8
% On Pan		1.6
Vinyl Chloride Monomer	ABGC-26	0.033
Inherent Viscosity	ABR-10	1.03
Hard Particle @ 7 Minutes	ABR-12	1
Contamination, BLK/BRN	ABR-5A	7/ 2
METS IR, % of Control	ABR-13	125


Amy E. Bagwell
Laboratory Supervisor/Lead

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PVC RAILCAR ANALYSIS

Load Date: 8-15-92 Product: 5415 Car No.: 46504
 Time Logged In: 1200 Logged In By: R31 Silo(s): 691
 Ship Date: 8/17/92 Order No: 13800-000 Customer: ~~Sales~~ UTA
11056 Plainwell

no metal

Compartment	A		CA		CB		B	
Sample From	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top
Moisture %	.13		.15		.11		.16	
Contamination	BL							
	BR							
	<u>7</u> <u>2</u>	<u>3</u> <u>1</u>	<u>5</u> <u>4</u>	<u>6</u> <u>3</u>	<u>3</u> <u>2</u>	<u>2</u> <u>1</u>	<u>5</u> <u>3</u>	<u>3</u> <u>3</u>
Bulk Density	.518		.509		.572		.508	
Hard Particle	5							
	7	<u>2</u> <u>1.68</u>						
Viscosity	1.028							
RVCM	.033							

Screen Analysis

Mesh	40	60	80	100	120	140	200	Pan
Weight	<u>0.00</u>	<u>2.12</u>	<u>18.65</u>	<u>14.91</u>	<u>7.80</u>	<u>3.25</u>	<u>2.41</u>	<u>.79</u>
%	<u>0.0</u>	<u>4.2</u>	<u>37.3</u>	<u>29.8</u>	<u>15.8</u>	<u>6.5</u>	<u>4.8</u>	<u>1.6</u>

Drytime: 4.9 Static Flow: 0 / 8.2 Avg. Microns: 176.5

Color L: 101.10 a -0.04 b 1.38

METS: 9147 125.4
4300 127.5 %

Technician: MHA

VAB.0001202394

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CERTIFICATE OF ANALYSIS

Date: June 23, 1992

Customer: United Technologies
800 E. Bridge St.
Plainwell, MI 49080

Product: 5415

Railcar No.: UTCX 46521

Attention: Quality Control Manager

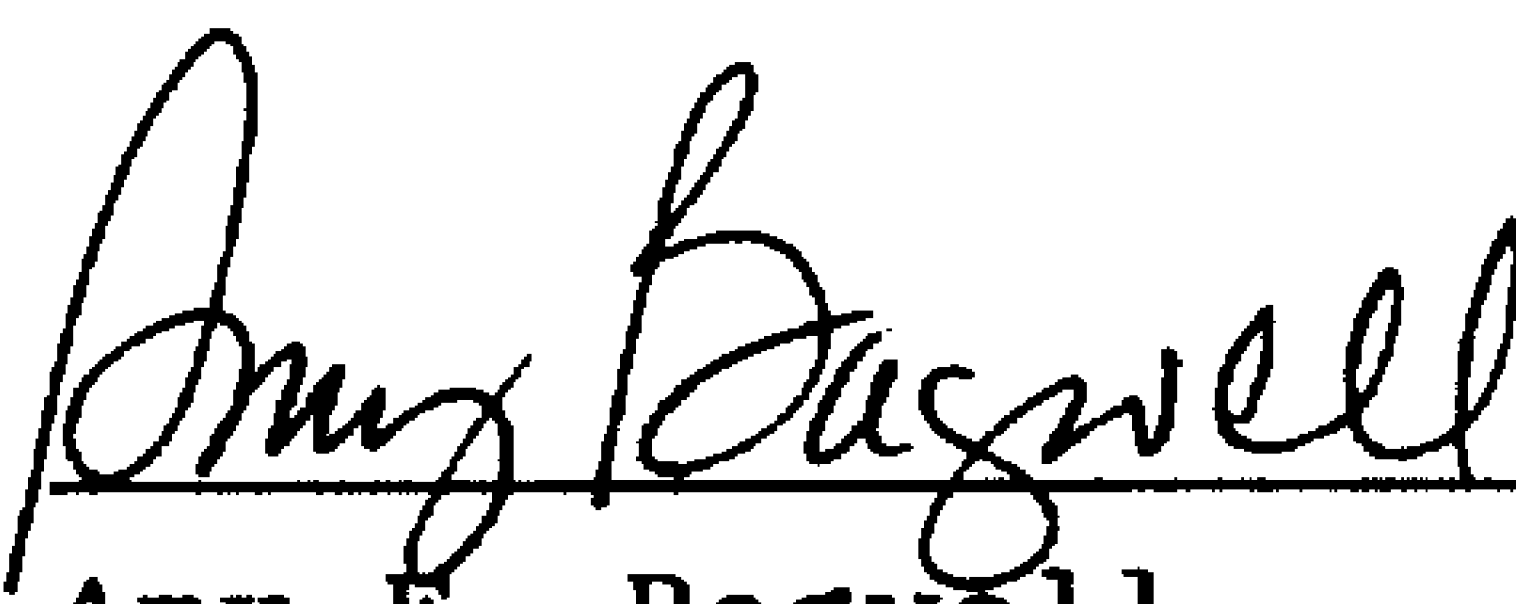
Order No.: 0012624-000

Ship Date: June 19, 1992

Customer P.O. No.: 10948

VISTA

<u>Property</u>	<u>Test Method</u>	<u>Analysis</u>
Moisture, %	ABR-1A	0.12
Bulk Density, GM/CC	ABR-2B	0.508
Brabender Dry Time, Mins.	ABR-7	4.7
Particle Size Distribution	ABR-3	
% On 40 Mesh		0.00
% On 200 Mesh		5.8
% On Pan		1.7
Vinyl Chloride Monomer	ABGC-26	0.002
Inherent Viscosity	ABR-10	1.01
Hard Particle @ 7 Minutes	ABR-12	2
Contamination, BLK/BRN	ABR-5A	5/ 10
METS IR, % of Control	ABR-13	12


Amy E. Bagwell
Laboratory Supervisor/Lead

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Aberdeen, MS 39730

CUST RTN - Essay - open hatches

PVC RAILCAR ANALYSIS

Load Date: _____ Product: 5415 Car No.: 46521

Time Logged In: _____ Logged In By: MA Silo(s): _____

Ship Date: 6/19/92 Order No: 0012624-000 Customer: ~~BP Polymers~~
WCC, ATL
10948

Compartment	A		CA		CB		B	
Sample From	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top
Moisture %		.10	.12	.13	.11	.15	.10	.12
Contamination	BL BR	<u>4/5</u> <u>3/6</u> L R	<u>3/7</u> <u>4/5</u> L R	<u>3/4</u>	<u>2/4</u> <u>4/4</u> L R	<u>4/5</u>	<u>3/6</u> <u>2/7</u> L R	<u>3/5</u>
Bulk Density								
Hard Particle	5 7	____	____	____	____	____	____	____
Viscosity								
RVCM								

Screen Analysis

Mesh	40	60	80	100	120	140	200	Pan
Weight	_____	_____	_____	_____	_____	_____	_____	_____
%	_____	_____	_____	_____	_____	_____	_____	_____

Drytime: _____ Static Flow: _____ / _____ Avg. Microns: _____

Color L: _____ a _____ b _____

METS: _____ / _____ %

Technician: _____