

Report of Biota Analysis Mercury

Project: Lumbriculus Variegatus Tissue

Samples Collected: May 28, 2008 and June 25, 2008

Report Date: August 6, 2008

Prepared for:

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Project Reference: KLE-BE0801

Project ID: 0828032



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Case Narrative

Shipping and Receiving

Brooks Rand Labs (BRL) received three biota samples on July 9, 2008 at 9:00 AM in a cooler with ice at a temperature of 3.3 degrees Celsius. The *Chain-of-Custody* (COC) form total mercury (THg) and percent total solids (%TS). The samples were stored securely in a freezer within a locked storage room. The samples were received and stored according to BRL standard operating procedures (SOP) and EPA methodology.

Preservation and Holding Time

All method requirements for preservation and holding time were satisfied.

Total Mercury by EPA Method 1631, Appendix (BR-0002)

The samples were homogenized prior to digestion and analysis. A homogenization blank was taken from the equipment used for this process, and the result of this blank is included in this report. Samples were prepared and analyzed in accordance with EPA Method 1631. Samples were digested in nitric acid (HNO₃) and sulfuric acid (H₂SO₄), and then further oxidized with bromine monochloride (BrCl). Samples were analyzed with stannous chloride (SnCl₂) reduction, single gold amalgamation and cold vapor atomic fluorescence spectroscopy (CVAFS) detection using a BRL Model III CVAFS Mercury Analyzer. The results were method blank corrected as described in the calculations section of the relevant BRL SOP(s) and may have been evaluated using reporting limits that have been adjusted to account for sample aliquot size. Please refer to the *Sample Results* page for sample-specific MDLs, MRLs, and other details.

Sequence 0800653

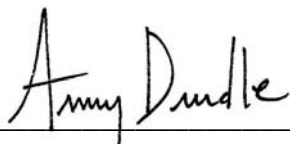
The first calibration point (Cal1) and the second calibration point (Cal2) both produced low results. The analytical traps used (Traps B7 and B8) were tested and showed continued low recoveries. The traps were retired from use. The calibration points were reanalyzed as Cal6 and Cal7 and included in the calibration without qualification.

CCV4 was analyzed as a check of an analytical trap. The result was low and as such the trap was removed from use. CCV4, while labeled in the sequence as a CCV, does not serve as calibration verification in the sequence. The failure of CCV4 in no way affects the QC of this sequence. As a result it has not been reported and no results have been qualified based on its results.

The matrix spike/matrix spike duplicate (MS/MSD) set was spiked above the typical level of 1-5 times the native sample result. A post spike was analyzed at an appropriate concentration. All

quality assurance samples had recoveries that fell within the acceptance criteria. The MS/MSD results, along with the post-spike results were reported without qualification.

We certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. In addition, BRL, an accredited laboratory (FL LAB ID E87982), certifies that the reported results of all analyses for which BRL is NELAP accredited meet all NELAP requirements. For more information please see the *Report Information* page in your report. Please feel free to contact us if you have any questions regarding this report.



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Report Information

Laboratory Accreditations

BRL is accredited by the *National Environmental Laboratory Accreditation Program (NELAP)* through the State of Florida Department of Health, Bureau of Laboratories (E87982) and is certified to perform many environmental analyses. BRL is also certified by many other states to perform environmental analyses. For a current list of our accreditations/certifications, please visit our website at <http://www.brooksrand.com/default.asp?contentID=586>. Results reported relate only to the samples listed in the report.

Common Abbreviations

BLK	method blank	MS	matrix spike
BRL	Brooks Rand Labs	MSD	matrix spike duplicate
BS	laboratory fortified blank	NR	non-reportable
CAL	calibration standard	PS	post preparation spike
CCV	continuing calibration verification	REC	percent recovery
CRM	certified reference material	RPD	relative percent difference
D	dissolved fraction	RSD	relative standard deviation
DUP	duplicate	SCV	secondary calibration verification
ICV	initial calibration verification	SOP	standard operating procedure
MDL	method detection limit	SRM	standard reference material
MRL	method reporting limit	T	total recoverable fraction

Definition of Data Qualifiers

(Effective 6/12/08)

- B** Detected by the instrument, the result is > the MDL but ≤ the MRL. Result is reported and considered an estimate.
- E** An estimated value due to the presence of interferences. A full explanation is presented in the narrative.
- H** Holding time and/or preservation requirements not met. Result is estimated.
- J** Estimated value. A full explanation is presented in the narrative.
- J-M** Duplicate precision (RPD) for associated QC sample was not within acceptance criteria. Result is estimated.
- J-N** Spike recovery for associated QC sample was not within acceptance criteria. Result is estimated.
- M** Duplicate precision (RPD) was not within acceptance criteria. Result is estimated.
- N** Spike recovery was not within acceptance criteria. Result is estimated.
- R** Rejected, unusable value. A full explanation is presented in the narrative.
- U** Result is ≤ the MDL or client requested reporting limit (CRRL). Result reported as the MDL or CRRL.

These qualifiers are based on those previously utilized by Brooks Rand, Ltd., those found in the EPA SOW ILM03.0, Exhibit B, Section III, pg. B-18, and the USEPA Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses; USEPA; July 2002. These supersede all previous qualifiers ever employed by BRL.

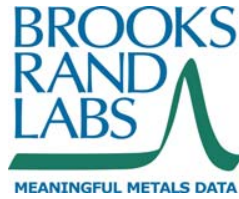


Organization: Kleinfelder
Contact: David King
Report Date: July 30, 2008

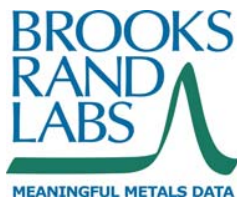
BRL Work Order: 0828032
BRL Project Reference: KLE-BE0801
BRL Project Manager: Citron Choice

ANALYTICAL REPORT FOR SAMPLES

Sample ID	BRL ID	Sampled	Received	Matrix
NAS 1817G	0828032-01	06/25/2008	07/09/2008	Biota
NAS 1818G	0828032-02	06/25/2008	07/09/2008	Biota
NAS 1729G	0828032-03	06/25/2008	07/09/2008	Biota
HB-B081104-Hg	0828032-04	07/15/2008	07/09/2008	DIW

**0828032*****BATCH SUMMARY FOR SAMPLES***

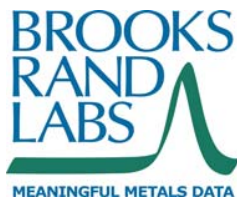
Analyte/Method	Prepared	Analyzed	Batch	Sequence
Hg by EPA Method 1631, Appendix	07/24/2008	07/25/2008	B081138	0800653
%TS by EPA Method 160.3	07/23/2008	07/28/2008	B081139	N/A



0828032

SAMPLE RESULTS

Method	Analyte	Total or Dissolved	Result	Qualifier	MDL	MRL	Units	Batch	Sequence
0828032-01 Biota NAS 1817G EPA Method 1631, Appendix	Hg		10.6		0.37	0.93	ng/g	B081138	0800653
0828032-02 Biota NAS 1818G EPA Method 1631, Appendix	Hg		186		1.94	4.84	ng/g	B081138	0800653
0828032-03 Biota NAS 1729G EPA Method 1631, Appendix	Hg		1.33		0.04	0.10	ng/g	B081138	0800653
0828032-04 DIW HB-B081104-Hg EPA Method 1631, Appendix	Hg		0.004	U	0.004	0.01	ng/g	B081138	0800653



0828032

SAMPLE RESULTS

Method	Analyte	Total or Dissolved	Result	Qualifier	MDL	MRL	Units	Batch	Sequence
0828032-01 Biota NAS 1817G EPA Method 160.3	%TS		11.65		0.30	1.00	%	B081139	N/A
0828032-02 Biota NAS 1818G EPA Method 160.3	%TS		13.88		0.30	1.00	%	B081139	N/A
0828032-03 Biota NAS 1729G EPA Method 160.3	%TS		13.63		0.30	1.00	%	B081139	N/A



0828032

QUALITY ASSURANCE SUMMARY

Accuracy and Precision

Batch: B081138		Method: EPA Method 1631, Appendix			SOP: BR-0002		Matrix: Biota		
Analyte	Sample Value	Spike Value	Result	Units	% Recovery	% Recovery Limits	Duplicate RPD	RPD Limits	
<u>Duplicate (0828032-01)</u>			<u>B081138-DUP3</u>						
Hg	10.7		10.1	ng/g			6	30	
<u>Matrix Spike (0828032-01)</u>			<u>B081138-MS3</u>						
Hg	10.7	910.7	1030	ng/g	112	70-130			
<u>Matrix Spike Duplicate (0828032-01)</u>			<u>B081138-MSD3</u>						
Hg	10.7	952.4	1070	ng/g	111	70-130	4	30	
<u>Post Spike (0828032-01)</u>			<u>B081138-PS1</u>						
Hg	10.7	37.24	52.0	ng/g	111	77-123			
<u>Certified Reference Material (0830015, DORM-3)</u>			<u>B081138-SRM2</u>						
Hg		382.0	311.1	ng/g	81	75-125			
<u>Certified Reference Material (0822035, NIST 1547 - Peach)</u>			<u>B081138-SRM3</u>						
Hg		31.00	29.94	ng/g	97	75-125			

Batch: B081139		Method: EPA Method 160.3			SOP: BR-1501		Matrix: Biota		
Analyte	Sample Value	Spike Value	Result	Units	% Recovery	% Recovery Limits	Duplicate RPD	RPD Limits	
<u>Duplicate (0828032-03)</u>			<u>B081139-DUP1</u>						
%TS	13.63		13.19	%			3	15	



0828032

QUALITY ASSURANCE SUMMARY

Method Blanks/Detection Limits

Batch: B081138 **Method: EPA Method 1631, Appendix** **SOP: BR-0002** **Matrix: Biota**

Analyte Result Units

Hg

B081138-BLK1	0.04	ng/g
B081138-BLK2	0.04	ng/g
B081138-BLK3	0.02	ng/g
B081138-BLK4	0.00800	ng/g

	Average	Average Limits	Standard Deviation	StDev Limits	MDL	MRL
Method Blank Summary	0.03	0.08	0.02	0.03	0.04	0.10

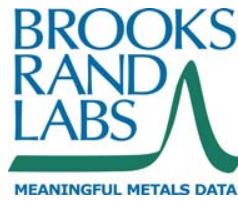
Batch: B081139 **Method: EPA Method 160.3** **SOP: BR-1501** **Matrix: Biota**

Analyte Result Units

%TS

B081139-BLK1	-0.14	%
B081139-BLK2	-0.12	%

	Average	Average Limits	Standard Deviation	StDev Limits	MDL	MRL
Method Blank Summary		0.60		0.20	0.30	1.00



0828032

Sequence: 0800653 **Method:** EPA Method 1631, Appendix **SOP:** BR-0002 **Matrix:** Biota

0800653-CAL3

Analyte	Result	True Value	% Recovery
Hg	489.8	500.0	98

0800653-CAL4

Analyte	Result	True Value	% Recovery
Hg	2566	2500	103

0800653-CAL5

Analyte	Result	True Value	% Recovery
Hg	10030	10000	100

0800653-CAL6

Analyte	Result	True Value	% Recovery
Hg	25.57	25.00	102

0800653-CAL7

Analyte	Result	True Value	% Recovery
Hg	97.07	100.0	97

0800653-CCV1

Analyte	Result	True Value	% Recovery	% Recovery Limits
Hg	393.4	500.0	79	77-123

0800653-CCV2

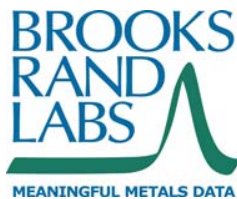
Analyte	Result	True Value	% Recovery	% Recovery Limits
Hg	405.8	500.0	81	77-123

0800653-CCV3

Analyte	Result	True Value	% Recovery	% Recovery Limits
Hg	459.2	500.0	92	77-123

0800653-CCV5

Analyte	Result	True Value	% Recovery	% Recovery Limits
Hg	394.0	500.0	79	77-123



0828032

Sequence: 0800653 **Method:** EPA Method 1631, Appendix **SOP:** BR-0002 **Matrix:** Biota

0800653-CCV6

Analyte	Result	True Value	% Recovery	% Recovery Limits
Hg	431.9	500.0	86	77-123

0800653-ICV1

Analyte	Result	True Value	% Recovery	% Recovery Limits
Hg	1457	1601	91	85-115

ANALYSIS SEQUENCE

0800653

Brooks Rand Labs

Instrument: THG-05

Lab Number	Batch #	Analysis	Order	STD ID	Source ID	BRL Project #	Due	Comments
0800653-IBL1	0800653	QC	1		-			
0800653-IBL2	0800653	QC	2		-			
0800653-IBL3	0800653	QC	3		-			
0800653-IBL4	0800653	QC	4		-			
0800653-CAL1	0800653	QC	5	0829004	-			
0800653-CAL2	0800653	QC	6	0829005	-			
0800653-CAL3	0800653	QC	7	0828020	-			
0800653-CAL4	0800653	QC	8	0829007	-			
0800653-CAL5	0800653	QC	9	0829008	-			
0800653-ICV1	0800653	QC	10	0829010	-			
B081138-BLK1	B081138	QC	11		-			
B081138-BLK2	B081138	QC	12		-			
0800653-CCB1	0800653	QC	13		-			
B081138-BS1	B081138	QC	14		-			
0800653-CAL6	0800653	QC	15	0829004	-			
0800653-CAL7	0800653	QC	16	0829005	-			
B081138-SRM1	B081138	QC	17		-			
B081138-SRM2	B081138	QC	18		-			
B081138-SRM3	B081138	QC	19		-			
0828032-04	B081138	Hg-B-70:30-CVAFS	20			KLE-BE0801	8/4/2008	
0800653-CCV1	0800653	QC	21	0829009	-			
0800653-CCV2	0800653	QC	22	0829009	-			
B081138-BLK3	B081138	QC	23		-			
B081138-BLK4	B081138	QC	24		-			
0827019-05	B081138	Hg-B-70:30-CVAFS	25			STM-CH0801	7/28/2008	Perform MS/MSD
0829003-11	B081138	Hg-B-70:30-CVAFS	26			WSP-WE0801	8/6/2008	

ANALYSIS SEQUENCE

0800653

Brooks Rand Labs

Instrument: THG-05

Lab Number	Batch #	Analysis	Order	STD ID	Source ID	BRL Project #	Due	Comments
0827019-03	B081138	Hg-B-70:30-CVAFS	27			STM-CH0801	7/31/2008	Perform MS/MSD
0827019-04	B081138	Hg-B-70:30-CVAFS	28			STM-CH0801	7/31/2008	Perform MS/MSD
0828032-01	B081138	Hg-B-70:30-CVAFS	29			KLE-BE0801	8/4/2008	
0828032-02	B081138	Hg-B-70:30-CVAFS	30			KLE-BE0801	8/4/2008	
0828032-03	B081138	Hg-B-70:30-CVAFS	31			KLE-BE0801	8/4/2008	
0829003-06	B081138	Hg-B-70:30-CVAFS	32			WSP-WE0801	8/6/2008	
0829003-07	B081138	Hg-B-70:30-CVAFS	33			WSP-WE0801	8/6/2008	
0829003-08	B081138	Hg-B-70:30-CVAFS	34			WSP-WE0801	8/6/2008	
0829003-09	B081138	Hg-B-70:30-CVAFS	35			WSP-WE0801	8/6/2008	
0829003-10	B081138	Hg-B-70:30-CVAFS	36			WSP-WE0801	8/6/2008	
0827019-03RE1	B081138	Hg-B-70:30-CVAFS	37			STM-CH0801	7/31/2008	Added 7/25/2008 by MSU
0827019-04RE1	B081138	Hg-B-70:30-CVAFS	38			STM-CH0801	7/31/2008	Added 7/25/2008 by MSU
0828032-01RE1	B081138	Hg-B-70:30-CVAFS	39			KLE-BE0801	8/4/2008	Added 7/25/2008 by MSU
0828032-03RE1	B081138	Hg-B-70:30-CVAFS	40			KLE-BE0801	8/4/2008	Added 7/25/2008 by MSU
B081138-DUP1	B081138	QC	41	0827019-03RE1				
B081138-MS1	B081138	QC	42	0827019-03RE1				
B081138-MSD1	B081138	QC	43	0827019-03RE1				
B081138-DUP2	B081138	QC	44	0827019-04RE1				
B081138-MS2	B081138	QC	45	0827019-04RE1				
B081138-MSD2	B081138	QC	46	0827019-04RE1				
B081138-DUP3	B081138	QC	47	0828032-01RE1				
B081138-MS3	B081138	QC	48	0828032-01				
B081138-MSD3	B081138	QC	49	0828032-01				
B081138-PS1	B081138	QC	50	0828032-01RE1				
B081138-PS2	B081138	QC	51	0827019-03RE1				
B081138-PS3	B081138	QC	52	0827019-04RE1				

ANALYSIS SEQUENCE

0800653

Brooks Rand Labs

Instrument: THG-05

Lab Number	Batch #	Analysis	Order	STD ID	Source ID	BRL Project #	Due	Comments
0800653-CCV3	0800653	QC	53	0829009	-			
B081138-PS4	B081138	QC	54		0827019-04RE1			
0800653-CCV4	0800653	QC	55	0829009	-			
0800653-CCV5	0800653	QC	56	0829009	-			
0829003-10RE1	B081138	Hg-B-70:30-CVAFS	57			WSP-WE0801	8/6/2008	Added 7/25/2008 by MSU
0800653-CCV6	0800653	QC	58	0829009	-			

Hg Analysis Sheet: T-Hg / Other: _____

Sequence: 0800653 Batch(es): 8081138

Analyst: MSU Date: 07/25/08 Instrument ID: BR-05

10ng/mL std ID: 0829002 1ng/mL std ID: 0829003 ICV std ID: 0829001

NH₂OH·HCl #: 0828033 SnCl₂ #: 0829034A

Initial offset: 10070 Initial PMT: 505

Run #	Split Bottle	Trap	Bubb.	Brooks Rand Sample ID	Analy. Vol. (mL)	Dilution Factor	Analysis comments / For spiked QC: Source sample, standard ID, and spiked volume (mL)
1	1	B3	1	SEQ-IBL1	---		
2	2	B4	2	SEQ-IBL2	---		Odd peak shape, peak 1 <10% of actual peak, not re-analyzed.
3	3	B5	3	SEQ-IBL3	---		
4	4	B6	4	SEQ-IBL4	---		
5	1	B7	1	SEQ-CAL1	0.025		1ng/mL
6	2	B8	2	SEQ-CAL2	0.100		1ng/mL
7	3	B9	3	SEQ-CAL3	0.050		10ng/mL
8	4	B10	4	SEQ-CAL4	0.250		10ng/mL
9	1	B11	1	SEQ-CAL5	1.00		10ng/mL
10	2	B3	2	SEQ-ICV1	1.00		NIST 1641d
11	3	D4	3	8081138-BLK1	10.00		8081138
12	4	D5	4	↓ -BLK2	↓		pmt: 504 offset: 10075
13	1	B6	1	SEQ-CCB1	---		
14	2	B7	2	8081138-BLK3	10.00		
15	3	B8	3	↓ -BLK4	↓		
16	4	B9	4	↓ -BS1	↓		
	1		1	8081138-SRM1	5.00		
	2		2	↓ -SRM2	1.00		
	3		3	↓ -SRM3	5.00		
	4		4	0828032-04	10.00		
17	1	B10	1	SEQ-CAL6	0.025		
18	2	B11	2	↓ -CAL7	0.100		
19	3	B3	3	8081138-SRM1	5.00		
20	4	D4	4	↓ -SRM2	1.00		

Comments: * Traps B7 and B8 will be tested w/ CCV. Bubbler check not performed on 1 & 2 since CAL5 and CCV passed w/ good recovery.

All Brooks Rand Labs (BRL) SOPs are Proprietary Information and protected by WA state law. Proprietary Information shall be kept in the strictest confidence & shall not be used or appropriated to benefit any party without prior written consent from BRL.

Hg Analysis Sheet: T-Hg / Other: _____

Sequence: 0800653

Analyst: MSU

Date: 07/25/08

Run #	Split Bottle	Trap	Bubb.	Brooks Rand Sample ID	Analy. Vol. (mL)	Dilution Factor	Analysis comments / For spiked QC: Source sample, standard ID, and spiked volume (mL)
21	1	D5	1	R081138-SRMS	5.00		
22	2	B6	2	0828032-04	10.00		
23	3	B7	3	SEA-CCV1	0.050		trap check, 78% recovery, trap retired.
24	4	B8	4	↓ -CCV2	↓		↓, 81% recovery; holding off using it til regular CCV results.
25	1	G12	1	R081138-BLK3	10.00		re-analyzed because it was analyzed w/ suspected traps.
26	2	B9	2	↓ -BLK4	↓		↓
27	3	B10	3	0827019-05	↓		
28	4	B11	4	0829003-11	↓		
29	1	B3	1	0827019-03	1.00		< PQL, re-analyzed.
30	2	D4	2	↓ -04	↓		↓
31	3	D5	3	0828032-01	0.200		< 5x PQL, re-analyzed.
32	4	B6	4	↓ -02	↓		
33	1	G12	1	↓ -03	↓		< PQL, re-analyzed.
34	2	B9	2	0829003-06	1.00		
35	3	B10	3	↓ -07	↓		
36	4	B11	4	↓ -08	↓		
37	1	B3	1	↓ -09	↓		
38	2	D4	2	↓ -10	↓		
39	3	D5	3	0827019-03RE1	10.00		
40	4	B6	4	↓ -04RE1	↓		
41	1	G12	1	0828032-01RE1	MSU 7/25/08 Q. 1.00		
42	2	B9	2	↓ -03RE1	5.00		
43	3	B10	3	R081138-DUP1	10.00		
44	4	B11	4	↓ -MS1	↓		
45	1	B3	1	↓ -MSD1	↓		
46	2	B4	2	↓ -DUP2	↓		
47	3	B5	3	↓ -MS2	↓		
48	4	B6	4	↓ -MSD2	↓		
49	1	G12	1	R081138-DUP3	1.00		
50	2	B9	2	↓ -MS3	0.200		
51	3	B10	3	↓ -MSD3	↓		
52	4	B11	4	↓ -PS1	1.00		NATIVE: 0828032-01RE1 + 100.0 pg (0.100 mL of 1000/mL)

Comments: B8 retired.

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Hg Analysis Sheet: (T-Hg) Other: _____

Sequence: 0800653

Analyst: MSU

Date: 7/25/08

Run #	Split Bottle	Trap	Bubb.	Brooks Rand Sample ID	Analy. Vol. (mL)	Dilution Factor	Analysis comments / For spiked QC: Source sample, standard ID, and spiked volume (mL)
53	1	B3	1	B081138 - PS2	10.00		Native: 0827019-03RE1 + 125pg (0.125mL of Inghol)
54	2	D4	2	↓ - PS3	↓		Native: 0827019-04RE1 ↓
55	3	D5	3	SEQ-CCV3	0.050		
56	4	B6	4	BLK1	10.00		RWB Sed IDOC
57	1	G12	1	BLK2			
58	2	B9	2	BLK3			
59	3	B10	3	BLK4			
60	4	B11	4	BS1			
64 62	MSV 125100 1	G7	1	BS2			
65-69 63	2	G4	2	BS3			
66 64	3	B9	3	BS4			
67 65	4	B10	4	BS5			
63	1	D5	1	B081138 - PS4	10.00		Native: 0827019-04 RE1 + 125pg
62	2	D4	2	SEQ-CCV4	0.050		trap check.
61	3	B6	3	↓ - CCV5	↓		
69 67	MSV 125100 4	G12	4	↓ - CCV6	↓		
68 66	1	B11	1	0829003-10RE1	1.00		
70 68	2	D5	2	BS6	10.00		
71	3	G15	3	BS7			
72	4	G3	4	BS8			
73	1	G4	1	BS9	10.00		
74	2	B9	2	SRM1	1.00		
75	3	B10	3	SRM2			
76	4	B11	4	SRM3			
77	1	G12	1	SRM4			
78	2	G15	2	CCV8	0.050		
	3		3	B081138 - SRM4	5.00	MSV	7/25/08
	4		4	SEQ-CCV7	0.050		

Comments: ^{MSV 7/25/08} # trap # B3 retired, B6 trap retired. Both traps had passing, but low recoveries. ^{MSV 7/25/08} D4 failed trap check. Sampled other than QC re-analyzed.

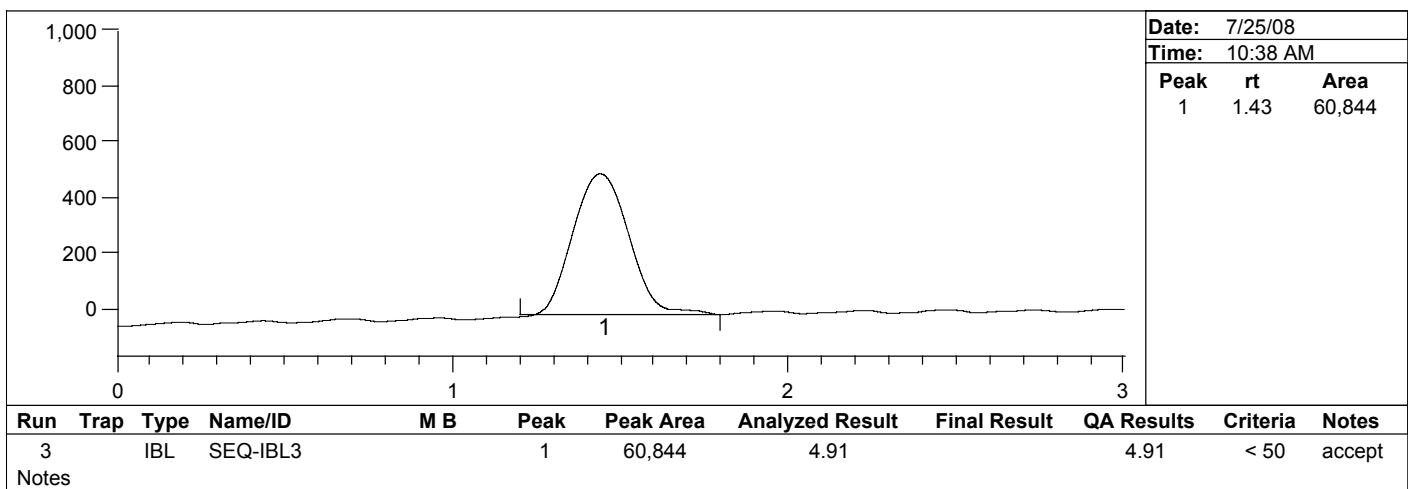
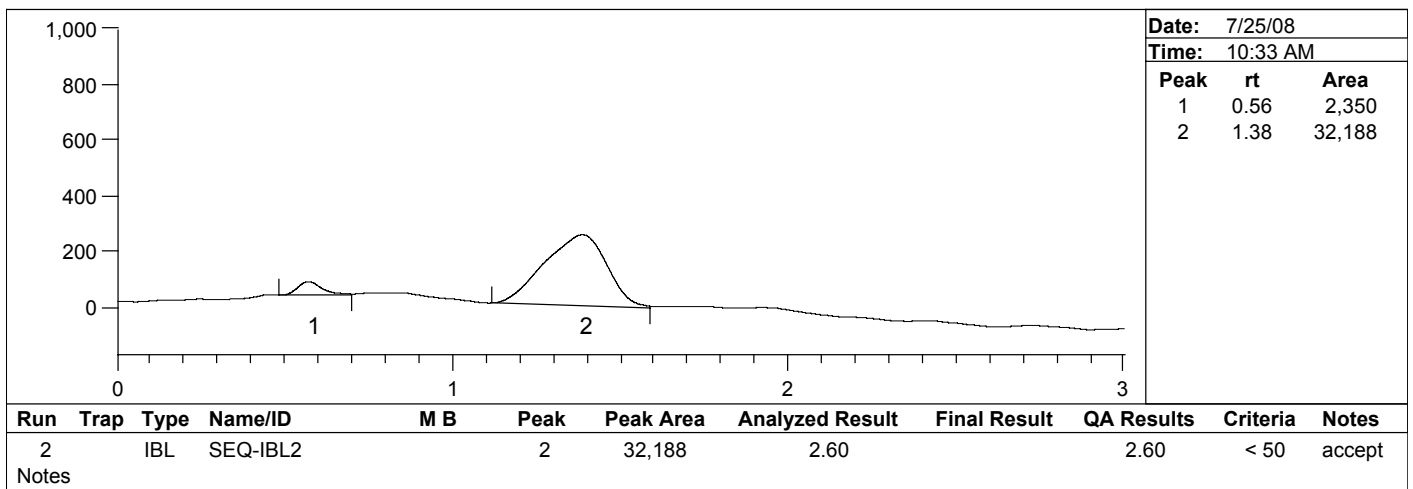
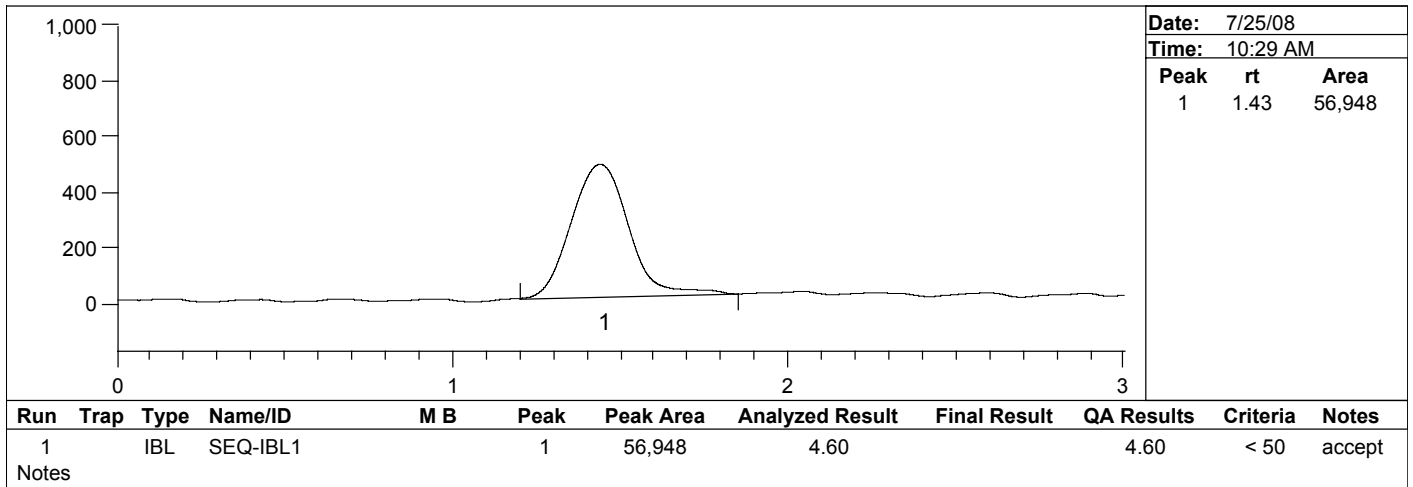
All Brooks Rand Labs (BRL) SOPs are Proprietary Information and protected by WA state law. Proprietary Information shall be kept in the strictest confidence & shall not be used or appropriated to benefit any party without prior written consent from BRL.

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Project Number(s): 0800653
 Instrument ID: BR-05

Date Analyzed: 7/25/08
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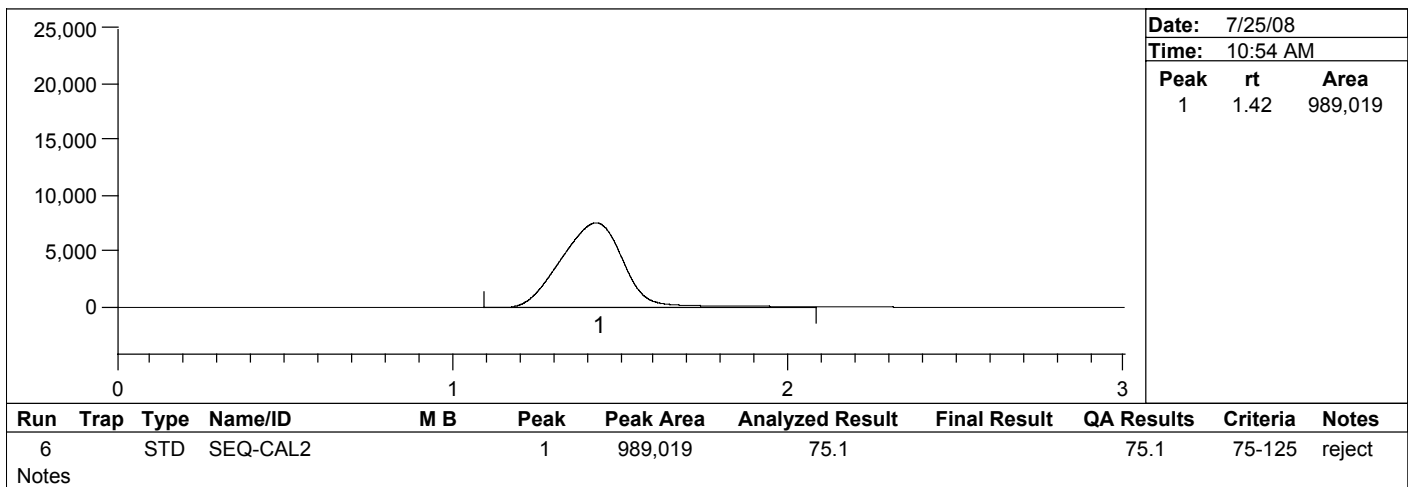
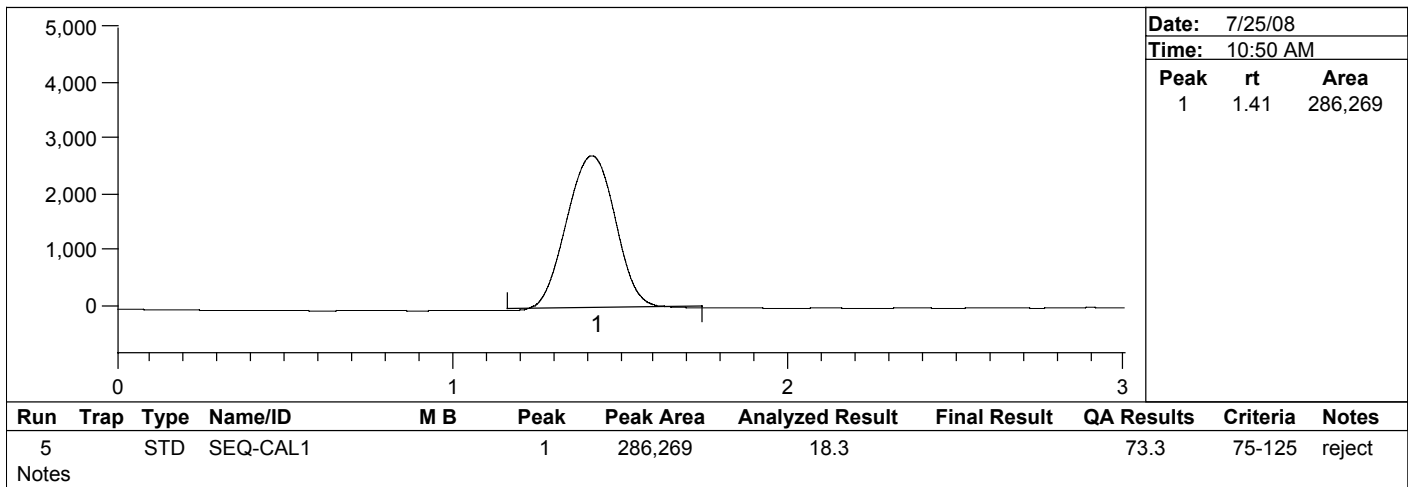
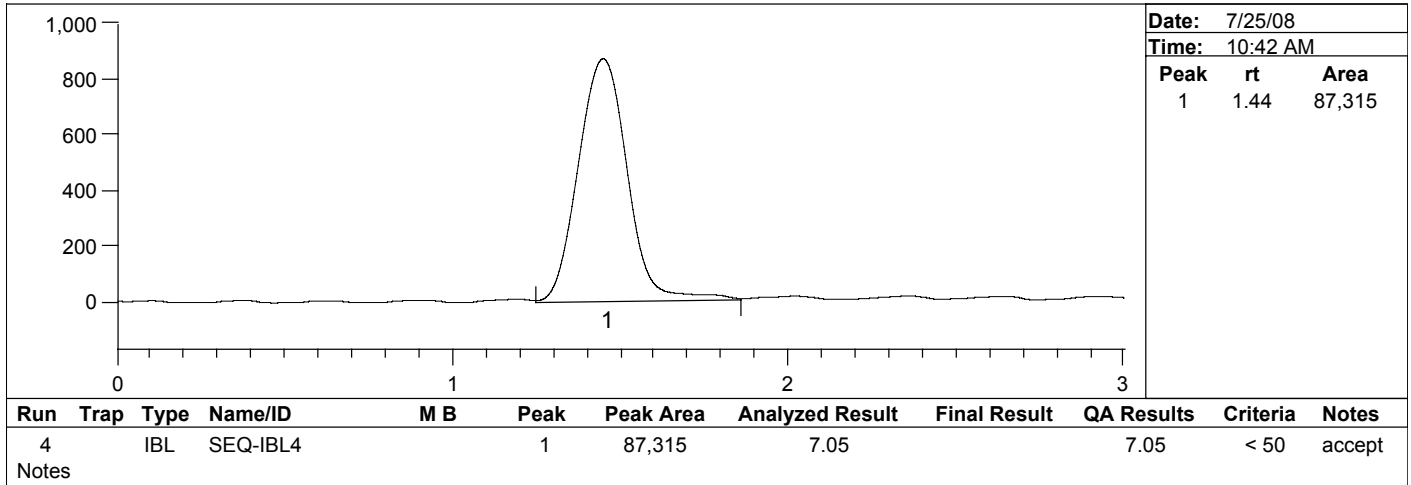


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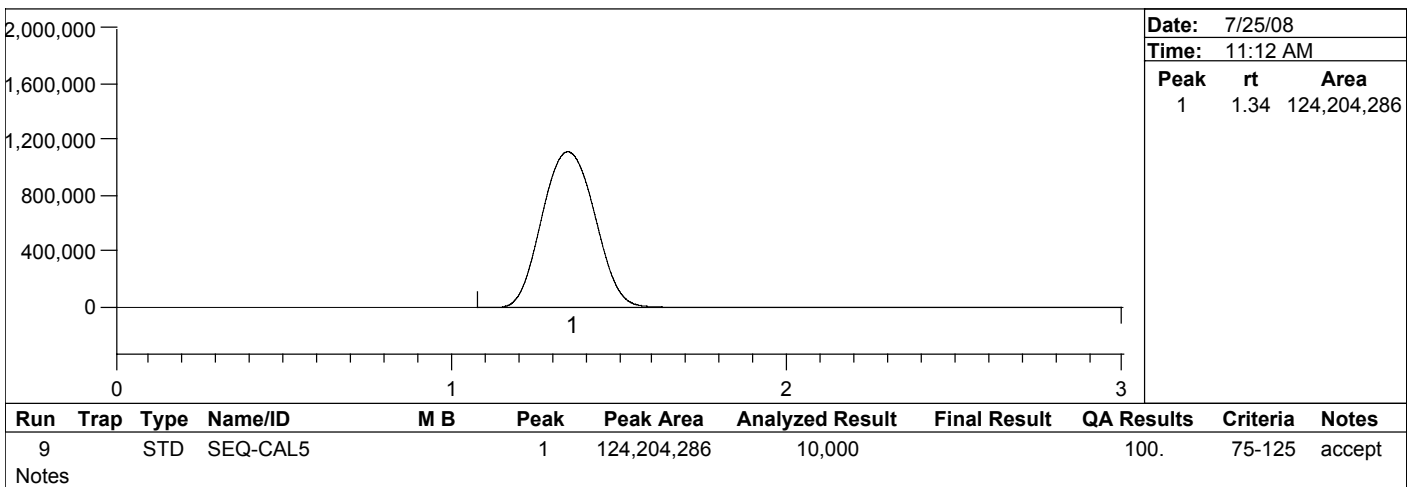
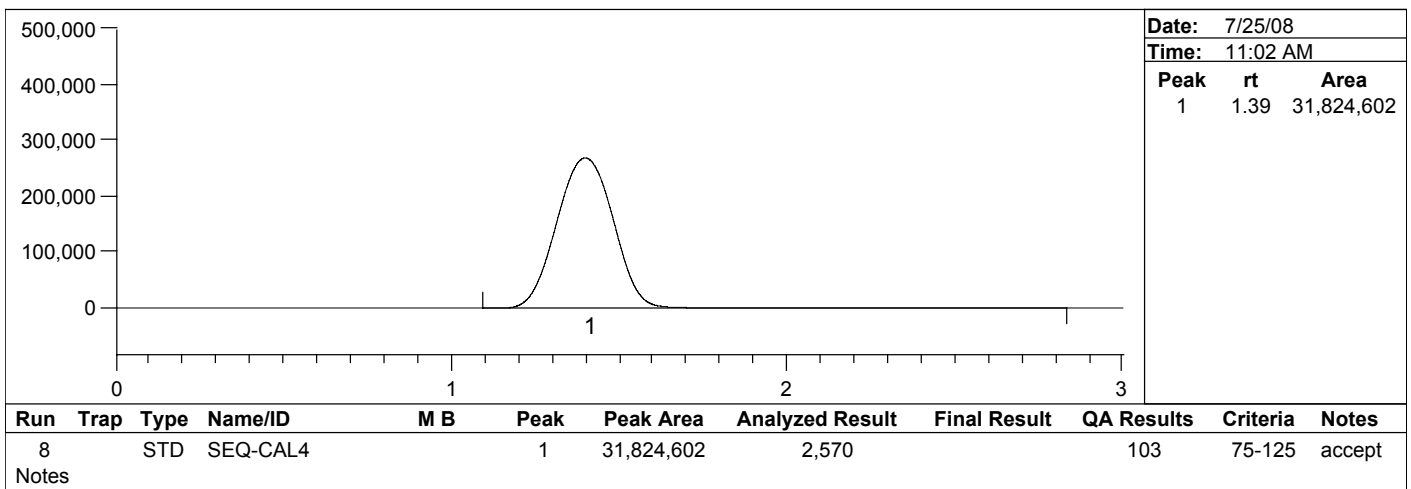
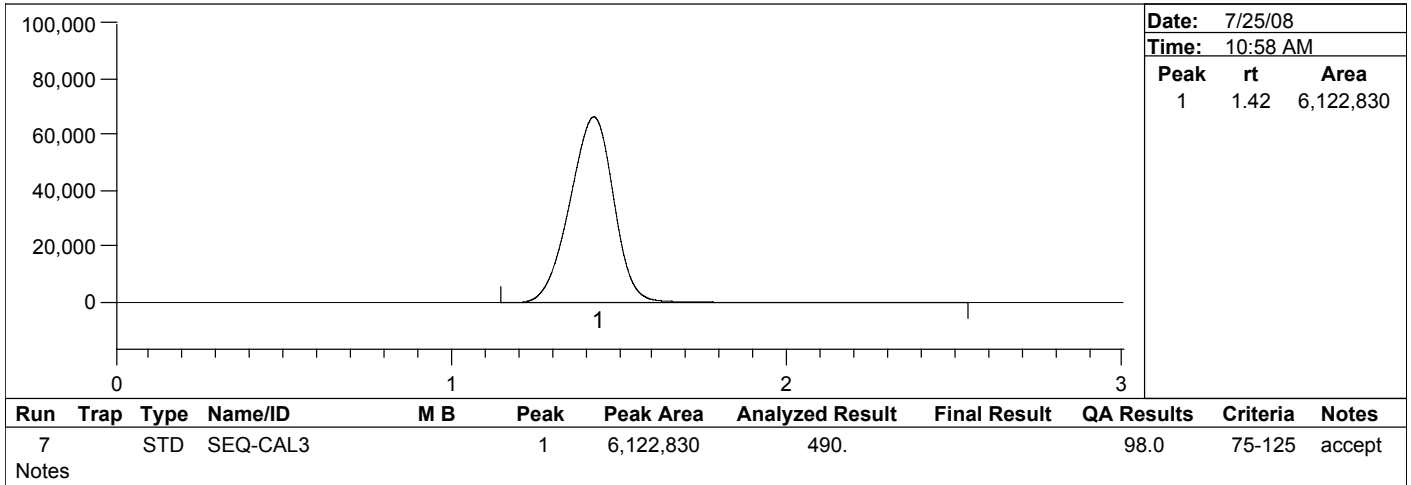


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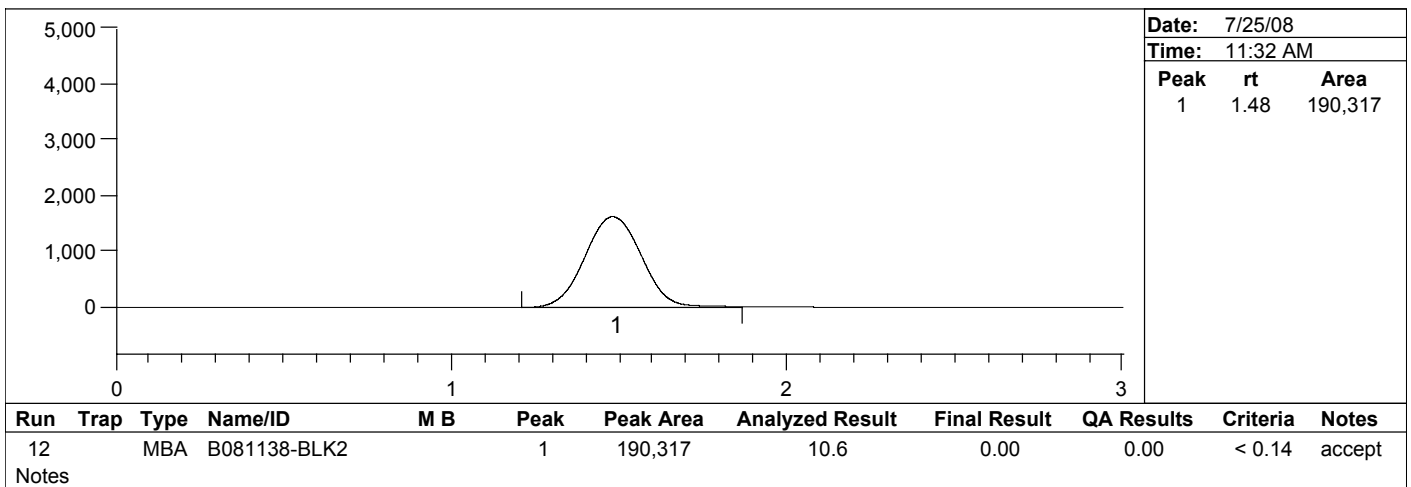
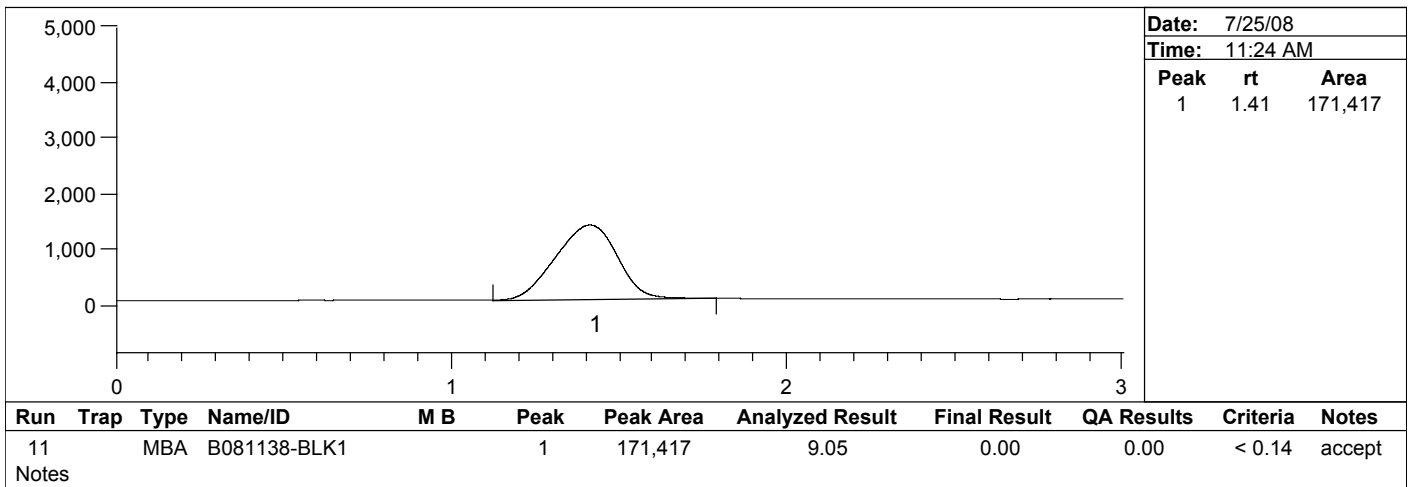
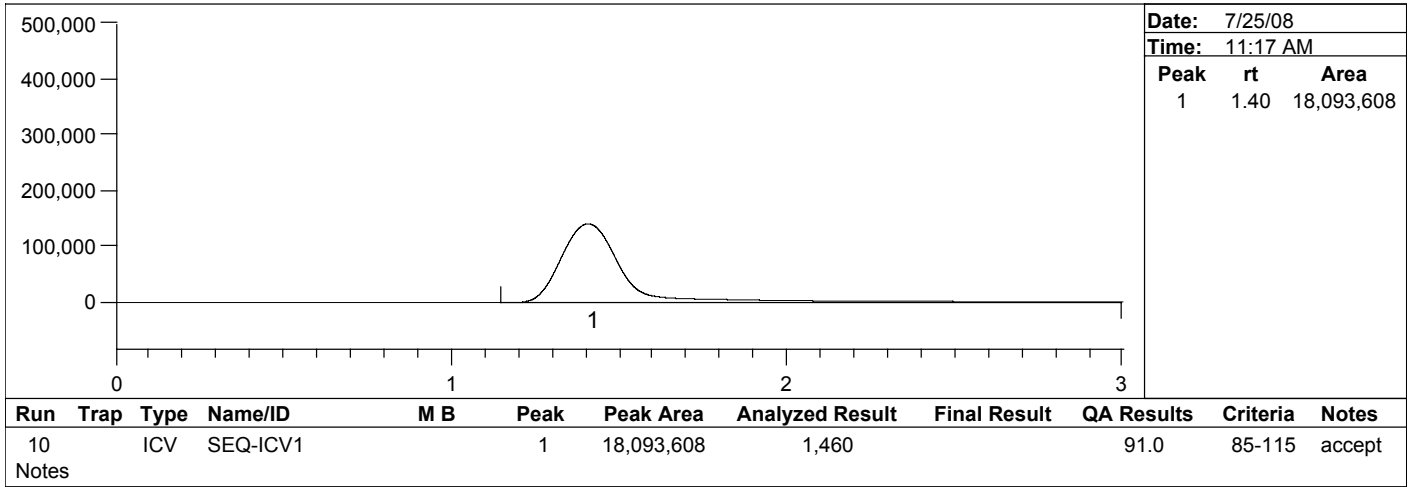


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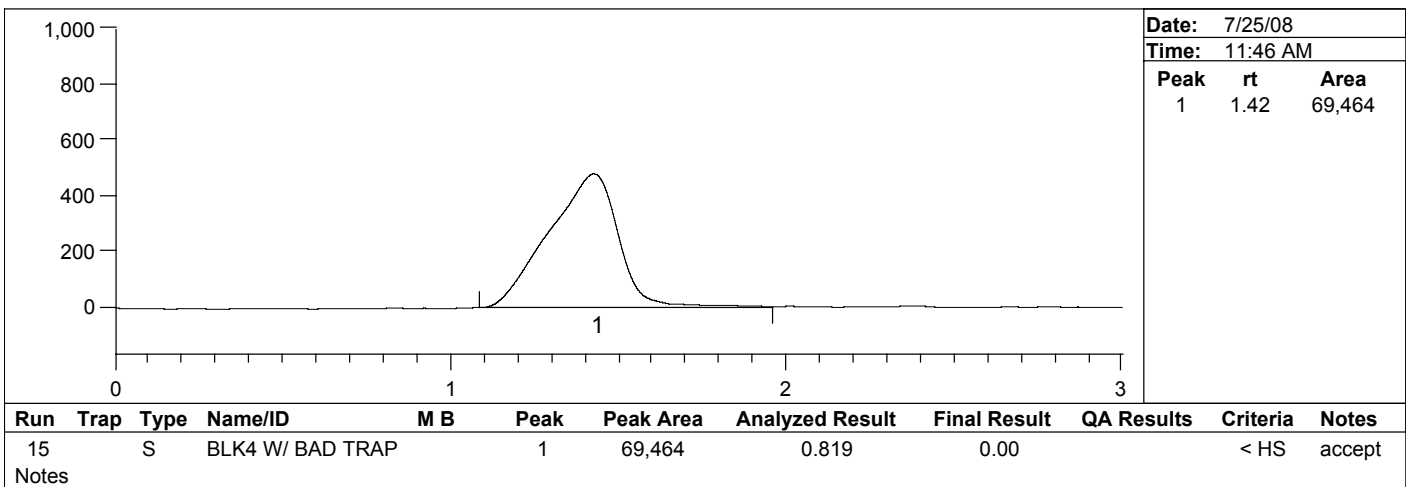
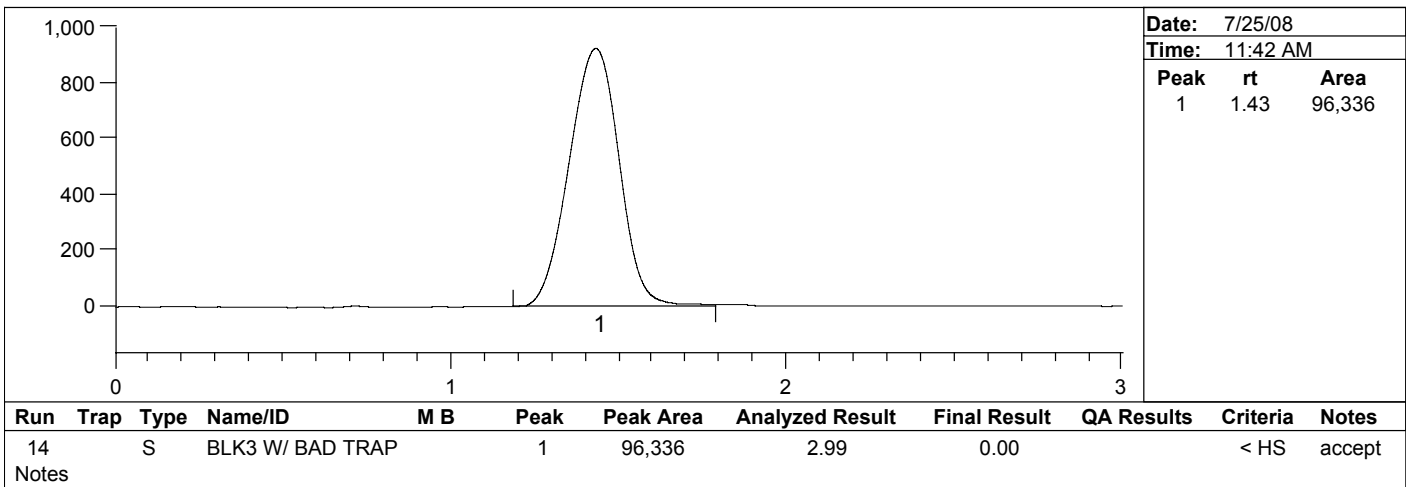
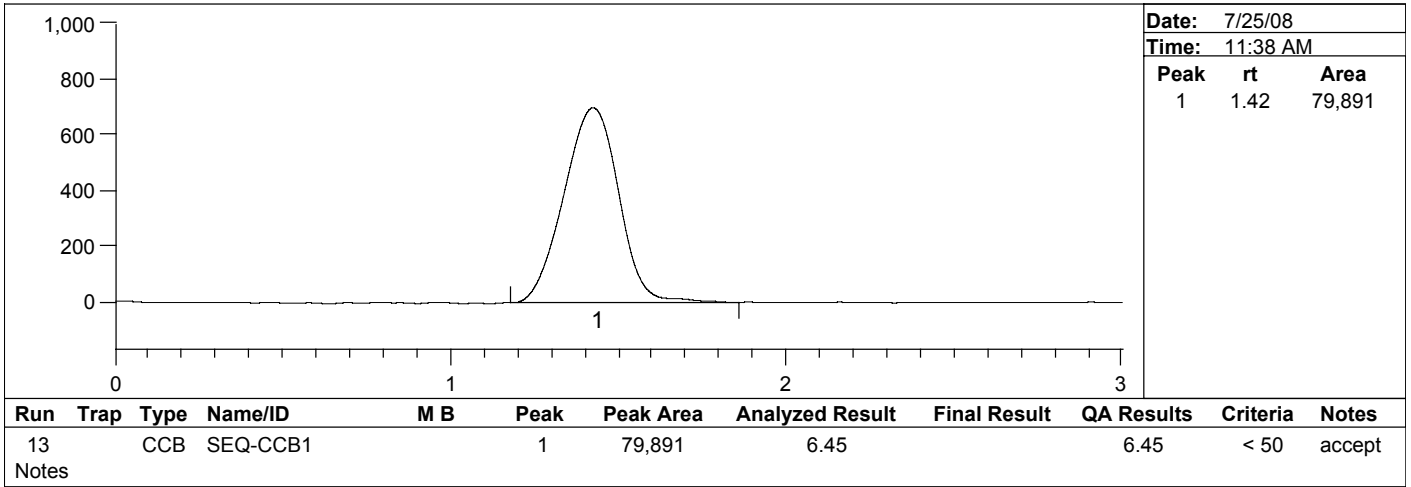


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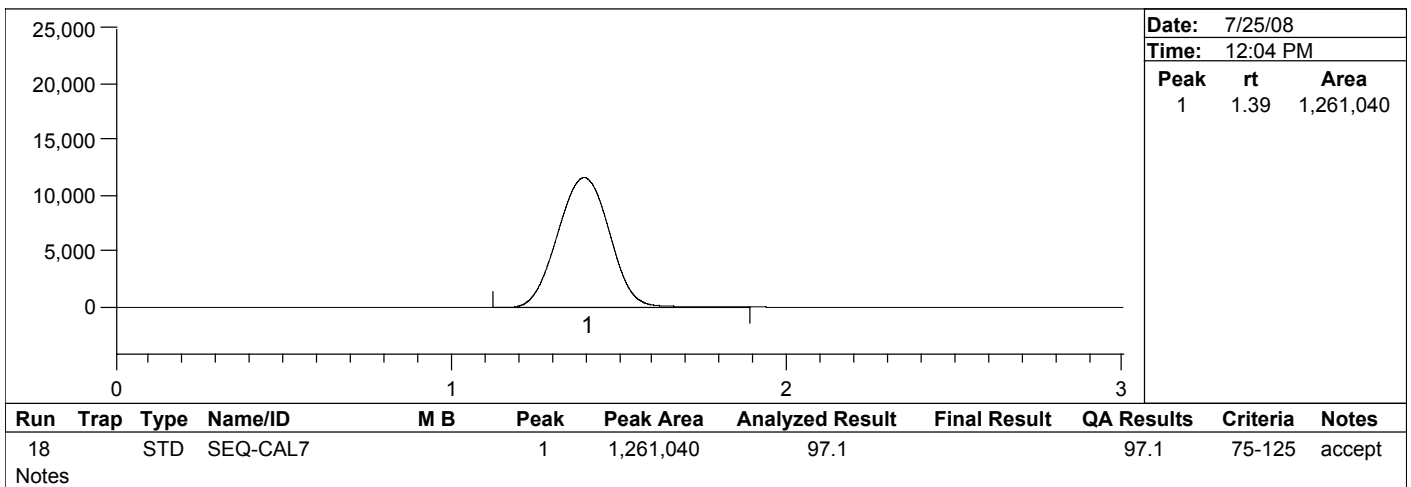
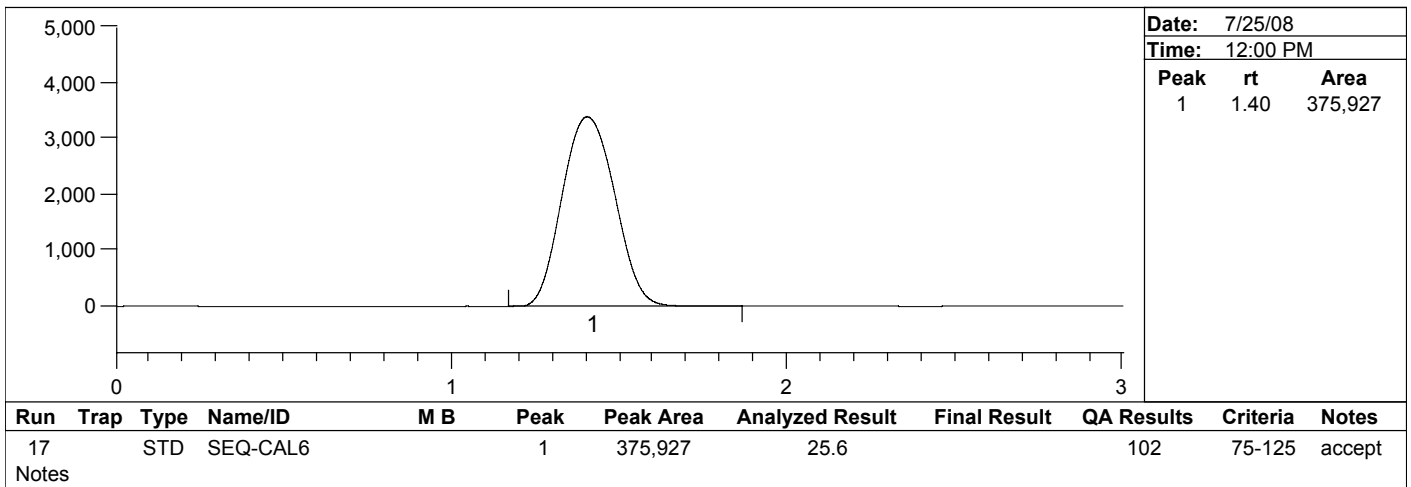
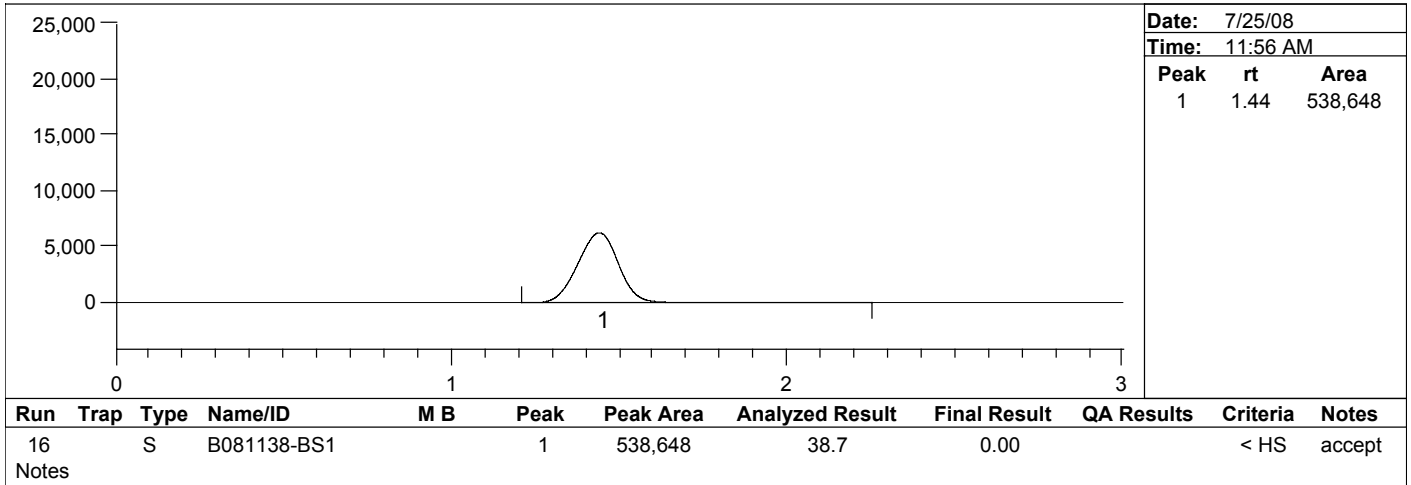


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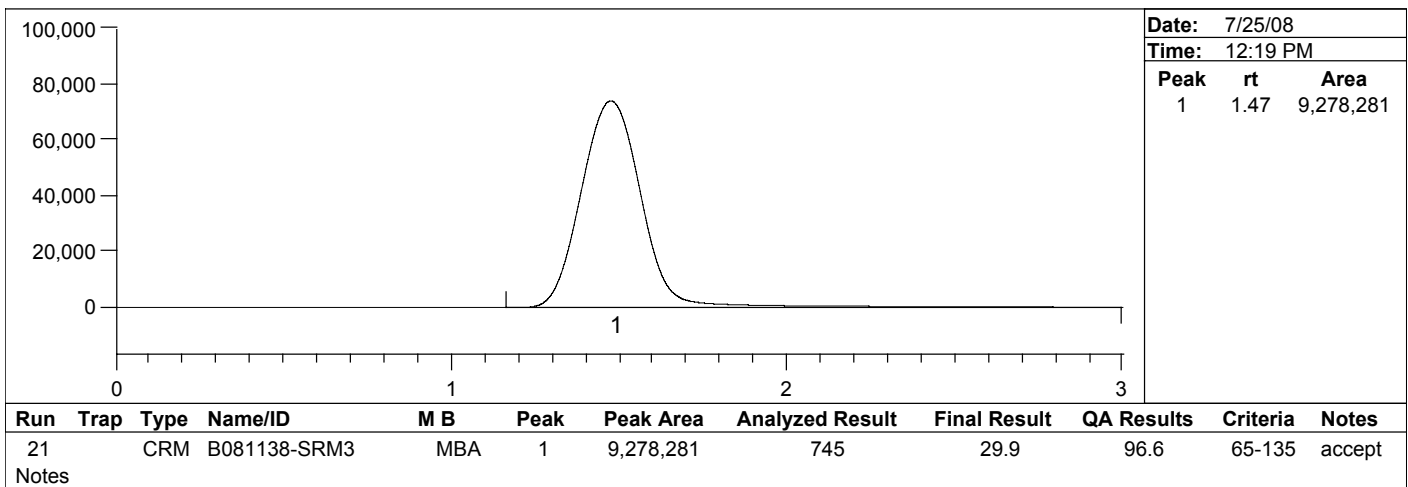
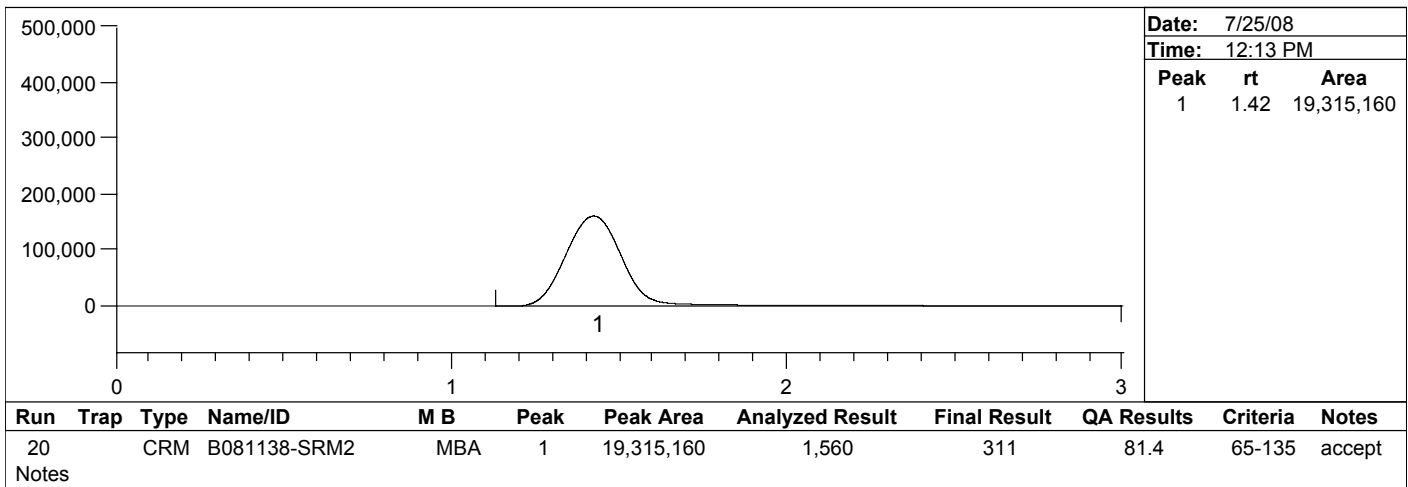
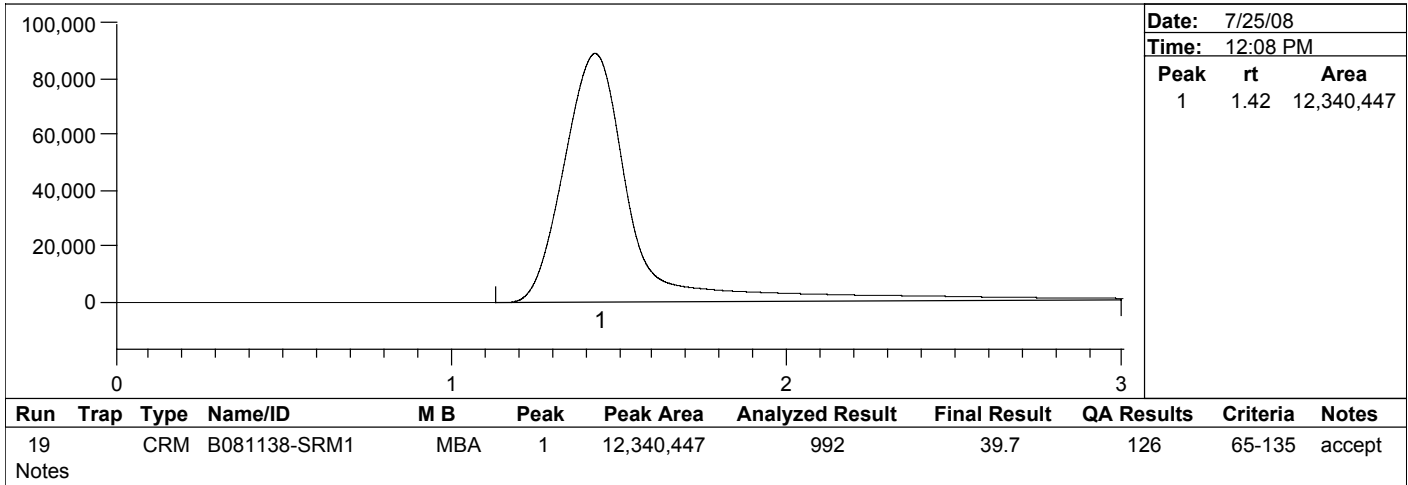


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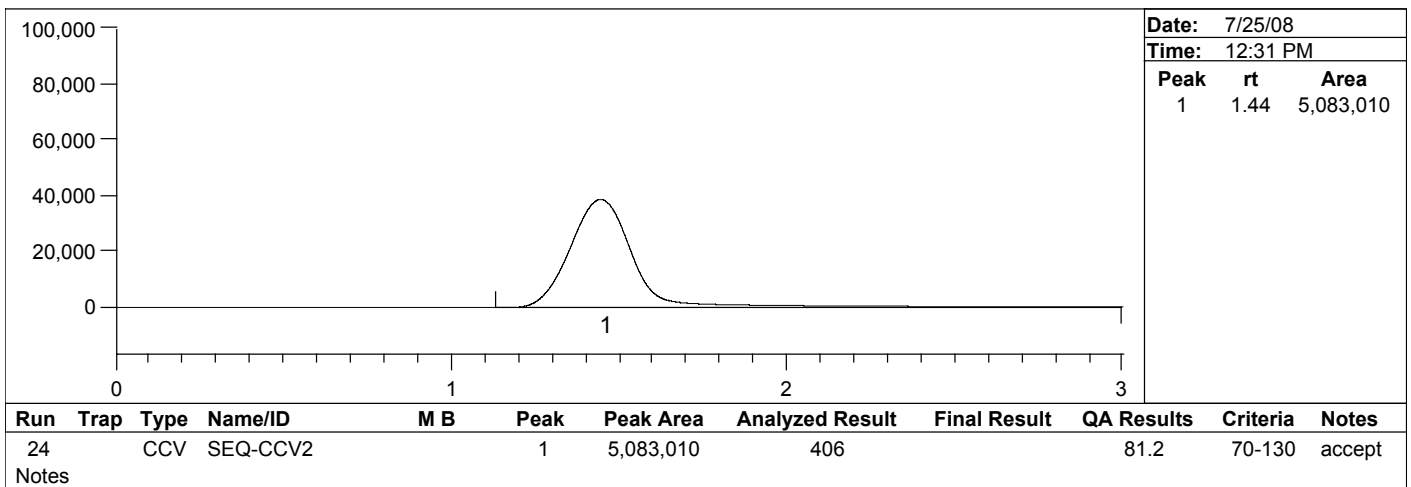
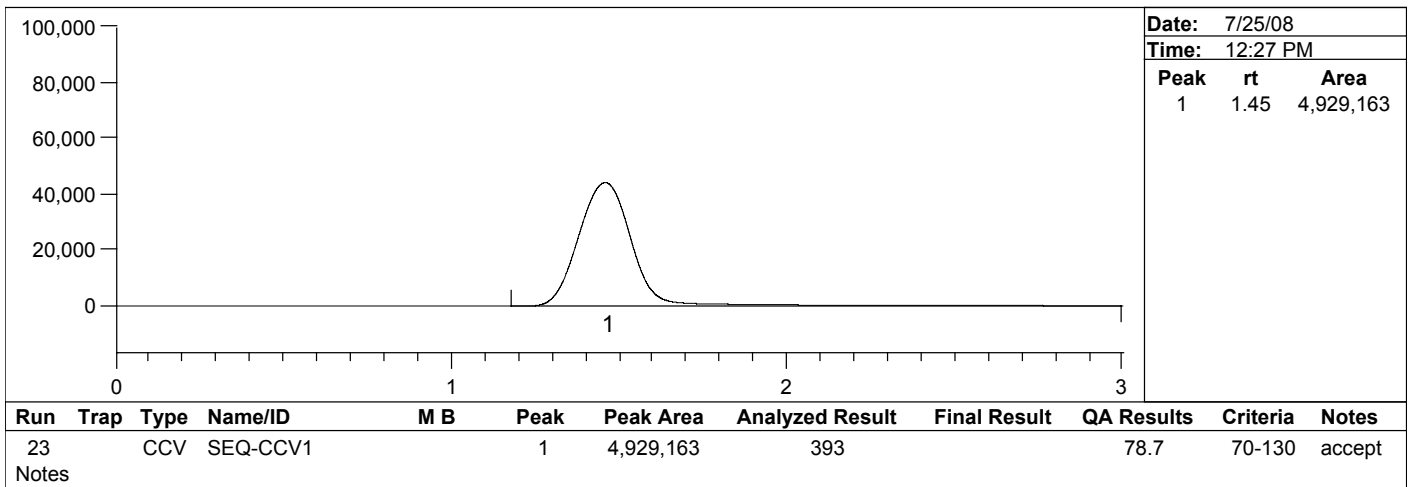
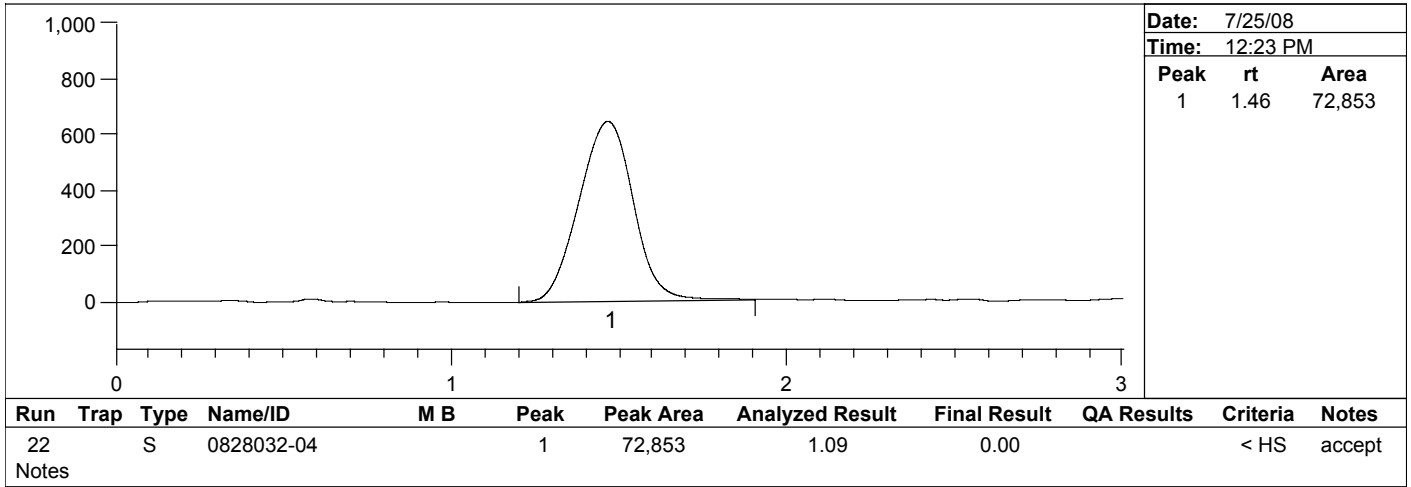


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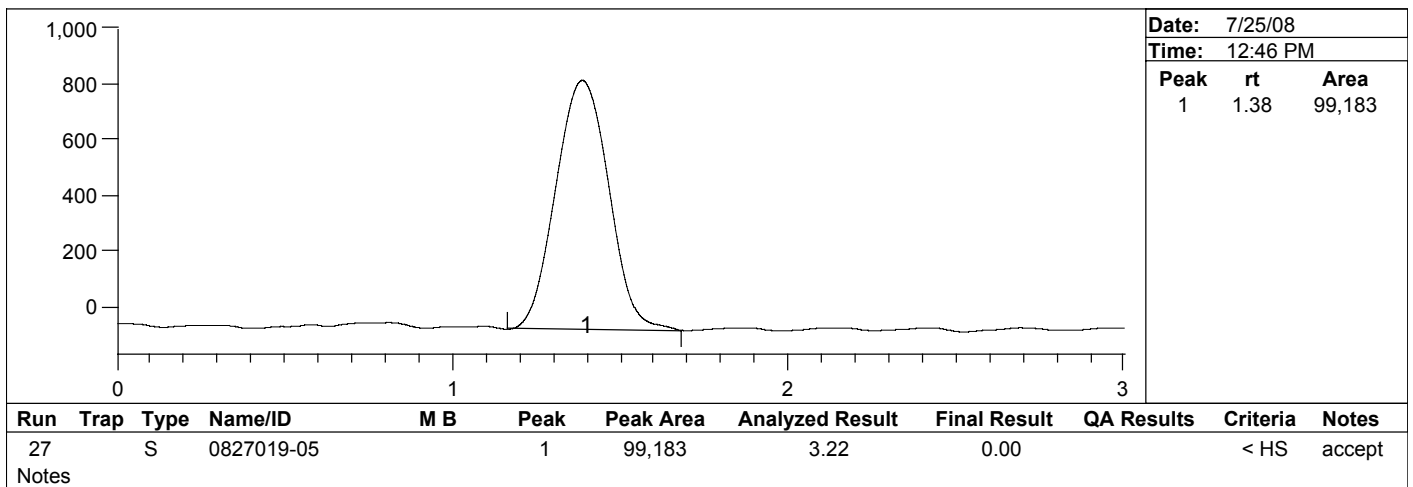
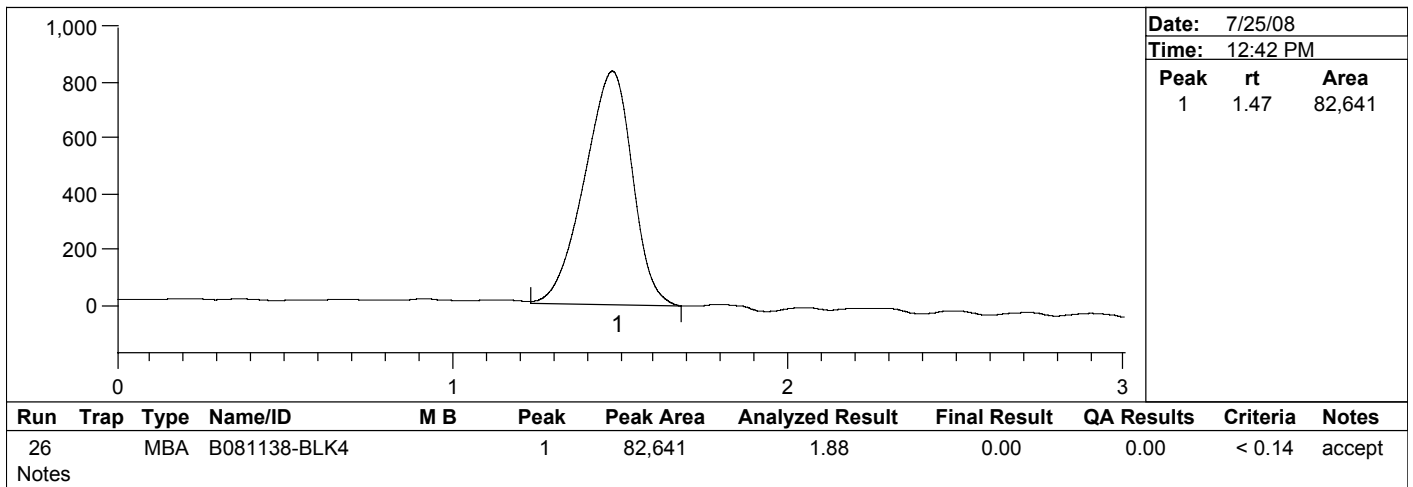
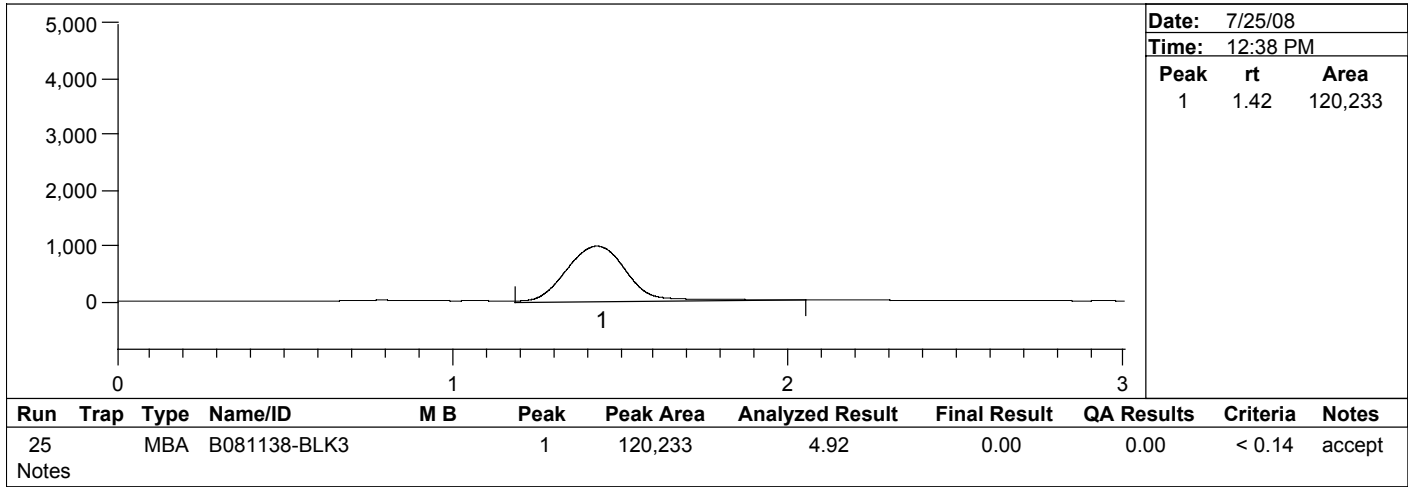


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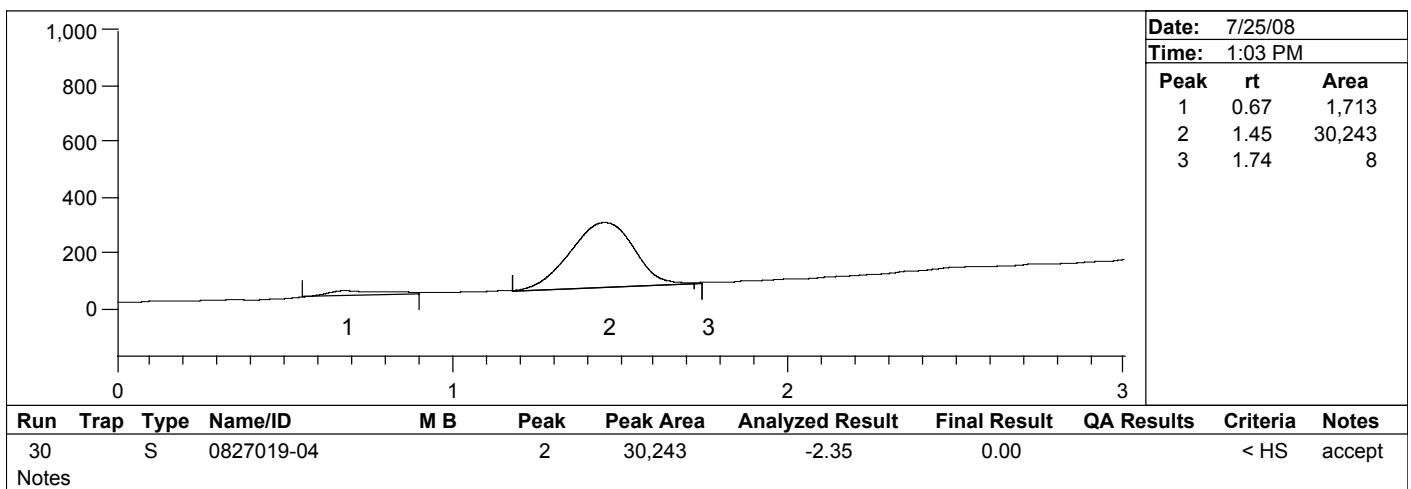
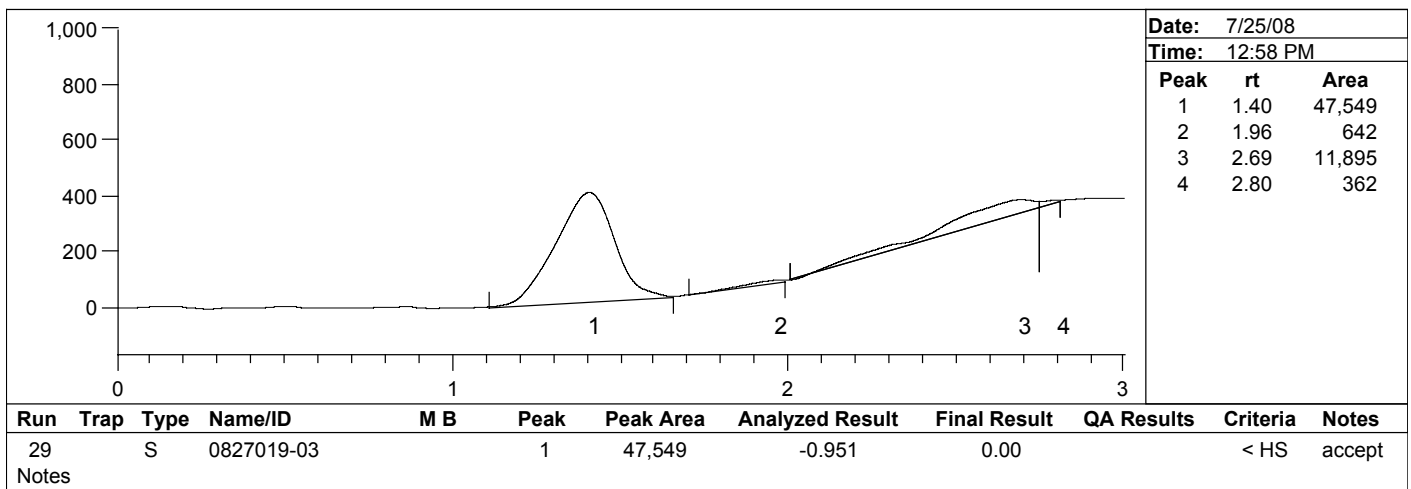
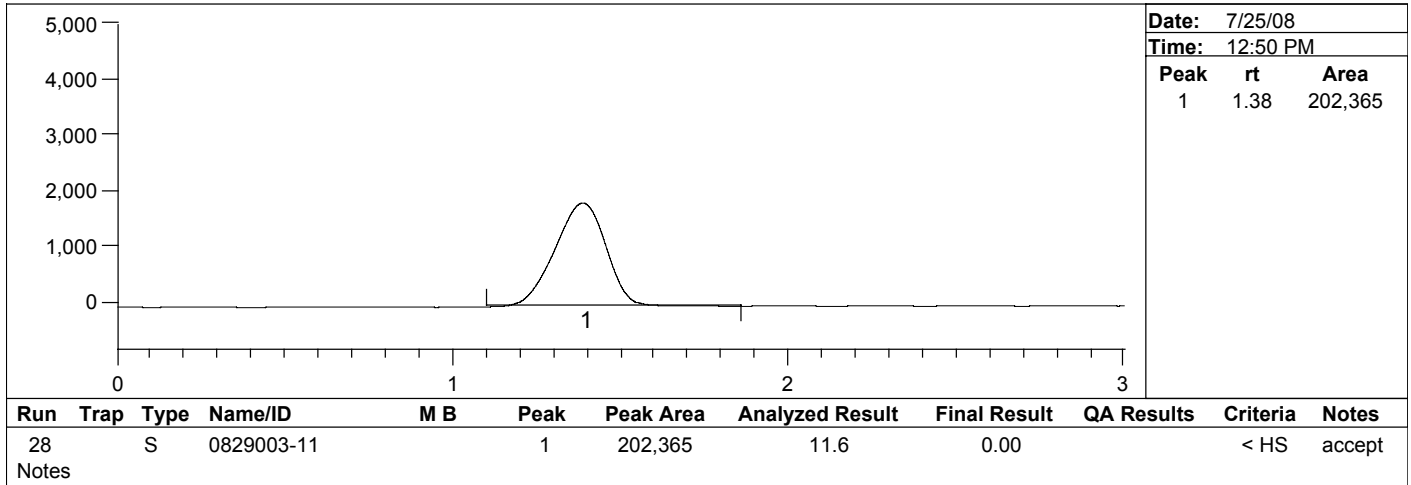


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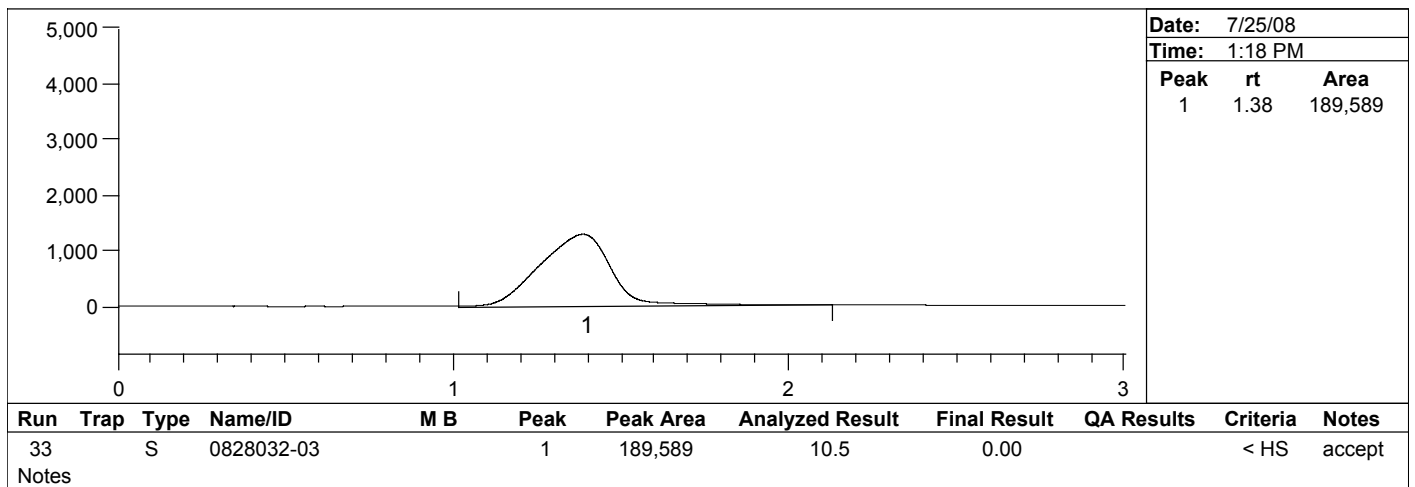
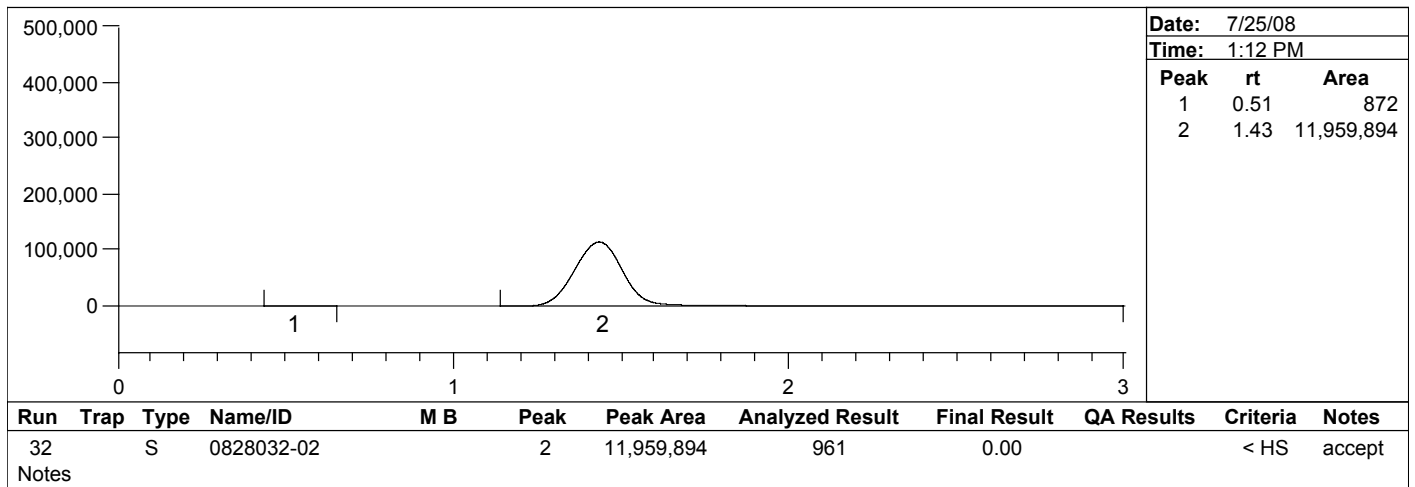
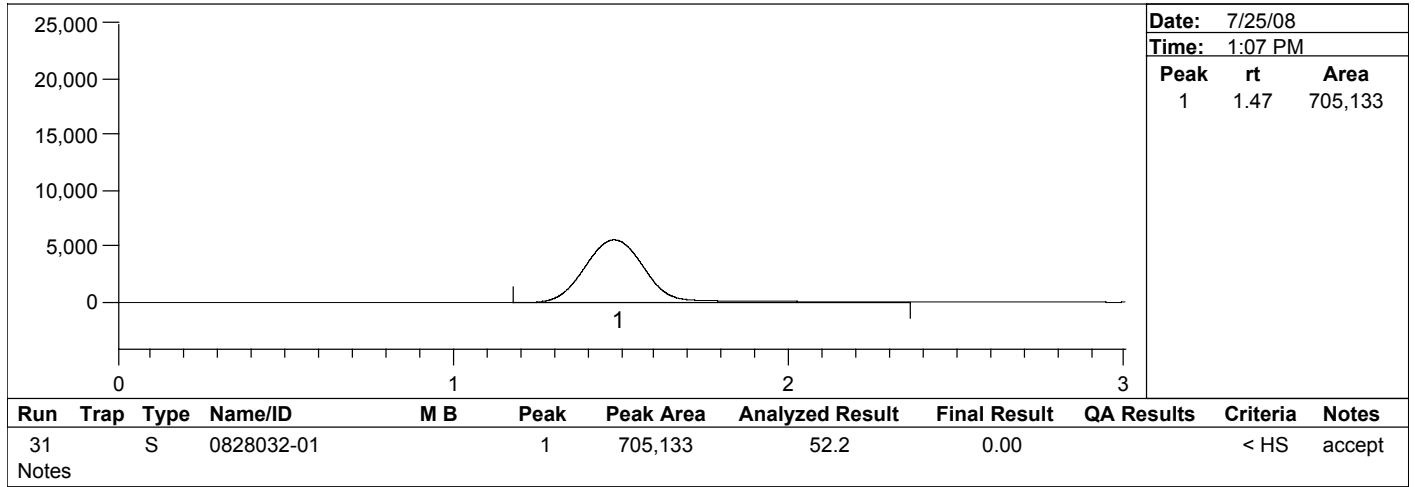


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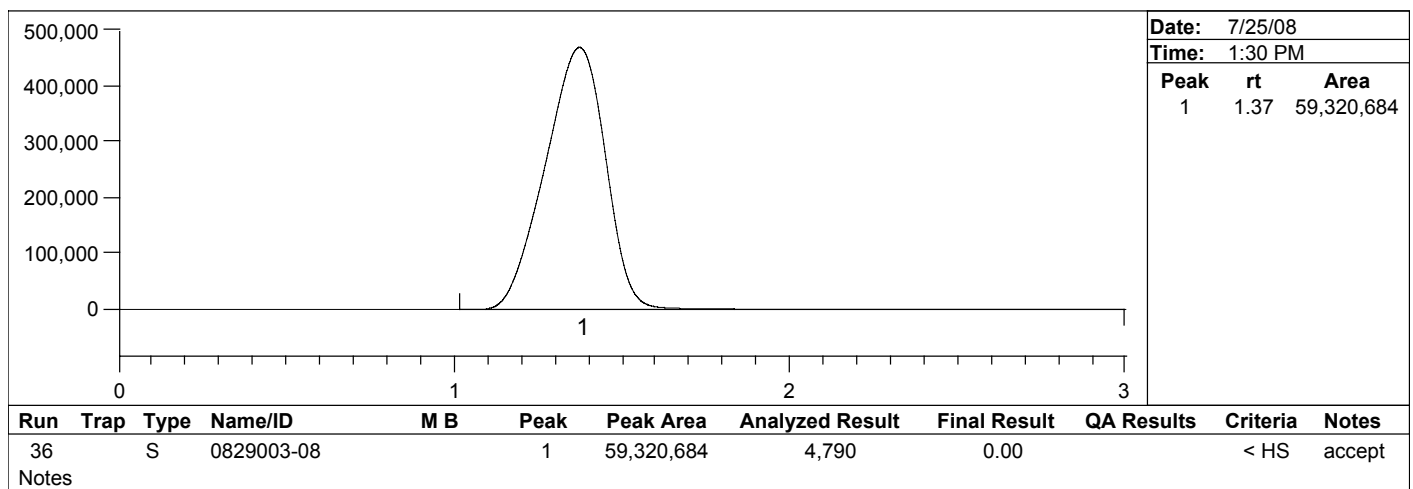
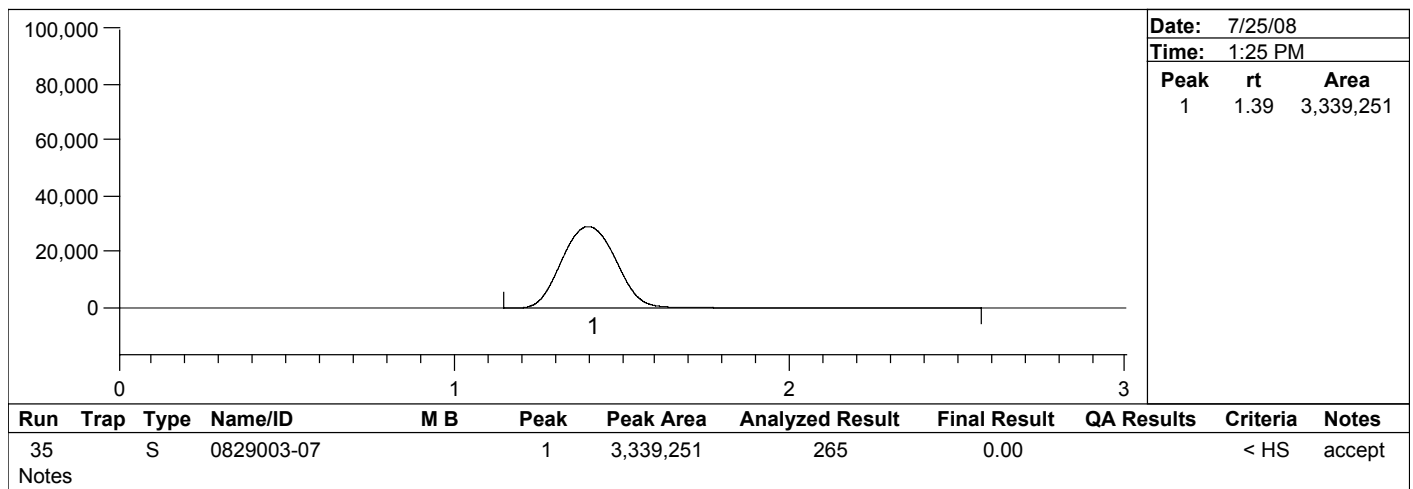
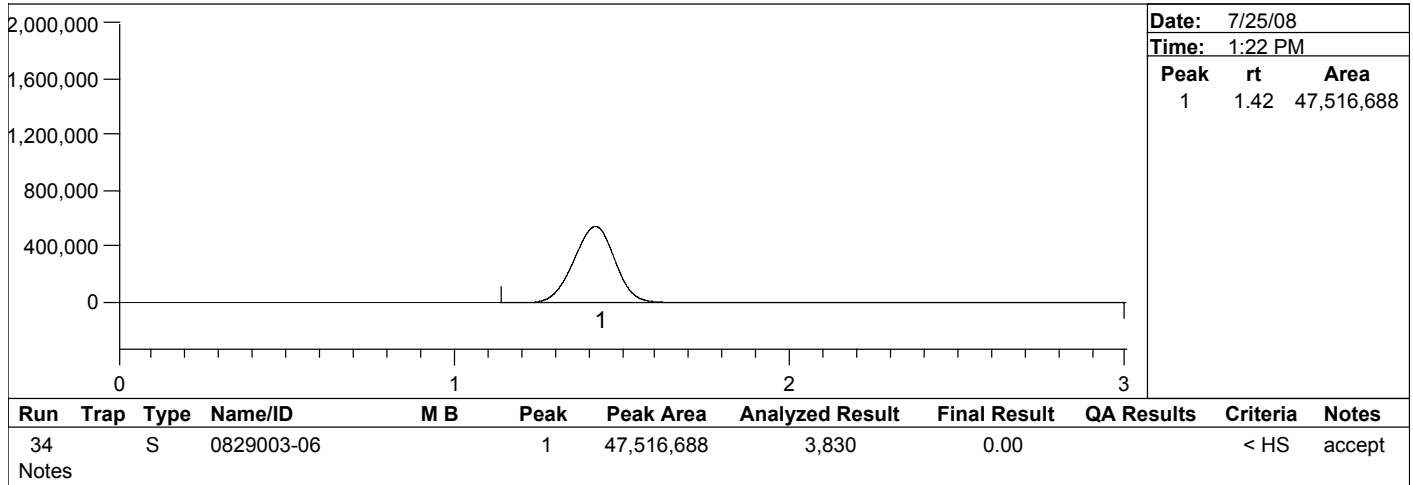


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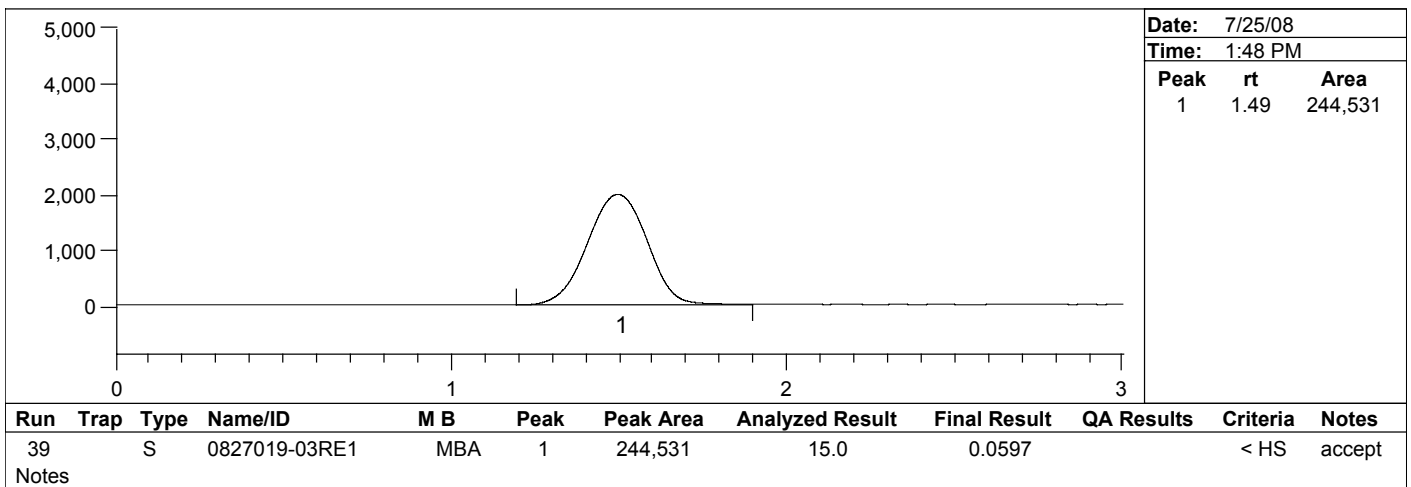
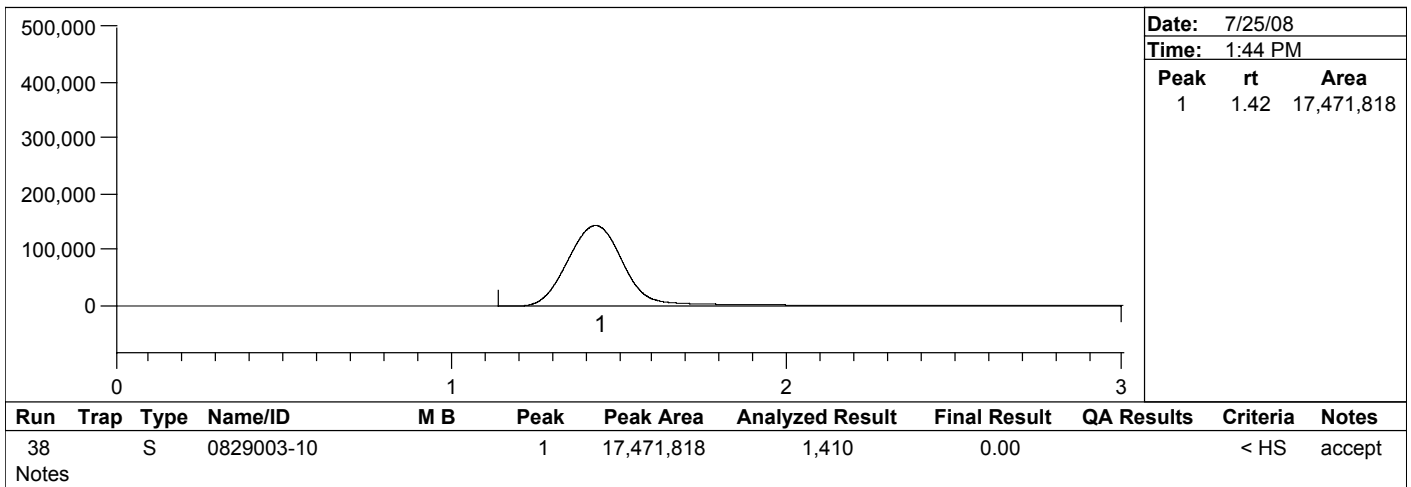
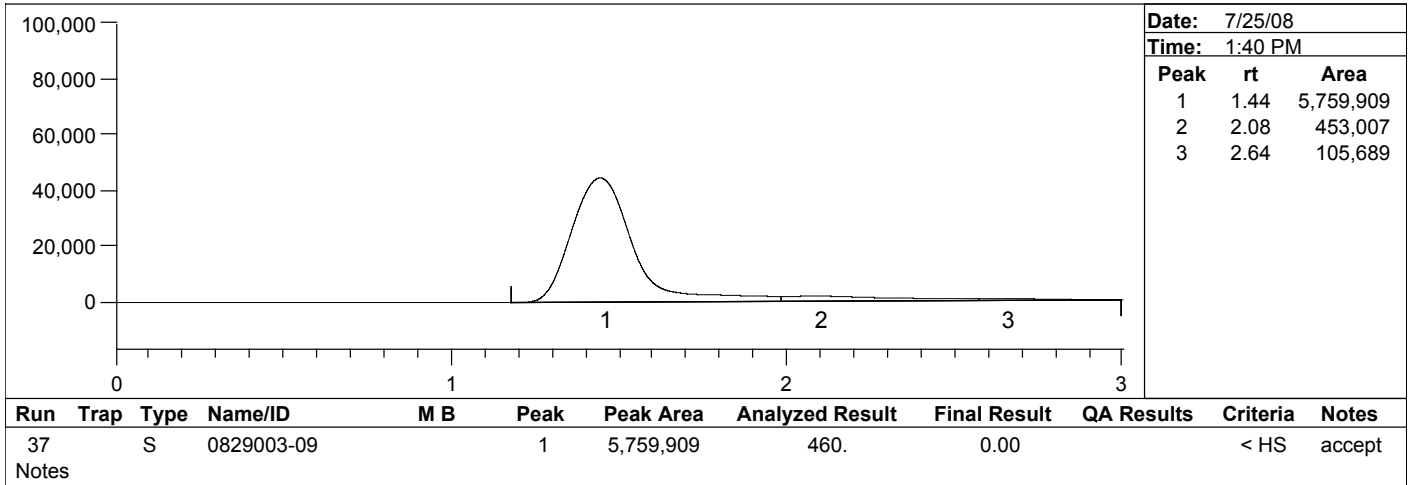


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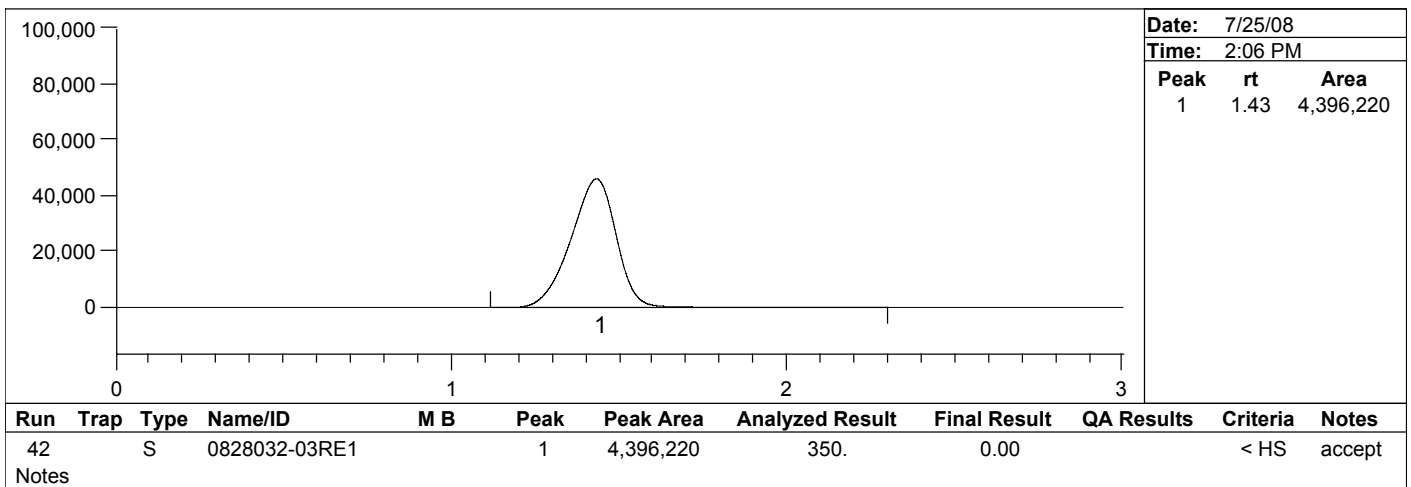
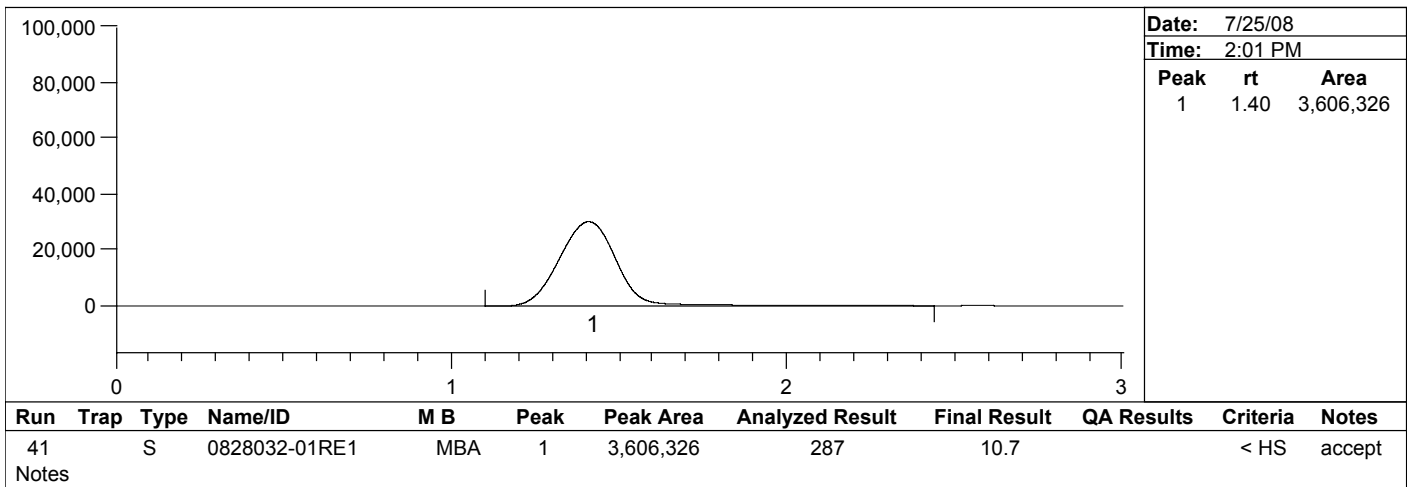
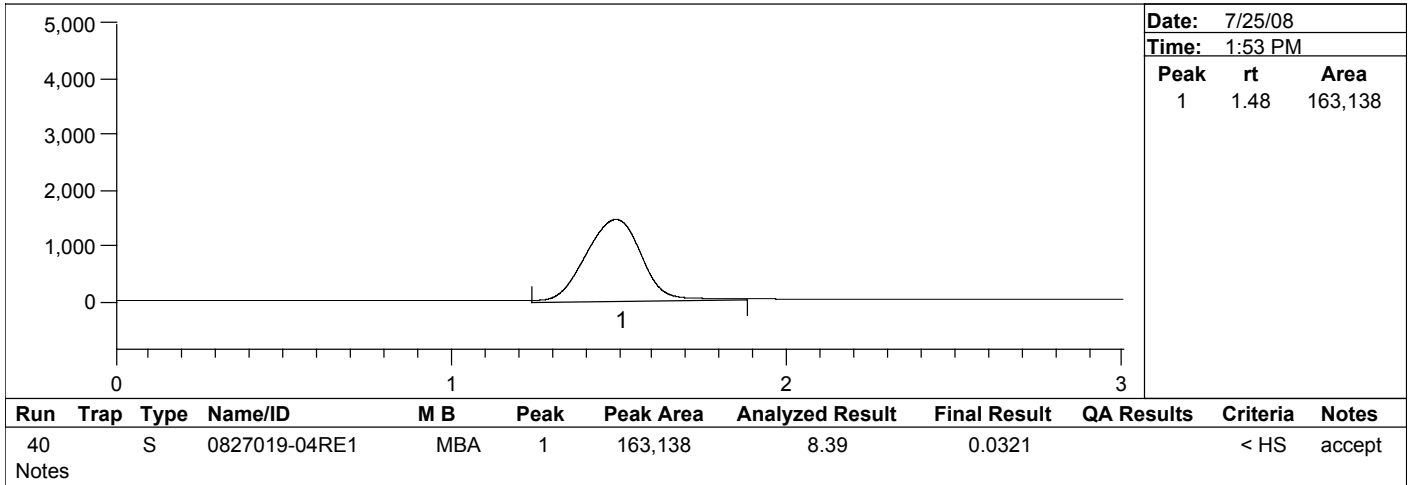


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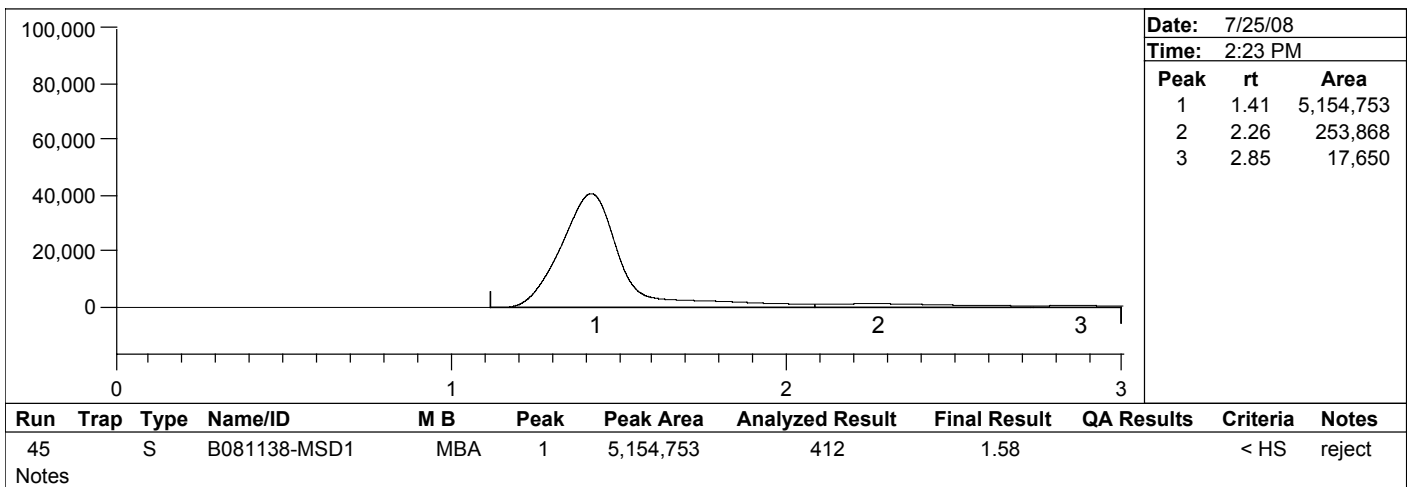
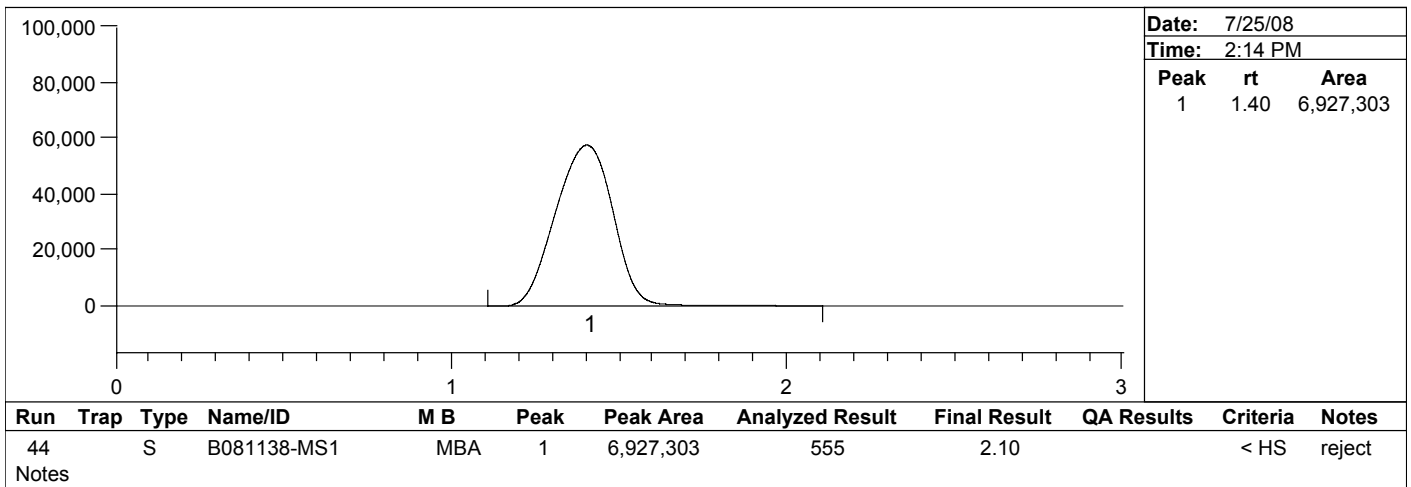
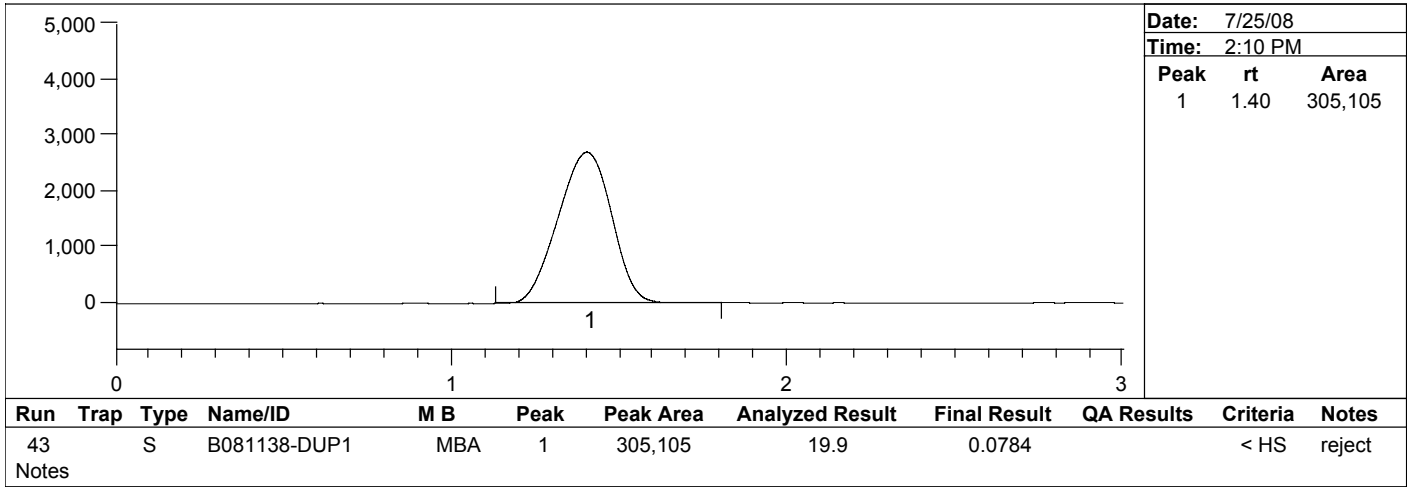


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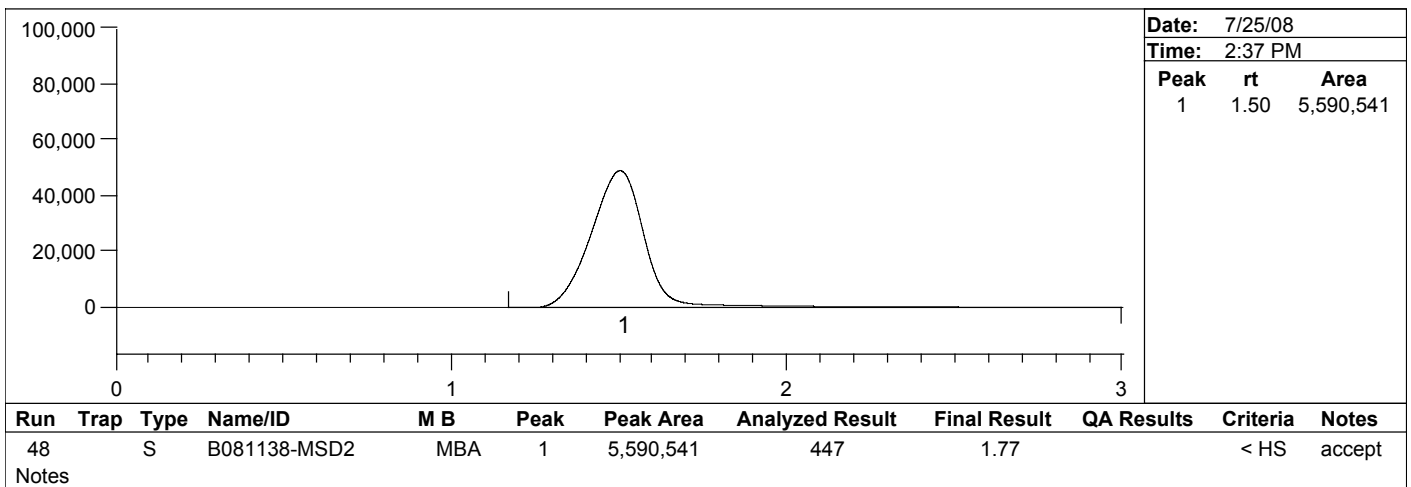
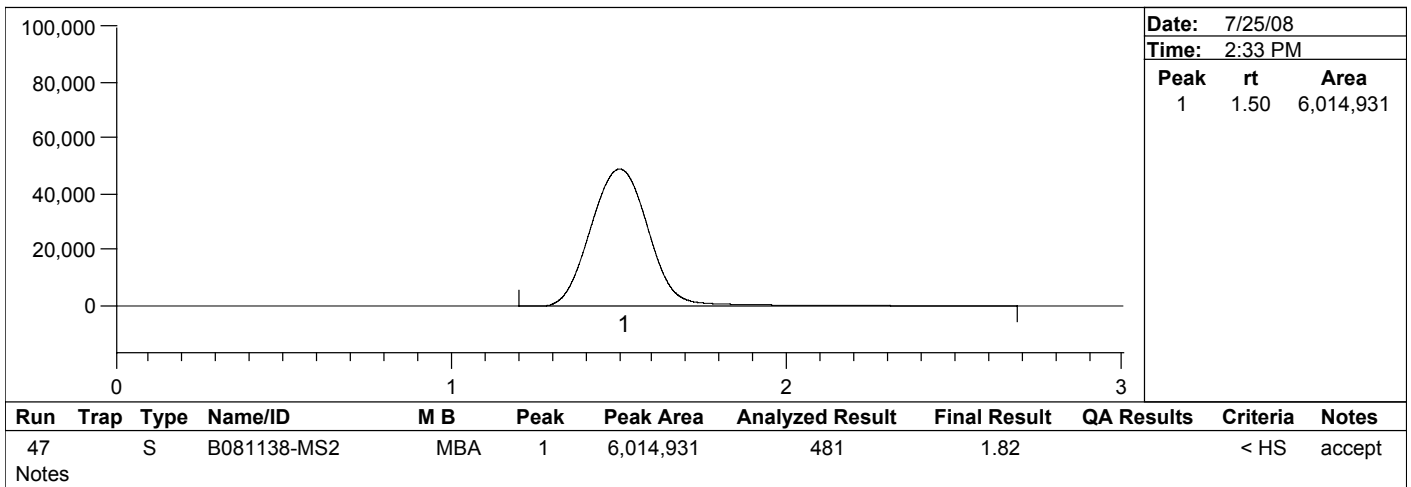
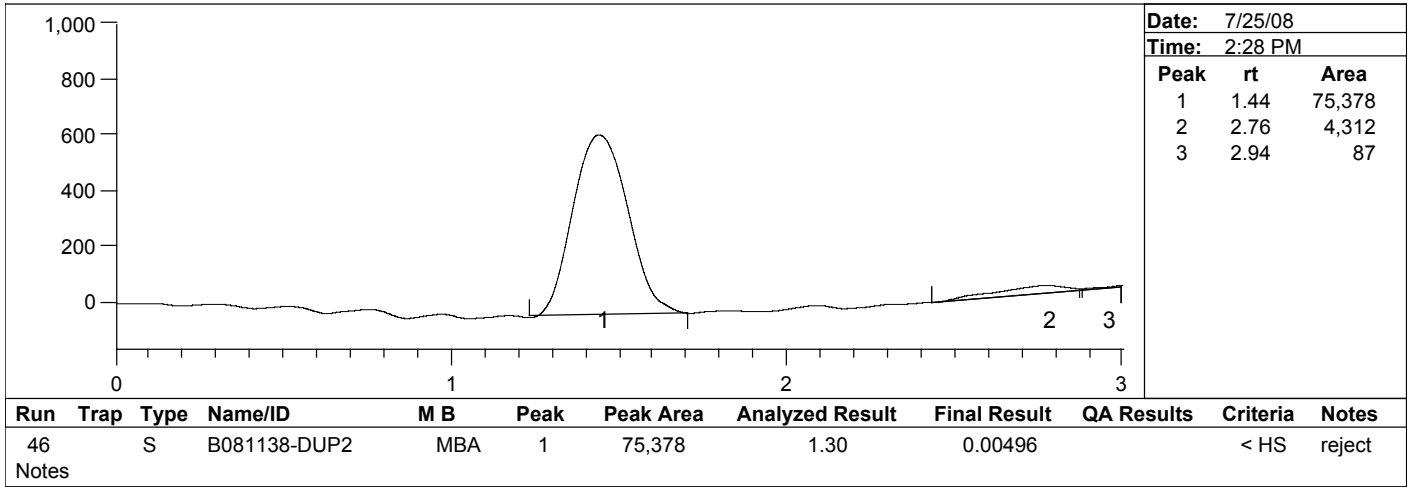


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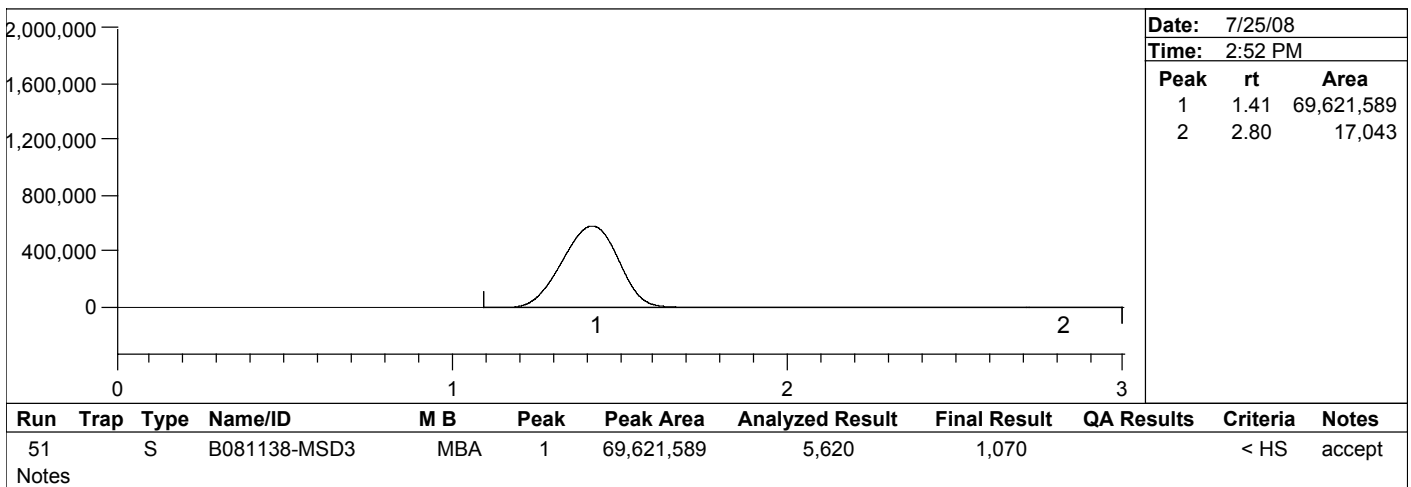
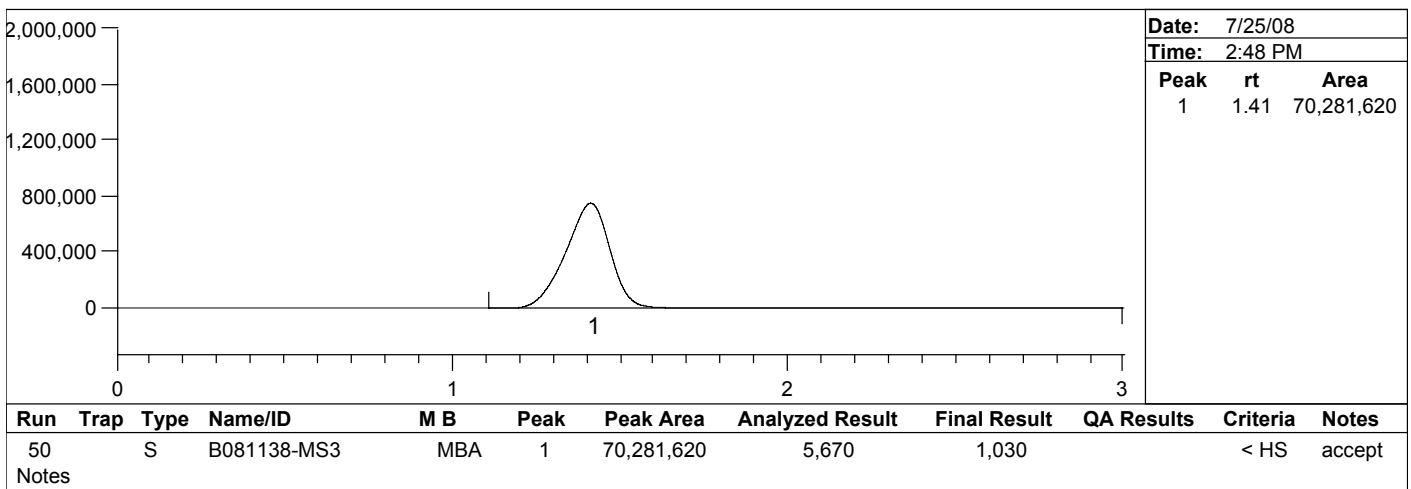
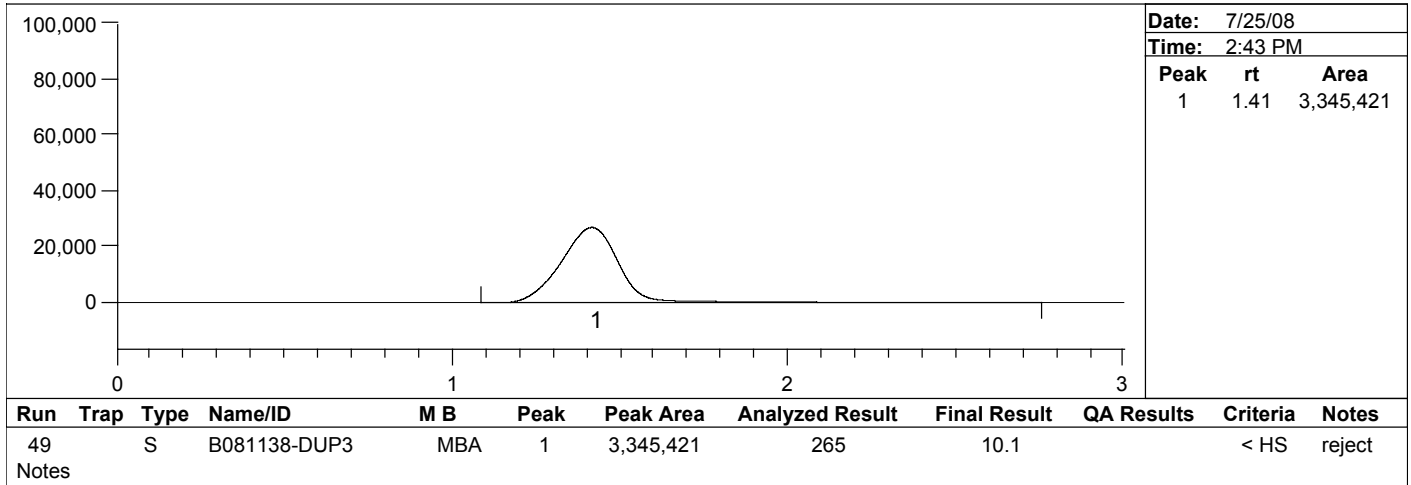


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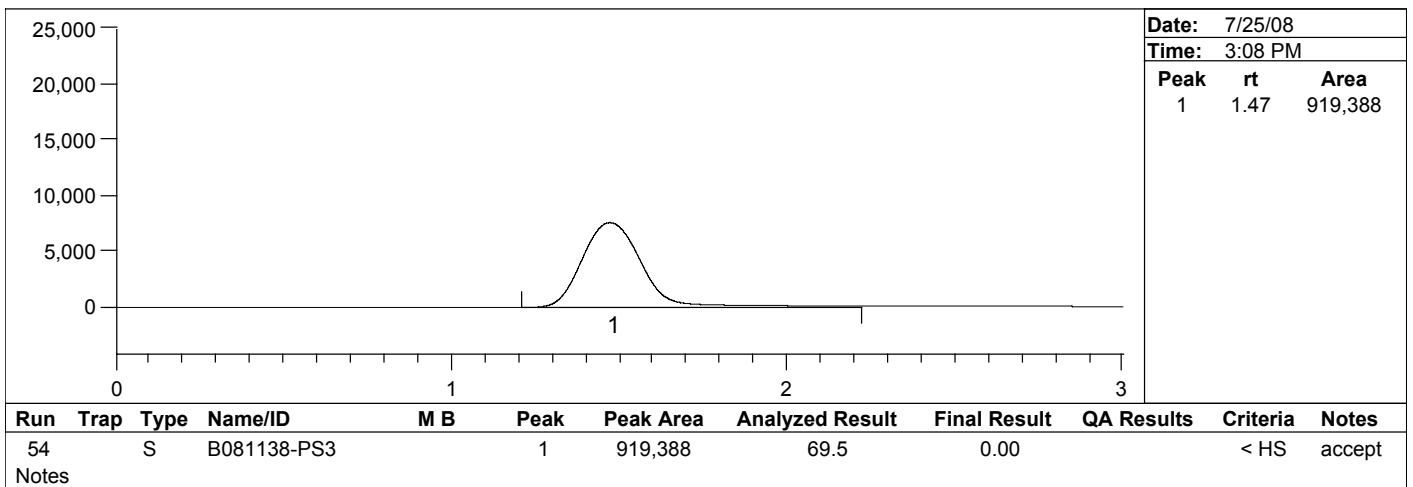
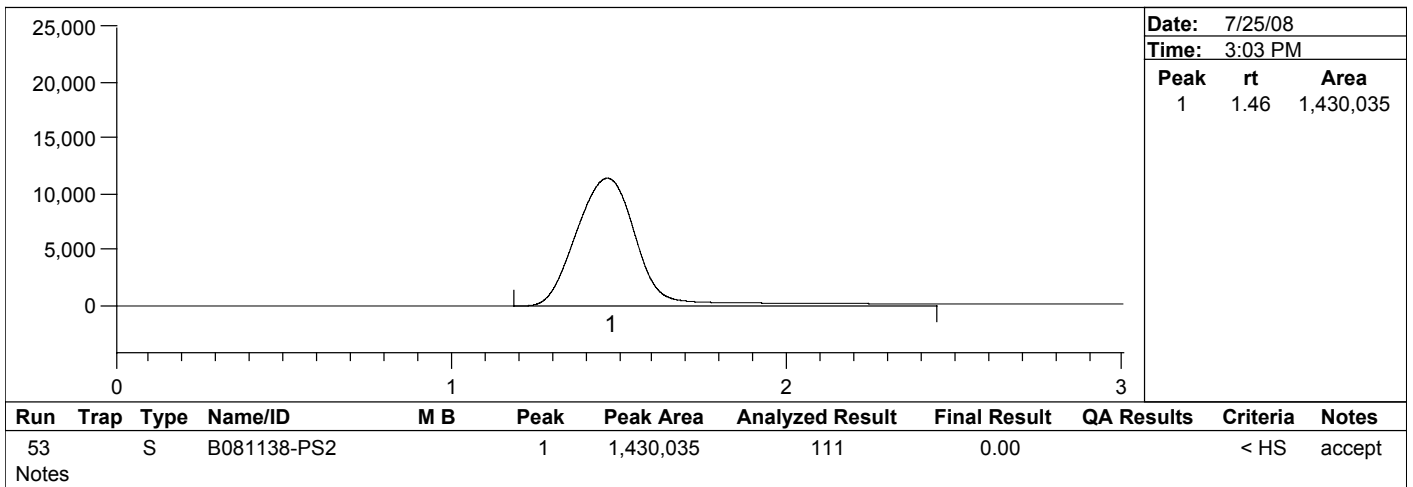
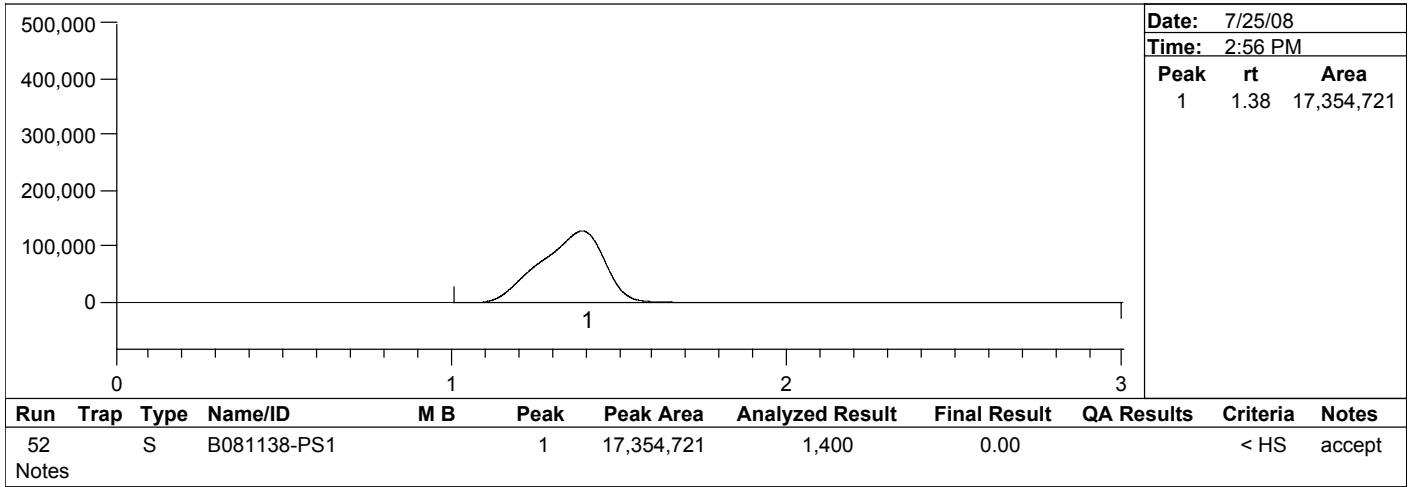


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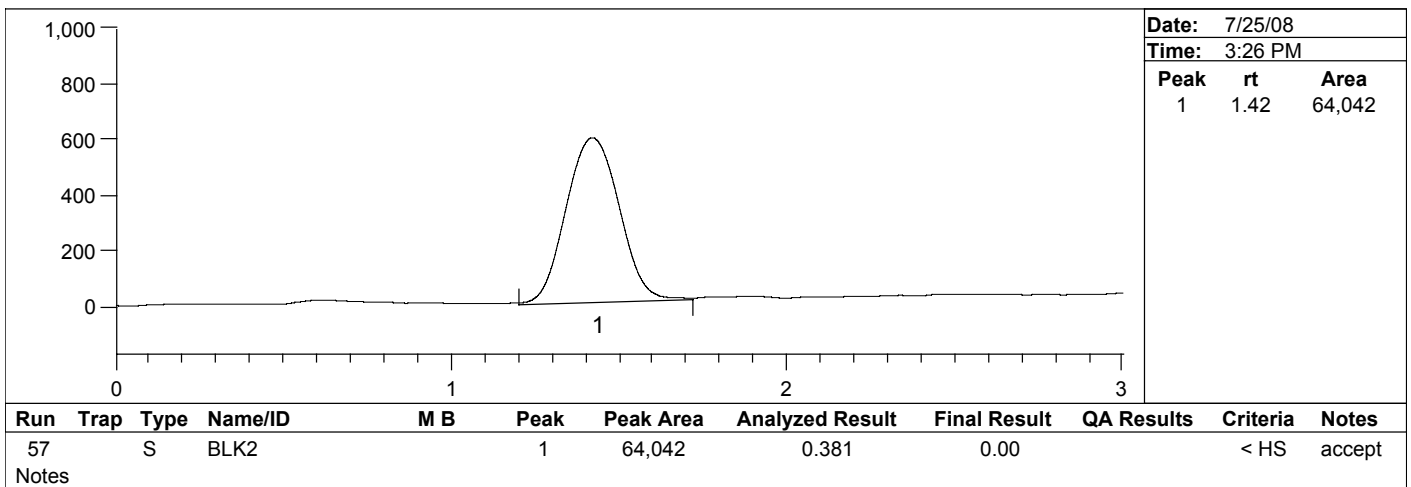
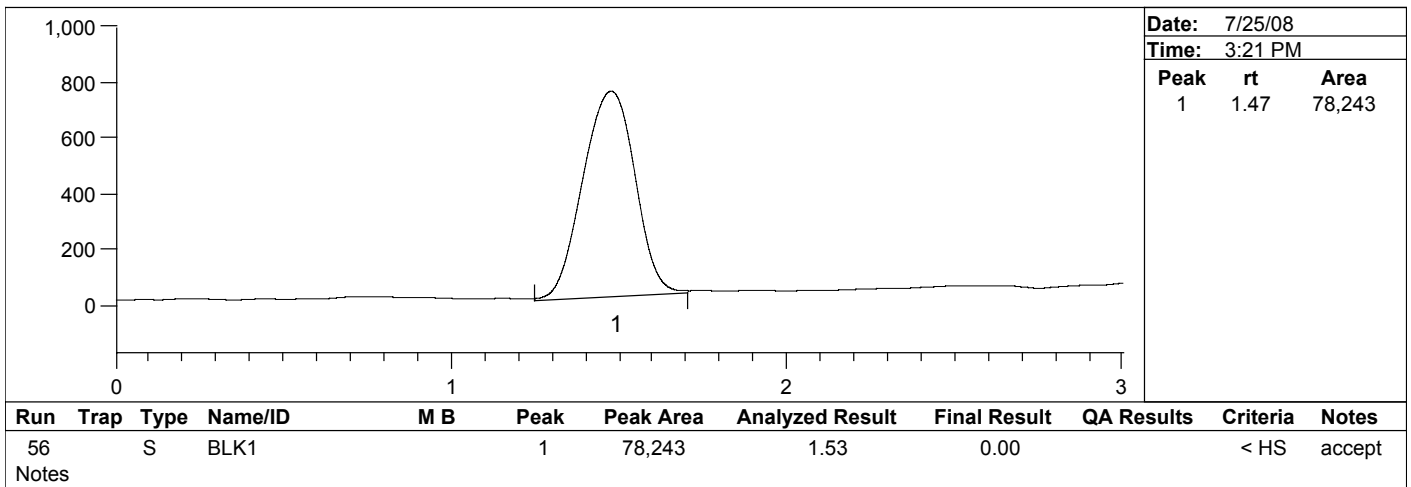
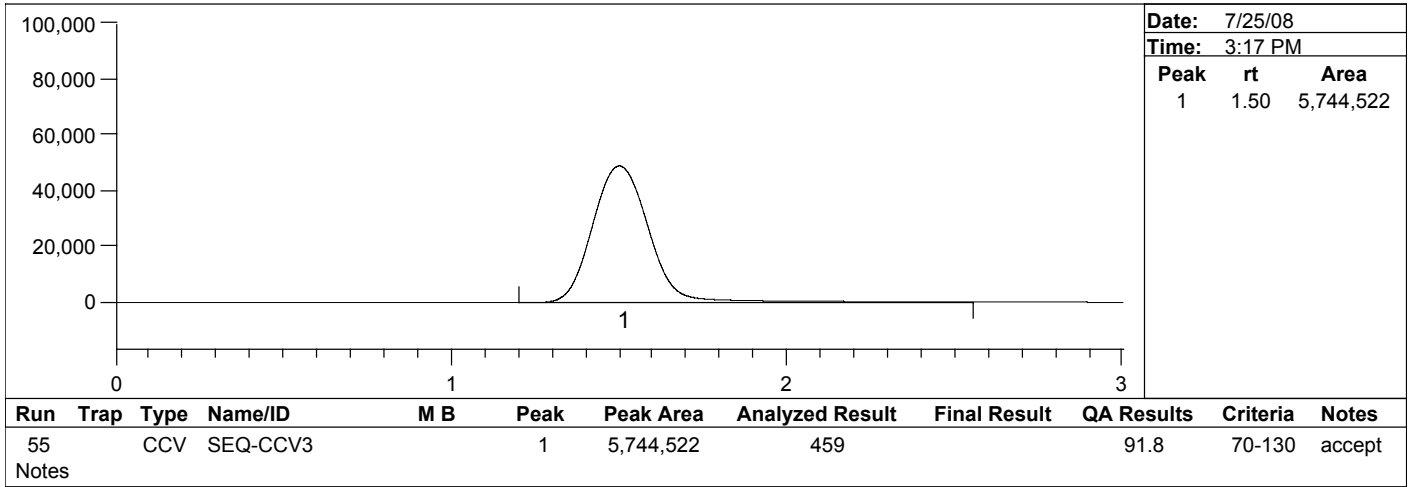


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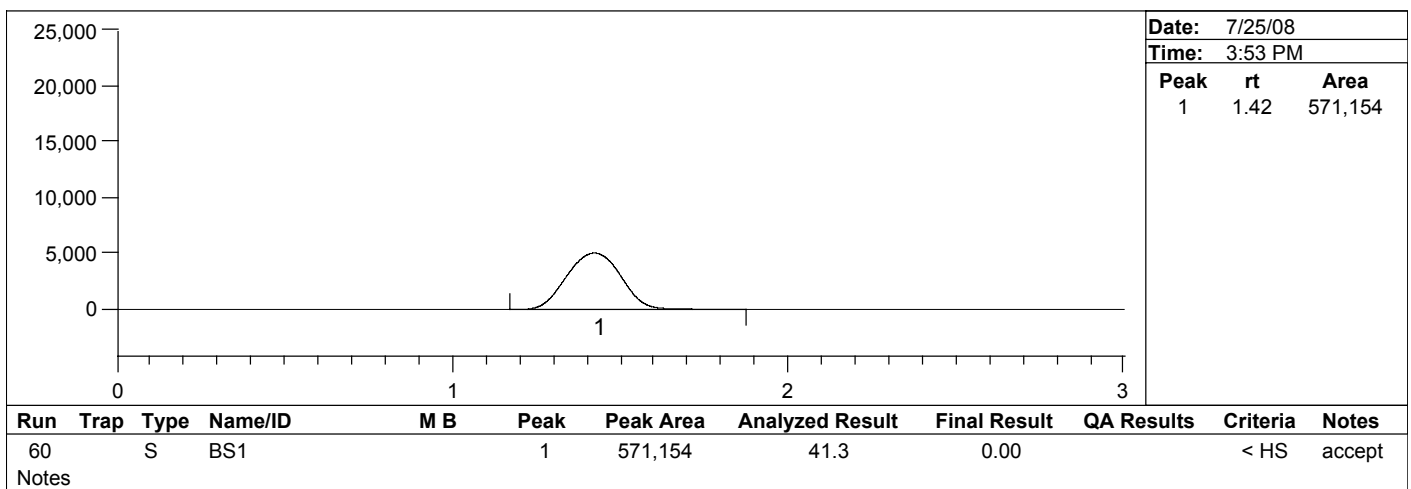
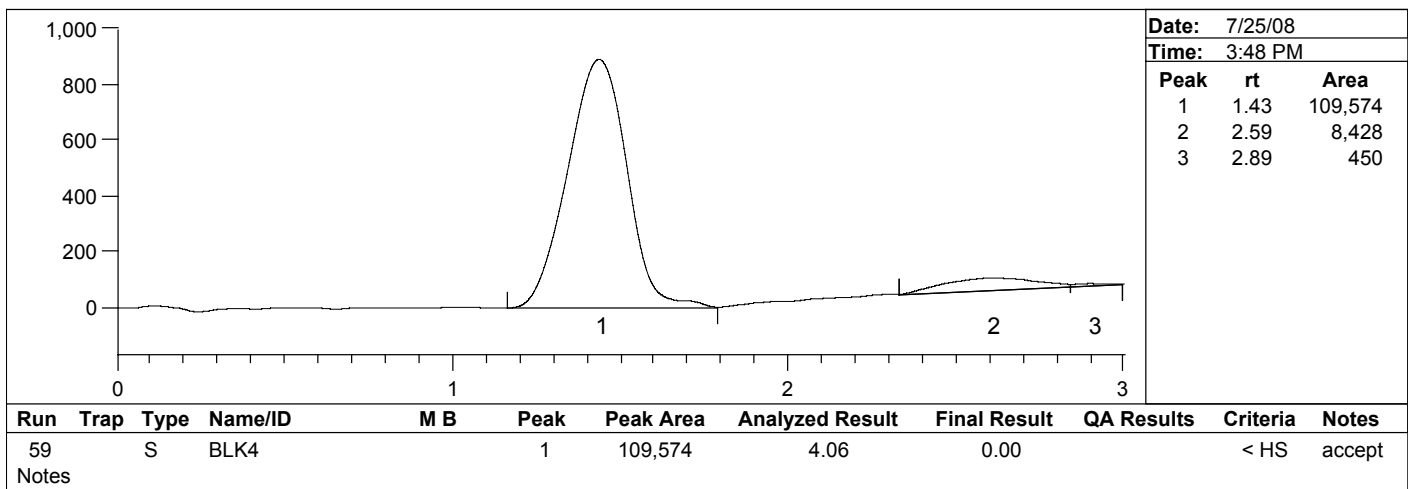
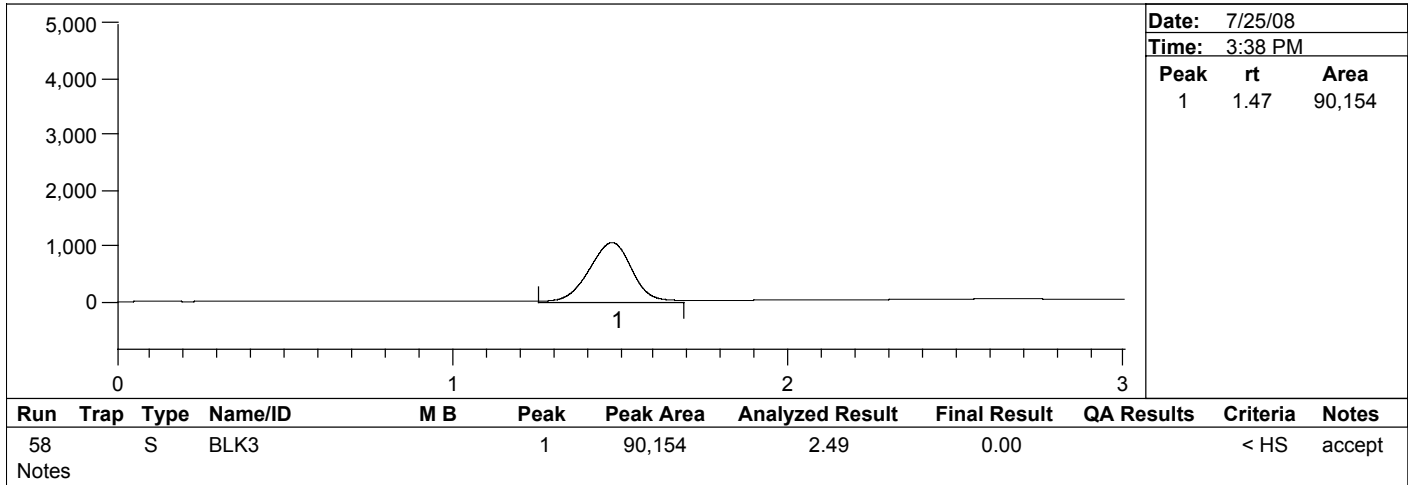


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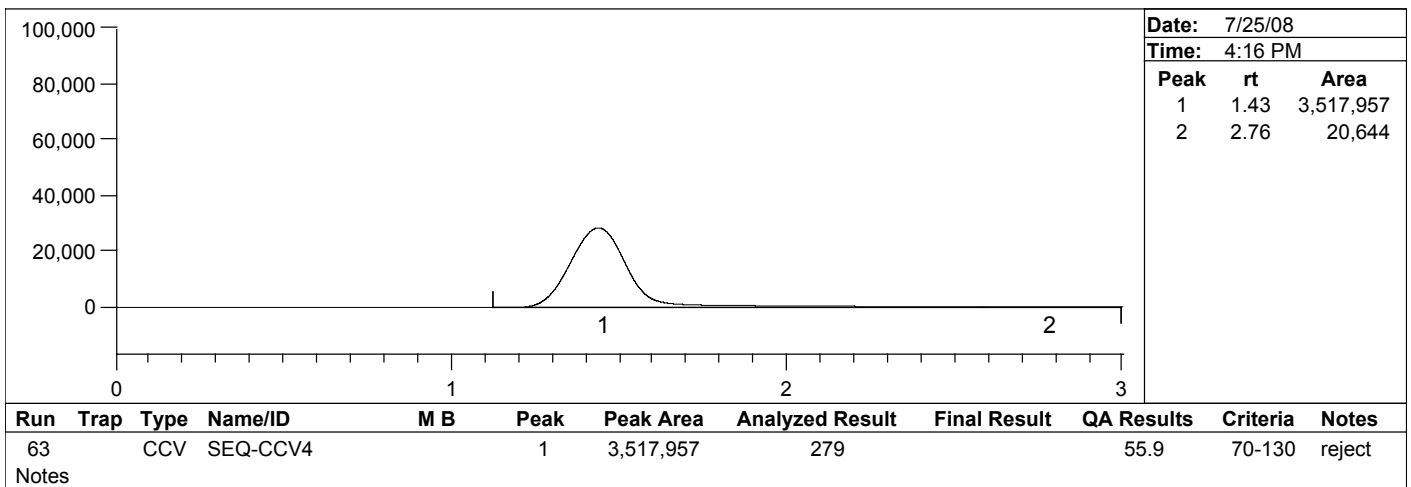
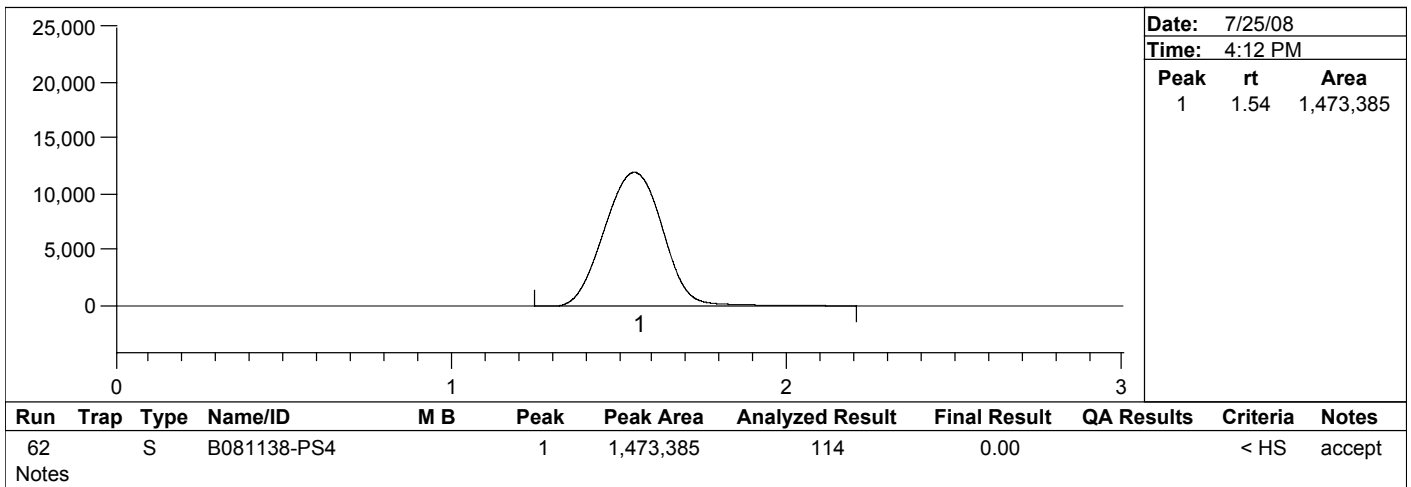
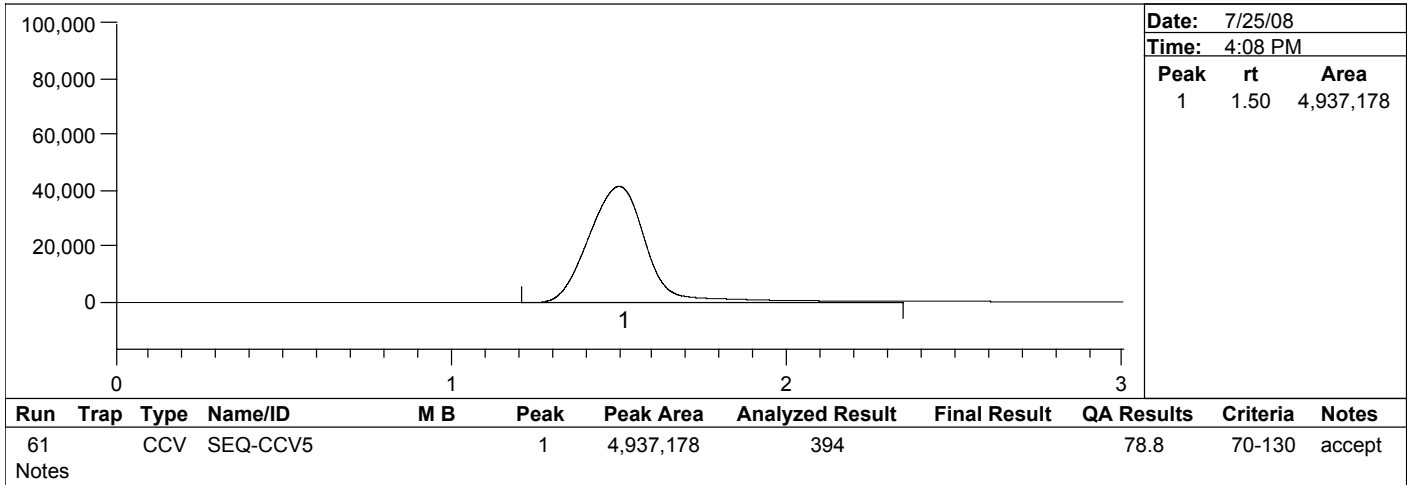


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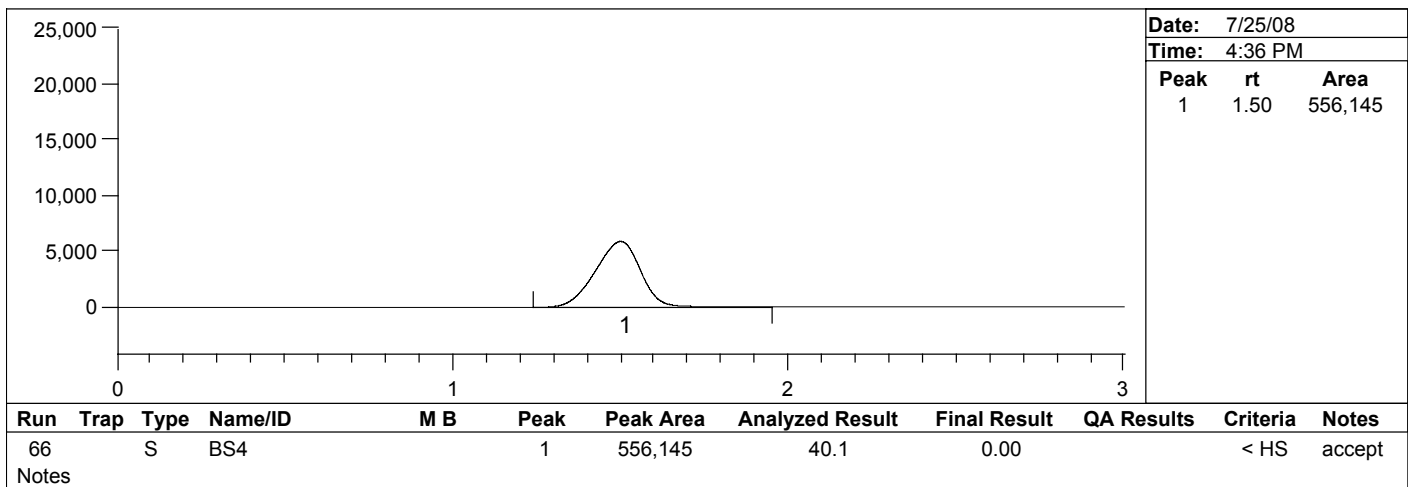
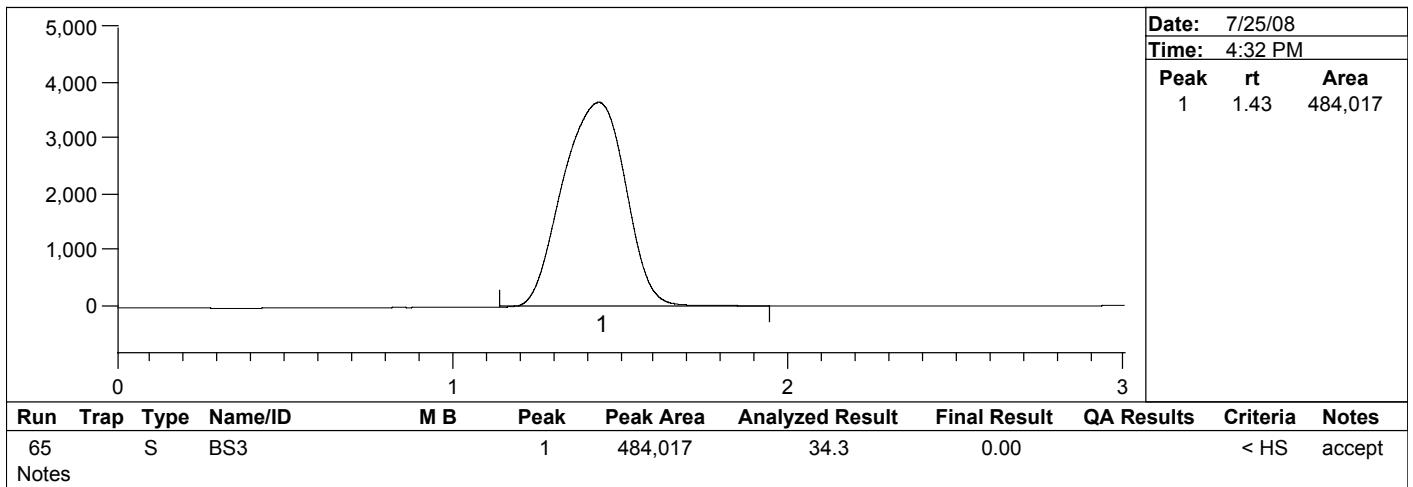
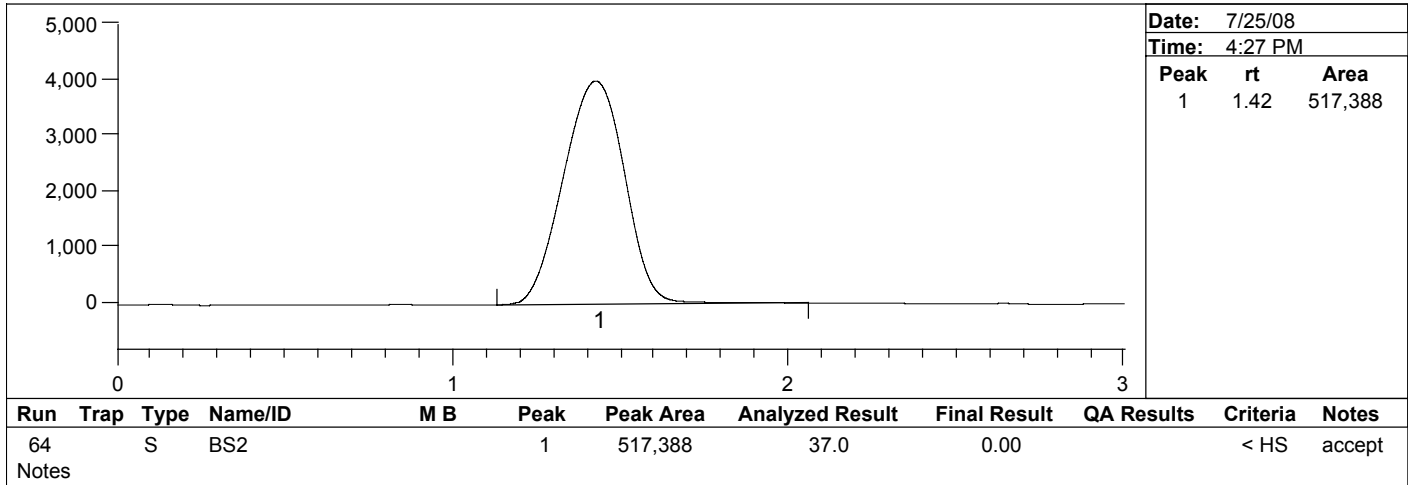


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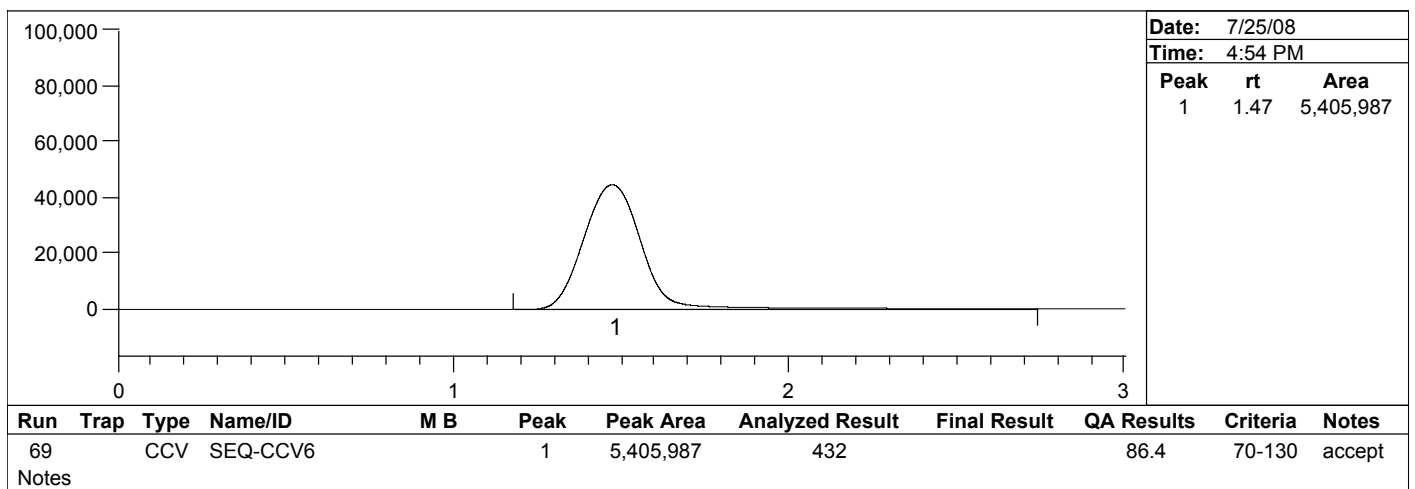
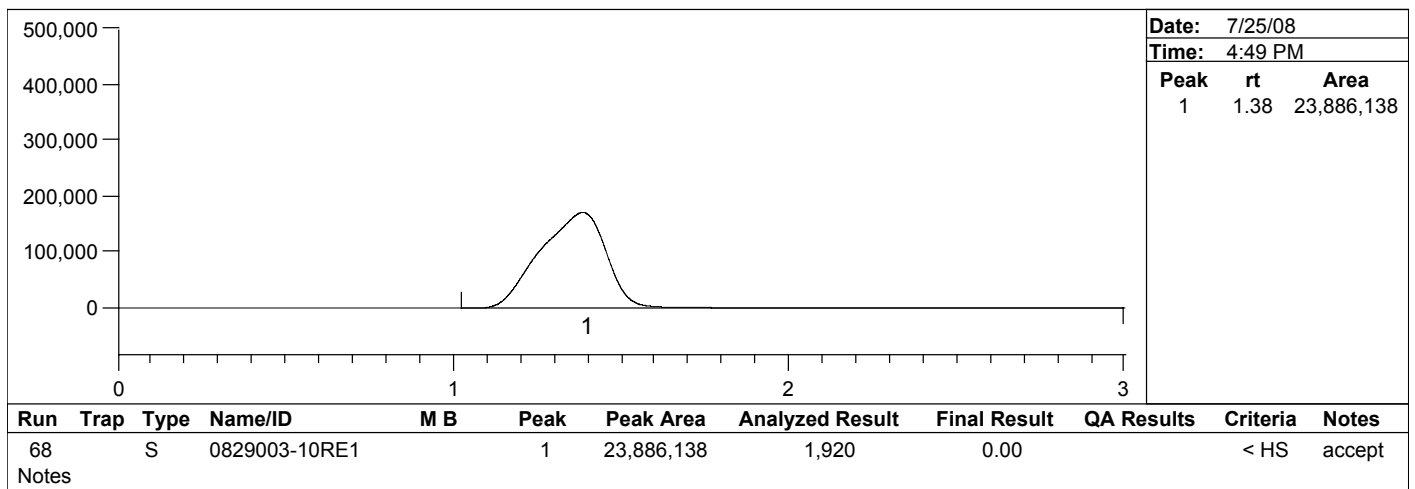
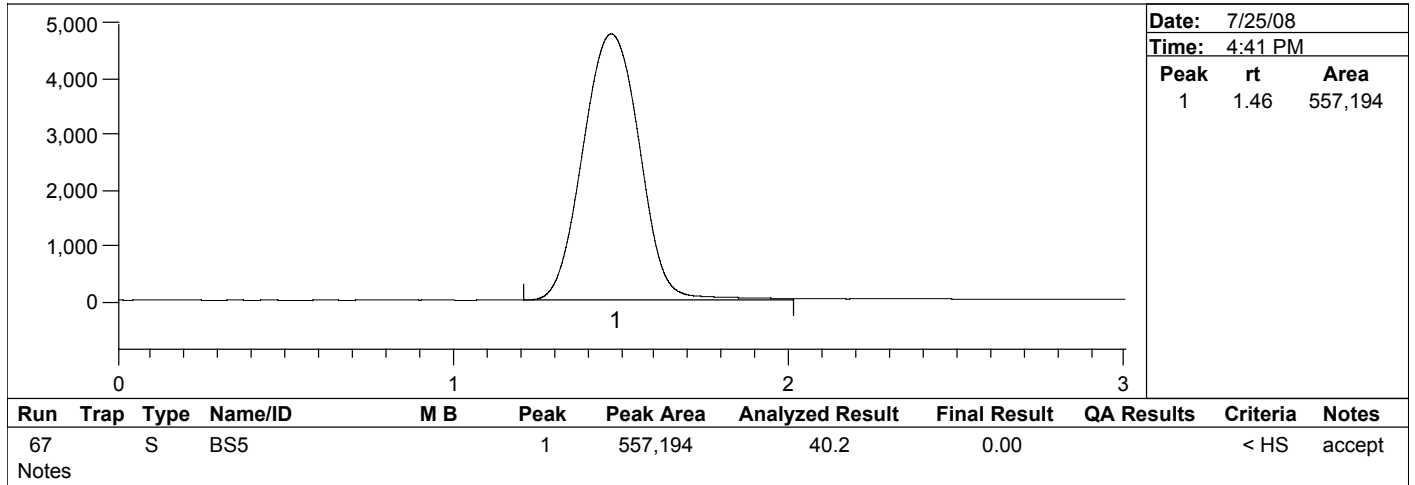


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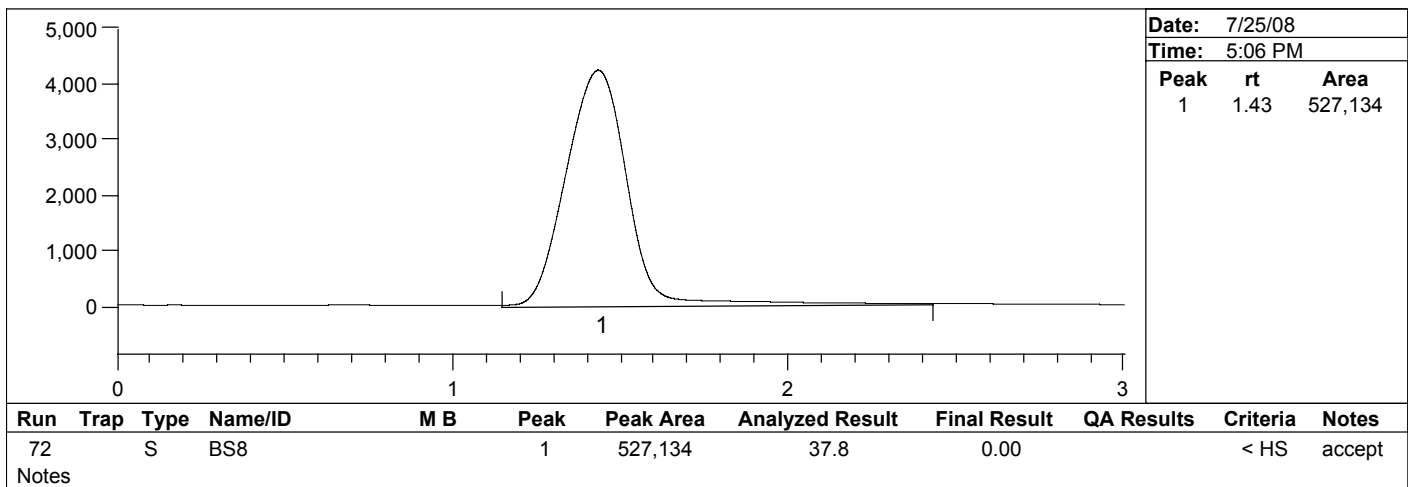
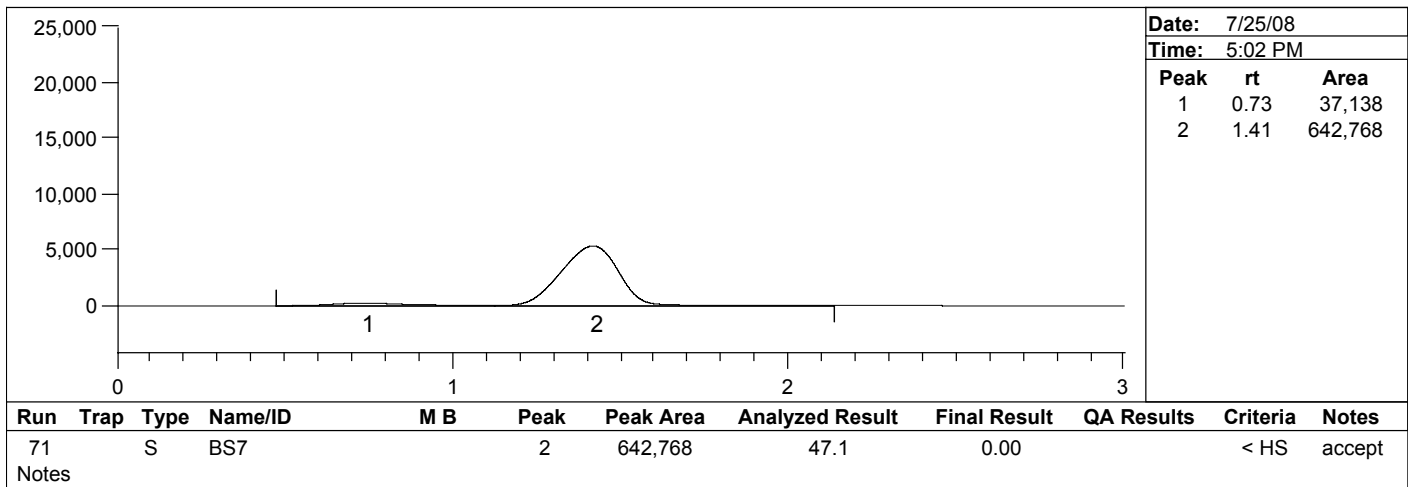
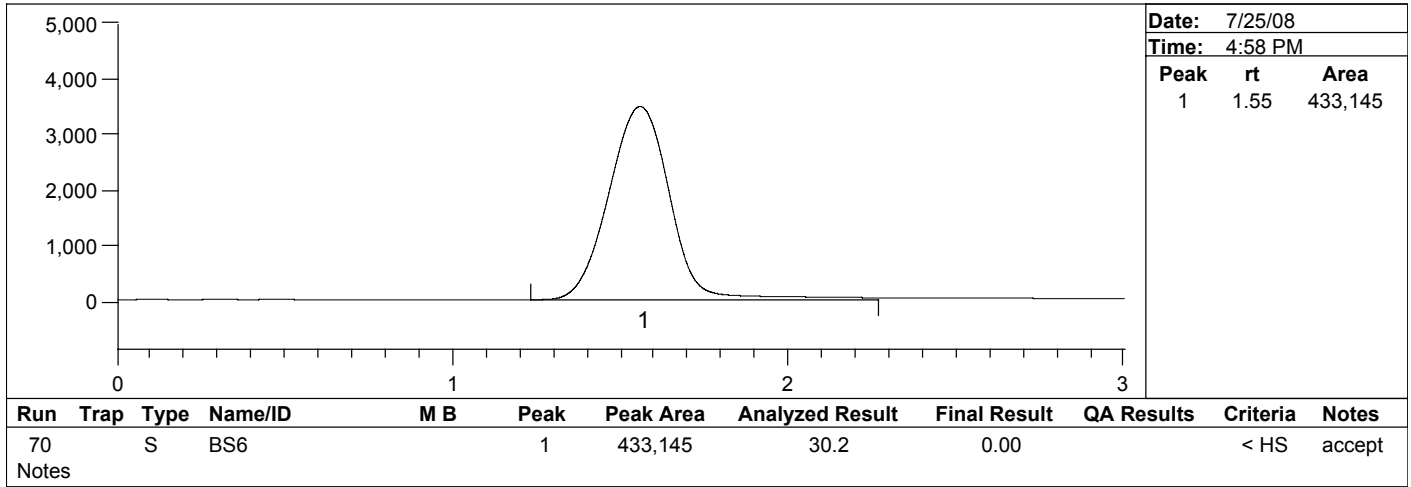


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Project Number(s): 0800653
 Instrument ID: BR-05

Date Analyzed: 7/25/08
 Analyst Name: MSU

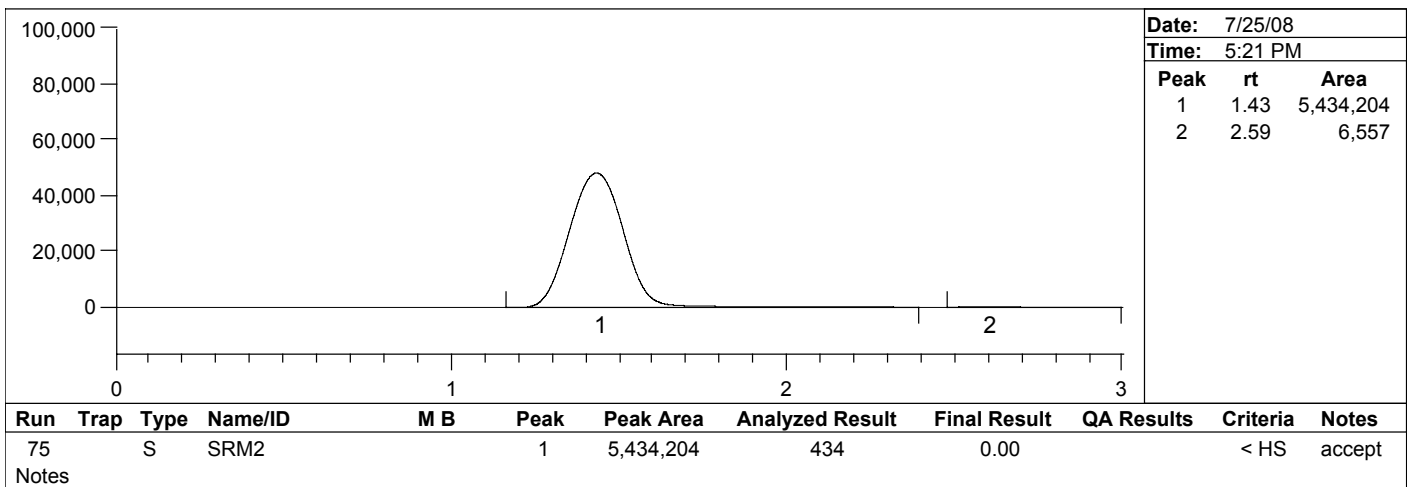
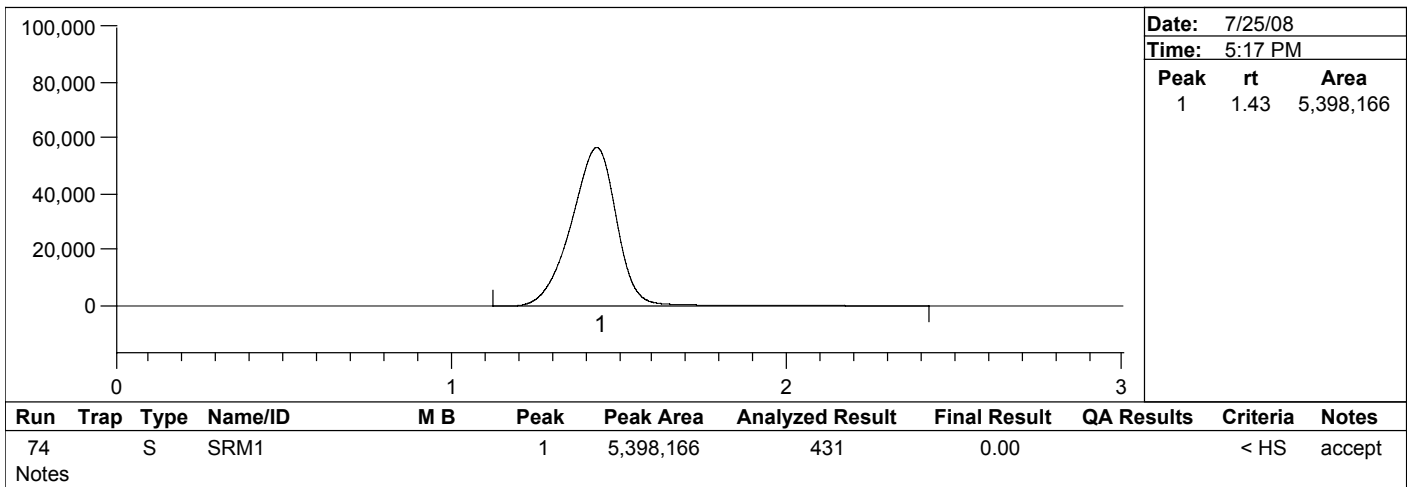
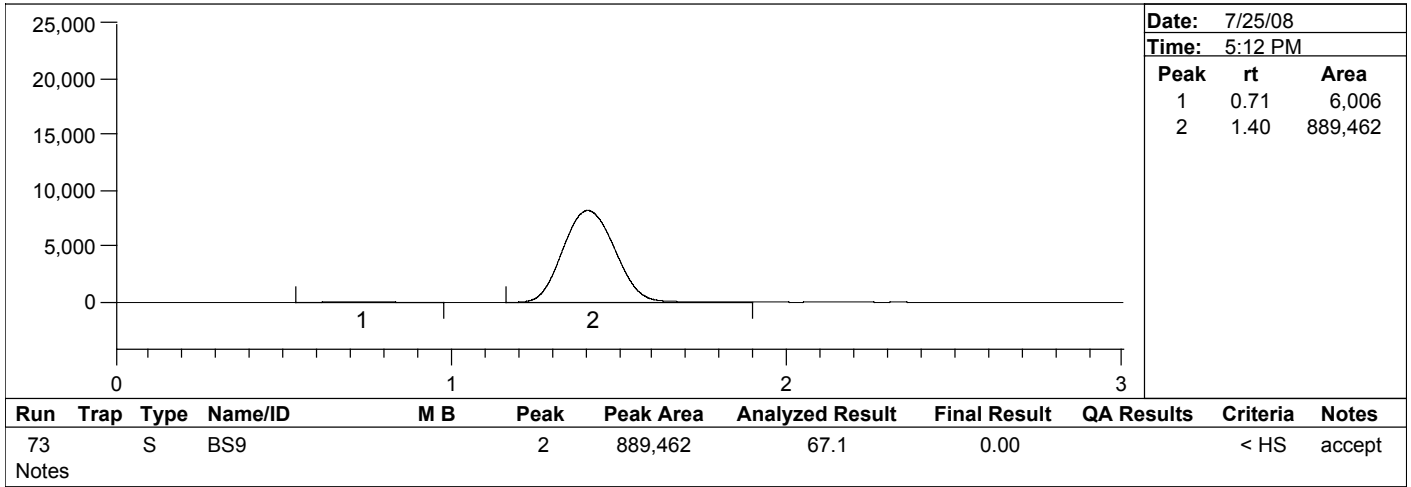


Peak Report

Batch Number: B081138
Method Number: 1631 Mod.

Project Number(s): 0800653
Instrument ID: BR-05

Date Analyzed: 7/25/08
Analyst Name: MSU

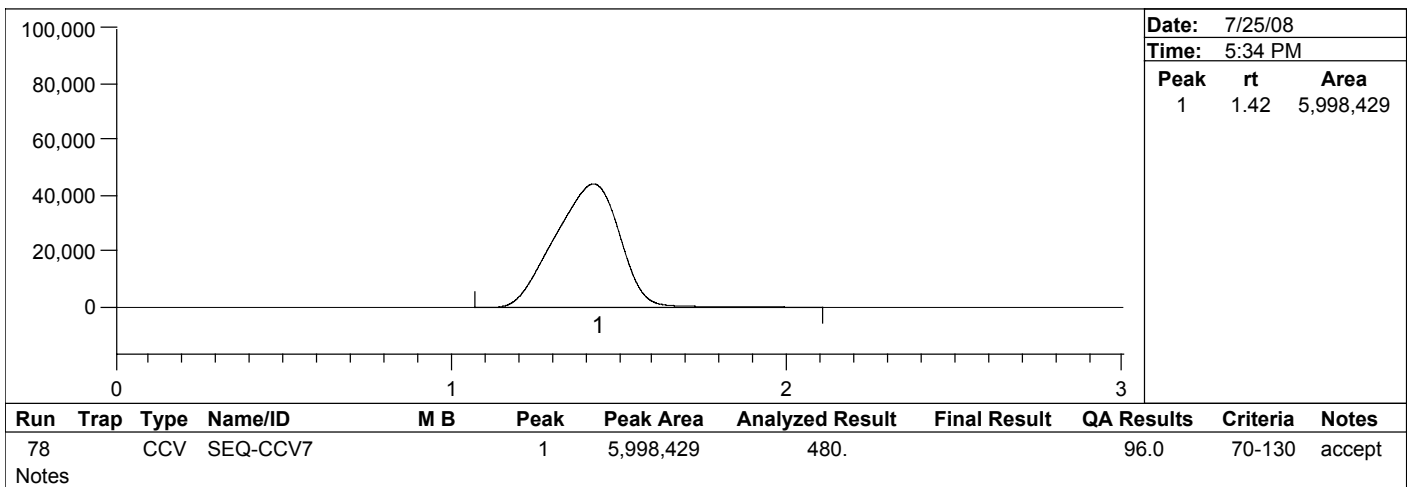
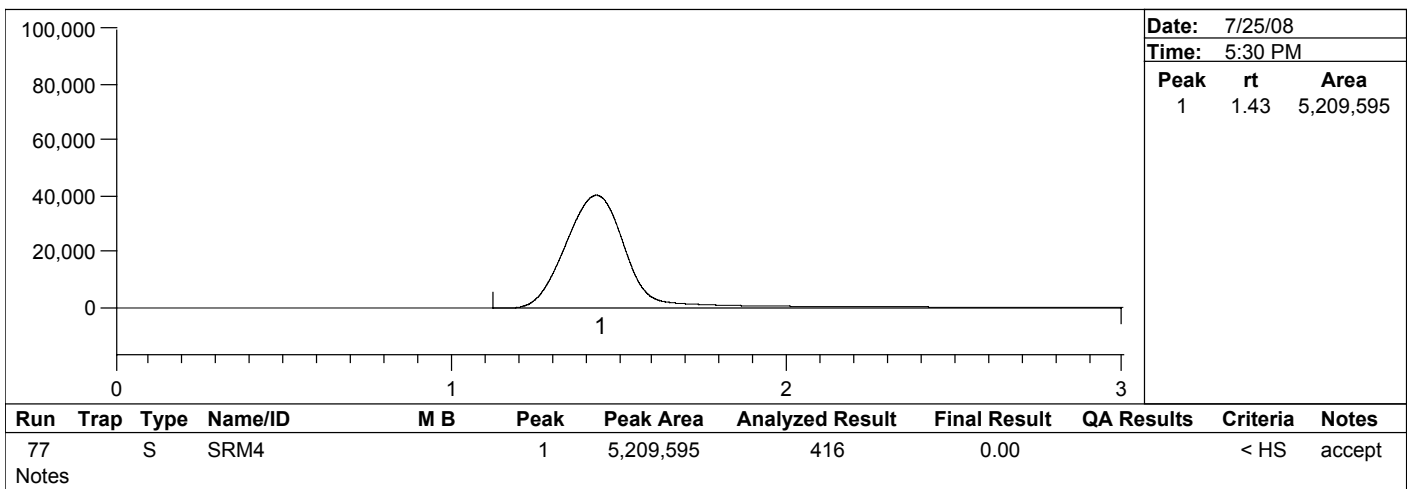
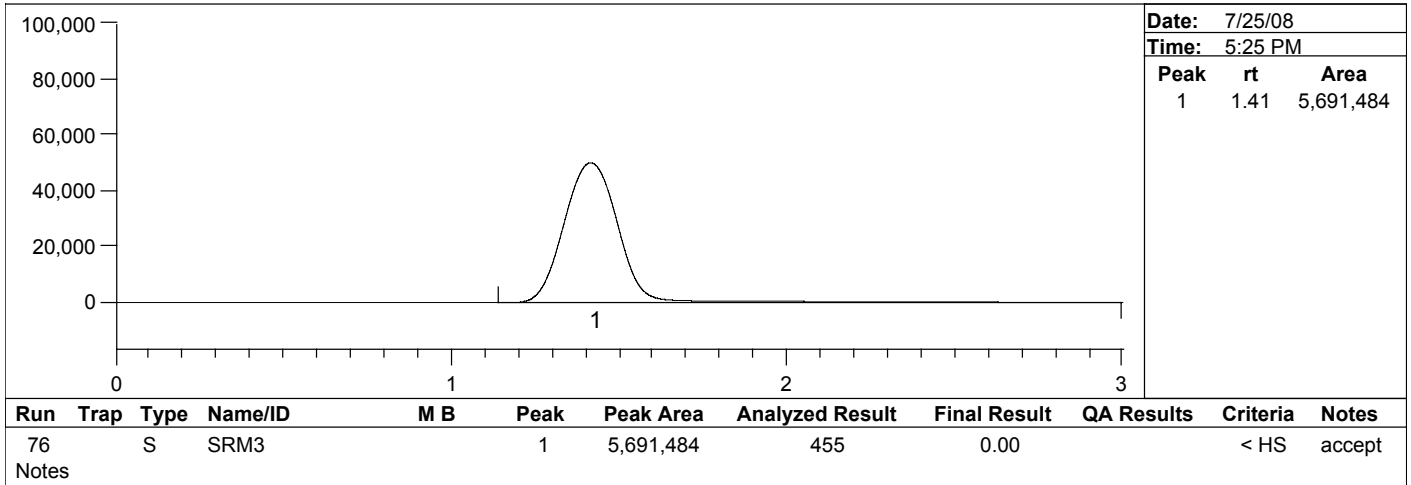


Peak Report

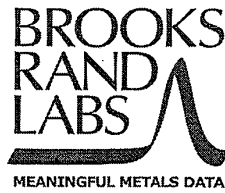
Batch Number: B081138
Method Number: 1631 Mod.

Project Number(s): 0800653
Instrument ID: BR-05

Date Analyzed: 7/25/08
Analyst Name: MSU



3958 6th Ave NW
 Seattle WA 98107
 www.brooksrand.com



Phone: 206-632-6206
 Fax: 206-632-6017
 Email: brl@brooksrand.com

WORK ORDER
0828032

Customer: Kleinfelder
Contact: David King
Project ID: KLE-BE0801

TAT: 20
Receipt Date: 07/09/08 09:00
Log-in Date: 07/10/08 10:55

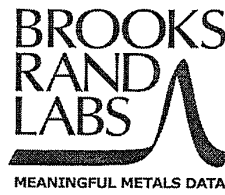
Sample Custodian: Jason Barrett
BRL Project Manager: Citron Choice

Courier: UPS

Shipping Container #1	Airbill: 1Z8491690110033712
3.3	Shipping Container: Default Cooler
Custody Seals: Present	Shipping Container Temp: 3.3 °C
	Shipping Container Coolant: Ice

BRL Sample ID	Client ID / Site ID	Collection Date/Time	Matrix	Analyte
0828032-01	NAS 1817G	06/25/08	Biota	
<i>Comments: 5 containers for composite</i>				
	<u>Container</u>	<u>Size</u>	<u>Preservation</u>	<u>pH</u>
0828032-01A	Jar HDPE	8oz	None	
	Jar HDPE	8oz	None	
	Jar HDPE	8oz	None	
			Method: EPA Method 160.3	%TS
			Method: EPA Method 1631, Appendix	Hg
			Method: BRL SOP No. BR-0106	HomogO
<hr/>				
0828032-02	NAS 1818G	06/25/08	Biota	
<i>Comments: 5 containers for composite</i>				
	<u>Container</u>	<u>Size</u>	<u>Preservation</u>	<u>pH</u>
0828032-02A	Jar HDPE	8oz	None	
	Jar HDPE	8oz	None	
	Jar HDPE	8oz	None	
			Method: EPA Method 160.3	%TS
			Method: EPA Method 1631, Appendix	Hg
			Method: BRL SOP No. BR-0106	HomogO

3958 6th Ave NW
 Seattle WA 98107
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Phone: 206-632-6206
 Fax: 206-632-6017
 Email: brl@brooksrand.com

BRL Sample ID	Client ID / Site ID	Collection Date/Time	Matrix	Analyte
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0828032-03	NAS 1729G	06/25/08 10:00	Biota	
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Comments: 5 containers for composite

	<u>Container</u>	<u>Size</u>	<u>Preservation</u>	<u>pH</u>		
0828032-03A	Jar HDPE	8oz	None		Method: EPA Method 160.3	%TS
	Jar HDPE	8oz	None		Method: EPA Method 1631, Appendix	Hg
	Jar HDPE	8oz	None		Method: BRL SOP No. BR-0106	HomogO

 Sample Custodian

 Reviewed By

7/10/08
 Date

7/11/08
 Date

BROOKS RANDA LABS
 MEANINGFUL METALS DATA
 3958 6th Avenue NW
 Seattle, WA 98107
 Phone: 206-632-6206
 Fax: 206-632-6017

samples@brooksrand.com
 www.brooksrand.com

Chain of Custody Record

White: LAB COPY
 Yellow: CUSTOMER COPY

Client: **SQUIER KLEINFELDER**
 Contact: **DAVID KING**
 Client project ID: **KLE-BE**
 PO #:

Address:
 Phone #:

COC receipt confirmation? **(Y)** / N
 If so, by: **(email)** / fax (circle one)
 Email: **girisarri@nwaquatic.com**
 Fax #:

Sample ID	Collection		Miscellaneous			Field Preservation		Analyses required						Comments				
	Date	Time	Sampler (Initials)	Matrix type	# of containers	Field filtered? (Y/N)	Unpreserved / ice only	HCl / HNO ₃ (circle one)	Other (specify)	Total Hg, EPA 1631	Methyl Hg, EPA 1630	ICP-MS Metals (specify)	As / Se species (specify)		% Solids	Filtration	Other (specify)	Other (specify)
1 NAS 18176	4/25/08	-	CKI	L	5	N/A	Y											L = LUMBRICULUS VARIEGATUS -TISSUE
2 NAS 18186	4/25/08	-	CKI	L	5	N/A	Y											
3 NAS 17296	5/09/08	1000	CKI	L	5	N/A	Y											
4																		
5																		
6																		
7																		
8																		
9																		
10																		

Requested TAT in business days:
 20 (standard)
 15
 10
 5
 Other _____
 Surcharges apply for expedited turn around times.

Relinquished by: *David King* Date: **7-8-08** Time: **1500**
 Received by: _____ Date: _____ Time: _____
 Shipping carrier: _____ # of coolers: _____
 Relinquished by: _____ Date: _____ Time: _____
 Received at BRL by: *[Signature]* Date: **7/8/08** Time: **900**
 BRL work order ID: **0828032** BRL project ID: **KLE-BE0801**