Lancaster Laboratories
2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

FILE COPY

Type I Data Package for Olin Corporation

CHECKED FOR COMPLETENESS OF PARAMETERS ORDERED BY: 2-16-11

SDG# OLN18

Project: Olin Wilmington, MA Superfund Site/6107090016
Soil Samples
Collected on 08/26/09-09/04/09

GROUP	SAMPLE NUMBERS
1159657	5763104-5763114
1160614	5769167-5769170
1160847	5770779-5770781

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-08A-TX

Prepared by _____

Reviewed by _____

Date 10/8/09

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Sample Reference List for SDG Number OLN18 with a Data Package Type of I

12670 - Olin Corporation

Project: Olin Wilmington, MA Superfund Site/6107090016

Lab Sample Number	Lab Sample Code	Client Sample Description
5763104	O4027	OC-SB-402-7.5/9.5-XXX Grab Soil
5763105	O4078	OC-SB-407-8.0/10-XXX Grab Soil
5763106	O4036	OC-SB-403-6.0/8.0-XXX Grab Soil
5763107	O4045	OC-SB-404-5.0/7.0-XXX Grab Soil
5763108	O4096	OC-SB-409-6.0/8.0-XXX Grab Soil
5763109	O410D	OC-SB-410-6.0/8.0-DUP Grab Soil
5763110	O4106	OC-SB-410-6.0/8.0-XXX Grab Soil
5763111	O4106	OC-SB-410-6.0/8.0-XMS Grab Soil
5763112	O4106	OC-SB-410-6.0/8.0-MSD Grab Soil
5763113	O4114	OC-SB-411-4.7/6.7-XXX Grab Soil
5763114	O4445	OC-SB-444-5.0/7.0-XXX Grab Soil
5769167	O4590	OC-SB-459-0.0/1.0-XXX Grab Soil
5769168	O4650	OC-SB-465-0.0/1.0-XXX Grab Soil
5769169	O4680	OC-SB-468-0.0/1.0-XXX Grab Soil
5769170	O4710	OC-SB-471-0.0/1.0-XXX Grab Soil
5770779	O4720	OC-SB-472-0.0/1.0-XXX Grab Soil
5770780	47230	OC-SB-472-30/32-XXX Grab Soil
5770781	472-8	OC-SB-472-8.0/10-XXX Grab Soil

Acct# 12670 Sample# 5763104-14
Grp# 1159657 Lancaster - Soil

Client: Olin Corporation	Client Project #: 6107090016	INVOICE INFO	Shaded Areas for office Use only
Address: 3855 North Ocoee St. Suite 200	Work Site ID: Wilmington, MA	Company Name: Olin Corp	
Cleveland, TN 37312	Reports Sent To: Steve Morrow	Company Contact: ERG Accounts Payable	
Phone: 423-336-4511 Fax: 423-336-1466	Email SGMorrow@olin.com Email Rpt:____	Address: Same as Client	
Requested Turnaround Time (SPECIFY)	Regulatory Programs: MADEP MCP____ Superfund ____	Phone: Email	
Standard_____ Rush_____ (Lab Approval Required)	Report Requirements Level IV Package ____ Level II Package ____		
	EDD Requirements: MACTEC EQUIS EZ EDD _____	Job #_____	Quote #_____
		Lab SDG #_____	PO #_____

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	Cr+6 (3060A / 7199)	Cr+6 (7199)	DMF (Mod 8033 - GC/NPD)	DMF (Mod 8033 - GC/NPD)	Opex / Kempore (8000B - HPLC)	Perchlorate (6850)												Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)			Comments (Special Instructions)
							G	P	G	V	V	V												AG	Zn AV			<--Preservative Type (4) <--Bottle Type (5)
OC-SB-402-0.0/1.0-XXX	8/26/2009 11:45:00	T	FS	SO	G	1																		X				Category 1

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, Nt = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass, AV = 40mL VOA Amber Glass Vial,

Relinquished: [signature]	Date: 8/27/09	Time: 1400	Received: _____	Date: / /	Time:
Relinquished: _____	Date: / /	Time:	Received: Kristin Zeigler	Date: 08/28/09	Time: 0900

Cooler? (Y) N	MADEP Requirement
	Samples Iced? (Y) N
Temp @ receipt: [ ] Deg C	
Preservation / pH checked? Y / N	
By: _____	Date: _____

Acct# 12670
Grp# 1159657
Sample# 5763104-14

Lancaster- Soil

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	Cr+6 (3060A / 7199)	Cr+6 (7199)	DMF (Mod 8033 - GC/NPD)	DMF (Mod 8033 - GC/NPD)	Opex / Kempore (8000B - HPLC)	Perchlorate (6850)													Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)			Comments (Special Instructions)
							G	P	G	V	V	V													AG	AV			<--Preservative Type (4) <--Bottle Type (5)
OC-SB-402-7.5/9.5-XXX	8/26/2009 12:00:00	T	FS	SO	G	1																			X				Category 2
OC-SB-407-0.0/1.0-XXX	8/26/2009 10:10:00	T	FS	SO	G	1																			X				Category 1
OC-SB-407-26/28-XXX	8/26/2009 11:25:00	T	FS	SO	G	1																			X				Category 3
OC-SB-407-8.0/10-XXX	8/26/2009 10:20:00	T	FS	SO	G	1																			X				Category 2

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass, AV = 40mL VOA Amber Glass Vial,

Cooler? Y / N | MADEP Requirement
Samples Iced? Y / N
Temp @ receipt: 4.7 Deg C
Preservation / pH checked? Y / N
By: _____ Date: _____

Relinquished: [signature] Date: 8/27/09 Time: 1400 Received: _____ Date: / / Time:
Relinquished: _____ Date: / / Time: Received: Kristin Zeigler Date: 8/28/09 Time: 0900

Acct # 12670
Grp # 1159657
Sample # 5763104-14

Lancaster - Soil

Client: Olin Corporation	Client Project #: 6107090016	INVOICE INFO	Shaded Areas for office use only
Address: 3855 North Ocoee St. Suite 200	Work Site ID: Wilmington, MA	Company Name: Olin Corp	
Cleveland, TN 37312	Reports Sent To: Steve Morrow	Company Contact: ERG Accounts Payable	
Phone: 423-336-4511 Fax: 423-336-1466	Email SGMorrow@olin.com Email Rpt:___	Address: Same as Client	
Requested Turnaround Time (SPECIFY)	Regulatory Programs: MADEP MCP____ Superfund ____	Phone: Email	
Standard_____ Rush_____ (Lab Approval Required)	Report Requirements Level IV Package ____ Level II Package ____		
	EDD Requirements: MACTEC EQUIS EZ EDD _____	Job #	Quote #
		Lab SDG #	PO #

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	Cr+6 (3060A / 7199)	Cr+6 (7199)	DMF (Mod 8033 - GC/NPD)	DMF (Mod 8033 - GC/NPD)	Opex / Kempore (8000B - HPLC)	Perchlorate (6850)													Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)			Comments (Special Instructions)
							G	P	G	V	V	V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<--Preservative Type (4)
																									AG	Zn AV			<--Bottle Type (5)
OC-SB-403-0.0/1.0-XXX	8/26/2009 1:25:00 PM	T	FS	SO	G	1																			X				Category 1

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = Di Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass, AV = 40mL VOA Amber Glass Vial,

Cooler ? Y / N	MADEP Requirement
	Samples Iced? Y / N
Temp @ receipt: 1.7 Deg C	
Preservation / pH checked? Y / N	
By: _____	Date: _____

Relinquished: [signature] Date: 8/27/09 Time: 1400 Received: _____ Date: __/__/__ Time: ____

Relinquished: _____ Date: __/__/__ Time: ____ Received: Kristin Zeigler Date: 8/28/09 Time: 0900

Acct # 12670
Grp # 1159657
Sample # 5763104-14

Lancaster-Soil

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	Cr+6 (3060A / 7199)	Cr+6 (7199)	DMF (Mod 8033 - GC/NPD)	DMF (Mod 8033 - GC/NPD)	Opex / Kempore (8000B - HPLC)	Perchlorate (6850)													Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)			Comments (Special Instructions)
							G	P	G	V	V	V													AG	Zn AV			<--Preservative Type (4) <--Bottle Type (5)
OC-SB-403-13/15-XXX	8/26/2009 1:40:00 PM	T	FS	SO	G	1																			X				Category 3
OC-SB-403-6.0/8.0-XXX	8/26/2009 1:30:00 PM	T	FS	SO	G	1																			X				Category 2
OC-SB-404-13/15-XXX	8/26/2009 3:40:00 PM	T	FS	SO	G	1																			X				Category 3
OC-SB-404-5.0/7.0-XXX	8/26/2009 3:20:00 PM	T	FS	SO	G	1																			X				Category 2
OC-SB-409-0.0/1.0-XXX	8/26/2009 4:50:00 PM	T	FS	SO	G	1																			X				Category 1
OC-SB-409-15/17-XXX	8/26/2009 5:15:00 PM	T	FS	SO	G	1																			X				Category 3
OC-SB-409-6.0/8.0-XXX	8/26/2009 5:05:00 PM	T	FS	SO	G	1																			X				Category 2

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass, AV = 40mL VOA Amber Glass Vial,

Cooler? Y / N	MADEP Requirement Samples Iced? Y / N
	Temp @ receipt: 1.9 Deg C
	Preservation / pH checked? Y / N
	By: _____ Date: _____

Relinquished: [signature] Date: 8/27/09 Time: 1400 Received: _____ Date: __/__/__ Time: _____

Relinquished: _____ Date: __/__/__ Time: _____ Received: Kristin Date: 8/28/09 Time: 0900

Acct # 12670
Grp # 1159657
Lancaster-Soil Sample# 5763104-14

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	Cr+6 (3060A / 7199)	Cr+6 (7199)	DMF (Mod 8033 - GC/NPD)	DMF (Mod 8033 - GC/NPD)	Opex / Kempore (8000B - HPLC)	Perchlorate (6850)												Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)			Comments (Special Instructions)
							G	P	G	V	V	V												AG	Zn AV			<--Preservative Type (4) <--Bottle Type (5)
OC-SB-410-0.0/1.0-XXX	8/27/2009 10:10:00	T	FS	SO	G	1																		X				Category 1
OC-SB-410-17/19-XXX	8/27/2009 11:15:00	T	FS	SO	G	1																		X				Category 3
OC-SB-410-6.0/8.0-DUP	8/27/2009 10:15:00	T	FD	SO	G	1																		X				Category 2 Field Dup
OC-SB-410-6.0/8.0-MSD	8/27/2009 10:15:00	T	MSD	SO	G	1																		X				Category 2 MSD in the same Jar as MS
OC-SB-410-6.0/8.0-XMS	8/27/2009 10:15:00	T	MS	SO	G	1																		X				Category 2 Matrix Spike
OC-SB-410-6.0/8.0-XXX	8/27/2009 10:15:00	T	FS	SO	G	1																		X				Category 2
OC-SB-411-0.0/1.0-XXX	8/26/2009 10:20:00	T	FS	SO	G	1																		X				Category 1

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass, AV = 40mL VOA Amber Glass Vial,

Cooler Y / N MADEP Requirement
Samples Iced? Y / N
Temp @ receipt: 1 Deg C
Preservation / pH checked? Y / N
By: _____ Date: _____

Relinquished: [signature] Date: 8/27/09 Time: 1400 Received: _____ Date: __/__/__ Time: _____

Relinquished: _____ Date: __/__/__ Time: _____ Received: Kristin Zeigler Date: 8/28/09 Time: 0900

Lancaster Soil

Acct # 12670
Grp # 1159657
Sample # 5763104-14

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	Cr+6 (3060A / 7199)	Cr+6 (7199)	DMF (Mod 8033 - GC/NPD)	DMF (Mod 8033 - GC/NPD)	Dpex / Kempore (8000B - HPLC)	Perchlorate (6850)													Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)			Comments (Special Instructions)
							G	P	G	V	V	V													AG	AV			<--Preservative Type (4) / <--Bottle Type (5)
OC-SB-411-4.7/6.7-XXX	8/26/2009 10:35:00	T	FS	SO	G	1																			X				Category 2

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass, AV = 40mL VOA Amber Glass Vial,

Cooler: Y / N MADEP Requirement Samples Iced? Y / N
Temp @ receipt: 1.1 Deg C
Preservation / pH checked? Y / N
By: _____ Date: _____

Relinquished: [signature] Date: 8/27/09 Time: 1400 Received: [signature] Date: / / Time:

Relinquished: Date: / / Time: Received: Kristin Taylor Date: 8/28/09 Time: 0900

2009 08 31 1587

Lancaster - Water

Acct# 12670
Grp# 1159657
Sample# 5763104-14

Client: Olin Corporation	Client Project #: 6107090016	INVOICE INFO	Shaded Areas for office use only
Address: 3855 North Ocoee St. Suite 200	Work Site ID: Wilmington, MA	Company Name: Olin Corp	
Cleveland, TN 37312	Reports Sent To: Steve Morrow	Company Contact: ERG Accounts Payable	
Phone: 423-336-4511 Fax: 423-336-1466	Email SGMorrow@olin.com Email Rpt:____	Address: Same as Client	
Requested Turnaround Time (SPECIFY)	Regulatory Programs: MADEP MCP____ Superfund ____	Phone: Email	
Standard_____ Rush_____ (Lab Approval Required)	Report Requirements Level IV Package ____ Level II Package ____		
	EDD Requirements: MACTEC EQUIS EZ EDD _____	Job #	Quote #
		Lab SDG #	PO #

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	Cr+6 (3060A / 7199)	Cr+6 (7199)	DMF (Mod 8033 - GC/NPD)	DMF (Mod 8033 - GC/NPD)	Opex / Kempore (8000B - HPLC)	Perchlorate (6850)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	<--Preservative Type (4) / <--Bottle Type (5)	Comments (Special Instructions)
							G	P	G	V	V	V	AG	Zn AV		
OC-EBK-005	8/27/2009 8:00:00 AM	T	EB	BW	G	2								X		Category 1

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass, AV = 40mL VOA Amber Glass Vial,

Cooler: (Y) N MADEP Requirement
Samples Iced? (Y) N
Temp @ receipt: 1.1 Deg C
Preservation / pH checked? Y / N
By: _____ Date: _____

Relinquished: [signature] Date: 8/27/09 Time: 1400 Received: _____ Date: __/__/__ Time: _____

Relinquished: _____ Date: __/__/__ Time: _____ Received: Kristin Zeigler Date: 8/28/09 Time: 0900

Acct # 12670
Grp# 1159657
Sample# 5763104-14

Client: Olin Corporation	Client Project #: 6107090016	INVOICE INFO	Shaded Areas for office use only
Address: 3855 North Ocoee St. Suite 200	Work Site ID: Wilmington, MA	Company Name: Olin Corp	
Cleveland, TN 37312	Reports Sent To: Steve Morrow	Company Contact: ERG Accounts Payable	
Phone: 423-336-4511 Fax: 423-336-1466	Email SGMorrow@olin.com Email Rpt:___	Address: Same as Client	
Requested Turnaround Time (SPECIFY)	Regulatory Programs: MADEP MCP___ Superfund ___	Phone: Email	
Standard___ Rush___ (Lab Approval Required)	Report Requirements Level IV Package ___ Level II Package ___		
	EDD Requirements: MACTEC EQUIS EZ EDD ___	Job #	Quote #
		Lab SDG #	PO #

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	Cr+6 (3060A / 7199)	Cr+6 (7199)	DMF (Mod 8033 - GC/NPD)	DMF (Mod 8033 - GC/NPD)	Opex / Kempore (8000B - HPLC)	Perchlorate (6850)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Comments (Special Instructions)
							G	P	G	V	V	V	AG	Zn AV	<--Preservative Type (4) <--Bottle Type (5)
OC-SB-444-0.0/1.0-XXX	8/27/2009 1:20:00 PM	T	FS	SO	G	1							X		Category 1

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass, AV = 40mL VOA Amber Glass Vial,

Cooler ? (Y) N | MADEP Requirement Samples Iced? (Y) N
Temp @ receipt: 2 Deg C
Preservation / pH checked? Y / N
By: ___ Date: ___

Relinquished: [signature] Date: 8/27/09 Time: 1750 Received: ___ Date: / / Time: ___
Relinquished: ___ Date: / / Time: ___ Received: Kinslin Zeigh Date: 8/28/09 Time: 0900

Acct # 12670
Grp # 1159657
Sample # 5763104-14

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	Cr+6 (3060A / 7199)	Cr+6 (7199)	DMF (Mod 8033 - GC/NPD)	DMF (Mod 8033 - GC/NPD)	Opex / Kempore (8000B - HPLC)	Perchlorate (6850)													Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)			Comments (Special Instructions)
							G	P	G	V	V	V													AG	AV			<--Preservative Type (4) <--Bottle Type (5)
OC-SB-444-12/14-XXX	8/27/2009 2:00:00 PM	T	FS	SO	G	1																			X				Category 3
OC-SB-444-5.0/7.0-XXX	8/27/2009 1:30:00 PM	T	FS	SO	G	1																			X				Category 2
OC-SB-449-0.0/1.0-XXX	8/27/2009 3:15:00 PM	T	FS	SO	G	1																			X				Category 1

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass, AV = 40mL VOA Amber Glass Vial,

Cooler? Y / N MADEP Requirement
Samples Iced? Y / N
Temp @ receipt: 1.7 Deg C
Preservation / pH checked? Y / N
By: _____ Date: _____

Relinquished: [signature] *Date:* 8/27/09 *Time:* 1750 *Received:* _____ *Date:* __/__/__ *Time:* _____

Relinquished: _____ *Date:* __/__/__ *Time:* _____ *Received:* Kristin Zeigler *Date:* 8/28/09 *Time:* 0900

Olin Wilmington OU1 Soil Sampling Categories

There will be three categories of samples submitted to the laboratories during the soil sampling program based primarily on the depth of soil locations. These categories will be indentified in notes provided with the chain of custody submitted with samples. The following categories are included:

Category 1

Soil boring samples 0'-1': request that all samples are analyzed and reported in the normal project turnaround time (TAT).

Category 2

Soil boring samples from the 1'-10' interval: All samples are analyzed. Rush TAT is requested on a subset of analyses as indicated below:

VOCs: rush 7-day TAT
SVOCs: NDMA, and phthalic anhydride: normal 30-day TAT
DMF: normal 21-day TAT
Hydrazine: rush 7 day TAT
Metals: normal 30-day TAT (except mercury)
Mercury: 10 day TAT
Hexavalent Chromium: 10 day TAT
Formaldehyde/acetaldehyde: normal TAT
Anions: normal TAT
Ammonia: normal TAT

Category 3

Soil boring samples from >10 ft: Sample are held with analysis pending. For a subset of analyses the samples will be extracted and held by the lab pending instructions from MACTEC-Olin.

VOCs: hold pending results of Category 2
SVOCs: extract and hold pending results of Category 2
NDMA: extract and hold pending results of Category 2
DMF: extract and hold pending results of Category 2
Hydrazine: hold pending results of Category 2
Metals: hold pending results of Category 2
Mercury: hold pending results of Category 2
Hexavalent Chromium: hold pending results of Category 2
Phthalic anhydride: extract and hold pending results of Category 2
Formaldehyde/acetaldehyde: run normal TAT
Anions: run normal TAT
Ammonia: run normal TAT

For rush TAT samples the laboratory will provide preliminary results with a narrative and sample results summary report. The lab will also provide data on a preliminary data EDD. Final result and supporting data packages will be provided in the normal TAT for the project.

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Environmental Sample Administration
Receipt Documentation Log

Client/Project: Olin Corporation

Date of Receipt: 8-28-09

Time of Receipt: 0900

Source Code: 50-1

Unpacker Emp. No.: 2123

Shipping Container Sealed: (YES) NO

Custody Seal Present *: (YES) NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	042995	11.7°	TB	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Sample Administration Internal Chain of Custody			
Name	Date	Time	Reason for Transfer
Kristin Zeigler	8-28-09	0950	Unpacking / to Storage
Kristin Zeigler	8-28-09	0953	Place in Storage or (Entry)
			Entry
			Entry

01N18 0812

2174.04

Acct# 12670
Grp# 1160614
Sample# 5769167-70

Lancaster - Soil

Client:	Olin Corporation	Client Project #:	6107090016
Address:	3855 North Ocoee St. Suite 200	Work Site ID:	Wilmington, MA
	Cleveland, TN 37312	Reports Sent To:	Steve Morrow
Phone:	423-336-4511	Fax:	423-336-1466
Email	SGMorrow@olin.com	Email Rpt:	

Requested Turnaround Time (SPECIFY): Standard ____ Rush ____ (Lab Approval Required)

Regulatory Programs: MADEP MCP ____ Superfund ____

Report Requirements Level IV Package ____ Level II Package ____

EDD Requirements: MACTEC EQUIS EZ EDD ____

INVOICE INFO — Shaded Areas for office use only

Company Name: Olin Corp

Company Contact: ERG Accounts Payable

Address: Same as Client

Phone: Email

Job # ____ Quote # ____

Lab SDG # ____ PO # ____

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	Cr+6 (3060A / 7199)	Cr+6 (7199)	DMF (Mod 8033 - GC/NPD)	DMF (Mod 8033 - GC/NPD)	Opex / Kempore (8000B - HPLC)	Perchlorate (6850)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Comments (Special Instructions)
							G	P	G	V	V	V	AG	AV	<--Preservative Type (4) / <--Bottle Type (5)
OC-SB-459-0.0/1.0-XXX	9/3/2009 11:10:00	T	FS	SO	G	1							X		Category 1

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial AG = Amber Glass, AV = 40mL VOA Amber Glass Vial,

Cooler? (Y) / N — MADEP Requirement Samples Iced? (Y) / N

Temp @ receipt: 6.4 - 10.9 Deg C

Preservation / pH checked? Y / N (NA)

By: TMK Date: 9/8/09

Relinquished: [signature] Date: 09/03/09 Time: 1700 Received: ____ Date: __/__/__ Time: ____

Relinquished: ____ Date: __/__/__ Time: ____ Received: [signature] Date: 9/4/09 Time: 0905

Acct# 12670
Grp# 1160614
Sample# 5769167-70

Lancaster-Soil

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	Cr+6 (3060A / 7199)	Cr+6 (7199)	DMF (Mod 8033 - GC/NPD)	DMF (Mod 8033 - GC/NPD)	Dpex / Kempore (8000B - HPLC)	Perchlorate (6850)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Comments (Special Instructions)
							G	P	G	V	V	V	AG	AV	<--Preservative Type (4) / <--Bottle Type (5)
OC-SB-459-26/28-XXX	9/3/2009 12:25:00	T	FS	SO	G	1							X		Category 3
OC-SB-459-6.0/8.0-DUP	9/3/2009 11:30:00	T	FD	SO	G	1							X		Category 2
OC-SB-459-6.0/8.0-MSD	9/3/2009 11:30:00	T	MSD	SO	G	1							X		Category 2 Same Jar as the MS
OC-SB-459-6.0/8.0-XMS	9/3/2009 11:30:00	T	MS	SO	G	1							X		Category 2
OC-SB-459-6.0/8.0-XXX	9/3/2009 11:30:00	T	FS	SO	G	1							X		Category 2
OC-SB-465-0.0/1.0-XXX	9/2/2009 7:35:00 AM	T	FS	SO	G	1							X		Category 1
OC-SB-465-16/18-XXX	9/2/2009 8:25:00 AM	T	FS	SO	G	1							X		Category 3

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial AG = Amber Glass, AV = 40mL VOA Amber Glass Vial,

Cooler ? (Y) / N | MADEP Requirement Samples Iced (Y) N
Temp @ receipt: 6.9-10.9 Deg C
Preservation / pH checked? Y / N (NA)
By: RLK Date: 9/8/09

Relinquished: [signature] Date: 09/03/09 Time: 1700 Received: _____ Date: __/__/__ Time: _____

Relinquished: _____ Date: __/__/__ Time: _____ Received: Kristin Leigh Date: 9/4/09 Time: 0905

Acct# 12670
Grp# 1160614
Sample# 5769169-70

Lancaster-Soil

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	Cr+6 (3060A / 7199)	Cr+6 (7199)	DMF (Mod 8033 - GC/NPD)	DMF (Mod 8033 - GC/NPD)	Opex / Kempore (8000B - HPLC)	Perchlorate (6850)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Comments (Special Instructions)
							G	P	G	V	V	V	AG	AV	<--Preservative Type (4) / <--Bottle Type (5)
OC-SB-465-8.0/10-DUP	9/2/2009 7:45:00 AM	T	FD	SO	G	1							X		Category 2
OC-SB-465-8.0/10-MSD	9/2/2009 7:45:00 AM	T	MSD	SO	G	1							X		Category 2 Same Jar as the MS
OC-SB-465-8.0/10-XMS	9/2/2009 7:45:00 AM	T	MS	SO	G	1							X		Category 2
OC-SB-465-8.0/10-XXX	9/2/2009 7:45:00 AM	T	FS	SO	G	1							X		Category 2
OC-SB-468-0.0/1.0-XXX	9/2/2009 10:05:00	T	FS	SO	G	1							X		Category 1
OC-SB-468-31/33-XXX	9/2/2009 11:00:00	T	FS	SO	G	1							X		Category 3
OC-SB-468-8.0/10-XXX	9/2/2009 10:10:00	T	FS	SO	G	1							X		Category 2

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass, AV = 40mL VOA Amber Glass Vial

Cooler? Y / N | MADEP Requirement
Samples Iced? Y / N
Temp @ receipt: 6.9-10.9 Deg C
Preservation / pH checked? Y / N (NA)
By: RLK Date: 9/8/09

Relinquished: [signature] Date: 09/03/09 Time: 1700 Received: _____ Date: __/__/__ Time: _____

Relinquished: _____ Date: __/__/__ Time: _____ Received: Kristin Ly Date: 9/4/09 Time: 0905

Acct # 12670
Grp # 1160614
Sample # 5769167-70

Lacaster-Soil

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	Cr+6 (3060A / 7199)	Cr+6 (7199)	DMF (Mod 8033 - GC/NPD)	DMF (Mod 8033 - GC/NPD)	Opex / Kempore (8000B - HPLC)	Perchlorate (6850)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Comments (Special Instructions)
							G	P	G	V	V	V	AG	AV	<--Preservative Type (4) / <--Bottle Type (5)
OC-SB-471-0.0/1.0-XXX	9/2/2009 1:15:00 PM	T	FS	SO	G	1							X		Category 1
OC-SB-471-26/28-XXX	9/2/2009 2:30:00 PM	T	FS	SO	G	1							X		Category 3
OC-SB-471-3.0/5.0-XXX	9/2/2009 1:30:00 PM	T	FS	SO	G	1							X		Category 2

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water, SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass, AV = 40mL VOA Amber Glass Vial,

Cooler Y / N	MADEP Requirement
	Samples Iced Y / N
Temp @ receipt 6.9-10.9 Deg C	
Preservation / pH checked? Y / N NA	
By: RLK	Date: 9/8/09

Relinquished: [signature] Date: 09/03/09 Time: 1700 Received: _____ Date: __/__/__ Time: _____

Relinquished: _____ Date: __/__/__ Time: _____ Received: [signature] Date: 9/4/09 Time: 0905

Olin Wilmington OU1 Soil Sampling Categories

There will be three categories of samples submitted to the laboratories during the soil sampling program based primarily on the depth of soil locations. These categories will be indentified in notes provided with the chain of custody submitted with samples. The following categories are included:

Category 1

Soil boring samples 0'-1': request that all samples are analyzed and reported in the normal project turnaround time (TAT).

Category 2

Soil boring samples from the 1'-10' interval: All samples are analyzed. Rush TAT is requested on a subset of analyses as indicated below:

VOCs: rush 7-day TAT
SVOCs: NDMA, and phthalic anhydride: normal 30-day TAT
DMF: normal 21-day TAT
Hydrazine: rush 7 day TAT
Metals: normal 30-day TAT (except mercury)
Mercury: 10 day TAT
Hexavalent Chromium: 10 day TAT
Formaldehyde/acetaldehyde: normal TAT
Anions: normal TAT
Ammonia: normal TAT

Category 3

Soil boring samples from >10 ft: Sample are held with analysis pending. For a subset of analyses the samples will be extracted and held by the lab pending instructions from MACTEC-Olin.

VOCs: hold pending results of Category 2
SVOCs: extract and hold pending results of Category 2
NDMA: extract and hold pending results of Category 2
DMF: extract and hold pending results of Category 2
Hydrazine: hold pending results of Category 2
Metals: hold pending results of Category 2
Mercury: hold pending results of Category 2
Hexavalent Chromium: hold pending results of Category 2
Phthalic anhydride: extract and hold pending results of Category 2
Formaldehyde/acetaldehyde: run normal TAT
Anions: run normal TAT
Ammonia: run normal TAT

For rush TAT samples the laboratory will provide preliminary results with a narrative and sample results summary report. The lab will also provide data on a preliminary data EDD. Final result and supporting data packages will be provided in the normal TAT for the project.

OLN18 0001

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Environmental Sample Administration
Receipt Documentation Log

Client/Project: Olin Corporation

Date of Receipt: 9-4-09

Time of Receipt: 0905

Source Code: 50-1

Unpacker Emp. No.: 2123

Shipping Container Sealed: (YES) NO

Custody Seal Present * : (YES) NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	03106	6.9-10.9	ST	WI	Y	B	TB frozen
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

High temp - called Nicole

Sample Administration Internal Chain of Custody			
Name	Date	Time	Reason for Transfer
Kristin Zeigh	9-4-09	1050	Unpacking | to Storage
Kristin Zeigh	9-4-09	1303	Place in Storage or (Entry)
			Entry
			Entry

2174.04

Shipped Friday 9/4
Lancaster - Soil

A12670/1160847/5770779-81

Client: Olin Corporation	Client Project #: 6107090016	INVOICE INFO	Shaded Areas for office use only
Address: 3855 North Ocoee St. Suite 200	Work Site ID: Wilmington, MA	Company Name: Olin Corp	
Cleveland, TN 37312	Reports Sent To: Steve Morrow	Company Contact: ERG Accounts Payable	
Phone: 423-336-4511 Fax: 423-336-1466	Email SGMorrow@olin.com Email Rpt:____	Address: Same as Client	
Requested Turnaround Time (SPECIFY)	Regulatory Programs: MADEP MCP____ Superfund ____	Phone: Email	
Standard_____ Rush_____ (Lab Approval Required)	Report Requirements Level IV Package ____ Level II Package ____		
	EDD Requirements: MACTEC EQUIS EZ EDD _____	Job # _____	Quote # _____
		Lab SDG # _____	PO # _____

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	Cr+6 (3060A / 7199)	Cr+6 (7199)	DMF (Mod 8033 - GC/NPD)	DMF (Mod 8033 - GC/NPD)	Opex / Kempore (8000B - HPLC)	Perchlorate (6850)													Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)			Comments (Special Instructions)
							G	P	G	V	V	V													AG	Zn AV			<--Preservative Type (4) <--Bottle Type (5)
OC-SB-472-0.0/1.0-XXX	9/4/2009 7:45:00 AM	T	FS	SO	G	1																			X				Category 1

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass, AV = 40mL VOA Amber Glass Vial,

Cooler ? Y / N	MADEP Requirement Samples Iced? Y / N
Temp @ receipt: 12.9-13.4 Deg C	
Preservation / pH checked? Y / N	
By: _____	Date: _____

Relinquished: [signature] Date: 09/04/09 Time: 1200 Received: _____ Date: __/__/__ Time: _____

Relinquished: _____ Date: __/__/__ Time: _____ Received: [signature] Date: 9/8/09 Time: 940

A12670/1160847/5770779-81

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	Cr+6 (3060A / 7199)	Cr+6 (7199)	DMF (Mod 8033 - GC/NPD)	DMT (Mod 8033 - GC/NPD)	Dpex / Kempore (8000B - HPLC)	Perchlorate (6850)														Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS)			Comments (Special Instructions)
							G	P	G	V	V	V														AG	AV			<--Preservative Type (4) <--Bottle Type (5)
OC-SB-472-30/32-XXX	9/4/2009 8:50:00 AM	T	FS	SO	G	1																				X				~~Category 3~~ Category 1 TC 9/8/09
OC-SB-472-8.0/10-XXX	9/4/2009 7:55:00 AM	T	FS	SO	G	1																				X				~~Category 2~~ Category 1 TC 9/8/09

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water, SO = Soil, SD = Sediment, RW = Rank Water, NAL = Non-Aqueous Liquid, PRD = Product, OI = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, ZN = Zinc Acetate, ME = Methanol, OI = Oil Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40ml VOA Glass Vial, AG = Amber Glass, AV = 40ml VOA Amber Glass Vial

Cooler ? Y / N	MADEP Requirement
	Samples Iced? Y / N
Temp @ receipt: _____ Deg C	
Preservation / pH checked? Y / N	
By: _____ Date: _____	

Relinquished: [signature] Date: 09/04/09 Time: 1200 Received: _____ Date: __/__/__ Time: _____

Relinquished: _____ Date: __/__/__ Time: _____ Received: Gary Gerlach [signature] 9/8/09 Date: 9/8/09 Time: 0940

02369 01170

Olin Wilmington OU1 Soil Sampling Categories

There will be three categories of samples submitted to the laboratories during the soil sampling program based primarily on the depth of soil locations. These categories will be indentified in notes provided with the chain of custody submitted with samples. The following categories are included:

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Soil boring samples 0'-1': request that all samples are analyzed and reported in the normal project turnaround time (TAT).

Category 2

Soil boring samples from the 1'-10' interval: All samples are analyzed. Rush TAT is requested on a subset of analyses as indicated below:

VOCs: rush 7-day TAT
SVOCs: NDMA, and phthalic anhydride: normal 30-day TAT
DMF: normal 21-day TAT
Hydrazine: rush 7 day TAT
Metals: normal 30-day TAT (except mercury)
Mercury: 10 day TAT
Hexavalent Chromium: 10 day TAT
Formaldehyde/acetaldehyde: normal TAT
Anions: normal TAT
Ammonia: normal TAT

Category 3

Soil boring samples from >10 ft: Sample are held with analysis pending. For a subset of analyses the samples will be extracted and held by the lab pending instructions from MACTEC-Olin.

VOCs: hold pending results of Category 2
SVOCs: extract and hold pending results of Category 2
NDMA: extract and hold pending results of Category 2
DMF: extract and hold pending results of Category 2
Hydrazine: hold pending results of Category 2
Metals: hold pending results of Category 2
Mercury: hold pending results of Category 2
Hexavalent Chromium: hold pending results of Category 2
Phthalic anhydride: extract and hold pending results of Category 2
Formaldehyde/acetaldehyde: run normal TAT
Anions: run normal TAT
Ammonia: run normal TAT

For rush TAT samples the laboratory will provide preliminary results with a narrative and sample results summary report. The lab will also provide data on a preliminary data EDD. Final result and supporting data packages will be provided in the normal TAT for the project.

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Environmental Sample Administration
Receipt Documentation Log

Client/Project: Mactec

Date of Receipt: 9/8/09

Time of Receipt: 940

Source Code: 50-1

Unpacker Emp. No.: 2316

Shipping Container Sealed: (YES) NO

Custody Seal Present * : (YES) NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	0429993 03106	2.1°C 1.8-15.4°C	TB ST	WI	N	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Sample Administration Internal Chain of Custody			
Name	Date	Time	Reason for Transfer
[illegible]	9/8/09	955	Unpacking / Storage
Dal Weslund	9/8/09	1210	Place in Storage or (Entry)
			Entry
			Entry

2174.04

OLN18-01-09

Supplemental Instructions to Laboratory
Soil Samples
Olin Chemical Superfund Site

LABORATORY: Lancaster Laboratories

Lab Group No.	MACTEC Field Sample ID	Lab Sample ID	Sample Date	Sample Category on the COC	Analyte/ Method	Action Item/Comments
1159657	OC-SB-403-13/15-XXX	TBD	08/26/09	Category 3	Hydrazines	Cancel Previously Requested Hydrazine Analysis on COC
1159657	OC-SB-404-13/15-XXX	TBD	08/26/09	Category 3	Hydrazines	Cancel Previously Requested Hydrazine Analysis on COC
1159657	OC-SB-407-26/28-XXX	TBD	08/26/09	Category 3	Hydrazines	Cancel Previously Requested Hydrazine Analysis on COC
1159657	OC-SB-409-15/17-XXX	TBD	08/26/09	Category 3	Hydrazines	Cancel Previously Requested Hydrazine Analysis on COC
1159657	OC-SB-410-17/19-XXX	TBD	08/27/09	Category 3	Hydrazines	Cancel Previously Requested Hydrazine Analysis on COC
1159657	OC-SB-444-12/14-XXX	TBD	08/27/09	Category 3	Hydrazines	Cancel Previously Requested Hydrazine Analysis on COC

Tige Cunningham

Sample Manager
MACTEC Engineering & Consulting, Inc.

9-9-09
Date

\\6107090016 - Olin Wilmington GSS 2009\3.0 Field and Site Characterization\3.6 Databases\Prelim EDDs\
OLN18-01 thru 09 Hydrazine.xls Analysis Pending Samples

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 · 717-656-2300 Fax: 717-656-2681 · www.lancasterlabs.com

10346 Hydrazines in Soil

The soil is extracted with a buffer solution of known pH. An aliquot of the supernatant is derivatized and directly analyzed by HPLC/MS/MS.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8315A modified, December 1996.

00111 Moisture
00118 Moisture
00121 Moisture Duplicate

A well-mixed sample is placed in a tared container and dried to a constant weight in an oven at 103-105C. The increase in weight is the total solids.

Reference: Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998, Method 2540 G

Lancaster Laboratories

ANALYTICAL RESULTS

Prepared for:

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

423-336-4000

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

September 09, 2009

SAMPLE GROUP

The sample group for this submittal is 1159657. Samples arrived at the laboratory on Friday, August 28, 2009. The PO# for this group is REWI0012 and the release number is ERRE9813.

Client Description	Lancaster Labs Number
OC-SB-402-7.5/9.5-XXX Grab Soil	5763104
OC-SB-407-8.0/10-XXX Grab Soil	5763105
OC-SB-403-6.0/8.0-XXX Grab Soil	5763106
OC-SB-404-5.0/7.0-XXX Grab Soil	5763107
OC-SB-409-6.0/8.0-XXX Grab Soil	5763108
OC-SB-410-6.0/8.0-DUP Grab Soil	5763109
OC-SB-410-6.0/8.0-XXX Grab Soil	5763110
OC-SB-410-6.0/8.0-XMS Grab Soil	5763111
OC-SB-410-6.0/8.0-MSD Grab Soil	5763112
OC-SB-411-4.7/6.7-XXX Grab Soil	5763113
OC-SB-444-5.0/7.0-XXX Grab Soil	5763114

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Olin Corporation	Attn: Steve Morrow
ELECTRONIC COPY TO	MACTEC	Attn: Kelly Chatterton
ELECTRONIC COPY TO	MACTEC	Attn: Chris Ricardi

OLN18 0025

Lancaster Laboratories

1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300

Respectfully Submitted,

Charles J. Neslund
Manager

OLN18 8826

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm		
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
ug	microgram(s)	**mg**	milligram(s)
ml	milliliter(s)	**l**	liter(s)
m3	cubic meter(s)	**ul**	microliter(s)

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions of Lancaster Laboratories and we hereby object to any conflicting terms contained in any acceptance or order submitted by client.

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 5763104

Group No. 1159657
MA

OC-SB-402-7.5/9.5-XXX Grab Soil
Wilmington MA Superfund Site

Collected: 08/26/2009 12:00

Account Number: 12670

Submitted: 08/28/2009 09:00
Reported: 09/09/2009 at 11:06
Discard: 09/24/2009

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

04027 SDG#: OLN18-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		**ng/g**	**ng/g**	**ng/g**	
10346	1,1-Dimethylhydrazine	57-14-7	N.D.	2.1	5.3	1
10346	Hydrazine	302-01-2	N.D.	0.53	2.1	1
10346	Methylhydrazine	60-34-4	N.D.	2.1	5.3	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	**%**	
00111	Moisture	n.a.	6.5	0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10346	Hydrazines in Soil	SW-846 8315A modified	1	0924610610801	09/04/2009 00:53	Jia Wang	1
00111	Moisture	SM20 2540 G	1	09243820001A	08/31/2009 11:58	William C Schwebel	1

OLN18 0020

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 5763105

Group No. 1159657
MA

OC-SB-407-8.0/10-XXX Grab Soil
Wilmington MA Superfund Site

Collected: 08/26/2009 10:20

Account Number: 12670

Submitted: 08/28/2009 09:00
Reported: 09/09/2009 at 11:06
Discard: 09/24/2009

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

O4078 SDG#: OLN18-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		**ng/g**	**ng/g**	**ng/g**	
10346	1,1-Dimethylhydrazine	57-14-7	N.D.	2.4	6.0	1
10346	Hydrazine	302-01-2	N.D.	0.60	2.4	1
10346	Methylhydrazine	60-34-4	N.D.	2.4	6.0	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	**%**	
00111	Moisture	n.a.	17.1	0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10346	Hydrazines in Soil	SW-846 8315A modified	1	0924610610801	09/04/2009 01:11	Jia Wang	1
00111	Moisture	SM20 2540 G	1	09243820001A	08/31/2009 11:58	William C Schwebel	1

OLN18 8829

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

*=This limit was used in the evaluation of the final result

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 5763106

Group No. 1159657
MA

OC-SB-403-6.0/8.0-XXX Grab Soil
Wilmington MA Superfund Site

Collected: 08/26/2009 13:30

Account Number: 12670

Submitted: 08/28/2009 09:00
Reported: 09/09/2009 at 11:06
Discard: 09/24/2009

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

04036 SDG#: OLN18-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		**ng/g**	**ng/g**	**ng/g**	
10346	1,1-Dimethylhydrazine	57-14-7	N.D.	3.4	8.6	1
10346	Hydrazine	302-01-2	N.D.	0.86	3.4	1
10346	Methylhydrazine	60-34-4	N.D.	3.4	8.6	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	**%**	
00111	Moisture	n.a.	42.0	0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10346	Hydrazines in Soil	SW-846 8315A modified	1	0924610610801	09/04/2009 01:30	Jia Wang	1
00111	Moisture	SM20 2540 G	1	09243820001A	08/31/2009 11:58	William C Schwebel	1

OLN18 0030

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717-656-2300 Fax: 717-656-2681

*=This limit was used in the evaluation of the final result

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 5763107

Group No. 1159657
MA

OC-SB-404-5.0/7.0-XXX Grab Soil
Wilmington MA Superfund Site

Collected: 08/26/2009 15:20

Account Number: 12670

Submitted: 08/28/2009 09:00
Reported: 09/09/2009 at 11:06
Discard: 09/24/2009

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

04045 SDG#: OLN18-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		**ng/g**	**ng/g**	**ng/g**	
10346	1,1-Dimethylhydrazine	57-14-7	N.D.	2.3	5.9	1
10346	Hydrazine	302-01-2	N.D.	0.59	2.3	1
10346	Methylhydrazine	60-34-4	N.D.	2.3	5.9	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	**%**	
00111	Moisture	n.a.	14.6	0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10346	Hydrazines in Soil	SW-846 8315A modified	1	0924610610801	09/04/2009 01:49	Jia Wang	1
00111	Moisture	SM20 2540 G	1	09243820001A	08/31/2009 11:58	William C Schwebel	1

OLN18 0031

Lancaster Laboratories, Inc.
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Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

*=This limit was used in the evaluation of the final result

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 5763108

Group No. 1159657
MA

OC-SB-409-6.0/8.0-XXX Grab Soil
Wilmington MA Superfund Site

Collected: 08/26/2009 17:05

Account Number: 12670

Submitted: 08/28/2009 09:00
Reported: 09/09/2009 at 11:06
Discard: 09/24/2009

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

O4096 SDG#: OLN18-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		**ng/g**		**ng/g**	**ng/g**	
10346	1,1-Dimethylhydrazine	57-14-7	N.D.		2.5	6.3	1
10346	Hydrazine	302-01-2	0.84	J	0.63	2.5	1
10346	Methylhydrazine	60-34-4	N.D.		2.5	6.3	1
Wet Chemistry	**SM20 2540 G**		**%**		**%**	**%**	
00111	Moisture	n.a.	20.4		0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10346	Hydrazines in Soil	SW-846 8315A modified	1	0924610610801	09/04/2009 02:08	Jia Wang	1
00111	Moisture	SM20 2540 G	1	09243820001A	08/31/2009 11:58	William C Schwebel	1

OLN18 0032

*=This limit was used in the evaluation of the final result

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717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 5763109

Group No. 1159657
MA

OC-SB-410-6.0/8.0-DUP Grab Soil
Wilmington MA Superfund Site

Collected: 08/27/2009 10:15

Account Number: 12670

Submitted: 08/28/2009 09:00
Reported: 09/09/2009 at 11:06
Discard: 09/24/2009

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

O410D SDG#: OLN18-06FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		ng/g	ng/g	ng/g	
10346	1,1-Dimethylhydrazine	57-14-7	N.D.	2.5	6.2	1
10346	Hydrazine	302-01-2	N.D.	0.62	2.5	1
10346	Methylhydrazine	60-34-4	N.D.	2.5	6.2	1
Wet Chemistry	**SM20 2540 G**		%	%	%	
00111	Moisture	n.a.	19.9	0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10346	Hydrazines in Soil	SW-846 8315A modified	1	0924610610801	09/03/2009 21:27	Jia Wang	1
00111	Moisture	SM20 2540 G	1	09243820001A	08/31/2009 11:58	William C Schwebel	1

OLN18 0033

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
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Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 5763110

Group No. 1159657
MA

OC-SB-410-6.0/8.0-XXX Grab Soil
Wilmington MA Superfund Site

Collected: 08/27/2009 10:15

Account Number: 12670

Submitted: 08/28/2009 09:00
Reported: 09/09/2009 at 11:06
Discard: 09/24/2009

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

O4106 SDG#: OLN18-07BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		**ng/g**	**ng/g**	**ng/g**	
10346	1,1-Dimethylhydrazine	57-14-7	N.D.	2.5	6.3	1
10346	Hydrazine	302-01-2	N.D.	0.63	2.5	1
10346	Methylhydrazine	60-34-4	N.D.	2.5	6.3	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	**%**	
00111	Moisture	n.a.	20.7	0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10346	Hydrazines in Soil	SW-846 8315A modified	1	0924610610801	09/03/2009 21:45	Jia Wang	1
00111	Moisture	SM20 2540 G	1	09243820001A	08/31/2009 11:58	William C Schwebel	1

OLN18 8034

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 5763111

Group No. 1159657
MA

OC-SB-410-6.0/8.0-XMS Grab Soil
Wilmington MA Superfund Site

Collected: 08/27/2009 10:15

Account Number: 12670

Submitted: 08/28/2009 09:00
Reported: 09/09/2009 at 11:06
Discard: 09/24/2009

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

O4106 SDG#: OLN18-07MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		ng/g	ng/g	ng/g	
10346	1,1-Dimethylhydrazine	57-14-7	470	2.5	6.3	1
10346	Hydrazine	302-01-2	20	0.63	2.5	1
10346	Methylhydrazine	60-34-4	86	2.5	6.3	1
Wet Chemistry	**SM20 2540 G**		%	%	%	
00118	Moisture	n.a.	20.7	0.50	0.50	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10346	Hydrazines in Soil	SW-846 8315A modified	1	0924610610801	09/03/2009 22:04	Jia Wang	1
00118	Moisture	SM20 2540 G	1	09243820001A	08/31/2009 11:58	William C Schwebel	1

OLN18 8835

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 5763112

Group No. 1159657
MA

OC-SB-410-6.0/8.0-MSD Grab Soil
Wilmington MA Superfund Site

Collected: 08/27/2009 10:15

Account Number: 12670

Submitted: 08/28/2009 09:00
Reported: 09/09/2009 at 11:06
Discard: 09/24/2009

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

04106 SDG#: OLN18-07MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		**ng/g**	**ng/g**	**ng/g**	
10346	1,1-Dimethylhydrazine	57-14-7	440	2.5	6.3	1
10346	Hydrazine	302-01-2	18	0.63	2.5	1
10346	Methylhydrazine	60-34-4	87	2.5	6.3	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	**%**	
00118	Moisture	n.a.	20.7	0.50	0.50	1
00121	Moisture Duplicate	n.a.	21.2	0.50	0.50	1

The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10346	Hydrazines in Soil	SW-846 8315A modified	1	0924610610801	09/03/2009 22:23	Jia Wang	1
00118	Moisture	SM20 2540 G	1	09243820001A	08/31/2009 11:58	William C Schwebel	1
00121	Moisture Duplicate	SM20 2540 G	1	09243820001A	08/31/2009 11:58	William C Schwebel	1

OLN18 0036

Lancaster Laboratories, Inc.
2425 New Holland Pike
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Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

*=This limit was used in the evaluation of the final result

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 5763113

Group No. 1159657
MA

OC-SB-411-4.7/6.7-XXX Grab Soil
Wilmington MA Superfund Site

Collected: 08/26/2009 10:35

Account Number: 12670

Submitted: 08/28/2009 09:00
Reported: 09/09/2009 at 11:06
Discard: 09/24/2009

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

O4114 SDG#: OLN18-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		**ng/g**	**ng/g**	**ng/g**	
10346	1,1-Dimethylhydrazine	57-14-7	N.D.	2.1	5.2	1
10346	Hydrazine	302-01-2	2.8	0.52	2.1	1
10346	Methylhydrazine	60-34-4	N.D.	2.1	5.2	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	**%**	
00111	Moisture	n.a.	4.7	0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10346	Hydrazines in Soil	SW-846 8315A modified	1	0924610610801	09/04/2009 02:26	Jia Wang	1
00111	Moisture	SM20 2540 G	1	09243820001A	08/31/2009 11:58	William C Schwebel	1

OLN18-0037

Lancaster Laboratories, Inc.
2425 New Holland Pike
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Lancaster, PA 17605-2425
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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 5763114

Group No. 1159657
MA

OC-SB-444-5.0/7.0-XXX Grab Soil
Wilmington MA Superfund Site

Collected: 08/27/2009 13:30

Account Number: 12670

Submitted: 08/28/2009 09:00
Reported: 09/09/2009 at 11:06
Discard: 09/24/2009

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

O4445 SDG#: OLN18-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		ng/g	ng/g	ng/g	
10346	1,1-Dimethylhydrazine	57-14-7	N.D.	2.3	5.7	1
10346	Hydrazine	302-01-2	N.D.	0.57	2.3	1
10346	Methylhydrazine	60-34-4	N.D.	2.3	5.7	1
Wet Chemistry	**SM20 2540 G**		%	%	%	
00111	Moisture	n.a.	13.0	0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10346	Hydrazines in Soil	SW-846 8315A modified	1	0924610610801	09/04/2009 02:45	Jia Wang	1
00111	Moisture	SM20 2540 G	1	09243820001A	08/31/2009 11:58	William C Schwebel	1

OLN18 0038

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Lancaster, PA 17605-2425
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Lancaster Laboratories

ANALYTICAL RESULTS

Prepared for:

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

423-336-4000

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

September 10, 2009

SAMPLE GROUP

The sample group for this submittal is 1160614. Samples arrived at the laboratory on Friday, September 04, 2009. The PO# for this group is REWI0012 and the release number is ERRE9813.

Client Description	Lancaster Labs Number
OC-SB-459-0.0/1.0-XXX Grab Soil	5769167
OC-SB-465-0.0/1.0-XXX Grab Soil	5769168
OC-SB-468-0.0/1.0-XXX Grab Soil	5769169
OC-SB-471-0.0/1.0-XXX Grab Soil	5769170

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Olin Corporation	Attn: Steve Morrow
ELECTRONIC COPY TO	MACTEC	Attn: Kelly Chatterton
ELECTRONIC COPY TO	MACTEC	Attn: Chris Ricardi
1 COPY TO	Data Package Group	

OLM18 0039

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300

Respectfully Submitted,

Charles J. Neslund
Manager

OLN18 0849

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 5769167

Group No. 1160614
MA

OC-SB-459-0.0/1.0-XXX Grab Soil
Wilmington MA Superfund Site

Collected: 09/03/2009 11:10

Account Number: 12670

Submitted: 09/04/2009 09:05
Reported: 09/10/2009 at 16:03
Discard: 09/25/2009

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

04590 SDG#: OLN18-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		**ng/g**	**ng/g**	**ng/g**	
10346	1,1-Dimethylhydrazine	57-14-7	N.D.	2.1	5.3	1
10346	Hydrazine	302-01-2	N.D.	0.53	2.1	1
10346	Methylhydrazine	60-34-4	N.D.	2.1	5.3	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	**%**	
00111	Moisture	n.a.	5.7	0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

The temperature bottle was received frozen. The temperature of the sample bottle (s) upon receipt at the lab was 6.9 - 10.9 C using an IR thermometer.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10346	Hydrazines in Soil	SW-846 8315A modified	1	0925110610808	09/08/2009 23:41	Jia Wang	1
00111	Moisture	SM20 2540 G	1	09252820001A	09/09/2009 15:25	Scott W Freisher	1

OLN18 0041

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 5769168

Group No. 1160614
MA

OC-SB-465-0.0/1.0-XXX Grab Soil
Wilmington MA Superfund Site

Collected: 09/02/2009 07:35

Account Number: 12670

Submitted: 09/04/2009 09:05
Reported: 09/10/2009 at 16:03
Discard: 09/25/2009

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

04650 SDG#: OLN18-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		**ng/g**	**ng/g**	**ng/g**	
10346	1,1-Dimethylhydrazine	57-14-7	N.D.	2.1	5.3	1
10346	Hydrazine	302-01-2	7.0	0.53	2.1	1
10346	Methylhydrazine	60-34-4	N.D.	2.1	5.3	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	**%**	
00111	Moisture	n.a.	4.9	0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

The temperature bottle was received frozen. The temperature of the sample bottle (s) upon receipt at the lab was 6.9 - 10.9 C using an IR thermometer.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10346	Hydrazines in Soil	SW-846 8315A modified	1	0925110610808	09/08/2009 23:59	Jia Wang	1
00111	Moisture	SM20 2540 G	1	09252820001A	09/09/2009 15:25	Scott W Freisher	1

OLN18 8842

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
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Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 5769169

Group No. 1160614
MA

OC-SB-468-0.0/1.0-XXX Grab Soil
Wilmington MA Superfund Site

Collected: 09/02/2009 10:05

Account Number: 12670

Submitted: 09/04/2009 09:05
Reported: 09/10/2009 at 16:03
Discard: 09/25/2009

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

04680 SDG#: OLN18-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		**ng/g**	**ng/g**	**ng/g**	
10346	1,1-Dimethylhydrazine	57-14-7	N.D.	2.4	6.0	1
10346	Hydrazine	302-01-2	270	0.60	2.4	1
10346	Methylhydrazine	60-34-4	N.D.	2.4	6.0	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	**%**	
00111	Moisture	n.a.	16.6	0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

The temperature bottle was received frozen. The temperature of the sample bottle (s) upon receipt at the lab was 6.9 - 10.9 C using an IR thermometer.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10346	Hydrazines in Soil	SW-846 8315A modified	1	0925110610808	09/09/2009 00:18	Jia Wang	1
00111	Moisture	SM20 2540 G	1	09252820001A	09/09/2009 15:25	Scott W Freisher	1

OLN18 0043

*=This limit was used in the evaluation of the final result

Lancaster Laboratories, Inc.
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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 5769170

Group No. 1160614
MA

OC-SB-471-0.0/1.0-XXX Grab Soil
Wilmington MA Superfund Site

Collected: 09/02/2009 13:15

Account Number: 12670

Submitted: 09/04/2009 09:05
Reported: 09/10/2009 at 16:03
Discard: 09/25/2009

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

O4710 SDG#: OLN18-13

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		**ng/g**		**ng/g**	**ng/g**	
10346	1,1-Dimethylhydrazine	57-14-7	N.D.		2.2	5.5	1
10346	Hydrazine	302-01-2	0.98	J	0.55	2.2	1
10346	Methylhydrazine	60-34-4	N.D.		2.2	5.5	1
Wet Chemistry	**SM20 2540 G**		**%**		**%**	**%**	
00111	Moisture	n.a.	8.9		0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

The temperature bottle was received frozen. The temperature of the sample bottle (s) upon receipt at the lab was 6.9 - 10.9 C using an IR thermometer.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10346	Hydrazines in Soil	SW-846 8315A modified	1	0925110610808	09/09/2009 00:37	Jia Wang	1
00111	Moisture	SM20 2540 G	1	09252820001A	09/09/2009 15:25	Scott W Freisher	1

OLN18 0044

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PO Box 12425
Lancaster, PA 17605-2425
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Lancaster Laboratories

ANALYTICAL RESULTS

Prepared for:

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

423-336-4000

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

September 11, 2009

SAMPLE GROUP

The sample group for this submittal is 1160847. Samples arrived at the laboratory on Tuesday, September 08, 2009. The PO# for this group is REWI0012 and the release number is ERRE9813.

Client Description	Lancaster Labs Number
OC-SB-472-0.0/1.0-XXX Grab Soil	5770779
OC-SB-472-30/32-XXX Grab Soil	5770780
OC-SB-472-8.0/10-XXX Grab Soil	5770781

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Olin Corporation	Attn: Steve Morrow
ELECTRONIC COPY TO	MACTEC	Attn: Kelly Chatterton
ELECTRONIC COPY TO	MACTEC	Attn: Chris Ricardi
1 COPY TO	Data Package Group	

OLN18 0045

Lancaster Laboratories

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300

Respectfully Submitted,

Charles J. Neslund
Manager

OLN18 0846

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 5770779

Group No. 1160847
MA

OC-SB-472-0.0/1.0-XXX Grab Soil
Wilmington MA Superfund Site

Collected: 09/04/2009 07:45

Account Number: 12670

Submitted: 09/08/2009 09:40
Reported: 09/11/2009 at 16:59
Discard: 09/26/2009

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

O4720 SDG#: OLN18-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		**ng/g**	**ng/g**	**ng/g**	
10346	1,1-Dimethylhydrazine	57-14-7	N.D.	2.3	5.6	1
10346	Hydrazine	302-01-2	N.D.	0.56	2.3	1
10346	Methylhydrazine	60-34-4	N.D.	2.3	5.6	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	**%**	
00111	Moisture	n.a.	11.5	0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

The temperature of the temperature blank bottle(s) upon receipt at the lab was >10.0C using a Hg thermometer. The sample bottles were then measured using an IR thermometer and were recorded at 17.8-18.4 C.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10346	Hydrazines in Soil	SW-846 8315A modified	1	0925310610812	09/11/2009 03:41	Jia Wang	1
00111	Moisture	SM20 2540 G	1	09253820003A	09/10/2009 15:25	Scott W Freisher	1

OLN18 0047

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Lancaster Laboratories, Inc.
2425 New Holland Pike
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Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 5770780

Group No. 1160847
MA

OC-SB-472-30/32-XXX Grab Soil
Wilmington MA Superfund Site

Collected: 09/04/2009 08:50

Account Number: 12670

Submitted: 09/08/2009 09:40
Reported: 09/11/2009 at 16:59
Discard: 09/26/2009

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

47230 SDG#: OLN18-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		**ng/g**	**ng/g**	**ng/g**	
10346	1,1-Dimethylhydrazine	57-14-7	N.D.	2.1	5.4	1
10346	Hydrazine	302-01-2	3.1	0.54	2.1	1
10346	Methylhydrazine	60-34-4	N.D.	2.1	5.4	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	**%**	
00111	Moisture	n.a.	6.8	0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

The temperature of the temperature blank bottle(s) upon receipt at the lab was >10.0C using a Hg thermometer. The sample bottles were then measured using an IR thermometer and were recorded at 17.8-18.4 C.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10346	Hydrazines in Soil	SW-846 8315A modified	1	0925310610812	09/11/2009 04:00	Jia Wang	1
00111	Moisture	SM20 2540 G	1	09253820003A	09/10/2009 15:25	Scott W Freisher	1

OLN18 8848

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

*=This limit was used in the evaluation of the final result

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 5770781

Group No. 1160847
MA

OC-SB-472-8.0/10-XXX Grab Soil
Wilmington MA Superfund Site

Collected: 09/04/2009 07:55

Account Number: 12670

Submitted: 09/08/2009 09:40
Reported: 09/11/2009 at 16:59
Discard: 09/26/2009

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

472-8 SDG#: OLN18-17

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		**ng/g**		**ng/g**	**ng/g**	
10346	1,1-Dimethylhydrazine	57-14-7	N.D.		2.6	6.4	1
10346	Hydrazine	302-01-2	0.78	J	0.64	2.6	1
10346	Methylhydrazine	60-34-4	N.D.		2.6	6.4	1
Wet Chemistry	**SM20 2540 G**		**%**		**%**	**%**	
00111	Moisture	n.a.	21.9		0.50	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

The temperature of the temperature blank bottle(s) upon receipt at the lab was >10.0C using a Hg thermometer. The sample bottles were then measured using an IR thermometer and were recorded at 17.8-18.4 C.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10346	Hydrazines in Soil	SW-846 8315A modified	1	0925310610812	09/11/2009 04:19	Jia Wang	1
00111	Moisture	SM20 2540 G	1	09253820003A	09/10/2009 15:25	Scott W Freisher	1

OLN18 0049

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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Miscellaneous Organics Data

OLN18 70850

Case Narrative Conformance/Nonconformance Summary

Lancaster Laboratories
Where quality is a science.

CASE NARRATIVE

Client: Olin Corporation
SDG#: OLN18

LANCASTER LABORATORIES
MISCELLANEOUS ORGANICS DATA

SAMPLE NUMBER(S)

LL #'s	Sample Code	Matrix Soil	Matrix Water	Comments
5763104	O4027	X		
5763105	O4078	X		
5763106	O4036	X		
5763107	O4045	X		
5763108	O4096	X		
5763109	O410D	X		
5763110	O4106	X		Unspiked
5763111MS	O4106	X		Matrix Spike
5763112MSD	O4106	X		Matrix Spike Dup
5763113	O4114	X		
5763114	O4445	X		
5769167	O4590	X		
5769168	O4650	X		
5769169	O4680	X		
5769170	O4710	X		
5770779	O4720	X		
5770780	47230	X		
5770781	472-8	X		

LABORATORY SUBMITTED QC:

Blank	Sep 03		X	Method Blank
Blank	Sep 08		X	Method Blank
Blank1	Sep 10		X	Method Blank
LCS	Sep 03		X	Lab Control Sample
LCSD	Sep 03		X	Lab Control Sample Dup
LCS	Sep 08		X	Lab Control Sample
LCSD	Sep 08		X	Lab Control Sample Dup
LCS1	Sep 10		X	Lab Control Sample
LCSD1	Sep 10		X	Lab Control Sample Dup

Case Narrative (continued)
SDG: OLN18

SAMPLE PREPARATION:

Samples were derivatized with benzaldehyde prior to analysis.

ANALYSIS:

No problems were encountered during the analysis of these samples.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

All QC was within specifications.

DATA INTERPRETATION:

A method blank form could not be generated. None of the reported compounds were detected in the method blank.

Abbreviation Key

NC = Not calculated
NF = Not found

Case Narrative Reviewed and Approved by:

Dorothy M Cave for Date: 10/8/09

Dana M. Kauffman
Manager, Data Deliverables

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QC Summary

Lancaster Laboratories

Determination of Hydrazine, Monomethylhydrazine and 1,1-Dimethylhydrazine in Soil Samples

Matrix Spike Recovery

Instrument No.: TQU01408
MS File Name: 03Sep2009-19
MSD File Name: 03Sep2009-20
Batch No.: 0924610610801
MS Injected: 9/3/2009
MS Injected: 9/3/2009
Workbook: TQU01408-03Sep2009-1
MS ID: 5763111MS
MSD ID: 5763112MSD
Dilution Factor: 1

Compound	Specified Spike Level	BKG	MS Found	MSD Found	MS Recovery	MSD Recovery	Recovery Range	RPD	RPD MAX
	(ng/g)	(ng/g)	(ng/g)	(ng/g)	(%)	(%)	(%)	(%)	(%)
Hydrazine	125	0	16.10	14.61	13	12	11-102	10	30
1,1-Dimethylhydrazine	625	0	372.39	351.32	60	56	10-92	6	30
Monomethylhydrazine	625	0	68.30	69.04	11	11	10-116	1	30

Comments:

Analyst: JW 1543 9/4/2009
Reviewed by: [illegible] 9/9/09

Lancaster Laboratories

Determination of Hydrazine, Monomethylhydrazine and 1,1-Dimethylhydrazine in Soil Samples

Laboratory Control Sample Recovery

Instrument No.: TQU01408
LCS File Name: 03Sep2009-21
LCSD File Name: 03Sep2009-22
Batch No.: 0924610610801
LCS Injected: 9/03/2009
LCSD Injected: 9/3/2009
Workbook: TQU01408-03Sep2009-1
LCS ID: LCS
LCSD ID: LCSD
Dilution Factor: 1

Compound	Spike Level	LCS Found	LCSD Found	LCS Recovery	LCSD Recovery	Recovery Range	RPD	RPD MAX
	(ng/g)	(ng/g)	(ng/g)	(%)	(%)	(%)	(%)	(%)
Hydrazine	125	94.10	94.54	75	76	70-130	0	30
1,1-Dimethylhydrazine	625	693.71	705.23	111	113	70-130	2	30
Monomethylhydrazine	625	677.27	686.37	108	110	70-130	1	30

Comments:

Analyst: JJ 1543 9/4/2009
Reviewed by: [illegible] 9/8/09

01MB 9556

Lancaster Laboratories

Determination of Hydrazine, Monomethylhydrazine and 1,1-Dimethylhydrazine in Soil Samples

Laboratory Control Sample Recovery

Instrument No.: TQU01408
LCS File Name: 08Sep2009-21
LCSD File Name: 08Sep2009-22
Batch No.: 0925110610808
LCS Injected: 9/08/2009
LCSD Injected: 9/8/2009
Workbook: TQU01408-08Sep2009-1
LCS ID: LCS
LCSD ID: LCSD
Dilution Factor: 1

Compound	Spike Level	LCS Found	LCSD Found	LCS Recovery	LCSD Recovery	Recovery Range	RPD	RPD MAX
	(ng/g)	(ng/g)	(ng/g)	(%)	(%)	(%)	(%)	(%)
Hydrazine	125	99.91	96.13	80	77	70-130	4	30
1,1-Dimethylhydrazine	625	639.59	691.78	102	111	70-130	8	30
Monomethylhydrazine	625	653.55	669.97	105	107	70-130	2	30

Comments:

Analyst: JW 1543 9/9/2009

Reviewed by: [illegible] 9/10/09

Recovery calculation using specified spiking solution concentration

01HB 08857

Lancaster Laboratories

Determination of Hydrazine, Monomethylhydrazine and 1,1-Dimethylhydrazine in Soil Samples

Laboratory Control Sample Recovery

Instrument No.: TQU01408
LCS File Name: 10Sep2009-21
LCSD File Name: 10Sep2009-22
Batch No.: 0925310610812
LCS Injected: 9/11/2009
LCSD Injected: 9/11/2009
Workbook: TQU01408-10Sep2009-3
LCS ID: LCS1
LCSD ID: LCSD1
Dilution Factor: 1

Compound	Spike Level	LCS Found	LCSD Found	LCS Recovery	LCSD Recovery	Recovery Range	RPD	RPD MAX
	(ng/g)	(ng/g)	(ng/g)	(%)	(%)	(%)	(%)	(%)
Hydrazine	125	104.29	98.38	83	79	70-130	6	30
1,1-Dimethylhydrazine	625	623.24	618.97	100	99	70-130	1	30
Monomethylhydrazine	625	611.92	621.62	98	99	70-130	2	30

Comments:

Analyst: JW 1543 9/11/2009

Reviewed by: [illegible] 9/11/09

Sample Data

OLN18 0859

Lancaster Laboratories
Quan Summary Report

Workbook Name:	TQU01408-03Sep2009-1
Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Instrument No.	TQU01408
Analyst	JW01543

Component Name	Sample ID	Sample Type	Integration Type	Response	Calc Amt	Units	Calc Amt	Units
1,1-Dimethylhydrazine	Conditioner1	Unknown	Method Settings	NF	NC	ng/mL		
1,1-Dimethylhydrazine	Conditioner2	Unknown	Method Settings	40	0.080	ng/mL		
1,1-Dimethylhydrazine	MDL	Unknown	Method Settings	7638	0.287	ng/mL		
1,1-Dimethylhydrazine	Conditioner3	Unknown	Method Settings	737	0.099	ng/mL		
1,1-Dimethylhydrazine	Conditioner4	Unknown	Method Settings	NF	NC	ng/mL		
1,1-Dimethylhydrazine	Conditioner5	Unknown	Method Settings	NF	NC	ng/mL		
1,1-Dimethylhydrazine	Blank	Unknown	Method Settings	104	0.082	ng/mL	0.82	ng/g
1,1-Dimethylhydrazine	5763109FD	Unknown	Method Settings	14	0.079	ng/mL	0.79	ng/g
1,1-Dimethylhydrazine	5763110BKG	Unknown	Method Settings	23	0.079	ng/mL	0.79	ng/g
1,1-Dimethylhydrazine	5763111MS	Unknown	Method Settings	1366107	37.239	ng/mL	372.39	ng/g
1,1-Dimethylhydrazine	~~5763112MDS~~	Unknown	Method Settings	1288661	35.132	ng/mL	351.32	ng/g
1,1-Dimethylhydrazine	LCS	Unknown	Method Settings	2547394	69.371	ng/mL	693.71	ng/g
1,1-Dimethylhydrazine	LCSD	Unknown	Method Settings	2589763	70.523	ng/mL	705.23	ng/g
1,1-Dimethylhydrazine	ICV	Unknown	Method Settings	2775468	75.575	ng/mL		
1,1-Dimethylhydrazine	Spike Check	Unknown	Method Settings	2491100	67.840	ng/mL		
1,1-Dimethylhydrazine	Conditioner6	Unknown	Method Settings	402	0.090	ng/mL		
1,1-Dimethylhydrazine	Conditioner7	Unknown	Method Settings	104	0.082	ng/mL		
1,1-Dimethylhydrazine	5763104	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
1,1-Dimethylhydrazine	5763105	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
1,1-Dimethylhydrazine	5763106	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
1,1-Dimethylhydrazine	5763107	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
1,1-Dimethylhydrazine	5763108	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
1,1-Dimethylhydrazine	5763113	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
1,1-Dimethylhydrazine	5763114	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
1,1-Dimethylhydrazine	5764219	Unknown	Method Settings	98	0.081	ng/mL	0.81	ng/g

Analyst: JW 1543 9/4/2009

9/9/09

OLN18 8868

Lancaster Laboratories
Quan Summary Report

Workbook Name: TQU01408-03Sep2009-1
Current Workbook Path: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Instrument No. TQU01408
Analyst JW01543

Component Name	Sample ID	Sample Type	Integration Type	Response	Calc Amt	Units	Calc Amt	Units
Hydrazine	Conditioner1	Unknown	Method Settings	173	-0.008	ng/mL		
Hydrazine	Conditioner2	Unknown	Method Settings	59	-0.009	ng/mL		
Hydrazine	MDL	Unknown	Method Settings	9182	0.059	ng/mL		
Hydrazine	Conditioner3	Unknown	Method Settings	3618	0.018	ng/mL		
Hydrazine	Conditioner4	Unknown	Method Settings	585	-0.005	ng/mL		
Hydrazine	Conditioner5	Unknown	Method Settings	183	-0.008	ng/mL		
Hydrazine	Blank	Unknown	Method Settings	3824	0.019	ng/mL	0.19	ng/g
Hydrazine	5763109FD	Unknown	Method Settings	5404	0.031	ng/mL	0.31	ng/g
Hydrazine	5763110BKG	Unknown	Method Settings	5885	0.035	ng/mL	0.35	ng/g
Hydrazine	5763111MS	Unknown	Method Settings	217062	1.610	ng/mL	16.10	ng/g
Hydrazine	~~5763112MDS~~	Unknown	Method Settings	197125	1.461	ng/mL	14.61	ng/g
Hydrazine	LCS 5763112MSD	Unknown	Method Settings	1262777	9.410	ng/mL	94.10	ng/g
Hydrazine	LCSD	Unknown	Method Settings	1268660	9.454	ng/mL	94.54	ng/g
Hydrazine	ICV	Unknown	Method Settings	1604541	11.959	ng/mL		
Hydrazine	Spike Check	Unknown	Method Settings	1410611	10.513	ng/mL		
Hydrazine	Conditioner6	Unknown	Method Settings	1262	0.000	ng/mL		
Hydrazine	Conditioner7	Unknown	Method Settings	334	-0.007	ng/mL		
Hydrazine	5763104	Unknown	Method Settings	4244	0.023	ng/mL	0.23	ng/g
Hydrazine	5763105	Unknown	Method Settings	3068	0.014	ng/mL	0.14	ng/g
Hydrazine	5763106	Unknown	Method Settings	4972	0.028	ng/mL	0.28	ng/g
Hydrazine	5763107	Unknown	Method Settings	3083	0.014	ng/mL	0.14	ng/g
Hydrazine	5763108	Unknown	Method Settings	10160	0.067	ng/mL	0.67	ng/g
Hydrazine	5763113	Unknown	Method Settings	37322	0.269	ng/mL	2.69	ng/g
Hydrazine	5763114	Unknown	Method Settings	6787	0.042	ng/mL	0.42	ng/g
Hydrazine	5764219	Unknown	Method Settings	4082	0.021	ng/mL	0.21	ng/g

Analyze : JW 1543 p/4/2009
9/9/09

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Quan Summary Report

Workbook Name: TQU01408-03Sep2009-1
Current Workbook Path: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Instrument No. TQU01408
Analyst JW01543

Component Name	Sample ID	Sample Type	Integration Type	Response	Calc Amt	Units	Calc Amt	Units
Monomethylhydrazine	Conditioner1	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	Conditioner2	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	MDL	Unknown	Method Settings	10116	0.340	ng/mL		
Monomethylhydrazine	Conditioner3	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	Conditioner4	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	Conditioner5	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	Blank	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5763109FD	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5763110BKG	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5763111MS DW Blank	Unknown	Method Settings	252982	6.830	ng/mL	68.30	ng/g
Monomethylhydrazine	~~5763112MDS~~	Unknown	Method Settings	255777	6.904	ng/mL	69.04	ng/g
Monomethylhydrazine	LCS 5763112MSD	Unknown	Method Settings	2532000	67.727	ng/mL	677.27	ng/g
Monomethylhydrazine	LCSD	Unknown	Method Settings	2566076	68.637	ng/mL	686.37	ng/g
Monomethylhydrazine	ICV	Unknown	Method Settings	2992324	80.027	ng/mL		
Monomethylhydrazine	Spike Check	Unknown	Method Settings	2545107	68.077	ng/mL		
Monomethylhydrazine	Conditioner6	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	Conditioner7	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	5763104	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5763105	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5763106	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5763107	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5763108	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5763113	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5763114	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5764219	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g

Analyst: JW 1543 9/4/2009
9/11 9/9/09

Lancaster Laboratories
Quan Summary Report

Workbook Name: TQU01408-08Sep2009-1
Current Workbook Path: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Instrument No. TQU01408
Analyst JW01543

Component Name	Sample ID	Sample Type	Integration Type	Response	Calc Amt	Units	Calc Amt	Units
1,1-Dimethylhydrazine	Conditioner1	Unknown	Method Settings	NF	NC	ng/mL		
1,1-Dimethylhydrazine	Conditioner2	Unknown	Method Settings	43	0.108	ng/mL		
1,1-Dimethylhydrazine	MDL	Unknown	Method Settings	6668	0.320	ng/mL		
1,1-Dimethylhydrazine	Conditioner3	Unknown	Method Settings	779	0.131	ng/mL		
1,1-Dimethylhydrazine	Conditioner4	Unknown	Method Settings	129	0.111	ng/mL		
1,1-Dimethylhydrazine	Conditioner5	Unknown	Method Settings	21	0.107	ng/mL		
1,1-Dimethylhydrazine	Blank	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
1,1-Dimethylhydrazine	5766212FD	Unknown	Method Settings	38	0.108	ng/mL	1.08	ng/g
1,1-Dimethylhydrazine	5766213BKG	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
1,1-Dimethylhydrazine	5766214MS	Unknown	Method Settings	1710694	54.958	ng/mL	549.58	ng/g
1,1-Dimethylhydrazine	5766215MSD	Unknown	Method Settings	1784887	57.336	ng/mL	573.36	ng/g
1,1-Dimethylhydrazine	LCS	Unknown	Method Settings	1991438	63.959	ng/mL	639.59	ng/g
1,1-Dimethylhydrazine	LCSD	Unknown	Method Settings	2154194	69.178	ng/mL	691.78	ng/g
1,1-Dimethylhydrazine	ICV	Unknown	Method Settings	2337645	75.060	ng/mL		
1,1-Dimethylhydrazine	Spike Check	Unknown	Method Settings	2313899	74.298	ng/mL		
1,1-Dimethylhydrazine	Conditioner6	Unknown	Method Settings	195	0.113	ng/mL		
1,1-Dimethylhydrazine	Conditioner7	Unknown	Method Settings	67	0.109	ng/mL		
1,1-Dimethylhydrazine	5766216	Unknown	Method Settings	49	0.108	ng/mL	1.08	ng/g
1,1-Dimethylhydrazine	5766217	Unknown	Method Settings	77	0.109	ng/mL	1.09	ng/g
1,1-Dimethylhydrazine	5766218	Unknown	Method Settings	60	0.108	ng/mL	1.08	ng/g
1,1-Dimethylhydrazine	5769167	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
1,1-Dimethylhydrazine	5769168	Unknown	Method Settings	84	0.109	ng/mL	1.09	ng/g
1,1-Dimethylhydrazine	5769169	Unknown	Method Settings	90	0.109	ng/mL	1.09	ng/g
1,1-Dimethylhydrazine	5769170	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g

Analyst : JW 1543 9/8/2009
[illegible] 9/10/09

OLN18 0863

Lancaster Laboratories
Quan Summary Report

Workbook Name: TQU01408-08Sep2009-1
Current Workbook Path: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Instrument No. TQU01408
Analyst JW01543

Component Name	Sample ID	Sample Type	Integration Type	Response	Calc Amt	Units		
Hydrazine	Conditioner1	Unknown	Method Settings	433	-0.006	ng/mL		
Hydrazine	Conditioner2	Unknown	Method Settings	71	-0.009	ng/mL		
Hydrazine	MDL	Unknown	Method Settings	10590	0.073	ng/mL		
Hydrazine	Conditioner3	Unknown	Method Settings	3068	0.014	ng/mL		
Hydrazine	Conditioner4	Unknown	Method Settings	371	-0.007	ng/mL		
Hydrazine	Conditioner5	Unknown	Method Settings	140	-0.009	ng/mL		
Hydrazine	Blank	Unknown	Method Settings	3487	0.017	ng/mL	0.17	ng/g
Hydrazine	5766212FD	Unknown	Method Settings	50816	0.386	ng/mL	3.86	ng/g
Hydrazine	5766213BKG	Unknown	Method Settings	39506	0.298	ng/mL	2.98	ng/g
Hydrazine	5766214MS	Unknown	Method Settings	919175	7.152	ng/mL	71.52	ng/g
Hydrazine	5766215MSD	Unknown	Method Settings	952637	7.412	ng/mL	74.12	ng/g
Hydrazine	LCS	Unknown	Method Settings	1283614	9.991	ng/mL	99.91	ng/g
Hydrazine	LCSD	Unknown	Method Settings	1235045	9.613	ng/mL	96.13	ng/g
Hydrazine	ICV	Unknown	Method Settings	1546251	12.037	ng/mL		
Hydrazine	Spike Check	Unknown	Method Settings	1378553	10.731	ng/mL		
Hydrazine	Conditioner6	Unknown	Method Settings	1418	0.001	ng/mL		
Hydrazine	Conditioner7	Unknown	Method Settings	345	-0.007	ng/mL		
Hydrazine	5766216	Unknown	Method Settings	35671	0.268	ng/mL	2.68	ng/g
Hydrazine	5766217	Unknown	Method Settings	49004	0.372	ng/mL	3.72	ng/g
Hydrazine	5766218	Unknown	Method Settings	32066	0.240	ng/mL	2.40	ng/g
Hydrazine	5769167	Unknown	Method Settings	4583	0.026	ng/mL	0.26	ng/g
Hydrazine	5769168	Unknown	Method Settings	87282	0.670	ng/mL	6.70	ng/g
Hydrazine	5769169	Unknown	Method Settings	2866117	22.321	ng/mL	223.21	ng/g
Hydrazine	5769170	Unknown	Method Settings	12670	0.089	ng/mL	0.89	ng/g

Analyst: JW 1543 9/9/2009
[illegible] 9/10/09

OLN18 0064

Lancaster Laboratories
Quan Summary Report

Workbook Name: TQU01408-08Sep2009-1
Current Workbook Path: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Instrument No. TQU01408
Analyst JW01543

Component Name	Sample ID	Sample Type	Integration Type	Response	Calc Amt	Units		
Monomethylhydrazine	Conditioner1	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	Conditioner2	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	MDL	Unknown	Method Settings	8621	0.388	ng/mL		
Monomethylhydrazine	Conditioner3	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	Conditioner4	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	Conditioner5	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	Blank	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5766212FD	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5766213BKG	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5766214MS	Unknown	Method Settings	1251782	39.932	ng/mL	399.32	ng/g
Monomethylhydrazine	5766215MSD	Unknown	Method Settings	1320736	42.125	ng/mL	421.25	ng/g
Monomethylhydrazine	LCS	Unknown	Method Settings	2051025	65.355	ng/mL	653.55	ng/g
Monomethylhydrazine	LCSD	Unknown	Method Settings	2102664	66.997	ng/mL	669.97	ng/g
Monomethylhydrazine	ICV	Unknown	Method Settings	2330361	74.240	ng/mL		
Monomethylhydrazine	Spike Check	Unknown	Method Settings	2261586	72.052	ng/mL		
Monomethylhydrazine	Conditioner6	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	Conditioner7	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	5766216	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5766217	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5766218	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5769167	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5769168	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5769169	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5769170	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g

Analyst : JW 1543 9/9/2009
[illegible] 9/10/09

QLN18 0865

Lancaster Laboratories
Quan Summary Report

Workbook Name: TQU01408-10Sep2009-3
Current Workbook Path: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Instrument No. TQU01408
Analyst JW01543

Component Name	Sample ID	Sample Type	Integration Type	Response	Calc Amt	Units	Calc Amt	Units
1,1-Dimethylhydrazine	Conditioner1	Unknown	Method Settings	18	0.137	ng/mL		
1,1-Dimethylhydrazine	Conditioner2	Unknown	Method Settings	19	0.137	ng/mL		
1,1-Dimethylhydrazine	MDL	Unknown	Method Settings	6640	0.344	ng/mL		
1,1-Dimethylhydrazine	Conditioner3	Unknown	Method Settings	612	0.155	ng/mL		
1,1-Dimethylhydrazine	Conditioner4	Unknown	Method Settings	58	0.138	ng/mL		
1,1-Dimethylhydrazine	Conditioner5	Unknown	Method Settings	NF	NC	ng/mL		
1,1-Dimethylhydrazine	Blank1	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
1,1-Dimethylhydrazine	5769175FD	Unknown	Method Settings	139	0.141	ng/mL	1.41	ng/g
1,1-Dimethylhydrazine	5769176BKG	Unknown	Method Settings	49	0.138	ng/mL	1.38	ng/g
1,1-Dimethylhydrazine	5769177MS	Unknown	Method Settings	1692242	53.052	ng/mL	530.52	ng/g
1,1-Dimethylhydrazine	5769178MSD	Unknown	Method Settings	1676230	52.551	ng/mL	525.51	ng/g
1,1-Dimethylhydrazine	LCS1	Unknown	Method Settings	1988756	62.324	ng/mL	623.24	ng/g
1,1-Dimethylhydrazine	LCSD1	Unknown	Method Settings	1975112	61.897	ng/mL	618.97	ng/g
1,1-Dimethylhydrazine	ICV	Unknown	Method Settings	2343538	73.418	ng/mL		
1,1-Dimethylhydrazine	Spike Check	Unknown	Method Settings	2304481	72.197	ng/mL		
1,1-Dimethylhydrazine	Conditioner6	Unknown	Method Settings	337	0.147	ng/mL		
1,1-Dimethylhydrazine	Conditioner7	Unknown	Method Settings	79	0.139	ng/mL		
1,1-Dimethylhydrazine	5769179	Unknown	Method Settings	47	0.138	ng/mL	1.38	ng/g
1,1-Dimethylhydrazine	5769180	Unknown	Method Settings	29	0.137	ng/mL	1.37	ng/g
1,1-Dimethylhydrazine	5770779	Unknown	Method Settings	63	0.138	ng/mL	1.38	ng/g
1,1-Dimethylhydrazine	5770780	Unknown	Method Settings	40	0.137	ng/mL	1.37	ng/g
1,1-Dimethylhydrazine	5770781	Unknown	Method Settings	46	0.138	ng/mL	1.38	ng/g
1,1-Dimethylhydrazine	Conditioner8	Unknown	Method Settings	45	0.138	ng/mL		
1,1-Dimethylhydrazine	Conditioner9	Unknown	Method Settings	11	0.137	ng/mL		
1,1-Dimethylhydrazine	Blank2	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
1,1-Dimethylhydrazine	5769171FD	Unknown	Method Settings	89	0.139	ng/mL	1.39	ng/g
1,1-Dimethylhydrazine	5769172BKG	Unknown	Method Settings	63	0.138	ng/mL	1.38	ng/g
1,1-Dimethylhydrazine	5769173MS	Unknown	Method Settings	1315409	41.269	ng/mL	412.69	ng/g
1,1-Dimethylhydrazine	5769174MSD	Unknown	Method Settings	1460823	45.816	ng/mL	458.16	ng/g
1,1-Dimethylhydrazine	LCS2	Unknown	Method Settings	2136290	66.937	ng/mL	669.37	ng/g
1,1-Dimethylhydrazine	LCSD2	Unknown	Method Settings	2193936	68.740	ng/mL	687.40	ng/g
1,1-Dimethylhydrazine	Conditioner10	Unknown	Method Settings	228	0.143	ng/mL		
1,1-Dimethylhydrazine	Conditioner11	Unknown	Method Settings	NF	NC	ng/mL		
1,1-Dimethylhydrazine	5772546	Unknown	Method Settings	138	0.141	ng/mL	1.41	ng/g
1,1-Dimethylhydrazine	5772547	Unknown	Method Settings	207	0.143	ng/mL	1.43	ng/g
1,1-Dimethylhydrazine	5772548	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
1,1-Dimethylhydrazine	5772550	Unknown	Method Settings	38	0.137	ng/mL	1.37	ng/g

Analyst: JW 1543 9/11/2009
[illegible] 9/11/09

Lancaster Laboratories
Quan Summary Report

Workbook Name: TQU01408-10Sep2009-3
Current Workbook Path: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Instrument No. TQU01408
Analyst JW01543

Component Name	Sample ID	Sample Type	Integration Type	Response	Calc Amt	Units	Calc Amt	Units
Hydrazine	Conditioner1	Unknown	Method Settings	NF	NC	ng/mL		
Hydrazine	Conditioner2	Unknown	Method Settings	34	-0.001	ng/mL		
Hydrazine	MDL	Unknown	Method Settings	8471	0.063	ng/mL		
Hydrazine	Conditioner3	Unknown	Method Settings	3438	0.025	ng/mL		
Hydrazine	Conditioner4	Unknown	Method Settings	308	0.001	ng/mL		
Hydrazine	Conditioner5	Unknown	Method Settings	124	-0.001	ng/mL		
Hydrazine	Blank1	Unknown	Method Settings	3491	0.025	ng/mL	0.25	ng/g
Hydrazine	5769175FD	Unknown	Method Settings	2254937	17.282	ng/mL	172.82	ng/g
Hydrazine	5769176BKG	Unknown	Method Settings	2435731	18.668	ng/mL	186.68	ng/g
Hydrazine	5769177MS	Unknown	Method Settings	3178316	24.360	ng/mL	243.60	ng/g
Hydrazine	5769178MSD	Unknown	Method Settings	3708721	28.426	ng/mL	284.26	ng/g
Hydrazine	LCS1	Unknown	Method Settings	1360841	10.429	ng/mL	104.29	ng/g
Hydrazine	LCSD1	Unknown	Method Settings	1283764	9.838	ng/mL	98.38	ng/g
Hydrazine	ICV	Unknown	Method Settings	1584757	12.145	ng/mL		
Hydrazine	Spike Check	Unknown	Method Settings	1469617	11.263	ng/mL		
Hydrazine	Conditioner6	Unknown	Method Settings	1980	0.013	ng/mL		
Hydrazine	Conditioner7	Unknown	Method Settings	498	0.002	ng/mL		
Hydrazine	5769179	Unknown	Method Settings	3202043	24.542	ng/mL	245.42	ng/g
Hydrazine	5769180	Unknown	Method Settings	22249	0.169	ng/mL	1.69	ng/g
Hydrazine	5770779	Unknown	Method Settings	6535	0.048	ng/mL	0.48	ng/g
Hydrazine	5770780	Unknown	Method Settings	37741	0.288	ng/mL	2.88	ng/g
Hydrazine	5770781	Unknown	Method Settings	8189	0.061	ng/mL	0.61	ng/g
Hydrazine	Conditioner8	Unknown	Method Settings	633	0.003	ng/mL		
Hydrazine	Conditioner9	Unknown	Method Settings	236	0.000	ng/mL		
Hydrazine	Blank2	Unknown	Method Settings	4200	0.030	ng/mL	0.30	ng/g
Hydrazine	5769171FD	Unknown	Method Settings	85556	0.654	ng/mL	6.54	ng/g
Hydrazine	5769172BKG	Unknown	Method Settings	98748	0.755	ng/mL	7.55	ng/g
Hydrazine	5769173MS	Unknown	Method Settings	332913	2.550	ng/mL	25.50	ng/g
Hydrazine	5769174MSD	Unknown	Method Settings	343002	2.627	ng/mL	26.27	ng/g
Hydrazine	LCS2	Unknown	Method Settings	1360308	10.425	ng/mL	104.25	ng/g
Hydrazine	LCSD2	Unknown	Method Settings	1345354	10.310	ng/mL	103.10	ng/g
Hydrazine	Conditioner10	Unknown	Method Settings	1402	0.009	ng/mL		
Hydrazine	Conditioner11	Unknown	Method Settings	335	0.001	ng/mL		
Hydrazine	5772546	Unknown	Method Settings	4276	0.031	ng/mL	0.31	ng/g
Hydrazine	5772547	Unknown	Method Settings	14679	0.111	ng/mL	1.11	ng/g
Hydrazine	5772548	Unknown	Method Settings	4109	0.030	ng/mL	0.30	ng/g
Hydrazine	5772550	Unknown	Method Settings	7819	0.058	ng/mL	0.58	ng/g

Analyst : JW 1543 9/11/2009
9/11/09

Lancaster Laboratories
Quan Summary Report

Workbook Name: TQU01408-10Sep2009-3
Current Workbook Path: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Instrument No. TQU01408
Analyst JW01543

Component Name	Sample ID	Sample Type	Integration Type	Response	Calc Amt	Units	Calc Amt	Units
Monomethylhydrazine	Conditioner1	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	Conditioner2	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	MDL	Unknown	Method Settings	7880	0.406	ng/mL		
Monomethylhydrazine	Conditioner3	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	Conditioner4	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	Conditioner5	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	Blank1	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5769175FD	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5769176BKG	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5769177MS	Unknown	Method Settings	994013	31.220	ng/mL	312.20	ng/g
Monomethylhydrazine	5769178MSD	Unknown	Method Settings	916937	28.812	ng/mL	288.12	ng/g
Monomethylhydrazine	LCS1	Unknown	Method Settings	1953160	61.192	ng/mL	611.92	ng/g
Monomethylhydrazine	LCSD1	Unknown	Method Settings	1984204	62.162	ng/mL	621.62	ng/g
Monomethylhydrazine	ICV	Unknown	Method Settings	2340916	73.309	ng/mL		
Monomethylhydrazine	Spike Check	Unknown	Method Settings	2327216	72.880	ng/mL		
Monomethylhydrazine	Conditioner6	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	Conditioner7	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	5769179	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5769180	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5770779	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5770780	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5770781	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	Conditioner8	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	Conditioner9	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	Blank2	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5769171FD	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5769172BKG	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5769173MS	Unknown	Method Settings	391192	12.383	ng/mL	123.83	ng/g
Monomethylhydrazine	5769174MSD	Unknown	Method Settings	427657	13.523	ng/mL	135.23	ng/g
Monomethylhydrazine	LCS2	Unknown	Method Settings	2140237	67.038	ng/mL	670.38	ng/g
Monomethylhydrazine	LCSD2	Unknown	Method Settings	2244180	70.286	ng/mL	702.86	ng/g
Monomethylhydrazine	Conditioner10	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	Conditioner11	Unknown	Method Settings	NF	NC	ng/mL		
Monomethylhydrazine	5772546	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5772547	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5772548	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g
Monomethylhydrazine	5772550	Unknown	Method Settings	NF	NC	ng/mL	NC	ng/g

Analyst: JW 1543 9/11/2009
9/11/09

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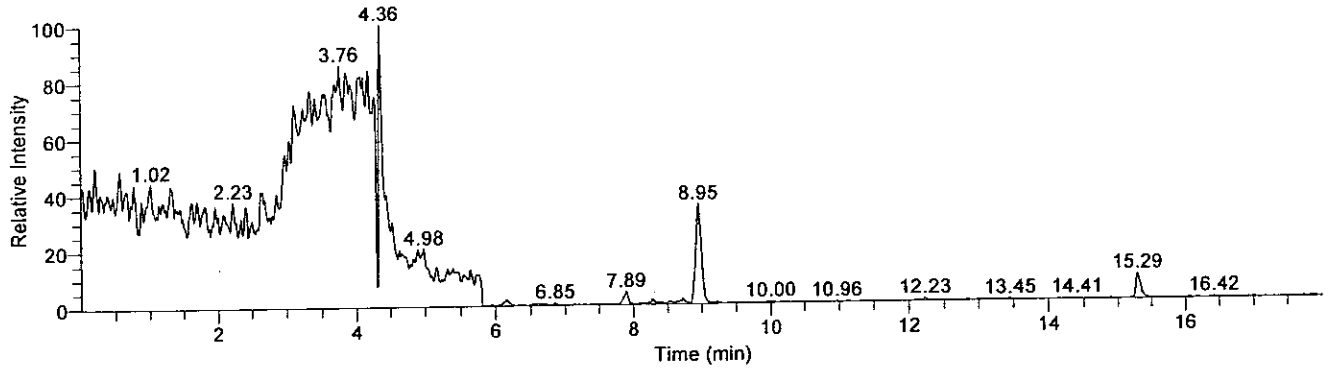
Printed: Friday, September 04, 2009, 08:42:54

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0924610610801
Data File:	03Sep2009-28.raw
Sample ID:	5763104
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Friday, September 04, 2009 12:53:07 AM
Vial:	E:26
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-28 - TIC RT: 0.00 - 18.00 NL: 2.08E3

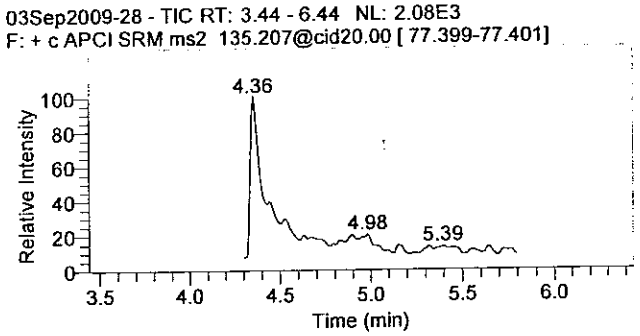


Compound Graphics

Date: 04-Sep-2009, Instrument: Quantum, Vial: E:26, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-28, Comments: Soil prep, ID: 5763104

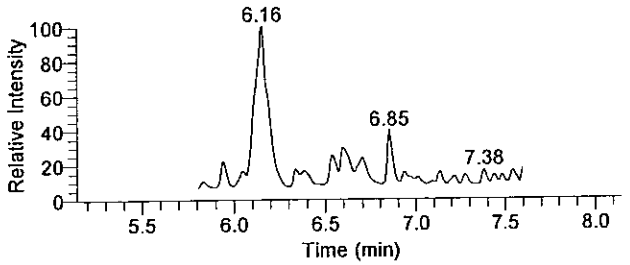
Monomethylhydrazine

03Sep2009-28 - TIC RT: 3.44 - 6.44 NL: 2.08E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



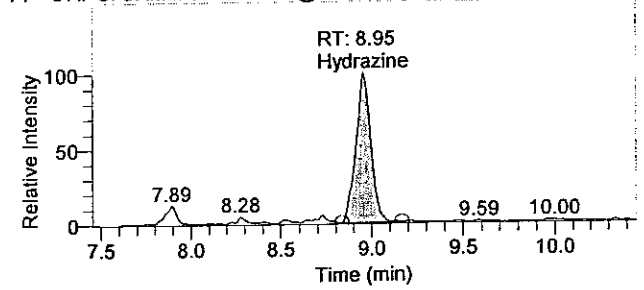
1,1-Dimethylhydrazine

03Sep2009-28 - TIC RT: 5.14 - 8.14 NL: 4.49E1
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-28 - TIC RT: 7.45 - 10.45 NL: 7.34E2
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 0069

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
5763104	Method Settings	Hydrazine	8.95	4244	0.023	ng/mL
5763104	Method Settings	1,1-Dimethylhydrazine	N/A	NF	NC	ng/mL
5763104	Method Settings	Monomethylhydrazine	N/A	NF	NC	ng/mL

Analyst : JW 1543 9/4/2009
8/02 9/9/09

OLN18 8878

There is no signature data to report.

Lancaster Laboratories

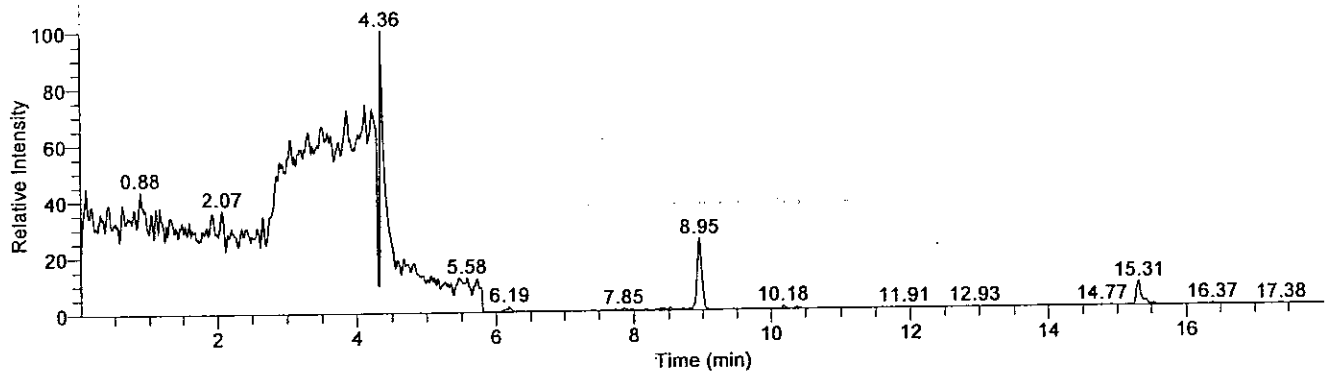
Printed: Friday, September 04, 2009, 08:42:54

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0924610610801
Data File:	03Sep2009-29.raw
Sample ID:	5763105
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Friday, September 04, 2009 1:11:49 AM
Vial:	E:27
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-29 - TIC RT: 0.01 - 17.99 NL: 2.56E3

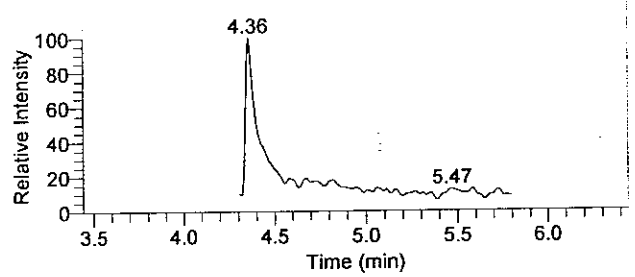


Compound Graphics

Date: 04-Sep-2009, Instrument: Quantum, Vial: E:27, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-29, Comments: Soil prep, ID: 5763105

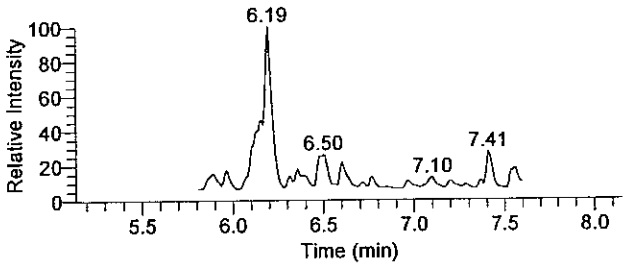
Monomethylhydrazine

03Sep2009-29 - TIC RT: 3.44 - 6.44 NL: 2.56E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



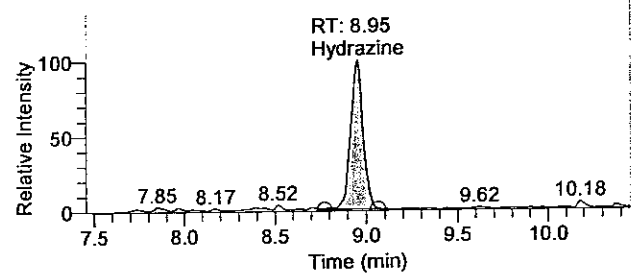
1,1-Dimethylhydrazine

03Sep2009-29 - TIC RT: 5.14 - 8.14 NL: 4.94E1
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-29 - TIC RT: 7.45 - 10.45 NL: 6.52E2
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN10 0271

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
5763105	Method Settings	Hydrazine	8.95	3068	0.014	ng/mL
5763105	Method Settings	1,1-Dimethylhydrazine	N/A	NF	NC	ng/mL
5763105	Method Settings	Monomethylhydrazine	N/A	NF	NC	ng/mL

Analyst : JW 1543 9/4/2009

9/9/09

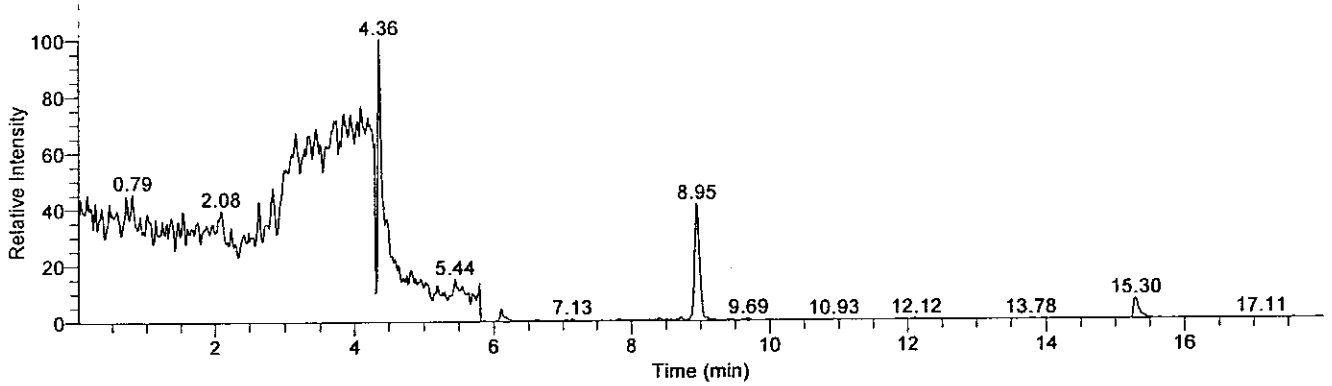
OLN18 8872

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0924610610801
Data File:	03Sep2009-30.raw
Sample ID:	5763106
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Friday, September 04, 2009 1:30:33 AM
Vial:	E:28
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-30 - TIC RT: 0.00 - 17.99 NL: 2.38E3

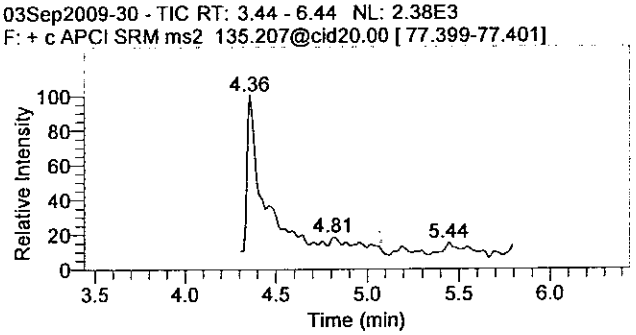


Compound Graphics

Date: 04-Sep-2009, Instrument: Quantum, Vial: E:28, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-30, Comments: Soil prep, ID: 5763106

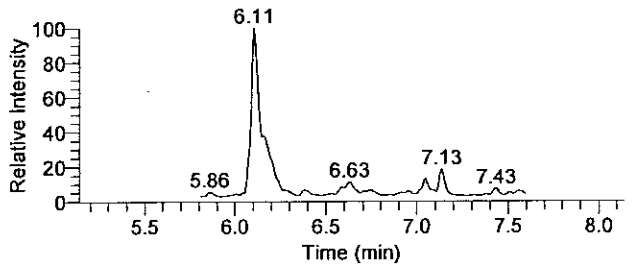
Monomethylhydrazine

03Sep2009-30 - TIC RT: 3.44 - 6.44 NL: 2.38E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



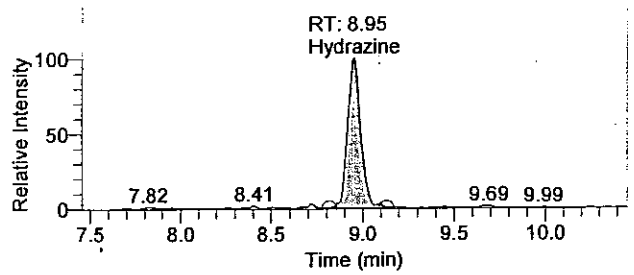
1,1-Dimethylhydrazine

03Sep2009-30 - TIC RT: 5.14 - 8.14 NL: 1.06E2
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-30 - TIC RT: 7.45 - 10.45 NL: 9.88E2
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 8873

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
5763106	Method Settings	Hydrazine	8.95	4972	0.028	ng/mL
5763106	Method Settings	1,1-Dimethylhydrazine	N/A	NF	NC	ng/mL
5763106	Method Settings	Monomethylhydrazine	N/A	NF	NC	ng/mL

Analyst: JW 1543 9/4/2009
9/4/09

OLN18 8874

There is no signature data to report.

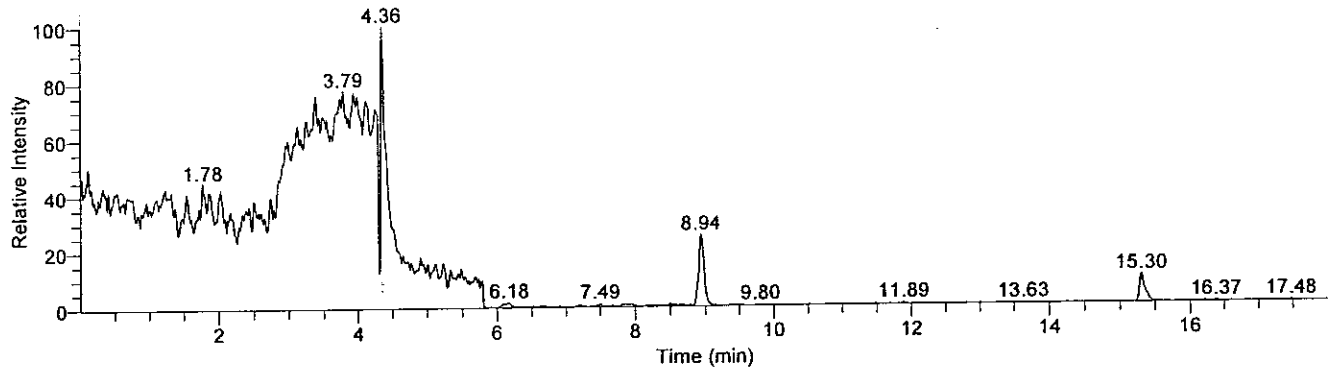
Lancaster Laboratories

Printed: Friday, September 04, 2009, 08:42:54
Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0924610610801
Data File:	03Sep2009-31.raw
Sample ID:	5763107
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Friday, September 04, 2009 1:49:20 AM
Vial:	E:29
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-31 - TIC RT: 0.01 - 17.99 NL: 2.30E3

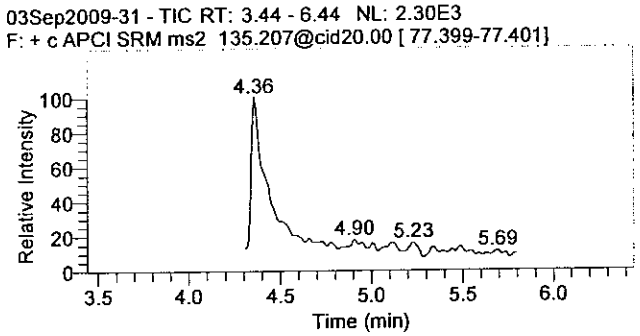


Compound Graphics

Date: 04-Sep-2009, Instrument: Quantum, Vial: E:29, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-31, Comments: Soil prep, ID: 5763107

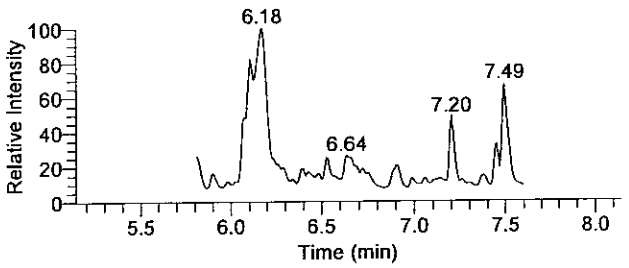
Monomethylhydrazine

03Sep2009-31 - TIC RT: 3.44 - 6.44 NL: 2.30E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



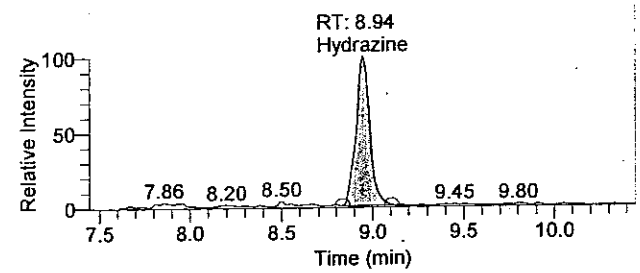
1,1-Dimethylhydrazine

03Sep2009-31 - TIC RT: 5.14 - 8.14 NL: 4.16E1
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-31 - TIC RT: 7.44 - 10.44 NL: 5.83E2
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
5763107	Method Settings	Hydrazine	8.94	3083	0.014	ng/mL
5763107	Method Settings	1,1-Dimethylhydrazine	N/A	NF	NC	ng/mL
5763107	Method Settings	Monomethylhydrazine	N/A	NF	NC	ng/mL

Analyst: JW 1543 9/4/2009
[illegible] 9/9/09

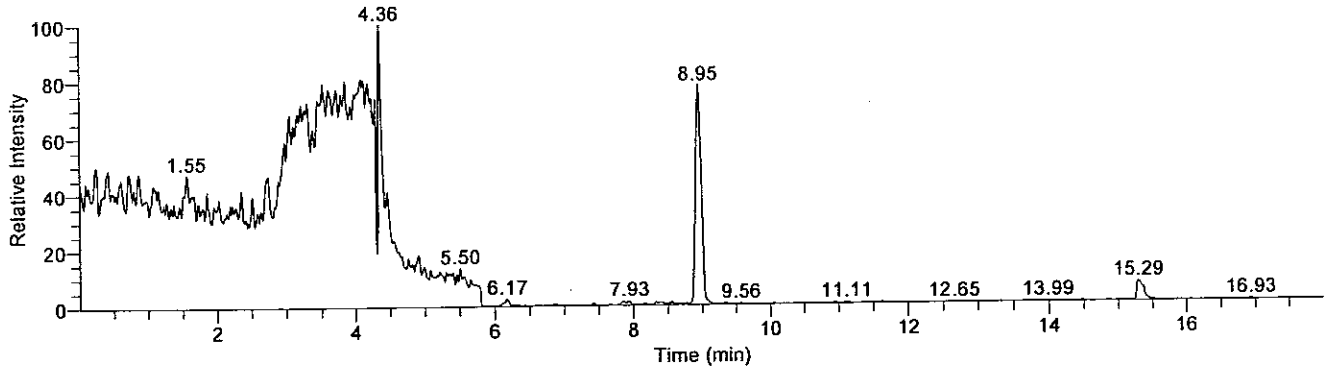
OLN18 8876

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0924610610801
Data File:	03Sep2009-32.raw
Sample ID:	5763108
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Friday, September 04, 2009 2:08:04 AM
Vial:	E:30
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-32 - TIC RT: 0.00 - 17.99 NL: 2.23E3

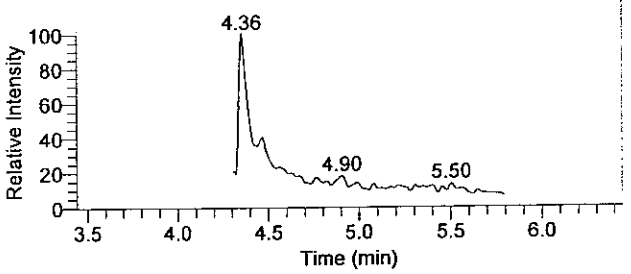


Compound Graphics

Date: 04-Sep-2009, Instrument: Quantum, Vial: E:30, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-32, Comments: Soil prep, ID: 5763108

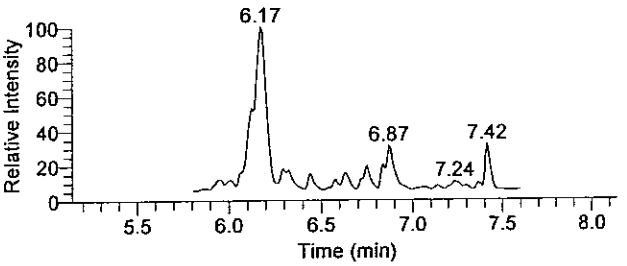
Monomethylhydrazine

03Sep2009-32 - TIC RT: 3.44 - 6.44 NL: 2.23E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



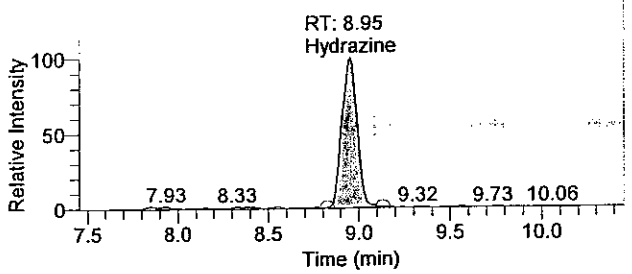
1,1-Dimethylhydrazine

03Sep2009-32 - TIC RT: 5.14 - 8.14 NL: 5.77E1
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-32 - TIC RT: 7.45 - 10.45 NL: 1.73E3
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 0077

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
5763108	Method Settings	Hydrazine	8.95	10160	0.067	ng/mL
5763108	Method Settings	1,1-Dimethylhydrazine	N/A	NF	NC	ng/mL
5763108	Method Settings	Monomethylhydrazine	N/A	NF	NC	ng/mL

Analyst: JW 1543 9/4/2009
9/8/09

OLN18 8878

There is no signature data to report.

Lancaster Laboratories

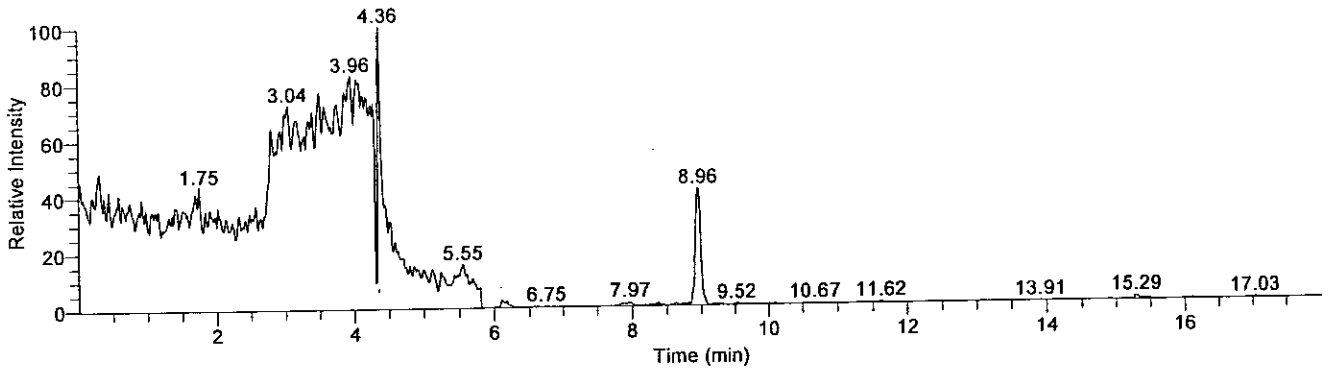
Printed: Friday, September 04, 2009, 08:42:52

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0924610610801
Data File:	03Sep2009-17.raw
Sample ID:	5763109FD
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Thursday, September 03, 2009 9:27:09 PM
Vial:	E:18
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-17 - TIC RT: 0.00 - 17.99 NL: 2.43E3

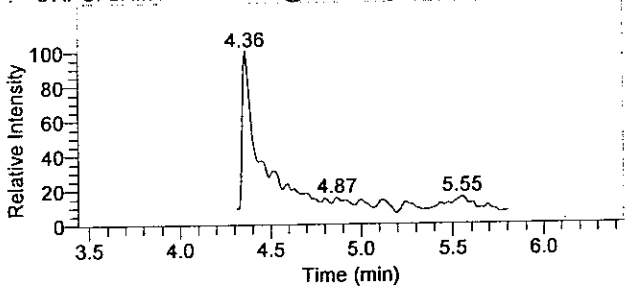


Compound Graphics

Date: 03-Sep-2009, Instrument: Quantum, Vial: E:18, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-17, Comments: Soil prep, ID: 5763109FD

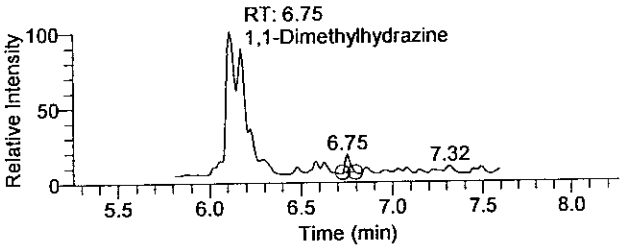
Monomethylhydrazine

03Sep2009-17 - TIC RT: 3.44 - 6.44 NL: 2.43E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



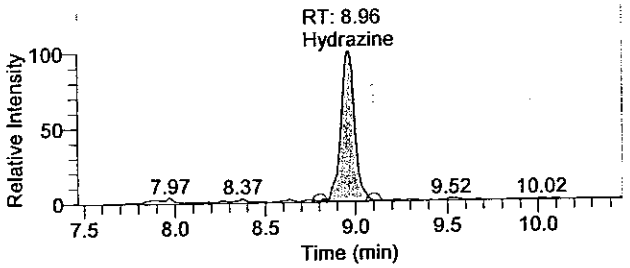
1,1-Dimethylhydrazine

03Sep2009-17 - TIC RT: 5.25 - 8.25 NL: 6.41E1
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-17 - TIC RT: 7.46 - 10.46 NL: 1.01E3
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 0079

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
5763109FD	Method Settings	Hydrazine	8.96	5404	0.031	ng/mL
5763109FD	Method Settings	1,1-Dimethylhydrazine	6.75	14	0.079	ng/mL
5763109FD	Method Settings	Monomethylhydrazine	N/A	NF	NC	ng/mL

Analyst : JW 1543 9/4/2009
9/11/2 9/9/09

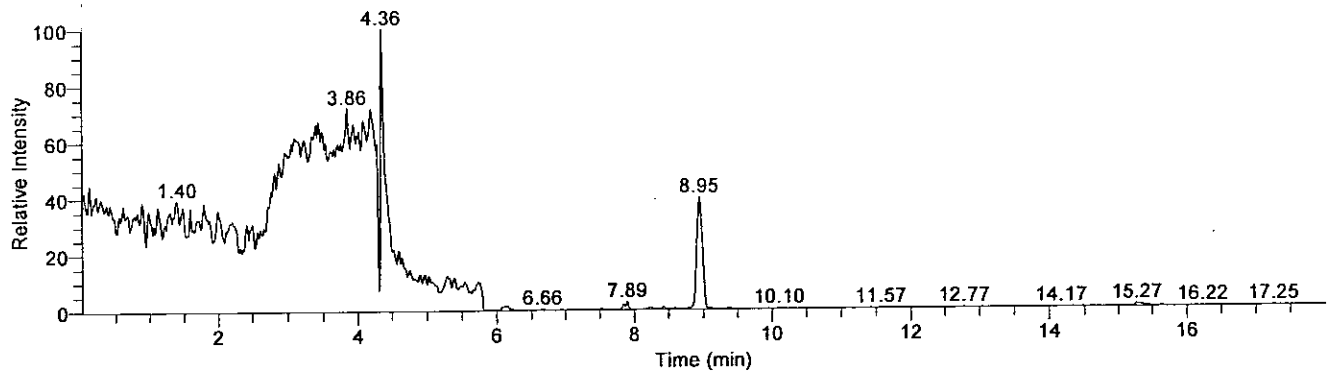
OLM18 8888

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0924610610801
Data File:	03Sep2009-18.raw
Sample ID:	5763110BKG
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Thursday, September 03, 2009 9:45:55 PM
Vial:	E:19
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-18 - TIC RT: 0.00 - 17.99 NL: 2.58E3

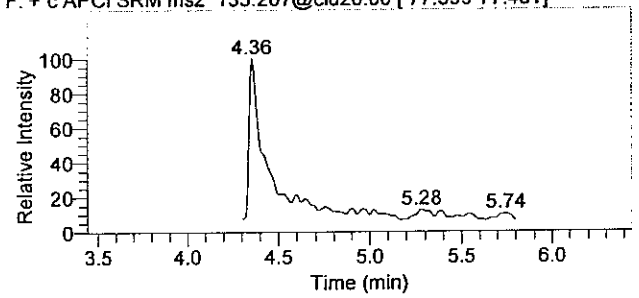


Compound Graphics

Date: 03-Sep-2009, Instrument: Quantum, Vial: E:19, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-18, Comments: Soil prep, ID: 5763110BKG

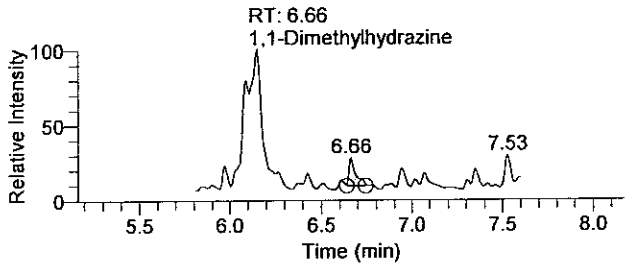
Monomethylhydrazine

03Sep2009-18 - TIC RT: 3.44 - 6.44 NL: 2.58E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



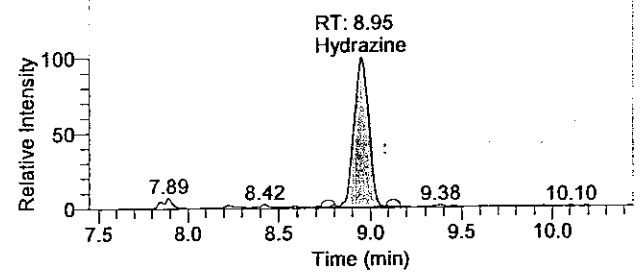
1,1-Dimethylhydrazine

03Sep2009-18 - TIC RT: 5.16 - 8.16 NL: 4.69E1
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-18 - TIC RT: 7.45 - 10.45 NL: 1.03E3
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLMIB 8881

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
5763110BKG	Method Settings	Hydrazine	8.95	5885	0.035	ng/mL
5763110BKG	Method Settings	1,1-Dimethylhydrazine	6.66	23	0.079	ng/mL
5763110BKG	Method Settings	Monomethylhydrazine	N/A	NF	NC	ng/mL

Analyst: JW 1543 9/4/2009

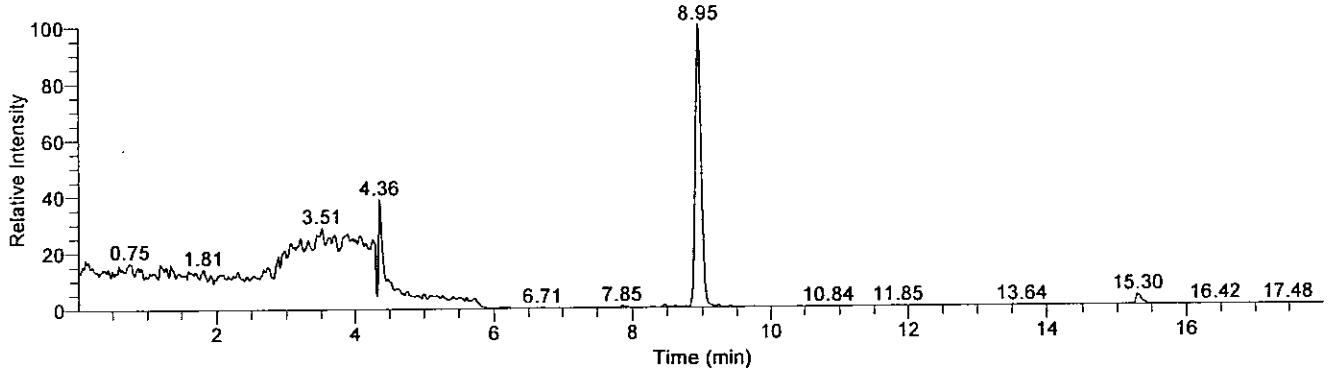
9/8/09

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0924610610801
Data File:	03Sep2009-33.raw
Sample ID:	5763113
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Friday, September 04, 2009 2:26:48 AM
Vial:	E:31
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-33 - TIC RT: 0.00 - 17.99 NL: 6.32E3

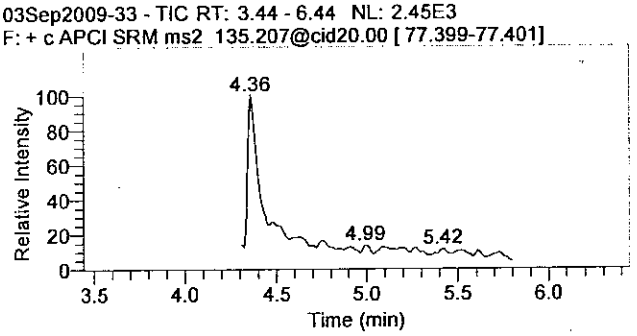


Compound Graphics

Date: 04-Sep-2009, Instrument: Quantum, Vial: E:31, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-33, Comments: Soil prep, ID: 5763113

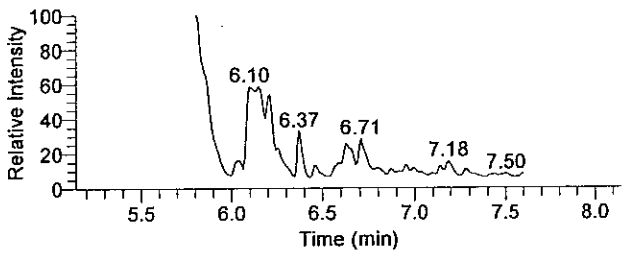
Monomethylhydrazine

03Sep2009-33 - TIC RT: 3.44 - 6.44 NL: 2.45E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



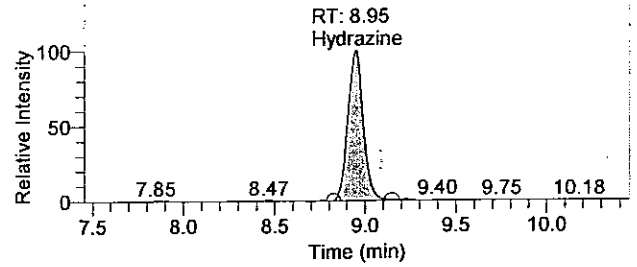
1,1-Dimethylhydrazine

03Sep2009-33 - TIC RT: 5.14 - 8.14 NL: 5.42E1
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-33 - TIC RT: 7.45 - 10.45 NL: 6.32E3
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 8883

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
5763113	Method Settings	Hydrazine	8.95	37322	0.269	ng/mL
5763113	Method Settings	1,1-Dimethylhydrazine	N/A	NF	NC	ng/mL
5763113	Method Settings	Monomethylhydrazine	N/A	NF	NC	ng/mL

Analyst: JW 1543 9/4/2009
9/9/09

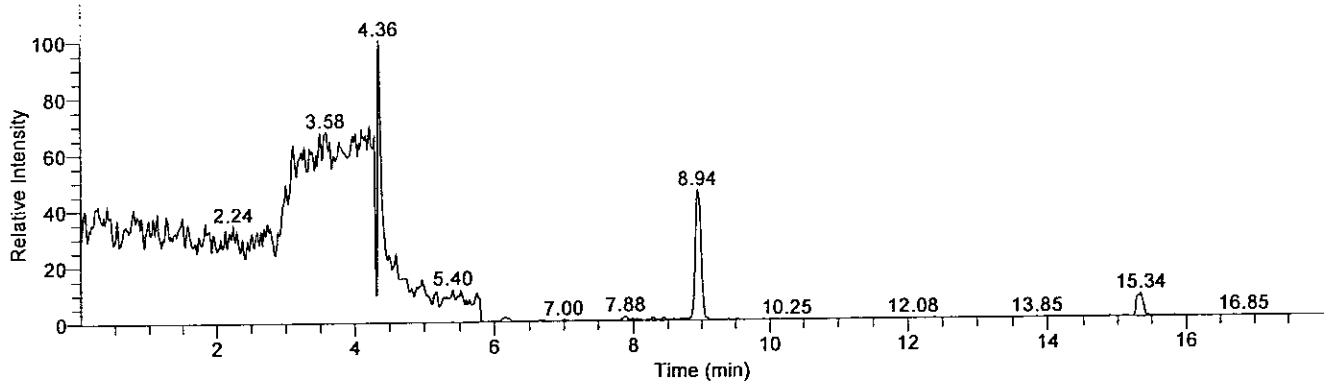
OLN10 8884

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0924610610801
Data File:	03Sep2009-34.raw
Sample ID:	5763114
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Friday, September 04, 2009 2:45:34 AM
Vial:	E:32
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-34 - TIC RT: 0.00 - 17.99 NL: 2.51E3

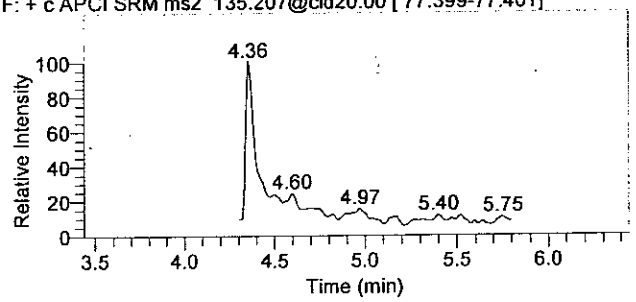


Compound Graphics

Date: 04-Sep-2009, Instrument: Quantum, Vial: E:32, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-34, Comments: Soil prep, ID: 5763114

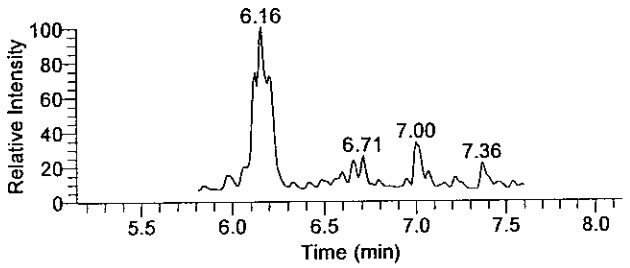
Monomethylhydrazine

03Sep2009-34 - TIC RT: 3.44 - 6.44 NL: 2.51E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



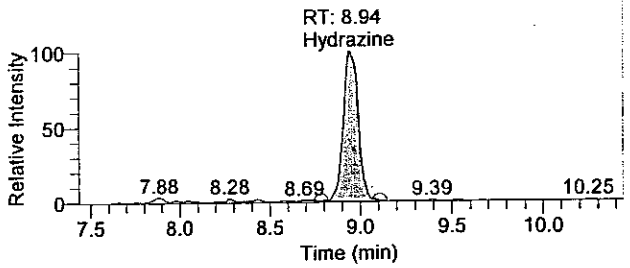
1,1-Dimethylhydrazine

03Sep2009-34 - TIC RT: 5.14 - 8.14 NL: 4.76E1
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-34 - TIC RT: 7.44 - 10.44 NL: 1.16E3
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



0LR18 8885

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
5763114	Method Settings	Hydrazine	8.94	6787	0.042	ng/mL
5763114	Method Settings	1,1-Dimethylhydrazine	N/A	NF	NC	ng/mL
5763114	Method Settings	Monomethylhydrazine	N/A	NF	NC	ng/mL

Analyst : JW 1543 9/4/2009
9/11 9/9/09

OLN18 8886

There is no signature data to report.

Lancaster Laboratories

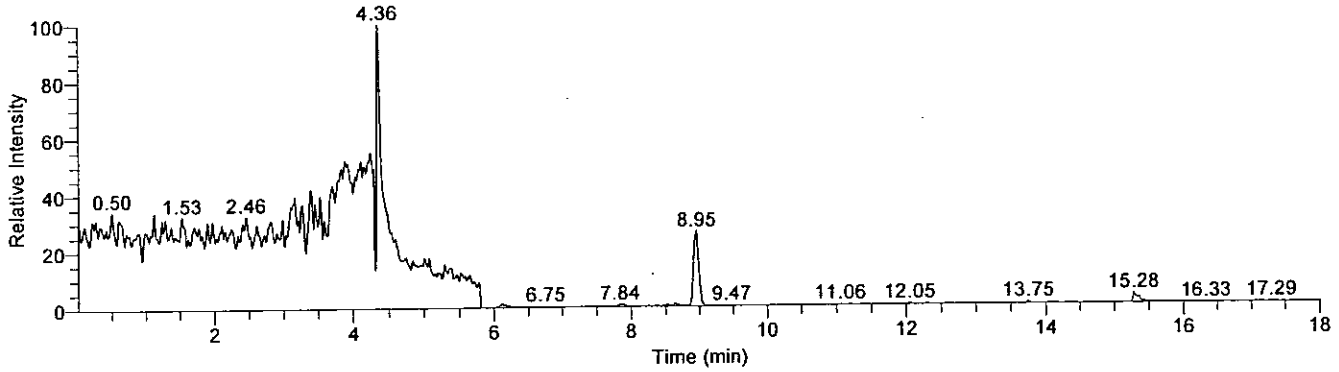
Printed: Wednesday, September 09, 2009, 10:40:35

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Workbook Name:	TQU01408-08Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0925110610808
Data File:	08Sep2009-31.raw
Sample ID:	5769167
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Tuesday, September 08, 2009 11:41:06 PM
Vial:	D:22
Dilution Factor:	1.00000

Sample Chromatogram

08Sep2009-31 - TIC RT: 0.00 - 18.00 NL: 3.33E3

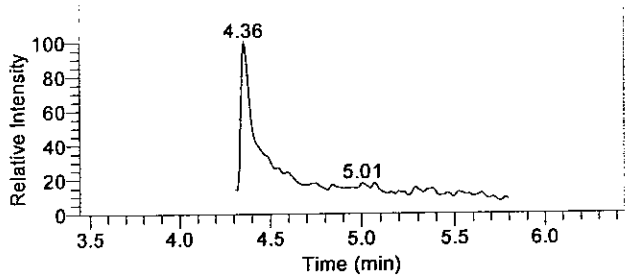


Compound Graphics

Date: 08-Sep-2009, Instrument: Quantum, Vial: D:22, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles\08Sep2009-31, Comments: Soil Prep, ID: 5769167

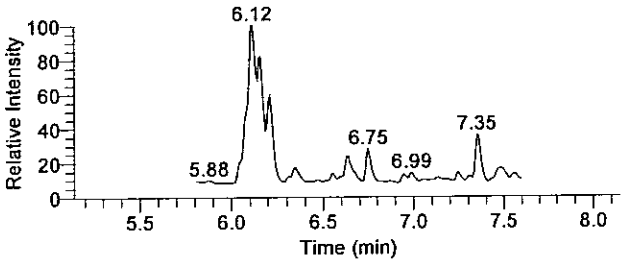
Monomethylhydrazine

08Sep2009-31 - TIC RT: 3.44 - 6.44 NL: 3.33E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



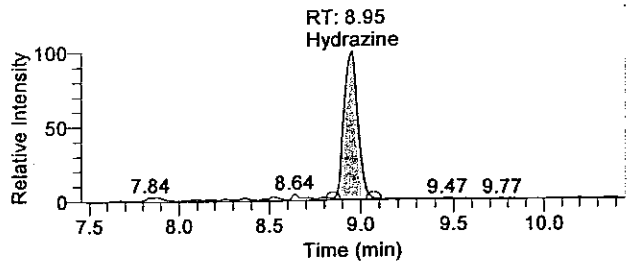
1,1-Dimethylhydrazine

08Sep2009-31 - TIC RT: 5.14 - 8.14 NL: 4.20E1
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

08Sep2009-31 - TIC RT: 7.45 - 10.45 NL: 8.78E2
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN10 8897

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
5769167	Method Settings	Hydrazine	8.95	4583	0.026	ng/mL
5769167	Method Settings	1,1-Dimethylhydrazine	N/A	NF	NC	ng/mL
5769167	Method Settings	Monomethylhydrazine	N/A	NF	NC	ng/mL

Analyst: JW 1543 9/9/2009
9/10/09

OLN10 0080

There is no signature data to report.

Lancaster Laboratories

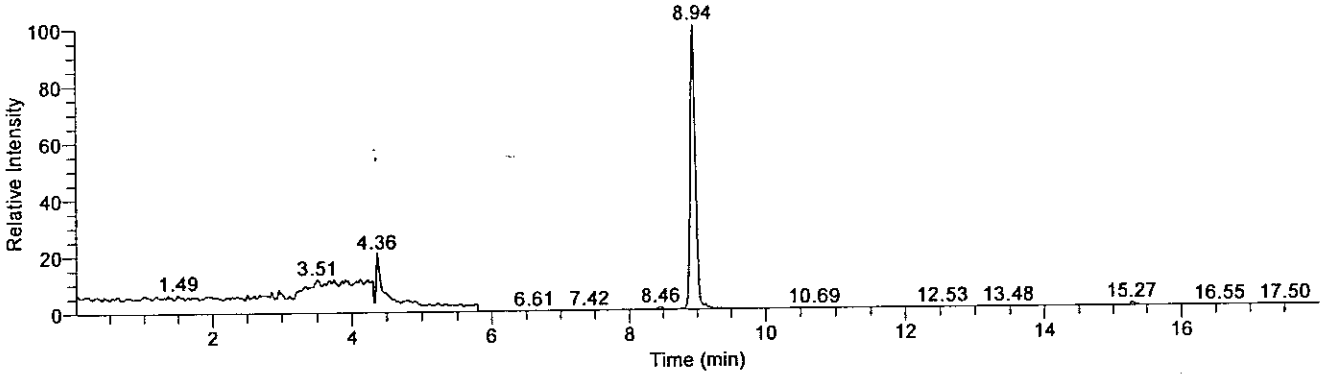
Printed: Wednesday, September 09, 2009, 10:40:35

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Workbook Name:	TQU01408-08Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0925110610808
Data File:	08Sep2009-32.raw
Sample ID:	5769168
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Tuesday, September 08, 2009 11:59:48 PM
Vial:	D:23
Dilution Factor:	1.00000

Sample Chromatogram

08Sep2009-32 - TIC RT: 0.00 - 17.99 NL: 1.61E4

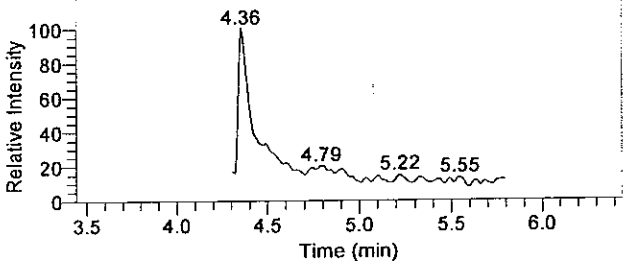


Compound Graphics

Date: 08-Sep-2009, Instrument: Quantum, Vial: D:23, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles\08Sep2009-32, Comments: Soil Prep, ID: 5769168

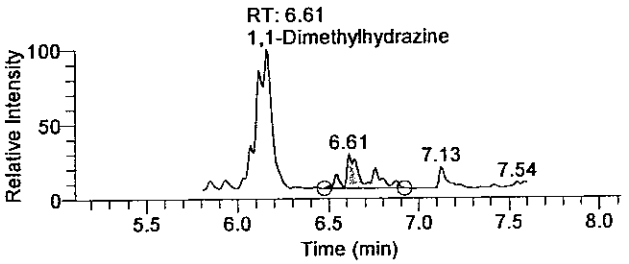
Monomethylhydrazine

08Sep2009-32 - TIC RT: 3.44 - 6.44 NL: 3.31E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



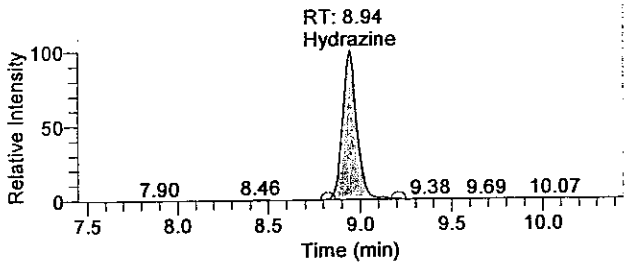
1,1-Dimethylhydrazine

08Sep2009-32 - TIC RT: 5.11 - 8.11 NL: 4.94E1
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

08Sep2009-32 - TIC RT: 7.44 - 10.44 NL: 1.61E4
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 8889

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
5769168	Method Settings	Hydrazine	8.94	87282	0.670	ng/mL
5769168	Method Settings	1,1-Dimethylhydrazine	6.61	84	0.109	ng/mL
5769168	Method Settings	Monomethylhydrazine	N/A	NF	NC	ng/mL

Analyst: JW 1543 9/9/2009
9/10/09

OLN18 6896

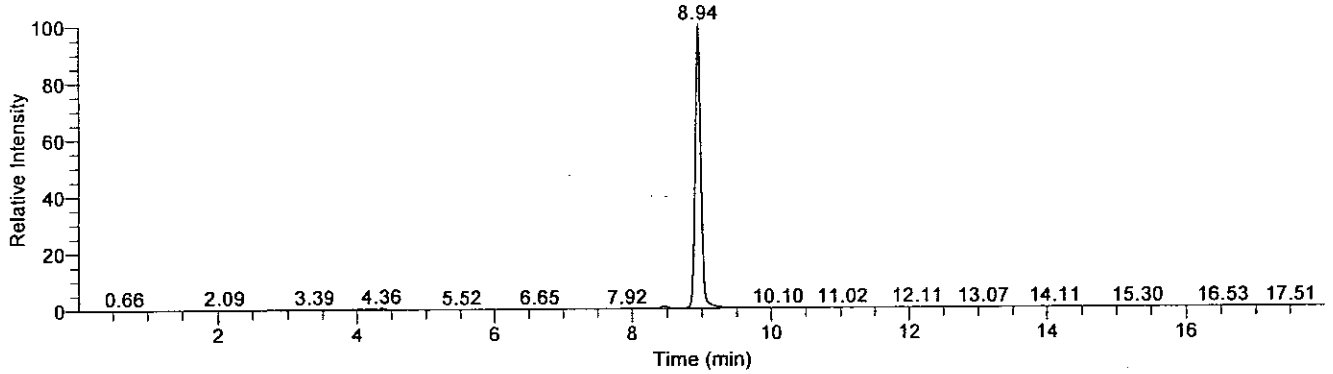
There is no signature data to report.

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Workbook Name:	TQU01408-08Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0925110610808
Data File:	08Sep2009-33.raw
Sample ID:	5769169
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Wednesday, September 09, 2009 12:18:33 AM
Vial:	D:24
Dilution Factor:	1.00000

Sample Chromatogram

08Sep2009-33 - TIC RT: 0.00 - 18.00 NL: 5.07E5

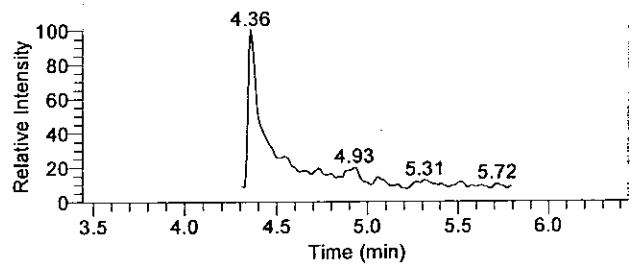


Compound Graphics

Date: 09-Sep-2009, Instrument: Quantum, Vial: D:24, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles\08Sep2009-33, Comments: Soil Prep, ID: 5769169

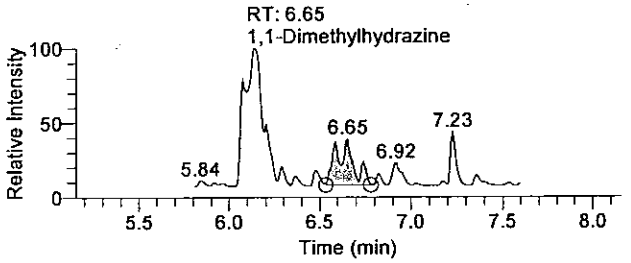
Monomethylhydrazine

08Sep2009-33 - TIC RT: 3.44 - 6.44 NL: 3.83E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



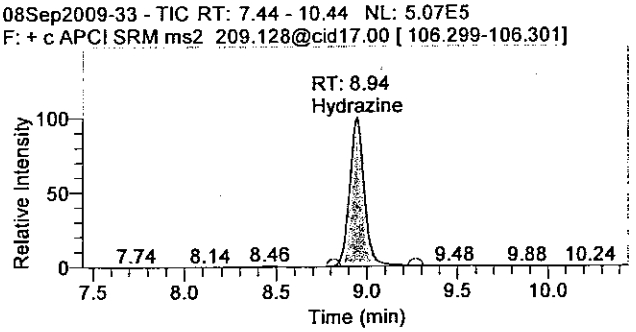
1,1-Dimethylhydrazine

08Sep2009-33 - TIC RT: 5.15 - 8.15 NL: 4.42E1
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

08Sep2009-33 - TIC RT: 7.44 - 10.44 NL: 5.07E5
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLM18 0091

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
5769169	Method Settings	Hydrazine	8.94	2866117	22.321	ng/mL
5769169	Method Settings	1,1-Dimethylhydrazine	6.65	90	0.109	ng/mL
5769169	Method Settings	Monomethylhydrazine	N/A	NF	NC	ng/mL

Analyst : JW 1543 9/9/2009
[illegible] 9/10/09

OLN10 8892

There is no signature data to report.

Lancaster Laboratories

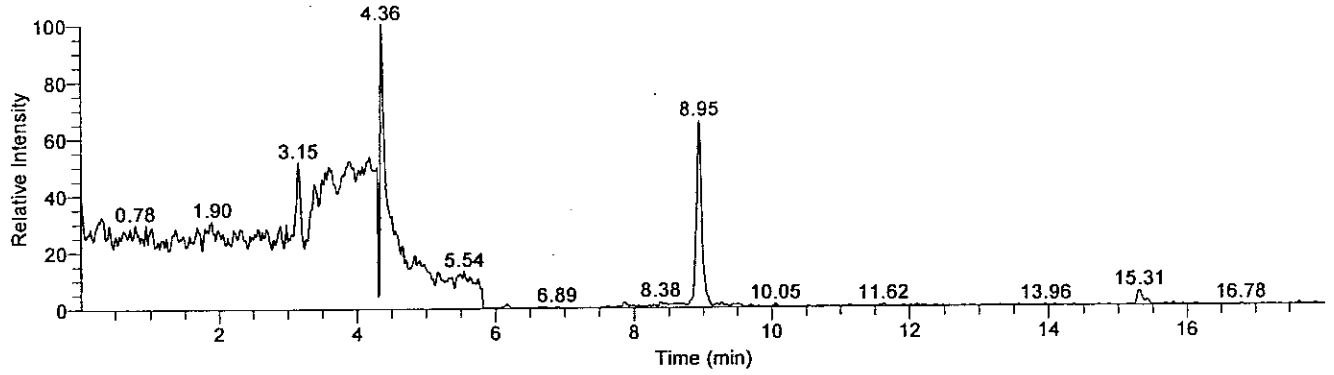
Printed: Wednesday, September 09, 2009, 10:40:36

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Workbook Name:	TQU01408-08Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0925110610808
Data File:	08Sep2009-34.raw
Sample ID:	5769170
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Wednesday, September 09, 2009 12:37:19 AM
Vial:	D:25
Dilution Factor:	1.00000

Sample Chromatogram

08Sep2009-34 - TIC RT: 0.00 - 18.00 NL: 3.40E3

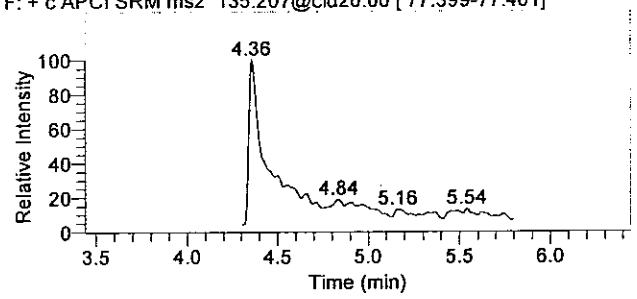


Compound Graphics

Date: 09-Sep-2009, Instrument: Quantum, Vial: D:25, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles\08Sep2009-34, Comments: Soil Prep, ID: 5769170

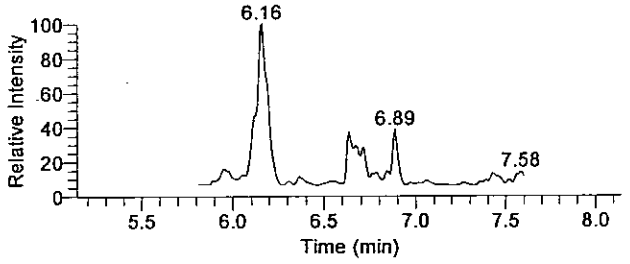
Monomethylhydrazine

08Sep2009-34 - TIC RT: 3.44 - 6.44 NL: 3.40E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



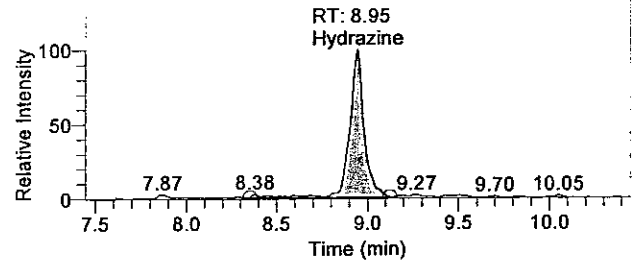
1,1-Dimethylhydrazine

08Sep2009-34 - TIC RT: 5.14 - 8.14 NL: 5.19E1
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

08Sep2009-34 - TIC RT: 7.45 - 10.45 NL: 2.23E3
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 8890

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
5769170	Method Settings	Hydrazine	8.95	12670	0.089	ng/mL
5769170	Method Settings	1,1-Dimethylhydrazine	N/A	NF	NC	ng/mL
5769170	Method Settings	Monomethylhydrazine	N/A	NF	NC	ng/mL

Analyst: JW 1543 9/9/2009

9/12 9/15/09

OLN18 8894

There is no signature data to report.

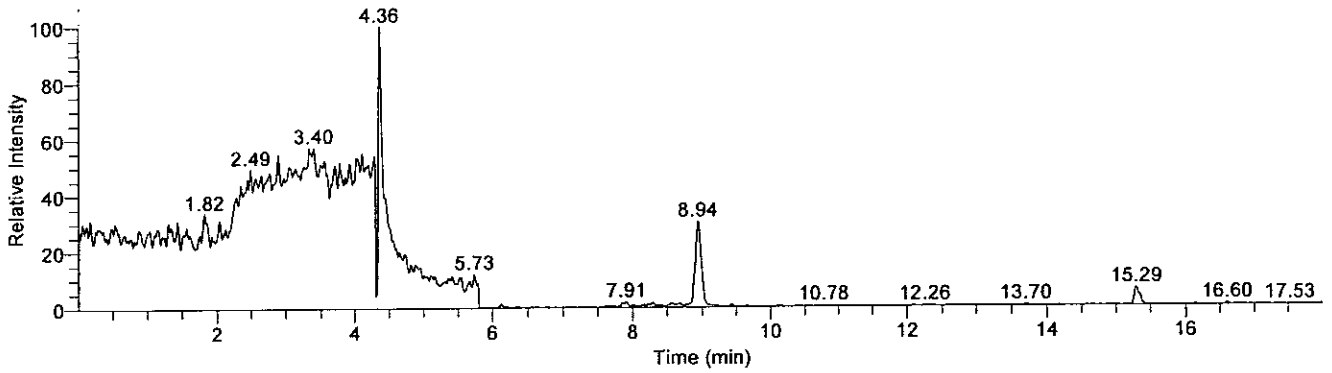
Lancaster Laboratories

Printed: Friday, September 11, 2009, 10:25:09
Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Workbook Name:	TQU01408-10Sep2009-3
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0925310610812
Data File:	10Sep2009-30.raw
Sample ID:	5770779
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Friday, September 11, 2009 3:41:54 AM
Vial:	E:27
Dilution Factor:	1.00000

Sample Chromatogram

10Sep2009-30 - TIC RT: 0.00 - 18.00 NL: 3.53E3

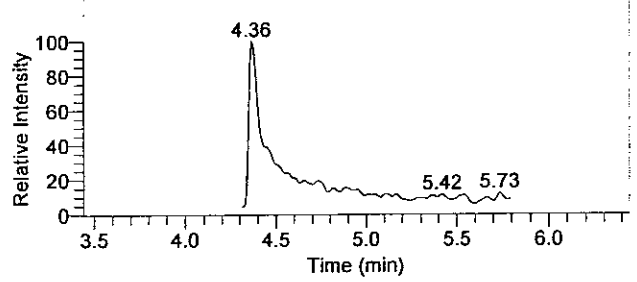


Compound Graphics

Date: 11-Sep-2009, Instrument: Quantum, Vial: E:27, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles\10Sep2009-30, Comments: Soil prep, ID: 5770779

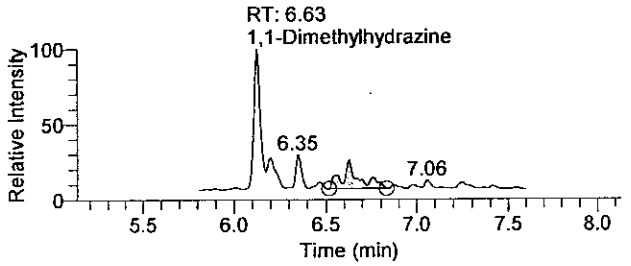
Monomethylhydrazine

10Sep2009-30 - TIC RT: 3.44 - 6.44 NL: 3.53E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



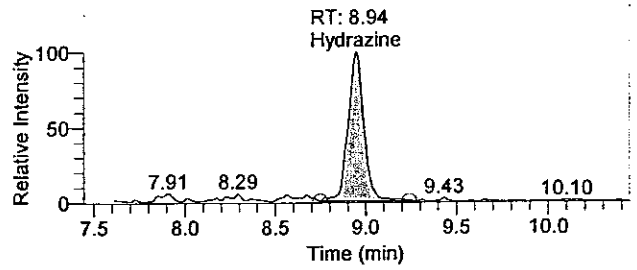
1,1-Dimethylhydrazine

10Sep2009-30 - TIC RT: 5.13 - 8.13 NL: 5.39E1
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

10Sep2009-30 - TIC RT: 7.44 - 10.44 NL: 1.07E3
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLK10 0895

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
5770779	Method Settings	Hydrazine	8.94	6535	0.048	ng/mL
5770779	Method Settings	1,1-Dimethylhydrazine	6.63	63	0.138	ng/mL
5770779	Method Settings	Monomethylhydrazine	N/A	NF	NC	ng/mL

Analyst : JW 1543 9/11/2009

9/11/09

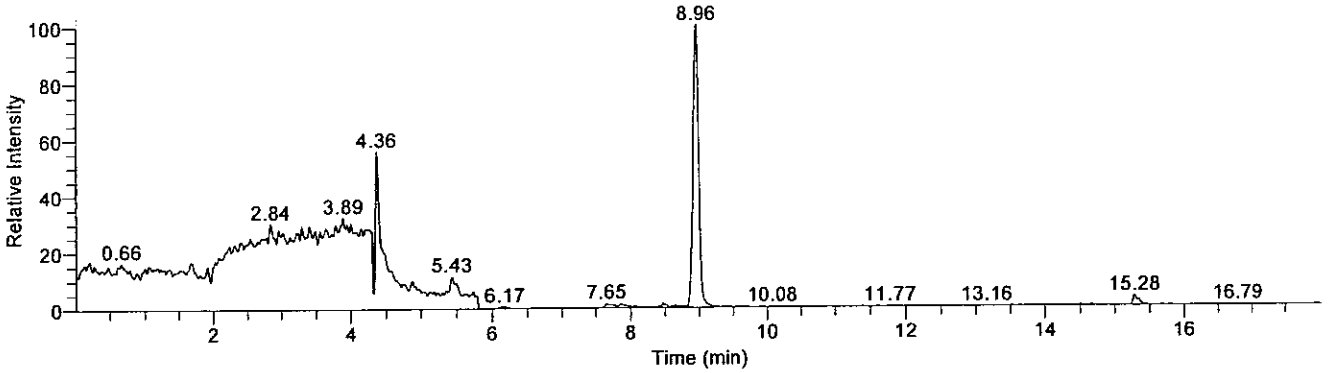
0LN13 0896

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Workbook Name:	TQU01408-10Sep2009-3
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0925310610812
Data File:	10Sep2009-31.raw
Sample ID:	5770780
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Friday, September 11, 2009 4:00:40 AM
Vial:	E:28
Dilution Factor:	1.00000

Sample Chromatogram

10Sep2009-31 - TIC RT: 0.00 - 18.00 NL: 6.59E3

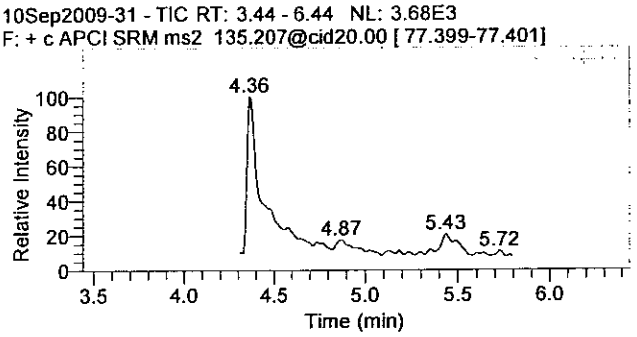


Compound Graphics

Date: 11-Sep-2009, Instrument: Quantum, Vial: E:28, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles\10Sep2009-31, Comments: Soil prep, ID: 5770780

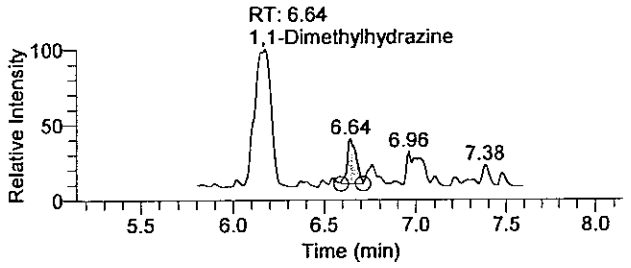
Monomethylhydrazine

10Sep2009-31 - TIC RT: 3.44 - 6.44 NL: 3.68E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



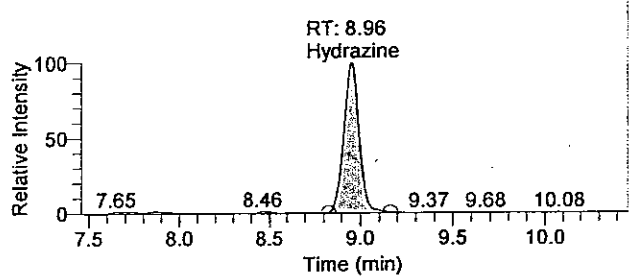
1,1-Dimethylhydrazine

10Sep2009-31 - TIC RT: 5.14 - 8.14 NL: 3.84E1
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

10Sep2009-31 - TIC RT: 7.46 - 10.46 NL: 6.59E3
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLR18 0897

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
5770780	Method Settings	Hydrazine	8.96	37741	0.288	ng/mL
5770780	Method Settings	1,1-Dimethylhydrazine	6.64	40	0.137	ng/mL
5770780	Method Settings	Monomethylhydrazine	N/A	NF	NC	ng/mL

Analyst: JW 1543 9/11/2009
[illegible] 9/11/09

OLN13 0098

There is no signature data to report.

Lancaster Laboratories

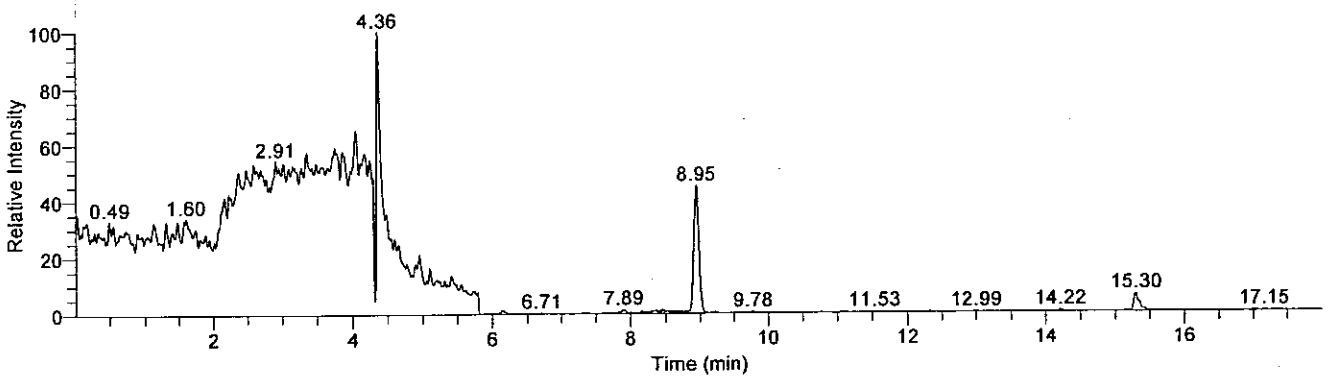
Printed: Friday, September 11, 2009, 10:25:10

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Workbook Name:	TQU01408-10Sep2009-3
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0925310610812
Data File:	10Sep2009-32.raw
Sample ID:	5770781
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Friday, September 11, 2009 4:19:24 AM
Vial:	E:29
Dilution Factor:	1.00000

Sample Chromatogram

10Sep2009-32 - TIC RT: 0.00 - 17.99 NL: 3.35E3

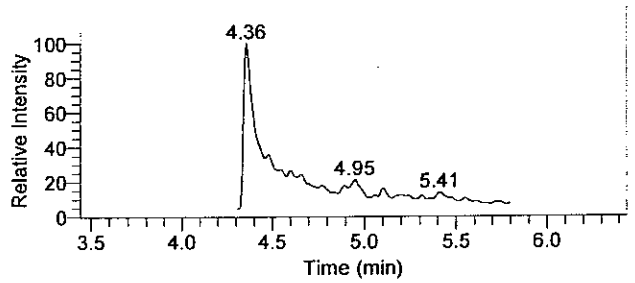


Compound Graphics

Date: 11-Sep-2009, Instrument: Quantum, Vial: E:29, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles\10Sep2009-32, Comments: Soil prep, ID: 5770781

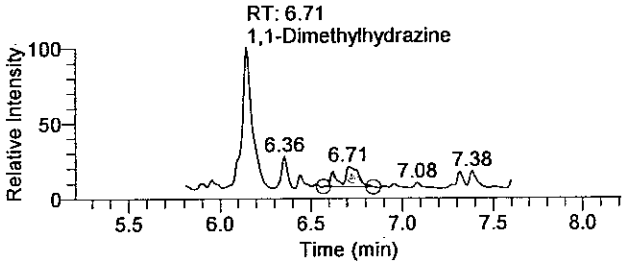
Monomethylhydrazine

10Sep2009-32 - TIC RT: 3.44 - 6.44 NL: 3.35E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



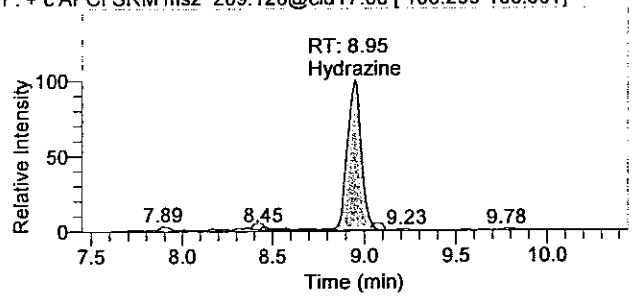
1,1-Dimethylhydrazine

10Sep2009-32 - TIC RT: 5.21 - 8.21 NL: 5.16E1
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

10Sep2009-32 - TIC RT: 7.45 - 10.45 NL: 1.51E3
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLM18 8899

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
5770781	Method Settings	Hydrazine	8.95	8189	0.061	ng/mL
5770781	Method Settings	1,1-Dimethylhydrazine	6.71	46	0.138	ng/mL
5770781	Method Settings	Monomethylhydrazine	N/A	NF	NC	ng/mL

Analyst : JW 1543 9/11/2009

9/11/2009

OLM19 8189

There is no signature data to report.

Standards Data

GLN18 0181

Lancaster Laboratories

Workbook Name: TQU01408-03Sep2009-1
Instrument No. TQU01408
Analyst JW01543

Sequence Table

Sample ID	File Name	Sample Type	Path	Position	Inj Vol	Batch No.
Conditioner1	03Sep2009-1	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:1	10.00	N/A
Conditioner2	03Sep2009-2	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:1	10.00	N/A
MDL	03Sep2009-3	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:8	10.00	N/A
Cal1	03Sep2009-4	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:9	10.00	N/A
Cal2	03Sep2009-5	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:10	10.00	N/A
Cal3	03Sep2009-6	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:11	10.00	N/A
Cal4	03Sep2009-7	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:12	10.00	N/A
Cal5	03Sep2009-8	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:13	10.00	N/A
Cal6	03Sep2009-9	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:14	10.00	N/A
Cal7	03Sep2009-10	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:15	10.00	N/A
Cal8	03Sep2009-11	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:16	10.00	N/A
Conditioner3	03Sep2009-12	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:1	10.00	N/A
Cal3asQC1a	03Sep2009-13	QC	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:11	10.00	N/A
Conditioner4	03Sep2009-14	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:1	10.00	N/A
Conditioner5	03Sep2009-15	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:1	10.00	N/A
Blank	03Sep2009-16	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:17	10.00	0924610610801
5763109FD	03Sep2009-17	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:18	10.00	0924610610801
5763110BKG	03Sep2009-18	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:19	10.00	0924610610801
5763111MS	03Sep2009-19	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:20	10.00	0924610610801
~~5763112MDS~~ 5763112MSD	03Sep2009-20	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:21	10.00	0924610610801
LCS	03Sep2009-21	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:22	10.00	0924610610801
LCSD	03Sep2009-22	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:23	10.00	0924610610801
ICV	03Sep2009-23	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:24	10.00	N/A
Cal4asQC2a	03Sep2009-24	QC	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:12	10.00	N/A
Spike Check	03Sep2009-25	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:25	10.00	N/A
Conditioner6	03Sep2009-26	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:1	10.00	N/A
Conditioner7	03Sep2009-27	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:1	10.00	N/A
5763104	03Sep2009-28	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:26	10.00	0924610610801
5763105	03Sep2009-29	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:27	10.00	0924610610801
5763106	03Sep2009-30	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:28	10.00	0924610610801
5763107	03Sep2009-31	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:29	10.00	0924610610801
5763108	03Sep2009-32	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:30	10.00	0924610610801
5763113	03Sep2009-33	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:31	10.00	0924610610801

There is no signature data to report.

Lancaster Laboratories

Sample ID	File Name	Sample Type	Path	Position	Inj Vol	Batch No.
5763114	03Sep2009-34	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:32	10.00	0924610610801
Cal5asQC3a	03Sep2009-35	QC	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:13	10.00	N/A
5764219	03Sep2009-36	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:33	10.00	0924610610801
Cal3asQC1b	03Sep2009-37	QC	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles	E:11	10.00	N/A

Analyst : JW 1543 9/4/2009

9/9/09

There is no signature data to report.

Lancaster Laboratories

Component Calibration and Continuing Calibration Verification (CCV) Report

Workbook Name:	TQU01408-03Sep2009-1
Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Instrument No.	TQU01408
Analyst	JW01543

Identification

Component Name:	1,1-Dimethylhydrazine
Detector Type:	MS
Filter:	+ c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]
1st Trace Type:	TIC
Operator:	None
2nd Trace Type:	N/A
Mass Range 1 (m/z):	N/A
Mass Range 2 (m/z):	N/A
Base Peak(BP):	N/A
Mass Range(MR):	N/A

Retention Time

Expected RT (min):	6.64000
Window (sec):	20.00000
View Width (min):	3.00000
RT Reference:	No
Adjust Expected RT:	No
Adjust Using:	N/A

Detection Options

Peak Detection Algorithm:	Genesis
Smoothing Points:	1

Genesis Peak Integration

S/N Threshold:	1.00
Valley Detection:	Disabled
Expected Peak Width (sec):	N/A
Genesis Constrain Peak Width:	No
Genesis Peak Height (%):	N/A
Genesis Tailing Factor:	N/A

Genesis Peak Detection

Genesis Identify By:	Nearest RT
Genesis Minimum Peak Height (S/N):	3.00
Genesis Ion Ratio Confirmation:	No
Genesis Window %:	N/A
Genesis Qualifier Ion Coelution (min):	N/A

Genesis Advanced Detection Options

Baseline (Global)

Baseline Noise Tolerance (%):	10.0
Minimum Number of Scans in Baseline:	16
Baseline Noise Rejection Factor:	2.0

Calibration

Component Type:	Target Compound

Internal Standard

ISTD Amount:	N/A
ISTD Units:	N/A

Target Compounds

Concentration of Calibration Standards

Level	Amount
1	0.500 ng/mL
2	1.000 ng/mL
3	2.500 ng/mL
4	5.000 ng/mL
5	12.500 ng/mL
6	25.000 ng/mL
7	50.000 ng/mL
8	125.000 ng/mL

Concentration of CCV Standards

Level	Amount
CCV1	2.500 ng/mL
CCV2	5.000 ng/mL
CCV3	12.500 ng/mL

OLN18 8184

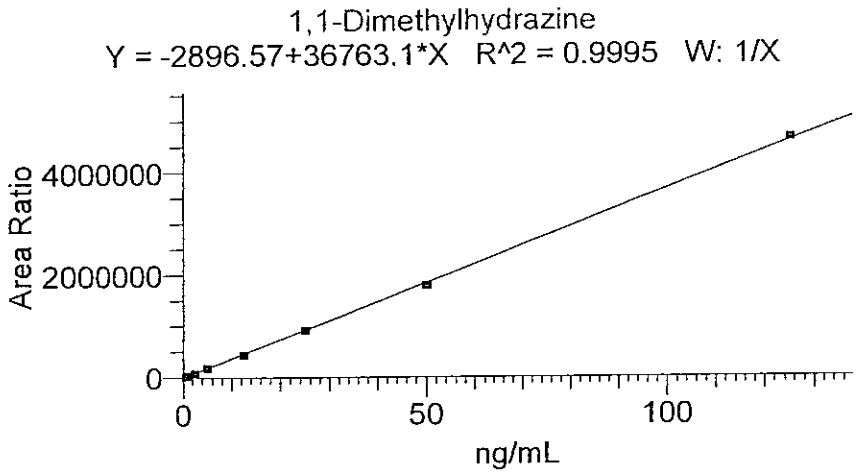
There is no signature data to report.

Lancaster Laboratories

ISTD:	
Weighting:	1/X
Origin:	IgnoreOrigin
Response:	Area
Calibration Curve:	Linear
Target Units:	ng/mL
Number of Cal. Levels:	8
Number of QC Levels:	3

Options

Calibration By: External Standard



Sample ID	Sample Type	Level	Exclude	Integration Type	Response	Specified Conc	Units	Calc Amt	% Diff
Cal1	Standard	1	N/A	Method Settings	17008	0.500	ng/mL	0.541	8.28
Cal2	Standard	2	N/A	Method Settings	35550	1.000	ng/mL	1.046	4.58
Cal3	Standard	3	N/A	Method Settings	80540	2.500	ng/mL	2.270	-9.22
Cal4	Standard	4	N/A	Method Settings	183229	5.000	ng/mL	5.063	1.26
Cal5	Standard	5	N/A	Method Settings	438119	12.500	ng/mL	11.996	-4.03
Cal6	Standard	6	N/A	Method Settings	917707	25.000	ng/mL	25.042	0.17
Cal7	Standard	7	N/A	Method Settings	1790144	50.000	ng/mL	48.773	-2.45
Cal8	Standard	8	N/A	Method Settings	4657558	125.000	ng/mL	126.770	1.42
Cal3asQC1a	QC	CCV1	N/A	Method Settings	79947	2.500	ng/mL	2.253	-9.86
Cal4asQC2a	QC	CCV2	N/A	Method Settings	202846	5.000	ng/mL	5.596	11.93
Cal5asQC3a	QC	CCV3	N/A	Method Settings	469347	12.500	ng/mL	12.846	2.76
Cal3asQC1b	QC	CCV1	N/A	Method Settings	88158	2.500	ng/mL	2.477	-0.93

Analyst: JW 1543 8/4/2008
[illegible] 9/9/08

GLN10 8185

There is no signature data to report.

Lancaster Laboratories

Component Calibration and Continuing Calibration Verification (CCV) Report

Workbook Name:	TQU01408-03Sep2009-1
Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Instrument No.	TQU01408
Analyst	JW01543

Identification

Component Name:	Hydrazine
Detector Type:	MS
Filter:	+ c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]
1st Trace Type:	TIC
Operator:	None
2nd Trace Type:	N/A
Mass Range 1 (m/z):	N/A
Mass Range 2 (m/z):	N/A
Base Peak(BP):	N/A
Mass Range(MR):	N/A

Retention Time

Expected RT (min):	8.95000
Window (sec):	20.00000
View Width (min):	3.00000
RT Reference:	No
Adjust Expected RT:	No
Adjust Using:	N/A

Detection Options

Peak Detection Algorithm:	Genesis
Smoothing Points:	1

Genesis Peak Integration

S/N Threshold:	1.00
Valley Detection:	Disabled
Expected Peak Width (sec):	N/A
Genesis Constrain Peak Width:	No
Genesis Peak Height (%):	N/A
Genesis Tailing Factor:	N/A

Genesis Peak Detection

Genesis Identify By:	Nearest RT
Genesis Minimum Peak Height (S/N):	3.00
Genesis Ion Ratio Confirmation:	No
Genesis Window %:	N/A
Genesis Qualifier Ion Coelution (min):	N/A

Genesis Advanced Detection Options

Baseline (Global)

Baseline Noise Tolerance (%):	10.0
Minimum Number of Scans in Baseline:	16
Baseline Noise Rejection Factor:	2.0

Calibration

Component Type:	Target Compound

Internal Standard

ISTD Amount:	N/A
ISTD Units:	N/A

Target Compounds

Concentration of Calibration Standards

Level	Amount
1	0.100 ng/mL
2	0.200 ng/mL
3	0.500 ng/mL
4	1.000 ng/mL
5	2.500 ng/mL
6	5.000 ng/mL
7	10.000 ng/mL
8	25.000 ng/mL

Concentration of CCV Standards

Level	Amount
CCV1	0.500 ng/mL
CCV2	1.000 ng/mL
CCV3	2.500 ng/mL

OLM10 0186

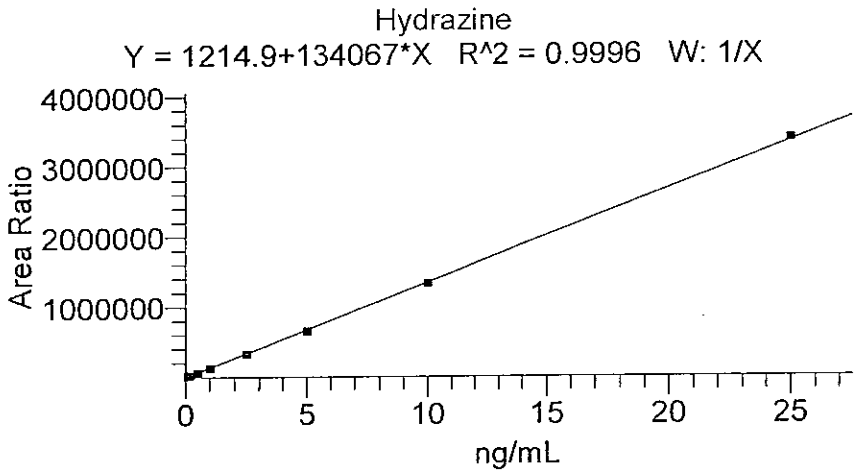
There is no signature data to report.

Lancaster Laboratories

ISTD:	
Weighting:	1/X
Origin:	IgnoreOrigin
Response:	Area
Calibration Curve:	Linear
Target Units:	ng/mL
Number of Cal. Levels:	8
Number of QC Levels:	3

Options

Calibration By: External Standard



Sample ID	Sample Type	Level	Exclude	Integration Type	Response	Specified Conc	Units	Calc Amt	% Diff
Cal1	Standard	1	N/A	Method Settings	16533	0.100	ng/mL	0.114	14.25
Cal2	Standard	2	N/A	Method Settings	28095	0.200	ng/mL	0.200	0.25
Cal3	Standard	3	N/A	Method Settings	66425	0.500	ng/mL	0.486	-2.72
Cal4	Standard	4	N/A	Method Settings	124519	1.000	ng/mL	0.920	-8.03
Cal5	Standard	5	N/A	Method Settings	330865	2.500	ng/mL	2.459	-1.65
Cal6	Standard	6	N/A	Method Settings	652703	5.000	ng/mL	4.859	-2.81
Cal7	Standard	7	N/A	Method Settings	1334358	10.000	ng/mL	9.944	-0.56
Cal8	Standard	8	N/A	Method Settings	3395410	25.000	ng/mL	25.317	1.27
Cal3asQC1a	QC	CCV1	N/A	Method Settings	71464	0.500	ng/mL	0.524	4.80
Cal4asQC2a	QC	CCV2	N/A	Method Settings	133942	1.000	ng/mL	0.990	-1.00
Cal5asQC3a	QC	CCV3	N/A	Method Settings	338549	2.500	ng/mL	2.516	0.65
Cal3asQC1b	QC	CCV1	N/A	Method Settings	68920	0.500	ng/mL	0.505	1.00

Analyst : JW 1543 8/4/2009
[illegible] 9/9/09

OLN18 8187

There is no signature data to report.

Lancaster Laboratories

Component Calibration and Continuing Calibration Verification (CCV) Report

Workbook Name:	TQU01408-03Sep2009-1
Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Instrument No.	TQU01408
Analyst	JW01543

Identification

Component Name:	Monomethylhydrazine
Detector Type:	MS
Filter:	+ c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]
1st Trace Type:	TIC
Operator:	None
2nd Trace Type:	N/A
Mass Range 1 (m/z):	N/A
Mass Range 2 (m/z):	N/A
Base Peak(BP):	N/A
Mass Range(MR):	N/A

Retention Time

Expected RT (min):	4.94000
Window (sec):	20.00000
View Width (min):	3.00000
RT Reference:	No
Adjust Expected RT:	No
Adjust Using:	N/A

Detection Options

Peak Detection Algorithm:	Genesis
Smoothing Points:	1

Genesis Peak Integration

S/N Threshold:	1.00
Valley Detection:	Disabled
Expected Peak Width (sec):	N/A
Genesis Constrain Peak Width:	No
Genesis Peak Height (%):	N/A
Genesis Tailing Factor:	N/A

Genesis Peak Detection

Genesis Identify By:	Nearest RT
Genesis Minimum Peak Height (S/N):	3.00
Genesis Ion Ratio Confirmation:	No
Genesis Window %:	N/A
Genesis Qualifier Ion Coelution (min):	N/A

Genesis Advanced Detection Options

Baseline (Global)

Baseline Noise Tolerance (%):	10.0
Minimum Number of Scans in Baseline:	16
Baseline Noise Rejection Factor:	2.0

Calibration

Component Type:	Target Compound

Internal Standard

ISTD Amount:	N/A
ISTD Units:	N/A

Target Compounds

Concentration of Calibration Standards

Level	Amount
1	0.500 ng/mL
2	1.000 ng/mL
3	2.500 ng/mL
4	5.000 ng/mL
5	12.500 ng/mL
6	25.000 ng/mL
7	50.000 ng/mL
8	125.000 ng/mL

Concentration of CCV Standards

Level	Amount
CCV1	2.500 ng/mL
CCV2	5.000 ng/mL
CCV3	12.500 ng/mL

OLM18 0185

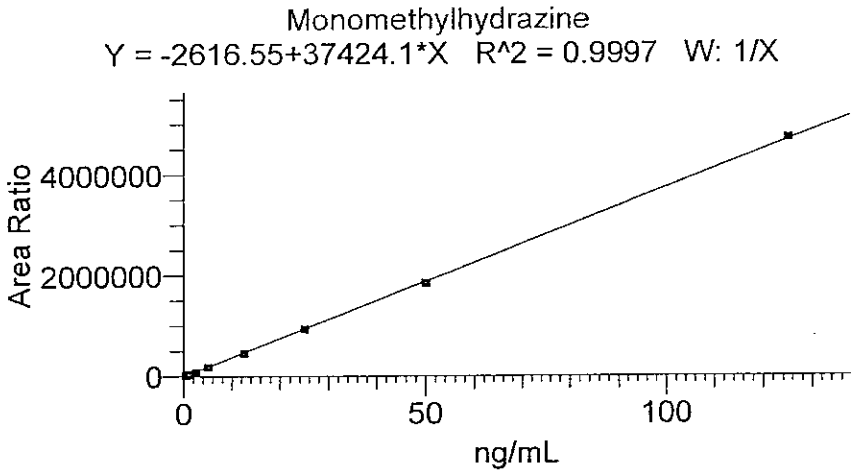
There is no signature data to report.

Lancaster Laboratories

ISTD:	
Weighting:	1/X
Origin:	IgnoreOrigin
Response:	Area
Calibration Curve:	Linear
Target Units:	ng/mL
Number of Cal. Levels:	8
Number of QC Levels:	3

Options

Calibration By: External Standard



Sample ID	Sample Type	Level	Exclude	Integration Type	Response	Specified Conc	Units	Calc Amt	% Diff
Cal1	Standard	1	N/A	Method Settings	18712	0.500	ng/mL	0.570	13.98
Cal2	Standard	2	N/A	Method Settings	34510	1.000	ng/mL	0.992	-0.79
Cal3	Standard	3	N/A	Method Settings	82192	2.500	ng/mL	2.266	-9.35
Cal4	Standard	4	N/A	Method Settings	180662	5.000	ng/mL	4.897	-2.05
Cal5	Standard	5	N/A	Method Settings	460039	12.500	ng/mL	12.363	-1.10
Cal6	Standard	6	N/A	Method Settings	929886	25.000	ng/mL	24.917	-0.33
Cal7	Standard	7	N/A	Method Settings	1845319	50.000	ng/mL	49.378	-1.24
Cal8	Standard	8	N/A	Method Settings	4717182	125.000	ng/mL	126.117	0.89
Cal3asQC1a	QC	CCV1	N/A	Method Settings	85632	2.500	ng/mL	2.358	-5.68
Cal4asQC2a	QC	CCV2	N/A	Method Settings	199729	5.000	ng/mL	5.407	8.14
Cal5asQC3a	QC	CCV3	N/A	Method Settings	487187	12.500	ng/mL	13.088	4.70
Cal3asQC1b	QC	CCV1	N/A	Method Settings	94059	2.500	ng/mL	2.583	3.33

Analyst : JW 1543 9/4/2009
[illegible]/112 9/9/09

OLN10 B199

There is no signature data to report.

Lancaster Laboratories

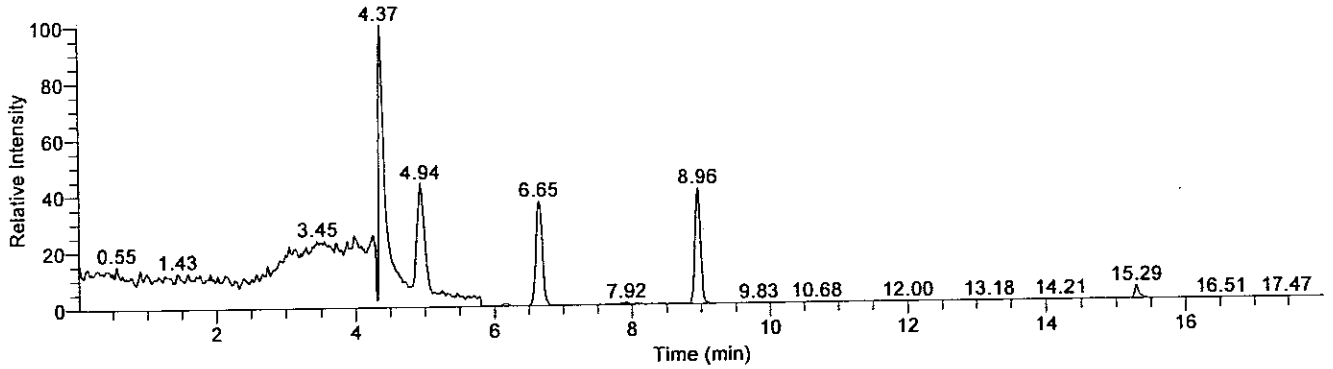
Printed: Friday, September 04, 2009, 08:42:49

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	03Sep2009-4.raw
Sample ID:	Cal1
Sample Type:	Standard
Level:	1
Acquisition Date:	Thursday, September 03, 2009 5:23:32 PM
Vial:	E:9
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-4 - TIC RT: 0.00 - 17.99 NL: 7.12E3

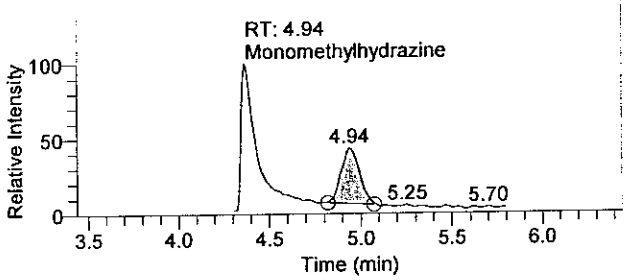


Compound Graphics

Date: 03-Sep-2009, Instrument: Quantum, Vial: E:9, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-4, Comments: , ID: Cal1

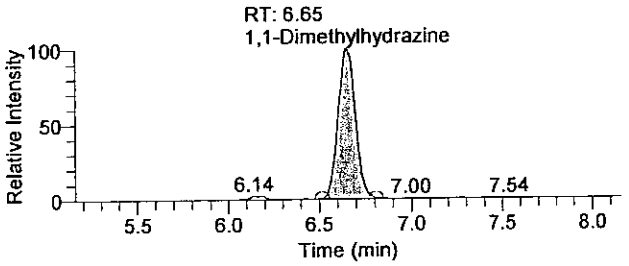
Monomethylhydrazine

03Sep2009-4 - TIC RT: 3.44 - 6.44 NL: 7.12E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



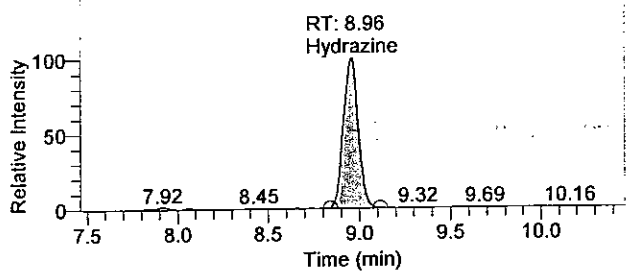
1,1-Dimethylhydrazine

03Sep2009-4 - TIC RT: 5.15 - 8.15 NL: 2.63E3
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-4 - TIC RT: 7.46 - 10.46 NL: 2.90E3
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal1	Method Settings	Hydrazine	8.96	16533	0.114	ng/mL
Cal1	Method Settings	1,1-Dimethylhydrazine	6.65	17008	0.541	ng/mL
Cal1	Method Settings	Monomethylhydrazine	4.94	18712	0.570	ng/mL

Analyst : JW 1543 9/4/2009

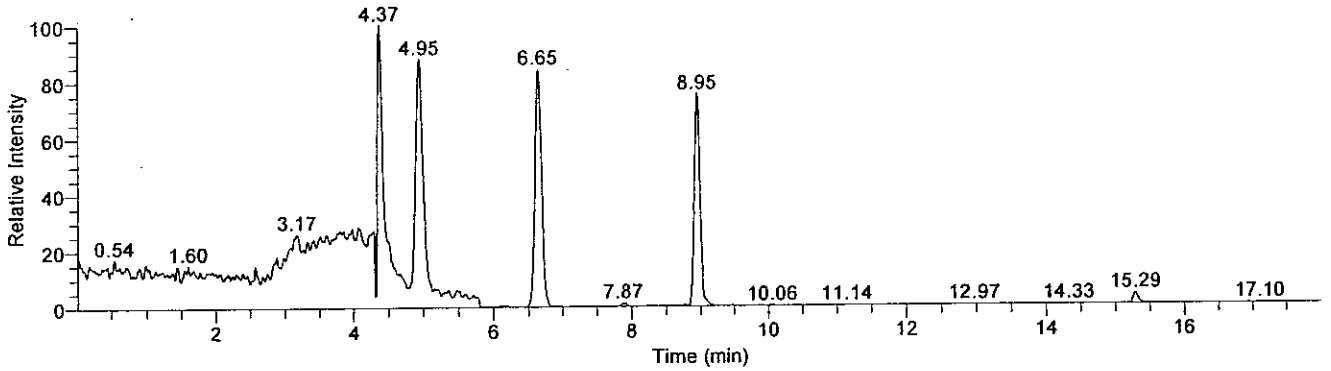
9/12 9/9/09

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	03Sep2009-5.raw
Sample ID:	Cal2
Sample Type:	Standard
Level:	2
Acquisition Date:	Thursday, September 03, 2009 5:42:18 PM
Vial:	E:10
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-5 - TIC RT: 0.01 - 17.99 NL: 6.50E3

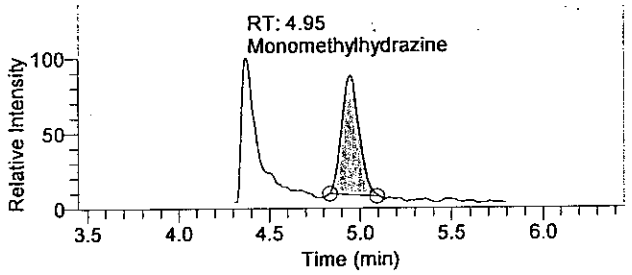


Compound Graphics

Date: 03-Sep-2009, Instrument: Quantum, Vial: E:10, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-5, Comments: , ID: Cal2

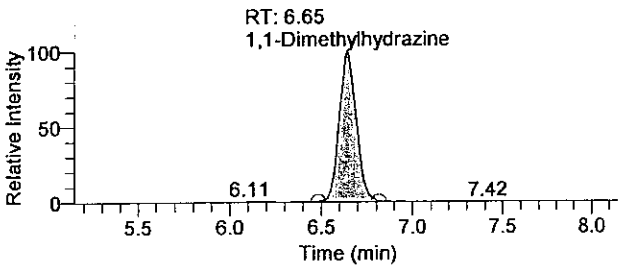
Monomethylhydrazine

03Sep2009-5 - TIC RT: 3.45 - 6.45 NL: 6.50E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



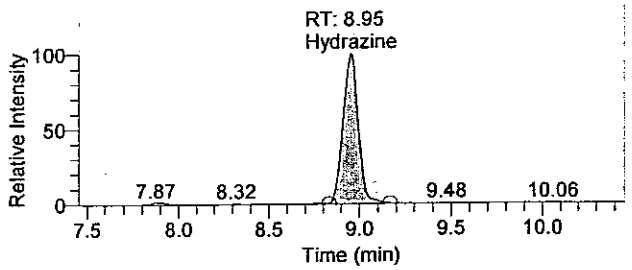
1,1-Dimethylhydrazine

03Sep2009-5 - TIC RT: 5.15 - 8.15 NL: 5.47E3
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-5 - TIC RT: 7.45 - 10.45 NL: 4.88E3
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



GLM18 0112

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal2	Method Settings	Hydrazine	8.95	28095	0.200	ng/mL
Cal2	Method Settings	1,1-Dimethylhydrazine	6.65	35550	1.046	ng/mL
Cal2	Method Settings	Monomethylhydrazine	4.95	34510	0.992	ng/mL

Analyst: JW 1543 9/4/2009

9/9/09

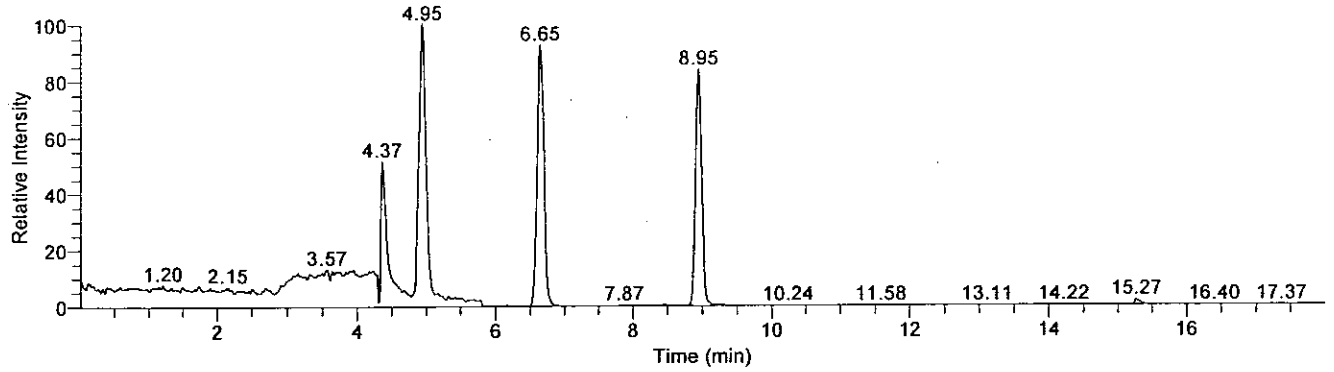
OLN18 8113

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	03Sep2009-6.raw
Sample ID:	Cal3
Sample Type:	Standard
Level:	3
Acquisition Date:	Thursday, September 03, 2009 6:01:02 PM
Vial:	E:11
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-6 - TIC RT: 0.01 - 17.99 NL: 1.28E4

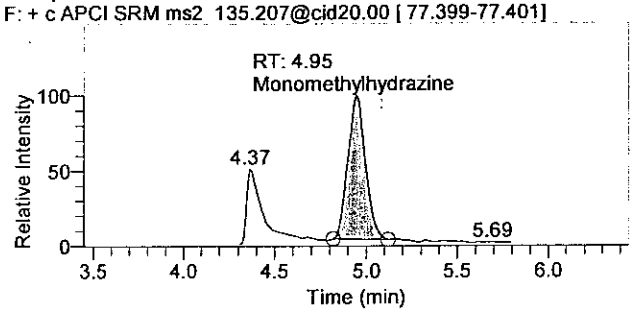


Compound Graphics

Date: 03-Sep-2009, Instrument: Quantum, Vial: E:11, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-6, Comments: , ID: Cal3

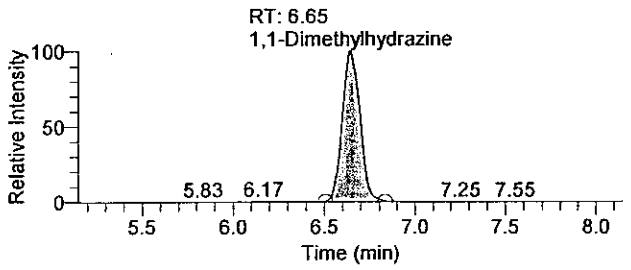
Monomethylhydrazine

03Sep2009-6 - TIC RT: 3.45 - 6.45 NL: 1.28E4
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



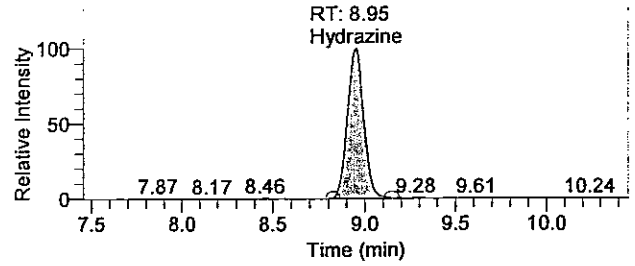
1,1-Dimethylhydrazine

03Sep2009-6 - TIC RT: 5.15 - 8.15 NL: 1.19E4
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-6 - TIC RT: 7.45 - 10.45 NL: 1.07E4
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 5114

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal3	Method Settings	Hydrazine	8.95	66425	0.486	ng/mL
Cal3	Method Settings	1,1-Dimethylhydrazine	6.65	80540	2.270	ng/mL
Cal3	Method Settings	Monomethylhydrazine	4.95	82192	2.266	ng/mL

Analyst : JW 1543 9/4/2009

gr/NL 9/5/09

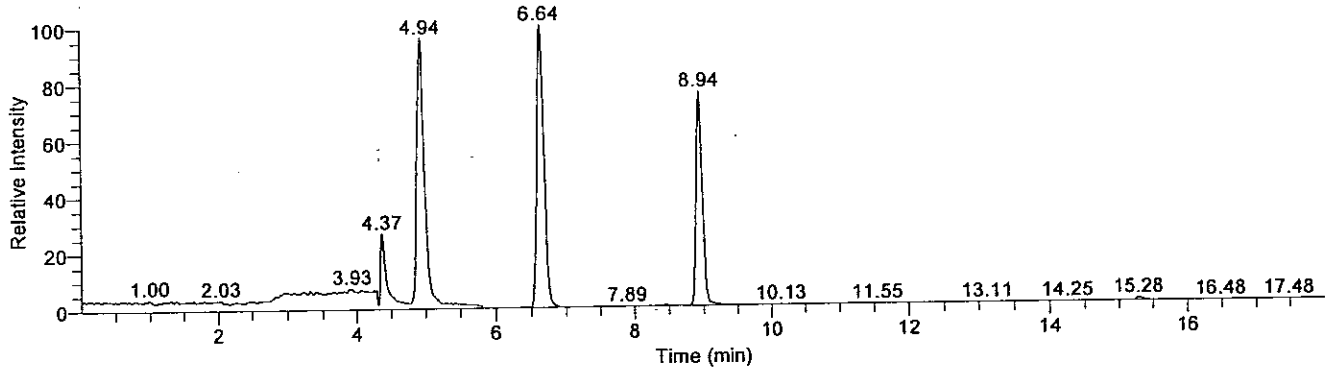
OLN18 8115

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	03Sep2009-7.raw
Sample ID:	Cal4
Sample Type:	Standard
Level:	4
Acquisition Date:	Thursday, September 03, 2009 6:19:47 PM
Vial:	E:12
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-7 - TIC RT: 0.00 - 17.99 NL: 2.65E4

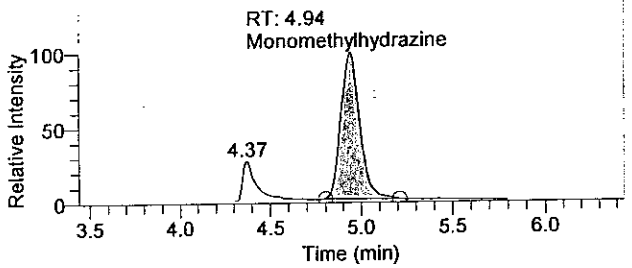


Compound Graphics

Date: 03-Sep-2009, Instrument: Quantum, Vial: E:12, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-7, Comments: , ID: Cal4

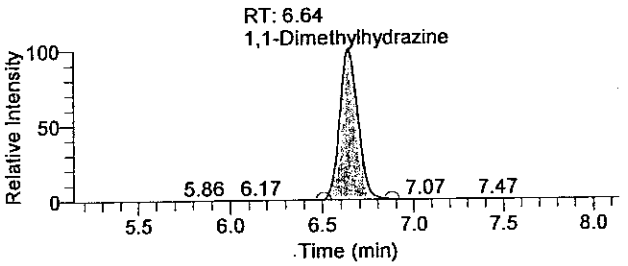
Monomethylhydrazine

03Sep2009-7 - TIC RT: 3.44 - 6.44 NL: 2.53E4
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



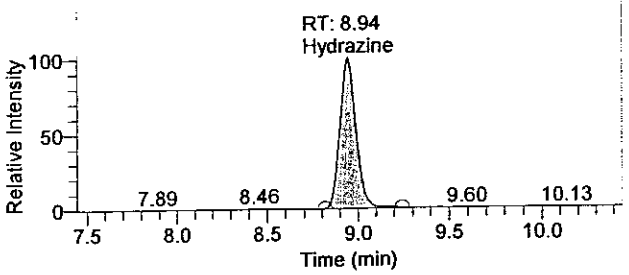
1,1-Dimethylhydrazine

03Sep2009-7 - TIC RT: 5.14 - 8.14 NL: 2.65E4
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-7 - TIC RT: 7.44 - 10.44 NL: 2.00E4
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



CLN18 9116

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal4	Method Settings	Hydrazine	8.94	124519	0.920	ng/mL
Cal4	Method Settings	1,1-Dimethylhydrazine	6.64	183229	5.063	ng/mL
Cal4	Method Settings	Monomethylhydrazine	4.94	180662	4.897	ng/mL

Analyst: JW 1543 9/4/2009
9/9/09

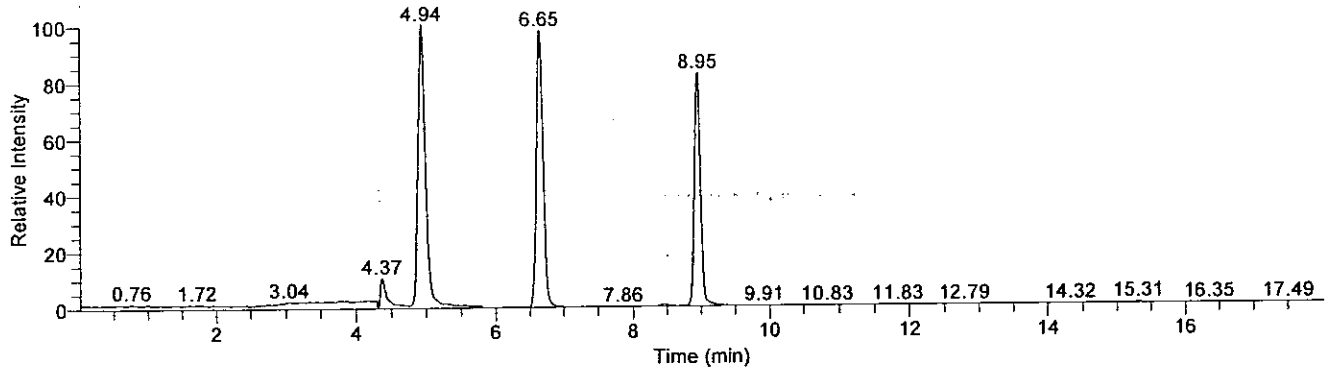
OLN18 0117

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	03Sep2009-8.raw
Sample ID:	Cal5
Sample Type:	Standard
Level:	5
Acquisition Date:	Thursday, September 03, 2009 6:38:33 PM
Vial:	E:13
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-8 - TIC RT: 0.00 - 18.00 NL: 6.50E4

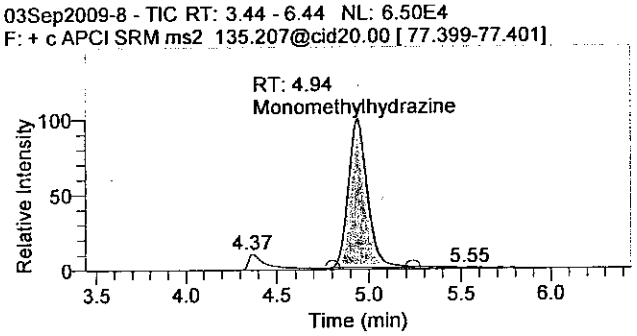


Compound Graphics

Date: 03-Sep-2009, Instrument: Quantum, Vial: E:13, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-8, Comments: , ID: Cal5

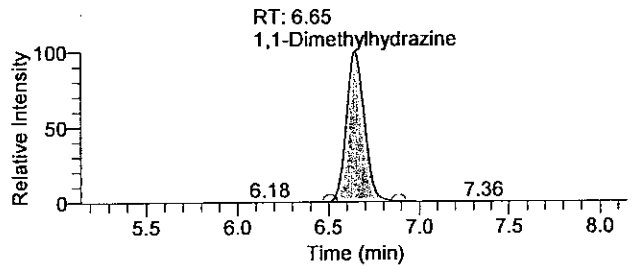
Monomethylhydrazine

03Sep2009-8 - TIC RT: 3.44 - 6.44 NL: 6.50E4
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



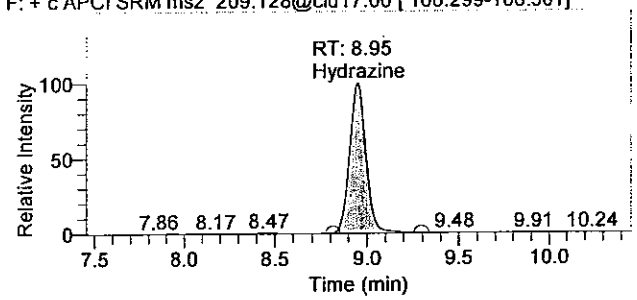
1,1-Dimethylhydrazine

03Sep2009-8 - TIC RT: 5.15 - 8.15 NL: 6.36E4
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-8 - TIC RT: 7.45 - 10.45 NL: 5.36E4
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLM10 0110

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal5	Method Settings	Hydrazine	8.95	330865	2.459	ng/mL
Cal5	Method Settings	1,1-Dimethylhydrazine	6.65	438119	11.996	ng/mL
Cal5	Method Settings	Monomethylhydrazine	4.94	460039	12.363	ng/mL

Analyst: JW 1543 P/4 hrs p

[illegible] 7/9/09

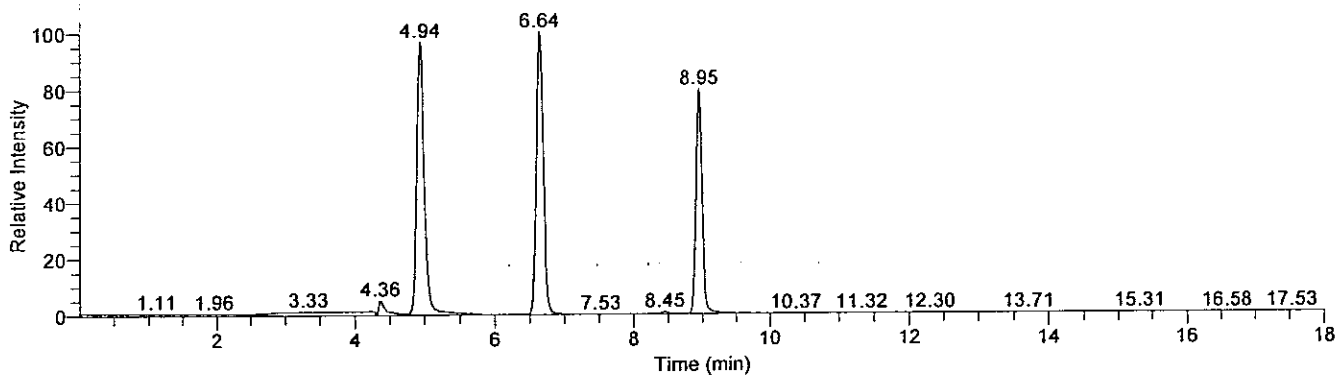
OLN18 8119

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	03Sep2009-9.raw
Sample ID:	Cal6
Sample Type:	Standard
Level:	6
Acquisition Date:	Thursday, September 03, 2009 6:57:17 PM
Vial:	E:14
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-9 - TIC RT: 0.00 - 18.00 NL: 1.32E5

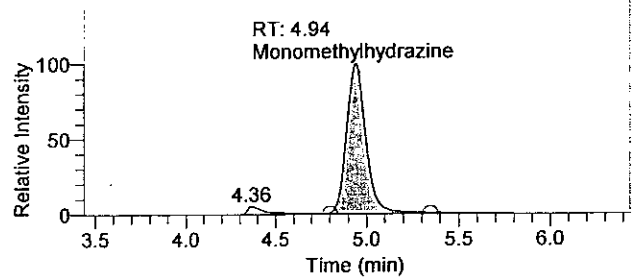


Compound Graphics

Date: 03-Sep-2009, Instrument: Quantum, Vial: E:14, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-9, Comments: , ID: Cal6

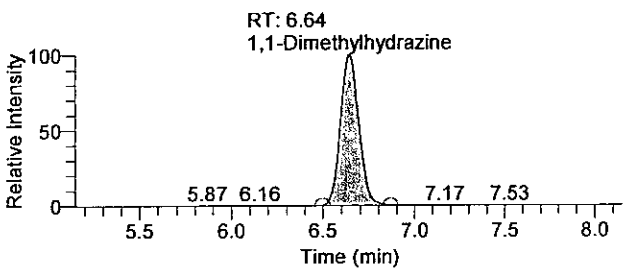
Monomethylhydrazine

03Sep2009-9 - TIC RT: 3.44 - 6.44 NL: 1.28E5
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



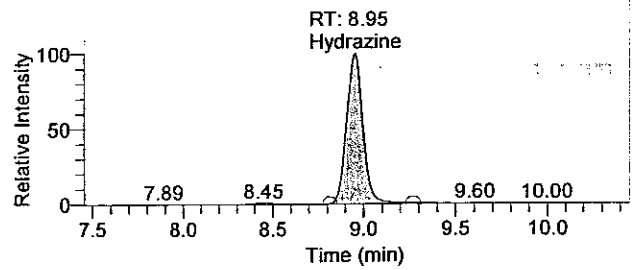
1,1-Dimethylhydrazine

03Sep2009-9 - TIC RT: 5.14 - 8.14 NL: 1.32E5
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-9 - TIC RT: 7.45 - 10.45 NL: 1.05E5
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 0120

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal6	Method Settings	Hydrazine	8.95	652703	4.859	ng/mL
Cal6	Method Settings	1,1-Dimethylhydrazine	6.64	917707	25.042	ng/mL
Cal6	Method Settings	Monomethylhydrazine	4.94	929886	24.917	ng/mL

Analyst: JW 1543 9/4/2009
9/9/09

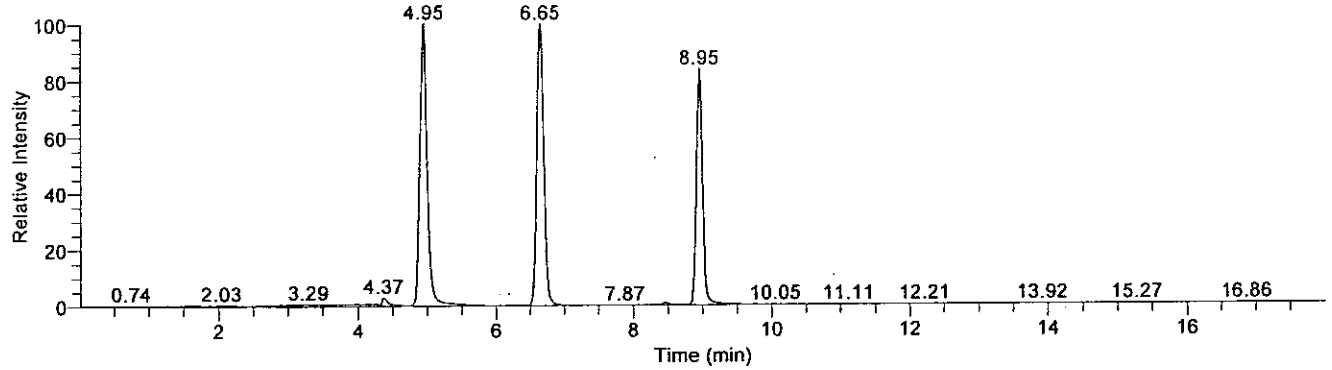
GLN18 8121

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	03Sep2009-10.raw
Sample ID:	Cal7
Sample Type:	Standard
Level:	7
Acquisition Date:	Thursday, September 03, 2009 7:16:04 PM
Vial:	E:15
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-10 - TIC RT: 0.00 - 18.00 NL: 2.57E5

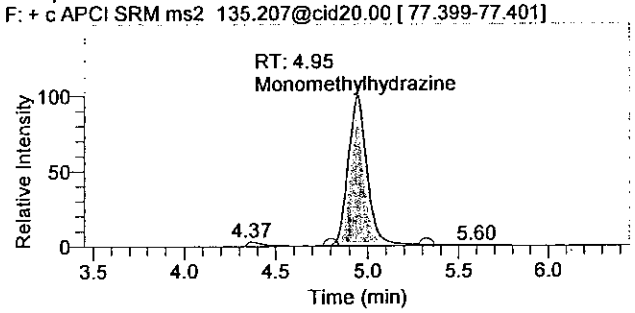


Compound Graphics

Date: 03-Sep-2009, Instrument: Quantum, Vial: E:15, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-10, Comments: , ID: Cal7

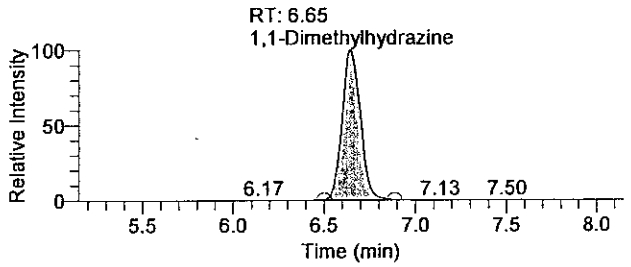
Monomethylhydrazine

03Sep2009-10 - TIC RT: 3.45 - 6.45 NL: 2.57E5
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



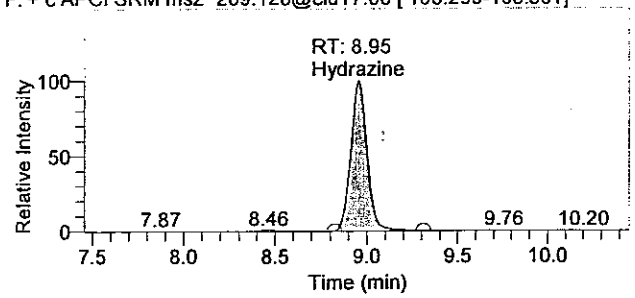
1,1-Dimethylhydrazine

03Sep2009-10 - TIC RT: 5.15 - 8.15 NL: 2.56E5
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-10 - TIC RT: 7.45 - 10.45 NL: 2.15E5
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLM10 8122

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal7	Method Settings	Hydrazine	8.95	1334358	9.944	ng/mL
Cal7	Method Settings	1,1-Dimethylhydrazine	6.65	1790144	48.773	ng/mL
Cal7	Method Settings	Monomethylhydrazine	4.95	1845319	49.378	ng/mL

Analyst : JW 1543 9/4/2009

9/9/09

OLM16: 0123

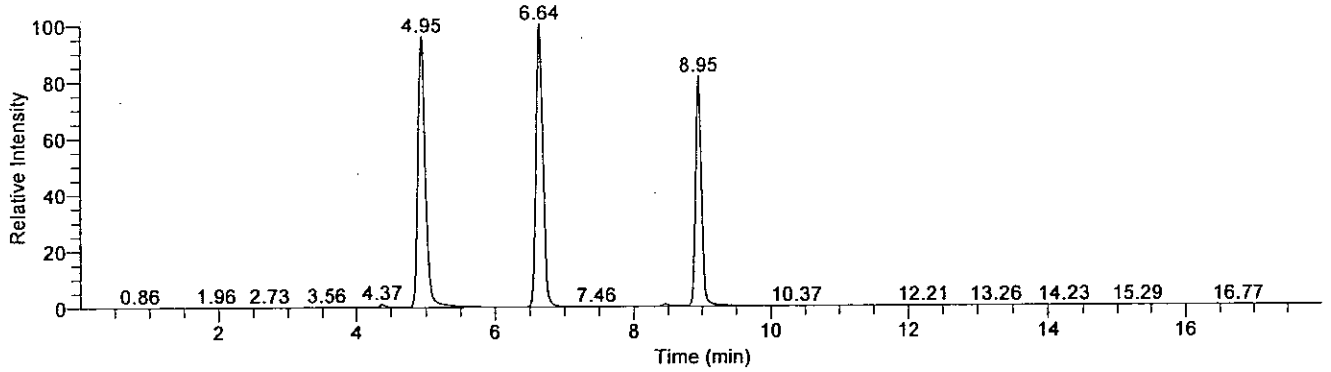
There is no signature data to report.

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	03Sep2009-11.raw
Sample ID:	Cal8
Sample Type:	Standard
Level:	8
Acquisition Date:	Thursday, September 03, 2009 7:34:48 PM
Vial:	E:16
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-11 - TIC RT: 0.00 - 18.00 NL: 6.80E5

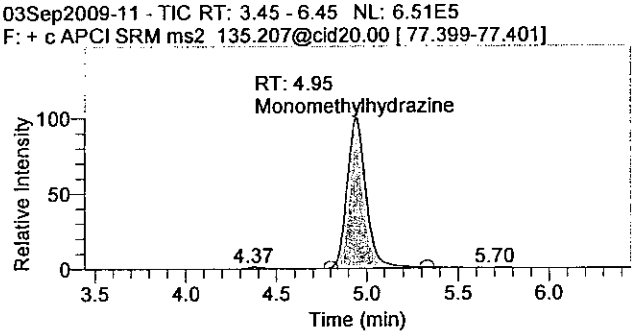


Compound Graphics

Date: 03-Sep-2009, Instrument: Quantum, Vial: E:16, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-11, Comments: , ID: Cal8

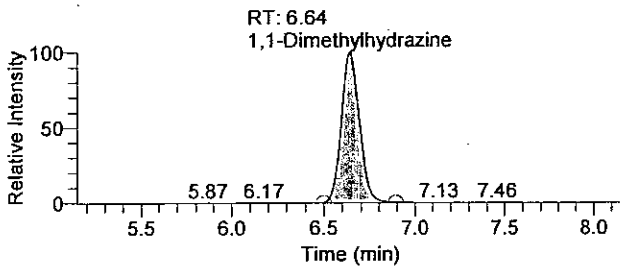
Monomethylhydrazine

03Sep2009-11 - TIC RT: 3.45 - 6.45 NL: 6.51E5
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



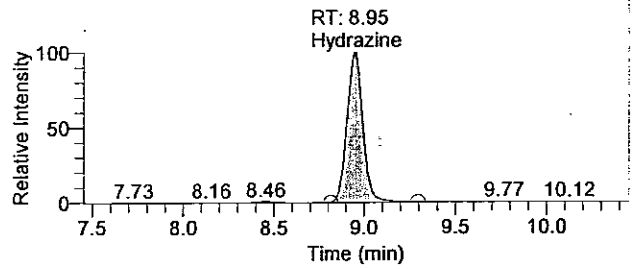
1,1-Dimethylhydrazine

03Sep2009-11 - TIC RT: 5.14 - 8.14 NL: 6.80E5
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-11 - TIC RT: 7.45 - 10.45 NL: 5.52E5
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLM18 #124

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal8	Method Settings	Hydrazine	8.95	3395410	25.317	ng/mL
Cal8	Method Settings	1,1-Dimethylhydrazine	6.64	4657558	126.770	ng/mL
Cal8	Method Settings	Monomethylhydrazine	4.95	4717182	126.117	ng/mL

Analyst: JW 1543 9/4/2009

9/11/09

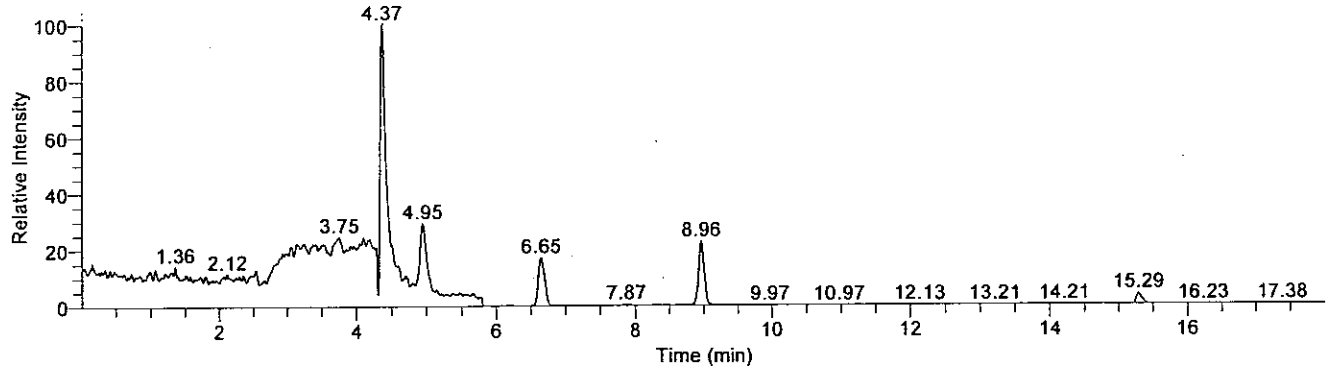
OLN18 0125

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	03Sep2009-3.raw
Sample ID:	MDL
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Thursday, September 03, 2009 5:04:48 PM
Vial:	E:8
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-3 - TIC RT: 0.00 - 18.00 NL: 7.17E3

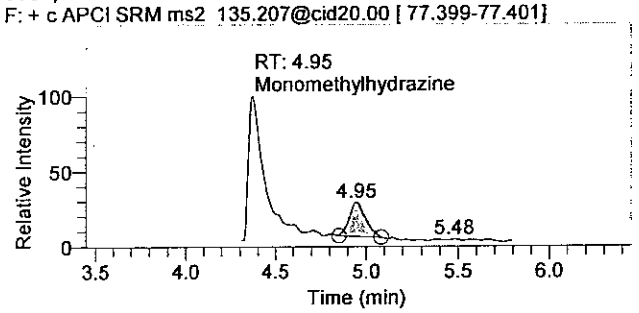


Compound Graphics

Date: 03-Sep-2009, Instrument: Quantum, Vial: E:8, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-3, Comments: , ID: MDL

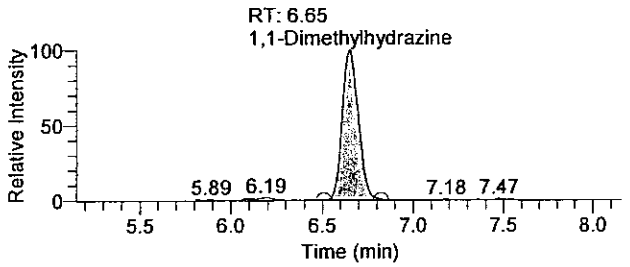
Monomethylhydrazine

03Sep2009-3 - TIC RT: 3.45 - 6.45 NL: 7.17E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



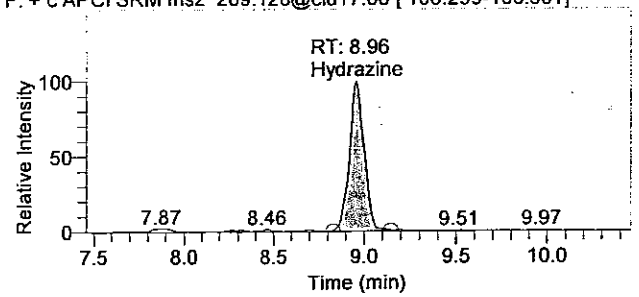
1,1-Dimethylhydrazine

03Sep2009-3 - TIC RT: 5.15 - 8.15 NL: 1.23E3
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-3 - TIC RT: 7.46 - 10.46 NL: 1.63E3
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLR19 0126

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
MDL	Method Settings	Hydrazine	8.96	9182	0.059	ng/mL
MDL	Method Settings	1,1-Dimethylhydrazine	6.65	7638	0.287	ng/mL
MDL	Method Settings	Monomethylhydrazine	4.95	10116	0.340	ng/mL

Analyst : JW 1543 P/4/2009

9/9/09 9/9/09

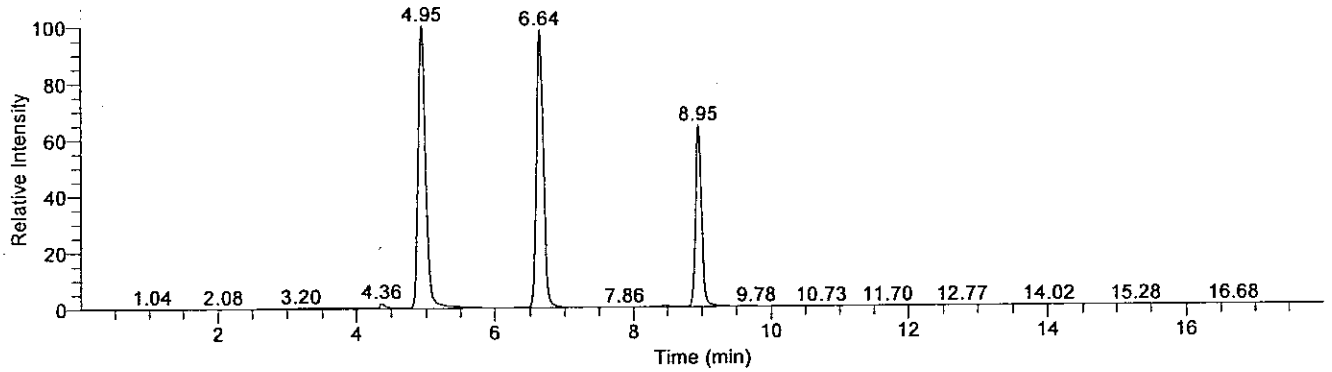
OLM18 8127

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	03Sep2009-23.raw
Sample ID:	ICV
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Thursday, September 03, 2009 11:19:36 PM
Vial:	E:24
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-23 - TIC RT: 0.00 - 18.00 NL: 4.09E5

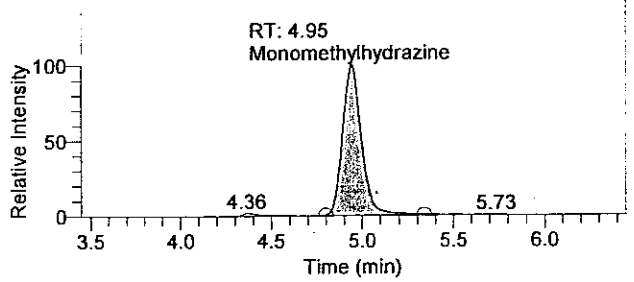


Compound Graphics

Date: 03-Sep-2009, Instrument: Quantum, Vial: E:24, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-23, Comments: , ID: ICV

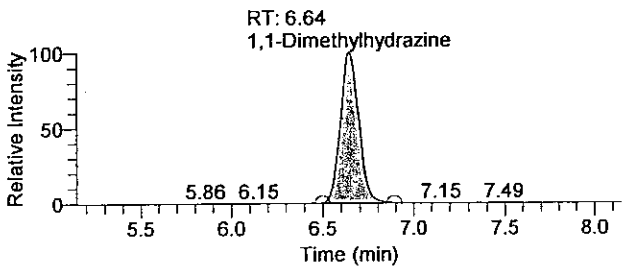
Monomethylhydrazine

03Sep2009-23 - TIC RT: 3.45 - 6.45 NL: 4.09E5
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



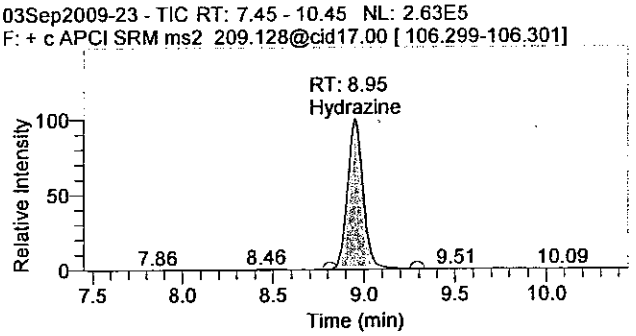
1,1-Dimethylhydrazine

03Sep2009-23 - TIC RT: 5.14 - 8.14 NL: 4.02E5
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-23 - TIC RT: 7.45 - 10.45 NL: 2.63E5
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
ICV	Method Settings	Hydrazine	8.95	1604541	11.959	ng/mL
ICV	Method Settings	1,1-Dimethylhydrazine	6.64	2775468	75.575	ng/mL
ICV	Method Settings	Monomethylhydrazine	4.95	2992324	80.027	ng/mL

Analyst : JW 1543 9/4/2009
9/9/09

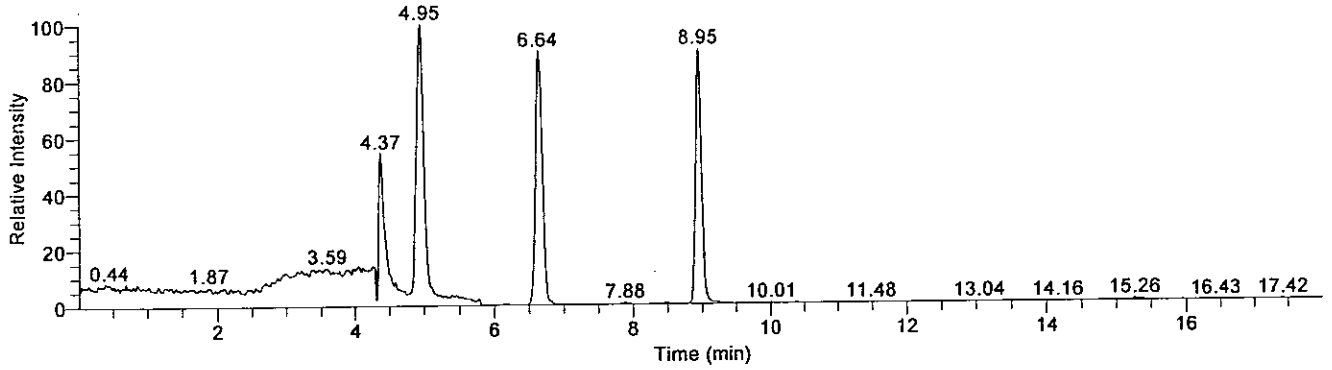
OLN10 8129

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	03Sep2009-13.raw
Sample ID:	Cal3asQC1a
Sample Type:	QC
Level:	CCV1
Acquisition Date:	Thursday, September 03, 2009 8:12:14 PM
Vial:	E:11
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-13 - TIC RT: 0.00 - 18.00 NL: 1.29E4

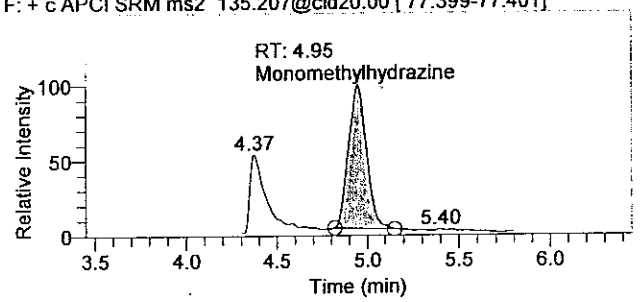


Compound Graphics

Date: 03-Sep-2009, Instrument: Quantum, Vial: E:11, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-13, Comments: , ID: Cal3asQC1a

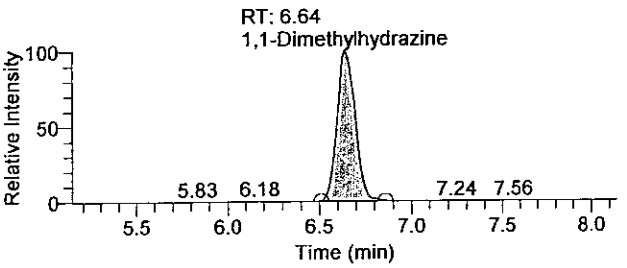
Monomethylhydrazine

03Sep2009-13 - TIC RT: 3.45 - 6.45 NL: 1.29E4
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



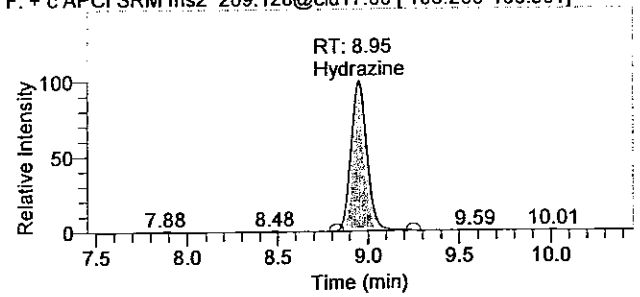
1,1-Dimethylhydrazine

03Sep2009-13 - TIC RT: 5.14 - 8.14 NL: 1.16E4
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-13 - TIC RT: 7.45 - 10.45 NL: 1.16E4
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 8138

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal3asQC1a	Method Settings	Hydrazine	8.95	71464	0.524	ng/mL
Cal3asQC1a	Method Settings	1,1-Dimethylhydrazine	6.64	79947	2.253	ng/mL
Cal3asQC1a	Method Settings	Monomethylhydrazine	4.95	85632	2.358	ng/mL

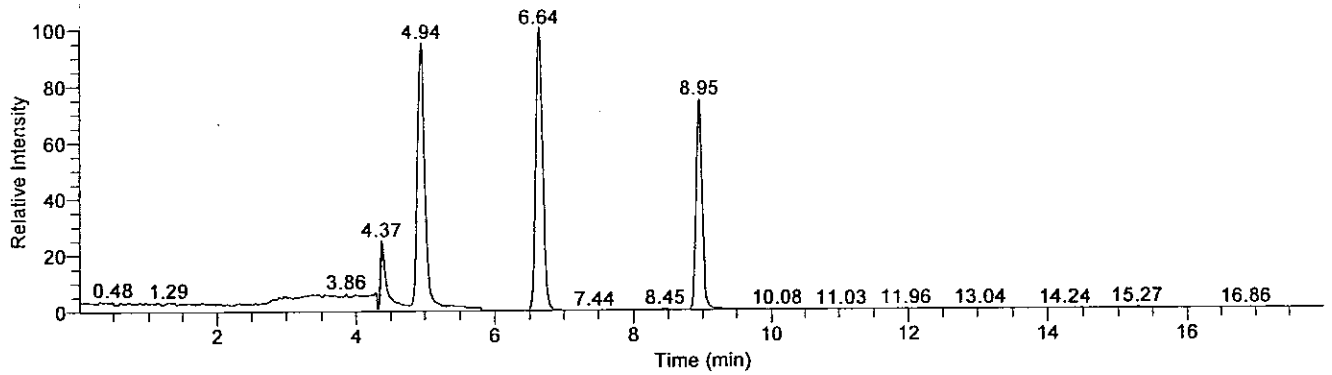
Analyst : JW 1543 9/4/2009
[illegible] 9/9/09

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	03Sep2009-24.raw
Sample ID:	Cal4asQC2a
Sample Type:	QC
Level:	CCV2
Acquisition Date:	Thursday, September 03, 2009 11:38:16 PM
Vial:	E:12
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-24 - TIC RT: 0.00 - 17.99 NL: 2.93E4

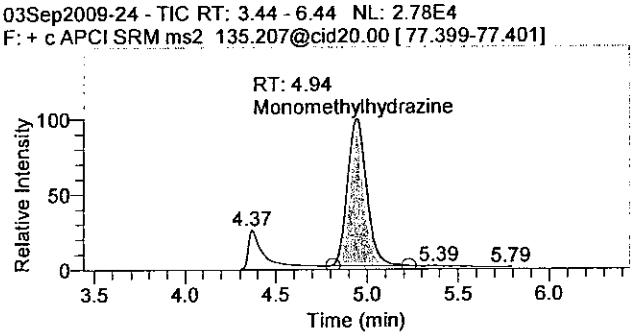


Compound Graphics

Date: 03-Sep-2009, Instrument: Quantum, Vial: E:12, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-24, Comments: , ID: Cal4asQC2a

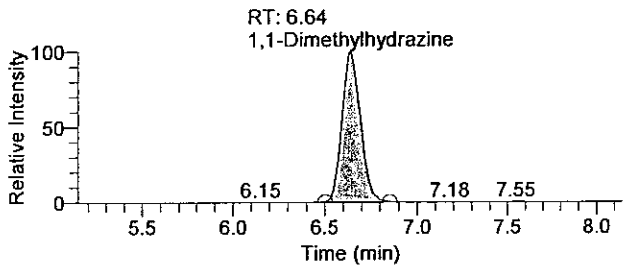
Monomethylhydrazine

03Sep2009-24 - TIC RT: 3.44 - 6.44 NL: 2.78E4
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



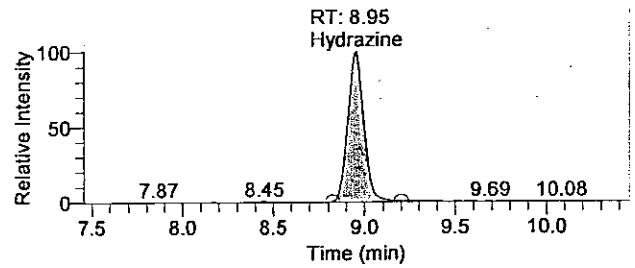
1,1-Dimethylhydrazine

03Sep2009-24 - TIC RT: 5.14 - 8.14 NL: 2.93E4
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-24 - TIC RT: 7.45 - 10.45 NL: 2.19E4
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 8132

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal4asQC2a	Method Settings	Hydrazine	8.95	133942	0.990	ng/mL
Cal4asQC2a	Method Settings	1,1-Dimethylhydrazine	6.64	202846	5.596	ng/mL
Cal4asQC2a	Method Settings	Monomethylhydrazine	4.94	199729	5.407	ng/mL

Analyst : JW 1543 9/4/2009
9/4/09

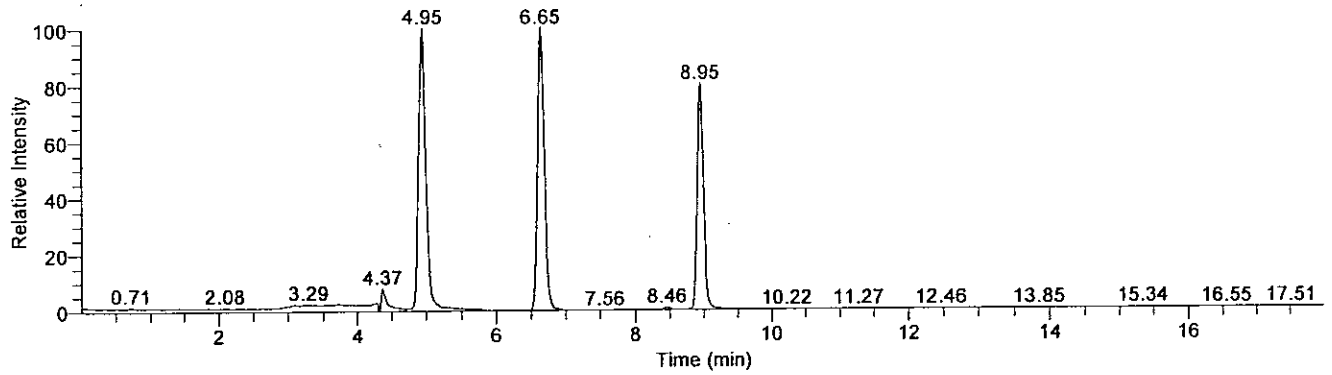
OLN18 8133

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	03Sep2009-35.raw
Sample ID:	Cal5asQC3a
Sample Type:	QC
Level:	CCV3
Acquisition Date:	Friday, September 04, 2009 3:04:18 AM
Vial:	E:13
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-35 - TIC RT: 0.00 - 17.99 NL: 6.85E4

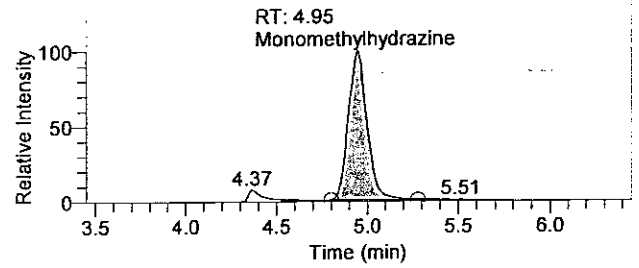


Compound Graphics

Date: 04-Sep-2009, Instrument: Quantum, Vial: E:13, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-35, Comments: , ID: Cal5asQC3a

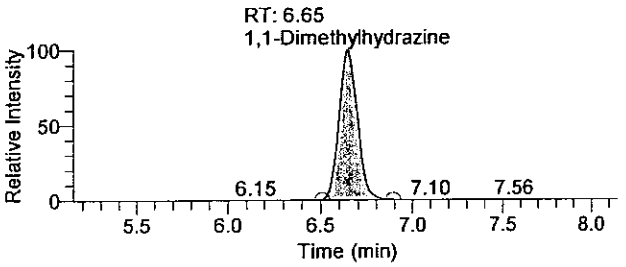
Monomethylhydrazine

03Sep2009-35 - TIC RT: 3.45 - 6.45 NL: 6.85E4
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



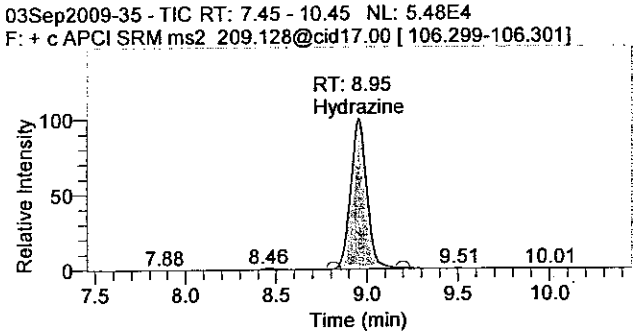
1,1-Dimethylhydrazine

03Sep2009-35 - TIC RT: 5.15 - 8.15 NL: 6.85E4
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-35 - TIC RT: 7.45 - 10.45 NL: 5.48E4
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 8134

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal5asQC3a	Method Settings	Hydrazine	8.95	338549	2.516	ng/mL
Cal5asQC3a	Method Settings	1,1-Dimethylhydrazine	6.65	469347	12.846	ng/mL
Cal5asQC3a	Method Settings	Monomethylhydrazine	4.95	487187	13.088	ng/mL

Analyst: JW 1543 9/4/2009
9/4/09

OLN18 @135

There is no signature data to report.

Lancaster Laboratories

Workbook Name: TQU01408-08Sep2009-1
Instrument No. TQU01408
Analyst JW01543

Sequence Table

Sample ID	File Name	Sample Type	Path	Position	Inj Vol	Batch No.
Conditioner1	08Sep2009-1	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	E:1	10.00	N/A
Conditioner2	08Sep2009-2	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	E:1	10.00	N/A
MDL	08Sep2009-3	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:1	10.00	N/A
Cal1	08Sep2009-4	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:2	10.00	N/A
Cal2	08Sep2009-5	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:3	10.00	N/A
Cal3	08Sep2009-6	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:4	10.00	N/A
Cal4	08Sep2009-7	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:5	10.00	N/A
Cal5	08Sep2009-8	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:6	10.00	N/A
Cal6	08Sep2009-9	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:7	10.00	N/A
Cal7	08Sep2009-10	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:8	10.00	N/A
Cal8	08Sep2009-11	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:9	10.00	N/A
Conditioner3	08Sep2009-12	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	E:1	10.00	N/A
Cal3asQC1a	08Sep2009-13	QC	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:4	10.00	N/A
Conditioner4	08Sep2009-14	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	E:1	10.00	N/A
Conditioner5	08Sep2009-15	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	E:1	10.00	N/A
Blank	08Sep2009-16	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:10	10.00	0925110610808
5766212FD	08Sep2009-17	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:11	10.00	0925110610808
5766213BKG	08Sep2009-18	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:12	10.00	0925110610808
5766214MS	08Sep2009-19	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:13	10.00	0925110610808
5766215MSD	08Sep2009-20	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:14	10.00	0925110610808
LCS	08Sep2009-21	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:15	10.00	0925110610808
LCSD	08Sep2009-22	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:16	10.00	0925110610808
ICV	08Sep2009-23	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:17	10.00	N/A
Cal4asQC2a	08Sep2009-24	QC	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:5	10.00	N/A
Spike Check	08Sep2009-25	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:18	10.00	N/A
Conditioner6	08Sep2009-26	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	E:1	10.00	N/A
Conditioner7	08Sep2009-27	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	E:1	10.00	N/A
5766216	08Sep2009-28	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:19	10.00	0925110610808
5766217	08Sep2009-29	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:20	10.00	0925110610808
5766218	08Sep2009-30	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:21	10.00	0925110610808
5769167	08Sep2009-31	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:22	10.00	0925110610808
5769168	08Sep2009-32	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:23	10.00	0925110610808
5769169	08Sep2009-33	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:24	10.00	0925110610808

There is no signature data to report.

Lancaster Laboratories

Sample ID	File Name	Sample Type	Path	Position	Inj Vol	Batch No.
5769170	08Sep2009-34	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:25	10.00	0925110610808
Cal5asQC3a	08Sep2009-35	QC	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles	D:6	10.00	N/A

Analyst: JW 1543 9/9/2009
[illegible] 9/10/09

There is no signature data to report.

Lancaster Laboratories

Component Calibration and Continuing Calibration Verification (CCV) Report

Workbook Name:	TQU01408-08Sep2009-1
Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Instrument No.	TQU01408
Analyst	JW01543

Identification

Component Name:	1,1-Dimethylhydrazine
Detector Type:	MS
Filter:	+ c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]
1st Trace Type:	TIC
Operator:	None
2nd Trace Type:	N/A
Mass Range 1 (m/z):	N/A
Mass Range 2 (m/z):	N/A
Base Peak(BP):	N/A
Mass Range(MR):	N/A

Retention Time

Expected RT (min):	6.64000
Window (sec):	20.00000
View Width (min):	3.00000
RT Reference:	No
Adjust Expected RT:	No
Adjust Using:	N/A

Detection Options

Peak Detection Algorithm:	Genesis
Smoothing Points:	1

Genesis Peak Integration

S/N Threshold:	1.00
Valley Detection:	Disabled
Expected Peak Width (sec):	N/A
Genesis Constrain Peak Width:	No
Genesis Peak Height (%):	N/A
Genesis Tailing Factor:	N/A

Genesis Peak Detection

Genesis Identify By:	Nearest RT
Genesis Minimum Peak Height (S/N):	3.00
Genesis Ion Ratio Confirmation:	No
Genesis Window %:	N/A
Genesis Qualifier Ion Coelution (min):	N/A

Genesis Advanced Detection Options

Baseline (Global)

Baseline Noise Tolerance (%):	10.0
Minimum Number of Scans in Baseline:	16
Baseline Noise Rejection Factor:	2.0

Calibration

Component Type:	Target Compound

Internal Standard

ISTD Amount:	N/A
ISTD Units:	N/A

Target Compounds

Concentration of Calibration Standards

Level	Amount
1	0.500 ng/mL
2	1.000 ng/mL
3	2.500 ng/mL
4	5.000 ng/mL
5	12.500 ng/mL
6	25.000 ng/mL
7	50.000 ng/mL
8	125.000 ng/mL

Concentration of CCV Standards

Level	Amount
CCV1	2.500 ng/mL
CCV2	5.000 ng/mL
CCV3	12.500 ng/mL

QLN18 0130

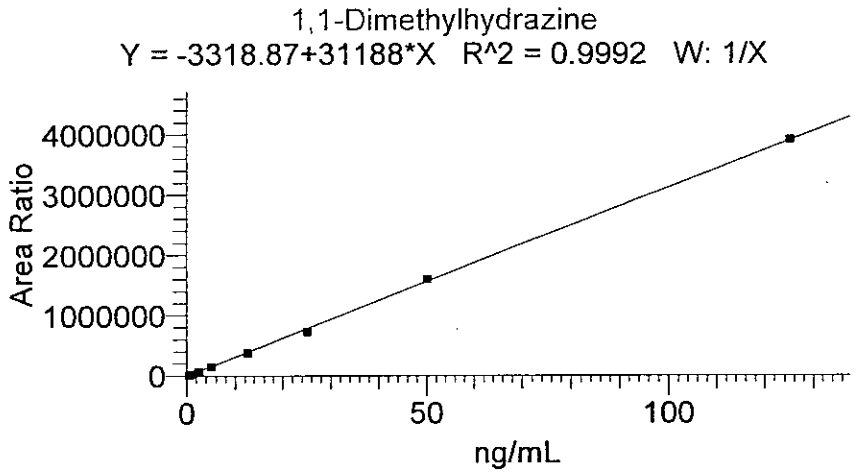
There is no signature data to report.

Lancaster Laboratories

ISTD:	
Weighting:	1/X
Origin:	IgnoreOrigin
Response:	Area
Calibration Curve:	Linear
Target Units:	ng/mL
Number of Cal. Levels:	8
Number of QC Levels:	3

Options

Calibration By: External Standard



Sample ID	Sample Type	Level	Exclude	Integration Type	Response	Specified Conc	Units	Calc Amt	% Diff
Cal1	Standard	1	N/A	Method Settings	14059	0.500	ng/mL	0.557	11.44
Cal2	Standard	2	N/A	Method Settings	28759	1.000	ng/mL	1.029	2.85
Cal3	Standard	3	N/A	Method Settings	70057	2.500	ng/mL	2.353	-5.89
Cal4	Standard	4	N/A	Method Settings	146528	5.000	ng/mL	4.805	-3.91
Cal5	Standard	5	N/A	Method Settings	380970	12.500	ng/mL	12.322	-1.43
Cal6	Standard	6	N/A	Method Settings	726774	25.000	ng/mL	23.409	-6.36
Cal7	Standard	7	N/A	Method Settings	1599617	50.000	ng/mL	51.396	2.79
Cal8	Standard	8	N/A	Method Settings	3914817	125.000	ng/mL	125.630	0.50
Cal3asQC1a	QC	CCV1	N/A	Method Settings	71436	2.500	ng/mL	2.397	-4.12
Cal4asQC2a	QC	CCV2	N/A	Method Settings	154081	5.000	ng/mL	5.047	0.94
Cal5asQC3a	QC	CCV3	N/A	Method Settings	382242	12.500	ng/mL	12.363	-1.10

Analyst: JW 1543 9/9/2009
[illegible] 9/13/09

OLM18 8139

There is no signature data to report.

Lancaster Laboratories

Component Calibration and Continuing Calibration Verification (CCV) Report

Workbook Name:	TQU01408-08Sep2009-1
Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Instrument No.	TQU01408
Analyst	JW01543

Identification

Component Name:	Hydrazine
Detector Type:	MS
Filter:	+ c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]
1st Trace Type:	TIC
Operator:	None
2nd Trace Type:	N/A
Mass Range 1 (m/z):	N/A
Mass Range 2 (m/z):	N/A
Base Peak(BP):	N/A
Mass Range(MR):	N/A

Retention Time

Expected RT (min):	8.95000
Window (sec):	20.00000
View Width (min):	3.00000
RT Reference:	No
Adjust Expected RT:	No
Adjust Using:	N/A

Detection Options

Peak Detection Algorithm:	Genesis
Smoothing Points:	1

Genesis Peak Integration

S/N Threshold:	1.00
Valley Detection:	Disabled
Expected Peak Width (sec):	N/A
Genesis Constrain Peak Width:	No
Genesis Peak Height (%):	N/A
Genesis Tailing Factor:	N/A

Genesis Peak Detection

Genesis Identify By:	Nearest RT
Genesis Minimum Peak Height (S/N):	3.00
Genesis Ion Ratio Confirmation:	No
Genesis Window %:	N/A
Genesis Qualifier Ion Coelution (min):	N/A

Genesis Advanced Detection Options

Baseline (Global)

Baseline Noise Tolerance (%):	10.0
Minimum Number of Scans in Baseline:	16
Baseline Noise Rejection Factor:	2.0

Calibration

Component Type:	Target Compound

Internal Standard

ISTD Amount:	N/A
ISTD Units:	N/A

Target Compounds

Concentration of Calibration Standards

Level	Amount
1	0.100 ng/mL
2	0.200 ng/mL
3	0.500 ng/mL
4	1.000 ng/mL
5	2.500 ng/mL
6	5.000 ng/mL
7	10.000 ng/mL
8	25.000 ng/mL

Concentration of CCV Standards

Level	Amount
CCV1	0.500 ng/mL
CCV2	1.000 ng/mL
CCV3	2.500 ng/mL

OLN18 0148

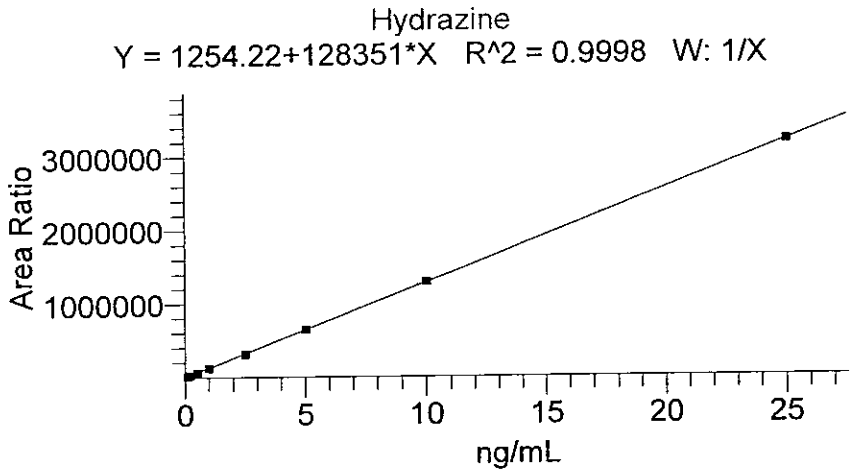
There is no signature data to report.

Lancaster Laboratories

ISTD:	
Weighting:	1/X
Origin:	IgnoreOrigin
Response:	Area
Calibration Curve:	Linear
Target Units:	ng/mL
Number of Cal. Levels:	8
Number of QC Levels:	3

Options

Calibration By: External Standard



Sample ID	Sample Type	Level	Exclude	Integration Type	Response	Specified Conc	Units	Calc Amt	% Diff
Cal1	Standard	1	N/A	Method Settings	15510	0.100	ng/mL	0.111	11.07
Cal2	Standard	2	N/A	Method Settings	27321	0.200	ng/mL	0.203	1.55
Cal3	Standard	3	N/A	Method Settings	60411	0.500	ng/mL	0.461	-7.82
Cal4	Standard	4	N/A	Method Settings	124789	1.000	ng/mL	0.962	-3.75
Cal5	Standard	5	N/A	Method Settings	312984	2.500	ng/mL	2.429	-2.85
Cal6	Standard	6	N/A	Method Settings	649660	5.000	ng/mL	5.052	1.04
Cal7	Standard	7	N/A	Method Settings	1294183	10.000	ng/mL	10.073	0.73
Cal8	Standard	8	N/A	Method Settings	3211103	25.000	ng/mL	25.008	0.03
Cal3asQC1a	QC	CCV1	N/A	Method Settings	64980	0.500	ng/mL	0.496	-0.70
Cal4asQC2a	QC	CCV2	N/A	Method Settings	130740	1.000	ng/mL	1.009	0.88
Cal5asQC3a	QC	CCV3	N/A	Method Settings	336542	2.500	ng/mL	2.612	4.49

Analyst: JW 1543 P/P/WOP
[illegible] 9/13/09

OLN18 0141

There is no signature data to report.

Lancaster Laboratories

Component Calibration and Continuing Calibration Verification (CCV) Report

Workbook Name:	TQU01408-08Sep2009-1
Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Instrument No.	TQU01408
Analyst	JW01543

Identification

Component Name:	Monomethylhydrazine
Detector Type:	MS
Filter:	+ c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]
1st Trace Type:	TIC
Operator:	None
2nd Trace Type:	N/A
Mass Range 1 (m/z):	N/A
Mass Range 2 (m/z):	N/A
Base Peak(BP):	N/A
Mass Range(MR):	N/A

Retention Time

Expected RT (min):	4.94000
Window (sec):	20.00000
View Width (min):	3.00000
RT Reference:	No
Adjust Expected RT:	No
Adjust Using:	N/A

Detection Options

Peak Detection Algorithm:	Genesis
Smoothing Points:	1

Genesis Peak Integration

S/N Threshold:	1.00
Valley Detection:	Disabled
Expected Peak Width (sec):	N/A
Genesis Constrain Peak Width:	No
Genesis Peak Height (%):	N/A
Genesis Tailing Factor:	N/A

Genesis Peak Detection

Genesis Identify By:	Nearest RT
Genesis Minimum Peak Height (S/N):	3.00
Genesis Ion Ratio Confirmation:	No
Genesis Window %:	N/A
Genesis Qualifier Ion Coelution (min):	N/A

Genesis Advanced Detection Options

Baseline (Global)

Baseline Noise Tolerance (%):	10.0
Minimum Number of Scans in Baseline:	16
Baseline Noise Rejection Factor:	2.0

Calibration

Component Type:	Target Compound

Internal Standard

ISTD Amount:	N/A
ISTD Units:	N/A

Target Compounds

Concentration of Calibration Standards

Level	Amount
1	0.500 ng/mL
2	1.000 ng/mL
3	2.500 ng/mL
4	5.000 ng/mL
5	12.500 ng/mL
6	25.000 ng/mL
7	50.000 ng/mL
8	125.000 ng/mL

Concentration of CCV Standards

Level	Amount
CCV1	2.500 ng/mL
CCV2	5.000 ng/mL
CCV3	12.500 ng/mL

QLN18 8142

There is no signature data to report.

Lancaster Laboratories

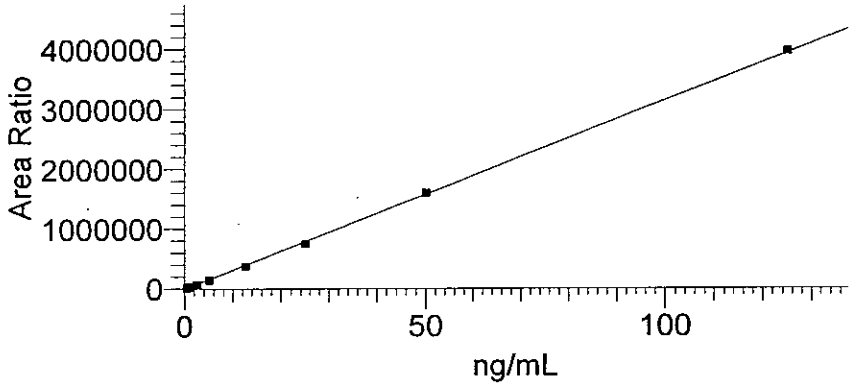
ISTD:	
Weighting:	1/X
Origin:	IgnoreOrigin
Response:	Area
Calibration Curve:	Linear
Target Units:	ng/mL
Number of Cal. Levels:	8
Number of QC Levels:	3

Options

Calibration By: External Standard

Monomethylhydrazine

Y = -3573.5+31437.7*X R^2 = 0.9993 W: 1/X



Sample ID	Sample Type	Level	Exclude	Integration Type	Response	Specified Conc	Units	Calc Amt	% Diff
Cal1	Standard	1	N/A	Method Settings	15236	0.500	ng/mL	0.598	19.66
Cal2	Standard	2	N/A	Method Settings	27323	1.000	ng/mL	0.983	-1.72
Cal3	Standard	3	N/A	Method Settings	70201	2.500	ng/mL	2.347	-6.13
Cal4	Standard	4	N/A	Method Settings	142902	5.000	ng/mL	4.659	-6.82
Cal5	Standard	5	N/A	Method Settings	378188	12.500	ng/mL	12.143	-2.85
Cal6	Standard	6	N/A	Method Settings	743731	25.000	ng/mL	23.771	-4.92
Cal7	Standard	7	N/A	Method Settings	1599127	50.000	ng/mL	50.980	1.96
Cal8	Standard	8	N/A	Method Settings	3958144	125.000	ng/mL	126.018	0.81
Cal3asQC1a	QC	CCV1	N/A	Method Settings	77126	2.500	ng/mL	2.567	2.68
Cal4asQC2a	QC	CCV2	N/A	Method Settings	152927	5.000	ng/mL	4.978	-0.44
Cal5asQC3a	QC	CCV3	N/A	Method Settings	440296	12.500	ng/mL	14.119	12.95

Analyst : JW 1543 2/9/2009

2/10/09

QLN18 0143

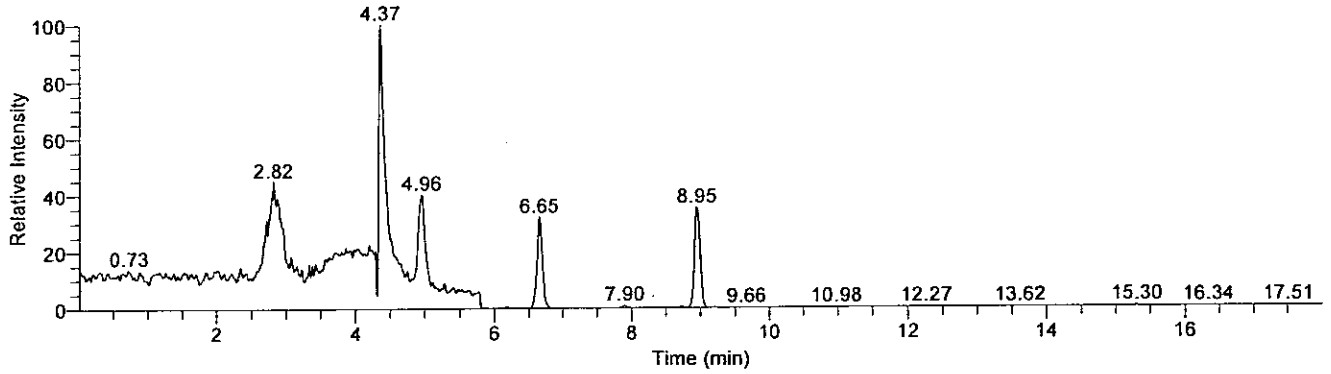
There is no signature data to report.

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Workbook Name:	TQU01408-08Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	08Sep2009-4.raw
Sample ID:	Cal1
Sample Type:	Standard
Level:	1
Acquisition Date:	Tuesday, September 08, 2009 3:15:22 PM
Vial:	D:2
Dilution Factor:	1.00000

Sample Chromatogram

08Sep2009-4 - TIC RT: 0.00 - 18.00 NL: 7.67E3

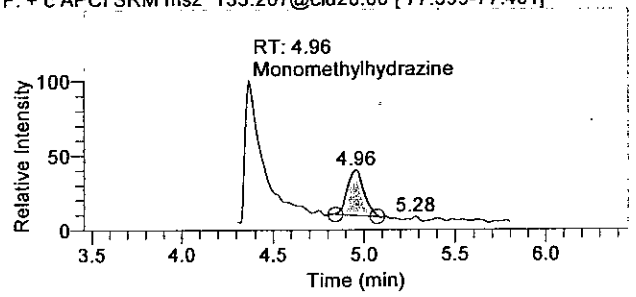


Compound Graphics

Date: 08-Sep-2009, Instrument: Quantum, Vial: D:2, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles\08Sep2009-4, Comments: Soil Prep, ID: Cal1

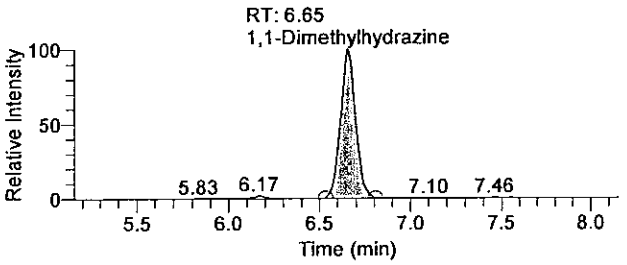
Monomethylhydrazine

08Sep2009-4 - TIC RT: 3.46 - 6.46 NL: 7.67E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



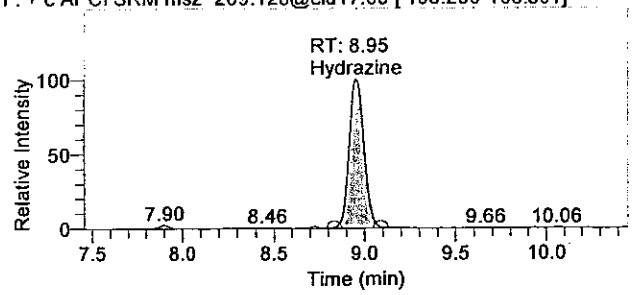
1,1-Dimethylhydrazine

08Sep2009-4 - TIC RT: 5.15 - 8.15 NL: 2.46E3
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

08Sep2009-4 - TIC RT: 7.45 - 10.45 NL: 2.71E3
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



QLM18 8144

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal1	Method Settings	Hydrazine	8.95	15510	0.111	ng/mL
Cal1	Method Settings	1,1-Dimethylhydrazine	6.65	14059	0.557	ng/mL
Cal1	Method Settings	Monomethylhydrazine	4.96	15236	0.598	ng/mL

Analyst: JW 1543 9/9/2009
[illegible] 9/15/09

OLM18 #145

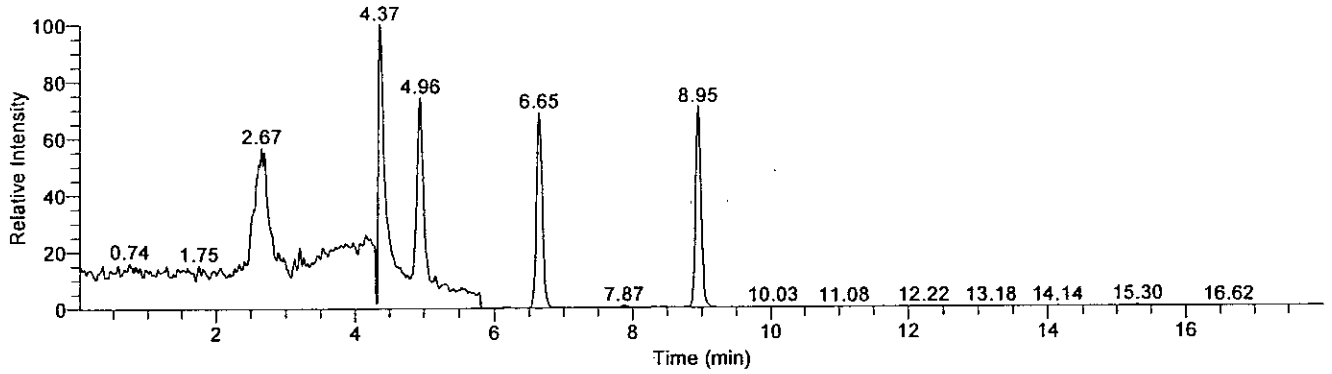
There is no signature data to report.

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Workbook Name:	TQU01408-08Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	08Sep2009-5.raw
Sample ID:	Cal2
Sample Type:	Standard
Level:	2
Acquisition Date:	Tuesday, September 08, 2009 3:34:06 PM
Vial:	D:3
Dilution Factor:	1.00000

Sample Chromatogram

08Sep2009-5 - TIC RT: 0.00 - 17.99 NL: 7.10E3

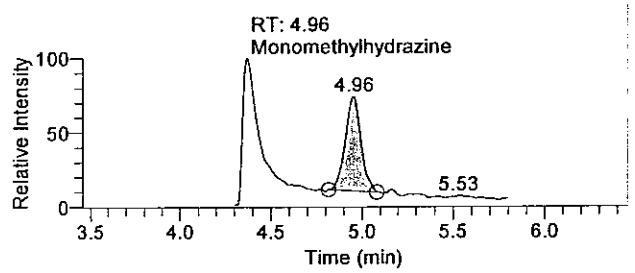


Compound Graphics

Date: 08-Sep-2009, Instrument: Quantum, Vial: D:3, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles\08Sep2009-5, Comments: Soil Prep, ID: Cal2

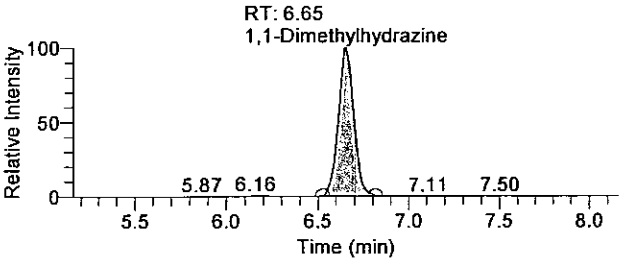
Monomethylhydrazine

08Sep2009-5 - TIC RT: 3.46 - 6.46 NL: 7.10E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



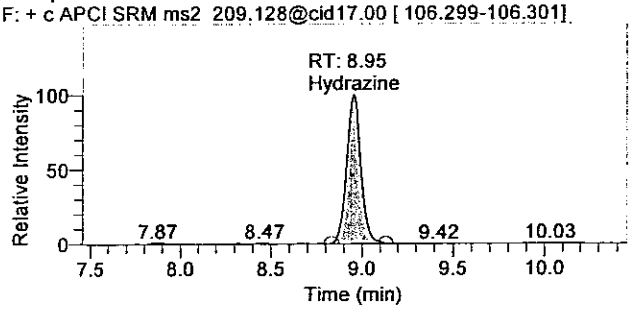
1,1-Dimethylhydrazine

08Sep2009-5 - TIC RT: 5.15 - 8.15 NL: 4.89E3
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

08Sep2009-5 - TIC RT: 7.45 - 10.45 NL: 5.01E3
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 0146

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal2	Method Settings	Hydrazine	8.95	27321	0.203	ng/mL
Cal2	Method Settings	1,1-Dimethylhydrazine	6.65	28759	1.029	ng/mL
Cal2	Method Settings	Monomethylhydrazine	4.96	27323	0.983	ng/mL

Analyst: JW 1543 9/9/2009
9/10/09

OLN18 8147

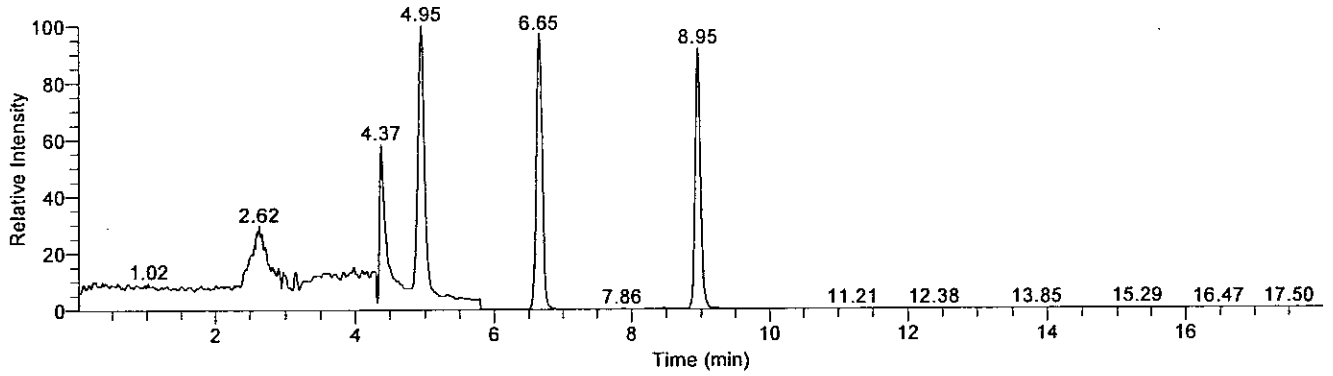
There is no signature data to report.

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Workbook Name:	TQU01408-08Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	08Sep2009-6.raw
Sample ID:	Cal3
Sample Type:	Standard
Level:	3
Acquisition Date:	Tuesday, September 08, 2009 3:52:51 PM
Vial:	D:4
Dilution Factor:	1.00000

Sample Chromatogram

08Sep2009-6 - TIC RT: 0.00 - 17.99 NL: 1.23E4

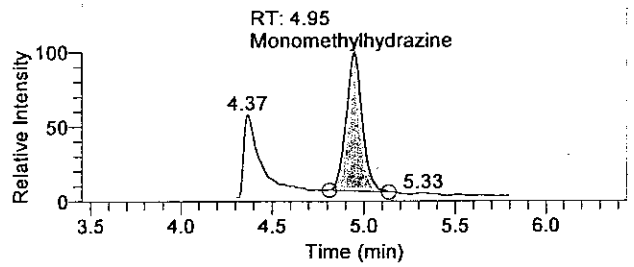


Compound Graphics

Date: 08-Sep-2009, Instrument: Quantum, Vial: D:4, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles\08Sep2009-6, Comments: Soil Prep, ID: Cal3

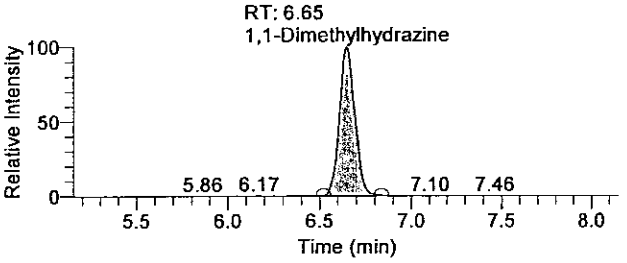
Monomethylhydrazine

08Sep2009-6 - TIC RT: 3.45 - 6.45 NL: 1.23E4
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



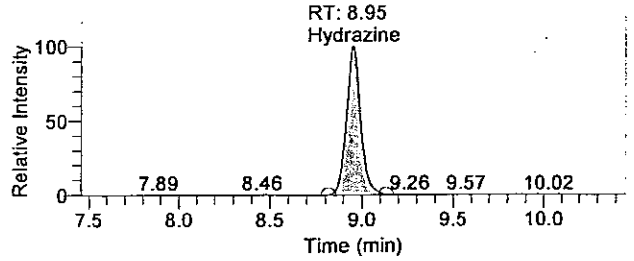
1,1-Dimethylhydrazine

08Sep2009-6 - TIC RT: 5.15 - 8.15 NL: 1.20E4
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

08Sep2009-6 - TIC RT: 7.45 - 10.45 NL: 1.13E4
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLM18 0148

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal3	Method Settings	Hydrazine	8.95	60411	0.461	ng/mL
Cal3	Method Settings	1,1-Dimethylhydrazine	6.65	70057	2.353	ng/mL
Cal3	Method Settings	Monomethylhydrazine	4.95	70201	2.347	ng/mL

Analyst: JW 1543 P/P/200P
9/15/09

OLN18 8149

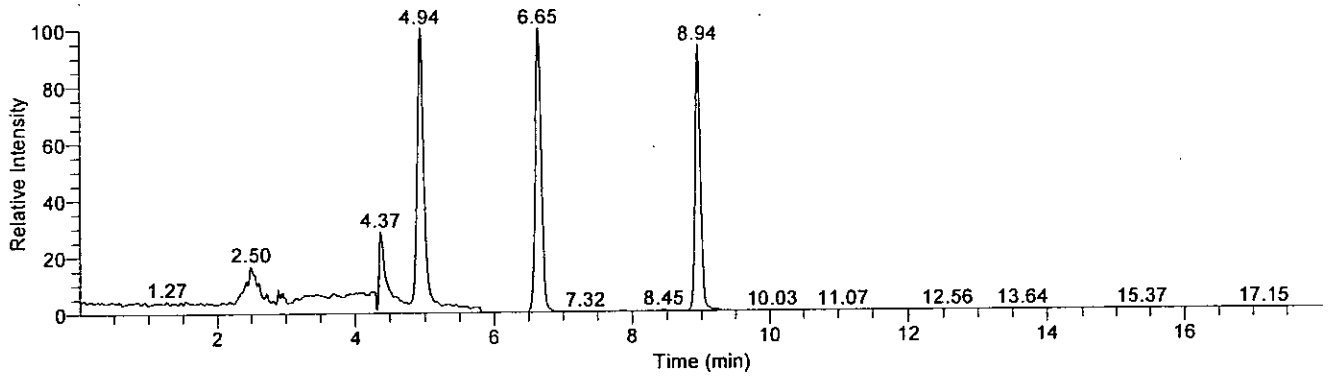
There is no signature data to report.

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Workbook Name:	TQU01408-08Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	08Sep2009-7.raw
Sample ID:	Cal4
Sample Type:	Standard
Level:	4
Acquisition Date:	Tuesday, September 08, 2009 4:11:32 PM
Vial:	D:5
Dilution Factor:	1.00000

Sample Chromatogram

08Sep2009-7 - TIC RT: 0.00 - 18.00 NL: 2.43E4

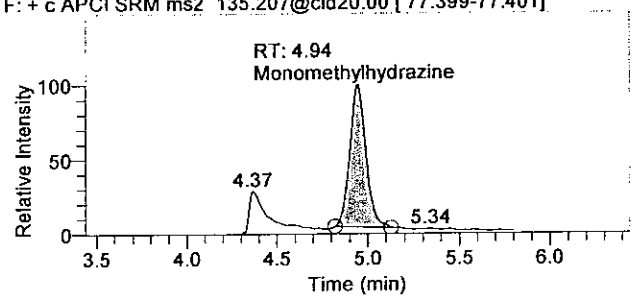


Compound Graphics

Date: 08-Sep-2009, Instrument: Quantum, Vial: D:5, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles\08Sep2009-7, Comments: Soil Prep, ID: Cal4

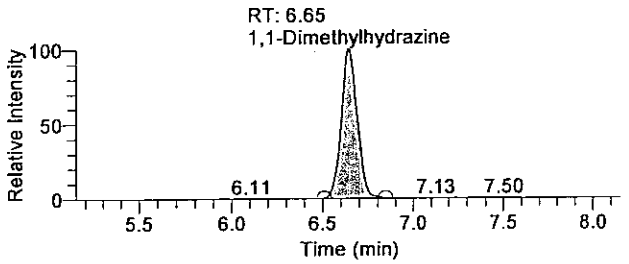
Monomethylhydrazine

08Sep2009-7 - TIC RT: 3.44 - 6.44 NL: 2.43E4
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



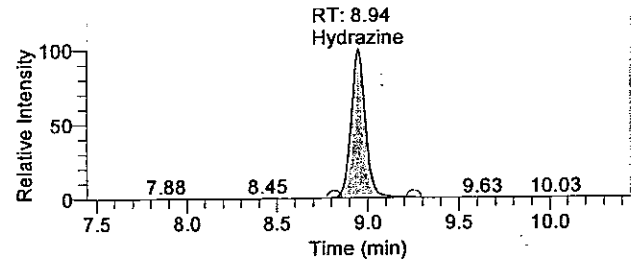
1,1-Dimethylhydrazine

08Sep2009-7 - TIC RT: 5.15 - 8.15 NL: 2.42E4
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

08Sep2009-7 - TIC RT: 7.44 - 10.44 NL: 2.27E4
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 0156

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal4	Method Settings	Hydrazine	8.94	124789	0.962	ng/mL
Cal4	Method Settings	1,1-Dimethylhydrazine	6.65	146528	4.805	ng/mL
Cal4	Method Settings	Monomethylhydrazine	4.94	142902	4.659	ng/mL

Analyst : JW 1543 9/9/2009
9/10/09

OLNIB 0151

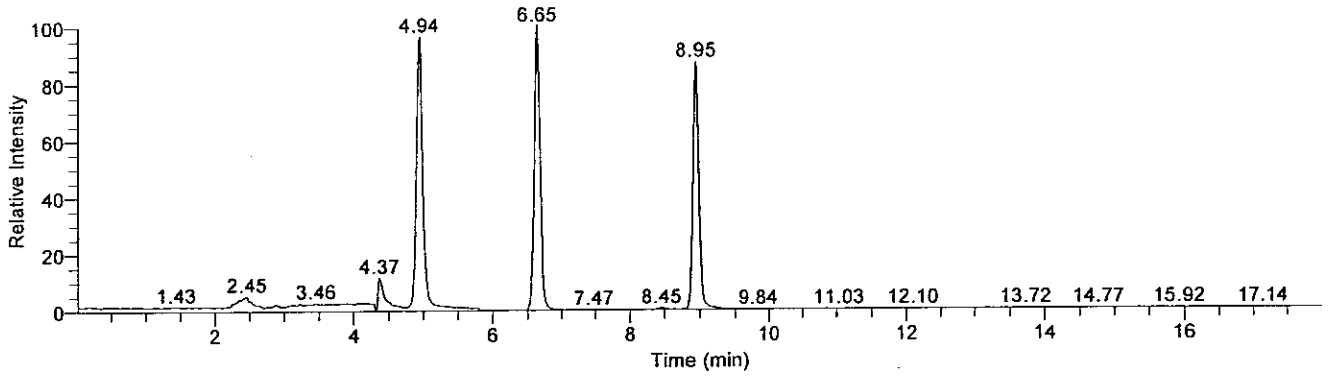
There is no signature data to report.

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Workbook Name:	TQU01408-08Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	08Sep2009-8.raw
Sample ID:	Cal5
Sample Type:	Standard
Level:	5
Acquisition Date:	Tuesday, September 08, 2009 4:30:16 PM
Vial:	D:6
Dilution Factor:	1.00000

Sample Chromatogram

08Sep2009-8 - TIC RT: 0.00 - 17.99 NL: 6.36E4

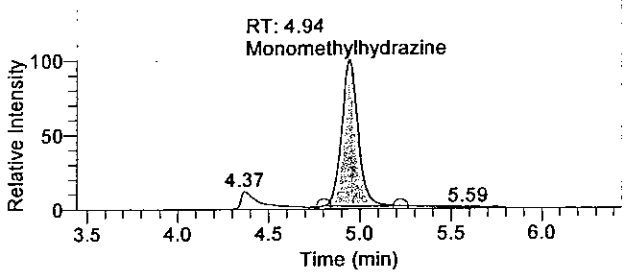


Compound Graphics

Date: 08-Sep-2009, Instrument: Quantum, Vial: D:6, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles\08Sep2009-8, Comments: Soil Prep, ID: Cal5

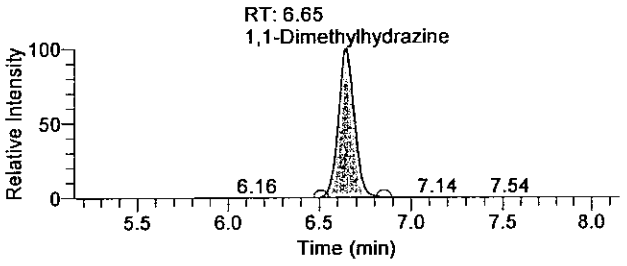
Monomethylhydrazine

08Sep2009-8 - TIC RT: 3.44 - 6.44 NL: 6.14E4
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



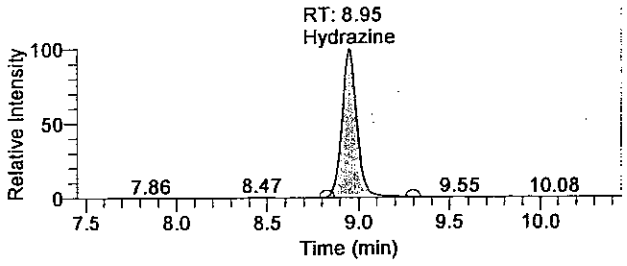
1,1-Dimethylhydrazine

08Sep2009-8 - TIC RT: 5.15 - 8.15 NL: 6.36E4
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

08Sep2009-8 - TIC RT: 7.45 - 10.45 NL: 5.55E4
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN10 0152

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal5	Method Settings	Hydrazine	8.95	312984	2.429	ng/mL
Cal5	Method Settings	1,1-Dimethylhydrazine	6.65	380970	12.322	ng/mL
Cal5	Method Settings	Monomethylhydrazine	4.94	378188	12.143	ng/mL

Analyst : JW 1543 9/9/2009
9/10/09

OLN18 8153

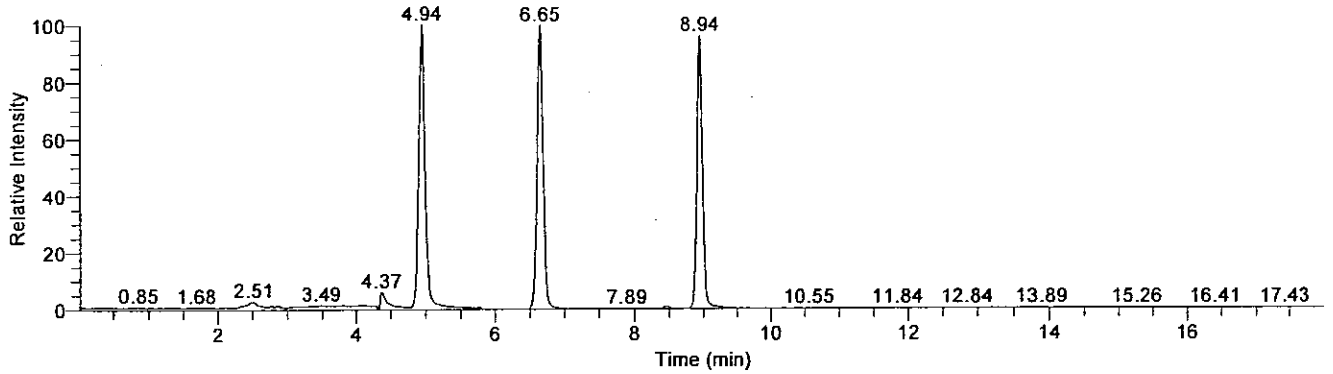
There is no signature data to report.

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Workbook Name:	TQU01408-08Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	08Sep2009-9.raw
Sample ID:	Cal6
Sample Type:	Standard
Level:	6
Acquisition Date:	Tuesday, September 08, 2009 4:49:02 PM
Vial:	D:7
Dilution Factor:	1.00000

Sample Chromatogram

08Sep2009-9 - TIC RT: 0.00 - 17.99 NL: 1.21E5

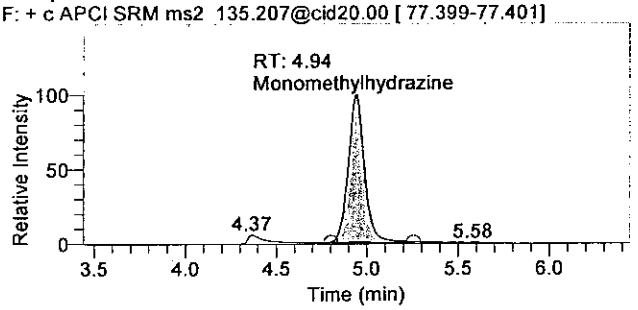


Compound Graphics

Date: 08-Sep-2009, Instrument: Quantum, Vial: D:7, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles\08Sep2009-9, Comments: Soil Prep, ID: Cal6

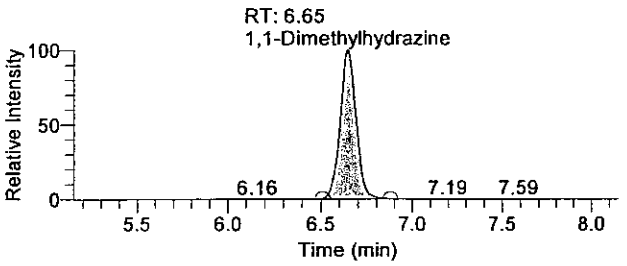
Monomethylhydrazine

08Sep2009-9 - TIC RT: 3.44 - 6.44 NL: 1.21E5
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



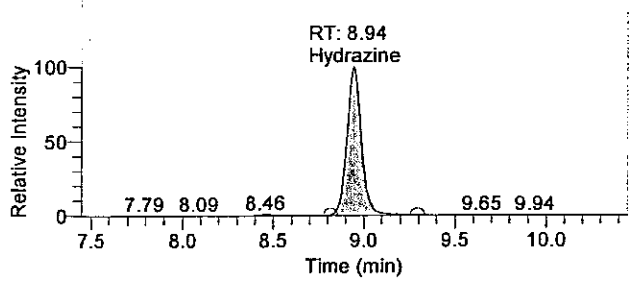
1,1-Dimethylhydrazine

08Sep2009-9 - TIC RT: 5.15 - 8.15 NL: 1.20E5
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

08Sep2009-9 - TIC RT: 7.44 - 10.44 NL: 1.16E5
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 0154

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal6	Method Settings	Hydrazine	8.94	649660	5.052	ng/mL
Cal6	Method Settings	1,1-Dimethylhydrazine	6.65	726774	23.409	ng/mL
Cal6	Method Settings	Monomethylhydrazine	4.94	743731	23.771	ng/mL

Analyst: JW 1543 9/9/2009
9/10/09

OLN18 0155

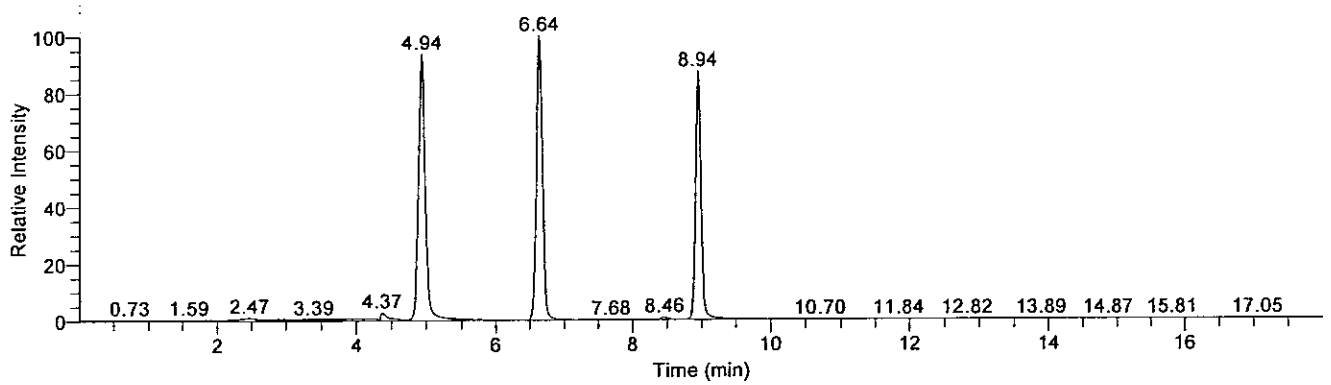
There is no signature data to report.

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Workbook Name:	TQU01408-08Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	08Sep2009-10.raw
Sample ID:	Cal7
Sample Type:	Standard
Level:	7
Acquisition Date:	Tuesday, September 08, 2009 5:07:47 PM
Vial:	D:8
Dilution Factor:	1.00000

Sample Chromatogram

08Sep2009-10 - TIC RT: 0.00 - 17.99 NL: 2.65E5

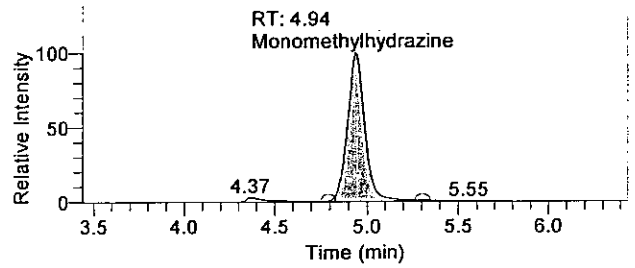


Compound Graphics

Date: 08-Sep-2009, Instrument: Quantum, Vial: D:8, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles\08Sep2009-10, Comments: Soil Prep, ID: Cal7

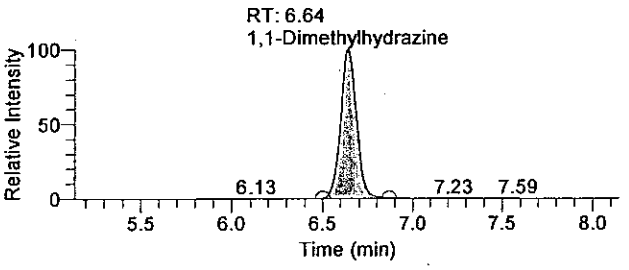
Monomethylhydrazine

08Sep2009-10 - TIC RT: 3.44 - 6.44 NL: 2.48E5
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



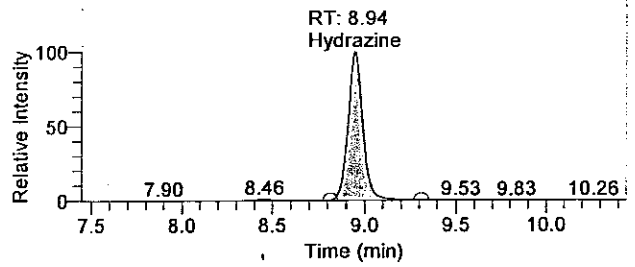
1,1-Dimethylhydrazine

08Sep2009-10 - TIC RT: 5.14 - 8.14 NL: 2.65E5
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

08Sep2009-10 - TIC RT: 7.44 - 10.44 NL: 2.31E5
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLM10 0155

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal7	Method Settings	Hydrazine	8.94	1294183	10.073	ng/mL
Cal7	Method Settings	1,1-Dimethylhydrazine	6.64	1599617	51.396	ng/mL
Cal7	Method Settings	Monomethylhydrazine	4.94	1599127	50.980	ng/mL

Analyst : JW 1543 P/P/200p
[illegible] 9/15/09

OLN10 0157

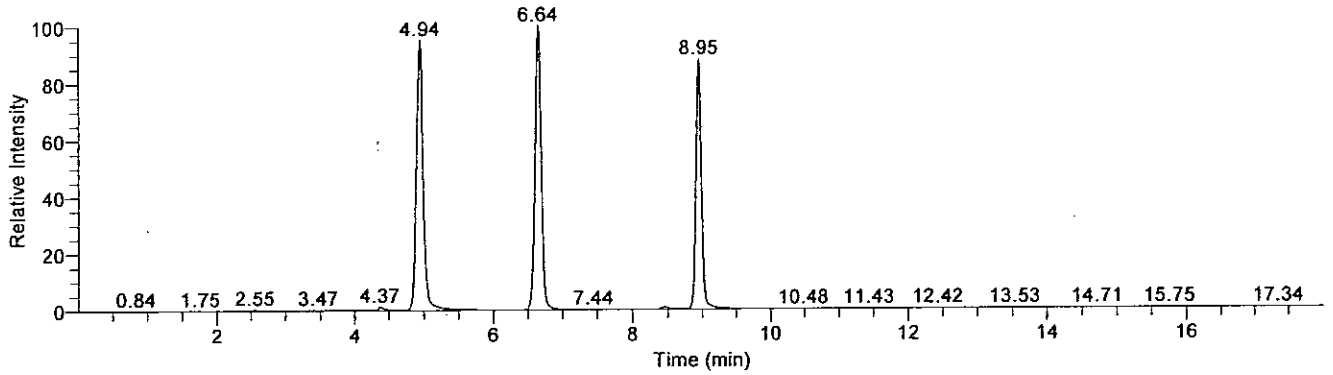
There is no signature data to report.

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Workbook Name:	TQU01408-08Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	08Sep2009-11.raw
Sample ID:	Cal8
Sample Type:	Standard
Level:	8
Acquisition Date:	Tuesday, September 08, 2009 5:26:33 PM
Vial:	D:9
Dilution Factor:	1.00000

Sample Chromatogram

08Sep2009-11 - TIC RT: 0.00 - 17.99 NL: 6.47E5

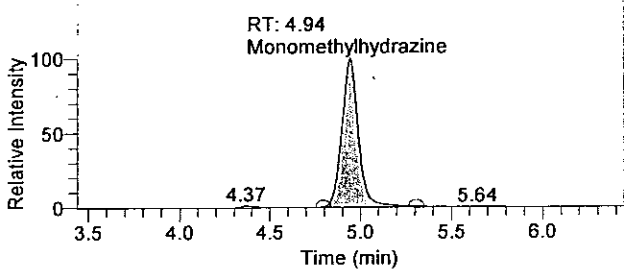


Compound Graphics

Date: 08-Sep-2009, Instrument: Quantum, Vial: D:9, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles\08Sep2009-11, Comments: Soil Prep, ID: Cal8

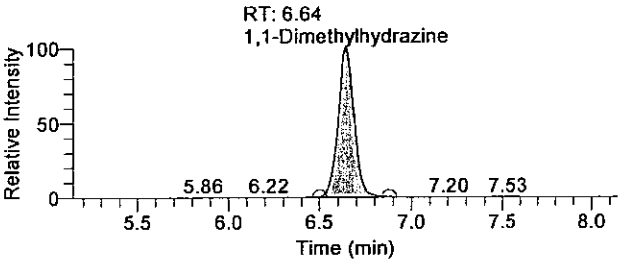
Monomethylhydrazine

08Sep2009-11 - TIC RT: 3.44 - 6.44 NL: 6.15E5
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



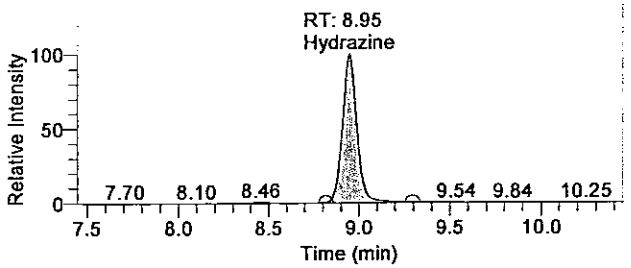
1,1-Dimethylhydrazine

08Sep2009-11 - TIC RT: 5.14 - 8.14 NL: 6.47E5
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

08Sep2009-11 - TIC RT: 7.45 - 10.45 NL: 5.70E5
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



CLN18- 8158

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal8	Method Settings	Hydrazine	8.95	3211103	25.008	ng/mL
Cal8	Method Settings	1,1-Dimethylhydrazine	6.64	3914817	125.630	ng/mL
Cal8	Method Settings	Monomethylhydrazine	4.94	3958144	126.018	ng/mL

Analyst: JW 1543 9/9/2009
[illegible] 9/15/09

OLN18 8159

There is no signature data to report.

Lancaster Laboratories

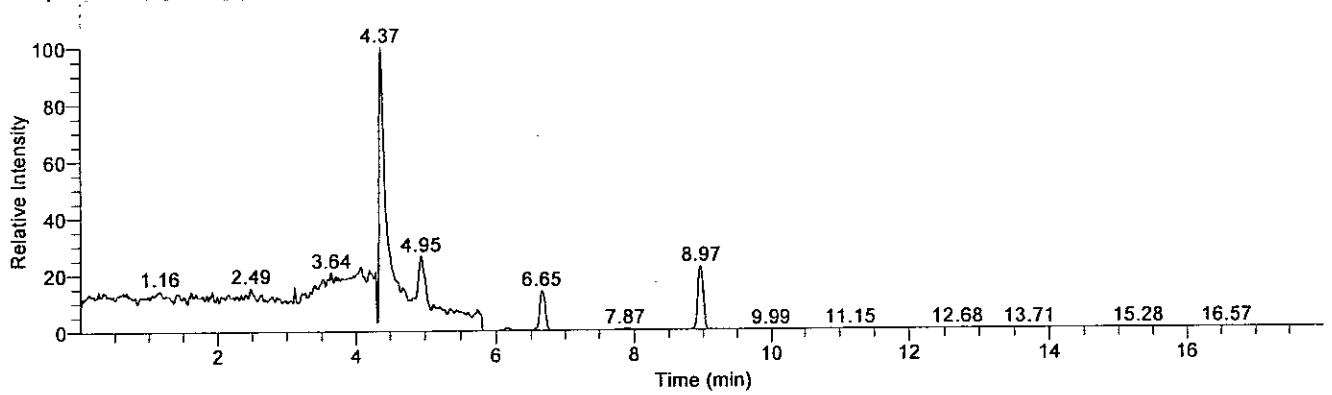
Printed: Wednesday, September 09, 2009, 10:40:30

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Workbook Name:	TQU01408-08Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	08Sep2009-3.raw
Sample ID:	MDL
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Tuesday, September 08, 2009 2:56:36 PM
Vial:	D:1
Dilution Factor:	1.00000

Sample Chromatogram

08Sep2009-3 - TIC RT: 0.01 - 17.99 NL: 8.69E3

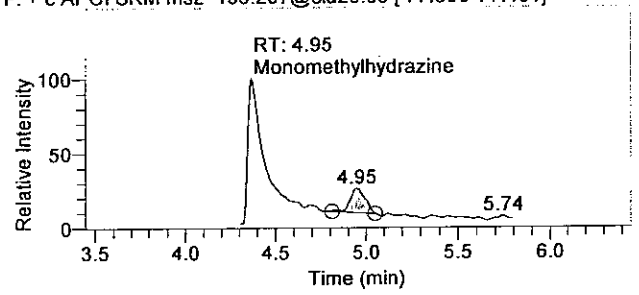


Compound Graphics

Date: 08-Sep-2009, Instrument: Quantum, Vial: D:1, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles\08Sep2009-3, Comments: Soil Prep, ID: MDL

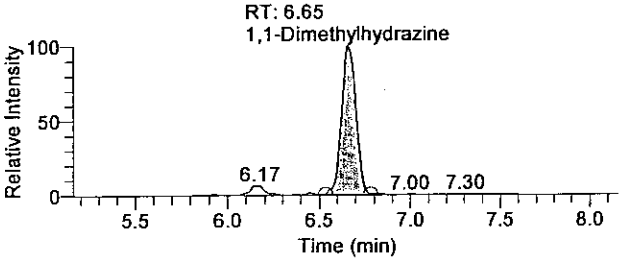
Monomethylhydrazine

08Sep2009-3 - TIC RT: 3.45 - 6.45 NL: 8.69E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



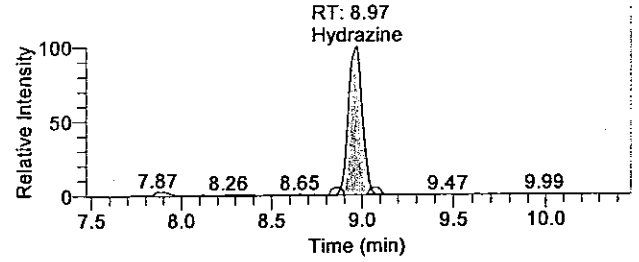
1,1-Dimethylhydrazine

08Sep2009-3 - TIC RT: 5.15 - 8.15 NL: 1.21E3
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

08Sep2009-3 - TIC RT: 7.47 - 10.47 NL: 1.95E3
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLM18 0160

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
MDL	Method Settings	Hydrazine	8.97	10590	0.073	ng/mL
MDL	Method Settings	1,1-Dimethylhydrazine	6.65	6668	0.320	ng/mL
MDL	Method Settings	Monomethylhydrazine	4.95	8621	0.388	ng/mL

Analyst : JW 1543 9/9/2009

9/15/09

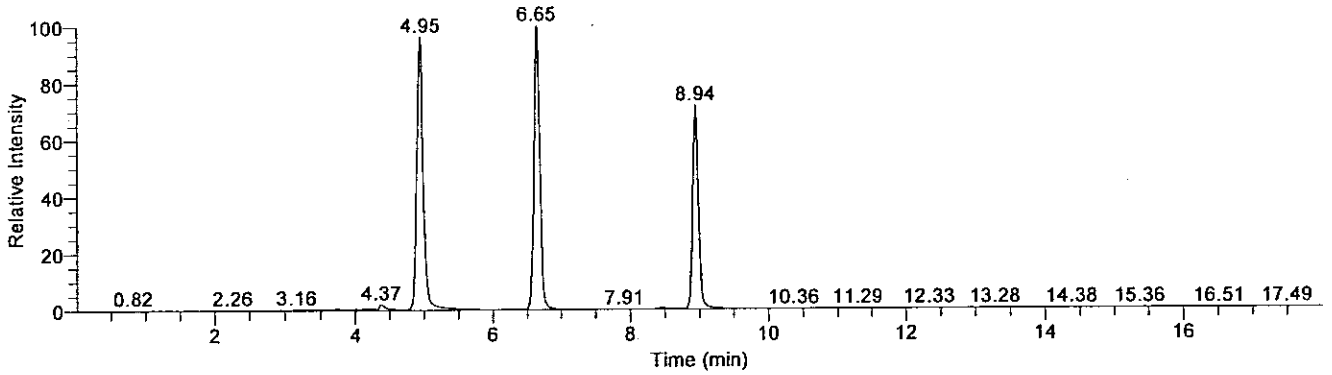
There is no signature data to report.

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Workbook Name:	TQU01408-08Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	08Sep2009-23.raw
Sample ID:	ICV
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Tuesday, September 08, 2009 9:11:19 PM
Vial:	D:17
Dilution Factor:	1.00000

Sample Chromatogram

08Sep2009-23 - TIC RT: 0.00 - 17.99 NL: 3.82E5

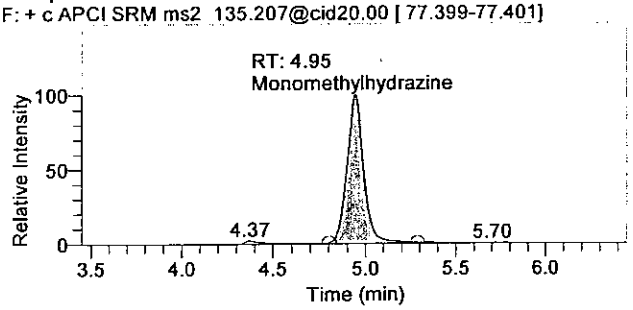


Compound Graphics

Date: 08-Sep-2009, Instrument: Quantum, Vial: D:17, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles\08Sep2009-23, Comments: Soil Prep, ID: ICV

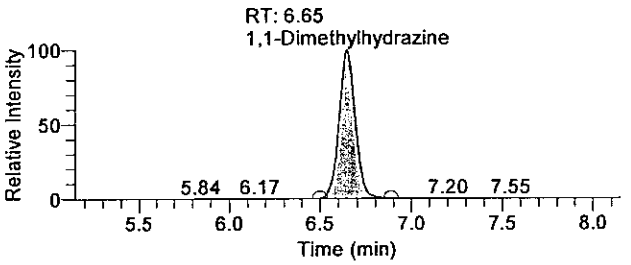
Monomethylhydrazine

08Sep2009-23 - TIC RT: 3.45 - 6.45 NL: 3.67E5
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



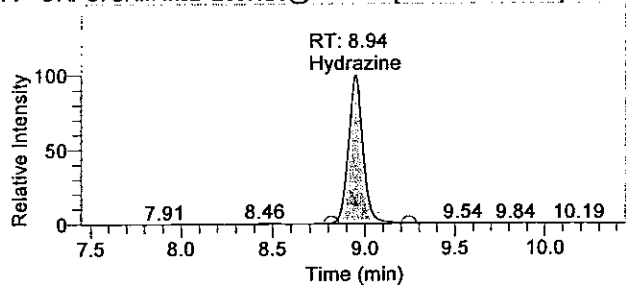
1,1-Dimethylhydrazine

08Sep2009-23 - TIC RT: 5.15 - 8.15 NL: 3.82E5
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

08Sep2009-23 - TIC RT: 7.44 - 10.44 NL: 2.74E5
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 8162

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
ICV	Method Settings	Hydrazine	8.94	1546251	12.037	ng/mL
ICV	Method Settings	1,1-Dimethylhydrazine	6.65	2337645	75.060	ng/mL
ICV	Method Settings	Monomethylhydrazine	4.95	2330361	74.240	ng/mL

Analyst: JW 1543 9/9/2009

9/10/09

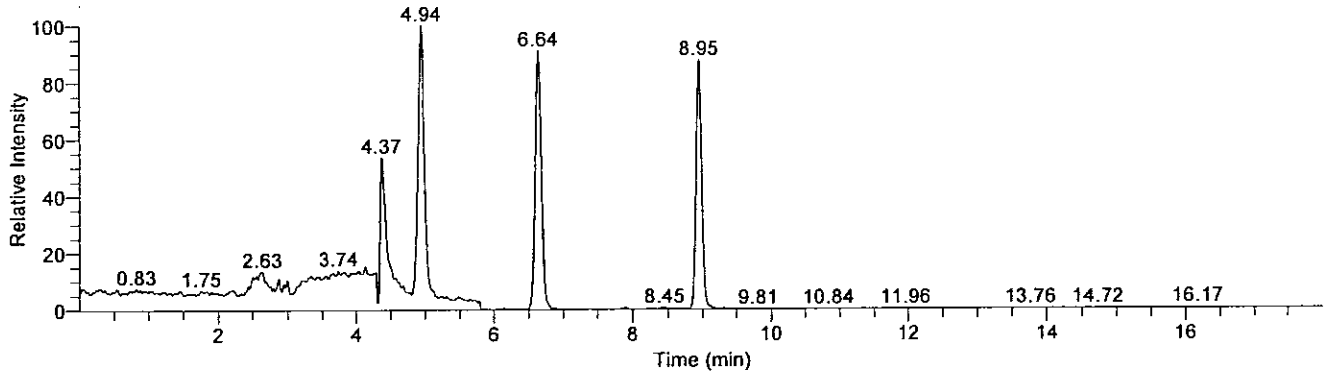
There is no signature data to report.

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Workbook Name:	TQU01408-08Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	08Sep2009-13.raw
Sample ID:	Cal3asQC1a
Sample Type:	QC
Level:	CCV1
Acquisition Date:	Tuesday, September 08, 2009 6:03:57 PM
Vial:	D:4
Dilution Factor:	1.00000

Sample Chromatogram

08Sep2009-13 - TIC RT: 0.00 - 17.99 NL: 1.32E4

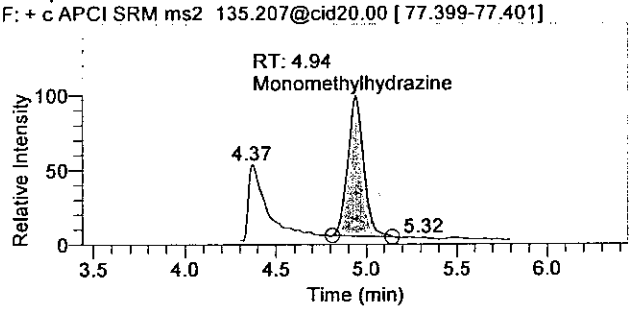


Compound Graphics

Date: 08-Sep-2009, Instrument: Quantum, Vial: D:4, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles\08Sep2009-13, Comments: , ID: Cal3asQC1a

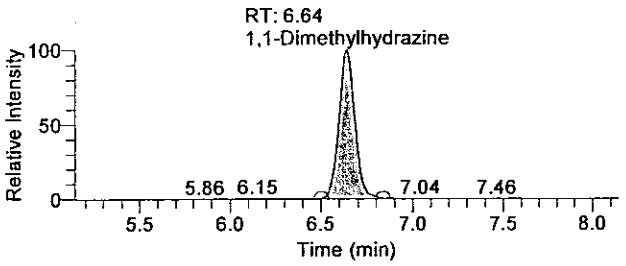
Monomethylhydrazine

08Sep2009-13 - TIC RT: 3.44 - 6.44 NL: 1.32E4
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



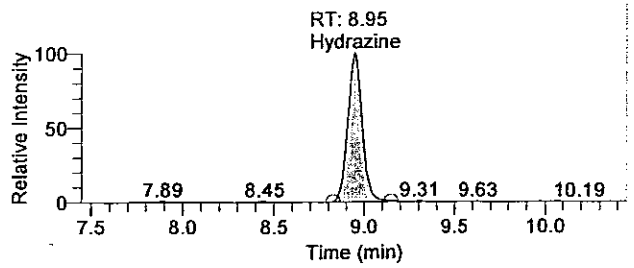
1,1-Dimethylhydrazine

08Sep2009-13 - TIC RT: 5.14 - 8.14 NL: 1.21E4
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

08Sep2009-13 - TIC RT: 7.45 - 10.45 NL: 1.16E4
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 8164

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal3asQC1a	Method Settings	Hydrazine	8.95	64980	0.496	ng/mL
Cal3asQC1a	Method Settings	1,1-Dimethylhydrazine	6.64	71436	2.397	ng/mL
Cal3asQC1a	Method Settings	Monomethylhydrazine	4.94	77126	2.567	ng/mL

Analyst: JW 1543 9/9/2009
[illegible] 9/10/09

OLN18 8165

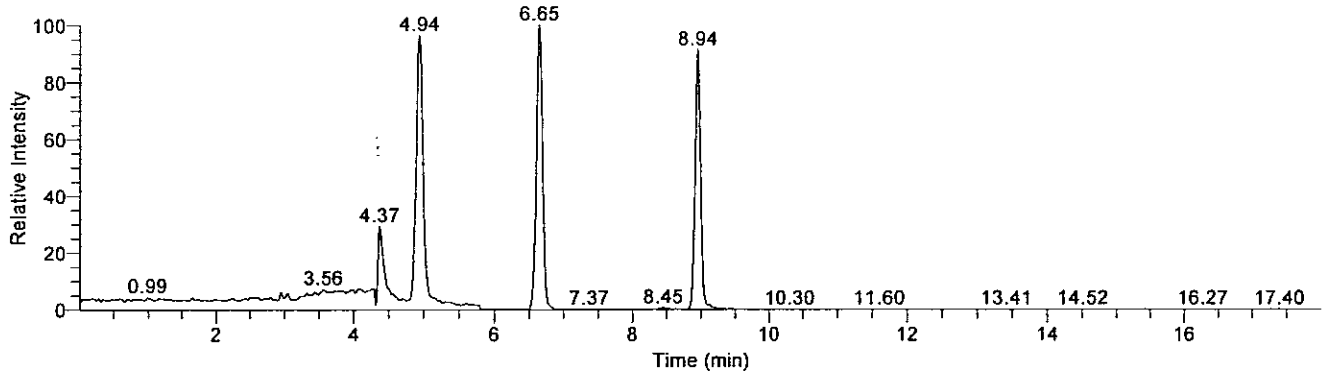
There is no signature data to report.

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Workbook Name:	TQU01408-08Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	08Sep2009-24.raw
Sample ID:	Cal4asQC2a
Sample Type:	QC
Level:	CCV2
Acquisition Date:	Tuesday, September 08, 2009 9:30:04 PM
Vial:	D:5
Dilution Factor:	1.00000

Sample Chromatogram

08Sep2009-24 - TIC RT: 0.00 - 18.00 NL: 2.51E4

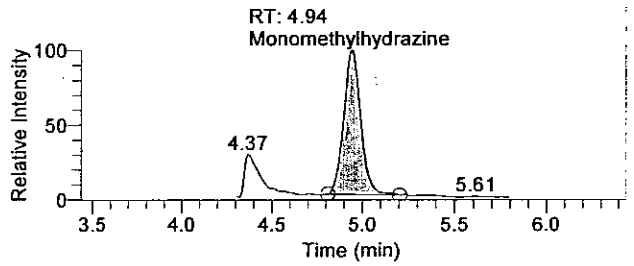


Compound Graphics

Date: 08-Sep-2009, Instrument: Quantum, Vial: D:5, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles\08Sep2009-24, Comments: , ID: Cal4asQC2a

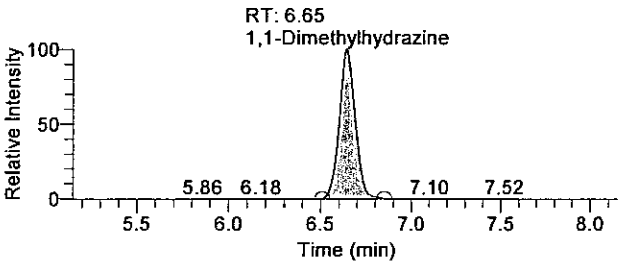
Monomethylhydrazine

08Sep2009-24 - TIC RT: 3.44 - 6.44 NL: 2.42E4
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



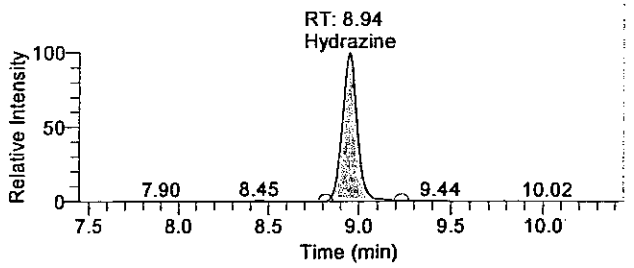
1,1-Dimethylhydrazine

08Sep2009-24 - TIC RT: 5.15 - 8.15 NL: 2.51E4
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

08Sep2009-24 - TIC RT: 7.44 - 10.44 NL: 2.29E4
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 8165

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal4asQC2a	Method Settings	Hydrazine	8.94	130740	1.009	ng/mL
Cal4asQC2a	Method Settings	1,1-Dimethylhydrazine	6.65	154081	5.047	ng/mL
Cal4asQC2a	Method Settings	Monomethylhydrazine	4.94	152927	4.978	ng/mL

Analyst: JW 1543 9/9/2009
9/10/09

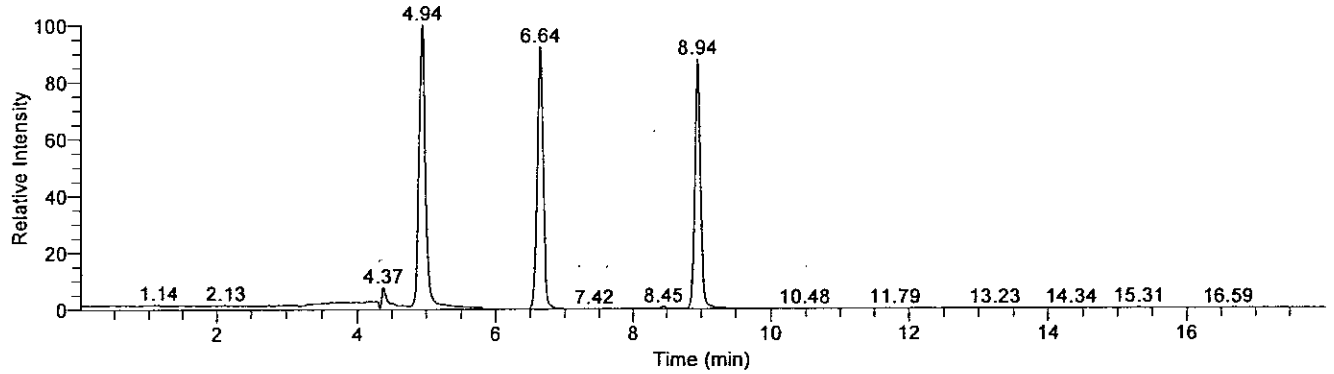
There is no signature data to report.

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Workbook Name:	TQU01408-08Sep2009-1
Analyst:	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	08Sep2009-35.raw
Sample ID:	Cal5asQC3a
Sample Type:	QC
Level:	CCV3
Acquisition Date:	Wednesday, September 09, 2009 12:56:03 AM
Vial:	D:6
Dilution Factor:	1.00000

Sample Chromatogram

08Sep2009-35 - TIC RT: 0.00 - 18.00 NL: 6.85E4

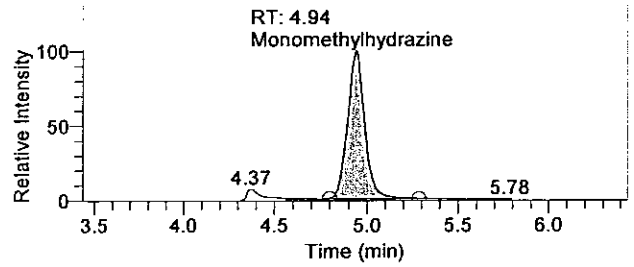


Compound Graphics

Date: 09-Sep-2009, Instrument: Quantum, Vial: D:6, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles\08Sep2009-35, Comments: , ID: Cal5asQC3a

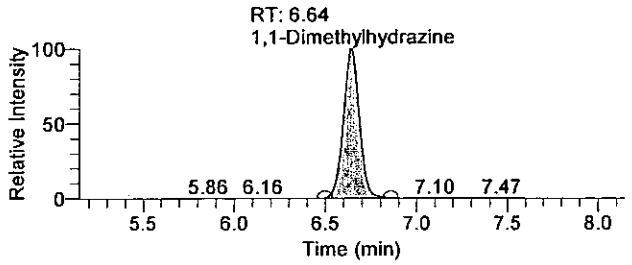
Monomethylhydrazine

08Sep2009-35 - TIC RT: 3.44 - 6.44 NL: 6.85E4
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



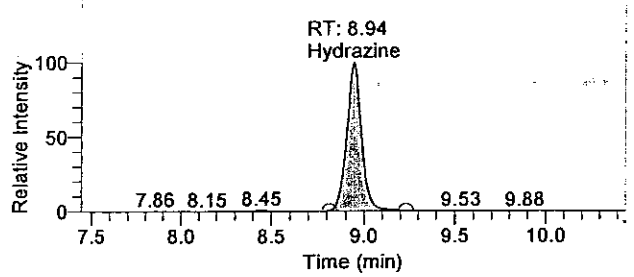
1,1-Dimethylhydrazine

08Sep2009-35 - TIC RT: 5.14 - 8.14 NL: 6.31E4
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

08Sep2009-35 - TIC RT: 7.44 - 10.44 NL: 6.00E4
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN19 8160

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal5asQC3a	Method Settings	Hydrazine	8.94	336542	2.612	ng/mL
Cal5asQC3a	Method Settings	1,1-Dimethylhydrazine	6.64	382242	12.363	ng/mL
Cal5asQC3a	Method Settings	Monomethylhydrazine	4.94	440296	14.119	ng/mL

Analyst : JW 1543 9/9/2009

9/10/09

OLN18 6169

There is no signature data to report.

Lancaster Laboratories

Workbook Name: TQU01408-10Sep2009-3
Instrument No. TQU01408
Analyst JW01543

Sequence Table

Sample ID	File Name	Sample Type	Path	Position	Inj Vol	Batch No.
Conditioner1	10Sep2009-1	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:1	10.00	N/A
Conditioner2	10Sep2009-2	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:1	10.00	N/A
MDL	10Sep2009-3	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:7	10.00	N/A
Cal1	10Sep2009-4	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:8	10.00	N/A
Cal2	10Sep2009-5	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:9	10.00	N/A
Cal3	10Sep2009-6	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:10	10.00	N/A
Cal4	10Sep2009-7	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:11	10.00	N/A
Cal5	10Sep2009-8	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:12	10.00	N/A
Cal6	10Sep2009-9	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:13	10.00	N/A
Cal7	10Sep2009-10	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:14	10.00	N/A
Cal8	10Sep2009-11	Standard	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:15	10.00	N/A
Conditioner3	10Sep2009-12	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:1	10.00	N/A
Cal3asQC1a	10Sep2009-13	QC	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:10	10.00	N/A
Conditioner4	10Sep2009-14	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:1	10.00	N/A
Conditioner5	10Sep2009-15	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:1	10.00	N/A
Blank1	10Sep2009-16	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:16	10.00	0925310610812
5769175FD	10Sep2009-17	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:17	10.00	0925310610812
5769176BKG	10Sep2009-18	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:18	10.00	0925310610812
5769177MS	10Sep2009-19	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:19	10.00	0925310610812
5769178MSD	10Sep2009-20	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:20	10.00	0925310610812
LCS1	10Sep2009-21	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:21	10.00	0925310610812
LCSD1	10Sep2009-22	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:22	10.00	0925310610812
ICV	10Sep2009-23	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:23	10.00	N/A
Cal4asQC2a	10Sep2009-24	QC	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:11	10.00	N/A
Spike Check	10Sep2009-25	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:24	10.00	N/A
Conditioner6	10Sep2009-26	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:1	10.00	N/A
Conditioner7	10Sep2009-27	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:1	10.00	N/A
5769179	10Sep2009-28	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:25	10.00	0925310610812
5769180	10Sep2009-29	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:26	10.00	0925310610812
5770779	10Sep2009-30	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:27	10.00	0925310610812
5770780	10Sep2009-31	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:28	10.00	0925310610812
5770781	10Sep2009-32	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:29	10.00	0925310610812
Cal5asQC3a	10Sep2009-33	QC	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:12	10.00	N/A

There is no signature data to report.

Lancaster Laboratories

Sample ID	File Name	Sample Type	Path	Position	Inj Vol	Batch No.
Conditioner8	10Sep2009-34	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:1	10.00	N/A
Conditioner9	10Sep2009-35	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:1	10.00	N/A
Blank2	10Sep2009-36	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:30	10.00	0925310610813
5769171FD	10Sep2009-37	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:31	10.00	0925310610813
5769172BKG	10Sep2009-38	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:32	10.00	0925310610813
5769173MS	10Sep2009-39	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:33	10.00	0925310610813
5769174MSD	10Sep2009-40	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:34	10.00	0925310610813
LCS2	10Sep2009-41	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:35	10.00	0925310610813
LCSD2	10Sep2009-42	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:36	10.00	0925310610813
Conditioner10	10Sep2009-44	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:1	10.00	N/A
Cal3asQC1b	10Sep2009-43	QC	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:10	10.00	N/A
Conditioner11	10Sep2009-45	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:1	10.00	N/A
5772546	10Sep2009-46	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:37	10.00	0925310610813
5772547	10Sep2009-47	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:38	10.00	0925310610813
5772548	10Sep2009-48	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:39	10.00	0925310610813
5772550	10Sep2009-49	Unknown	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:40	10.00	0925310610813
Cal4asQC2b	10Sep2009-50	QC	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles	E:11	10.00	N/A

Analyst: JW 1543 9/11/2009

9/11/09

There is no signature data to report.

Lancaster Laboratories

Component Calibration and Continuing Calibration Verification (CCV) Report

Workbook Name:	TQU01408-10Sep2009-3
Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Instrument No.	TQU01408
Analyst	JW01543

Identification

Component Name:	1,1-Dimethylhydrazine
Detector Type:	MS
Filter:	+ c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]
1st Trace Type:	TIC
Operator:	None
2nd Trace Type:	N/A
Mass Range 1 (m/z):	N/A
Mass Range 2 (m/z):	N/A
Base Peak(BP):	N/A
Mass Range(MR):	N/A

Retention Time

Expected RT (min):	6.64000
Window (sec):	20.00000
View Width (min):	3.00000
RT Reference:	No
Adjust Expected RT:	No
Adjust Using:	N/A

Detection Options

Peak Detection Algorithm:	Genesis
Smoothing Points:	1

Genesis Peak Integration

S/N Threshold:	1.00
Valley Detection:	Disabled
Expected Peak Width (sec):	N/A
Genesis Constrain Peak Width:	No
Genesis Peak Height (%):	N/A
Genesis Tailing Factor:	N/A

Genesis Peak Detection

Genesis Identify By:	Nearest RT
Genesis Minimum Peak Height (S/N):	3.00
Genesis Ion Ratio Confirmation:	No
Genesis Window %:	N/A
Genesis Qualifier Ion Coelution (min):	N/A

Genesis Advanced Detection Options

Baseline (Global)

Baseline Noise Tolerance (%):	10.0
Minimum Number of Scans in Baseline:	16
Baseline Noise Rejection Factor:	2.0

Calibration

Component Type:	Target Compound

Internal Standard

ISTD Amount:	N/A
ISTD Units:	N/A

Target Compounds

Concentration of Calibration Standards

Level	Amount
1	0.500 ng/mL
2	1.000 ng/mL
3	2.500 ng/mL
4	5.000 ng/mL
5	12.500 ng/mL
6	25.000 ng/mL
7	50.000 ng/mL
8	125.000 ng/mL

Concentration of CCV Standards

Level	Amount
CCV1	2.500 ng/mL
CCV2	5.000 ng/mL
CCV3	12.500 ng/mL

OLM18 0172

There is no signature data to report.

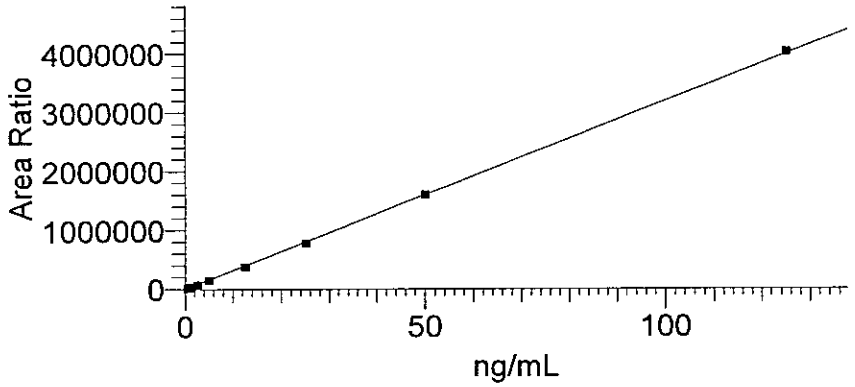
Lancaster Laboratories

ISTD:	
Weighting:	1/X
Origin:	IgnoreOrigin
Response:	Area
Calibration Curve:	Linear
Target Units:	ng/mL
Number of Cal. Levels:	8
Number of QC Levels:	3

Options

Calibration By:	External Standard

1,1-Dimethylhydrazine
Y = -4357.1+31979.9*X R^2 = 0.9996 W: 1/X



Sample ID	Sample Type	Level	Exclude	Integration Type	Response	Specified Conc	Units	Calc Amt	% Diff
Cal1	Standard	1	N/A	Method Settings	13677	0.500	ng/mL	0.564	12.79
Cal2	Standard	2	N/A	Method Settings	28523	1.000	ng/mL	1.028	2.82
Cal3	Standard	3	N/A	Method Settings	71234	2.500	ng/mL	2.364	-5.45
Cal4	Standard	4	N/A	Method Settings	147261	5.000	ng/mL	4.741	-5.18
Cal5	Standard	5	N/A	Method Settings	378540	12.500	ng/mL	11.973	-4.22
Cal6	Standard	6	N/A	Method Settings	777656	25.000	ng/mL	24.453	-2.19
Cal7	Standard	7	N/A	Method Settings	1603389	50.000	ng/mL	50.274	0.55
Cal8	Standard	8	N/A	Method Settings	4028402	125.000	ng/mL	126.103	0.88
Cal3asQC1a	QC	CCV1	N/A	Method Settings	77854	2.500	ng/mL	2.571	2.83
Cal4asQC2a	QC	CCV2	N/A	Method Settings	161008	5.000	ng/mL	5.171	3.42
Cal5asQC3a	QC	CCV3	N/A	Method Settings	371248	12.500	ng/mL	11.745	-6.04
Cal3asQC1b	QC	CCV1	N/A	Method Settings	68122	2.500	ng/mL	2.266	-9.34
Cal4asQC2b	QC	CCV2	N/A	Method Settings	161117	5.000	ng/mL	5.174	3.49

Analyst: JW 1543 9/11/2009
Sm/112 9/11/09

OLN18 0173

There is no signature data to report.

Lancaster Laboratories

Component Calibration and Continuing Calibration Verification (CCV) Report

Workbook Name:	TQU01408-10Sep2009-3
Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Instrument No.	TQU01408
Analyst	JW01543

Identification

Component Name:	Hydrazine
Detector Type:	MS
Filter:	+ c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]
1st Trace Type:	TIC
Operator:	None
2nd Trace Type:	N/A
Mass Range 1 (m/z):	N/A
Mass Range 2 (m/z):	N/A
Base Peak(BP):	N/A
Mass Range(MR):	N/A

Retention Time

Expected RT (min):	8.95000
Window (sec):	20.00000
View Width (min):	3.00000
RT Reference:	No
Adjust Expected RT:	No
Adjust Using:	N/A

Detection Options

Peak Detection Algorithm:	Genesis
Smoothing Points:	1

Genesis Peak Integration

S/N Threshold:	1.00
Valley Detection:	Disabled
Expected Peak Width (sec):	N/A
Genesis Constrain Peak Width:	No
Genesis Peak Height (%):	N/A
Genesis Tailing Factor:	N/A

Genesis Peak Detection

Genesis Identify By:	Nearest RT
Genesis Minimum Peak Height (S/N):	3.00
Genesis Ion Ratio Confirmation:	No
Genesis Window %:	N/A
Genesis Qualifier Ion Coelution (min):	N/A

Genesis Advanced Detection Options

Baseline (Global)

Baseline Noise Tolerance (%):	10.0
Minimum Number of Scans in Baseline:	16
Baseline Noise Rejection Factor:	2.0

Calibration

Component Type:	Target Compound

Internal Standard

ISTD Amount:	N/A
ISTD Units:	N/A

Target Compounds

Concentration of Calibration Standards

Level	Amount
1	0.100 ng/mL
2	0.200 ng/mL
3	0.500 ng/mL
4	1.000 ng/mL
5	2.500 ng/mL
6	5.000 ng/mL
7	10.000 ng/mL
8	25.000 ng/mL

Concentration of CCV Standards

Level	Amount
CCV1	0.500 ng/mL
CCV2	1.000 ng/mL
CCV3	2.500 ng/mL

OLM18 0174

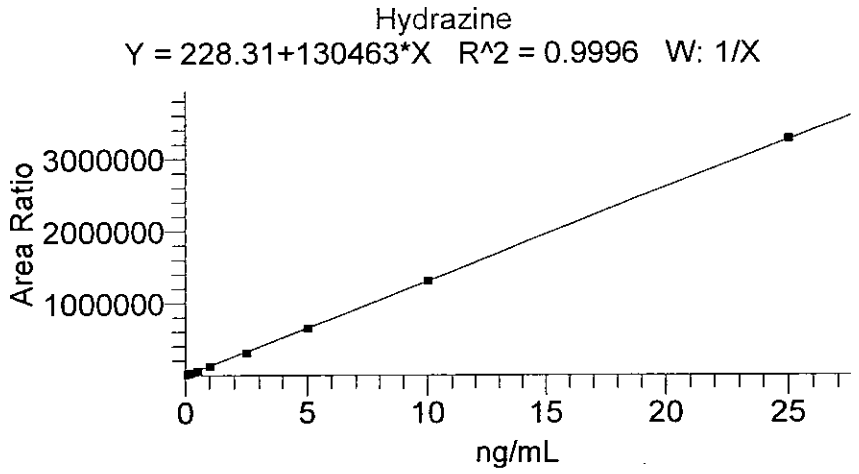
There is no signature data to report.

Lancaster Laboratories

ISTD:	
Weighting:	1/X
Origin:	IgnoreOrigin
Response:	Area
Calibration Curve:	Linear
Target Units:	ng/mL
Number of Cal. Levels:	8
Number of QC Levels:	3

Options

Calibration By:	External Standard



Sample ID	Sample Type	Level	Exclude	Integration Type	Response	Specified Conc	Units	Calc Amt	% Diff
Cal1	Standard	1	N/A	Method Settings	15120	0.100	ng/mL	0.114	14.14
Cal2	Standard	2	N/A	Method Settings	26987	0.200	ng/mL	0.205	2.55
Cal3	Standard	3	N/A	Method Settings	59953	0.500	ng/mL	0.458	-8.44
Cal4	Standard	4	N/A	Method Settings	124436	1.000	ng/mL	0.952	-4.80
Cal5	Standard	5	N/A	Method Settings	311178	2.500	ng/mL	2.383	-4.66
Cal6	Standard	6	N/A	Method Settings	652953	5.000	ng/mL	5.003	0.06
Cal7	Standard	7	N/A	Method Settings	1313640	10.000	ng/mL	10.067	0.67
Cal8	Standard	8	N/A	Method Settings	3277070	25.000	ng/mL	25.117	0.47
Cal3asQC1a	QC	CCV1	N/A	Method Settings	65003	0.500	ng/mL	0.496	-0.70
Cal4asQC2a	QC	CCV2	N/A	Method Settings	135875	1.000	ng/mL	1.040	3.97
Cal5asQC3a	QC	CCV3	N/A	Method Settings	344666	2.500	ng/mL	2.640	5.60
Cal3asQC1b	QC	CCV1	N/A	Method Settings	66329	0.500	ng/mL	0.507	1.33
Cal4asQC2b	QC	CCV2	N/A	Method Settings	131140	1.000	ng/mL	1.003	0.34

Analyst: JiV 1543 9/11/2009
SJ/112 9/11/89

OLN18 5175

There is no signature data to report.

Lancaster Laboratories

Component Calibration and Continuing Calibration Verification (CCV) Report

Workbook Name:	TQU01408-10Sep2009-3
Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Instrument No.	TQU01408
Analyst	JW01543

Identification

Component Name:	Monomethylhydrazine
Detector Type:	MS
Filter:	+ c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]
1st Trace Type:	TIC
Operator:	None
2nd Trace Type:	N/A
Mass Range 1 (m/z):	N/A
Mass Range 2 (m/z):	N/A
Base Peak(BP):	N/A
Mass Range(MR):	N/A

Retention Time

Expected RT (min):	4.94000
Window (sec):	20.00000
View Width (min):	3.00000
RT Reference:	No
Adjust Expected RT:	No
Adjust Using:	N/A

Detection Options

Peak Detection Algorithm:	Genesis
Smoothing Points:	1

Genesis Peak Integration

S/N Threshold:	1.00
Valley Detection:	Disabled
Expected Peak Width (sec):	N/A
Genesis Constrain Peak Width:	No
Genesis Peak Height (%):	N/A
Genesis Tailing Factor:	N/A

Genesis Peak Detection

Genesis Identify By:	Nearest RT
Genesis Minimum Peak Height (S/N):	3.00
Genesis Ion Ratio Confirmation:	No
Genesis Window %:	N/A
Genesis Qualifier Ion Coelution (min):	N/A

Genesis Advanced Detection Options

Baseline (Global)

Baseline Noise Tolerance (%):	10.0
Minimum Number of Scans in Baseline:	16
Baseline Noise Rejection Factor:	2.0

Calibration

Component Type:	Target Compound

Internal Standard

ISTD Amount:	N/A
ISTD Units:	N/A

Target Compounds

Concentration of Calibration Standards

Level	Amount
1	0.500 ng/mL
2	1.000 ng/mL
3	2.500 ng/mL
4	5.000 ng/mL
5	12.500 ng/mL
6	25.000 ng/mL
7	50.000 ng/mL
8	125.000 ng/mL

Concentration of CCV Standards

Level	Amount
CCV1	2.500 ng/mL
CCV2	5.000 ng/mL
CCV3	12.500 ng/mL

OLN18 9576

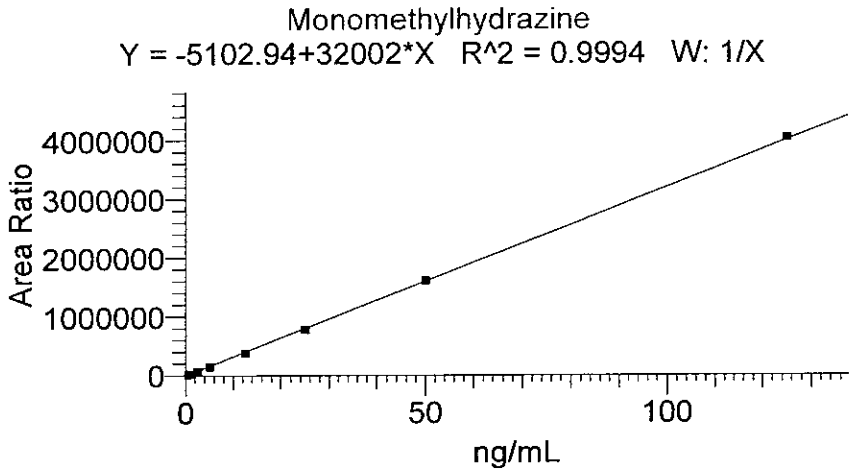
There is no signature data to report.

Lancaster Laboratories

ISTD:	
Weighting:	1/X
Origin:	IgnoreOrigin
Response:	Area
Calibration Curve:	Linear
Target Units:	ng/mL
Number of Cal. Levels:	8
Number of QC Levels:	3

Options

Calibration By:	External Standard



Sample ID	Sample Type	Level	Exclude	Integration Type	Response	Specified Conc	Units	Calc Amt	% Diff
Cal1	Standard	1	N/A	Method Settings	13776	0.500	ng/mL	0.590	17.99
Cal2	Standard	2	N/A	Method Settings	27466	1.000	ng/mL	1.018	1.77
Cal3	Standard	3	N/A	Method Settings	69806	2.500	ng/mL	2.341	-6.37
Cal4	Standard	4	N/A	Method Settings	142905	5.000	ng/mL	4.625	-7.50
Cal5	Standard	5	N/A	Method Settings	373444	12.500	ng/mL	11.829	-5.37
Cal6	Standard	6	N/A	Method Settings	775008	25.000	ng/mL	24.377	-2.49
Cal7	Standard	7	N/A	Method Settings	1610871	50.000	ng/mL	50.496	0.99
Cal8	Standard	8	N/A	Method Settings	4034344	125.000	ng/mL	126.225	0.98
Cal3asQC1a	QC	CCV1	N/A	Method Settings	77187	2.500	ng/mL	2.571	2.86
Cal4asQC2a	QC	CCV2	N/A	Method Settings	165181	5.000	ng/mL	5.321	6.42
Cal5asQC3a	QC	CCV3	N/A	Method Settings	421613	12.500	ng/mL	13.334	6.67
Cal3asQC1b	QC	CCV1	N/A	Method Settings	78414	2.500	ng/mL	2.610	4.39
Cal4asQC2b	QC	CCV2	N/A	Method Settings	165085	5.000	ng/mL	5.318	6.36

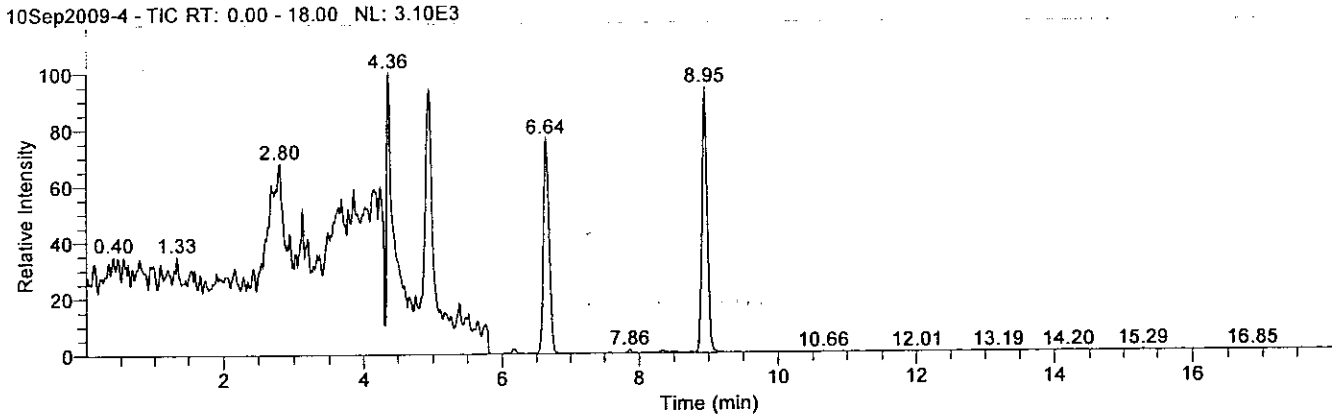
Analyst : JW 1543 9/11/2009
9/11/2 9/11/09

OLN18 8177

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Workbook Name:	TQU01408-10Sep2009-3
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	10Sep2009-4.raw
Sample ID:	Cal1
Sample Type:	Standard
Level:	1
Acquisition Date:	Thursday, September 10, 2009 7:34:41 PM
Vial:	E:8
Dilution Factor:	1.00000

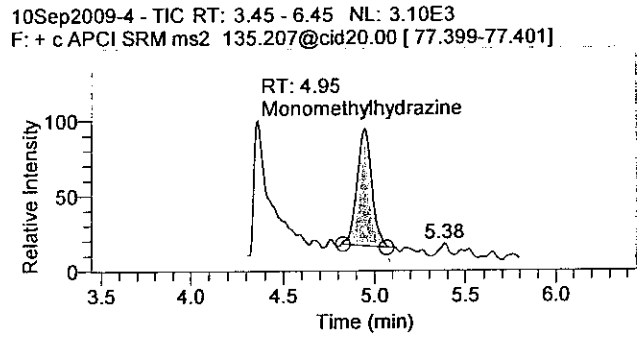
Sample Chromatogram



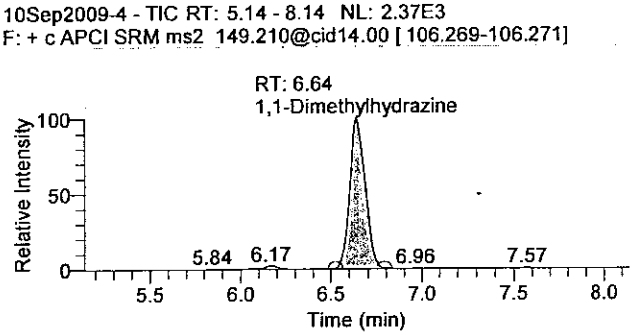
Compound Graphics

Date: 10-Sep-2009, Instrument: Quantum, Vial: E:8, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles\10Sep2009-4, Comments: , ID: Cal1

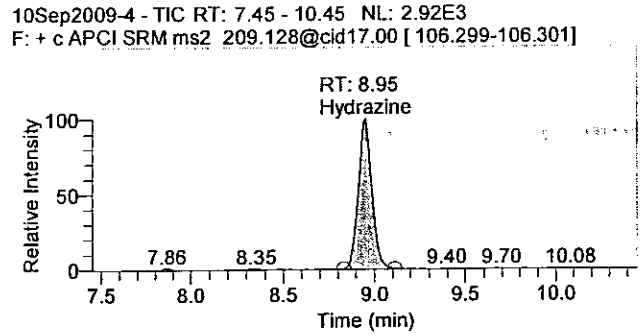
Monomethylhydrazine



1,1-Dimethylhydrazine



Hydrazine



There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal1	Method Settings	Hydrazine	8.95	15120	0.114	ng/mL
Cal1	Method Settings	1,1-Dimethylhydrazine	6.64	13677	0.564	ng/mL
Cal1	Method Settings	Monomethylhydrazine	4.95	13776	0.590	ng/mL

Analyst : JW 1543 9/11/2009

9/11/09

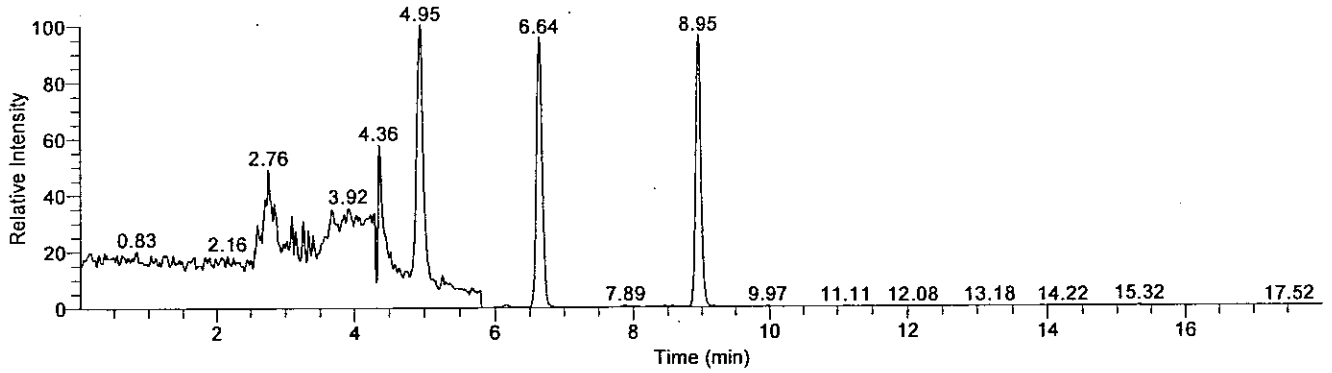
GLN18 8179

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Workbook Name:	TQU01408-10Sep2009-3
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	10Sep2009-5.raw
Sample ID:	Cal2
Sample Type:	Standard
Level:	2
Acquisition Date:	Thursday, September 10, 2009 7:53:25 PM
Vial:	E:9
Dilution Factor:	1.00000

Sample Chromatogram

10Sep2009-5 - TIC RT: 0.00 - 18.00 NL: 5.13E3

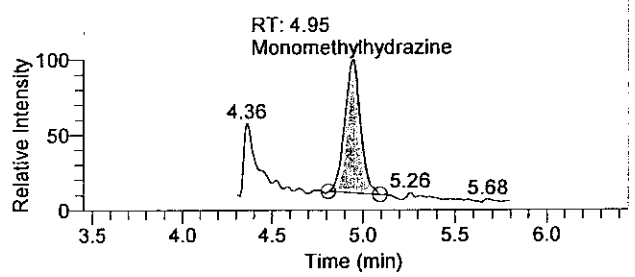


Compound Graphics

Date: 10-Sep-2009, Instrument: Quantum, Vial: E:9, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles\10Sep2009-5, Comments: , ID: Cal2

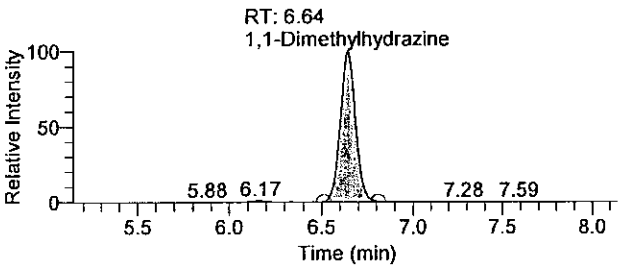
Monomethylhydrazine

10Sep2009-5 - TIC RT: 3.45 - 6.45 NL: 5.13E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



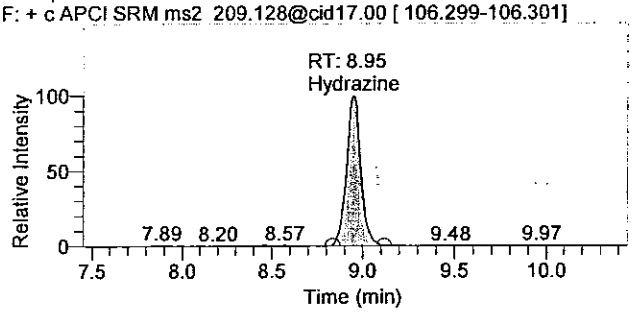
1,1-Dimethylhydrazine

10Sep2009-5 - TIC RT: 5.14 - 8.14 NL: 4.89E3
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

10Sep2009-5 - TIC RT: 7.45 - 10.45 NL: 4.92E3
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



CLM18 0186

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal2	Method Settings	Hydrazine	8.95	26987	0.205	ng/mL
Cal2	Method Settings	1,1-Dimethylhydrazine	6.64	28523	1.028	ng/mL
Cal2	Method Settings	Monomethylhydrazine	4.95	27466	1.018	ng/mL

Analyst : JW 1543 9/11/2009
9/11/09

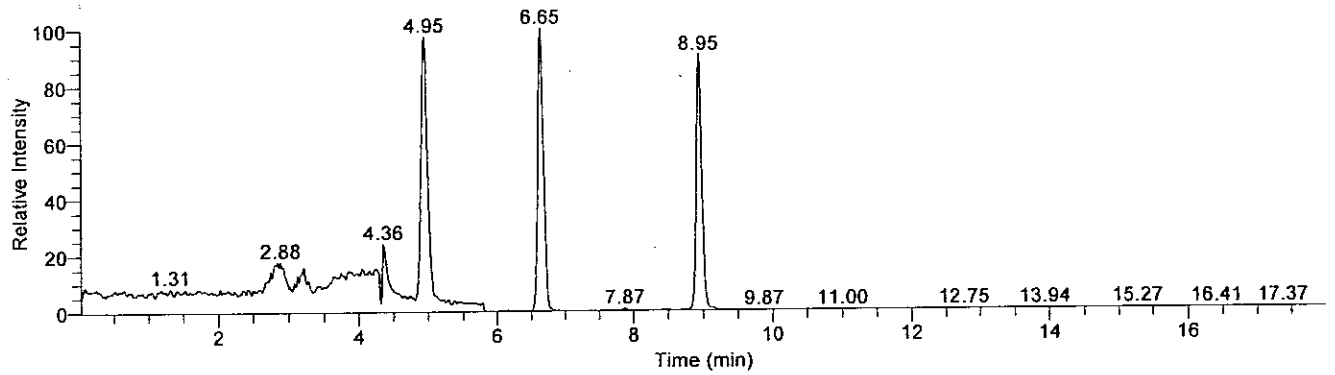
OLN18 0101

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Workbook Name:	TQU01408-10Sep2009-3
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	10Sep2009-6.raw
Sample ID:	Cal3
Sample Type:	Standard
Level:	3
Acquisition Date:	Thursday, September 10, 2009 8:12:11 PM
Vial:	E:10
Dilution Factor:	1.00000

Sample Chromatogram

10Sep2009-6 - TIC RT: 0.00 - 17.99 NL: 1.20E4

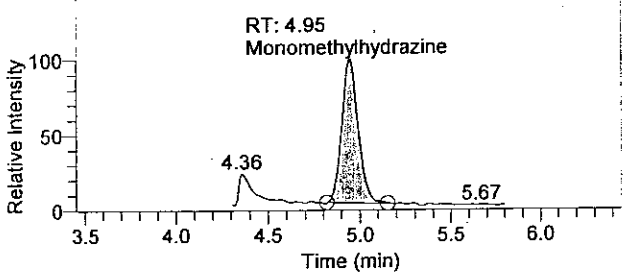


Compound Graphics

Date: 10-Sep-2009, Instrument: Quantum, Vial: E:10, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles\10Sep2009-6, Comments: , ID: Cal3

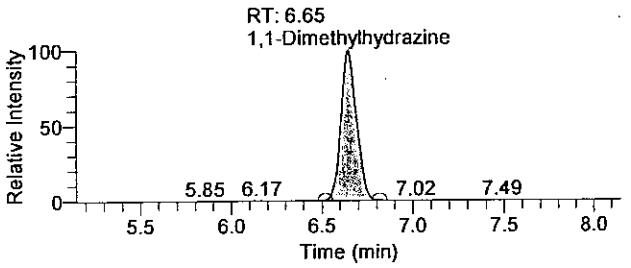
Monomethylhydrazine

10Sep2009-6 - TIC RT: 3.45 - 6.45 NL: 1.17E4
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



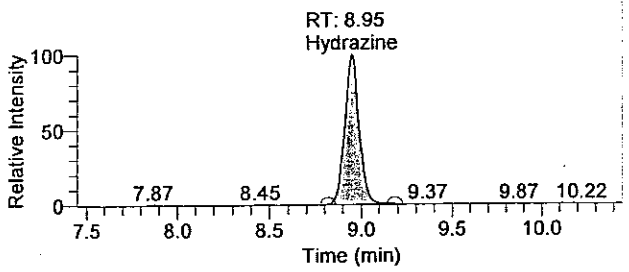
1,1-Dimethylhydrazine

10Sep2009-6 - TIC RT: 5.15 - 8.15 NL: 1.20E4
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

10Sep2009-6 - TIC RT: 7.45 - 10.45 NL: 1.08E4
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



GLN18 0182

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal3	Method Settings	Hydrazine	8.95	59953	0.458	ng/mL
Cal3	Method Settings	1,1-Dimethylhydrazine	6.65	71234	2.364	ng/mL
Cal3	Method Settings	Monomethylhydrazine	4.95	69806	2.341	ng/mL

Analyst: JW 1543 9/11/2009
9/11/09 9/11/09

OLM18 0183

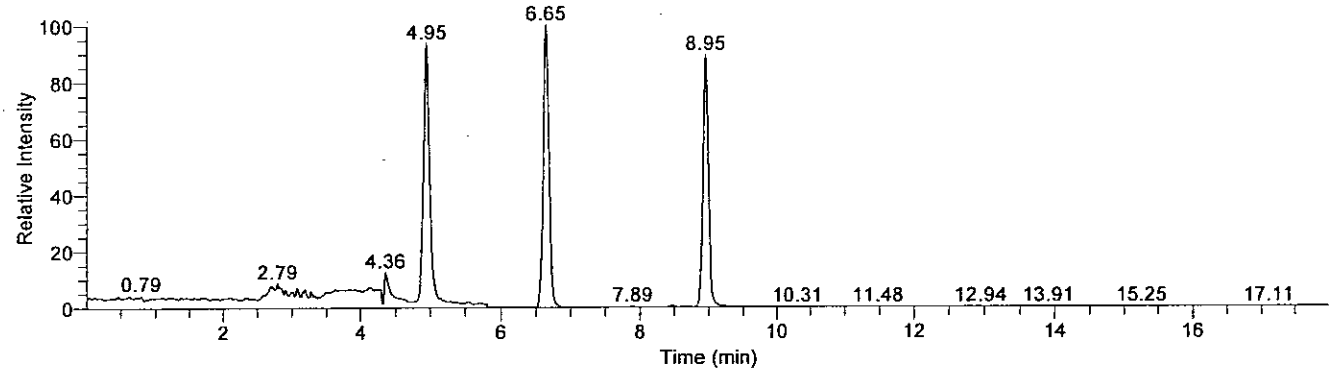
There is no signature data to report.

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Workbook Name:	TQU01408-10Sep2009-3
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	10Sep2009-7.raw
Sample ID:	Cal4
Sample Type:	Standard
Level:	4
Acquisition Date:	Thursday, September 10, 2009 8:30:55 PM
Vial:	E:11
Dilution Factor:	1.00000

Sample Chromatogram

10Sep2009-7 - TIC RT: 0.00 - 17.99 NL: 2.54E4

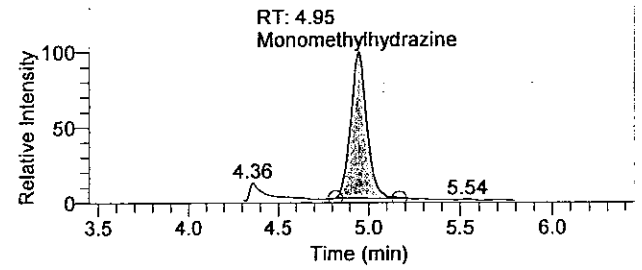


Compound Graphics

Date: 10-Sep-2009, Instrument: Quantum, Vial: E:11, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles\10Sep2009-7, Comments: , ID: Cal4

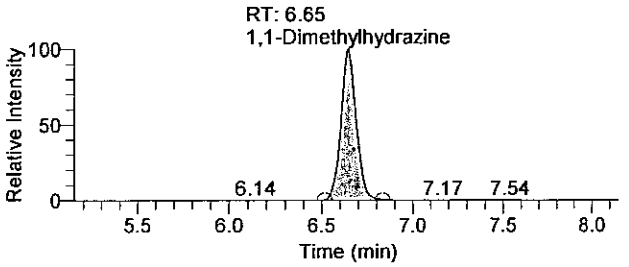
Monomethylhydrazine

10Sep2009-7 - TIC RT: 3.45 - 6.45 NL: 2.37E4
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



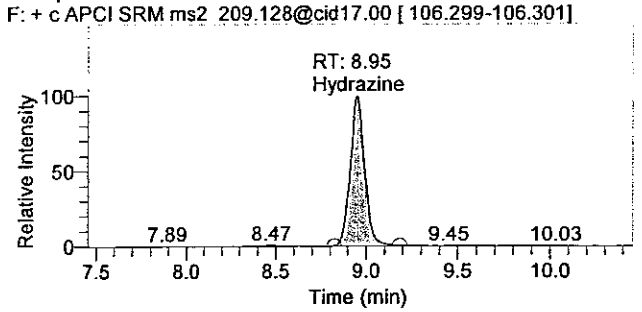
1,1-Dimethylhydrazine

10Sep2009-7 - TIC RT: 5.15 - 8.15 NL: 2.54E4
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

10Sep2009-7 - TIC RT: 7.45 - 10.45 NL: 2.27E4
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN10 0184

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal4	Method Settings	Hydrazine	8.95	124436	0.952	ng/mL
Cal4	Method Settings	1,1-Dimethylhydrazine	6.65	147261	4.741	ng/mL
Cal4	Method Settings	Monomethylhydrazine	4.95	142905	4.625	ng/mL

Analyst: JW 1543 9/11/2009
9/11/09

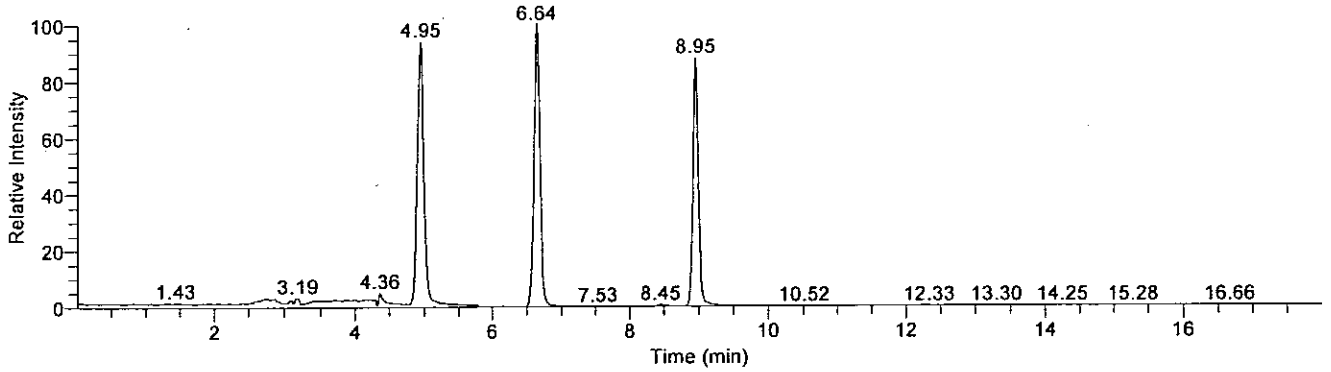
OLM18 0185

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Workbook Name:	TQU01408-10Sep2009-3
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	10Sep2009-8.raw
Sample ID:	Cal5
Sample Type:	Standard
Level:	5
Acquisition Date:	Thursday, September 10, 2009 8:49:42 PM
Vial:	E:12
Dilution Factor:	1.00000

Sample Chromatogram

10Sep2009-8 - TIC RT: 0.00 - 18.00 NL: 6.37E4

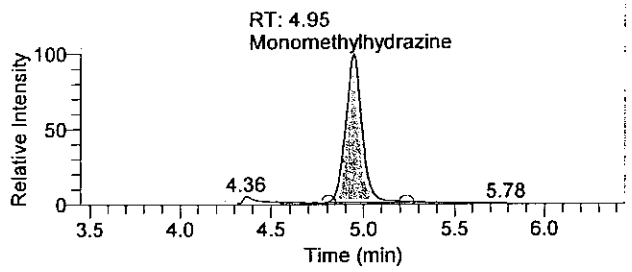


Compound Graphics

Date: 10-Sep-2009, Instrument: Quantum, Vial: E:12, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles\10Sep2009-8, Comments: , ID: Cal5

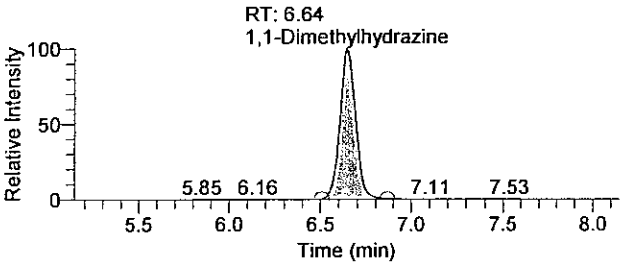
Monomethylhydrazine

10Sep2009-8 - TIC RT: 3.45 - 6.45 NL: 5.98E4
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



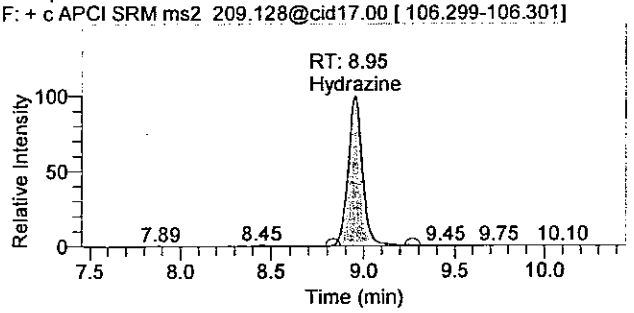
1,1-Dimethylhydrazine

10Sep2009-8 - TIC RT: 5.14 - 8.14 NL: 6.37E4
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

10Sep2009-8 - TIC RT: 7.45 - 10.45 NL: 5.60E4
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLM18 8186

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal5	Method Settings	Hydrazine	8.95	311178	2.383	ng/mL
Cal5	Method Settings	1,1-Dimethylhydrazine	6.64	378540	11.973	ng/mL
Cal5	Method Settings	Monomethylhydrazine	4.95	373444	11.829	ng/mL

Analyst: JW 1543 9/11/2009
9/11/09

OLN18 8197

There is no signature data to report.

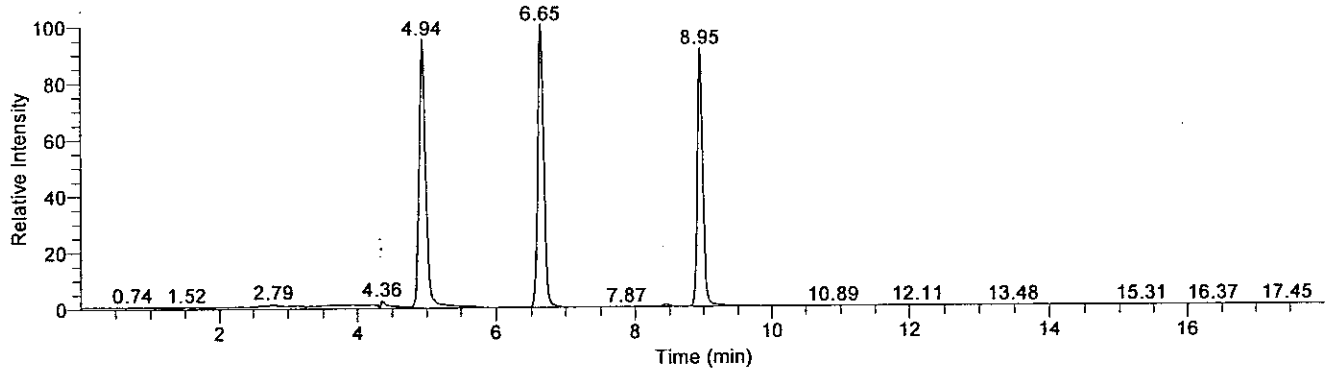
Lancaster Laboratories

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Workbook Name:	TQU01408-10Sep2009-3
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	10Sep2009-9.raw
Sample ID:	Cal6
Sample Type:	Standard
Level:	6
Acquisition Date:	Thursday, September 10, 2009 9:08:26 PM
Vial:	E:13
Dilution Factor:	1.00000

Sample Chromatogram

10Sep2009-9 - TIC RT: 0.01 - 17.99 NL: 1.29E5

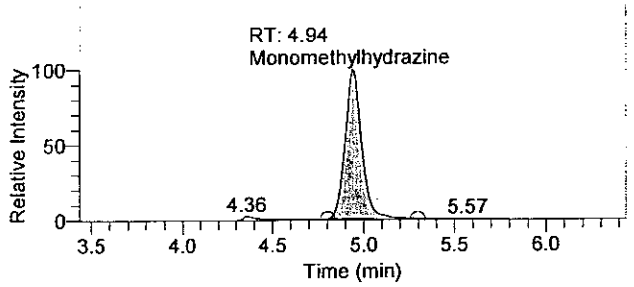


Compound Graphics

Date: 10-Sep-2009, Instrument: Quantum, Vial: E:13, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles\10Sep2009-9, Comments: , ID: Cal6

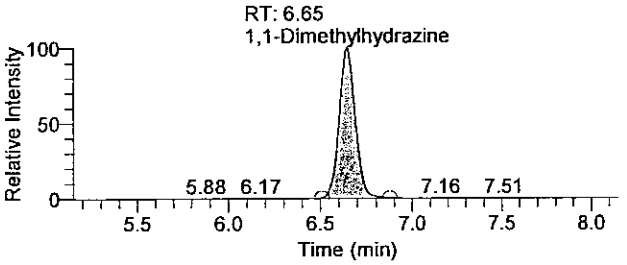
Monomethylhydrazine

10Sep2009-9 - TIC RT: 3.44 - 6.44 NL: 1.22E5
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



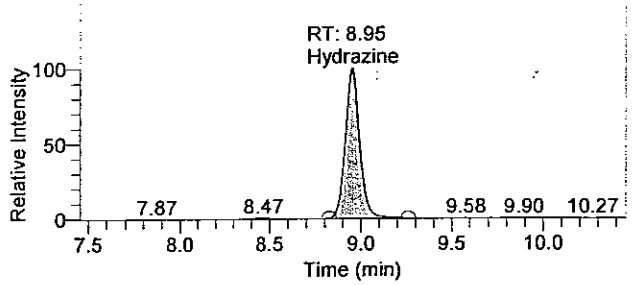
1,1-Dimethylhydrazine

10Sep2009-9 - TIC RT: 5.15 - 8.15 NL: 1.29E5
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

10Sep2009-9 - TIC RT: 7.45 - 10.45 NL: 1.17E5
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal6	Method Settings	Hydrazine	8.95	652953	5.003	ng/mL
Cal6	Method Settings	1,1-Dimethylhydrazine	6.65	777656	24.453	ng/mL
Cal6	Method Settings	Monomethylhydrazine	4.94	775008	24.377	ng/mL

Analyst: JW 1543 9/11/2009
9/11/09

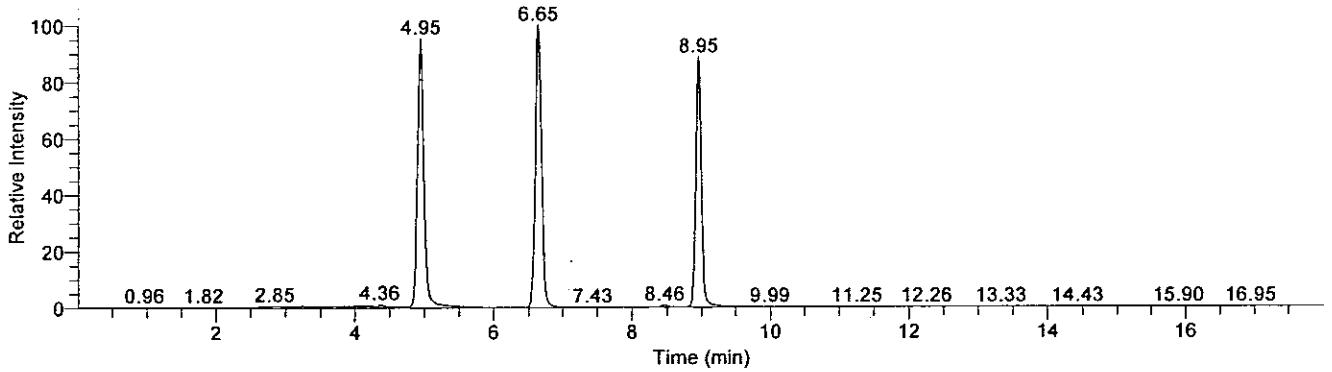
OLN18 8169

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Workbook Name:	TQU01408-10Sep2009-3
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	10Sep2009-10.raw
Sample ID:	Cal7
Sample Type:	Standard
Level:	7
Acquisition Date:	Thursday, September 10, 2009 9:27:10 PM
Vial:	E:14
Dilution Factor:	1.00000

Sample Chromatogram

10Sep2009-10 - TIC RT: 0.00 - 17.99 NL: 2.61E5

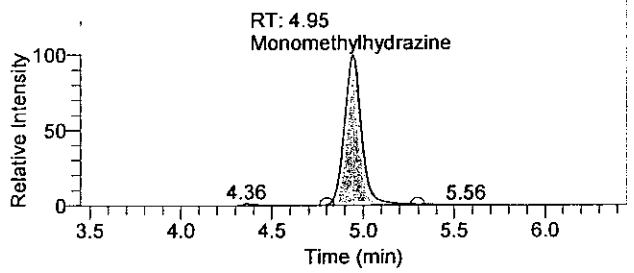


Compound Graphics

Date: 10-Sep-2009, Instrument: Quantum, Vial: E:14, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles\10Sep2009-10, Comments: , ID: Cal7

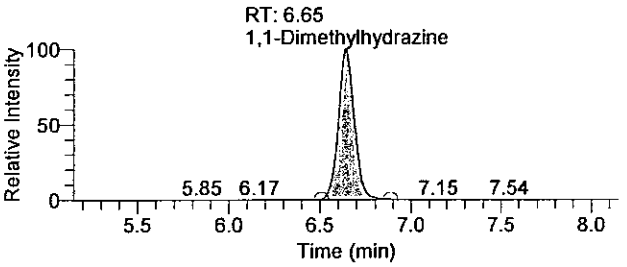
Monomethylhydrazine

10Sep2009-10 - TIC RT: 3.45 - 6.45 NL: 2.49E5
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



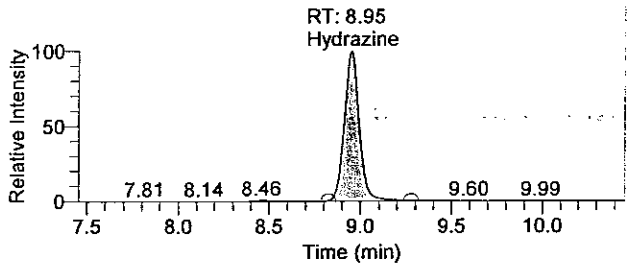
1,1-Dimethylhydrazine

10Sep2009-10 - TIC RT: 5.15 - 8.15 NL: 2.61E5
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

10Sep2009-10 - TIC RT: 7.45 - 10.45 NL: 2.31E5
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 0196

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal7	Method Settings	Hydrazine	8.95	1313640	10.067	ng/mL
Cal7	Method Settings	1,1-Dimethylhydrazine	6.65	1603389	50.274	ng/mL
Cal7	Method Settings	Monomethylhydrazine	4.95	1610871	50.496	ng/mL

Analyst: JW 1543 9/11/2009

9/11/09

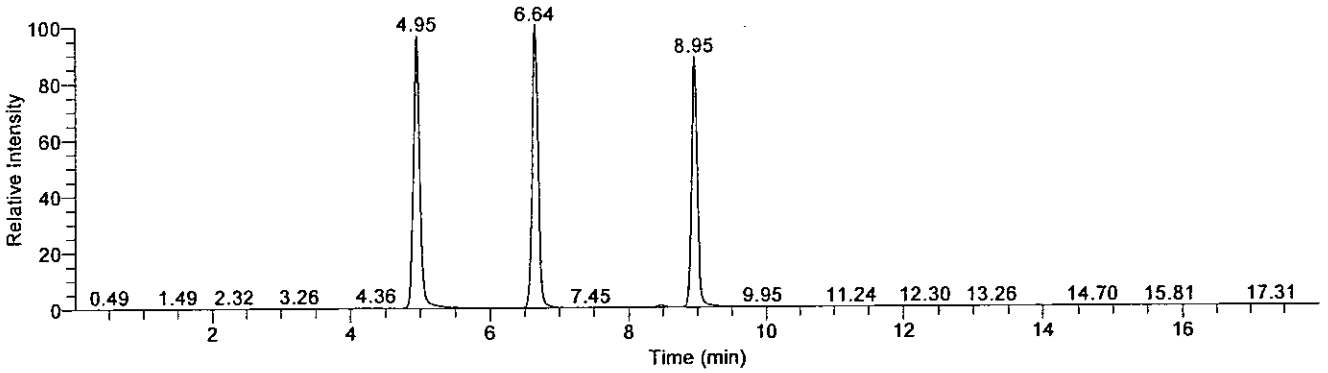
GLN18 8191

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Workbook Name:	TQU01408-10Sep2009-3
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	10Sep2009-11.raw
Sample ID:	Cal8
Sample Type:	Standard
Level:	8
Acquisition Date:	Thursday, September 10, 2009 9:45:56 PM
Vial:	E:15
Dilution Factor:	1.00000

Sample Chromatogram

10Sep2009-11 - TIC RT: 0.00 - 17.99 NL: 6.55E5

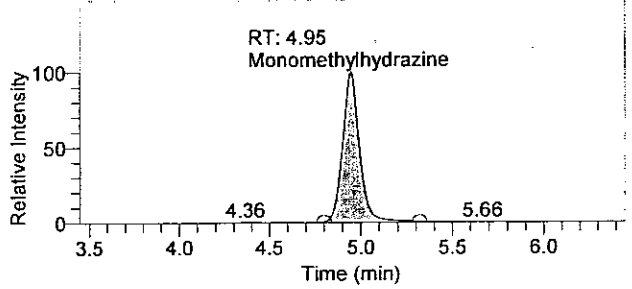


Compound Graphics

Date: 10-Sep-2009, Instrument: Quantum, Vial: E:15, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles\10Sep2009-11, Comments: , ID: Cal8

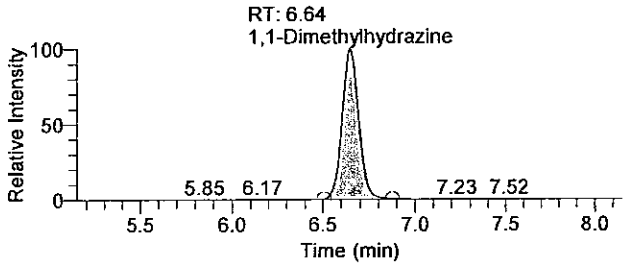
Monomethylhydrazine

10Sep2009-11 - TIC RT: 3.45 - 6.45 NL: 6.34E5
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



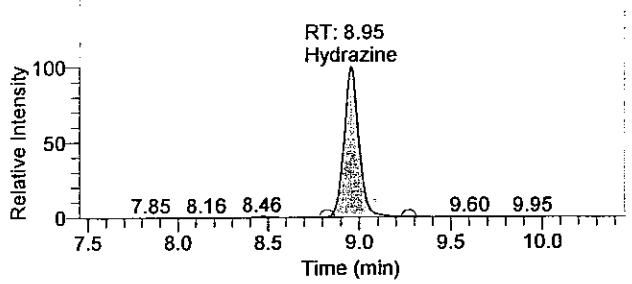
1,1-Dimethylhydrazine

10Sep2009-11 - TIC RT: 5.14 - 8.14 NL: 6.55E5
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

10Sep2009-11 - TIC RT: 7.45 - 10.45 NL: 5.79E5
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 9192

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal8	Method Settings	Hydrazine	8.95	3277070	25.117	ng/mL
Cal8	Method Settings	1,1-Dimethylhydrazine	6.64	4028402	126.103	ng/mL
Cal8	Method Settings	Monomethylhydrazine	4.95	4034344	126.225	ng/mL

Analyst : JW 1543 9/11/2009
[illegible] 9/11/09

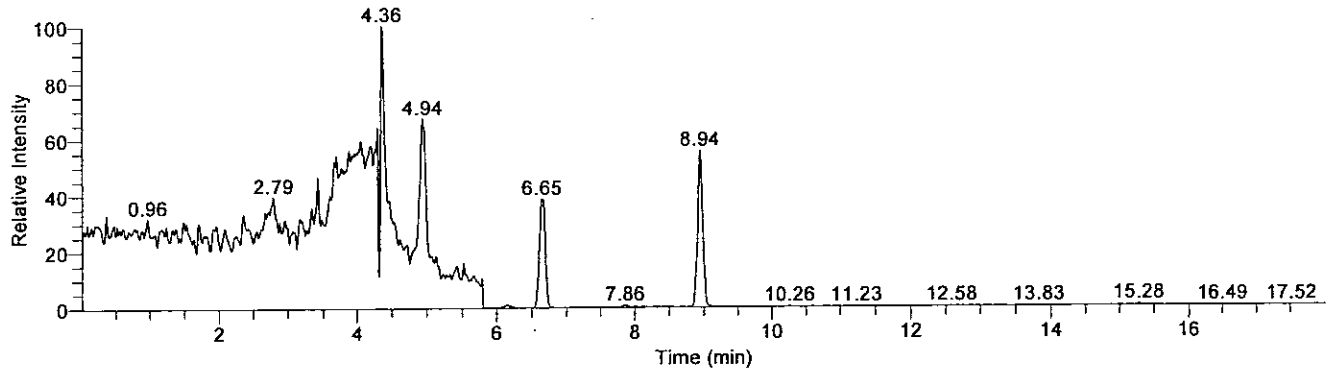
OLN10 8193

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Workbook Name:	TQU01408-10Sep2009-3
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	10Sep2009-3.raw
Sample ID:	MDL
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Thursday, September 10, 2009 7:15:59 PM
Vial:	E:7
Dilution Factor:	1.00000

Sample Chromatogram

10Sep2009-3 - TIC RT: 0.00 - 18.00 NL: 3.01E3

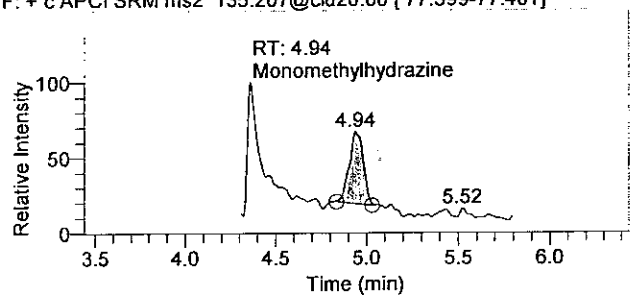


Compound Graphics

Date: 10-Sep-2009, Instrument: Quantum, Vial: E:7, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles\10Sep2009-3, Comments: , ID: MDL

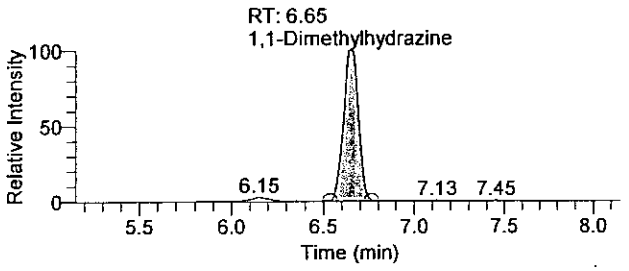
Monomethylhydrazine

10Sep2009-3 - TIC RT: 3.44 - 6.44 NL: 3.01E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



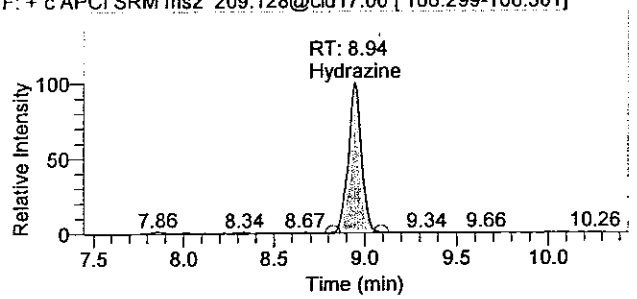
1,1-Dimethylhydrazine

10Sep2009-3 - TIC RT: 5.15 - 8.15 NL: 1.16E3
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

10Sep2009-3 - TIC RT: 7.44 - 10.44 NL: 1.68E3
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 B134

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
MDL	Method Settings	Hydrazine	8.94	8471	0.063	ng/mL
MDL	Method Settings	1,1-Dimethylhydrazine	6.65	6640	0.344	ng/mL
MDL	Method Settings	Monomethylhydrazine	4.94	7880	0.406	ng/mL

Analyst: JW 1543 9/11/2009

There is no signature data to report.

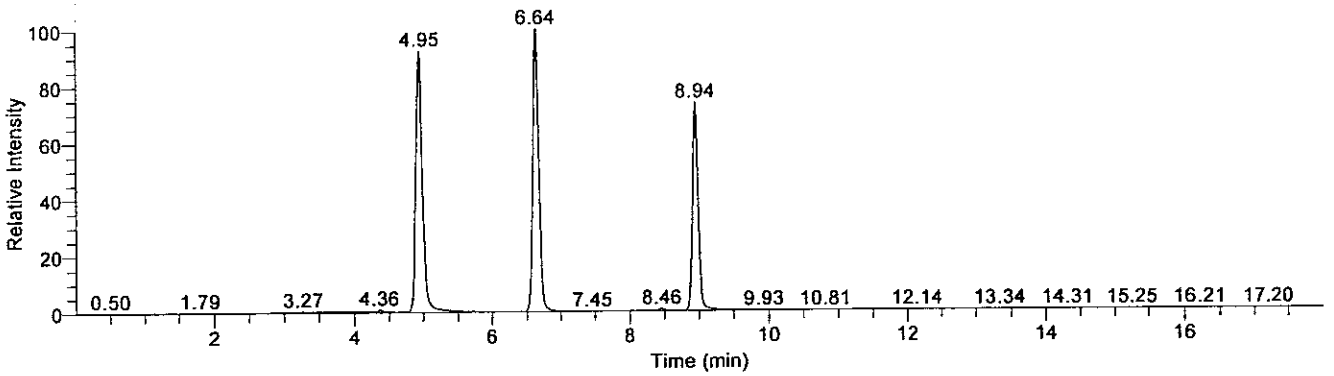
Lancaster Laboratories

Printed: Friday, September 11, 2009, 10:25:07
Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Workbook Name:	TQU01408-10Sep2009-3
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	10Sep2009-23.raw
Sample ID:	ICV
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Friday, September 11, 2009 1:30:44 AM
Vial:	E:23
Dilution Factor:	1.00000

Sample Chromatogram

10Sep2009-23 - TIC RT: 0.00 - 17.99 NL: 3.83E5

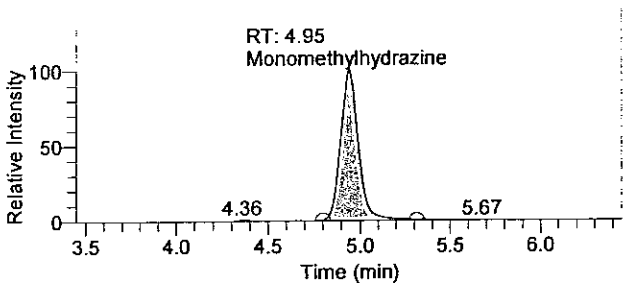


Compound Graphics

Date: 11-Sep-2009, Instrument: Quantum, Vial: E:23, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles\10Sep2009-23, Comments: , ID: ICV

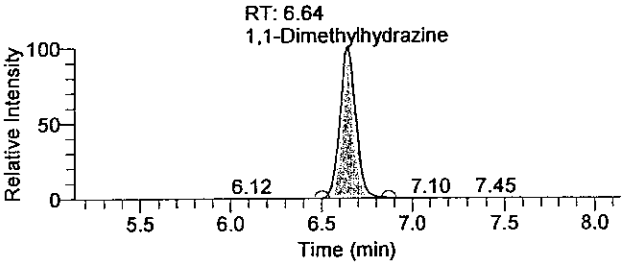
Monomethylhydrazine

10Sep2009-23 - TIC RT: 3.45 - 6.45 NL: 3.54E5
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



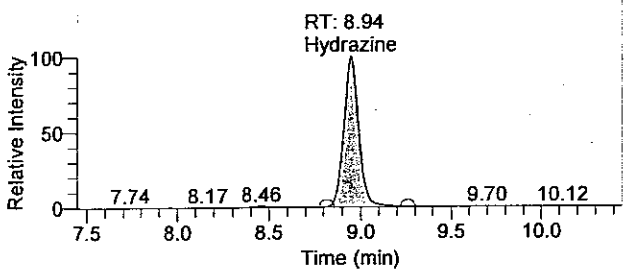
1,1-Dimethylhydrazine

10Sep2009-23 - TIC RT: 5.14 - 8.14 NL: 3.83E5
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

10Sep2009-23 - TIC RT: 7.44 - 10.44 NL: 2.81E5
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLM18 8196

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
ICV	Method Settings	Hydrazine	8.94	1584757	12.145	ng/mL
ICV	Method Settings	1,1-Dimethylhydrazine	6.64	2343538	73.418	ng/mL
ICV	Method Settings	Monomethylhydrazine	4.95	2340916	73.309	ng/mL

Analyst: JW 1543 9/11/2009

9/11/09

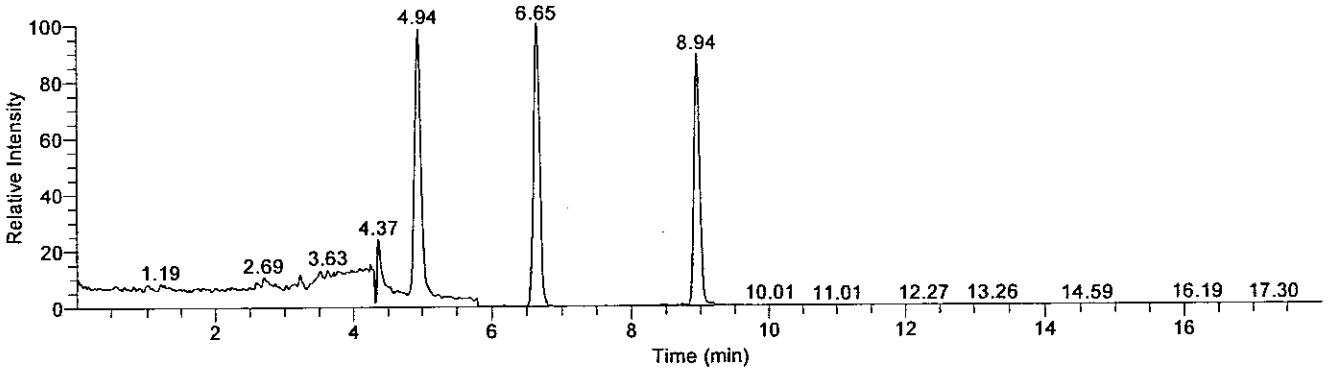
OLN18 0297

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Workbook Name:	TQU01408-10Sep2009-3
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	10Sep2009-13.raw
Sample ID:	Cal3asQC1a
Sample Type:	QC
Level:	CCV1
Acquisition Date:	Thursday, September 10, 2009 10:23:21 PM
Vial:	E:10
Dilution Factor:	1.00000

Sample Chromatogram

10Sep2009-13 - TIC RT: 0.00 - 17.99 NL: 1.29E4

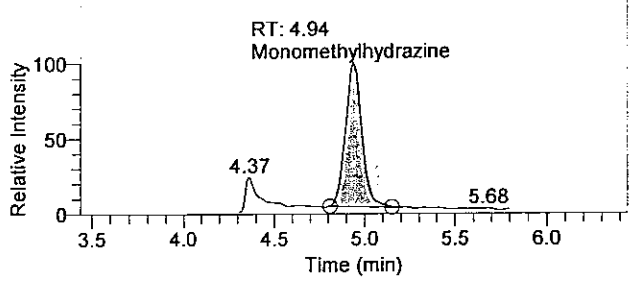


Compound Graphics

Date: 10-Sep-2009, Instrument: Quantum, Vial: E:10, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles\10Sep2009-13, Comments: , ID: Cal3asQC1a

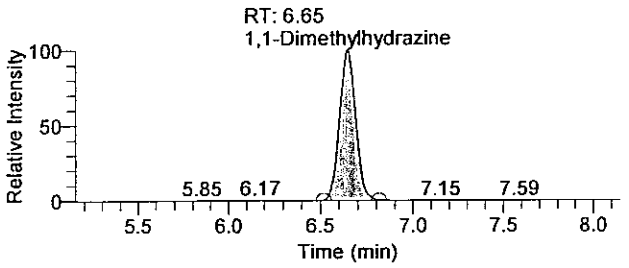
Monomethylhydrazine

10Sep2009-13 - TIC RT: 3.44 - 6.44 NL: 1.27E4
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



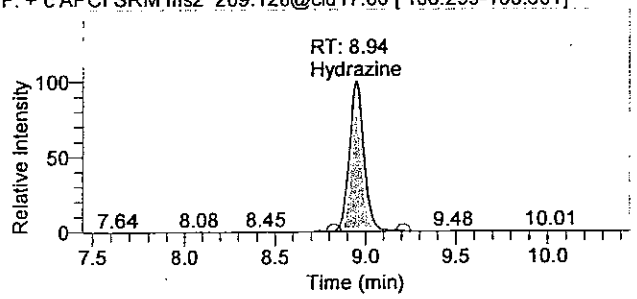
1,1-Dimethylhydrazine

10Sep2009-13 - TIC RT: 5.15 - 8.15 NL: 1.29E4
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

10Sep2009-13 - TIC RT: 7.44 - 10.44 NL: 1.15E4
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal3asQC1a	Method Settings	Hydrazine	8.94	65003	0.496	ng/mL
Cal3asQC1a	Method Settings	1,1-Dimethylhydrazine	6.65	77854	2.571	ng/mL
Cal3asQC1a	Method Settings	Monomethylhydrazine	4.94	77187	2.571	ng/mL

Analyst: JW 1543 9/11/2009
9/11/09

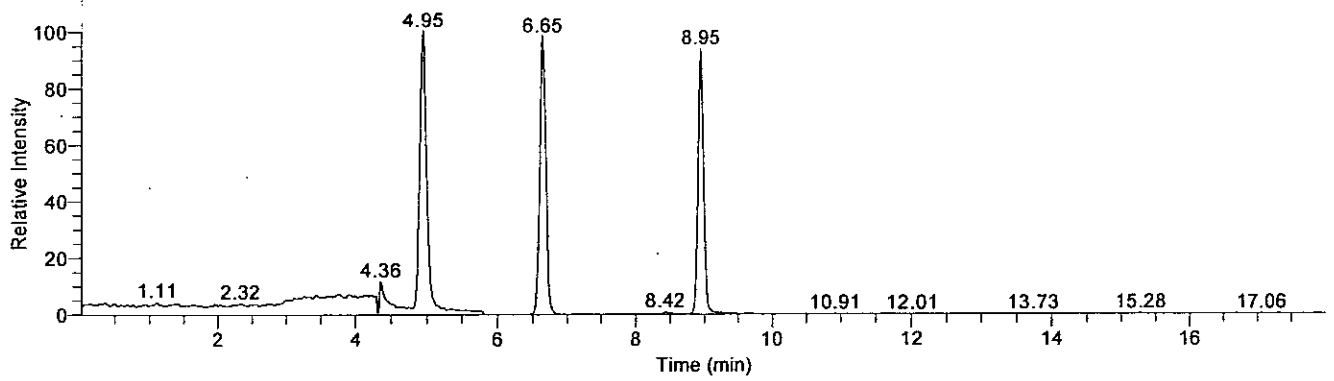
OLN12 9199

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Workbook Name:	TQU01408-10Sep2009-3
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	10Sep2009-24.raw
Sample ID:	Cal4asQC2a
Sample Type:	QC
Level:	CCV2
Acquisition Date:	Friday, September 11, 2009 1:49:28 AM
Vial:	E:11
Dilution Factor:	1.00000

Sample Chromatogram

10Sep2009-24 - TIC RT: 0.00 - 17.99 NL: 2.63E4

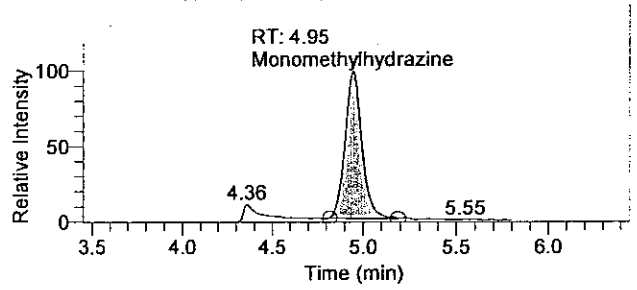


Compound Graphics

Date: 11-Sep-2009, Instrument: Quantum, Vial: E:11, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles\10Sep2009-24, Comments: , ID: Cal4asQC2a

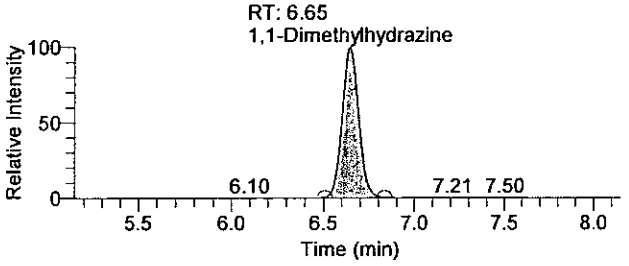
Monomethylhydrazine

10Sep2009-24 - TIC RT: 3.45 - 6.45 NL: 2.63E4
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



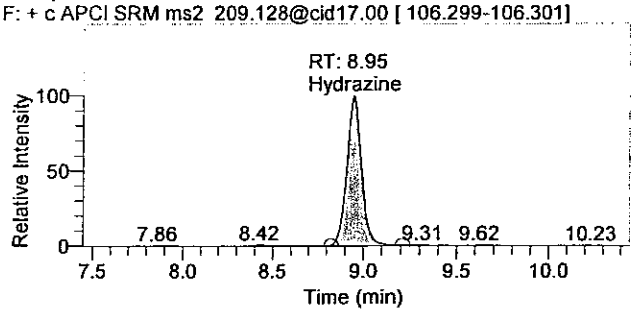
1,1-Dimethylhydrazine

10Sep2009-24 - TIC RT: 5.15 - 8.15 NL: 2.58E4
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

10Sep2009-24 - TIC RT: 7.45 - 10.45 NL: 2.46E4
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



01N18 0200

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal4asQC2a	Method Settings	Hydrazine	8.95	135875	1.040	ng/mL
Cal4asQC2a	Method Settings	1,1-Dimethylhydrazine	6.65	161008	5.171	ng/mL
Cal4asQC2a	Method Settings	Monomethylhydrazine	4.95	165181	5.321	ng/mL

Analyst: JW 1543 9/11/2009
9/11/09

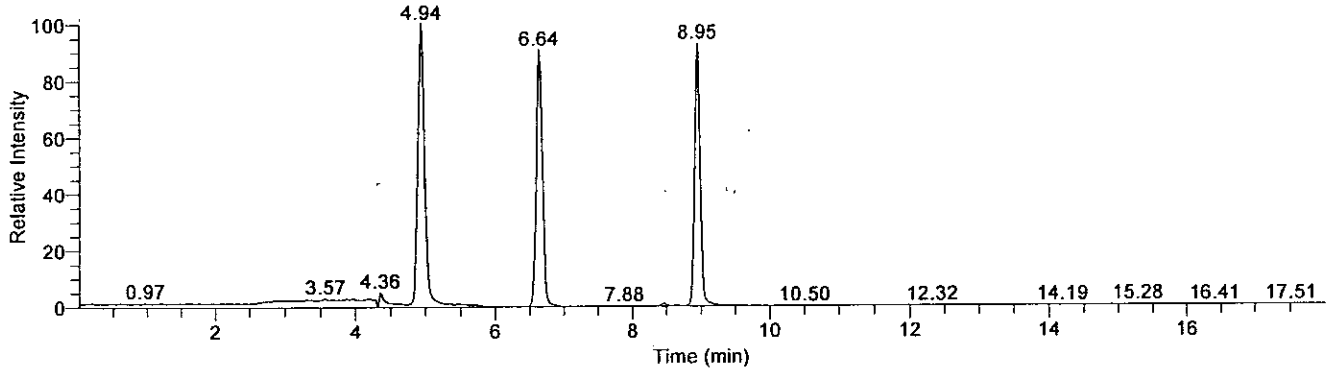
GLN18 9281

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Workbook Name:	TQU01408-10Sep2009-3
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	N/A
Data File:	10Sep2009-33.raw
Sample ID:	Cal5asQC3a
Sample Type:	QC
Level:	CCV3
Acquisition Date:	Friday, September 11, 2009 4:38:10 AM
Vial:	E:12
Dilution Factor:	1.00000

Sample Chromatogram

10Sep2009-33 - TIC RT: 0.00 - 17.99 NL: 6.59E4

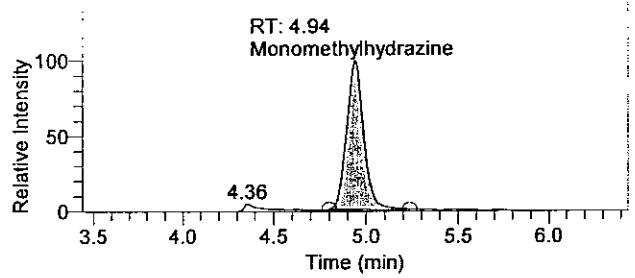


Compound Graphics

Date: 11-Sep-2009, Instrument: Quantum, Vial: E:12, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles\10Sep2009-33, Comments: , ID: Cal5asQC3a

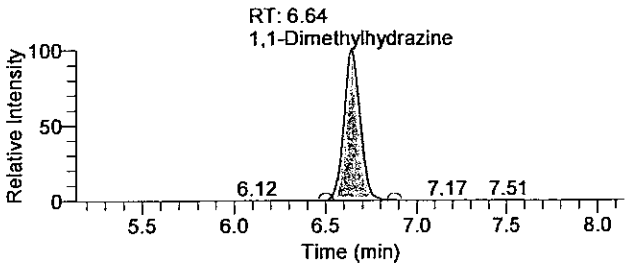
Monomethylhydrazine

10Sep2009-33 - TIC RT: 3.44 - 6.44 NL: 6.59E4
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



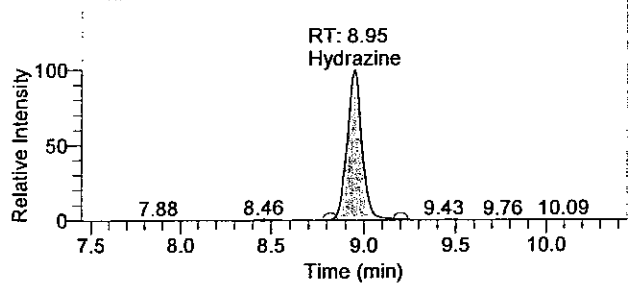
1,1-Dimethylhydrazine

10Sep2009-33 - TIC RT: 5.14 - 8.14 NL: 5.97E4
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

10Sep2009-33 - TIC RT: 7.45 - 10.45 NL: 6.12E4
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



01N18 8282

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Cal5asQC3a	Method Settings	Hydrazine	8.95	344666	2.640	ng/mL
Cal5asQC3a	Method Settings	1,1-Dimethylhydrazine	6.64	371248	11.745	ng/mL
Cal5asQC3a	Method Settings	Monomethylhydrazine	4.94	421613	13.334	ng/mL

Analyst: JW 1543 9/11/2009
[illegible] 9/11/09

OLN18 8283

There is no signature data to report.

Raw QC Data

Lancaster Laboratories

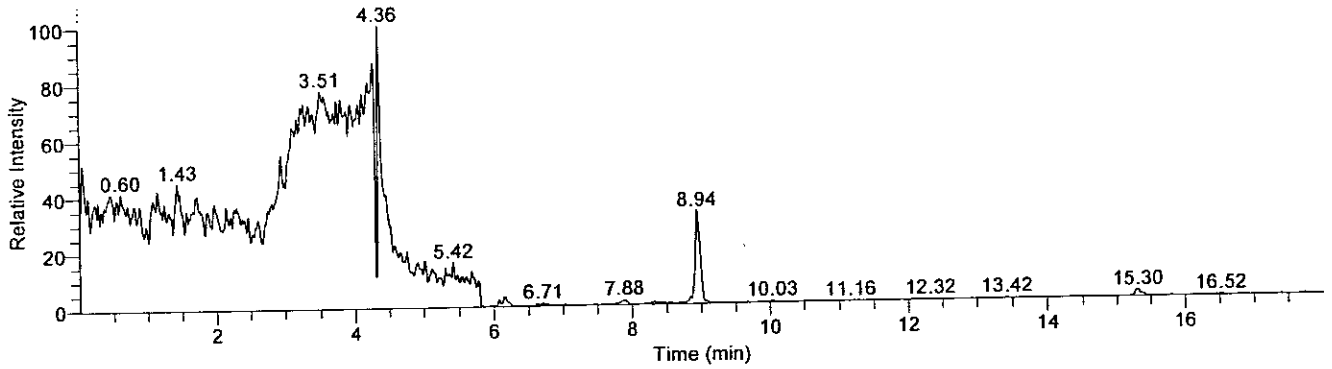
Printed: Friday, September 04, 2009, 08:42:51

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0924610610801
Data File:	03Sep2009-16.raw
Sample ID:	Blank
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Thursday, September 03, 2009 9:08:25 PM
Vial:	E:17
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-16 - TIC RT: 0.01 - 17.99 NL: 2.16E3

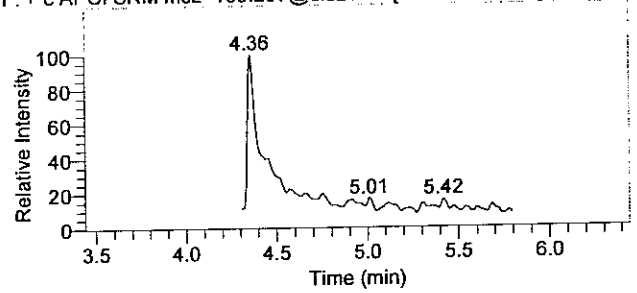


Compound Graphics

Date: 03-Sep-2009, Instrument: Quantum, Vial: E:17, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-16, Comments: Soil prep, ID: Blank

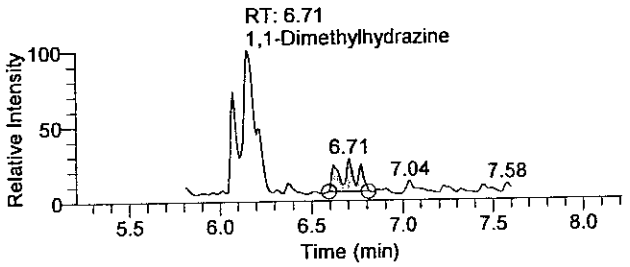
Monomethylhydrazine

03Sep2009-16 - TIC RT: 3.44 - 6.44 NL: 2.16E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



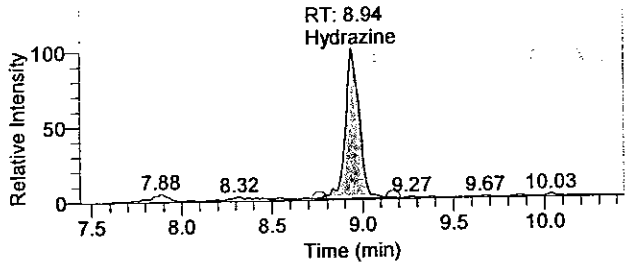
1,1-Dimethylhydrazine

03Sep2009-16 - TIC RT: 5.21 - 8.21 NL: 7.55E1
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-16 - TIC RT: 7.44 - 10.44 NL: 7.09E2
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN1D 8285

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Blank	Method Settings	Hydrazine	8.94	3824	0.019	ng/mL
Blank	Method Settings	1,1-Dimethylhydrazine	6.71	104	0.082	ng/mL
Blank	Method Settings	Monomethylhydrazine	N/A	NF	NC	ng/mL

Analyst : JW 1543 9/4/2009
[illegible] 9/9/09

OLM18 0286

There is no signature data to report.

Lancaster Laboratories

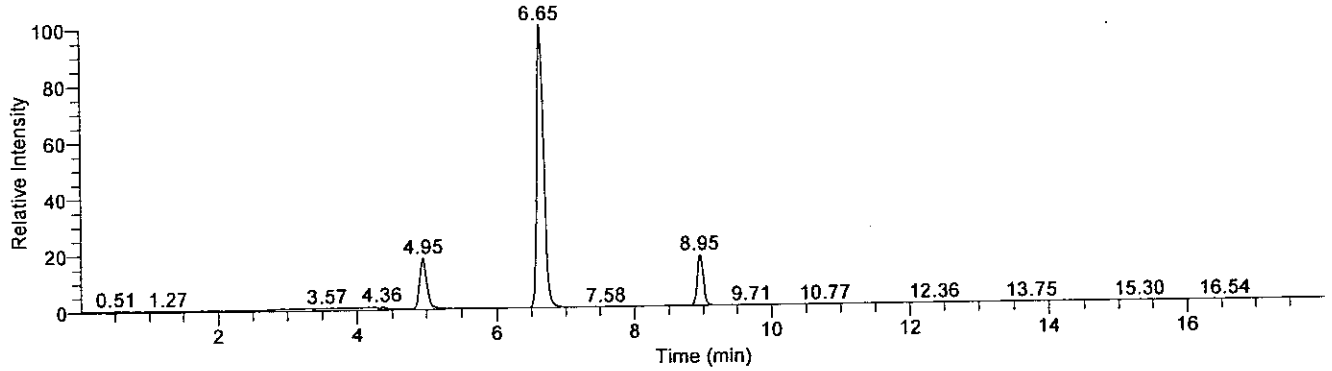
Printed: Friday, September 04, 2009, 08:42:52

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0924610610801
Data File:	03Sep2009-19.raw
Sample ID:	5763111MS
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Thursday, September 03, 2009 10:04:40 PM
Vial:	E:20
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-19 - TIC RT: 0.01 - 17.99 NL: 1.97E5

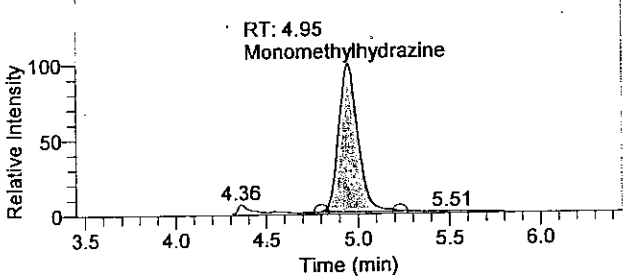


Compound Graphics

Date: 03-Sep-2009, Instrument: Quantum, Vial: E:20, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-19, Comments: Soil prep, ID: 5763111MS

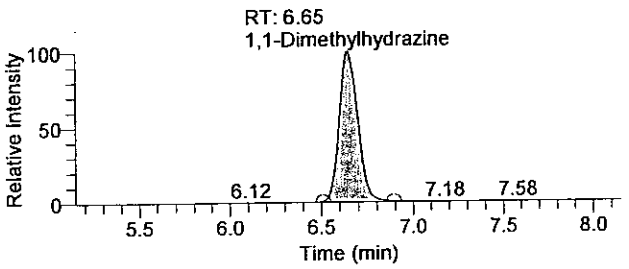
Monomethylhydrazine

03Sep2009-19 - TIC RT: 3.45 - 6.45 NL: 3.55E4
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



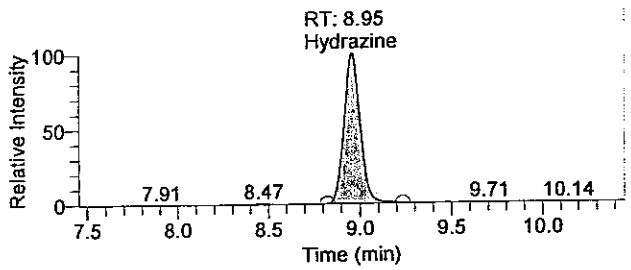
1,1-Dimethylhydrazine

03Sep2009-19 - TIC RT: 5.15 - 8.15 NL: 1.97E5
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-19 - TIC RT: 7.45 - 10.45 NL: 3.55E4
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
5763111MS	Method Settings	Hydrazine	8.95	217062	1.610	ng/mL
5763111MS	Method Settings	1,1-Dimethylhydrazine	6.65	1366107	37.239	ng/mL
5763111MS	Method Settings	Monomethylhydrazine	4.95	252982	6.830	ng/mL

Analyst : JW 1543 9/4/2009
9/4/09

OLN18 8280

There is no signature data to report.

Lancaster Laboratories

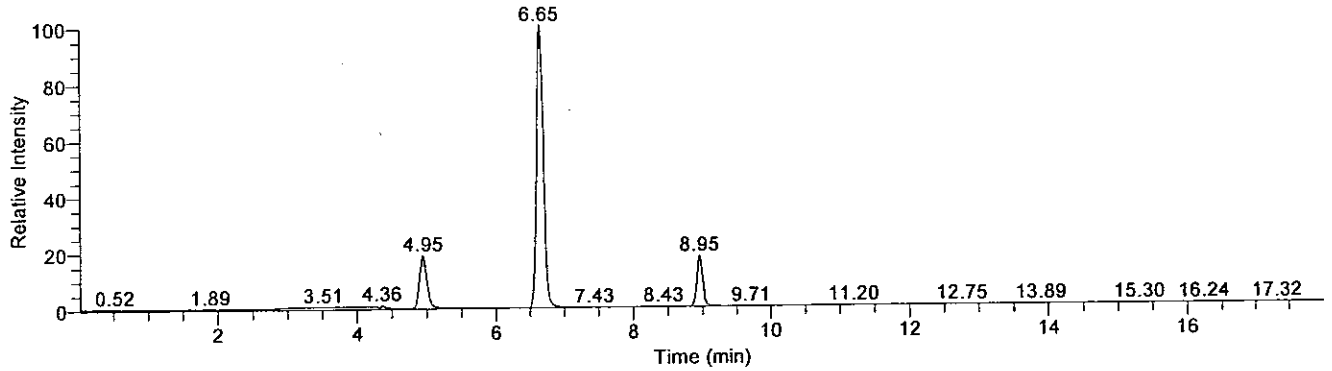
Printed: Friday, September 04, 2009, 08:42:52

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0924610610801
Data File:	03Sep2009-20.raw
Sample ID:	~~5763112MDS~~ 5763112MSD
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Thursday, September 03, 2009 10:23:26 PM
Vial:	E:21
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-20 - TIC RT: 0.00 - 17.99 NL: 1.87E5

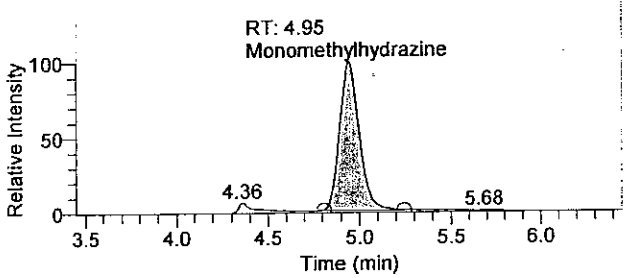


Compound Graphics

Date: 03-Sep-2009, Instrument: Quantum, Vial: E:21, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-20, Comments: Soil prep, ID: 5763112MDS

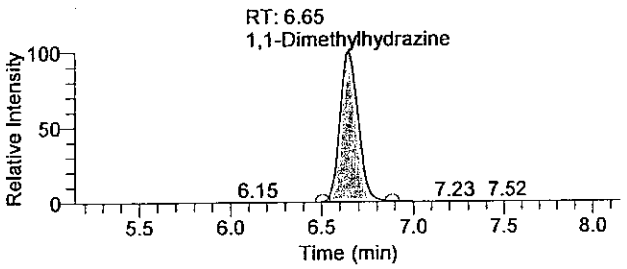
Monomethylhydrazine

03Sep2009-20 - TIC RT: 3.45 - 6.45 NL: 3.53E4
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



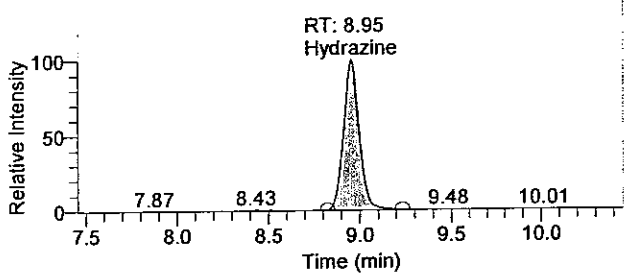
1,1-Dimethylhydrazine

03Sep2009-20 - TIC RT: 5.15 - 8.15 NL: 1.87E5
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-20 - TIC RT: 7.45 - 10.45 NL: 3.35E4
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



01M18 6289

There is no signature data to report.

Quantitation Results

	Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
163112 MSD	~~5763112MDS~~ ③ JW phillip	Method Settings	Hydrazine	8.95	197125	1.461	ng/mL
163112 MSD	~~5763112MDS~~ ③ JW	Method Settings	1,1-Dimethylhydrazine	6.65	1288661	35.132	ng/mL
163112 MSD	5~~763112MDS~~ phillip	Method Settings	Monomethylhydrazine	4.95	255777	6.904	ng/mL
	③ JW phillip						

Analyst: JW 1543 9/4/2009

9/4/09

OLN18 B21B

There is no signature data to report.

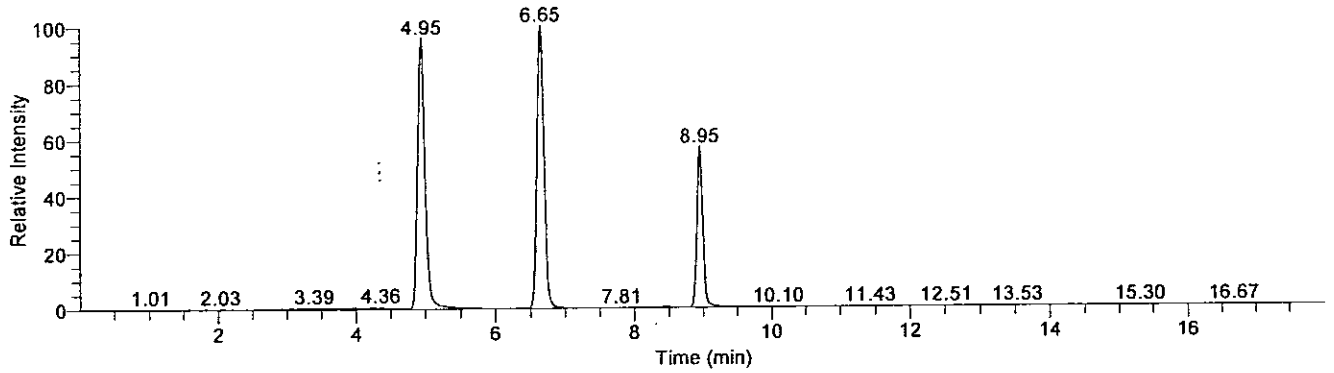
Lancaster Laboratories

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0924610610801
Data File:	03Sep2009-21.raw
Sample ID:	LCS
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Thursday, September 03, 2009 10:42:10 PM
Vial:	E:22
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-21 - TIC RT: 0.00 - 18.00 NL: 3.65E5

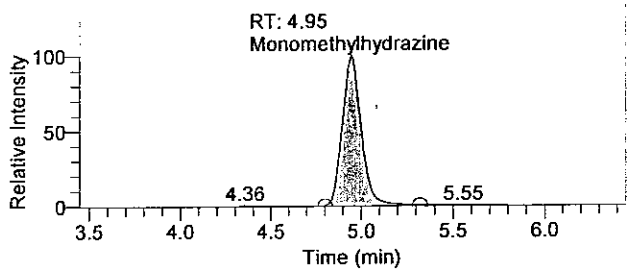


Compound Graphics

Date: 03-Sep-2009, Instrument: Quantum, Vial: E:22, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-21, Comments: Soil prep, ID: LCS

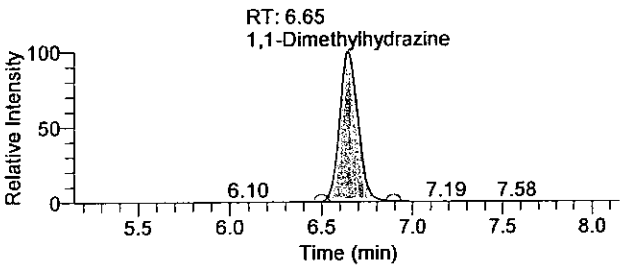
Monomethylhydrazine

03Sep2009-21 - TIC RT: 3.45 - 6.45 NL: 3.49E5
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



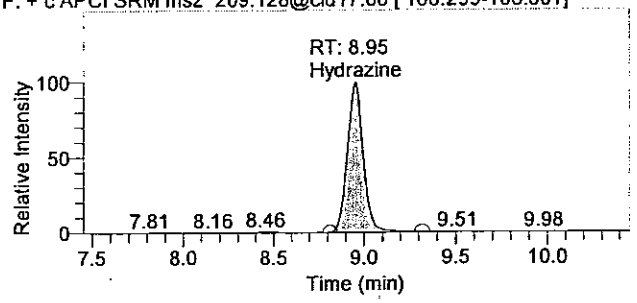
1,1-Dimethylhydrazine

03Sep2009-21 - TIC RT: 5.15 - 8.15 NL: 3.65E5
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-21 - TIC RT: 7.45 - 10.45 NL: 2.07E5
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLM18 0211

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
LCS	Method Settings	Hydrazine	8.95	1262777	9.410	ng/mL
LCS	Method Settings	1,1-Dimethylhydrazine	6.65	2547394	69.371	ng/mL
LCS	Method Settings	Monomethylhydrazine	4.95	2532000	67.727	ng/mL

Analyst : JW 1543 9/4/2009

9/4/09

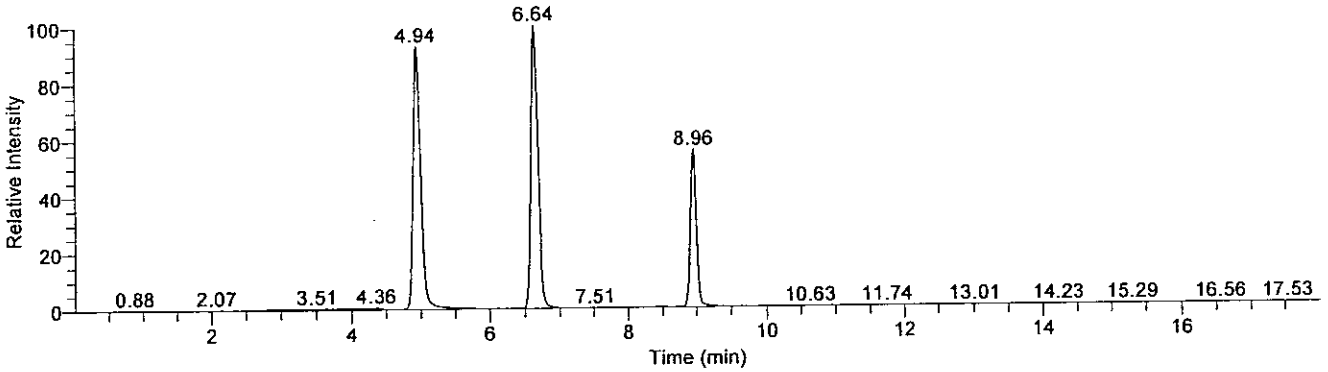
OLN18 8212

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1
Workbook Name:	TQU01408-03Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0924610610801
Data File:	03Sep2009-22.raw
Sample ID:	LCSD
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Thursday, September 03, 2009 11:00:52 PM
Vial:	E:23
Dilution Factor:	1.00000

Sample Chromatogram

03Sep2009-22 - TIC RT: 0.00 - 18.00 NL: 3.75E5

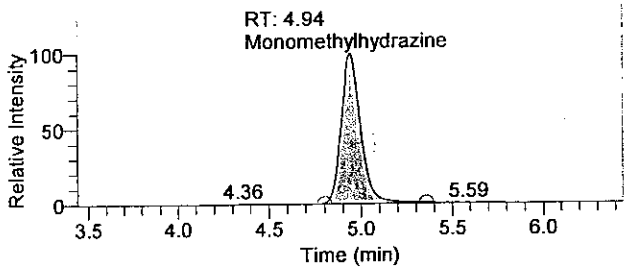


Compound Graphics

Date: 03-Sep-2009, Instrument: Quantum, Vial: E:23, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-03Sep2009-1\Rawfiles\03Sep2009-22, Comments: Soil prep, ID: LCSD

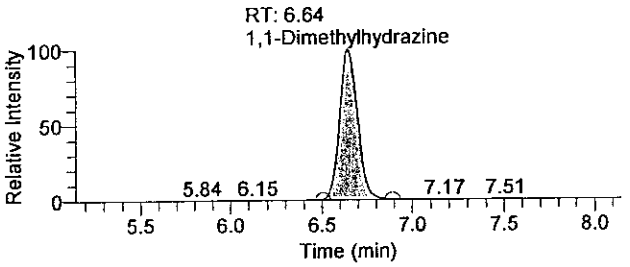
Monomethylhydrazine

03Sep2009-22 - TIC RT: 3.44 - 6.44 NL: 3.48E5
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



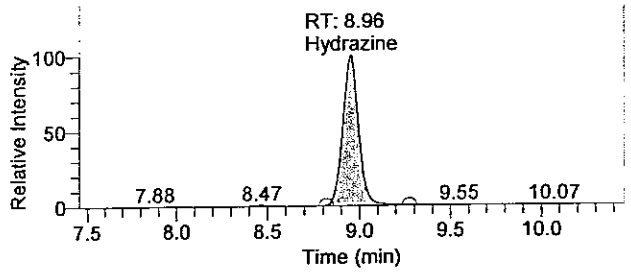
1,1-Dimethylhydrazine

03Sep2009-22 - TIC RT: 5.14 - 8.14 NL: 3.75E5
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

03Sep2009-22 - TIC RT: 7.46 - 10.46 NL: 2.08E5
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN10 0213

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
LCSD	Method Settings	Hydrazine	8.96	1268660	9.454	ng/mL
LCSD	Method Settings	1,1-Dimethylhydrazine	6.64	2589763	70.523	ng/mL
LCSD	Method Settings	Monomethylhydrazine	4.94	2566076	68.637	ng/mL

Analyst: JW 1543 9/4/2009
[illegible] 9/8/09

OLM19 8214

There is no signature data to report.

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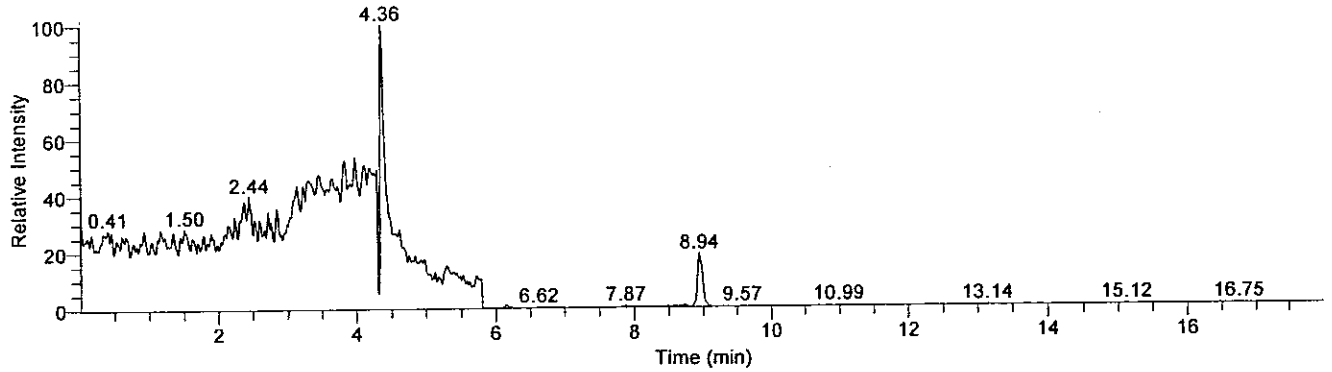
Printed: Wednesday, September 09, 2009, 10:40:33

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Workbook Name:	TQU01408-08Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0925110610808
Data File:	08Sep2009-16.raw
Sample ID:	Blank
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Tuesday, September 08, 2009 7:00:03 PM
Vial:	D:10
Dilution Factor:	1.00000

Sample Chromatogram

08Sep2009-16 - TIC RT: 0.00 - 17.99 NL: 3.60E3

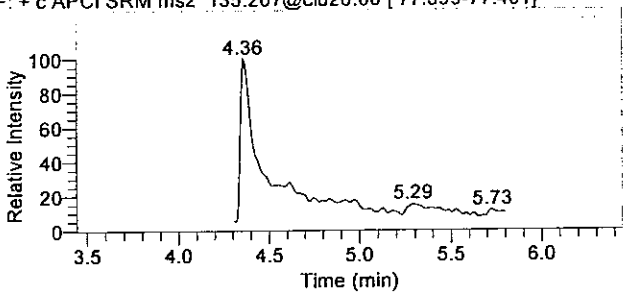


Compound Graphics

Date: 08-Sep-2009, Instrument: Quantum, Vial: D:10, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles\08Sep2009-16, Comments: Soil Prep, ID: Blank

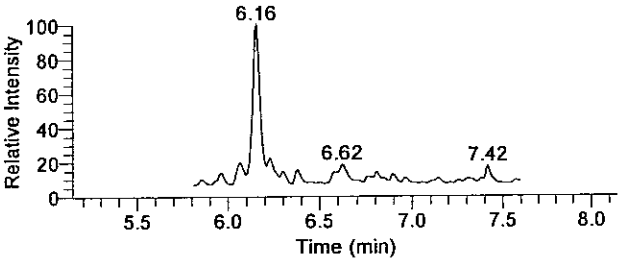
Monomethylhydrazine

08Sep2009-16 - TIC RT: 3.44 - 6.44 NL: 3.60E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



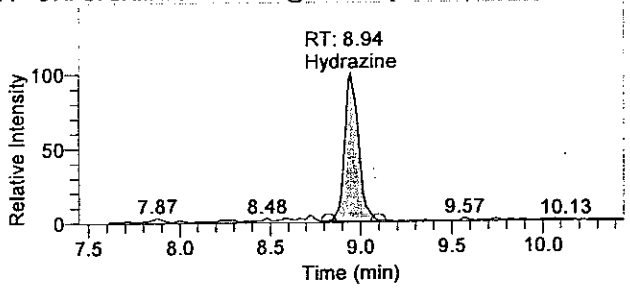
1,1-Dimethylhydrazine

08Sep2009-16 - TIC RT: 5.14 - 8.14 NL: 4.53E1
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

08Sep2009-16 - TIC RT: 7.44 - 10.44 NL: 6.77E2
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 8215

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Blank	Method Settings	Hydrazine	8.94	3487	0.017	ng/mL
Blank	Method Settings	1,1-Dimethylhydrazine	N/A	NF	NC	ng/mL
Blank	Method Settings	Monomethylhydrazine	N/A	NF	NC	ng/mL

Analyst : JW 1543 9/9/2009
[illegible]/112 9/10/09

OLN18 0216

There is no signature data to report.

Lancaster Laboratories

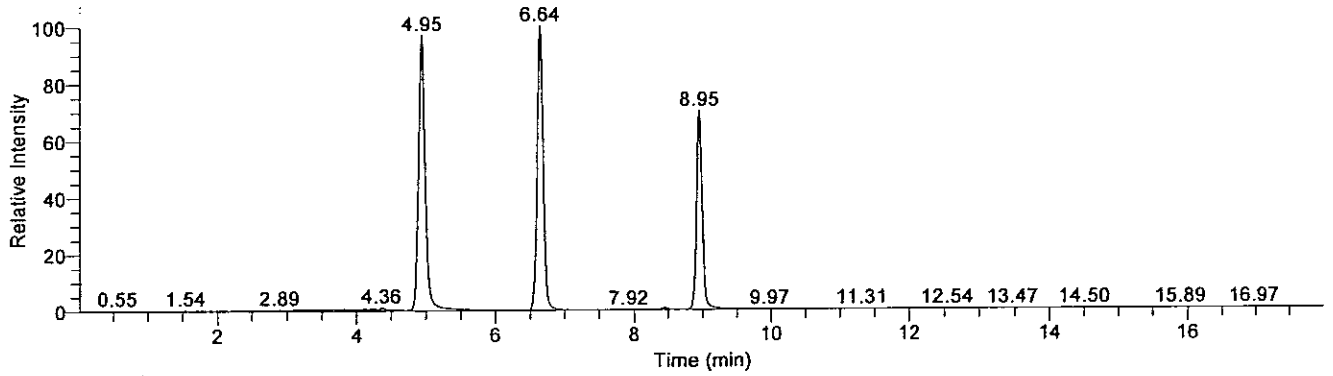
Printed: Wednesday, September 09, 2009, 10:40:34

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Workbook Name:	TQU01408-08Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0925110610808
Data File:	08Sep2009-21.raw
Sample ID:	LCS
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Tuesday, September 08, 2009 8:33:48 PM
Vial:	D:15
Dilution Factor:	1.00000

Sample Chromatogram

08Sep2009-21 - TIC RT: 0.00 - 17.99 NL: 3.25E5

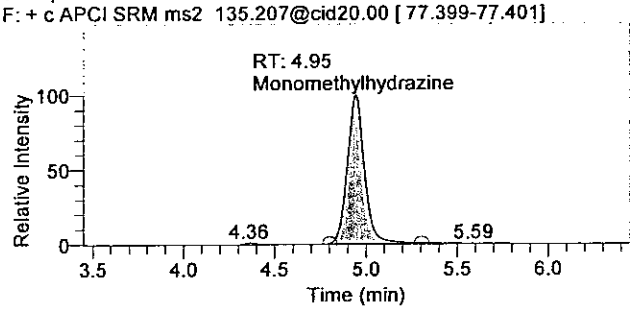


Compound Graphics

Date: 08-Sep-2009, Instrument: Quantum, Vial: D:15, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles\08Sep2009-21, Comments: Soil Prep, ID: LCS

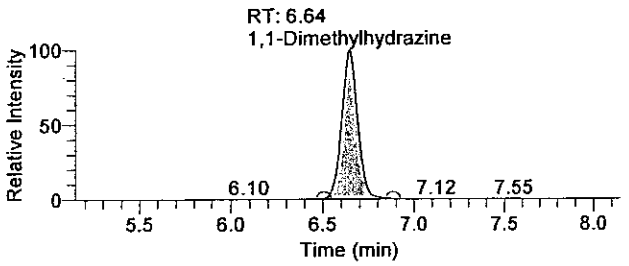
Monomethylhydrazine

08Sep2009-21 - TIC RT: 3.45 - 6.45 NL: 3.14E5
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



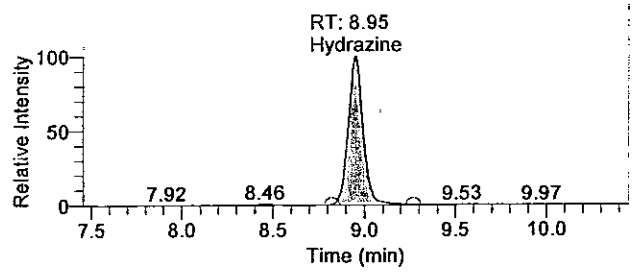
1,1-Dimethylhydrazine

08Sep2009-21 - TIC RT: 5.14 - 8.14 NL: 3.25E5
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

08Sep2009-21 - TIC RT: 7.45 - 10.45 NL: 2.27E5
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 0217

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
LCS	Method Settings	Hydrazine	8.95	1283614	9.991	ng/mL
LCS	Method Settings	1,1-Dimethylhydrazine	6.64	1991438	63.959	ng/mL
LCS	Method Settings	Monomethylhydrazine	4.95	2051025	65.355	ng/mL

Analyst: JW 1543 9/9/2009
7/13/09

OLN18 8218

There is no signature data to report.

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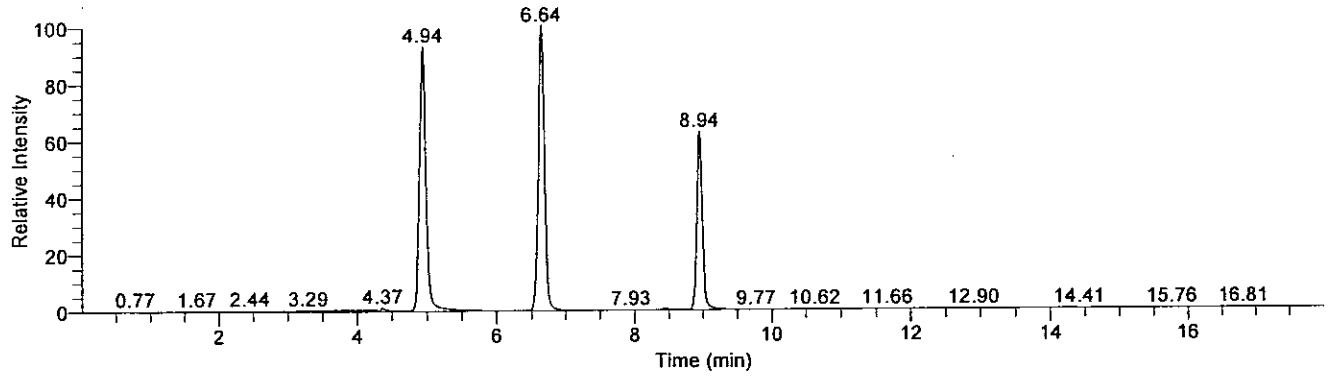
Printed: Wednesday, September 09, 2009, 10:40:34

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1
Workbook Name:	TQU01408-08Sep2009-1
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0925110610808
Data File:	08Sep2009-22.raw
Sample ID:	LCSD
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Tuesday, September 08, 2009 8:52:35 PM
Vial:	D:16
Dilution Factor:	1.00000

Sample Chromatogram

08Sep2009-22 - TIC RT: 0.00 - 17.99 NL: 3.50E5

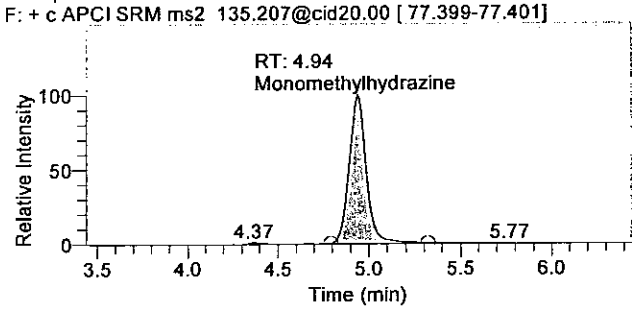


Compound Graphics

Date: 08-Sep-2009, Instrument: Quantum, Vial: D:16, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-08Sep2009-1\Rawfiles\08Sep2009-22, Comments: Soil Prep, ID: LCSD

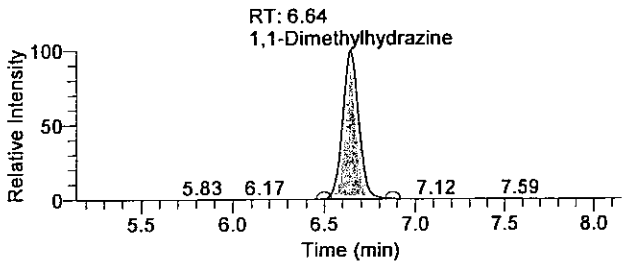
Monomethylhydrazine

08Sep2009-22 - TIC RT: 3.44 - 6.44 NL: 3.25E5
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



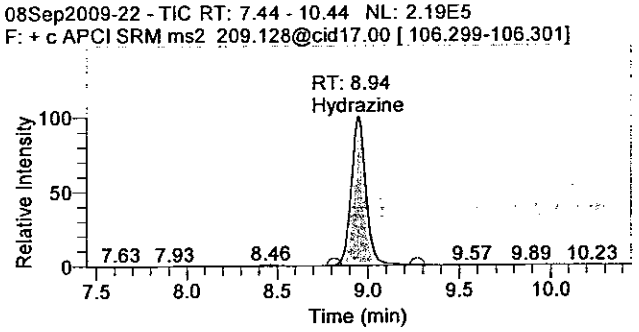
1,1-Dimethylhydrazine

08Sep2009-22 - TIC RT: 5.14 - 8.14 NL: 3.50E5
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

08Sep2009-22 - TIC RT: 7.44 - 10.44 NL: 2.19E5
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLN18 8219

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
LCSD	Method Settings	Hydrazine	8.94	1235045	9.613	ng/mL
LCSD	Method Settings	1,1-Dimethylhydrazine	6.64	2154194	69.178	ng/mL
LCSD	Method Settings	Monomethylhydrazine	4.94	2102664	66.997	ng/mL

Analyst: JW 1543 9/9/2009
[illegible] 9/15/09

OLN18 0228

There is no signature data to report.

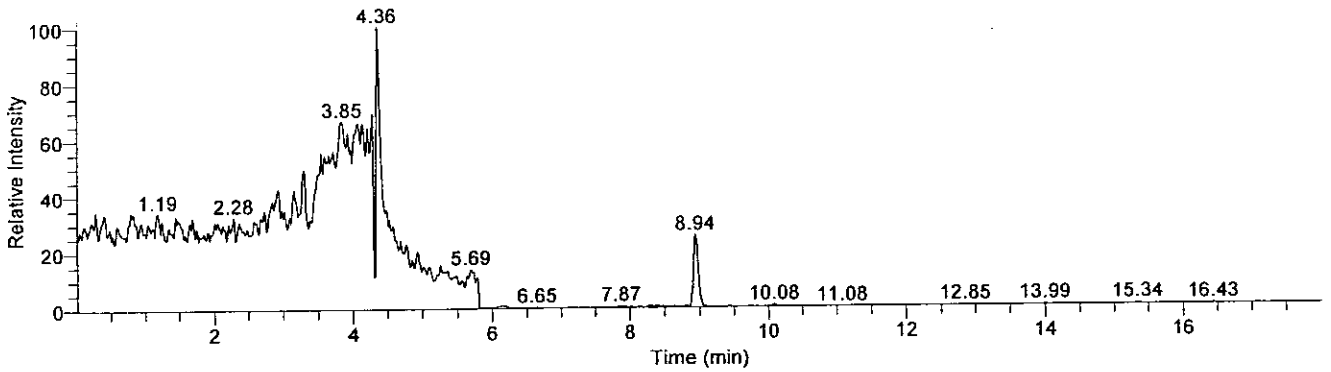
Lancaster Laboratories

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Workbook Name:	TQU01408-10Sep2009-3
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0925310610812
Data File:	10Sep2009-16.raw
Sample ID:	Blank1
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Thursday, September 10, 2009 11:19:33 PM
Vial:	E:16
Dilution Factor:	1.00000

Sample Chromatogram

10Sep2009-16 - TIC RT: 0.00 - 17.99 NL: 2.82E3

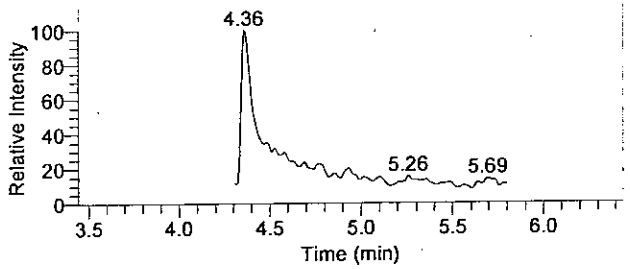


Compound Graphics

Date: 10-Sep-2009, Instrument: Quantum, Vial: E:16, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles\10Sep2009-16, Comments: Soil prep, ID: Blank1

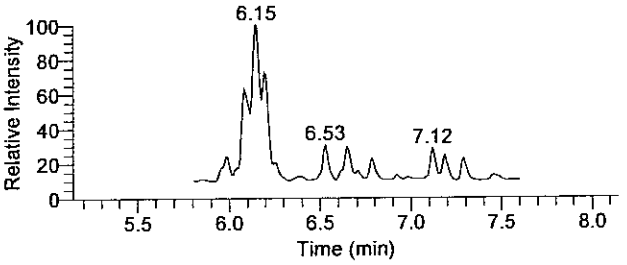
Monomethylhydrazine

10Sep2009-16 - TIC RT: 3.44 - 6.44 NL: 2.82E3
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



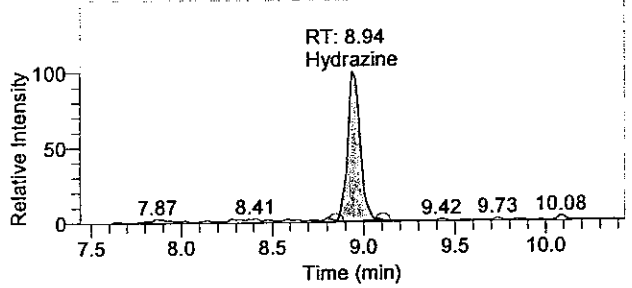
1,1-Dimethylhydrazine

10Sep2009-16 - TIC RT: 5.14 - 8.14 NL: 3.17E1
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

10Sep2009-16 - TIC RT: 7.44 - 10.44 NL: 7.25E2
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLM18 8221

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
Blank1	Method Settings	Hydrazine	8.94	3491	0.025	ng/mL
Blank1	Method Settings	1,1-Dimethylhydrazine	N/A	NF	NC	ng/mL
Blank1	Method Settings	Monomethylhydrazine	N/A	NF	NC	ng/mL

Analyst: JW 1543 9/11/2009

9/11/2 9/11/09

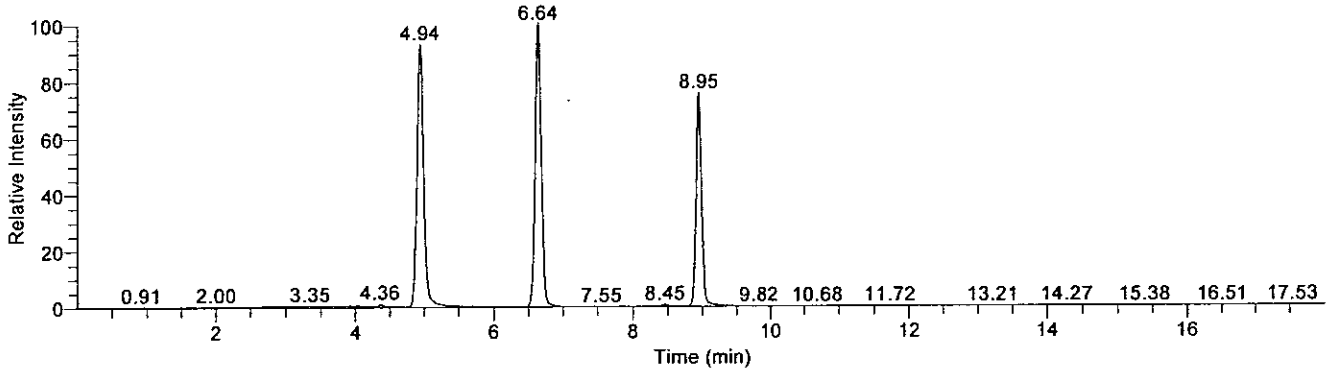
OLN18 8222

There is no signature data to report.

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Workbook Name:	TQU01408-10Sep2009-3
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0925310610812
Data File:	10Sep2009-21.raw
Sample ID:	LCS1
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Friday, September 11, 2009 12:53:18 AM
Vial:	E:21
Dilution Factor:	1.00000

Sample Chromatogram

10Sep2009-21 - TIC RT: 0.00 - 17.99 NL: 3.19E5

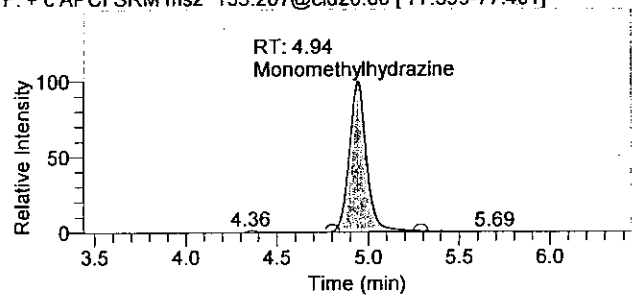


Compound Graphics

Date: 11-Sep-2009, Instrument: Quantum, Vial: E:21, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles\10Sep2009-21, Comments: Soil prep, ID: LCS1

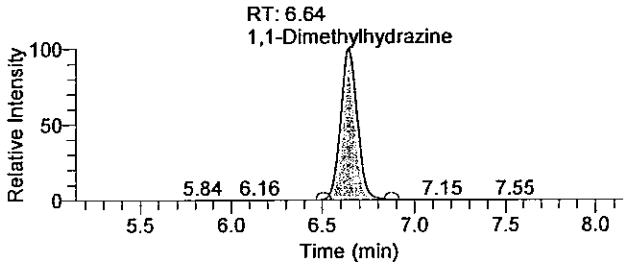
Monomethylhydrazine

10Sep2009-21 - TIC RT: 3.44 - 6.44 NL: 2.97E5
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



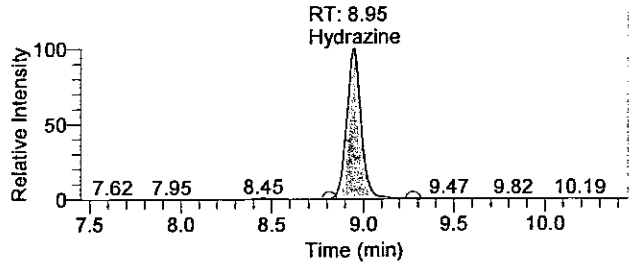
1,1-Dimethylhydrazine

10Sep2009-21 - TIC RT: 5.14 - 8.14 NL: 3.19E5
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

10Sep2009-21 - TIC RT: 7.45 - 10.45 NL: 2.41E5
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



OLR18 8223

There is no signature data to report.

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
LCS1	Method Settings	Hydrazine	8.95	1360841	10.429	ng/mL
LCS1	Method Settings	1,1-Dimethylhydrazine	6.64	1988756	62.324	ng/mL
LCS1	Method Settings	Monomethylhydrazine	4.94	1953160	61.192	ng/mL

Analyst: JW 1543 9/11/2009

9/11/09

OLN18: 8224

There is no signature data to report.

Lancaster Laboratories

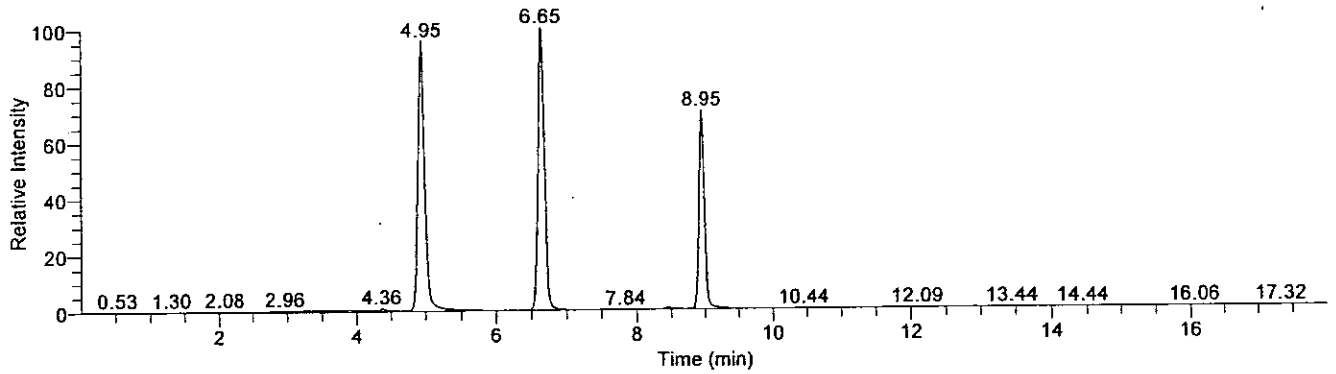
Printed: Friday, September 11, 2009, 10:25:07

Quantify Sample Report

Current Workbook Path:	C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3
Workbook Name:	TQU01408-10Sep2009-3
Analyst	JW01543
Instrument No.	TQU01408
Batch No.	0925310610812
Data File:	10Sep2009-22.raw
Sample ID:	LCSD1
Sample Type:	Unknown
Level:	N/A
Acquisition Date:	Friday, September 11, 2009 1:11:58 AM
Vial:	E:22
Dilution Factor:	1.00000

Sample Chromatogram

10Sep2009-22 - TIC RT: 0.00 - 17.99 NL: 3.22E5

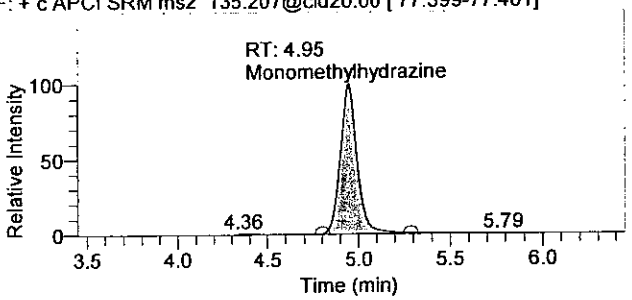


Compound Graphics

Date: 11-Sep-2009, Instrument: Quantum, Vial: E:22, Name: C:\XCalibur\Hydrazine Analysis\Sep 2009\TQU01408-10Sep2009-3\Rawfiles\10Sep2009-22, Comments: Soil prep, ID: LCSD1

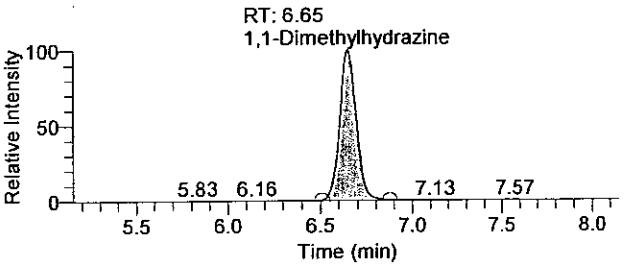
Monomethylhydrazine

10Sep2009-22 - TIC RT: 3.45 - 6.45 NL: 3.08E5
F: + c APCI SRM ms2 135.207@cid20.00 [77.399-77.401]



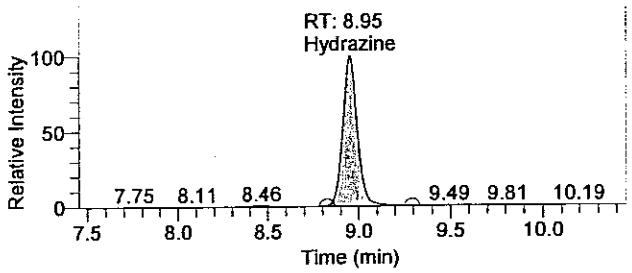
1,1-Dimethylhydrazine

10Sep2009-22 - TIC RT: 5.15 - 8.15 NL: 3.22E5
F: + c APCI SRM ms2 149.210@cid14.00 [106.269-106.271]



Hydrazine

10Sep2009-22 - TIC RT: 7.45 - 10.45 NL: 2.26E5
F: + c APCI SRM ms2 209.128@cid17.00 [106.299-106.301]



GEM19 8225

There is no signature data to report.

Quantify Sample Report

Quantitation Results

Sample ID	Integration Type	Component Name	RT	Response	Calculated Conc	Units
LCSD1	Method Settings	Hydrazine	8.95	1283764	9.838	ng/mL
LCSD1	Method Settings	1,1-Dimethylhydrazine	6.65	1975112	61.897	ng/mL
LCSD1	Method Settings	Monomethylhydrazine	4.95	1984204	62.162	ng/mL

Analyst : JW 1543 9/11/2009
[illegible] 9/11/09

OLM18 8226

There is no signature data to report.

Sample Preparation

OLN18 8227

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

SOP Analysis # 10346, Rev. 01, eff. 2/10/2009
Title: Determination of Hydrazine, Monomethylhydrazine and 1,1-Dimethylhdrazine in Soil Samples by LC/MS/MS
Date: 9/3/2009
From: Notebook 100562, pg. 100

1. Pipette calibration

Pipette: Rainin, 10-100 uL, S/N G0798427I

Volume (uL)	Balance Reading (mg)
50	49.55

Pipette: Rainin, 1-10 uL, S/N I0731749I

Volume (uL)	Balance Reading (mg)
10	9.78

Pipette: Eppendorf Reference, 10-100uL, S/N 4037-1

Volume (mL)	Balance Reading (mg)
40	39.75

Pipette: Eppendorf Research, 100-1000uL, S/N 2778567

Volume (uL)	Balance Reading (g)
500	0.49816

Pipette: Eppendorf Research, 100-1000uL, S/N 1467845

Volume (uL)	Balance Reading (g)
1000	0.99178

Pipette: Rainin, 1-10 mL, S/N C0822978A

Volume (mL)	Balance Reading (g)
10	10.01224

All the pipettes passed calibration check.

2. Weigh Ottawa sand and soil samples

Batch # 09246 106108 01
Blank: 1.0002 g
LCS 0.9992 g
LCSD 0.9999 g
5763104: 1.0012 g
5763105: 0.9981 g
5763106: 0.9998 g
5763107: 0.9995 g
5763108: 1.0004 g
5763108FD: 1.0001 g

OLN18 0228

4056.01 Finding 9/4/2009

106108 1

9/3/2008

From: Notebook 106103, pg. 1

2. Cont'd

5763110 BKG 1.0008 g

5763111 MS 1.0006 g

5763112 MSD 1.0010 g

5763113 1.0029 g

5763114 1.0009 g

576421P 6.9978 g

3. Prepare 1% benzaldehyde soln

200.0 mL of benzaldehyde + 20 mL methanol measured with graduated cylinder → glass vial, mixed well.

4. Prepare 2nd source monomethylhydrazine stock soln

Conc. 928 mg/mL

9.28 mg monomethylhydrazine → 10 mL volumetric flask. Brought to volume with methanol, mixed well

5. Prepare 2nd source LCS spiking soln

Added 2nd source

hydrazine stock soln 100562-58-1 : 69.3 mL

monomethylhydrazine stock soln : 67.3 mL

1,1-dimethylhydrazine stock soln 100562-43-4 : 77.2 mL

into 10 mL volumetric flask Brought to volume with methanol. mixed well

6. Added 100.0 mL of LCS spiking soln into QC samples

Added 10.0 mL of extraction fluid into all samples in Batch # 0P246 106108 01.

Placed all samples at the shaker at 300 rpm for 10 min.

Centrifuged all samples at 2980 rpm for 10 min.

OLN18 8223

4056.01 E.Nay 9/4/2008

106108

9/3/2008

From : Notebook ~~106108~~ 106108 pg. 2

7. Derivatization of MDL and calibration standards

1 M Hexylamine soln 100562-37-1	Standards	Benzaldehyde soln
10.0 mL	1.0 mL	0.5 mL

8. Derivatization of LCV and 2nd source LCS spiking soln

0.2 M acetate buffer	1 M Hexylamine soln	Spiking soln	Benzaldehyde soln
100562-54-5	100562-37-1	100562-59-1, 10.0 mL	0.5 mL
↓	↓	2nd source LCS spiking soln 10.0 mL	↓

9. Derivatization of all the samples in Batch # 0924b106108 01

Supernant of extract	5 M acetate buffer 100562-14-3	Benzaldehyde soln
1.0 mL	40.0 mL	0.5 mL

To make each derivative soln, added the corresponding soln according to the table above into glass vials, mixed well. Placed the glass vials in a sample shaker with heated water bath (40°C) for 1hr. Filtered the soln into autosampler vials.
End of batch preparation.

10. Run workbook : TQU0140S-03 Sep 2008-1
under : C:\X Calibur\Hydrazine Analysis\Sep 2008
Samples : All the samples prepared today.

OLR18 8230

4056.01 Jinwing 9/4/2008

4/3/2008

From: Notebook 106108 pg 3

7. Reagents + Equipment
LC pump: Thermo Electron Corporation, Accela, S/N 83181
LC autosampler: Thermo Electron Corporation, Accela, S/N 82612
Mass Spectrometer: Thermo Scientific, TSQ Quantum Access, S/N TQU 01408
HPLC column: Thermo Scientific, Hypersil Gold, 3um, Part No. 25003-052130, L/N 9154, S/N 0381365T
Sample shaker with heated water bath: Lancaster Labs Asset# 15722
Thermometer: cal. Due 7/2010; NB 103345/17, cal. Range 18.05 °C to 50.00 °C
Orbit Shaker: No Asset #, LAB-LINE, Maxium 400 rpm, from Dept. 09
Centrifuge: Beckman, GS-6, Lancaster Labs Asset # 6529, qual. Due 6/2010
Syringe: 3mL, SUN-SRI Cat. No. 400 044, L/N 00077198
Acrodisc CR syringe filter: PALL, with 0.45um PTFE membrane, L/N 21722067
Methanol: Fisher Scientific, Optima, L/N 090571, exp. 4/8/2014
Benzaldehyde: Aldrich, ≥ 99.5%, Batch #. 99696DJ, exp. 6/1/2013
Balance: 6424, cal. Due 11/~~06~~ 07, qual. Due 7/2010 (for pipette calibration and weighing monomethylhydrazine) 3/5/2008
Balance: 9983, cal. Due. 11/09 (for weighing Ottawa sand and soil samples)
MDL and calibration standards: 100562-55-1 to 100562-55-9, see notebook: 100562, pg. 55
2nd source ICV spiking solution 100562-59-1: see notebook 100562, pg. 59. In this solution, hydrazine 1.25 ug/mL, monomethylhydrazine and 1,1-dimethylhydrazine 6.25 ug/mL
2nd source hydrazine stock solution 100562-58-1: 180.4 ug/mL, see notebook 100562, pg. 58
2nd source 1,1-dimethylhydrazine stock solution 100562-43-4: 810 ug/mL, see notebook 100562, pg. 43
2nd source monomethylhydrazine: Chem Service, 99.1%, L/N 414-156B, exp. 01/12
2nd source LCS spiking solution is prepared daily. In this solution, hydrazine 1.25 ug/mL, monomethylhydrazine and 1,1-dimethylhydrazine 6.25 ug/mL
Ottawa sand: L/N 503010-AA, Baked 4/28/2009, Exp. 4/28/2010

OLN10 9231

SOP Analysis # 10346, Rev. 01, eff. 2/10/2009
Title: Determination of Hydrazine, Monomethylhydrazine and 1,1-Dimethylhdrazine in Soil Samples by LC/MS/MS
From: Notebook 106108, pg. 7
Date: 9/8/2009

1. Pipette calibration

Pipette: Rainin, 10-100 uL, S/N G0798427I

Volume (uL)	Balance Reading (mg)
50	49.48

Pipette: Rainin, 1-10 uL, S/N 10731749I

Volume (uL)	Balance Reading (mg)
10	9.76

Pipette: Eppendorf Reference, 10-100 uL, S/N 4037-1

Volume (uL)	Balance Reading (mg)
40	39.37

Pipette: Eppendorf Research, 100-1000uL, S/N 2778567

Volume (uL)	Balance Reading (g)
500	0.49550

Pipette: Eppendorf Research, 100-1000uL, S/N 1467845

Volume (uL)	Balance Reading (g)
1000	0.98696

Pipette: Rainin, 1-10 mL, S/N C0822978A

Volume (mL)	Balance Reading (g)
10	10.08028

All the pipettes passed calibration check.

2. Weigh Ottawa sand and soil samples

Batch # 09251106108 08

Blank	0.99933	
LCS	0.99909	
LCSD	1.00029	
5766212	1.00379	FD
5766213	0.99813	BKG
5766214	0.99823	MS
5766215	0.99743	MSD
5766216	1.00213	
5766217	1.00079	

OLN10 8232

4056.01 K. Wang 9/8/2009

9/8/2009

From: Notebook 106108, p. 8

2. Cont'd

5766218 0.19913
5769167 1.00392
5769168 1.00143
5769169 1.00373
5769170 1.00029

3. Prepare 1% (v/v) benzaldehyde soln
200.0 mL of benzaldehyde + 20 mL methanol measured with graduated cylinder → glass vial, mixed well.

4. Prepare 2nd source monomethylhydrazine stock soln 106108-9-1
Conc. 960 mg/mL
Monomethylhydrazine 9.60 mg → 10 mL volumetric flask. Brought to volume with methanol, mixed well.

5. Prepare 2nd source LCS spiking soln 106108-9-2
Added 2nd source
hydrazine stock soln 100562-58-1: 87.3 mL
monomethylhydrazine stock soln: 65.1 mL
1,1-dimethylhydrazine stock soln 100562-43-4: 77.2 mL
into 10 mL volumetric flask. Brought to volume with methanol, mixed well.
In this soln, hydrazine 1.25 mg/mL, monomethylhydrazine and 1,1-dimethylhydrazine 6.25 mg/mL.

6. Added 100.0 mL of 2nd source spiking soln prepared above 106108-9-2 into QC samples (LCS, LCSD, MS, MSD).

7. Added 10.0 mL extraction fluid 100562-94-2 into all the samples.

8. Placed the samples in a shaker and agitated at 300 rpm for 10 min at room temperature.

OLW18 8233

9. Centrifuged the samples at 2000 rpm for 10 min.

Dawing 9/8/2009

9/8/2009

From: Notebook 106108 pg 7

10. Derivatization of MDL and calibration standards with benzaldehyde

Standards	1 M hexylamine sol'n 100562-37-1	Benzaldehyde sol'n
1.0 mL	10.0 mL	0.5 mL

11. Derivatization of 2CV and 2nd source LCS spiking sol'n

1 M hexylamine sol'n	0.2 M acetate buffer	Spiking sol'n	Benzaldehyde sol'n
100562-37-1	100562-54-5	10.0 mL	
10.0 mL	1.0 mL	106108-5-2	0.5 mL
↓	↓	106108-7-2	↓

11. Derivatization of all the samples in Batch # 0125i 106108 08

Supernant of extract	5 M acetate buffer 100562-14-3	Benzaldehyde sol'n
1.0 mL	40.0 mL	0.5 mL

To make each derivative sol'n, added the corresponding sol'n according to the table above into glass vials, mixed well. Placed the glass vials in a sample shaker with heated (40°C) water bath for 1hr. Filtered the sol'n into into sampler vials.
End of batch sample preparation.

12 Run workbook TQU01408 - 08Sep2009-1
under: C:\X(Calibur\Hydrazine Analysis\Sep 2009
Samples All the samples prepared today.

DLN18 8234

4056.01 Irving 9/8/2009

4/8/2009

From: Notebook 106108, pg. 10

13. Reagents + Equipment
LC pump: Thermo Electron Corporation, Accela, S/N 83181
LC autosampler: Thermo Electron Corporation, Accela, S/N 82612
Mass Spectrometer: Thermo Scientific, TSQ Quantum Access, S/N TQU 01408
HPLC column: Thermo Scientific, Hypersil Gold, 3um, Part No. 25003-052130, L/N 9154, S/N 0381365T
Sample shaker with heated water bath: Lancaster Labs Asset# 15722
Thermometer: cal. Due 7/2010, NB 103345/17, cal. Range 18.05 °C to 50.00 °C
Centrifuge: Beckman, GS-6, Lancaster Labs Asset # 6529, qual. Due 6/2010
Orbit Shaker: No Asset #, LAB-LINE, Maxium 400 rpm, from Dept. 09
Ottawa sand: L/N 503010-AA, Baked 4/28/2009, Exp. 4/28/2010
Syringe: 3mL, SUN-SRI Cat. No. 400 044, L/N 00077198
Acrodisc CR syringe filter: PALL, with 0.45um PTFE membrane, L/N 21722067
Methanol: Fisher Scientific, Optima, L/N 090571, exp. 4/8/2014
Benzaldehyde: Aldrich, ≥ 99.5%, Batch #. 99696DJ, exp. 6/1/2013
Balance: 6424, cal. Due 11/~~06~~ 09, qual. Due 7/2010 (weighing monomethylhydrazine)
Balance: 5554, cal. Due 11/09, qual. Due 3/2010 (for pipette calibration and weigh Ottawa sand and soil samples)
MDL and calibration standards: 100562-55-1 to 100562-55-9, see notebook: 100562, pg. 55
2nd source hydrazine stock solution 100562-58-1: 180.4 ug/mL, see notebook 100562, pg. 58
2nd source 1,1-dimethylhydrazine stock solution 100562-43-4: 810 ug/mL, see notebook 100562, pg. 43
2nd source monomethylhydrazine neat material: Chem Service, 99.1%, L/N 414-156B, exp. 01/12
2nd source ICV spiking solution: 106108-5-2, see notebook 106108, pg. 5. In this solution, hydrazine 1.25 ug/mL, monomethylhydrazine and 1,1-dimethylhydrazine 6.25 ug/mL
2nd source LCS spiking solution is prepared daily. In this solution, hydrazine 1.25 ug/mL, monomethylhydrazine and 1,1-dimethylhydrazine 6.25 ug/mL

OLN18 8235

SOP Analysis # 10346, Rev. 01, eff. 2/10/2009
Title: Determination of Hydrazine, Monomethylhydrazine and 1,1-Dimethylhdrazine in Soil Samples by LC/MS/MS
From: Notebook 106108, pg. 11
Date: 9/10/2009

1. Pipette calibration

Pipette: Rainin, 10-100 uL, S/N G0798427I

Volume (uL)	Balance Reading (mg)
50	49.58

Pipette: Rainin, 1-10 uL, S/N I0731749I

Volume (uL)	Balance Reading (mg)
10	9.73

Pipette: Eppendorf Reference, 10-100 uL, S/N 4037-1

Volume (uL)	Balance Reading (mg)
40	39.31

Pipette: Eppendorf Research, 100-1000uL, S/N 2778567

Volume (uL)	Balance Reading (g)
500	0.49484

Pipette: Eppendorf Research, 100-1000uL, S/N 1467845

Volume (uL)	Balance Reading (g)
1000	0.99215

Pipette: Rainin, 1-10 mL, S/N C0822978A

Volume (mL)	Balance Reading (g)	Balance Reading (g)
10	~~0.49484~~ ② See photo 1 ③ recorded in the wrong place	10.03684

All the pipettes passed calibration check.

2. Weigh Ottawa sand and soil samples into extraction vials

Batch # 09253 10610312

Blank 1 0.9982 g
LCS 1 1.0017 g
LCSD 1 0.9999 g
576P175 FD 0.9977 g
576P176 BKG 1.0004 g
576P177 MS 0.9997 g
576P178 MSD 0.9994 g
576P179 1.0006 g
576P180 0.9983 g

OLM18 B236

4056.01 Jaway 9/11/2009

9/10/2008

From: Notebook 106108, pg. 12

2. Cont'd

5770779 0.9979 g
5770780 0.9976 g
5770781 1.0017 g

3. Weigh Ottawa sand and soil samples into extraction vials

Batch # 08255 106108 13

Blank 2 1.0029 g
LCS 2 1.0009 g
LCSD 2 0.9994 g
576 9171 FD 0.9999 g
576 9172 ~~MS~~ BKG 1.0028 g
576 9173 MS 1.0007 g
576 9174 MSD 1.0024 g
5772546 1.0017 g
5772547 1.0037 g
5772548 0.9986 g
5772550 1.0004 g

4. There are two batches that will be prepared today.

5. Prepare 1M hexylamine soln 106108-13-1

0.264 mL hexylamine → 2 ~~10~~ mL volumetric flask. Brought to volume with methanol. mixed well.

6. Prepare 1% (v/v) benzaldehyde soln

200.0 mL of benzaldehyde + 20 mL methanol measured with graduated cylinder → glass vial. mixed well.

7. Prepare 2nd source monomethylhydrazine stock soln

Monomethylhydrazine 9.07 mg → 10 mL volumetric flask. Brought to volume with methanol. mixed well.

Conc. 907 mg/mL

OLN10 8237

9/10/2007

From: Notebook 106108 pg. 13

8. Prepare 2nd source LCS spiking soln 106108-14-1
Added 2nd source
hydrazine stock soln 106562-58-1: 68.3 mL
monomethylhydrazine stock soln: 68.8 mL
1,1-dimethylhydrazine stock soln 106562-43-4: 77.2 mL
into 10 mL volumetric flask. Brought to volume with methanol, mixed well.
In this soln. hydrazine 1.25 mg/mL
Monomethylhydrazine and 1,1-dimethylhydrazine 6.25 mg/mL

9. Added 100.0 mL of LCS spiking soln into QC samples (LCS1, LCSD1, ~~MSI~~ MS and MSD) in Batch # 0F253106108 12 ③ JW 9/10/2007

10. Added 10.0 mL of extraction fluid into all samples in Batch # 0F253106108 12

11. Added 100.0 mL of LCS spiking soln into QC samples (LCS2, LCSD2, MS and MSD) in Batch # 0F253106108 13

12. Added 100 mL of extraction fluid into all samples in Batch # 0F253106108 13

13. Placed all samples in Batch # 0F253106108 12 and Batch # 0F253106108 13 at the shaker and agitated at 300 rpm for 10 min.
Centrifuged all samples in the above two batches at 2950 rpm for 10 min.

GLN1B 0238

4056.01 JW 9/11/2007

9/10/2008

From: Notebook 106108, pg 14

14. Derivatization of MDL and calibration standards with benzaldehyde

1M hexylamine sol'n 106108-13-1	Standards	Benzaldehyde sol'n
10.0 mL	1.0 mL	0.5 mL

15. Derivatization of TVC and 2nd source LCS spiking sol'n

1M hexylamine sol'n	0.2M acetate buffer	Spiking sol'n	Benzaldehyde sol'n
106108-13-1	100562-54-5	~~106108~~ ③ Jw 9/10/08 - 10.0 mL	
10.0 mL	1.0 mL	106108-5-2	0.5 mL
↓	↓	106108-14-1	↓

16. Derivatization of all the samples in Batch # 0F253 106108 12

Supernant of extract	5M acetate buffer	100562-14-3 ~~100562-43-4~~ ③ Jw 9/10/2008	Benzaldehyde sol'n
1.0 mL	40.0 mL		0.5 mL

17. Derivatization of all the samples in Batch # 0F253 106108 13

Supernant of extract	5M acetate buffer	100562-14-3	Benzaldehyde sol'n
1.0 mL	40.0 mL		0.5 mL

To make each derivative sol'n, added the corresponding sol'n according to the table above into ~~glass~~ ③ Jw 9/10/08 glass vials, mixed well, placed the glass vials in a sample shaker with heated water bath (40°C) for 1 hr. Filtered the sol'n into auto sampler vials

18. Run workbook: TQVC1408-10 Sep 2008-3
under: C:\X Calibur\Hydrazine Analysis\Sep 2008
Samples: All the samples prepared today
Two batches of soil samples were prepared today

OLMSB 8239

4/10/2007
From Notebook 106108, pg. 15

19. Reagents + Equipment
LC pump: Thermo Electron Corporation, Accela, S/N 83181
LC autosampler: Thermo Electron Corporation, Accela, S/N 82612
Mass Spectrometer: Thermo Scientific, TSQ Quantum Access, S/N TQU 01408
HPLC column: Thermo Scientific, Hypersil Gold, 3um, Part No. 25003-052130, L/N 9154, S/N 0381365T
Sample shaker with heated water bath: Lancaster Labs Asset# 15722
Thermometer: cal. Due 7/2010, NB 103345/17, cal. Range 18.05 °C to 50.00 °C
Centrifuge: Beckman, GS-6, Lancaster Labs Asset # 6529, qual. Due 6/2010
Orbit Shaker: No Asset #, LAB-LINE, Maxium 400 rpm, from Dept. 09
Ottawa sand: L/N 503010-AA, Baked 4/28/2009, Exp. 4/28/2010
Syringe: 3mL, SUN-SRI Cat. No. 400 044, L/N 00077198
Acrodisc CR syringe filter: PALL, with 0.45um PTFE membrane, L/N 21722067
Methanol: Fisher Scientific, Optima, L/N 090571, exp. 4/8/2014
Benzaldehyde: Aldrich, ≥ 99.5%, Batch #. 99696DJ, exp. 6/1/2013
Balance: 6424, cal. Due 11/~~06~~ 07, qual. Due 7/2010 (weighing monomethylhydrazine)
Balance: 5554, cal. Due 11/09, qual. Due 3/2010 (for pipette calibration and weigh Ottawa sand and soil samples)
MDL and calibration standards: 100562-55-1 to 100562-55-9, see notebook: 100562, pg. 55
2nd source hydrazine stock solution 100562-58-1: 180.4 ug/mL, see notebook 100562, pg. 58
2nd source 1,1-dimethylhydrazine stock solution 100562-43-4: 810 ug/mL, see notebook 100562, pg. 43
2nd source monomethylhydrazine neat material: Chem Service, 99.1%, L/N 414-156B, exp. 01/12
2nd source ICV spiking solution: 106108-5-2, see notebook 106108, pg. 5. In this solution, hydrazine 1.25 ug/mL, monomethylhydrazine and 1,1-dimethylhydrazine 6.25 ug/mL
2nd source LCS spiking solution is prepared daily. In this solution, hydrazine 1.25 ug/mL, monomethylhydrazine and 1,1-dimethylhydrazine 6.25 ug/mL
Hexylamine: Acros Organics, Cat. No. 204720050, L/N A0249212, re-eval. 8/24/2010

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Moisture Data

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CLIENT: Olin Corporation
SDG: OLN18

MOISTURE

SAMPLE NUMBERS:

Sample #	Sample Code
5763104	O4027
5763105	O4078
5763106	O4036
5763107	O4045
5763108	O4096
5763109	O410DFD
5763110	O4106BKG
5763111	O4106MS
5763112	O4106MSD
5763113	O4114
5763114	O4445
5769167	O4590
5769168	O4650
5769169	O4680
5769170	O4710
5770779	O4720
5770780	47230
5770781	472-8

Laboratory Compliance Quality Control

Analysis Name	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 09243820001A	Sample number(s): 5763104-5763114				
Moisture	100		99-101		
Moisture	100		99-101		
Moisture Duplicate	100		99-101		
Batch number: 09252820001A	Sample number(s): 5769167-5769170				
Moisture	100		99-101		
Batch number: 09253820003A	Sample number(s): 5770779-5770781				
Moisture	100		99-101		

Sample Matrix Quality Control

Analysis Name	BKG Conc	DUP Conc	RPD	RPD Max
Batch number: 09243820001A	Sample number(s): 5763104-5763114			
Moisture	20.7	21.2	2	15
Moisture	20.7	21.2	2	15
Moisture Duplicate	20.7	21.2	2	15
Batch number: 09252820001A	Sample number(s): 5769167-5769170			
Moisture	12.2	12.5	3	15
Batch number: 09253820003A	Sample number(s): 5770779-5770781			
Moisture	12.3	12.7	3	15

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* - Outside of specification
(1) - The result for one or both determinations was less than five times the LOQ.

Lancaster Laboratories

MOISTURE

CLIENT: Olin Corporation
SDG: OLN18

Moisture Data Report

Batch #: 09243820001

Sample ID	Batch ID	Analysis#	Tare Wt	Sample Wt	Dry Wt	%Moisture	Analysis Date (Emp#)	Verified Date (Emp#)
LCS 89.5% Std.			1.0827	5.0023	1.6100	89.46	8/31/09 (0189/WCS)	9/ 2/09 (0236/CW)
5763104	A	00111	1.1091	6.5762	7.2564	6.52	8/31/09 (0189/WCS)	9/ 2/09 (0236/CW)
5763105	A	00111	1.1228	6.5662	6.5656	17.11	8/31/09 (0189/WCS)	9/ 2/09 (0236/CW)
5763106	A	00111	1.1182	6.0250	4.6121	42.01	8/31/09 (0189/WCS)	9/ 2/09 (0236/CW)
5763107	A	00111	1.1084	7.7076	7.6930	14.57	8/31/09 (0189/WCS)	9/ 2/09 (0236/CW)
5763108	A	00111	1.1029	8.0768	7.5318	20.40	8/31/09 (0189/WCS)	9/ 2/09 (0236/CW)
5763109FD	A	00111	1.1076	6.9087	6.6425	19.89	8/31/09 (0189/WCS)	9/ 2/09 (0236/CW)
5763110BKG	A	00111	1.0985	6.5443	6.2873	20.71	8/31/09 (0189/WCS)	9/ 2/09 (0236/CW)
5763111MS	A	00118				20.71	8/31/09 (0189/WCS)	9/ 2/09 (0236/CW)
5763112MSD	A	00118				20.71	8/31/09 (0189/WCS)	9/ 2/09 (0236/CW)
5763112MSD	A	00121	1.0950	6.2592	6.0259	21.22	8/31/09 (0189/WCS)	9/ 2/09 (0236/CW)
5763113	A	00111	1.0719	7.3273	8.0521	4.74	8/31/09 (0189/WCS)	9/ 2/09 (0236/CW)
5763114	A	00111	1.1054	6.4937	6.7535	13.02	8/31/09 (0189/WCS)	9/ 2/09 (0236/CW)

Batch #: 09252820001

Sample ID	Batch ID	Analysis#	Tare Wt	Sample Wt	Dry Wt	%Moisture	Analysis Date (Emp#)	Verified Date (Emp#)
LCS 89.5% Std.			1.1126	5.0262	1.6440	89.43	9/ 9/09 (1201/SWF)	9/10/09 (0236/CW)
5769167	A	00111	1.0930	8.9317	9.5156	5.70	9/ 9/09 (1201/SWF)	9/10/09 (0236/CW)
5769168	A	00111	1.1117	5.3851	6.2325	4.91	9/ 9/09 (1201/SWF)	9/10/09 (0236/CW)
5769169	A	00111	1.0870	6.9085	6.8493	16.59	9/ 9/09 (1201/SWF)	9/10/09 (0236/CW)
5769170	A	00111	1.1101	7.2628	7.7242	8.93	9/ 9/09 (1201/SWF)	9/10/09 (0236/CW)
P769172BKG	A	00111	1.1153	9.7680	9.6913	12.20	9/ 9/09 (1201/SWF)	9/10/09 (0236/CW)
P769172DUP	A	00111	1.1165	9.0237	9.0104	12.52	9/ 9/09 (1201/SWF)	9/10/09 (0236/CW)

Batch #: 09253820003

Sample ID	Batch ID	Analysis#	Tare Wt	Sample Wt	Dry Wt	%Moisture	Analysis Date (Emp#)	Verified Date (Emp#)
LCS 89.5% Std.			1.1153	5.0254	1.6454	89.45	9/10/09 (1201/SWF)	9/11/09 (0943/LJC)
5770779	A	00111	1.1083	6.5971	6.9460	11.51	9/10/09 (1201/SWF)	9/11/09 (0943/LJC)
5770780	A	00111	1.1021	7.8383	8.4107	6.76	9/10/09 (1201/SWF)	9/11/09 (0943/LJC)
5770781	A	00111	1.1128	6.3335	6.0567	21.94	9/10/09 (1201/SWF)	9/11/09 (0943/LJC)
P771253BKG	A	00111	1.1050	8.5019	8.5585	12.33	9/10/09 (1201/SWF)	9/11/09 (0943/LJC)
P771253DUP	A	00111	1.1176	8.5341	8.5688	12.69	9/10/09 (1201/SWF)	9/11/09 (0943/LJC)

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