MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: C9L230421 Matrix..... WATER

Date Sampled...: 12/29/09 Date Received..: 12/29/09

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD LIMITS	METHOD	PREPARATION- PREP ANALYSIS DATE BATCH #
Ammonia Nitr	ogen 109 109	(90 - 110) (90 - 110) Dilu Anal	DRDCV1A3-MS/ 0.45 (0-20) tion factor: 1 ysis Time: 13:3 un # 9362	MCAWW 350.1 MCAWW 350.1	MS Lot-Sample #: C9L180595-006 12/26-12/28/09 9362110 12/26-12/28/09 9362110
Total Recove	rable	WO#:	LRNWW1AK-MS/	LRNWW1AL-MSD	MS Lot-Sample #: C9L290416-003
	6.4 N 6.7 N	Dilu Anal	2.3 (0-20) tion Factor: 1 ysis Time: 11:3 un # 9363		12/29-12/30/09 9363316 12/29-12/30/09 9363316

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

General Chemistry

Client Lot #...: C9L230421 Work Order #...: LRRRW-SMP Matrix.....: WATER

LRRRW-DUP

Date Sampled...: 12/31/09 Date Received..: 12/31/09

DUPLICATE RPD PREPARATION- PREP PARAM RESULT RESULT UNITS RPD LIMIT METHOD ANALYSIS DATE BATCH # Hardness, SD Lot-Sample #: C9L310491-001 as CaCO3 670 (0-20) SM20 2340C 660 mg/L 1.5 01/07/10 0007116 Analysis Time..: 08:25 MS Run Number..: 0007073 Dilution Factor: 5

General Chemistry

Client Lot #...: C9L230421 Work Order #...: LRVN2-SMP Matrix....: WATER

LRVN2-DUP

Date Sampled...: 01/05/10 Date Received..: 01/05/10

RPD DUPLICATE PREPARATION-PREP PARAM RESULT RESULT UNITS RPD LIMIT METHOD ANALYSIS DATE BATCH # Hardness, SD Lot-Sample #: COA050480-002 as CaCO3 96.0 2.1 (0-20) SM20 2340C 01/07/10 0007116 94.0 Analysis Time..: 08:25 Dilution Factor: 1 MS Run Number..: 0007073

General Chemistry

Client Lot #...: C9L230421 Work Order # ...: LRGTL-SMP Matrix....: WATER

LRGTL-DUP

Date Sampled...: 12/21/09 Date Received..: 12/22/09

DUPLICATE RPD PREPARATION- PREP PARAM RESULT RESULT UNITS RPD LIMIT METHOD ANALYSIS DATE BATCH # SD Lot-Sample #: C9L220412-001

Biochemical Oxygen

Demand (BOD)

mg/L 0 (0-20) SM20 5210B ND ND 12/23-12/28/09 9357224

Analysis Time..: 00:00 MS Run Number..: 9357149 Dilution Factor: 1

General Chemistry

Client Lot #...: C9L230421 Work Order #...: LRJLO-SMP Matrix.....: WA

LRJLO-DUP

Date Sampled...: 12/21/09 Date Received..: 12/23/09

PARAM RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Alkalinity					SD Lot-Sample #:	C9L230421-002	
52.3 J	57.5	mg/L	9.4	(0-10)	SM18 2320 B	12/28-12/29/09	9362359
		Dilution Fa	ctor: 1	Ans	alysis Time: 00:00	MS Run Number:	9362187

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

General Chemistry

Client Lot #...: C9L230421 Work Order #...: LRJLW-SMP Matrix.....: WATER

LRJLW-DUP

Date Sampled...: 12/22/09 Date Received..: 12/23/09

Date .	sampred	12/22/05	Date	Necety	eu 12	123/09		
PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Acidi	ty					SD Lot-Sample #:	C9L230421-001	
	ND	ND	mg/L	0	(0-20)	SM20 2310B (4a)	12/31/09	9365043
			Dilution Fa	ctor: 1	Ana	lysis Time: 09:48	MS Run Number:	9365018
Total Solid	Dissolved					SD Lot-Sample #:	C9L230421-001	
	26100	26400	mg/L	0.91	(0-20)	SM20 2540C	12/24-12/28/09	9358059
			Dilution Fa	ctor: 20	Ana	llysis Time: 10:26	MS Run Number:	9358032
Total Solid	Suspended					SD Lot-Sample #:	C9L230421-001	
	276	278	mq/L	0.72	(0-20)	SM20 2540D	12/24/09	9358061
			Dilution Fa	ctor: 5	Ana	lysis Time: 14:15	MS Run Number:	9358034
Speci	fic Conduct	ance				SD Lot-Sample #:	C9L230421-001	
	59800	57900	umhos/c	m 3.1	(0-20)	SM20 2510B	01/05/10	0005157
			Dilution Fa	ctor: 1	Ana	lysis Time: 15:04	MS Run Number:	0005078
Hد						SD Lot-Sample #:	C9L230421-001	
	6.9	7.0		0.14	(0-2.0)	SM20 4500-H+B	01/04/10	0004194
			Dilution Fa	ctor: 1	Ana	lysis Time: 13:47	MS Run Number:	0004120



January 07, 2010

10:31:14AM

Client:

TestAmerica Pittsburgh

301 Alpha, RIDC Park

Pittsburgh, PA 15238

Attn:

Chris Kovitch

Work Order:

NSL2726

Project Name:

TA-Pennsylvania Sites

Project Nbr:

C9L230421

P/O Nbr:

Date Received: 12/26/09

LAB NUMBER	COLLECTION DATE AND TIME
NSL2726-01	12/22/09 10:00
NSL2726-02	12/21/09 10:00
NSL2726-03	12/22/09 10:00
NSL2726-04	12/21/09 10:30
NSL2726-05	12/22/09 10:00
NSL2726-06	12/22/09 10:00
NSL2726-07	12/22/09 10:00
	NSL2726-01 NSL2726-02 NSL2726-03 NSL2726-04 NSL2726-05 NSL2726-06

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

This material is intended only for the use of the individual(s) or entity to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient, or the employee or agent responsible for delivering this material to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this material is strictly prohibited. If you have received this material in error, please notify us immediately at 615-726-0177.

Pennsylvania Certification Number: 68-00585

The Chain(s) of Custody, 5 pages, are included and are an integral part of this report.

These results relate only to the items tested. This report shall not be reproduced except in full and with permission of the laboratory.

All solids results are reported in wet weight unless specifically stated.

Estimated uncertainty is available upon request.

cha La Valle

This report has been electronically signed.

Report Approved By:

Debbie LaValle

Project Manager



TestAmerica Pittsburgh 301 Alpha, RIDC Park Pittsburgh, PA 15238

Chris Kovitch

Attn

Work Order:

NSL2726

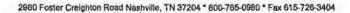
Project Name:

TA-Pennsylvania Sites

Project Number: Received: C9L230421 12/26/09 08:10

ANALYTICAL REPORT

		Al	NALYTICAL	REPORT				
Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NSL2726-01 (C9L23	30421-1 - Water)	Sampled:	12/22/09 10:0	0				
General Chemistry Parameters								
MBAS (mol.wt 320)	0.129	113	mg/L	0.0500	1	12/29/09 15:34	SM5540 C	9124869
Total Kjeldahl Nitrogen	5.46		mg/L	0.100	1	01/05/10 11:00	EPA 351.2	9125286
Sample ID: NSL2726-02 (C9L23	30421-2 - Water)	Sampled:	12/21/09 10:0	0				
General Chemistry Parameters								
MBAS (mol.wt 320)	1.71	113	mg/L	0.0500	1	12/29/09 15:34	SM5540 C	9124869
Total Kjeldahl Nitrogen	9.44		mg/L	0.100	1	01/05/10 11:00	EPA 351.2	9125286
Sample ID: NSL2726-03 (C9L23	30421-3 - Water)	Sampled:	12/22/09 10:0	0				
General Chemistry Parameters								
MBAS (mol.wt 320)	5.48	Н3	mg/L	0.500	10	12/29/09 15:42	SM5540 C	9124869
Total Kjeldahl Nitrogen	6.79		mg/L	0.100	1	01/05/10 11:00	EPA 351.2	9125286
Sample ID: NSL2726-04 (C9L23 ral Chemistry Parameters	30421-4 - Water	Sampled:	12/21/09 10:3	0				
iv5 (mol.wt 320)	6.69	113	mg/L	0.500	10	12/29/09 15:42	SM5540 C	9124869
Total Kjeldahl Nitrogen	3.95		mg/L	0.100	1	01/05/10 11:00	EPA 351.2	9125286
Sample ID: NSL2726-05 (C9L23	30421-6 - Water	Sampled:	12/22/09 10:0	0				
General Chemistry Parameters								
MBAS (mol.wt 320)	7.50	H3	mg/L	0.500	10	12/29/09 15:42	SM5540 C	9124869
Total Kjeldahl Nitrogen	4.05		mg/L	0.100	1	01/05/10 11:00	EPA 351.2	9125286
Sample ID: NSL2726-06 (C9L2: General Chemistry Parameters	30421-7 - Water	Sampled:	12/22/09 10:0	10				
MBAS (mol.wt 320)	0.879	Н3	mg/L	0.0500	-1	12/29/09 15:42	SM5540 C	9124869
Total Kjeldahl Nitrogen	268		mg/L	10.0	100	01/05/10 11:00	EPA 351.2	9125286
Sample ID: NSL2726-07 (C9L23	30421-8 - Water	Sampled:	12/22/09 10:0	0				
General Chemistry Parameters								
MBAS (mol.wt 320)	0.201	Н3	mg/L	0.0500	ī	12/29/09 15:42	SM5540 C	9124869
Total Kjeldahl Nitrogen	195		mg/L	2.00	20	01/05/10 11:00	EPA 351.2	9125286





TestAmerica Pittsburgh 301 Alpha, RIDC Park

Pittsburgh, PA 15238 Chris Kovitch

Attn

Work Order:

NSL2726

Project Name:

TA-Pennsylvania Sites

Project Number: Received: C9L230421 12/26/09 08:10

PROJECT QUALITY CONTROL DATA Blank

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
General Chemistry Parameters						
9124869-BLK1 MBAS (mol.wt 320)	<0.0300		mg/L	9124869	9124869-BLK1	12/29/09 15:34
9125286-BLK1 Total Kjeldahl Nitrogen	<0.0500		mg/L	9125286	9125286-BLK1	01/05/10 11:00





TestAmerica Pittsburgh 301 Alpha, RIDC Park

Pittsburgh, PA 15238 Chris Kovitch

Attn

Work Order:

NSL2726

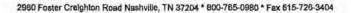
Project Name:

TA-Pennsylvania Sites

Project Number: Received: C9L230421 12/26/09 08:10

PROJECT QUALITY CONTROL DATA Duplicate

Analyte	Orig, Val.	Duplicate	Q	Units	RPD	Limit	Batch	Sample Duplicated	% Rec.	Analyzed Date/Time
General Chemistry Parameters										
9124869-DUP1										
MBAS (mol.wt 320)	1.71	1.71		mg/L	0.07	20	9124869	NSL2726-02		12/29/09 15:34
9124869-DUP2										
MBAS (mol. wt 320)	0,950	0,921		mg/L	3	20	9124869	NSL2749-01		12/29/09 15:34
9125286-DUP1										
Total Kjeldahl Nitrogen	195	179		mg/L	9	46	9125286	NSL2726-07		01/05/10 11:00





TestAmerica Pittsburgh 301 Alpha, RIDC Park Pittsburgh, PA 15238 Chris Kovitch

Attn

Work Order:

NSL2726

Project Name:

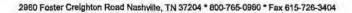
TA-Pennsylvania Sites

Project Number: Received: C9L230421 12/26/09 08:10

PROJECT QUALITY CONTROL DATA

LCS

Known Val.	Analyzed Val	0	Units	% Rec.	Target Range	Batch	Analyzed Date/Fime
	****************		*******	********	*********		
0.750	0.726		mg/L	97%	85 - 115	9124869	12/29/09 15:34
2.50	2.47		mg/L	99%	90 - 110	9125286	01/05/10 11:00
		0.750 0,726	0.750 0,726	0.750 0,726 mg/L	0.750 0.726 mg/L 97%	Known Val. Analyzed Val Q Units % Rec. Range 0.750 0.726 mg/L 97% 85 - 115 2.50 2.47 mg/L 99% 90 - 110	Known Val. Analyzed Val Q Units % Rec. Range Batch 0.750 0.726 mg/L 97% 85 - 115 9124869 2.50 2.47 mg/L 99% 90 - 110 9125286





TestAmerica Pittsburgh 301 Alpha, RIDC Park Pittsburgh, PA 15238 Chris Kovitch

Attn

Work Order:

NSL2726

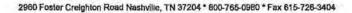
Project Name: Project Number: TA-Pennsylvania Sites

Received:

C9L230421 12/26/09 08:10

PROJECT QUALITY CONTROL DATA LCS Dup

Analy(e	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
General Chemistry Parameters												
9124869-BSD1 MBAS (mol.wt 320)		0.742		mg/L	0.750	99%	85 - 115	2	20	9124869		12/29/00 15:34





it TestAmerica Pittsburgh

301 Alpha, RIDC Park

Pittsburgh, PA 15238 Chris Kovitch

Attn

Work Order:

NSL2726

Project Name:

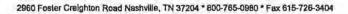
TA-Pennsylvania Sites

Project Number: C Received: 1

C91.230421 12/26/09 08:10

PROJECT QUALITY CONTROL DATA Matrix Spike

Analyte	Orig. Val.	MS Val	Q	Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
General Chemistry Parameters										
9124869-MS1										
MBAS (mol.wt 320)	0.0509	0.730		mg/L	0.750	91%	85 - 115	9124869	NSL2759-01	12/29/09 15:34
9125286-MS1										
Total Kjeldahl Nitrogen	5.46	6.49	M8	mg/L	2.50	41%	90 - 110	9125286	NSL2726-01	01/05/10 11:00





I TestAmerica Pittsburgh 301 Alpha, RIDC Park Pittsburgh, PA 15238 Chris Kovitch

Attn

Work Order:

NSL2726

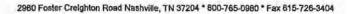
Project Name:

TA-Pennsylvania Sites

Project Number: Received: C9L230421 12/26/09 08:10

PROJECT QUALITY CONTROL DATA Matrix Spike Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
General Chemistry Parameters				in annual s				CO SO		*********	K4979ACCCCCCCC	
9124869-MSD1 MBAS (mol.wt 320)	0.0509	0.734		mg/L	0,750	91%	85 - 115	0.5	20	9124869	NSL2759-01	12/29/09 15:34
9125286-MSD1 Total Kjeldahi Nitrogen	5.46	9.73	M8	mg/L	5,00	85%	90 - 110	40	46	9125286	NSL2726-01	01/05/10 11:00





TestAmerica Pittsburgh 301 Alpha, RIDC Park

Pittsburgh, PA 15238 Chris Kovitch Work Order:

NSL2726

Project Name: Project Number: TA-Pennsylvania Sites C9L230421

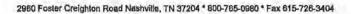
Received: 12/26/09 08:10

CERTIFICATION SUMMARY

TestAmerica Nashville

Attn

Method	Matrix	AIIIA	Nelac	Pennsylvania
EPA 351.2	Water	N/A	x	X
SM5540 C	Water		X	X





TestAmerica Pittsburgh 301 Alpha, RIDC Park

Pittsburgh, PA 15238

Chris Kovitch

Attn

Work Order: NSL2726

Project Name: TA-Pennsylvania Sites

Project Number: C9L230421 Received: 12/26/09 08:10

DATA QUALIFIERS AND DEFINITIONS

H3 Sample was received and analyzed past holding time.

M8 The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).

ND Not detected at the reporting limit (or method detection limit if shown)

METHOD MODIFICATION NOTES



COOLER RECI



NSL2726

Cooler Received/Opened On 12/25/2009 @ 0810	NGL2/20
1. Tracking # 2 8 1 (last 4 digits, FedEx)	
Courier: FedEx IR Gun ID Raynger	
2. Temperature of rep. sample or temp blank when opened: Degrees Celsius	
3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank froz	en7 YES NO NA
4. Were custody seals on outside of cooler?	YESNONA
If yes, how many and where:	NI
5. Were the seals intact, signed, and dated correctly?	YESNO.
6. Were custody papers inside cooler?	GSNONA
certify that I opened the cooler and answered questions 1-6 (intial)	1)
7. Were custody seals on containers: YES (NO) and Intact	YESNO
Were these signed and dated correctly?	YESNONA
8. Packing mat'l used? Bubblewrap Plastic bag 'Peanuts Vermiculite Foam Insert P	aper Other None
9. Cooling process: (Ce Ice-pack Ice (direct contact) Dry	vice Other None
10. Did all containers arrive in good condition (unbroken)?	YES NO NA
11. Were all container labels complete (#, date, signed, pres., etc)?	FES NO NA
12. Did all container labels and tags agree with custody papers?	(FESNONA
13a. Were VOA vials received?	YES NONA
b. Was there any observable headspace present in any VOA vial?	YESNONE
14. Was there a Trip Blank in this cooler? YES. NO.NA If multiple coolers, seq	uence
I certify that I unloaded the cooler and answered questions 7-14 (intial)	
15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH lev	vel? FESNONA
b. Did the bottle labels indicate that the correct preservatives were used	Q'ES NONA
16. Was residual chlorine present?	YES TO NA
I certify that I checked for chlorine and pH as per SQP and answered questions 15-16 (int	ial) (a)
17. Were custody papers properly filled out (ink, signed, etc)?	ESNONA
18. Did you sign the custody papers in the appropriate place?	VESNONA
19. Were correct containers used for the analysis requested?	WES NO NA
20. Was sufficient amount of sample sent in each container?	VESNONA
certify that I entered this project into LIMS and answered questions 17-20 (Intial)	
I certify that I attached a label with the unique LIMS number to each container (intial)	YD)
21. Were there Non-Conformance issues at login 7 VisNO Was a PIPE generated? Ye	S.NO#

of 206

C9L230421

NSL2726

INTER-COMPANY CHAIN OF CUSTODY

COMMENTS:

01/07/10 23:59

Project Manager:

Chris Kovitch

Project: Peport Type:

Std Rep - CD only **B1**

Form 26R

Date Received:

2009-12-23

Analytical Due Date:

2010-01-11

Report Due Date:

2010:01-11

VORK LOC	ATION:	W5		Tos	stAmerica Nashvill	0				+
	2960 Foster Creig			,,,,	Strinenca masirm					¥
DDRESS.	Nashville	TN	37204							1
SMP# 1	CLIENT ID: V		ON COUNTY	FLOW BAC	CK <u>DATE/TIME</u> S	AMPLED: 2009122	22 1000	MATRIX:	1 WAT	ER
	METHOD: EXTRACTION:	Z0 88	NONE NO SAMPL WORKOR		WATER, 35 ATION PERFORMED RJLW1A2	1.2 TKN TA Nash) TEST SET	METAL:	×
	METHOD: EXTRACTION:	Z0 88	NONE NO SAMPI WORKOR		WATER, 42 ATION PERFORMED RJLW1A3	5.1 MBAS TA Nas / QC TYPE: 01		TEST SET	METAL:	×
MP# 2	CLIENT ID: V SAMPLE COM		ELAND PRO	DUCTION BE	RIN <u>DATE/TIME S</u>	AMPLED: 2009122	1 1000	MATRIX:	I WAT	ER.
	METHOD: EXTRACTION:	Z0 88	NONE NO SAMPL WORKORI		WATER, 35 ATION PERFORMED LRJL01AD	1.2 TKN TA Nash		TEST SET	METAL:	X
	METHOD: EXTRACTION:	Z0 88	NONE NO SAMPL WORKORI		WATER, 42: ATION PERFORMED RJL01AE	5.1 MBAS TA Nasi / QC TYPE: 01		TEST SET	METAL:	×
MP# 3	CLIENT ID: FA		OUNTY BRIN	IE.	DATE/TIME S	AMPLED: 2009122	2 1000	MATRIX:	I WATI	ER
	METHOD: EXTRACTION:	Z0 88	NONE NO SAMPL WORKORI		WATER, 35* ATION PERFORMED RJL11AD	I.2 TKN TA Nash		TEST SET	METAL:	X
	METHOD: EXTRACTION:	Z0 88	NONE NO SAMPL WORKORD		WATER, 429 ATION PERFORMED RJL11AE	5.1 MBAS TA Nash / QC TYPE: 01		TEST SET	METAL:	X
MP# 4	CLIENT ID: W		LAND FLOW	/ BACK	DATE/TIME SA	AMPLED: 2009122	1 1030	MATRIX:	I WATE	R
	METHOD: EXTRACTION:	Z0 88	NONE NO SAMPL WORKORE		WATER, 351 ATION PERFORMED RJL21AD	.2 TKN TA Nashy		TEST SET	METAL:	XX
	METHOD: EXTRACTION:	Z0 88	NONE NO SAMPLI WORKORD		WATER, 425 ATION PERFORMED RJL21AE	.1 MBAS TA Nash / QC TYPE: 01		TEST SET	METAL:	xx
	CLIENT ID: GI		JNTY FLOV	BACK 1	DATE/TIME SA	MPLED: 2009122	2 1000	MATRIX.	T WATE	R
	METHOD:									-

C9L230421

COMPANY CHAIN OF CUSTODY

COMMENTS:

Project Manager:

Chris Kovitch

Form 26R

Date Received:

2009/12-23

Analytical Due Date:

2010-01-11

Project: "port Type:

B1 Std Rep - CD only

Report Due Date:

2010-01-11

int:

367970 - Cash in Advance / Prepaid Sales

EXTRACTION: 88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: STANDARD TEST SET

> LRJPK1AD WORKORDER

METAL: XX

METHOD: NONE NONE WATER, 425.1 MBAS TA Nashville ZO

88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET EXTRACTION:

> WORKORDER LRJPK1AE

METAL: XX

SMP# 7 **FAYETTE COUNTY FLOW BACK 2** DATE/TIME SAMPLED: 20091222 1000 MATRIX: WATER CLIENT ID: SAMPLE COMMENT

> METHOD: EXTRACTION:

ZO

88

NONE

WATER, 351.2 TKN TA Nashville

NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET

WORKORDER

LRJPM1AD

METAL: XX

METHOD:

ZO NONE

NONE

NONE

WATER, 425.1 MBAS TA Nashville

EXTRACTION:

88

NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET

WORKORDER LRJPM1AE

METAL: XX

SMP# B CLIENT ID: GREENE COUNTY PRODUCTION BRIN DATE/TIME SAMPLED: 20091222 1000 MATRIX: WATER SAMPLE COMMENT

METHOD:

NONE ZO

NONE

WATER, 351.2 TKN TA Nashville

EXTRACTION:

NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET 88

LRJPP1AD WORKORDER

METAL:

METHOD:

ZO

NONE NONE WATER, 425.1 MBAS TA Nashville

EXTRACTION:

88

NO SAMPLE PREPARATION PERFORMED / OC TYPE: 01 STANDARD TEST SET

WORKORDER

LRJPP1AE

METAL:

The sample(s) listed on this form are being sent to your location for the specified analysis. If you have any questions, please contact the Project Manager listed above. PLEASE RETURN THE ORIGINAL SIGNED FORM WITH THE REPORT AT THE COMPLETION OF ANALYSIS.

Thank You

TestAmerica Pittsburgh Sample Receiving

RELINQUISHED BY:

RECEIVED FOR LAB BY:

Page 2

NSL2726 01/07/10 23:59



Ferrel, Matthew

om:

Kovitch, Chris

ant:

Thursday, December 24, 2009 12:23 PM

To:

McFadden, John; Pittsburgh - Receiving

Cc:

Ferrel, Matthew

Subject:

RE: We received samples that were suppose to go to Nashville

Ok., Thank You., Please shipp., :)

From:

McFadden, John

Sent:

Thursday, December 24, 2009 12:21 PM Kovitch, Chris; Pittsburgh - Receiving

To: Cc:

Ferrel, Matthew

Subject:

RE: We received samples that were suppose to go to Nashville

Yes it did say Nashville

From:

Kovitch, Chris

Sent: To:

Thursday, December 24, 2009 12:21 PM McFadden, John; Pittsburgh - Receiving

Cc:

Ferrel, Matthew

Subject:

RE: We received samples that were suppose to go to Nashville

Nashville is going to do the TKN and MBAS... The paperwork did say Nashville Right

From:

McFadden, John

-ent

Thursday, December 24, 2009 12:10 PM

Kovitch, Chris Ferrel, Matthew

Subject:

We received samples that were suppose to go to Nashville

Importance: High

Chris,

We received lot C9L230421 for TKN and MBAS that looks as though it was suppose to go to Nashville. Would you like us to ship these to Nashville for Saturday-delivery? Just let us know.

Thanks



Analytical Report

SDG Number: C9L230421

Project Description(s) 367970 CIA

For:

Chris Kovitch

TestAmerica Pittsburgh 301 Alpha Drive; RIDC Park Pittsburgh, PA 15238

Sally Hoffman

Sarry & Yorks

Project Manager
Sally.Hoffman@testamericainc.com
Monday, January 11, 2010

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exception to NELAP requirements are noted in this report. Persuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project manager who has signed this report.



SDG Number: C9L230421

Received: 12/24/09

Reported: 01/11/10 11:25

Project: 367970 CIA

Project Number: C9L230421

TestAmerica Buffalo Current Certifications

As of 1/27/2009

STATE	Program	Cert # / Lab ID
Arkansas	CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA, NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
lowa	SW/CS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA,CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP, SDWA, CWA, RCRA,	NY455
New York*	NELAP, AIR, SDWA, CWA, RCRA,CLP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania*	NELAP CWA,RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	T104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington*	NELAP CWA,RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA,RCRA	252

^{*}As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report.

TestAmerica Buffalo - 10 Hazelwood Drive Amherst, NY 14228 tel 716-691-2600 fax 716-691-7991 www.testamericainc.com





SDG Number: C9L230421

Received: 12/24/09

Reported: 01/11/10 11:25

Project: 367970 CIA

Project Number: C9L230421

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
FAYETTE COUNTY BRINE	RSL1004-03	Water	12/22/09 10:00	12/24/09 10:00	
FAYETTE COUNTY FLOW BACK 2	RSL1004-06	Water	12/22/09 10:00	12/24/09 10:00	
GREENE COUNTY FLOW BACK	RSL1004-05	Water	12/22/09 10:00	12/24/09 10:00	
GREENE COUNTY PRODUCTION BRINE	RSL1004-07	Water	12/22/09 10:00	12/24/09 10:00	
WASHINGTON COUNTY FLOW BACK	RSL1004-01	Water	12/22/09 10:00	12/24/09 10:00	
WESTMORELAND FLOW BACK	RSL1004-04	Water	12/21/09 10:30	12/24/09 10:00	
WESTMORELAND PRODUCTION BRIN	RSL1004-02	Water	12/21/09 10:00	12/24/09 10:00	



SDG Number: C9L230421

Received: 12/24/09

Reported: 01/11/10 11:25

Project: 367970 CIA

Project Number: C9L230421

DATA QUALIFIERS AND DEFINITIONS

В	Analyte was detected in the associated Method Blank.
C7	Calibration Verification recovery was below the method control limit due to matrix interference carried over from
	analytical samples. The matrix interference was confirmed by reanalysis with the same result.

D08 Dilution required due to high concentration of target analyte(s)

J Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection

Limit (MDL). Concentrations within this range are estimated.

M8 The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).

P9 This analyte has been shown to degrade upon preservation with HCl and cannot accurately be quantitated.

Z Due to sample matrix effects, the surrogate recovery was below the acceptance limits.

The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Z6 Surrogate recovery was below acceptance limits.

NR Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.



SDG Number: C9L230421

Received: 12/24/09

1.00 12/30/09 09:40 GFD 9L29024

Reported: 01/11/10 11:25

Project: 367970 CIA

Project Number: C9L230421

Executive Summary -	Detections
----------------------------	------------

			Donnie	- amining	DOLL	OHOTIC				
Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: FAYETTE	COUNTY BE	RINE (RSL100	4-03 - W	ater)	Sam	pled:	12/22/09 10:00	Rec	vd: 12/24	/09 10:00
Non-Halogenated	Volatile Organ	nics								
Ethylene Glycol	6.9	P9,J, B	10	0.76	mg/L	1.00	12/30/09 10:28	GFD	9L29024	8015
Client ID: FAYETTE	COUNTY FL	OW BACK 2	(RSL100	4-06 - Water)	Sam	pled:	12/22/09 10:00	Rec	vd: 12/24	/09 10:00
Non-Halogenated	Volatile Organ	nics								
Ethylene Glycol	3.6	P9, C7,J, B	10	0.76	mg/L	1.00	12/30/09 12:10	GFD	9L29024	8015
Client ID: GREENE	COUNTY FLO	OW BACK 1 (RSL1004	I-05 - Water)	Sam	pled:	12/22/09 10:00	Reci	vd: 12/24	/09 10:00
Non-Halogenated	Volatile Organ	nics								
Ethylene Glycol	9.6	D08, P9, C7,J, B	50	3.8	mg/L	5.00	12/30/09 15:03	GFD :	9L29024	8015
Client ID: GREENE Nater)	COUNTY PR	ODUCTION B	RINE (R	SL1004-07 -	Sam	pled:	12/22/09 10:00	Rec	vd: 12/24	/09 10:00
Non-Halogenated	Volatile Organ	ics								
Ethylene Glycol	2.2	P9, C7,J, B	10	0.76	mg/L	1.00	12/30/09 12:40	GFD	9L29024	8015
Client ID: WESTMO	RELAND FLO	W BACK (RS	SL1004-0	4 - Water)	Sam	pled:	12/21/09 10:30	Rec	vd: 12/24	/09 10:00
A _alogenated \	Volatile Organ	ilcs								
Ethylene Glycol	6.7	P9,J, B	10	0.76	mg/L	1.00	12/30/09 10:58	GFD	9L29024	8015
Client ID: WESTMO Water)	RELAND PRO	DDUCTION B	RIN (RSI	_1004-02 -	Sam	pled:	12/21/09 10:00	Recv	vd: 12/24	/09 10:00
Non-Halogenated \	/olatile Organ	nics								

0.76

mg/L

Ethylene Glycol

P9,J, B

1.3

C91.230421 95 of 206



SDG Number: C9L230421

Received: 12/24/09

Reported: 01/11/10 11:25

Project: 367970 CIA

Project Number: C9L230421

Analytical Depart

			An	alytical R	eport					
Analyte	Sample Result	Data Qualiflers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: FAYETTI	E COUNTY BR	INE (RSL1	004-03 - Wa	iter)	Sam	pled: 1	2/22/09 10:00	Rec	vd: 12/24	/09 10:00
Non-Halogenated	V-1-411- O	lan.								
Non-nalogenated	voiatile Organ	IICS								
Ethylene Glycol	6.9	P9,J, B	10	0.76	mg/L	1.00	12/30/09 10:28	GFD	9L29024	8015

C91,230421 95 OF ONE



SDG Number: C9L230421

Received: 12/24/09

Reported: 01/11/10 11:25

Project: 367970 CIA

Project Number: C9L230421

Analytical Report

Sample Data Dil Date Lab
Analyte Result Qualifiers RL MDL Units Fac Analyzed Tech Batch Method

Client ID: FAYETTE COUNTY FLOW BACK 2 (RSL1004-06 - Water) Sampled: 12/22/09 10:00 Recvd: 12/24/09 10:00

Non-Halogenated Volatile Organics

Ethylene Glycol 3.6 P9, C7,J, B 10 0.76 mg/L 1.00 12/30/09 12:10 GFD 9L29024 8015 1,4-Butanediol 65 % P9, C7,Z Surr Limits: (66-130%) 12/30/09 12:10 GFD 9L29024 8015



SDG Number: C9L230421

Received: 12/24/09

Reported: 01/11/10 11:25

Project: 367970 CIA

Project Number: C9L230421

			An	alytical R	eport					
Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: GREENE	COUNTY FLO	OW BACK 1	RSL1004	-05 - Water)	Sam	pled: 1	2/22/09 10:00	Rec	vd: 12/24	/09 10:00
Non University !	Valadila Ossan									
				12		0.3	oran ne vive	220		1400
Non-Halogenated Ethylene Glycol	Volatile Organ 9.6	D08, P9, C7,J, B	50	3.8	mg/L	5.00	12/30/09 15:03	GFD	9L29024	8015



SDG Number: C9L230421

Received: 12/24/09

Reported: 01/11/10 11:25

Project: 367970 CIA

Project Number: C9L230421

Analytical Report

Sample Data Dil Date Lab Analyte Result Qualifiers RL MDL Units Fac Analyzed Tech Batch Method

Client ID: GREENE COUNTY PRODUCTION BRINE (RSL1004-07 - Sampled: 12/22/09 10:00 Recvd: 12/24/09 10:00

Nater)

Non-Halogenated Volatile Organics

Ethylene Glycol 2.2 P9, C7,J, B 10 0.76 mg/L 1.00 12/30/09 12:40 GFD 9L29024 8015

1,4-Butanediol 51 % P9, C7,Z Surr Limits: (66-130%) 12/30/09 12:40 GFD 9L29024 8015

C91.220421 99 of 206



SDG Number: C9L230421

Received: 12/24/09

12/30/09 09:10 GFD 9L29024

Reported: 01/11/10 11:25

8015

Project: 367970 CIA

Project Number: C9L230421

Analytical Report

Sample DII Data Date Lab Analyte Result Qualifiers Units Fac MDL Analyzed RL Tech Batch Method

Client ID: WASHINGTON COUNTY FLOW BACK (RSL1004-01 -Sampled: 12/22/09 10:00 Recvd: 12/24/09 10:00

Nater)

Non-Halogenated Volatile Organics

Ethylene Glycol D08, P9 100 7.6 mg/L 10.0 12/30/09 09:10 GFD 9L29024 8015 1,4-Butanediol D08, P9,Z3 Surr Limits: (66-130%)



SDG Number: C9L230421

Received: 12/24/09

Reported: 01/11/10 11:25

Project: 367970 CIA

Project Number: C9L230421

Analytical Report	Analy	ytical	Rep	ort
-------------------	-------	--------	-----	-----

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech Batch	Method
Client ID: WEST	MORELAND FLO	W BACK (R	SL1004-0	04 - Water)	Sam	pled: 12	2/21/09 10:30	Recvd: 12/2	4/09 10:00
Non-Halogenat	ed Volatile Organ	nics							

Ethylene Glycol	6.7	P9,J, B	10	0.76	mg/L	1.00	12/30/09 10:58 GFD	9L29024	8015	
1 4-Butanediol	83 %	PQ	Sur Limits	(66-130%)			12/30/09 10:58 GED	91 29024	8015	-

C91.23.0421 101 Of 1



SDG Number: C9L230421

Received: 12/24/09

Reported: 01/11/10 11:25

Project: 367970 CIA

Project Number: C9L230421

Anal	ytical	Rep	ort

Sample Data Dil Date Lab Analyte Result Qualifiers RL MDL Units Fac Analyzed Tech Batch Method

Client ID: WESTMORELAND PRODUCTION BRIN (RSL1004-02 - Sampled: 12/21/09 10:00 Recvd: 12/24/09 10:00

Nater)

Non-Halogenated Volatile Organics

Ethylene Glycol 1.3 P9,J, B 10 0.76 mg/L 1.00 12/30/09 09:40 GFD 9L29024 8015 1,4-Butanediol 78 % P9 Surr Limits: (66-130%) 12/30/09 09:40 GFD 9L29024 8015



SDG Number: C9L230421

Received: 12/24/09

Reported: 01/11/10 11:25

Project: 367970 CIA

Project Number: C9L230421

CASE NARRATIVE

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. field-pH), they were not analyzed immediately, but as soon as possible after laboratory receipt.

I 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 within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverables has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Sally Hoffman Project Manager

Monday, January 11, 2010

Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

C9T,220421 103 of 206

QUALITY CONTROL DATA



TestAmerica Pittsburgh 301 Alpha Drive; RIDC Park Irgh, PA 15238 SDG Number: C9L230421

Received: 12/24/09

Reported: 01/11/10 11:25

Project: 367970 CIA

Project Number: C9L230421

IAD	ODA	TODY	no	DATA
LAD	UKA	IUKI	U.C	DATA

			-	BOILDION	GO DAIR						
Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Non-Halogenated Vo	olatile Orga	nics									
Blank Analyzed: 12/3	30/09 (Lab	Number:	9L29024-	BLK1, Batch:	9L29024)						
Ethylene Glycol			10	0.76	mg/L	1.8					٦
Surrogate: 1,4-Butaned	iol				mg/L		109	66-130			
LCS Analyzed: 12/30	/09 (Lab N	umber:9	L29024-B	S1, Batch: 9L	29024)						
Ethylene Glycol		20.0	10	0.76	mg/L	23.4	117	50-150			В
Surrogate: 1,4-Butaned	iol				mg/L		108	66-130			
Matrix Spike Analyze QC Source Sample: RSL		(Lab No	umber:9L	29024-MS1, B	Batch: 9L290	24)					
Ethylene Glycol	1.34	20.0	10	0.76	mg/L	14.7	67	50-150			P9,C7,B
Surrogate: 1,4-Butaned	iol				mg/L		71	66-130			P9,C7
Matrix Spike Dup An OC Source Sample: RSL		30/09 (La	ab Numbe	er:9L29024-M	SD1, Batch:	9L29024)					
F*- 'nne Glycol	1.34	20.0	10	0.76	mg/L	9.68	42	50-150	41	50	P9,C7,M8 ,J,B
Surrogate: 1.4-Butanedi	ol				ma/L		51	66-130			P9.C7.Z6

C91.23.04.21 105 of 206

SAMPLE DATA PACKAGE

17/117

SDG NARRATIVE



TestAmerica Pittsburgh 301 Alpha Drive; RIDC Park jurgh, PA 15238 SDG Number: C9L230421

Received: 12/24/09 Reported: 01/11/10 11:25

Project: 367970 CIA

Project Number: C9L230421

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
FAYETTE COUNTY BRINE	RSL1004-03	Water	12/22/09 10:00	12/24/09 10:00	
FAYETTE COUNTY FLOW BACK 2	RSL1004-06	Water	12/22/09 10:00	12/24/09 10:00	
GREENE COUNTY FLOW BACK	RSL1004-05	Water	12/22/09 10:00	12/24/09 10:00	
GREENE COUNTY PRODUCTION BRINE	RSL1004-07	Water	12/22/09 10:00	12/24/09 10:00	
WASHINGTON COUNTY FLOW BACK	RSL1004-01	Water	12/22/09 10:00	12/24/09 10:00	
WESTMORELAND FLOW BACK	RSL1004-04	Water	12/21/09 10:30	12/24/09 10:00	
WESTMORELAND PRODUCTION BRIN	RSL1004-02	Water	12/21/09 10:00	12/24/09 10:00	

C91.230421 108 0F 206



TestAmerica Pittsburgh 301 Alpha Drive; RIDC Park urgh, PA 15238 SDG Number: C9L230421

Received: 12/24/09

Reported: 01/11/10 11:25

Project: 367970 CIA

Project Number: C9L230421

DATA QUALIFIERS AND DEFINITIONS

B Analyte was detected in the associated Method Blank.

C7 Calibration Verification recovery was below the method control limit due to matrix interference carried over from

analytical samples. The matrix interference was confirmed by reanalysis with the same result.

D08 Dilution required due to high concentration of target analyte(s)

J Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection

Limit (MDL). Concentrations within this range are estimated.

M8 The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).

P9 This analyte has been shown to degrade upon preservation with HCl and cannot accurately be quantitated.

Z Due to sample matrix effects, the surrogate recovery was below the acceptance limits.

Z3 The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike

concentration in the sample was reduced to a level where the recovery calculation does not provide useful

information.

Z6 Surrogate recovery was below acceptance limits.

NR Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below

the laboratory reporting limit.

C9T.230421 109 of 206



TestAmerica Pittsburgh 301 Alpha Drive; RIDC Park Jrgh, PA 15238 SDG Number: C9L230421

Received: 12/24/09

Reported: 01/11/10 11:25

Project: 367970 CIA

Project Number: C9L230421

Executive Summar	y -	De	tect	ions
-------------------------	-----	----	------	------

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil	Date Analyzed	Lab	Batch	Method
Client ID: FAYETTE			10000				2/22/09 10:00	77 12 1	7 STG 175	/09 10:00
				0.001	Ou.	.picu.	22200 10.00	,,,,,		00 10.00
Non-Halogenated	Volatile Organ									
Ethylene Glycol	6.9	P9,J, B	10	0.76	mg/L	1.00	12/30/09 10:28	GFD	9L29024	8015
Client ID: FAYETTE	COUNTY FL	OW BACK 2	(RSL100	4-06 - Water	Sam	pled: 1	2/22/09 10:00	Rec	vd: 12/24	/09 10:00
Non-Halogenated	Volatile Organ	nics								
Ethylene Glycol	3.6	P9, C7,J, B	10	0.76	mg/L	1.00	12/30/09 12:10	GFD	9L29024	8015
Client ID: GREENE	COUNTY FLO	W BACK 1 (RSL1004	I-05 - Water)	Sam	pled: 1	2/22/09 10:00	Rec	vd: 12/24	/09 10:00
Non-Halogenated	Volatile Organ	ics								
Ethylene Glycol	9.6	D08, P9, C7,J, B	50	3.8	mg/L	5.00	12/30/09 15:03	GFD	9L29024	8015
Client ID: GREENE Water)	COUNTY PR	ODUCTION B	RINE (R	SL1004-07 -	Sam	pled: 1	2/22/09 10:00	Rec	vd: 12/24	/09 10:00
Non-Halogenated	Volatile Organ	ics								
Ethylene Glycol	2.2	P9, C7,J, B	10	0.76	mg/L	1.00	12/30/09 12:40	GFD	9L29024	8015
Cli-nt ID: WESTMO	RELAND FLO	W BACK (RS	SL1004-0	4 - Water)	Sam	pled: 1	2/21/09 10:30	Recy	vd: 12/24	/09 10:00
Halogenated	Volatile Organ	nics								
Ethylene Glycol	6.7	P9,J, B	10	0.76	mg/L	1.00	12/30/09 10:58	GFD	9L29024	8015
Client ID: WESTMO Water)	RELAND PRO	DDUCTION B	RIN (RSI	L1004-02 -	Sam	pled: 1	2/21/09 10:00	Rec	vd: 12/24/	/09 10:00
Non-Halogenated	Volatile Organ	ics								
Ethylene Glycol	1.3	P9,J, B	10	0.76	mg/L	1.00	12/30/09 09:40	GFD	9L29024	8015

C9T.230421 110 of 206



TestAmerica Pittsburgh 301 Alpha Drive; RIDC Park urgh, PA 15238 SDG Number: C9L230421

Received: 12/24/09

Reported: 01/11/10 11:25

Project: 367970 CIA

Project Number: C9L230421

CASE NARRATIVE

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. field-pH), they were not analyzed immediately, but as soon as possible after laboratory receipt.

I 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 within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverables has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Sally Hoffman

Project Manager

Monday, January 11, 2010

Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

C9T.230421 111 of 206



C9L230421

INTER-COMPANY CHAIN OF CUSTODY

COMMENTS:

Report Type:

Project:

ant:

Project Manager:

Chris Kovitch

Form 26R

Date Received:

2009-12-23

Analytical Due Date:

2010-01-11

Report Due Date: 2010-01-11

WORK LOCATION:

13

Std Rep - CD only

TestAmerica Buffalo

ADDRESS: 10 Hazelwood Drive

Amherst

NY 14228

367970 - Cash in Advance / Prepaid Sales

SMP# 1

B1

CLIENT ID: WASHINGTON COUNTY FLOW BACK DATE/TIME SAMPLED: 20091222

1000

MATRIX: I WATER

SAMPLE COMMENT

METHOD:

ZO NONE NONE

WATER, 8015 Ethylene Glycol TA Buffalo

EXTRACTION: 88

LRJLW1A4

WORKORDER

NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET

METAL: XX

CLIENT ID: SMP# 2 WESTMORELAND PRODUCTION BRIN

DATE/TIME SAMPLED: 20091221

1000

MATRIX: WATER

SAMPLE COMMENT

METHOD:

EXTRACTION:

NONE 20

NONE

WATER, 8015 Ethylene Glycol TA Buffalo

88 NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET

WORKORDER LRJL01AF

METAL: XX

CLIENT ID: FAYETTE COUNTY BRINE SMP# 3

DATE/TIME SAMPLED: 20091222 1000 MATRIX: I WATER

SAMPLE COMMENT

METHOD:

NONE ZO

NONE

WATER, 8015 Ethylene Glycol TA Buffalo

EXTRACTION: 88

LRJL11AF WORKORDER

NO SAMPLE PREPARATION PERFORMED / OC TYPE: 01 STANDARD TEST SET

METAL: XX

CLIENT ID: WESTMORELAND FLOW BACK

NONE

DATE/TIME SAMPLED: 20091221

1030

MATRIX: 1 WATER

SAMPLE COMMENT

METHOD:

SMP# 4

ZO 88 NONE

WATER, 8015 Ethylene Glycol TA Buffalo

EXTRACTION:

NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET

WORKORDER LRJL21AF

METAL: XX

SMP# 6 CLIENT ID: GREENE COUNTY FLOW BACK 1

DATE/TIME SAMPLED: 20091222

1000

MATRIX: 1 WATER

SAMPLE COMMENT

METHOD:

ZO NONE NONE

WATER, 8015 Ethylene Glycol TA Buffalo

EXTRACTION: 88

88

NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01 STANDARD TEST SET

WORKORDER LRJPK1AF

METAL: XX

SMP# 7 CLIENT ID: FAYETTE COUNTY FLOW BACK 2

DATE/TIME SAMPLED: 20091222

1000

MATRIX: I WATER

SAMPLE COMMENT

METHOD:

EXTRACTION:

ZO NONE NONE

WATER, 8015 Ethylene Glycol TA Buffalo

NO SAMPLE PREPARATION PERFORMED / OC TYPE: 01 STANDARD TEST SET

WORKORDER LRJPM1AF

> DATE/TIME SAMPLED: 20091222 1000

MATRIX: I WATER

METAL: XX

SAMPLE COMMENT

METHOD: EXTRACTION:

NONE ZO

CLIENT ID: GREENE COUNTY PRODUCTION BRIN

NONE

WATER, 8015 Ethylene Glycol TA Buffalo NO SAMPLE PREPARATION PERFORMED / QC TYPE: 01

STANDARD TEST SET

Page 1

88

Wednesday, December 23, 2009 12:47 PM printed on:

113

TestAmerica Pittsburgh C91.220421

D# 8

nf 206

C9L230421

INTER-COMPANY CHAIN OF CUSTODY

COMMENTS:

Project Manager:

Chris Kovitch

Project:

eport Type:

.ent:

Std Rep - CD only

Form 26R

367970 - Cash in Advance / Prepaid Sales

2009-12-23

Analytical Due Date:

Date Received:

Report Due Date:

2010-01-11 2010-01-11

WORKORDER

LRJPP1AF

METAL: XX

The sample(s) listed on this form are being sent to your location for the specified analysis. If you have any questions, please contact the Project Manager listed above. PLEASE RETURN THE ORIGINAL SIGNED FORM WITH THE REPORT AT THE COMPLETION OF ANALYSIS.

Thank You

TestAmerica Pittsburgh Sample Receiving

RELINQUISHED BY:

RECEIVED FOR LAB BY:

DATE:

Work Order RS	ood Storage # 1266
Shipment ID	Strict Internal COC: YES / NO Radiation Check < 0.02 mR/hr: YES / NO Residual Chlorine Check:
Client TAP; #	Project_ #TL#5
Pre-log RS	
TAT 10 BD/ CD #0	F SAMPLESTRIP BLANK YOU #
SHIPPED BY File	ATTACH SHIPPING TAGS
RECEIVED DATE / TIME:	12124109 10:00
COOLER TEMP Z. O °C ((<6 °C) ØK NO
Cooler Custody Seal intact? YES/NO	NONE SEAL#
If NO to cooler temp or seal, PM notified	
WORKSHARE/SUB YES/NO LA	BAnalysis
COMMENTS: SAMPLE TIME	(CT) (MT) (PT) NONE
Sample received outside hold time	
Condition (Issues) Yes/NO	
Resolved at login	ARRF
Tests added from All Analyses list	Sally I put this under A
for 8015 Hygols,	chanse if heeded.
PRESERVATION CHECKED YE	S NO NA Initials
ARE SAMPLE DATES AND TIMES CO	PRRECT? Initials
WERE ALL THE APPROPRIATE TEST	'S ASSIGNED? Initials \checkmark

ORGANICS DATA

GC METHOD 8015

ANALYSES DATA PACKAGE COVER PAGE 8015

* aborator	y: TestAmerica Buffalo	SDG: C9L230421	
Clien	t: TestAmerica Pittsburgh	Project: 367970 CIA	
140	Client Sample Id:	Lab Sample Id:	
	WASHINGTON COUNTY FLOW BACK	RSL1004-01	
	WESTMORELAND PRODUCTION BRIN	RSL1004-02	
	FAYETTE COUNTY BRINE	RSL1004-03	
	WESTMORELAND FLOW BACK	RSL1004-04	
	GREENE COUNTY FLOW BACK 1	RSL1004-05	
	FAYETTE COUNTY FLOW BACK 2	RSL1004-06	
	GREENE COUNTY PRODUCTION BRINE	RSL1004-07	

Form 2 SURROGATE STANDARD RECOVERY AND RT SUMMARY 8015

ratory:

TestAmerica Buffalo

SDG:

C9L230421

Count:

TestAmerica Pittsburgh

Project:

367970 CIA

Sequence:

RL93102

Instrument:

HP5890-9

Matrix:

Water

Calibration:

R9F0102

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
WASHINGTON COUNTY	FLOW BACK (RSL1004-01)	Lab File ID:	9b32043	Analyzed	1: 12/30/09 09	9:10	Y
1,4-Butanediol	100		66 - 130	5.520754	5.794813	-0.2741	+/-1.0	*
WESTMORELAND PROD	UCTION BRIN	(RSL1004-02)Lab File ID:	9b32045	Analyzed	1: 12/30/09 09	0:40	
1,4-Butanediol	100	78	66 - 130	5.52941	5.794813	-0.2654	+/-1.0	
FAYETTE COUNTY BRIN	E (RSL1004-03)	Lab File ID:	9Ь32048	Analyzed	1: 12/30/09 10	0:28	
1,4-Butanediol	100	86	66 - 130	5.533468	5.794813	-0,2613	+/-1.0	
WESTMORELAND FLOW	BACK (RSL10	04-04)	Lab File ID:	9632050	Analyze	1: 12/30/09 10	0:58	
1,4-Butanediol	100	83	66 - 130	5.536228	5.794813	-0.2586	+/-1.0	T
GREENE COUNTY FLOW	BACK 1 (RSL1	004-05)	Lab File ID:	9632064	Analyze	1: 12/30/09 1:	5:03	Ē
1,4-Butanediol	100	109	66 - 130	5.513425	5.794813	-0.2814	+/-1.0	T
FAYETTE COUNTY FLOW	W BACK 2 (RSL	1004-06)	Lab File ID:	9Ъ32054	Analyzed	1: 12/30/09 12	2:10	
'-Butanediol	100	65	66 - 130	5.537772	5.794813	-0.2570	+/-1.0	*
GREENE COUNTY PROD	UCTION BRINI	E (RSL1004-0	Lab File ID:	9Ь32056	Analyzed	1: 12/30/09 12	2:40	
1,4-Butanediol	100	51	66 - 130	5.545058	5.794813	-0.2498	+/-1.0	1 *

Form 2 SURROGATE STANDARD RECOVERY AND RT SUMMARY 8015

`rratory: TestAmerica Buffalo

SDG: C9L230421

· alt:

TestAmerica Pittsburgh

Project: 367970 CIA

Sequence: RL93102

Instrument:

HP5890-9

Matrix:

Water

Calibration:

R9F0102

Surrogate Compound	Spike Level mg/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Blank (9L29024-BLK1)			Lab File ID:	9b32042	Analyze	d: 12/30/09 08	3:45	
1,4-Butanediol	100	109	66 - 130	5.519123	5.794813	-0.2757	+/-1.0	
LCS (9L29024-BS1)			Lab File ID:	9Ь32044	Analyze	d: 12/30/09 09	9:25	
1,4-Butanediol	100	108	66 - 130	5.519015	5.794813	-0.2758	+/-1.0	
Matrix Spike (9L29024-MS1)		Lab File ID:	9b32065	Analyze	d: 12/30/09 1:	5:19	
1,4-Butanediol	100	71	66 - 130	5.531807	5.794813	-0.2630	+/-1.0	
Matrix Spike Dup (9L29024-I	MSD1)		Lab File ID:	9b32066	Analyze	d: 12/30/09 1:	5:34	
1,4-Butanediol	100	51	66 - 130	5.54603	5.794813	-0.2488	+/-1.0	+

Form 3

LCS / LCS DUPLICATE RECOVERY

8015

ratory:

TestAmerica Buffalo

SDG:

C9L230421

Client:

TestAmerica Pittsburgh

Project:

367970 CIA

Matrix:

Water

Spike standard:

9121239

Batch:

9L29024

Laboratory ID:

9L29024-BS1

Preparation:

8015 Glycols

Initial/Final:

0.5 mL / 1 mL

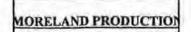
COMPOUND	SPIKE ADDED	UNITS	LCS CONCENTRATION	LCS % REC. #	QCLIMITS REC.
Ethylene Glycol	20.0	mg/L	23.4	117	50 - 150

[#] Column to be used to flag recovery and RPD values with an asterisk

^{*} Values outside of QC limits

Form 3

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY



8015

ratory:

TestAmerica Buffalo

SDG:

C9L230421

Client:

TestAmerica Pittsburgh

Project:

367970 CIA

Matrix:

Spike standard:

Water

9121239

Batch:

9L29024

Laboratory ID:

9L29024-MS1

Preparation:

8015 Glycols

Initial/Final:

0.5 mL / 1 mL

Source Sample Name:

WESTMORELAND PRODUCTION BRIL

COMPOUND	SPIKE ADDED	UNITS	SAMPLE CONCENTRATION	MS CONCENTRATION	MS % REC. #	QC LIMITS REC.
Ethylene Glycol	20.0	mg/L	1.34	14.7	67	50 - 150

COMPOUND	SPIKE ADDED	UNITS	MSD CONCENTRATION	MSD % REC. #	% RPD#		LIMITS REC.
Ethylene Glycol	20.0	mg/L	9.68	42 *	41	50	50 - 150

[#] Column to be used to flag recovery and RPD values with an asterisk

^{*} Values outside of QC limits

PREPARATION BATCH SUMMARY 8015

ratory:

TestAmerica Buffalo

SDG:

C9L230421

Client:

TestAmerica Pittsburgh

Project:

367970 CIA

Batch:

9L29024

Batch Matrix:

Water

Preparation:

8015 Glycols

SAMPLE NAME	LAB SAMPLE ID	INITIAL	FINAL	DATE PREPARED	TOT/DIS
Blank	9L29024-BLK1	0.500 mL	1.00 mL	12/30/09 06:00	N/A
LCS	9L29024-BS1	0.500 mL	1.00 mL	12/30/09 06:00	N/A
WESTMORELAND PRODUCT	9L29024-MS1	0.500 mL	1.00 mL	12/30/09 06:00	N/A
WESTMORELAND PRODUCT	9L29024-MSD1	0.500 mL	1.00 mL	12/30/09 06:00	N/A
WASHINGTON COUNTY FLO	RSL1004-01	0.500 mL	1.00 mL	12/30/09 06:00	N/A
WESTMORELAND PRODUC	RSL1004-02	0.500 mL	1.00 mL	12/30/09 06:00	N/A
FAYETTE COUNTY BRINE	RSL1004-03	0.500 mL	1.00 mL	12/30/09 06:00	N/A
WESTMORELAND FLOW BA	RSL1004-04	0.500 mL	1.00 mL	12/30/09 06:00	N/A
GREENE COUNTY FLOW BA	RSL1004-05	0.500 mL	1.00 mL	12/30/09 06:00	N/A
FAYETTE COUNTY FLOW B	RSL1004-06	0.500 mL	1.00 mL	12/30/09 06:00	N/A
GREENE COUNTY PRODUC	RSL1004-07	0.500 mL	1.00 mL	12/30/09 06:00	N/A

METHOD DETECTION AND REPORTING LIMITS 8015

Laboratory: TestAmerica Buffalo SDG: C9L230421

Client: TestAmerica Pittsburgh Project: 367970 CIA

Matrix: Water Instrument: HP5890-9

Analyte	MDL	MRL	Units
Ethylene Glycol	0.76	10	mg/L

Form 1 ORGANIC ANALYSIS DATA SHEET

IINGTON COUNTY FLOW

8015

in_ ratory:

TestAmerica Buffalo

SDG:

C9L230421

Client:

TestAmerica Pittsburgh

Project:

367970 CIA

Matrix:

Water

Laboratory ID:

RSL1004-01

File ID:

9632043

Sampled:

12/22/09 10:00

Prepared:

12/30/09 06:00

Analyzed:

12/30/09 09:10

Solids:

12/22/09 10:00

Preparation:

8015 Glycols

Initial/Final:

0.5 mL / 1 mL Instrument: HP5890-9

Batch:	9L29024	Sequence:	RL93102	Calibration:	R9F0102	Instrument:	HP5890-9
CAS NO.	COMPOUN	D		DILUTION	CON	C. (mg/L)	Q
107-21-1	Ethylene Gly	/col		10		100	UD
SYSTEM MO	ONITORING C	OMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
1,4-Butanedic	al		100	0.00		66 - 130	D

^{*} Values outside of QC limits

Software Version	6.2.1.0.104:0104	Date	: 12/31/2009 04:29:58
Reprocess Number	: buf2042: 241620		
perator	: tchrom	Sample Name	: RSL1004-01
ample Number	: WATER	Study	
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500:000000
Sample Amount	: 1.0000	Dilution Factor	(10.00)
Data Acquisition Time		Cycle	(:4)

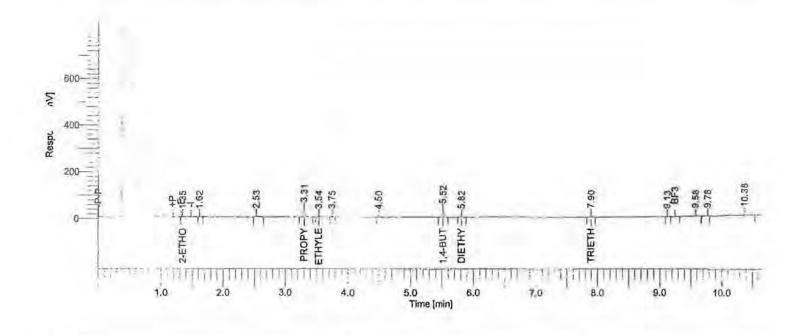
Raw Data File: H:\TURBO6\5890-09\9-SEQ32\9b32043.raw < Modified >

Result File: H:\TURBO6\5890-09\9-SEQ32\9b32043.rst

Inst Method: h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32043.raw

Proc Method: h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32043.rst Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32043.rst

Report Format File: h:\turbo6\5890-09\9brpt.rpt Sequence File: H:\TURBO6\5890-09\9B32.seq



-		-	-
-	1	ſ	1
	,	L	J

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng	DEC 3
1	*B	1204.00	776	1.35	2-ETHOXYETHANOL	0.16	an/
2	*B	1539.60	918	1.62		0.00	Civi
3	B	9202.20	2737	2.53		0.01	
4	В	61888.40	29046	3.31	PROPYLENE GLYCOL	9.65	
5	B	1572.20	735	3.54	ETHYLENE GLYCOL	0.32	
6	В	1936.80	933	3.75		0.00	
7	B	1192.00	562	4.50		0.00	
8	В	49133.20	23603	5.52	1,4-BUTANEDIOL	5.86	
9	В	3462.80	1390	5.82	DIETHYLENE GLYCOL	0.69	

12/31/2009 04:29:58 Result: H:\TURBO6\5890-09\9-SEQ32\9b32043.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	В	11284.00	4138	7.90	TRIETHYLENE GLYCOL	4.52
11	В	1357.80	624	9.13		0.00
12	*B	10024.40	1050	9.58		0.01
13	*B	2947.10	1197	9.78		0.00
14	*٧	57800.30	3669	10.38		0.06
		214544.80	71377			

Missing Component Report Component Ex Expected Retention (Calibration File) 2-METHOXYETHANOL 1.227

Form 1 ORGANIC ANALYSIS DATA SHEET

MORELAND PRODUCTIO

8015

Lauuratory:

TestAmerica Buffalo

SDG:

C9L230421

Client:

TestAmerica Pittsburgh

Project:

367970 CIA

Matrix:

Water

Laboratory ID:

RSL1004-02

File ID:

9632045

Sampled:

12/21/09 10:00

Prepared:

12/30/09 06:00

Analyzed:

12/30/09 09:40

Solids:

Preparation:

8015 Glycols

Initial/Final:

0.5 mL / 1 mL

Batch:	9L29024	Sequence:	RL93102	Calibration:	R9F0102	Instrument:	HP5890-9	
CAS NO.	COMPOUNI	0		DILUTION	CON	C. (mg/L)	Q	
107-21-1	Ethylene Gly	col		1 1.3		1.3	ЛВ	
SYSTEM MO	ONITORING CO	OMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q	
1,4-Butanedio	d		100	77.9	78	66 - 130		

^{*} Values outside of QC limits

Software Version 6.2.1.0.104:0104 Date : 12/31/2009 04:30:06 Reprocess Number buf2042: 241622 rerator Sample Name : RSL1004-02 tchrom mple Number WATER Study AutoSampler NONE Rack/Vial 0/0 Instrument Name HP5890-09 Channel B Interface Serial # A/D mV Range: 1000 9205571204 **Delay Time** 0.00 min **End Time** : 10.66 min Sampling Rate 2.5000 pts/s Sample Volume 1.000000 ul Area Reject 500.000000 Sample Amount 1.0000 Dilution Factor : 1.00 Data Acquisition Time : 12/30/2009 09:40:19 : 6 Cycle

Raw Data File: H:\TURBO6\5890-09\9-SEQ32\9b32045.raw < Modified >

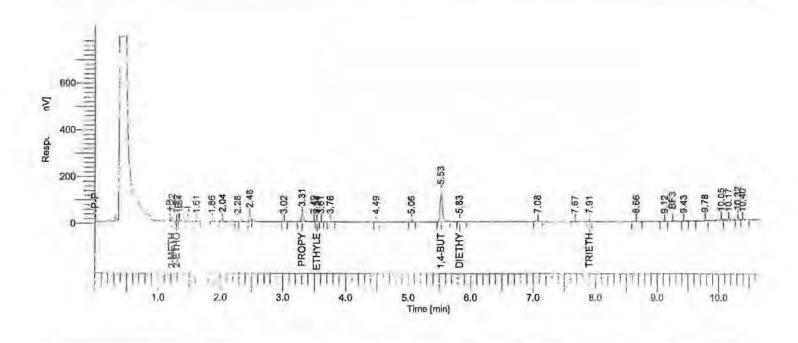
Result File: H:\TURBO6\5890-09\9-SEQ32\9b32045.rst

 $Inst\ Method: h:\ turbo 6\ 5890-09\ 9b-glycol-instrument\ from\ H:\ TURBO 6\ 5890-09\ 9-SEQ 32\ 9b 32045. raw$

Proc Method: h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32045.rst

Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32045.rst

Report Format File: h:\turbo6\5890-09\9brpt.rpt Sequence File: H:\TURBO6\5890-09\9B32.seq



FID

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng	DEC 31
1	В	5571.60	4017	1.22	2-METHOXYETHANOL	1.00	a0
2	*B	886.72	522	1.29	2-ETHOXYETHANOL	0.12	0/0
3	*V	4360.88	2180	1.34	W. 4000 1404 5 7 140 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.00	
4	В	1932.00	1019	1.61		0.00	
5	В	812.60	467	1.86		0.00	
6	B	11589.80	6071	2.04		0.01	
7	В	960.80	527	2.28		0.00	
8	В	33924.00	21321	2.48		0.03	
9	В	1381.20	703	3.02		0.00	

12/31/2009 04;30:06 Result: H:\TURBO6\5890-09\9-SEQ32\9b32045.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	В	79735.11	31631	3.31	PROPYLENE GLYCOL	12.43
11	E	2838.00	925	3.49		0.00
12	V	3290.22	1420	3.54	ETHYLENE GLYCOL	0.67
13	V	1783.47	838	3.61		0.00
14	В	2215.40	917	3.76		0.00
15	В	1640.40	802	4.49		0.00
16	B	2120.00	825	5.06		0.00
17	В	326214.80	126429	5.53	1,4-BUTANEDIOL	38.93
18	В	6235.80	1902	5.83	DIETHYLENE GLYCOL	1.23
19	В	6391.20	2173	7.08		0.01
20	В	1270.00	512	7.67		0.00
21	В	1049.80	459	7.91	TRIETHYLENE GLYCOL	1.81
22	В	9528.40	2699	8.66		0.01
23	B	2490.80	590	9.12		0.00
24	*B	1950.00	835	9.43		0.00
25	*B	8659.12	2421	9.78		0.01
26	*V	32916.09	5632	10.05		0.03
27	*V	36111.38	3626	10,17		0.04
28	*٧	26090.53	9651	10.32		0.03
29	*V	7112.87	1959	10.40		0.01
		Abarraga No.	ASSESSED BY			

621063.00 233073

Missing Component Report Component Expected Retention (Calibration File)

[.] Il components were found

Form 1 ORGANIC ANALYSIS DATA SHEET

FAYETTE COUNTY BRINI

8015

atory:

TestAmerica Buffalo

SDG:

C9L230421

Client:

TestAmerica Pittsburgh

Project:

367970 CLA

Matrix:

Water

Laboratory ID:

RSL1004-03

File ID:

9632048

Sampled:

Prepared:

12/30/09 06:00

Analyzed:

12/30/09 10:28

Solids:

12/22/09 10:00

Preparation:

8015 Glycols

Initial/Final:

0.5 mL / 1 mL

Batch:	91.29024	Sequence:	RL93102	Calibration:	R9F0102	Instrument:	HP5890-9
CAS NO.	COMPOUN	D		DILUTION	CON	C. (mg/L)	Q
107-21-1	Ethylene Gly	rcol		1	6.9		JB
SYSTEM MO	ONITORING CO	OMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QCLIMITS	Q
1,4-Butanediol		100	86.0	86	66 - 130		

^{*} Values outside of QC limits

Software Version	: 6.2.1.0.104:0104	Date	: 12/31/2009 04:30:17
Reprocess Number	: buf2042; 241625		
Operator	: tchrom	Sample Name	: RSL1004-03
imple Number	: WATER	Study	1
utoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500,000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
	: 12/30/2009 10:28:03	Cycle	: 9
the statement with the statement of the			

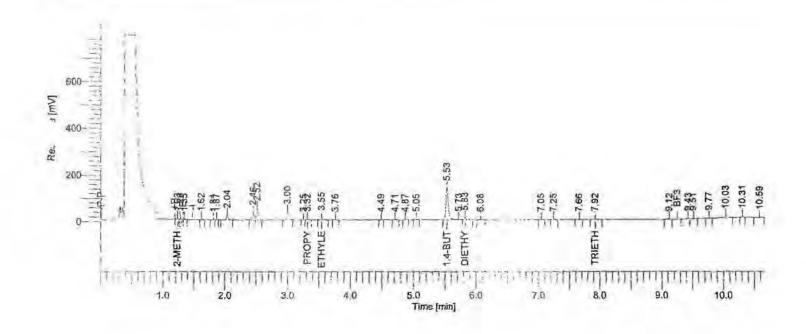
Raw Data File: H:\TURBO6\5890-09\9-SEQ32\9b32048.raw <Modified>

Result File: H:\TURBO6\5890-09\9-SEQ32\9b32048.rst

 $Inst\ Method: h:\ turbo6\ 5890-09\ 9b-glycol-instrument\ from\ H:\ TURBO6\ 5890-09\ 9-SEQ32\ 9b32048. raw\ Proc\ Method: h:\ turbo6\ 5890-09\ 9bglyprc. mth\ from\ H:\ TURBO6\ 5890-09\ 9-SEQ32\ 9b32048. rst$

Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32048.rst

Report Format File: h:\turbo6\5890-09\9brpt.rpt Sequence File: H:\TURBO6\5890-09\9B32.seq



FID

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	В	5083.68	2754	1.23	2-METHOXYETHANOL	0.92
2	V	3239.52	2230	1.28	2-ETHOXYETHANOL	0.43
3	*B	967.20	775	1.35	3707700420043003004042	0.00
4	В	4344.40	3120	1.62		0.00
5	B	1613.24	883	1.81		0.00
6	V	1735.36	1041	1.87		0.00
7	В	33900.80	16641	2.04		0.03
8	В	59426.85	29302	2.46		0.06
9	V	107581.95	48010	2.52		0.11

12/31/2009 04:30:17 Result: H:\TURBO6\5890-09\9-SEQ32\9b32048.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	В	69944.60	33555	3.00		0,07
11	B	885.89	447	3.25		0,00
12	V	5336.91	2288	3.32	PROPYLENE GLYCOL	0,83
13	В	16901.20	6982	3.55	ETHYLENE GLYCOL	3,45
14	В	2214.40	890	3.76		0,00
15	В	1328.40	679	4:49		0.00
16	В	1847.80	633	4.71		0.00
17	В	935.20	396	4.87		0.00
18	В	903.40	413	5.05		0.00
19	В	360336.53	133696	5.53	1,4-BUTANEDIOL	43.01
20	E	9944.40	2134	5.73		0.01
21	V	21121.87	6733	5.83	DIETHYLENE GLYCOL	4.18
22	В	2656.40	673	6.08		0.00
23	В	4216.00	1683	7.05		0.00
24	B	3241.80	1075	7.25		0.00
25	B	2640.60	978			0.00
26	В	8288.40	1593	7.92	TRIETHYLENE GLYCOL	
27	В	1710.40	410	9.12		0.00
28	*B	2294.30	977	9.43		0.00
29	*V	4707.50	1698	9.51		0.00
30	*B	5447.92	1849	9.77		0.01
31	*V	24164.88	5026	10.03		0.02
32	*B	12479.20	5862	10.31		0.01
33	*B	3158.80	606	10.59		0.00

784599.80 316031

Missing Component Report Component Expected Retention (Calibration File)

All components were found

Form 1 ORGANIC ANALYSIS DATA SHEET

ESTMORELAND FLOW BA

8015

ratory:

TestAmerica Buffalo

SDG:

C9L230421

Client:

TestAmerica Pittsburgh

Project:

367970 CIA

Matrix:

Water

Laboratory ID:

RSL1004-04

File ID:

9b32050

Sampled:

12/21/09 10:30

Prepared:

12/30/09 06:00

Analyzed:

12/30/09 10:58

Solids:

Preparation:

8015 Glycols

Initial/Final:

0.5 mL/1 mL

Batch:	9L29024	Sequence:	RL93102	Calibration:	R9F0102	Instrument:	HP5890-9
CAS NO.	COMPOUNT	D		DILUTION	CON	C. (mg/L)	Q
107-21-1	Ethylene Gly	col	1 6.7		JВ		
SYSTEM MO	ONITORING CO	OMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QCLIMITS	Q
1,4-Butanedic	ol		100	83.4	83	66 - 130	

^{*} Values outside of QC limits

Software Version : 6.2.1.0.104:0104 Date : 12/31/2009 04:30:25
Reprocess Number : buf2042: 241627

Operator : tchrom Sample Name : RSL1004-04

imple Number WATER Study Rack/Vial 0/0 **autoSampler** NONE Instrument Name HP5890-09 Channel B Interface Serial # 9205571204 A/D mV Range: 1000 Delay Time 0.00 min End Time ± 10.66 min Sampling Rate 2.5000 pts/s

Sample Volume : 1.000000 ul Area Reject : 500.000000

Sample Amount : 1.0000 Dilution Factor : 1.00
Data Acquisition Time : 12/30/2009 10:58:30 Cycle : 11

Raw Data File: H:\TURBO6\5890-09\9-SEQ32\9b32050.raw < Modified >

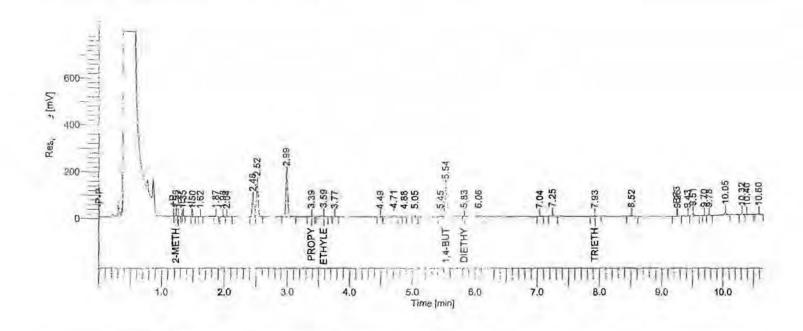
Result File: H:\TURBO6\5890-09\9-SEQ32\9b32050.rst

Inst Method: h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32050.raw

Proc Method: h:\turbo6\5890-09\9bg|yprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32050.rst

Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32050.rst

Report Format File: h:\turbo6\5890-09\9brpt.rpt Sequence File: H:\TURBO6\5890-09\9B32.seq



FID

Pea #	k B	3L	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
	1	В	3643.36	1622	1.23	2-METHOXYETHANOL	0.66
	2	V	2841.84	1831	1.27	2-ETHOXYETHANOL	0.37
	3 *	B	1326.00	1052	1.35		0.00
	4 *	B	1219.20	670	1.50		0.00
-	5	В	804.40	579	1.62		0.00
1	6	В	2570.00	1429	1.87		0.00
3	7	В	4705.81	1923	1.98		0.00
	3	V	2750.19	1121	2.04		0.00
1	9	В	175738.11	74229	2.46		0.18

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	V	301049.69	137829	2.52		0.30
11	В	387684.40	180248	2.99		0.39
12	В	4732.00	1646	3.39	PROPYLENE GLYCOL	0.74
13	В	16417.20	4980	3.59	ETHYLENE GLYCOL	3.35
14	В	1598.00	665	3.77		0.00
15	В	1336.60	638	4.49		0.00
16	В	8540,00	3183	4.71		0.01
17	В	520.60	252	4.88		0.00
18	B	1043,60	471	5.05		0.00
19	B	866.40	394	5.45		0.00
20	B	349428.00	125461	5.54	1,4-BUTANEDIOL	41.70
21	В	4413.00	2073	5.83	DIETHYLENE GLYCOL	0.87
22	В	10638.20	2965	6.06		0.01
23	B	2992.60	1172	7.04		0.00
24	В	17696.00	5756	7.25		0.02
25	В	6552.60	1487	7.93	TRIETHYLENE GLYCOL	3.27
26	B	16164.00	3753	8.52		0.02
27	*B	2004.00	744	9.26		0.00
28	*B	2123.66	868	9.43		0.00
29	*V	20073.54	8677	9.51		0.02
30	*B	2419.60	1802	9.70		0.00
31	*B	4353.63	1709	9.78		0.00
32	*V	27352.37	11352	10.05		0.03
33	*B	10329.57	4484	10.32		0.01
34	*V	4893.63	1511	10.40		0.00
35	*B	10028.80	3316	10.60		0.01

1410850.60 591892

Missing Component Report Component Expected Retention (Calibration File)

All components were found

Form 1 ORGANIC ANALYSIS DATA SHEET

EENE COUNTY FLOW BA

8015

ratory:

TestAmerica Buffalo

SDG:

C9L230421

Client:

TestAmerica Pittsburgh

Project:

367970 CIA

Matrix:

Water

Laboratory ID:

RSL1004-05

File ID:

9b32064

Sampled:

12/30/09 15:03

12/22/09 10:00

Prepared:

12/30/09 06:00

Analyzed:

Solids:

91 29024

Preparation:

8015 Glycols

Initial/Final:

0.5 mL/1 mL

Ratch:

RT 93102

R9F0102

Instrument: HP5890-0

batcu.	3L23024	Sequence.	KL9310Z	Canbration.	10102	mstrument.	111 3670-9
CAS NO.	COMPOUNI	D		DILUTION	CON	C. (mg/L)	Q
107-21-1	-1 Ethylene Glycol		5	9,6		JBD	
SYSTEM MC	ONITORING CO	OMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
1,4-Butanediol		100	109	109	66 - 130	D	

^{*} Values outside of QC limits

Software Version	6.2.1.0.104:0104	Date	: 12/31/2009 04:31:09
Reprocess Number	: buf2042: 241641		
Operator	: tchrom	Sample Name	: RSL1004-05
imple Number	: WATER	Study	1
autoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	500.080000
Sample Amount	: 1.0000	Dilution Factor	(: 5.00)
	: 12/30/2009 15:03:52	Cycle	: 25

Raw Data File: H:\TURBO6\5890-09\9-SEQ32\9b32064.raw < Modified >

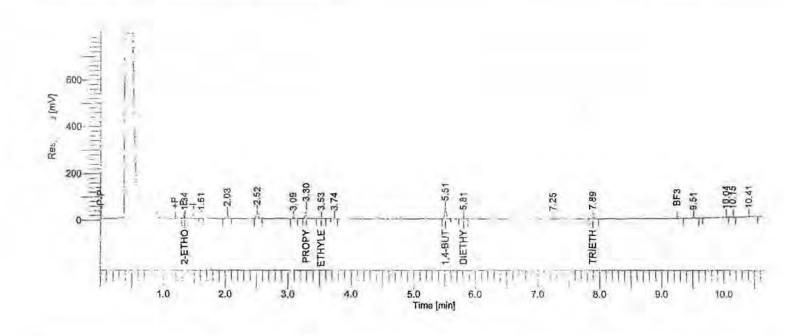
Result File: H:\TURBO6\5890-09\9-SEQ32\9b32064.rst

Inst Method: h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32064.raw

Proc Method: h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32064.rst

Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32064.rst

Report Format File: h:\turbo6\5890-09\9brpt.rpt Sequence File: H:\TURBO6\5890-09\9B32.seq



FID

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng	† # T
1	*B	923.60	498	1.34	2-ETHOXYETHANOL	0.12	~
2	*B	1099.60	819	1.61	A STATE OF THE PARTY OF THE PAR	0.00	ON)
3	В	35799.20	18664	2.03		0.04	GIV)
4	В	50894.80	23910	2.52		0.05	
5	В	2021.20	597	3.09		0.00	
6	В	88750.99	39840	3.30	PROPYLENE GLYCOL	13.84	
7	V	4694.41	1797	3.53	ETHYLENE GLYCOL	0.96	
8	В	1341.40	637	3.74		0.00	
9	В	91436.40	43641	5.51	1,4-BUTANEDIOL	10.91	

12/31/2009 04:31:09 Result: H:\TURBO6\5890-09\9-SEQ32\9b32064.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	В	11356.40	4553	5.81	DIETHYLENE GLYCOL	2.25
11	B	2441.60	801	7.25		0.00
12	B	15963.20	5538	7.89	TRIETHYLENE GLYCOL	5.75
13	*B	5646.40	1330	9.51		0.01
14	*B	22465.85	2707	10.04		0.02
15	*V	8446.88	1310	10,15		0.01
16	*V	21578,47	2584	10.41		0.02
			TARRET			

364860.40 149227

Missing	Component	Report
---------	-----------	--------

Component Expected Retention (Calibration File)

2-METHOXYETHANOL

1.227

Form 1 ORGANIC ANALYSIS DATA SHEET

ETTE COUNTY FLOW BA

8015

ratory:

TestAmerica Buffalo

SDG:

C9L230421

Client:

TestAmerica Pittsburgh

Project:

367970 CIA

Matrix:

Water

Laboratory ID:

RSL1004-06

File ID:

9b32054

Sampled:

12/22/09 10:00

Prepared:

12/30/09 06:00

12/30/09 12:10

Solids:

Preparation:

Analyzed:

8015 Glycols

Initial/Final:

0.5 mL/1 mL

Batch:	9L29024	Sequence:	RL93102	Calibration:	R9F0102	Instrument:	HP5890-9
CAS NO.	COMPOUNI	D		DILUTION	CON	IC. (mg/L)	Q
107-21-1	-1 Ethylene Glycol		1		3.6	JB	
SYSTEM MO	ONITORING CO	OMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
1,4-Butanedio	l		100	65.4	65	66 - 130	*

^{*} Values outside of QC limits

Date : 12/31/2009 04:30:39 Software Version 6.2.1.0.104:0104 Reprocess Number buf2042: 241631 Sample Name : RSL1004-06 Operator tchrom imple Number WATER Study Rack/Vial .utoSampler NONE 0/0 Instrument Name HP5890-09 Channel B 9205571204 A/D mV Range : 1000 Interface Serial # **Delay Time** 0.00 min End Time : 10.66 min Sampling Rate 2.5000 pts/s : 500.000000 Sample Volume 1.000000 ul Area Reject Sample Amount 1.0000 Dilution Factor: 1.00 Data Acquisition Time : 12/30/2009 12:10:28 Cycle : 15

Raw Data File: H:\TURBO6\5890-09\9-SEQ32\9b32054.raw < Modified >

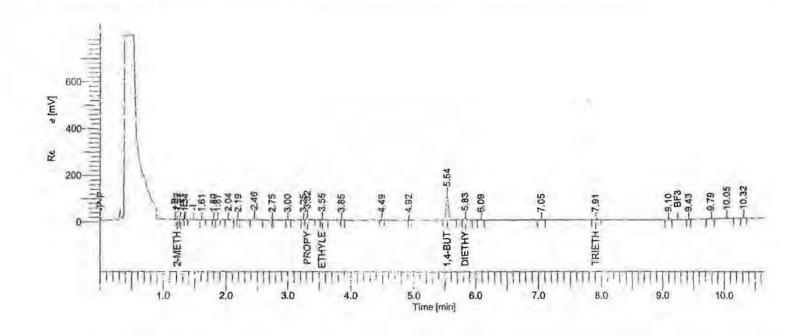
Result File: H:\TURBO6\5890-09\9-SEQ32\9b32054.rst

Inst Method: h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32054.raw

Proc Method: h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32054.rst

Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32054.rst

Report Format File: h:\turbo6\5890-09\9brpt.rpt Sequence File: H:\TURBO6\5890-09\9B32.seq



FID

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng	ren 2 1
1	В	3153.60	2533	1.22	2-METHOXYETHANOL	0.57	^
2	В	2235.60	1419	1.27	2-ETHOXYETHANOL	0.29	adi)
3	*B	1678.00	1242	1.34		0.00	41)
4	B	1456.40	778	1.61		0.00	- /
5	В	700.31	414	1.80		0.00	
6	V	1828.69	834	1.87		0.00	
7	В	8406.00	4333	2.04		0.01	
8	В	659.60	514	2.19		0.00	
9	В	24669.00	10307	2.46		0.02	

12/31/2009 04:30:39 Result: H:\TURBO6\5890-09\9-SEQ32\9b32054.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
11	В	1052.60	540	3.00		0.00
12	B	1174.20	567	3.25		0.00
13	V	38472.40	15185	3.32	PROPYLENE GLYCOL	6.00
14	В	8849.20	4005	3.55	ETHYLENE GLYCOL	1.81
15	В	704.80	537	3.85		0.00
16		1051.20	544	4.49		0.00
18	В	273794.00	110028	5.54	1,4-BUTANEDIOL	32.68
19	В	18724.00	6310	5.83	DIETHYLENE GLYCOL	3.71
20	В	1260.80	468	6.09		0.00
21	В	2031.20	766	7.05		0.00
22	В	3942.40	930	7.91	TRIETHYLENE GLYCOL	2.58
23	В	1262.40	399	9.10		0.00
24	*B	1249.40	782	9.43		0.00
25	*B	5007.60	1532	9.79		0.01
26	*B	12866.80	2875	10.05		0.01
27	*B	10337.20	4831	10.32		0.01

426567.40 172674

Missing Component Report Component Expected Retention (Calibration File)

Form 1 ORGANIC ANALYSIS DATA SHEET

TE COUNTY PRODUCTION

8015

ratory:

TestAmerica Buffalo

SDG:

C9L230421

Client:

TestAmerica Pittsburgh

Project:

367970 CIA

Matrix:

Water

Laboratory ID:

RSL1004-07

File ID:

9632056

Sampled:

12/22/09 10:00

Prepared:

12/30/09 06:00

Analyzed:

12/30/09 12:40

Solids:

Preparation:

8015 Glycols

Initial/Final:

0.5 mL / 1 mL

Batch:	9L29024	Sequence:	RL93102	Calibration:	R9F0102	Instrument:	HP5890-9
CAS NO. COMPOUND			DILUTION	CONC. (mg/L)		Q	
107-21-1	Ethylene Gly	col		1	4	2.2	
SYSTEM MO	DNITORING CO	OMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QCLIMITS	Q
1,4-Butanedic	ol		100	51.3	51	66 - 130	

^{*} Values outside of QC limits

Software Version : 6.2.1.0.104:0104 Date : 12/31/2009 04:30:46 Reprocess Number buf2042: 241633 Pperator Sample Name : RSL1004-07 tchrom ample Number WATER Study Rack/Vial AutoSampler NONE 0/0 Instrument Name HP5890-09 Channel B Interface Serial # 9205571204 A/D mV Range : 1000 **Delay Time** 0.00 min **End Time** 10.66 min Sampling Rate 2.5000 pts/s Sample Volume 1.000000 ul 500,000000 Area Reject Sample Amount : 1.0000 Dilution Factor: 1.00 Data Acquisition Time : 12/30/2009 12:40:57 : 17 Cycle

Raw Data File: H:\TURBO6\5890-09\9-SEQ32\9b32056.raw < Modified >

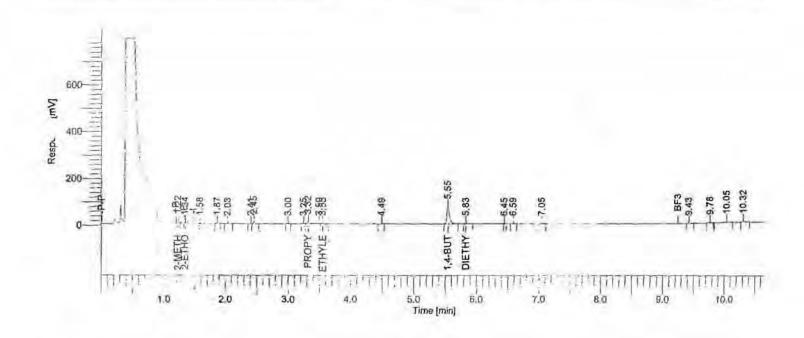
Result File: H:\TURBO6\5890-09\9-SEQ32\9b32056.rst

Inst Method: h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32056.raw

Proc Method: h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32056.rst

Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32056.rst

Report Format File: h:\turbo6\5890-09\9brpt.rpt Sequence File: H:\TURBO6\5890-09\9B32.seq



	Concentration ng	Component Name	Ret Time [min]	Height [uV]	Area [uV/sec]	BL	Peak #
	1.31	2-METHOXYETHANOL	1.22	4855	7260.80	В	1
B	0.21	2-ETHOXYETHANOL	1.34	1134	1578.80	*B	2
a	0.00		1.87	1333	2703.20	B	4
	0.00		2.03	443	1713.20	В	5
	0.01		2.45	7016	14078.40	В	7
	0.00		3.00	549	926.20	В	8
	0.00		3.25	450	1307.31	B	9
	3.96	PROPYLENE GLYCOL	3.32	7792	25390.92	V	10
	0.00		3.50	953	2936.00	E	11

12/31/2009 04:30:46 Result: H:\TURBO6\5890-09\9-SEQ32\9b32056.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
12	V	5396.16	1906	3.55	ETHYLENE GLYCOL	1.10
13	В	815.60	398	4.49		0.00
14	В	215096.20	73227	5.55	1,4-BUTANEDIOL	25.67
15	В	4107.40	1246	5.83	DIETHYLENE GLYCOL	0.81
17	B	1782.40	702	6.59		0.00
18	В	2144.00	778	7.05		0.00
19	*B	1579.60	740	9.43		0.00
20	*B	3624.00	1485	9.78		0.00
21	*B	10400.00	2346	10.05		0.01
22	*B	8386.60	3121	10.32		0.01
		XXXXXXX	THE PARTY			

311226.80 110475

Missing Component Report Component E

Expected Retention (Calibration File)

TRIETHYLENE GLYCOL

7.933

Form 6

INITIAL CALIBRATION DATA

8015

vratory;

TestAmerica Buffalo

SDG:

C9L230421

Client:

TestAmerica Pittsburgh

Project:

367970 CIA

Calibration:

R9F0102

Instrument:

HP5890-9

Calibration Date:

05/26/09 13:07

	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
Compound	ng/ul	RF										
1,4-Butanediol	20	7991.76	30	8471.047	40	8505,495	50	8439.788	60	8418.707	80	8446,11
2-Ethoxyethanol	5	7061.332	10	7829.521	20	7732.99	30	7661.21	40	7664.853	50	7557.188
Diethylene glycol	5	4536,6	10	5167.44	20	5113.66	30	5148.96	40	5154.47	50	5199.82
Ethylene Glycol	5	4467,36	10	5027.92	20	4944.06	30	4988,42	40	4974.69	50	5002.368
Ethylene Glycol Monomethyl I	5	5210.708	10	5759.52	20	5587.27	30	5588.617	40	5524.632	50	5637.82
Propylene glycol	5	5889.76	10	6572.84	20	6479.38	30	6509.693	40	6502.99	50	6522.064
Triethylene Glycol	5	2639.2	10	3257.84	20	3423,01	30	3565,64	40	3610.38	50	3723.488

Form 6 INITIAL CALIBRATION DATA (Continued) 8015

ratory: TestAmerica Buffalo SDG:

Client: TestAmerica Pittsburgh Project: 367970 CIA

Calibration: R9F0102 Instrument: HP5890-9

Calibration Date: 05/26/09 13:07

C9L230421

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r ²	Quad COD	LIMIT	Q
1,4-Butanediol	8378.818	2.29077	5.794813	1.025743E-02			20	
2-Ethoxyethanol	7584.515	3,581189	1.462997	0.6149714			20	
Diethylene glycol	5053,492	5,041196	6.096846	1.316654E-02			20	
Ethylene Glycol	4900.803	4,370196	3.785177	1.212752E-02			20	
Ethylene Glycol Monomethyl Ether	5551.428	3.323864	1.366535	0.5548354			20	
Propylene glycol	6412.788	4.024767	3.553872	3.072024E-02			20	
Triethylene Glycol	3369.926	11.64857	8.240788	1.302876E-02	0.99976			

TotalChrom Method File H:\TURBO6\5890-09\NEW-9B-05-26-09 GLYCOLS onth

Printed by : DelongG on: 05/27/2009 04:46:22

Created by : DelongG on: 05/26/2009 11:54:05 Edited by : DelongG on: 05/27/2009 04:46:17

Number of Times Edited : 7

Number of Times Calibrated: 1942
Description: New 8015 GLYCOL Curve 05/26/09.

Processed by: BD 5127169

Reviewed by: UMW 5 27100

Global Sample Information

Default Sample Volume : 1,000 ul
Quantitation Units : ng
Void Time : 0.000 min
Correct amounts during calibration : Yes
Convert unknowns to concentration units : Yes
Reject outliers during calibration : No

An External Standard calibration will be used

Unknown peaks will be quantitated using a response factor of 1.000000e+06

First peak will be relative retention reference

Component Information

2-METHOXYETHANOL

Component Type : Single Peak Component

Retention Time : 1.367 min Search Window : 4.00 s, 0.00 %

Reference Component :

Find peak closest to expected RT in window
Use Average Calibration Factor (Area / Amount)
Component standard purity percentage: 100,0000%

User Values

Label :

Value 1 : 20.000000 Value 2 : 20.000000 Value 3 : 100.000000 Value 4 : 80.000000 Value 5 : 0.000000

Calibration Level

Level Name	Amount	Area	Height	ISTD Amt.	ISTD Resp.	# Replicates
A	5,0000	26053.54	15568.45			1
В	10.0000	57595.20	34223.13			1
C	20.0000	111745.36				1
D	30.0000	167658.54	99708.02	***************************************	-	1
E	40.0000	220985.34	126901.67			1
E						1

Average Calibration Factor = 5551.427811 (%RSD = 3.32)

2-ETHOXYETHANOL

Component Type : Single Peak Component

Retention Time : 1.463 min Search Window : 4.00 s, 0.00 %

Reference Component :

Find peak closest to expected RT in window
Use Average Calibration Factor (Area / Amount)
Component standard purity percentage: 100.0000%

User Values

Label :

Value 1 : 20.000000 Value 2 : 20.000000 Value 3 : 0.000000 Value 4 : 0.000000 Value 5 : 0.000000

Calibration Level

Level Name		Area	Height	ISTD Amt.	ISTD Resp.	# Replicates
A	5.0000	35306.66	10225.10	Charles		1
В	10.0000	78295.20	21126.61	-		1
C	20,0000	154659.84	38587.98	-	-	1
D	30.0000	229836.26	57336.79			1
E	40.0000	306594.06	73265.89	-		1
E	50.0000	377859:43	103045,68			1

Average Calibration Factor = 7584.515466 (%RSD = 3.58)

PROPYLENE GLYCOL

Component Type Single Peak Component

Retention Time : 3.554 min Search Window : 4.00 s, 0.00 %

Reference Component:

Find peak closest to expected RT in window
Use Average Calibration Factor (Area / Amount)
Component standard purity percentage: 100.0000%

User Values

Label :

Value 1 : 20.000000 Value 2 : 20.000000 Value 3 : 0.000000 Value 4 : 0.000000 Value 5 : 0.000000

Calibration Level

Level Name	e Amount	Area	Height	ISTD Amt.	ISTD Resp.	# Replicates
A	5.0000	29448.80	14749.08			1
В	10.0000	65728.40	34731.13			1
C	20.0000	129587.60	64454.66			1
D	30.0000	195290.80	102770.87		-	1
E			133156.57			1
E			176685.94			1

Average Calibration Factor = 6412.787889 (%RSD = 4.02)

ETHYLENE GLYCOL

Component Type : Single Peak Component

Retention Time : 3.785 min Search Window : 4.00 s, 0.00 %

Reference Component:

Find peak closest to expected RT in window
Use Average Calibration Factor (Area / Amount)
Component standard purity percentage: 100.0000%

User Values

Label :

Value 1 : 20.000000 Value 2 : 20.000000 Value 3 : 0.000000 Value 4 : 0.000000 Value 5 : 0.000000

Calibration Level

Level Name	14 4 4 4 4	Area	Height	ISTD Amt.	ISTD Resp.	# Replicates
A	5.0000	22336.80	11634.38			1
В	10.0000	50279.20	27689.06	-	-	1
C	20.0000	98881.20	52090.11			1
D	30.0000	149652.60	82069.67	-	-	1
E	40.0000	198987.60	108551.39			1
E						1

Average Calibration Factor = 4900.803000 (%RSD = 4.37)

1,4-BUTANEDIOL

Component Type: Single Peak Component

Retention Time : 5.795 min Search Window : 4.00 s, 0.00 % This component is a reference

Find peak closest to expected RT in window Use Average Calibration Factor (Area / Amount)

Component standard purity percentage : 100.0000%

User Values

Label :

Value 1 : 50.000000 Value 2 : 50.000000 Value 3 : 0.000000 Value 4 : 0.000000 Value 5 : 0.000000

Calibration Level

Level Name	4.0.00	Area	Height	ISTD Amt.	ISTD Resp.	# Replicates
A	20.0000	159835.20	81868.87			1
В		254131.40			-	1
C	40.0000	340219.80	174348.36		-	1
D	50.0000	421989.40	215049.87			1
E	60.0000	505122.40	256975.61		-	1
E		675688.80				1

Average Calibration Factor = 8378.817722 (%RSD = 2.29)

DIETHYLENE GLYCOL

Component Type . Single Peak Component

Retention Time : 6.097 min Search Window : 4.00 s, 0.00 %

Reference Component:

Find peak closest to expected RT in window

Use Average Calibration Factor (Area / Amount)

Component standard purity percentage: 100.0000%

User Values

Label:

Value 1 : 20.000000 Value 2 : 20.000000 Value 3 : 0.000000 Value 4 : 0.000000 Value 5 : 0.000000

Calibration Level

Level Name		Area	Height	ISTD Amt.	ISTD Resp.	# Replicates
A	5.0000	22683.00	10552.67			1
В	10.0000	51674.40	24190.78			1
C	20.0000	102273.20	48239.23			1
D	30.0000	154468,80	72657.65			1
E	40.0000	206178.80	97352.83			1
F						1

Average Calibration Factor = 5053.491667 (%RSD = 5.04)

TRIETHYLENE GLYCOL

Component Type : Single Peak Component

Retention Time : 8.241 min Search Window : 4.00 s, 0.00 %

Reference Component :

Find peak closest to expected RT in window

Callbrating Area versus Amount using a 1st Order Fit

Curve will ignore the origin

Amounts will not be scaled prior to the regression

Weighting factor for the regression 1/x

Component standard purity percentage: 100.0000%

User Values

Label:

Value 1 : 20.000000 Value 2 : 20.000000 Value 3 : 0.000000 Value 4 : 0.000000 Value 5 : 0.000000

Calibration Level

Level Name		Area	Height	ISTD Amt.	ISTD Resp.	# Replicates
A	5.0000	13196.00	4510.27			1
В	10.0000	32578.40	11136.73			1
C	20.0000	68460.20	23480.68			1
D	30.0000	106969.20	36320.19	-		1
E	40.0000	144415.20	49044.74	-	-	1
F	50.0000	186174.40	62853.77			1

Calibration Curve : $y = (-5815.045023) + (3785.055936)x + (0.000000)x^2 + (0.000000)x^3$

R-squared : 0.999669

151

******* Cal Factor Curve Summary Report ******

2-METHOXYETHANOL					2-ETHOXYETHANOL				PROPYLENE GLYCOL				
File Name	Date of Injection	Ret. Time	Ng	Area	Area/Amount (CF)	Rel. Time	Ng	Area	Area/Amount (CF)	Ret. Time	Ng	Area	Area/Amount (CF)
9B27010.rst	05/26/2009	1.35	5.0	26054	5210.71	1.46	5.0	35307	7061,33	3.55	5.0	29449	5869.76
9B27011.7st	05/26/2009	1.37	10.0	57695	5759.52	1.47	10,0	78295	7829,52	3.55	10.0	65728	6572,84
9827012.rst	05/26/2009	1.37	20.0	111745	5587.27	1.45	20.0	154660	7732.99	3,55	20.0	129588	6479.38
9827013,rst	05/26/2009	1,37	30.0	167659	5588.62	1.46	30.0	229836	7661,21	3.55	30.0	195291	6509,69
9827014,151	05/26/2009	1,37	40.0	220985	5524.63	1.46	40.0	306594	7864.85	3.55	40.0	260120	6502.99
9B27015,rst	05/26/2009	1.37	50.0	281691	5637.82	1.47	50.0	377859	7557,19	9.55	50.0	320103	8522.08
Averages		1.37	25.8	144321	5551,43	1.45	25.8	197092	7584.52	3.55	25.8	167713	6412.79
%RSD		0.55	87.5	68	3,32	0,62	67.5	67	3,58	0.03	67.5	68	4.02

			ETHY	ETHYLENE GLYCOL			1,4-BUTANEDIOL				DIETHYLENE GLYCOL			
File Name	Date of Injection	Ref. Timo	Ng	Area	Area/Amount (CF)	Ret. Time	Ng	Area	Area/Amount (CF)	Ret. Time	Ng	Area	Area/Amount (CF)	
9B27010.rst	05/26/2009	3.78	5.0	22337	4467.38	5.80	20.0	159835	7991.76	6.10	5.0	22883	4536,60	
9B27011.rst	05/26/2009	3.79	10.0	50279	5027.92	5.79	30,0	254131	8471,05	6.10	10.0	51674	5167.44	
9B27012.rst	05/26/2009	3.78	20.0	98881	4944.06	5.79	40.0	340220	8505.50	6.10	20,0	102273	5113.66	
9B27013.rst	05/26/2009	3.79	30.0	149653	4988.42	5.79	50,0	421989	8439,79	6.10	30.0	154469	5148,96	
9827014.rst	05/26/2009	3.79	40.0	198988	4974.69	5.80	60.0	505122	8418.71	6.10	40.0	206179	5154.47	
9B27015.rst	05/26/2009	3.79	50.0	250118	5002.37	5,80	80.0	675689	8446.11	6.10	50,0	259991	5199.82	
Averages	-	3.79	25.8	128376	4900.80	5.79	46.7	392831	8378.82	6.10	25.8	132878	5053.49	
%RSD		0,02	67.5	68	4.37	0.01	46.3	47	2.29	0.02	67.5	69	5.04	

File Name	Date of Injection	Ret. Time	Ng	Area	Area/Amount (CF)	
9827010.rst	05/26/2009	8.24	5,0	13196	2639.20	
9827011.rst	05/26/2009	8.24	10.0	32578	3257.84	
9B27012.rst	05/26/2009	8.24	20,0	68460	3423.01	
9B27013.rst	05/26/2009	8.24	30,0	106969	3585.64	
9827014.rst	05/26/2009	8.24	40.0	144415	3610.38	
9827015.rst	05/26/2009	8.24	50.0	186174	3723.49	- conta
Averages		8.24	25,8	91986	8899.93	Linear spalloy
%RSD		0.01	67.5	72	14.66	Linear Ald" Ar

Software Version	: 6.2.1.0.104:0104	Date	: 05/27/2009 04:42:34
Reprocess Number	: buf2042: 232288		
Operator	: tchrom	Sample Name	: 9051354
Sample Number	: 8015GLY	Study	: LEVEL A
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1,000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 05/26/2009 13:07:59	Cycle	: 1

Raw Data File: H:\TURBO6\5890-09\9-seq27\9b27010.raw <Modified>

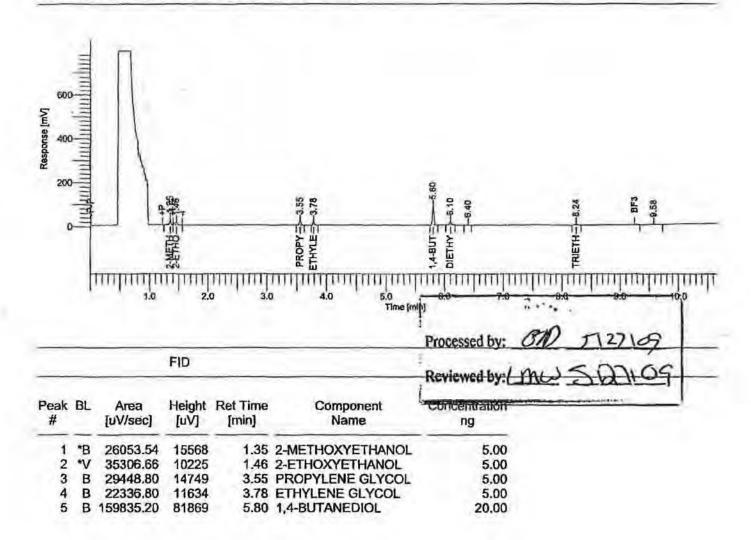
Result File: H:\TURBO6\5890-09\9-seq27\9b27010.rst

Inst Method: h:\turbo6\5890-09\9b-glycol-instrument-from H:\TURBO6\5890-09\9-seq27\9b27010.raw

Proc Method: h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-seq27\9b27010.rst
Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 glycols.mth from H:\TURBO6\5890-09\9-seq27\9b27010.rst

Report Format File: h:\turbo6\5890-09\9brpt.rpt

Sequence File: H:\TURBO6\5890-09\9-seq27\9b27.seq



05/27/2009 04:42:34 Result: H:\TURBO6\5890-09\9-seq27\9b27010.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
6	В	22683.00	10553	6.10	DIETHYLENE GLYCOL	5.00
7	В	3684.80	1497	6.40		0.00
8	B	13196.00	4510	8.24	TRIETHYLENE GLYCOL	5.00
9	*B	8134.00	792	9.58		0.01
		320678.80	151398			

Missing Component Report Component Expected Retention (Calibration File)

Date : 05/27/2009 04:42:37 Software Version : 6.2.1.0.104:0104 buf2042: 232289 Reprocess Number Sample Name : 9051355 Operator : tchrom 8015GLY Study LEVEL B Sample Number NONE Rack/Vial : 0/0 AutoSampler HP5890-09 Channel B Instrument Name Interface Serial # 9205571204 A/D mV Range: 1000 **Delay Time** 0.00 min **End Time** : 10.66 min 2.5000 pts/s Sampling Rate 1.000000 ul Area Reject : 500.000000 Sample Volume 1.0000 **Dilution Factor** Sample Amount : 1.00 Data Acquisition Time: 05/26/2009 13:23:16 Cycle : 2

Raw Data File: H:\TURBO6\5890-09\9-seq27\9b27011.raw <Modified>

Result File: H:\TURBO6\5890-09\9-seq27\9b27011.rst

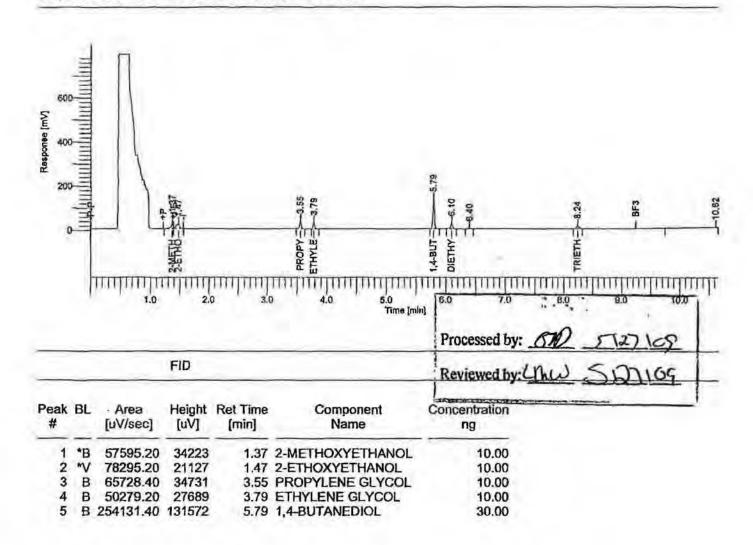
Inst Method: h:\lurbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-seq27\9b27011.raw

Proc Method: h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-seq27\9b27011.rst

Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 glycols.mth from H:\TURBO6\5890-09\9-seq27\9b27011.rst

Report Format File: h:\turbo6\5890-89\9brpt:rpt-

Sequence File: H:\TURBO6\5890-09\9-seq27\9b27.seq



05/27/2009 04:42:37 Result: H:\TURBO6\5890-09\9-seq27\9b27011.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
6	В	51674.40	24191	6.10	DIETHYLENE GLYCOL	10.00
7	B	5746.00	2357	6.40	3 3 4 1 2 2 2 3 4 3 4 3 4 3	0.01
8	В	32578.40	11137	8.24	TRIETHYLENE GLYCOL	10.00
9	*B	33700.40	764	10.62	Charles and Carle Col	0.03
		629728.60	287790			

Missing Component Report Component Expected Retention (Calibration File)

Software Version	: 6.2,1.0.104:0104	Date	: 05/27/2009 04:42:40
Reprocess Number	: buf2042: 232290		
Operator	: tchrom	Sample Name	: 9051356
Sample Number	: 8015GLY	Study	: LEVEL C
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	± 1.00
Data Acquisition Time	: 05/26/2009 13:38:33	Cycle	: 3

Raw Data File: H:\TURBO6\5890-09\9-seq27\9b27012.raw <Modified>

Result File: H:\TURBO6\5890-09\9-seq27\9b27012.rst

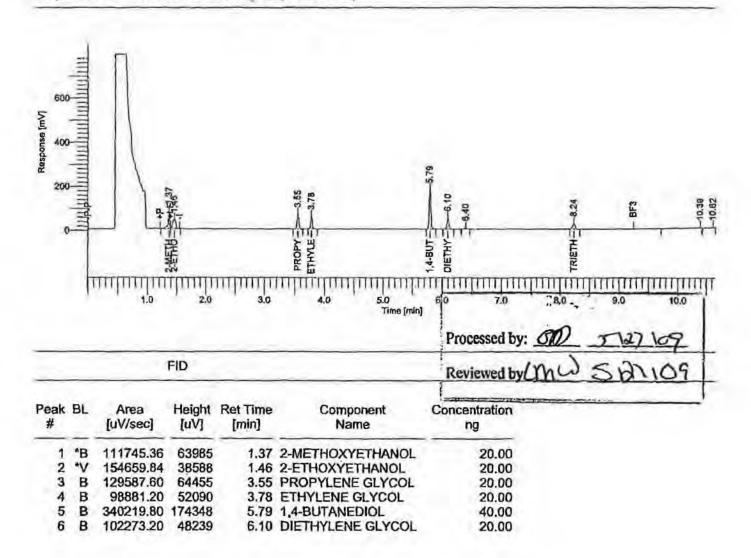
Inst Method: h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-seq27\9b27012.raw

Proc Method: h:\turbo6\5890-09\9bgtyprc.mth from H:\TURBQ6\5890-09\9-seq27\9b27012.rst

Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 glycols.mth from H:\TURBO6\5890-09\9-seq27\9b27012.rst

Report Format File: h:\turbo6\5890-09\9brpt;rpt-

Sequence File: H:\TURBO6\5890-09\9-seq27\9b27.seq



05/27/2009 04:42:40 Result: H:\TURBO6\5890-09\9-seq27\9b27012.rst

Peak #	BL.	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
7	В	7727.60	3166	6.40		0.01
8	В	68460.20	23481	8.24	TRIETHYLENE GLYCOL	20.00
9	*B	29682.79	723	10.39		0.03
10	*٧	3091.21	657	10,62		0.00
		1046328.80	469732			

Missing Component Report Component Expected Retention (Calibration File)

Software Version	: 6.2.1.0.104:0104	Date	: 05/27/2009 04:42:44
Reprocess Number	: buf2042: 232291		
Operator .	; tchrom	Sample Name	: 9051357
Sample Number	: 8015GLY	Study	: LEVEL D
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 05/26/2009 13:53:52	Cycle	: 4

Raw Data File: H:\TURBO6\5890-09\9-seq27\9b27013.raw < Modified >

Result File: H:\TURBO6\5890-09\9-seq27\9b27013.rst

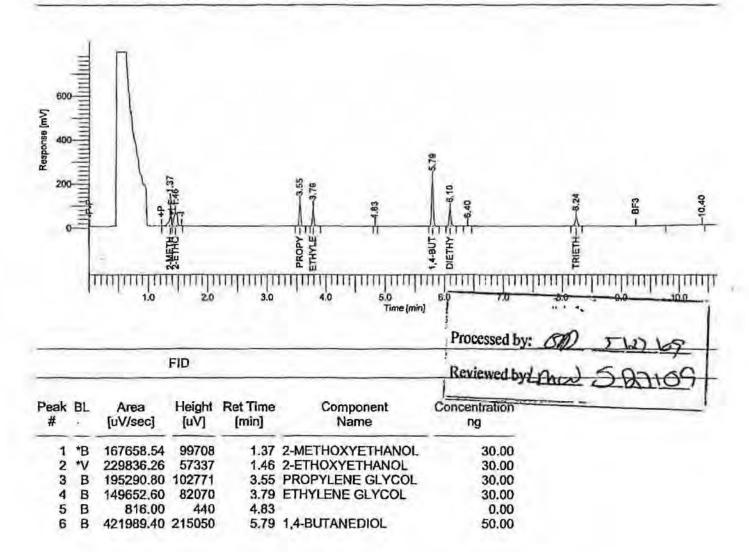
Inst Method: h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-seq27\9b27013.raw

Proc Method: h:\turbo6\5890-09\9bgfyprc.mth from H:\TURBQ6\5890-09\9-seq27\9b27013.rst

Calib Method: h:\turbo6\5890-09\hew-9b-05-26-09 glycols.mth)from H:\TURBO6\5890-09\9-seq27\9b27013.rst

Report Format File: h:\turbo6\5890-09\9brpt.rpt

Sequence File: H:\TURBO6\5890-09\9-seq27\9b27.seq



05/27/2009 04:42:44 Result: H:\TURBO6\5890-09\9-seq27\9b27013.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
7	В	154468.80	72658	6.10	DIETHYLENE GLYCOL	30.00
8	B	9645.20	3957	6.40		0.01
9	B	106969.20	36320	8.24	TRIETHYLENE GLYCOL	30.00
10	*B	26417.00	763	10.40	THE PARTY OF THE	0.03
		1462743 80	671073			

Missing Component Report Component Expected Retention (Calibration File)

: 6.2.1.0.104:0104 Date : 05/27/2009 04:42:47 Software Version buf2042: 232292 Reprocess Number Sample Name Operator tchrom 9051358 8015GLY Study Sample Number LEVEL E Rack/Vial **AutoSampler** NONE 0/0 Instrument Name : HP5890-09 Channel B Interface Serial # : 9205571204 A/D mV Range : 1000 **End Time** : 10.66 min **Delay Time** : 0.00 min Sampling Rate 2.5000 pts/s Sample Volume : 1.000000 ul Area Reject : 500.000000 Sample Amount 1.0000 Dilution Factor: 1.00 Data Acquisition Time: 05/26/2009 14:09:10 Cycle : 5

Raw Data File: H:\TURBO6\5890-09\9-seq27\9b27014.raw < Modified>

Result File: H:\TURBO6\5890-09\9-seq27\9b27014.rst

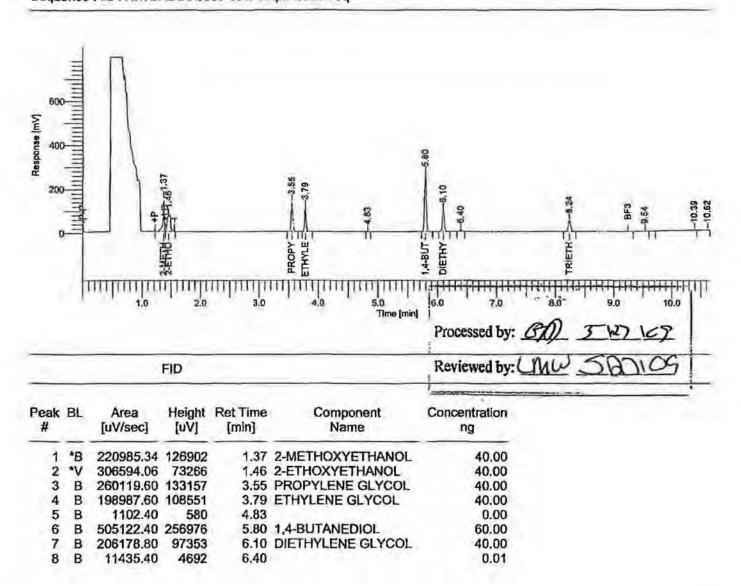
Inst Method: h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-seq27\9b27014.raw

Proc Method: h:\turbo6\5890-09\9bg\yprc.mth from H:\TURBO6\5890-09\9-seq27\9b27014.rst

Calib Method: h:\turbo6\5890-99\new-9b-05-26-09 glycols.mth from H:\TURBO6\5890-09\9-seq27\9b27014.rst

Report Format File: h:\turboo\\$890-09\9brpt.rpt

Sequence File: H:\TURBO6\5896-09\9-seq27\9b27.seq



05/27/2009 04:42:47 Result: H:\TURBO6\5890-09\9-seq27\9b27014.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
9	В	144415.20	49045	8.24	TRIETHYLENE GLYCOL	40.00
10	*B	2554.80	506	9.54		0.00
11	*B	32127.67	1268	10.39		0.03
12	* V	3320.33	659	10.62		0.00
		1892943.60	852954			

Missing Component Report Component Expected Retention (Calibration File)

: 6.2.1.0.104:0104 Software Version Date : 05/27/2009 04:42:50 Reprocess Number buf2042: 232293 tchrom Sample Name : 9051359 Operator Sample Number 8015GLY Study : LEVEL F **AutoSampler** NONE Rack/Vial : 0/0 : HP5890-09 Channel Instrument Name : B A/D mV Range: 1000 Interface Serial # 9205571204 Delay Time 0.00 min **End Time** : 10.66 min Sampling Rate 2.5000 pts/s 1.0000000 ul Area Reject : 500.000000 Sample Volume 1.0000 Dilution Factor: 1.00 Sample Amount Data Acquisition Time: 05/26/2009 14:24:32 Cycle : 6

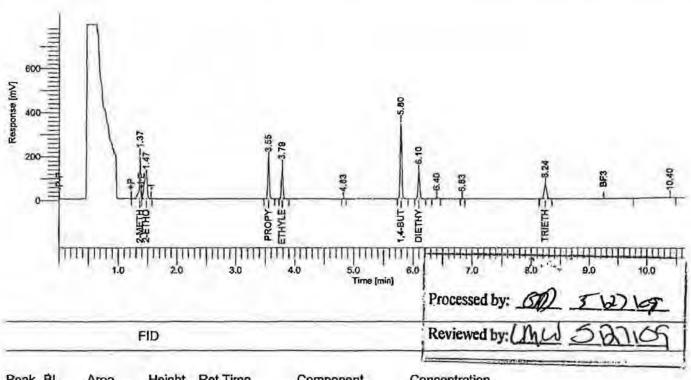
Raw Data File: H:\TURBO6\5890-09\9-seq27\9b27015.raw < Modified >

Result File: H:\TURBO6\5890-09\9-seq27\9b27015.rst

Inst Method: h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-seq27\9b27015.raw Proc Method: h:\turbo6\5890-09\9-seq27\9b27015.rst

Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 glycols.mth from H:\TURBO6\5890-09\9-seq27\9b27015.rst Report Format File: h:\turbo6\5890-09\95rpt.rpt

Sequence File: H:\TURBO6\5890-09\9-seq27\9b27.seq



Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
1	*B	281890.97	169413	1.37	2-METHOXYETHANOL	50.00
2	*V	377859.43	103046	1.47	2-ETHOXYETHANOL	50.00
3	B	326103.20	176686	3.55	PROPYLENE GLYCOL	50.00
4	B	250118.40	142844	3.79	ETHYLENE GLYCOL	50.00
5	B	1421.20	745	4.83		0.00
6	B	675688.80	342082	5.80	1,4-BUTANEDIOL	80.00
7	В	259991.00	123107	6.10	DIETHYLENE GLYCOL	50.00

05/27/2009 04:42:50 Result: H:\TURBO6\5890-09\9-seq27\9b27015.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
8	В	15347.60	6311	6.40		0.02
9	B	900.80	454	6.83		0.00
10	В	186174.40	62854	8.24	TRIETHYLENE GLYCOL	50.00
11	*B	28734.80	1378	10.40		0.03
		2404230.60	1128918			

Missing Component Report Component Expected Retention (Calibration File)

Software Version	: 6.2.1.0.104:0104	Date	: 05/27/2009 04:48:42
Reprocess Number	: buf2042: 232294		and the second second second
Operator	: tchrom	Sample Name	: 9051360
Sample Number	: 8015GLY	Study	: SSC
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	; 1.00
Data Acquisition Time	: 05/26/2009 14:39:51	Cycle	; 1

Raw Data File: H:\TURBO6\5890-09\9-seq27\9b27016.raw < Modified >

Result File: H:\TURBO6\5890-09\9-seq27\9b27016.raw \text{Modified}

Result File: H:\TURBO6\5890-09\9-seq27\9b27016.raw \text{Modified}

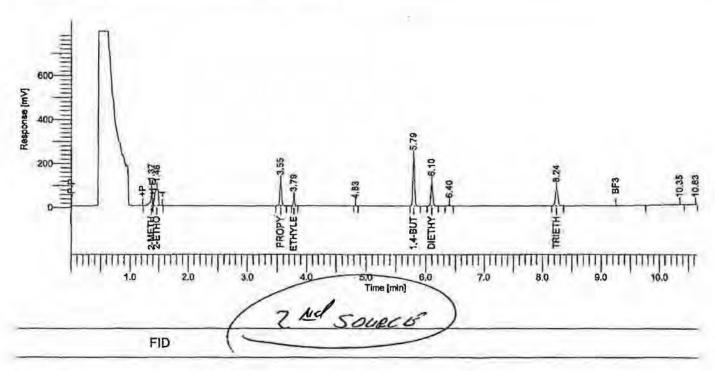
Inst Method: h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-seq27\9b27016.raw

Proc Method: h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-seq27\9b27016.rst

Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 glycols.mth from H:\TURBO6\5890-09\9-seq27\9b27016.rst

Report Format File: h:\turbo6\5890-09\9brpt.rpt

Sequence File: H:\TURBO6\5890-09\9-seq27\9b27.seq



Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng	MAY 27_mm
1	*B	115597.02	64995	1.37	2-METHOXYETHANOL	20.82	San Arm
2	*V	293381.78	73433	1.46	2-ETHOXYETHANOL	38.68	
3	B	211088.40	104702	3.55	PROPYLENE GLYCOL	32.92	
4	В	58561.20	31013	3.79	ETHYLENE GLYCOL	11.95	
5	В	1274.40	680	4.83		0.00	
6	В	425268.60	216528	5.79	1,4-BUTANEDIOL	50.76	
7	В	216714.60	101642	6.10	DIETHYLENE GLYCOL	42.88	
	В	425268.60	216528	5.79		50.76	

05/27/2009 04:48:42 Result: H:\TURBO6\5890-09\9-seq27\9b27016.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
8	В	9829.20	4039	6.40	DATE COMPANY	0.01
9	B	217079.60	73373	8.24	TRIETHYLENE GLYCOL	58.89
10	*B	31537.63	1120	10.35		0.03
11	*٧	3663.57	527	10.63		0.00
		1583996.00	672054			

Missing Component Report Component Expected Retention (Calibration File)

: 6.2.1.0.104:0104 Date : 05/27/2009 04:48:44 Software Version Reprocess Number : buf2042: 232295 Sample Name : 9051361 Operator tchrom Sample Number 8015GLY Study CCV Rack/Vial 0/0 **AutoSampler** NONE Instrument Name HP5890-09 Channel B A/D mV Range : Interface Serial # 9205571204 1000 **Delay Time** 0.00 min **End Time** 10.66 min Sampling Rate 2.5000 pts/s Sample Volume 1.000000 ul Area Reject : 1000.000000 Dilution Factor: 1.00 Sample Amount 1.0000 Data Acquisition Time: 05/26/2009 14:55:08 Cycle : 2

Raw Data File: H:\TURBO6\5890-09\9-seq27\9b27017.raw <Modified>

Result File: H:\TURBO6\5890-09\9-seq27\9b27017.rst

Inst Method: h:\turbo6\5890-09\9b-glycel-instrument from H:\TURBO6\5890-09\9-seq27\9b27017.raw

Proc Method: h:\turbo6\5890-09\9bg\yprc.mth from H:\TURBO6\5890-09\9-seq27\9b27017.rst

Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 glycols.mth from H:\TURBO6\5890-09\9-seq27\9b27017.rst

Report Format File: h:\turbo6\5890-89\9bgly%d.rpt.

FID

B

8 B

105832

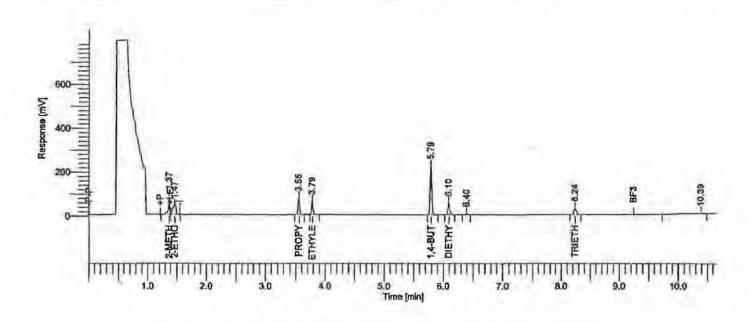
78046

1101869 524215.56

49875.39

26535.49

Sequence File: H:\TURBO6\5890-09\9-seq27\9b27.seq



Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng	%D	UIV AZ
1	*B	113799	66492.28	1.37	2-METHOXYETHANOL	20.5	2.5	MAY 2/
2	*V	153421	38762.34		2-ETHOXYETHANOL	20.2		ON)
3	В	130501	70824.45		PROPYLENE GLYCOL	20.4	1.8	
4	В	100653	56311.57	3.79	ETHYLENE GLYCOL	20.5	2.7	
5	В	419618	215414.04	5.79	1,4-BUTANEDIOL	50.1	0.2	

78/117

6.10 DIETHYLENE GLYCOL

8.24 TRIETHYLENE GLYCOL

20.9 4.7 22.2 10.8

23.7

Form 7

CONTINUING CALIBRATION CHECK

8015

watery:

TestAmerica Buffalo

SDG:

C9L230421

Client:

TestAmerica Pittsburgh

Project:

367970 CIA

Instrument ID:

HP5890-9

Calibration:

R9F0102

Lab File ID:

9b32041

Calibration Date:

05/26/09 13:07

Sequence:

Injection Date:

12/30/09

RL93102

Lab Sample ID:

RL93102-CCV1

Injection Time:

08:30

		CONC. (ng/ul)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Ethylene Glycol	A	20,0	20.8	4900.803	5100.67		4.1	15

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

Calibration Type Legend:

A: Average RF

L: Linear through Intercept

Q: Quadratic

L0: Linear forced through Zero

L1: 1/x Weighted Linear through Intercept

L2: 1/x2 Weighted Linear through Intercept

L01: 1/x Weighted Linear forced through Zero

L02: 1/x2 Weighted Linear forced through Zero

^{*} Values outside of QC limits

Software Version	6.2.1.0.104:0104	Date	; 12/31/2009 04:29:49
Reprocess Number	: buf2042: 241618		
nerator	; tchrom	Sample Name	: CCV-1
mple Number	: WATER	Study	
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
	: 12/30/2009 08:30:27	Cycle	: 2

Raw Data File: H:\TURBO6\5890-09\9-SEQ32\9b32041.raw <Modified>

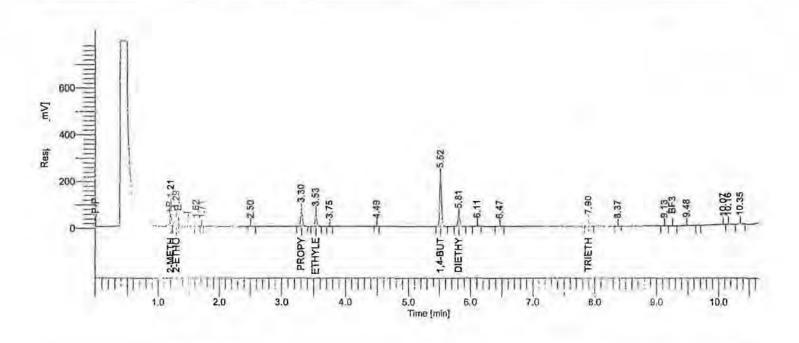
Result File: H:\TURBO6\5890-09\9-SEQ32\9b32041.rst

Inst Method: h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32041.raw

Proc Method: h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32041.rst

Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32041.rst

Report Format File: h:\turbo6\5890-09\9brpt.rpt Sequence File: H:\TURBO6\5890-09\9B32.seq



Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng	DEC 3 1 2009
1	В	56206.40	57738	1.21	2-METHOXYETHANOL	10.12	aD
2	*B	128247.60	36231	1.29	2-ETHOXYETHANOL	16.91	Cha
3	*B	2685.40	1525	1.62		0.00	
4	В	590.40	334	1.71		0.00	
5	В	5153.20	1675	2.50		0.01	
6	В	135063.00	66927	3.30	PROPYLENE GLYCOL	21.06	
7	В	102013.40	52960	3.53	ETHYLENE GLYCOL	20.82	
8	В	1598.80	821	3.75		0.00	
9	В	1113.80	548	4.49		0.00	

12/31/2009 04:29:49 Result: H:\TURBO6\5890-09\9-SEQ32\9b32041.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	В	444656.40	215720	5.52	1,4-BUTANEDIOL	53.07
11	В	100179.80	44123	5.81	DIETHYLENE GLYCOL	19.82
12	B	9176.80	3507	6.11		0.01
13	В	4085.20	1310	6.47		0.00
14	B	53202.00	19471	7.90	TRIETHYLENE GLYCOL	15.59
15	В	1598.00	568	8.37		0.00
16	B	1713.40	666	9.13		0.00
17	*B	12419.00	1649	9.48		0.01
18	*B	30263.81	2059	10.07		0.03
19	*V	12710.69	1937	10.16		0.01
20	*٧	12124.30	3451	10.35		0.01
			_			

1114801.40 513220

Missing Component Report Component Expected Retention (Calibration File)

Form 7

CONTINUING CALIBRATION CHECK

8015

ratory:

TestAmerica Buffalo

SDG:

C9L230421

Client:

TestAmerica Pittsburgh

Project:

367970 CIA

Instrument ID:

HP5890-9

Calibration:

POPOLOS

Lab File ID:

.....

R9F0102

Andrew Chancel Software

9632047

Calibration Date:

05/26/09 13:07

Sequence:

RL93102

Injection Date:

12/30/09

Lab Sample ID:

RL93102-CCV2

Injection Time:

10:12

		CONC. (ng/ul)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Ethylene Glycol	A	20.0	18.8	4900.803	4597.631		-6.2	15

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

Calibration Type Legend:

A: Average RF

L: Linear through Intercept

Q: Quadratic

L0: Linear forced through Zero

L1: 1/x Weighted Linear through Intercept

L2: 1/x2 Weighted Linear through Intercept

L01: 1/x Weighted Linear forced through Zero

1 02: 1/x2 Weighted Linear forced through Zero

^{*} Values outside of QC limits

Software Version : 6.2.1.0.104:0104 : 12/31/2009 04:30:14 Date Reprocess Number : buf2042: 241624 CCV-2 Operator : tchrom Sample Name mple Number : WATER Study AutoSampler NONE Rack/Vial 0/0 Instrument Name HP5890-09 Channel B Interface Serial # 9205571204 A/D mV Range: 1000 Delay Time 0.00 min **End Time** : 10.66 min Sampling Rate 2.5000 pts/s Sample Volume 1.000000 ul : 500.000000 Area Reject Dilution Factor: 1.00 Sample Amount 1.0000 Data Acquisition Time: 12/30/2009 10:12:52 Cycle : 8

Raw Data File: H:\TURBO6\5890-09\9-SEQ32\9b32047.raw < Modified >

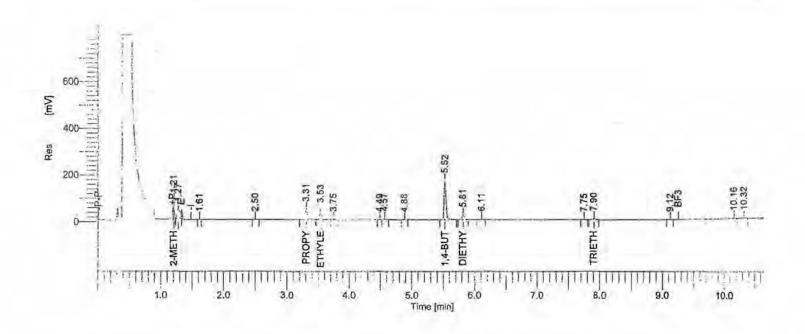
Result File: H:\TURBO6\5890-09\9-SEQ32\9b32047.rst

Inst Method: h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32047.raw

Proc Method: h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32047.rst

Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32047.rst

Report Format File: h:\turbo6\5890-09\9brpt.rpt Sequence File: H:\TURBO6\5890-09\9B32.seq



ъ	-	-
-	_	

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng	DEC 31
1	В	45969.00	47959	1.21	2-METHOXYETHANOL	8.28	a6)
2	*B	129646.56	37246	1.27	2-ETHOXYETHANOL	17.09	C/V/
3	*B	1002.00	747	1.61		0.00	
4	В	2886.80	882	2.50		0.00	
5	В	120956.46	43822	3.31	PROPYLENE GLYCOL	18.86	
6	V	91952.61	38614	3.53	ETHYLENE GLYCOL	18.76	
7	V	2675.48	973	3.75		0.00	
8	B	806.25	417	4.49		0.00	
9	V	4891.75	2045	4.57		0.00	

12/31/2009 04:30:14 Result: H:\TURBO6\5890-09\9-SEQ32\9b32047.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	В	1962.40	741	4.88		0.00
11	В	375260.80	164599	5.52	1,4-BUTANEDIOL	44.79
12	В	45329.20	19241	5.81	DIETHYLENE GLYCOL	8.97
13	В	6752.40	2548	6.11		0.01
14	В	1125.40	469	7.75		0.00
15	B	12743.20	4375	7.90	TRIETHYLENE GLYCOL	4.90
16	В	1117.60	432	9.12		0.00
17	*B	30249.01	1460	10.16		0.03
18	*V	7685.79	1591	10.32		0.01
		883012.71	368160			

Missing Component Report Component Expected Retention (Calibration File)

Form 7

CONTINUING CALIBRATION CHECK

8015

ratory:

TestAmerica Buffalo

SDG:

C9L230421

Client:

TestAmerica Pittsburgh

Project:

367970 CIA

Instrument ID:

HP5890-9

Calibration:

R9F0102

Lab File ID:

9b32053

Calibration Date:

05/26/09 13:07

Injection Date:

Sequence:

RL93102

12/30/09

Lab Sample ID:

RL93102-CCV3

Injection Time:

11:55

		CONC. (ng/ul)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	ccv	LIMIT (#)
Ethylene Glycol	A	20.0	20.1	4900.803	4918.598		0.4	15

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

Calibration Type Legend:

A: Average RF

L: Linear through Intercept

O: Quadratic

L0: Linear forced through Zero

L1: 1/x Weighted Linear through Intercept

L2: 1/x2 Weighted Linear through Intercept

L01: 1/x Weighted Linear forced through Zero

1 1/x2 Weighted Linear forced through Zero

^{*} Values outside of QC limits

Software Version	: 6.2.1.0.104:0104	Date	: 12/31/2009 04;30:35
Reprocess Number	: buf2042: 241630		
nerator	: tchrom	Sample Name	: CCV-3
mple Number	: WATER	Study	
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10.66 min
Sampling Rate	: 2.5000 pts/s	Creative Colors	
Sample Volume	: 1.000000 u!	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
	: 12/30/2009 11:55:16	Cycle	: 14

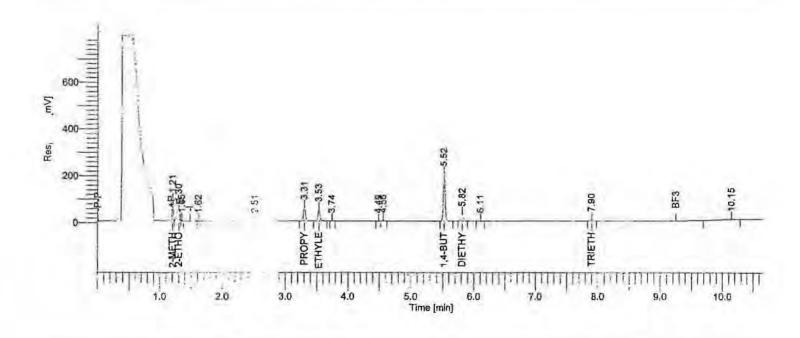
Raw Data File: H:\TURBO6\5890-09\9-SEQ32\9b32053.raw < Modified >

Result File: H:\TURBO6\5890-09\9-SEQ32\9b32053.rst

Inst Method: h:\turbo6\5890-09\9b-giycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32053.raw Proc Method: h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32053.rst

Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32053.rst

Report Format File: h:\turbo6\5890-09\9brpt.rpt Sequence File: H:\TURBO6\5890-09\9B32.seq



			FID				
Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng	DEC 3 1
1	В	53786.80	55281	1.21	2-METHOXYETHANOL	9.69	/
2	*B	118703.60	40802	1.30	2-ETHOXYETHANOL	15.65	
3	*B	1272.00	925	1.35	Company of the Company of Company	0.00	
4	B	829.60	581	1.62		0.00	
5	В	1804.00	790	2.51		0.00	
6	В	130657.26	56972	3.31	PROPYLENE GLYCOL	20.37	
7	V	98371.94	47295	3.53	ETHYLENE GLYCOL	20.07	
8	B	1506.00	754	3.74		0.00	
9	В	848.00	407	4.49		0.00	

12/31/2009 04:30:35 Result: H:\TURBO6\5890-09\9-SEQ32\9b32053.rst

Peak 4	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	V	3092.00	1281	4.56		0.00
11	В	418473.60	197331	5.52	1,4-BUTANEDIOL	49.94
12	В	64212.60	28197	5.82	DIETHYLENE GLYCOL	12.71
13	В	4571.60	1733	6.11		0.00
14	В	19398.20	6893	7,90	TRIETHYLENE GLYCOL	6.66
15	*B	31565.60	1522	10.15		0.03
		949092.80	440763			

Missing Component Report Component Expected Retention (Calibration File)

Form 7

CONTINUING CALIBRATION CHECK

8015

ratory:

TestAmerica Buffalo

SDG:

C9L230421

Client:

TestAmerica Pittsburgh

Project:

367970 CIA

Instrument ID:

HP5890-9

Calibration:

R9F0102

Lab File ID:

9632058

Calibration Date:

05/26/09 13:07

Sequence:

RL93102

Injection Date:

12/30/09

Lab Sample ID:

RL93102-CCV4

Injection Time:

13:11

		CONC	. (ng/ul)	RESE	ONSE FAC	ror	% DIF	F / DRIFT
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Ethylene Glycol	A	20.0	12.8	4900.803	3145,551		-35.8	15 *

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

Calibration Type Legend:

A: Average RF

L: Linear through Intercept

Q: Quadratic

L0: Linear forced through Zero

L1: 1/x Weighted Linear through Intercept

L2: 1/x2 Weighted Linear through Intercept

L01: 1/x Weighted Linear forced through Zero

I.02: 1/x2 Weighted Linear forced through Zero

^{*} Values outside of QC limits

Software Version	: 6.2.1.0.104:0104	Date	: 12/31/2009 04:30:52
Reprocess Number	: buf2042: 241635		
perator	: tchrom	Sample Name	: CCV-4
mple Number	: WATER	Study	1
AutoSampler	: NONE	Rack/Vial	: 0/0
Instrument Name	: HP5890-09	Channel	: B
Interface Serial #	: 9205571204	A/D mV Range	: 1000
Delay Time	: 0.00 min	End Time	: 10,66 min
Sampling Rate	: 2.5000 pts/s		
Sample Volume	: 1.000000 ul	Area Reject	: 500.000000
Sample Amount	: 1.0000	Dilution Factor	: 1.00
Data Acquisition Time	: 12/30/2009 13:11:23	Cycle	: 19

Raw Data File: H:\TURBO6\5890-09\9-SEQ32\9b32058.raw < Modified >

Result File: H:\TURBO6\5890-09\9-SEQ32\9b32058.rst

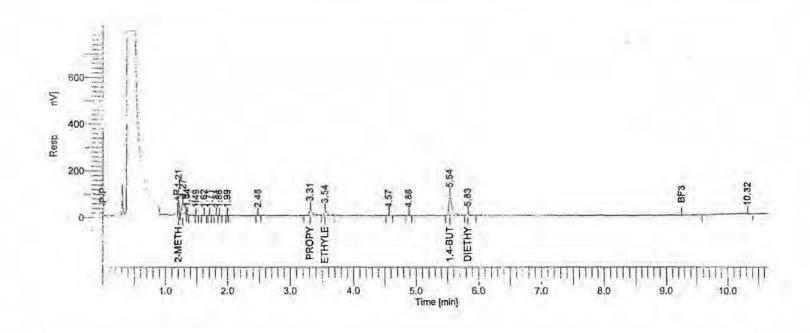
Inst Method: h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32058.raw

Proc Method: h:\turbo6\5890-09\9bg|yprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32058.rst

Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32058.rst

Report Format File: h:\turbo6\5890-09\9brpt.rpt Sequence File: H:\TURBO6\5890-09\9B32.seq

FID



Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng	
1	В	49592.20	51970	1.21	2-METHOXYETHANOL	8.93	DEC
2	*B	122020.47	35525	1.27	2-ETHOXYETHANOL	16.09	6
3	*B	1078.40	791	1.34		0.00	O
4	B	535.20	364	1.49	-	0.00	
5	B	1082.00	558	1.62		0.00	
6	В	679.60	484	1.71		0.00	
7	В	704.56	548	1.81		0.00	
8	V	1048.24	581	1.86		0.00	
10	В	2422.60	1306	2.48		0.00	

89/117

12/31/2009 04:30:52 Result: H:\TURBO6\5890-09\9-SEQ32\9b32058.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
11	- B	108105.59	28748	3.31	PROPYLENE GLYCOL	16.86
12	V	62911.01	19066	3.54	ETHYLENE GLYCOL	12.84
13	B	2658.00	885	4.57		0.00
14	В	1283.60	491	4.88		0.00
15	B	319694.21	87401	5.54	1,4-BUTANEDIOL	38.16
16	V	19659.39	5746	5.83	DIETHYLENE GLYCOL	3.89
17	*B	42171.00	1106	10.32		0.04
		735646.07	235569			
Missir	ng C	omponent F	Report			
	Co	mponent	Exp	ected Rete	ention (Calibration File)	

7.933

TRIETHYLENE GLYCOL

Form 7

CONTINUING CALIBRATION CHECK

8015

ratory:

TestAmerica Buffalo

SDG:

C9L230421

Client:

TestAmerica Pittsburgh

Project:

367970 CIA

Instrument ID:

HP5890-9

Calibration:

R9F0102

Lab File ID:

9632061

Calibration Date:

05/26/09 13:07

Sequence:

RL93102

Injection Date:

12/30/09

Lab Sample ID:

RL93102-CCV5

Injection Time:

14:12

		CONC	. (ng/ul)	RESP	ONSE FAC	TOR	% DIF	F/DRIFT
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Ethylene Glycol	A	20.0	20.7	4900.803	5075.68		3.6	15

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

Calibration Type Legend:

A: Average RF

L: Linear through Intercept

Q: Quadratic

L0: Linear forced through Zero

L1: 1/x Weighted Linear through Intercept

L2: 1/x2 Weighted Linear through Intercept

L01: 1/x Weighted Linear forced through Zero

7: 1/x2 Weighted Linear forced through Zero

^{*} Values outside of QC limits

00115
DOLLE
CCV-5
D. A. W. Land
0/0
В
1000
10.66 min
500.000000
1.00
22

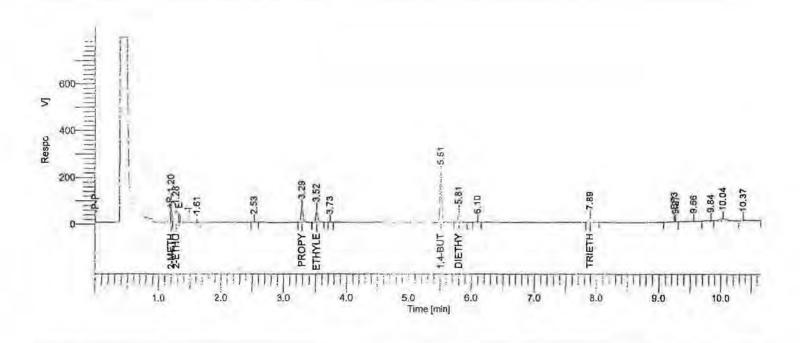
Raw Data File: H:\TURBO6\5890-09\9-SEQ32\9b32061.raw < Modified >

Result File: H:\TURBO6\5890-09\9-SEQ32\9b32061.rst

 $Inst\ Method: h:\turbo6\5890-09\9b-glycol-instrument\ from\ H:\turbo6\5890-09\9-SEQ32\9b32061.raw\ Proc\ Method: h:\turbo6\5890-09\9bglyprc.mth\ from\ H:\turbo6\5890-09\9-SEQ32\9b32061.rst$

Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32061.rst

Report Format File: h:\turbo6\5890-09\9brpt.rpt Sequence File: H:\TURBO6\5890-09\9B32.seq



_	٠	

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng	nec 31
1	В	58188.00	60614	1.20	2-METHOXYETHANOL	10.48	\sim
2	*B	150725.17	41825	1.28	2-ETHOXYETHANOL	19.87	(570.)
3	*B	649.40	387	1.61		0.00	-10/
-4	В	1891.20	575	2.53		0.00	
5	В	139862.80	65805	3.29	PROPYLENE GLYCOL	21.81	
6	В	101513.60	52126	3.52	ETHYLENE GLYCOL	20.71	
7	В	1630.00	825	3.73		0.00	
8	В	458695.81	210546	5.51	1,4-BUTANEDIOL	54.74	
9	V	103504.39	43864		DIETHYLENE GLYCOL	20.48	

12/31/2009 04:31:01 Result: H:\TURBO6\5890-09\9-SEQ32\9b32061.rst

Peak	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	В	9333.40	3595	6.10	LIZAVILA ALAW	0.01
11	В	61678.80	19975	7.89	TRIETHYLENE GLYCOL	17.83
12	*B	10128.28	938	9.27		0.01
13	*V	27502.24	1929	9.56		0.03
14	*V	28648.40	3222	9.84		0.03
15	*٧	106489.66	9523	10.04		0.11
16	*V	39897.62	4452	10.37		0.04

1300338.77 520200

Missing Component Report Component Expected Retention (Calibration File)

All components were found

Form 7

CONTINUING CALIBRATION CHECK

8015

atory:

TestAmerica Buffalo

SDG:

C9L230421

Client:

TestAmerica Pittsburgh

Project:

367970 CIA

Instrument ID:

HP5890-9

Calibration:

R9F0102

Lab File ID:

9b32063

Calibration Date: 05/26/09 13:07

Sequence:

Injection Date:

12/30/09

RL93102

Lab Sample ID:

RL93102-CCV6

Injection Time:

14:44

		CONC	. (ng/ul)	RESP	ONSE FAC	TOR	% DIF	F/DRIFT
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Ethylene Glycol	A	20.0	21.1	4900.803	5175.59		5,6	15

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

Calibration Type Legend:

A: Average RF

L: Linear through Intercept

Q: Quadratic

L0: Linear forced through Zero

L1: 1/x Weighted Linear through Intercept

L2: 1/x2 Weighted Linear through Intercept

L01: 1/x Weighted Linear forced through Zero

1 02: 1/x2 Weighted Linear forced through Zero

^{*} Values outside of QC limits

Software Version : 6.2.1.0.104:0104 Date : 12/31/2009 04:31:06 : buf2042: 241640 Reprocess Number ~perator Sample Name CCV-6 tchrom 3 WATER Study nole Number **AutoSampler** NONE Rack/Vial 0/0 Instrument Name HP5890-09 Channel B 9205571204 A/D mV Range: Interface Serial # 1000 **Delay Time** 0.00 min **End Time** : 10.66 min Sampling Rate 2.5000 pts/s Sample Volume 1.000000 ul Area Reject : 500.000000 1.0000 Dilution Factor: 1.00 Sample Amount Data Acquisition Time: 12/30/2009 14:44:09 Cycle : 24

Raw Data File: H:\TURBO6\5890-09\9-SEQ32\9b32063.raw < Modified >

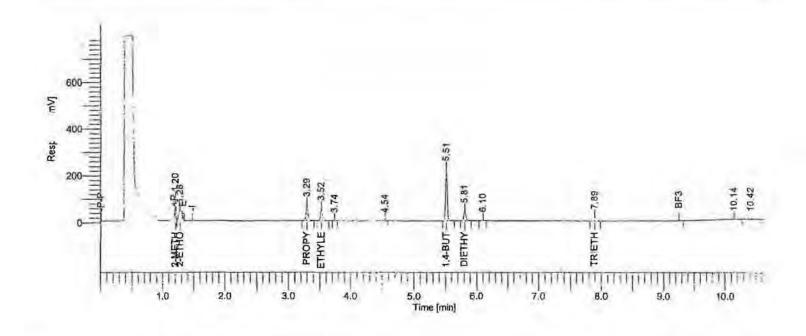
Result File: H:\TURBO6\5890-09\9-SEQ32\9b32063.rst

 $Inst\ Method: h: \turbo 6\ 15890-09\ 9b-glycol-instrument\ from\ H: \turbo 6\ 15890-09\ 9-SEQ 32\ 9b 32063. raw$

Proc Method: h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32063.rst

Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32063.rst

Report Format File: h:\turbo6\5890-09\9brpt.rpt Sequence File: H:\TURBO6\5890-09\9B32.seq



1	=1	D

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng	7FC 34
1	В	54801.00	56446	1.20	2-METHOXYETHANOL	9.87	(50)
2	В	46803.20	16813	1.28	2-ETHOXYETHANOL	6.17	
3	В	141710.80	67489	3.29	PROPYLENE GLYCOL	22.10	
4	В	103511:80	51561	3:52	ETHYLENE GLYCOL	21.12	
5	В	1072.00	565	3.74		0.00	
6	В	665.00	342	4.54		0.00	
7	В	454359.00	219082	5.51	1,4-BUTANEDIOL	54.23	
8	В	94948.00	41398	5.81	DIETHYLENE GLYCOL	18.79	

12/31/2009 04:31:06 Result: H:\TURBO6\5890-09\9-SEQ32\9b32063.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
9	В	9440.40	3686	6.10		0.01
10	В	45877.20	16257	7.89	TRIETHYLENE GLYCOL	13.66
11	*B	52892.46	2477	10.14		0.05
12	*٧	13531.14	1228	10.42		0.01
		1019612.00	477345			

Missing Component Report Component Expected Retention (Calibration File)

All components were found

Form 7

CONTINUING CALIBRATION CHECK

8015

atory:

TestAmerica Buffalo

SDG:

C9L230421

Client:

TestAmerica Pittsburgh

Project:

367970 CIA

05/26/09 13:07

Instrument ID:

HP5890-9

Calibration:

R9F0102

Lab File ID:

Calibration Date:

Sequence:

9632067

Injection Date:

12/30/09

Lab Sample ID:

RL93102 RL93102-CCV7

Injection Time:

15:49

		CONC	. (ng/ul)	RESE	ONSE FAC	TOR	% DIF	F/DRIFT
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Ethylene Glycol	A	20.0	13.7	4900,803	3365.478		-31.3	15 *

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

Calibration Type Legend:

A: Average RF

L: Linear through Intercept

Q: Quadratic

L0: Linear forced through Zero

L1: 1/x Weighted Linear through Intercept

L2: 1/x2 Weighted Linear through Intercept

L01: 1/x Weighted Linear forced through Zero

1 47. 1/x2 Weighted Linear forced through Zero

^{*} Values outside of QC limits

Software Version : 6.2.1.0.104:0104 Date : 12/31/2009 04:31:16 : buf2042: 241644 Reprocess Number Sample Name : CCV-7 nerator : tchrom Study mple Number : WATER Rack/Vial AutoSampler NONE 0/0 Instrument Name HP5890-09 Channel B A/D mV Range: 1000 Interface Serial # 9205571204 Delay Time 0.00 min **End Time** : 10.66 min 2.5000 pts/s Sampling Rate Sample Volume 1.000000 ul Area Reject : 500.000000 Dilution Factor: 1.00 Sample Amount : 1.0000 Data Acquisition Time : 12/30/2009 15:49:40 Cycle : 28

Raw Data File: H:\TURBO6\5890-09\9-SEQ32\9b32067.raw < Modified >

Result File: H:\TURBO6\5890-09\9-SEQ32\9b32067.rst

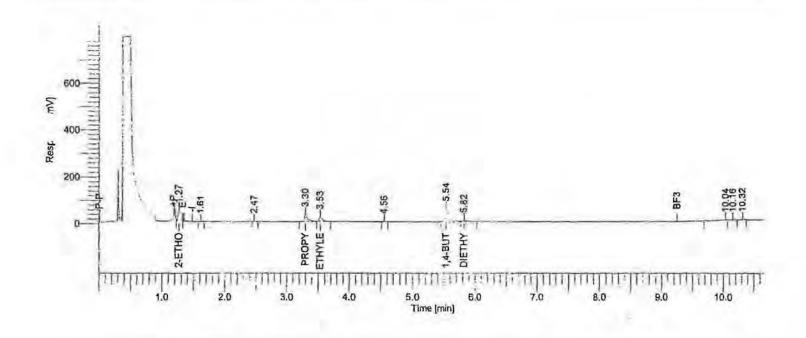
Inst Method: h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32067.raw

Proc Method: h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32067.rst

Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32067.rst

Report Format File: h:\turbo6\5890-09\9brpt.rpt Sequence File: H:\TURBO6\5890-09\9B32.seq

FID



Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng	DEC 3
1	*B	141784.59	41697	1.27	2-ETHOXYETHANOL	18.69	(a)
2	*B	1067.60	581	1.61		0.00	
3	B	4832.20	2568	2.47		0.00	
4	B	107844.66	29737	3.30	PROPYLENE GLYCOL	16.82	
5	V	67309.54	18979	3.53	ETHYLENE GLYCOL	13.73	
6	В	2507.60	903	4.56		0.00	
7	В	280001.03	54887	5.54	1,4-BUTANEDIOL	33.42	

12/31/2009 04:31:16 Result: H:\TURBO6\5890-09\9-SEQ32\9b32067.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
8	V	27531.77	5150	5.82	DIETHYLENE GLYCOL	5.45
9	*B	24261.14	2181	10.04		0.02
10	*V	14828.84	1700	10.16		0.01
11	*٧	9431.22	2253	10.32		0.01
		681400.19	160635			
Missir	ng C	omponent R	Report			
	Co	mponent	Exp	ected Rete	ention (Calibration File)	
2-ME	THO	XYETHANO	DL	- 11	1.227	
TRIET	THY	LENE GLYC	COL		7,933	

Form 8 ANALYSIS BATCH (SEQUENCE) SUMMARY 8015

ratory: TestAmerica Buffalo SDG: C9L230421

Client: <u>TestAmerica Pittsburgh</u> Project: <u>367970 CIA</u>

Sequence: RL93102 Instrument: HP5890-9

Calibration: R9F0102

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	RL93102-CCV1	9b32041	12/30/09 08:30
Blank	9L29024-BLK1	9b32042	12/30/09 08:45
WASHINGTON COUNTY FLO	RSL1004-01	9b32043	12/30/09 09:10
LCS	9L29024-BS1	9b32044	12/30/09 09:25
WESTMORELAND PRODUCT	RSL1004-02	9b32045	12/30/09 09:40
Calibration Check	RL93102-CCV2	9ь32047	12/30/09 10:12
FAYETTE COUNTY BRINE	RSL1004-03	9b32048	12/30/09 10:28
WESTMORELAND FLOW BA	RSL1004-04	9b32050	12/30/09 10;58
Calibration Check	RL93102-CCV3	9b32053	12/30/09 11:55
FAYETTE COUNTY FLOW B	RSL1004-06	9b32054	12/30/09 12:10
GREENE COUNTY PRODUCT	RSL1004-07	9b32056	12/30/09 12:40
Calibration Check	RL93102-CCV4	9b32058	12/30/09 13:11
Calibration Check	RL93102-CCV5	9b32061	12/30/09 14:12
'ibration Check	RL93102-CCV6	9b32063	12/30/09 14:44
JREENE COUNTY FLOW BA	RSL1004-05	9b32064	12/30/09 15:03
WESTMORELAND PRODUCT	9L29024-MS1	9b32065	12/30/09 15:19
WESTMORELAND PRODUCT	9L29024-MSD1	9b32066	12/30/09 15:34
Calibration Check	RL93102-CCV7	9632067	12/30/09 15:49

Form 1 ORGANIC ANALYSIS DATA SHEET

Blank

8015

__ oratory:

TestAmerica Buffalo

SDG:

C9L230421

Client:

TestAmerica Pittsburgh

Project:

367970 CIA

Matrix:

Water

Laboratory ID:

9L29024-BLK1

File ID:

9632042

Sampled:

Prepared:

12/30/09 06:00

Analyzed:

12/30/09 08:45

Solids:

Preparation:

8015 Glycols

Initial/Final:

0.5 mL / 1 mL HP5800-0

Batch:	9L29024	Sequence:	RL93102	Calibration:	R9F0102	Instrument:	HP5890-9
CAS NO.	COMPOUNT	D		DILUTION	CON	C. (mg/L)	Q
107-21-1	Ethylene Gly	col		1		1.8	J
SYSTEM MC	NITORING CO	OMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
1,4-Butanedio	ı		100	109	109	66 - 130	

^{*} Values outside of QC limits

Software Version 6.2.1.0.104:0104 Date : 12/31/2009 04:29:54 Reprocess Number buf2042: 241619 nerator tchrom Sample Name : 9L29024-BLK1 mple Number WATER Study NONE Rack/Vial AutoSampler 0/0 Instrument Name HP5890-09 Channel B Interface Serial # 9205571204 A/D mV Range: 1000 **End Time** : 10.66 min Delay Time 0.00 min Sampling Rate 2.5000 pts/s Sample Volume 1.000000 ul Area Reject : 500,000000 Sample Amount Dilution Factor: 1.00 1.0000 Data Acquisition Time: 12/30/2009 08:45:33 Cycle

Raw Data File: H:\TURBO6\5890-09\9-SEQ32\9b32042.raw < Modified >

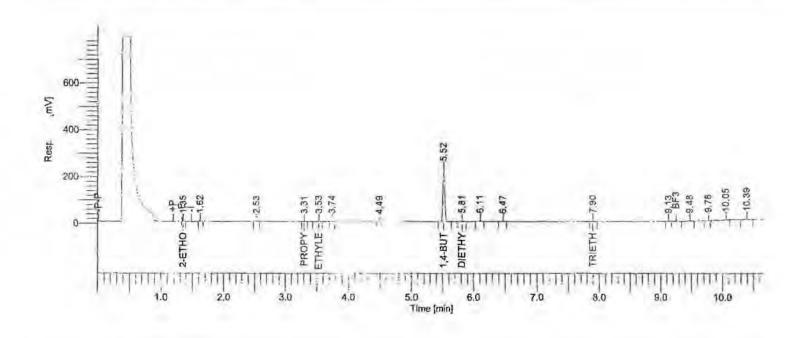
Result File: H:\TURBO6\5890-09\9-SEQ32\9b32042.rst

Inst Method: h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32042.raw

Proc Method: h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32042.rst

Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32042.rst

Report Format File: h:\turbo6\5890-09\9brpt.rpt Sequence File: H:\TURBO6\5890-09\9B32.seq



Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng	DEC 3 1
1	*B	963.40	633	1.35	2-ETHOXYETHANOL	0.13	0.00 0 1
2	В	1409.20	961	1.62		0.00	ah
3	B	1768.80	541	2.53		0.00	GND
4	В	961.80	452	3.31	PROPYLENE GLYCOL	0.15	
5	В	4469.20	1247	3.53	ETHYLENE GLYCOL	0.91	
6	В	1567.60	809	3.74		0.00	
7	В	926.40	422	4.49		0.00	
8	В	458540.00	222221	5.52	1,4-BUTANEDIOL	54.73	
9	В	6812.00	2717		DIETHYLENE GLYCOL	1.35	

12/31/2009 04:29:54 Result: H:\TURBO6\5890-09\9-SEQ32\9b32042.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	В	9154.00	3498	6.11		0.01
11	В	2246.80	736	6.47		0.00
12	В	8010.00	2930	7.90	TRIETHYLENE GLYCOL	3.65
13	B	1218.80	485	9.13		0.00
14	*B	3099.60	676	9.48		0.00
15	*B	1944.40	1140	9.78		0.00
16	*B	8675.60	2340	10.05		0.01
17	*B	11389.20	3001	10.39		0.01

523156.80 244809

Missina	Componen	t Report
---------	----------	----------

Component Expected Retention (Calibration File)

2-METHOXYETHANOL

1.227

Form 1 ORGANIC ANALYSIS DATA SHEET

LCS

8015

__oratory:

TestAmerica Buffalo

SDG:

C9L230421

Client:

TestAmerica Pittsburgh

Project:

367970 CIA

Matrix:

Water

Laboratory ID:

9L29024-BS1

File ID:

9632044

Sampled:

Prepared:

12/30/09 06:00

Analyzed:

12/30/09 09:25

Solids:

Preparation:

8015 Glycols

Initial/Final:

0.5 mL / 1 mL

Batch:	9L29024	Sequence:	RL93102	Calibration:	R9F0102	Instrument:	HP5890-9
CAS NO.	COMPOUN	D		DILUTION	CON	C. (mg/L)	Q
107-21-1	Ethylene Gly	col		1		23.4	В
SYSTEM MO	ONITORING CO	OMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QCLIMITS	Q
1,4-Butanedio	ol		100	108	108	66 - 130	

^{*} Values outside of QC limits

Software Version : 6.2.1.0.104:0104 Date : 12/31/2009 04:30:02 Reprocess Number buf2042: 241621 Poerator tchrom Sample Name 9L29024-BS1 mple Number Study WATER NONE Rack/Vial AutoSampler 0/0 Instrument Name HP5890-09 Channel B A/D mV Range : 1000 9205571204 Interface Serial # **End Time** 10.66 min **Delay Time** 0.00 min Sampling Rate 2.5000 pts/s 1.000000 ul Sample Volume Area Reject : 500.000000 Dilution Factor : 1.00 Sample Amount 1.0000 Data Acquisition Time: 12/30/2009 09:25:08 Cycle 5

Raw Data File: H:\TURBO6\5890-09\9-SEQ32\9b32044.raw < Modified >

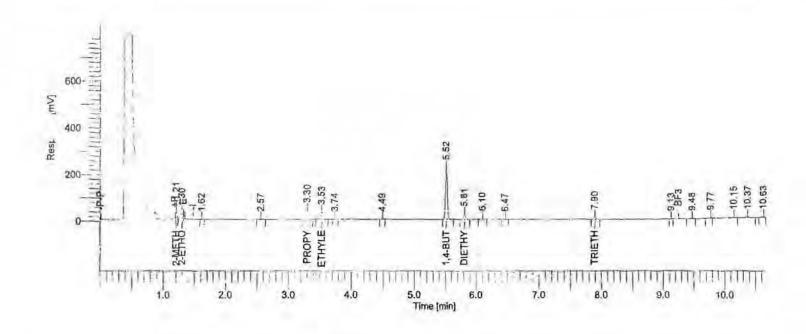
Result File: H:\TURBO6\5890-09\9-SEQ32\9b32044.rst

Inst Method: h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32044.raw

Proc Method: h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32044.rst

Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32044.rst

Report Format File: h:\turbo6\5890-09\9brpt.rpt Sequence File: H:\TURBO6\5890-09\9B32.seq



-		
-	п	-

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng	
1	В	32293.60	32624	1.21	2-METHOXYETHANOL	5.82	DEC 3 1
2	*B	66121.31	18472	1.30	2-ETHOXYETHANOL	8.72	m i
3	*B	1078.80	765	1.62		0.00	DIVI
4	В	2393.20	663	2.57		0.00	
5	B	74968.60	37344	3.30	PROPYLENE GLYCOL	11.69	
6	B	57420.80	29082	3.53	ETHYLENE GLYCOL	11.72	
7	В	1671.60		3.74		0.00	
8	В	876.80	430			0.00	
9	В	452912.80	218246	5.52	1,4-BUTANEDIOL	54.05	

12/31/2009 04:30:02 Result: H:\TURBO6\5890-09\9-SEQ32\9b32044.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	В	50246.80	22181	5.81	DIETHYLENE GLYCOL	9.94
11	В	9670.00	3685	6.10		0.01
12	B	1488.80	545	6.47		0.00
13	В	24536.00	8858	7.90	TRIETHYLENE GLYCOL	8.02
15	*B	1935.00	490	9.48		0.00
16	*B	2405.64	1125	9.77		0.00
17	*V	33870,57	1987	10.15		0.03
18	*٧	13885.00	1864	10.37		0.01
19	*B	3442.00	1037	10.63		0.00

831217.31 380266

Missing Component Report Component Expected Retention (Calibration File)

All components were found

Matrix Spike

Form 1 ORGANIC ANALYSIS DATA SHEET

8015

_ratory:

TestAmerica Buffalo

SDG:

C9L230421

Client:

TestAmerica Pittsburgh

Project:

367970 CIA

Matrix:

Water

Laboratory ID:

9L29024-MS1

File ID:

9632065

Sampled:

Prepared:

12/30/09 06:00

Analyzed:

12/30/09 15:19

Solids:

Preparation:

8015 Glycols

Initial/Final:

0.5 mL / 1 mL

Batch:	91.29024	Sequence:	RL93102	Calibration:	R9F0102	Instrument:	HP5890-9
CAS NO.	COMPOUN	D		DILUTION	CON	C. (mg/L)	Q
107-21-1	Ethylene Gly	col		1	15.00	14.7	В
SYSTEM MO	NITORING CO	OMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QCLIMITS	Q
1,4-Butanedio	I		100	70.6	71	66 - 130	1

^{*} Values outside of QC limits

: 12/31/2009 04:31:11 Software Version 6.2.1.0.104:0104 Date Reprocess Number buf2042: 241642 Operator Sample Name 9L29024-MS1 tchrom Study mple Number WATER Rack/Vial 0/0 AutoSampler NONE Instrument Name HP5890-09 Channel B Interface Serial # 9205571204 A/D mV Range: 1000 **Delay Time** 0.00 min **End Time** : 10.66 min Sampling Rate 2.5000 pts/s : 500,000000 Sample Volume 1.000000 ul Area Reject Sample Amount 1.0000 Dilution Factor: 1.00 Data Acquisition Time: 12/30/2009 15:19:08 Cycle : 26

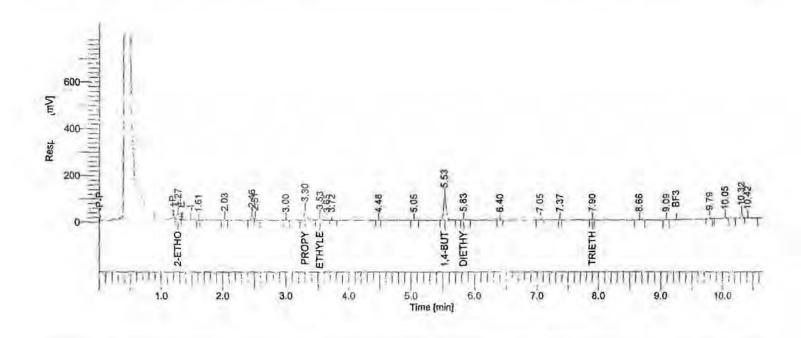
Raw Data File: H:\TURBO6\5890-09\9-SEQ32\9b32065.raw < Modified >

Result File: H:\TURBO6\5890-09\9-SEQ32\9b32065.rst

Inst Method: h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32065.raw Proc Method: h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32065.rst

Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32065.rst

Report Format File: h:\turbo6\5890-09\9brpt.rpt Sequence File: H:\TURBO6\5890-09\9B32.seq



Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng	
1	*B	69446.67	20918	1.27	2-ETHOXYETHANOL	9.16	-0
2	*B	521.20	392	1.61		0.00	(SD)
3	B	11327.60	5980	2.03		0.01	
4	В	43291.00	20434	2.46		0.04	
5	V	13569.40	6708	2.51		0.01	
6	В	1630.40	811	3.00		0.00	
7	B	132432.80	46107	3.30	PROPYLENE GLYCOL	20.65	
8	V	35986.02	13438	3.53	ETHYLENE GLYCOL	7.34	
9	E	2144.00	500	3.65	and the second second second	0.00	

12/31/2009 04:31:11 Result: H:\TURBO6\5890-09\9-SEQ32\9b32065.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time [min]	Component Name	Concentration ng
10	V	1740.78	435	3.72		0.00
11	B	948.80	447	4.48		0.00
12	B	1961.20	734	5.05		0.00
13	B	295976.00	106420	5.53	1,4-BUTANEDIOL	35.32
14	В	11266.80	3652	5.83	DIETHYLENE GLYCOL	2.23
15	В	1589.40	576	6.40		0.00
16	В	4493.60	1758	7.05		0.00
18	В	910.80	396	7.90	TRIETHYLENE GLYCOL	1.78
19	B	3506.00	880	8.66		0.00
20	B	2047.60	776	9.09		0.00
21	*B	8073.80	3125	9.79		0.01
22	*B	9072.00	3840	10.05		0.01
23		49244.80	20455	10.32		0.05
24	*V	13835.60	3315	10.42		0.01
			-			

715016.27 262096

Missing Component Report Component Ex

Component Expected Retention (Calibration File)

2-METHOXYETHANOL

1.227

Matrix Spike Dup

Form 1 ORGANIC ANALYSIS DATA SHEET

8015

L. Jratory:

TestAmerica Buffalo

SDG:

C9L230421

Client:

TestAmerica Pittsburgh

Project:

367970 CIA

Matrix:

Water

Laboratory ID:

9L29024-MSD1

File ID:

9b32066

Sampled:

Analyzed:

12/30/09 15:34

Prepared:

12/30/09 06:00

Solids:

01 20024

Preparation:

8015 Glycols

Initial/Final:

0.5 mL / 1 mL Instrument: HP5800-0

Batch:	9L29024	Sequence:	RL93102	Calibration:	R9F0102	Instrument:	HP5890-9
CAS NO.	COMPOUN	D		DILUTION	CON	IC. (mg/L)	Q
107-21-1	Ethylene Gly	col		1		9.68	JB
SYSTEM MO	DNITORING CO	OMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
1,4-Butanedic	ı	271-1-1-1-1	100	50.5	51	66 - 130	*

^{*} Values outside of QC limits

: 12/31/2009 04:31:14 : 6.2.1.0.104:0104 Software Version Date buf2042: 241643 Reprocess Number perator tchrom Sample Name : 9L29024-MSD1 ample Number WATER Study AutoSampler Rack/Vial 0/0 NONE Instrument Name HP5890-09 Channel B Interface Serial # 9205571204 A/D mV Range: 1000 : 10.66 min **End Time** Delay Time 0.00 min Sampling Rate 2.5000 pts/s 1.000000 ul : 500.000000 Sample Volume Area Reject Sample Amount 1,0000 Dilution Factor: 1.00

Raw Data File: H:\TURBO6\5890-09\9-SEQ32\9b32066.raw <Modified>

Result File: H:\TURBO6\5890-09\9-SEQ32\9b32066.rst

Inst Method: h:\turbo6\5890-09\9b-glycol-instrument from H:\TURBO6\5890-09\9-SEQ32\9b32066.raw

Proc Method: h:\turbo6\5890-09\9bglyprc.mth from H:\TURBO6\5890-09\9-SEQ32\9b32066.rst

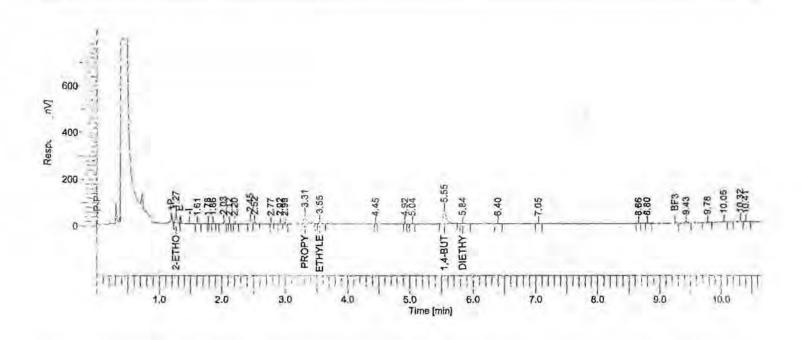
Calib Method: h:\turbo6\5890-09\new-9b-05-26-09 rt3 glycols.mth from H:\TURBO6\5890-09\9-SEQ32\9b32066.rst

Cycle

: 27

Report Format File: h:\turbo6\5890-09\9brpt.rpt Sequence File: H:\TURBO6\5890-09\9B32.seq

Data Acquisition Time: 12/30/2009 15:34:25



	Concentration ng	Component Name	Ret Time [min]	Height [uV]	Area [uV/sec]	BL	Peak #
,	9.07	2-ETHOXYETHANOL	1.27	25576	68826.72	*B	1
a	0.00		1.61	422	1049.20	*B	2
ON	0.00		1.86	996	1653.00	В	4
,	0.01		2.03	6004	11424.40	В	5
	0.00		2.20	588	869.60	B	7
	0.04		2.45	18503	36206.14	B	8
	0.01		2.52	5790	12529.86	V	9
	0.00		2.92	1128	1898.79	B	11
	0.00		2.99	599	1236.61	V	12

111/117

12/31/2009 04:31:14 Result: H:\TURBO6\5890-09\9-SEQ32\9b32066.rst

Peak #	BL	Area [uV/sec]	Height [uV]	Ret Time (min)	Component Name	Concentration ng
13	В	108565.40	36367	3.31	PROPYLENE GLYCOL	16.93
14	B	23725.20	9230	3.55	ETHYLENE GLYCOL	4.84
16	В	897.40	692	4.92		0.00
17	B	1082.40	482	5.04		0.00
18	B	211574.00	57794	5.55	1,4-BUTANEDIOL	25.25
19	В	4359.20	1135	5.84	DIETHYLENE GLYCOL	0.86
20	В	1674.00	615	6.40		0.00
21	В	1649.40	607	7.05		0.00
22	В	651.80	245	8.66		0.00
23	В	1446.80	761	8.80		0.00
24	*B	4315.60	1188	9.43		0.00
25	*B	4693.80	1570	9.78		0.00
26	*B	8720.60	2521	10.05		0.01
27	*B	16727.56	6866	10.32		0.02
28	*V	5789.24	1468	10.41		0.01

531566.72 181147

Missing	Component	Report
---------	-----------	--------

Component	Expected Retention (Calibration File)
2-METHOXYETHANOL	1.227
TRIETHYLENE GLYCOL	7.933

HOLDING TIME SUMMARY 8015

Laboratory: TestAmerica Buffalo SDG: DRAFT C9L230421

t: <u>TestAmerica Pittsburgh</u> Project: <u>367970 CIA</u>

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
WASHINGTON COUNTY FLO'	12/22/09 10:00	12/24/09 10:00	12/30/09 06:00	8	14	12/30/09 09:10	8	14	
WESTMORELAND PRODUCT	12/21/09 10:00	12/24/09 10:00	12/30/09 06:00	9	14	12/30/09 09:40	9	14	
FAYETTE COUNTY BRINE	12/22/09 10:00	12/24/09 10:00	12/30/09 06;00	8	14	12/30/09 10:28	-8	14	
WESTMORELAND FLOW BAC	12/21/09 10:30	12/24/09 10:00	12/30/09 06:00	9	14	12/30/09 10:58	9	14	
GREENE COUNTY FLOW BAC	12/22/09 10:00	12/24/09 10:00	12/30/09 06:00	8	14	12/30/09 15:03	8	14	
FAYETTE COUNTY FLOW BA	12/22/09 10:00	12/24/09 10:00	12/30/09 06:00	8	14	12/30/09 12:10	8	14	
GREENE COUNTY PRODUCT	12/22/09 10:00	12/24/09 10:00	12/30/09 06:00	8	14	12/30/09 12:40	8	14	

^{*} Indicates a Holding Time violation.

NCH SHEET PREPARATION

9L29024

TestAmerica Buffalo

Printed: 12/31/2009 04:25:15

Matrix: Water

Prepared using: GC Volatiles - 8015 Glycols

Surrogate used: 9121231

Lab Number	Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Bar Code	Extraction Comments
9L29024-BLK1	QC	12/30/09 06:00	0.5	1		.5		50	DE LIKE DELEMBERENDER KREITEL BEJOHN DE LEGDE BO	
9L29024-BS1	QC	12/30/09 06:00	0.5	1	9121239		10	50	THE CONTEST CONTRACTOR OF PRINTED TO	
9L29024-MS1	QC	12/30/09 06:00	0.5	1	9121239	RSL1004-02	10	50	DI BON DINENGGARAN MANAGAN TAN INDIAN BO	
9L29024-MSD1	QC	12/30/09 06:00	0.5	1	9121239	RSL1004-02	10	50	NI ANI MILAMATANTAN MENERANTAN INI MILAMBAN	
RSL1004-01	8015 Glycols	12/30/09 06:00	0.5	1				50	AL 1 MARIE T DESCRIPTION AND A STREET BALL AND A STREET	
RSL1004-02	8015 Glycols	12/30/09 06:00	0.5	1				50	AL EMETA LEARNING INVINCIOLARIES EN	
RSL1004-03	8015 Glycols	12/30/09 06:00	0.5	1				50	III E HALIO A LLHAULLANN HHALITAFAR LANDA I A TA	
RSL1004-04	8015 Glycols	12/30/09 06:00	0.5	1				50	ULLERAD HODDIUM INTIDUCULUR IZ EN	
RSL1004-05	8015 Glycols	12/30/09 06:00	0.5	1				50	ET F SEED I SLOODBALLIN ENDOLDD FOR SELECUL DA	
RSL1004-06	8015 Glycols	12/30/09 06:00	0.5	1				50	ALL BERTALL COMPANIES IN COMPANIES FRANCE OF THE	
R\$1004-07	8015 Glycols	12/30/09 06:00	0.5	1				50	HI FACULT FORMALINI I SAKOLOT MALAN TA	
RSL1069-01	8015 Glycols	12/30/09 06:00	0.5	1				50	HI I STALI KAMBULAN DAUDURKAN DA	



Spiking Witnessed By

Date

Preparation Reviewed By

Date

Extracts Received By

Date

Test America Buffalo GC Volatile INJECTION LOGBOOK

Date & Initial	Job#	Sample ID	DF	Matrix	pН	File#	Surrogate	Spike	Comments
12/900	mai	mac #6	Sort			- 09			
1	June	#7_	1	-		10			
		macul	11		5/24/2	7			
		MOZUZ			CH,				
1/2/000		TOST				01			,
- Harris		1 1						-	
	,				Primit (
				ir in		05			
		BLK		HU			9051104		
		BUK		1			1		
	TCAC	LEUSC A 9051	354			10			
		8 9011				-10			
		C 9051							
		0 9051	357						
	MO EN	II 9051	3/8						
		F 9051	359			15			•
	SSC	9051340							
	COU	9081361							
1/27/09 800	مب	BIK		seil.					
7777	-	BLK							
		BIR				20:			
	MOL	MBLK				P4-25			
		mouth							
		mq. +1				23			

Test Ame | Buffalo

Instrument ID	HP 5890-9
I le le H	107 40 45

GC Volatile INJECTION LOGBOOK

Date & Initial	Job#	Sample ID	DF	Matrix	pH	File#	Surrogate	Spike	Comments
abalca .	-	blk	-	40	9	20			
ing	Q	CCV-1		172				9121240	OK Short list
		9429624-BIXI							
	J	1 -651	L						
	CLOCK	RSC1004-01	1		3				
		-02				25			
		-03							
		-04				14			
		-05		100				1 11	
		-06							5 marche
		-07	V		(4)	30			Director
4	1	4-01	10		-	1			
116/11	QC	CCV-2	-		-	12.00		9121241	104)
4		d	d		1				1000
		R5004-05	5		2	2			
		1-06	1			35			
		d -07	1		3				Surgatel
		9029024-MSI	10						
		L-MODI			+			4	
		CCU-2	_		-	11			1000
213009		BIANK				40	9/2/23/		
Linu			W 14	1		5		9/2/293	OKShorttist
		9 629 084-0K	4		L				
		R541004-01	115		2				
		9029624-651	_	KALED	1			9/2/239	
		1221004-02	1		2	45			
		CU-2		V	-			19121294	Chylere V

Rev.0 12/20/2007

000104

Reviewed By:

Date:

Test Ameri Buffalo

GC Volatile INJECTION LOGBOOK

Instrument ID HP 5890-9 Hogbook # A07-18-15

Columns: A / B

Sequence:

Date & Initial	Job#	Sample ID	DF	Matrix	pН	File#	Surrogate	Spike	Comments
2/30/09	3C	- Control - 2	-	460	-	chia	912/23/	4121294	EX Short.
Thou	40cm	RSC1004-03		1	2				
	_	6K	-						
	11004				2	50			
		Biank	IT		T	1 7 7			
	OC.	CCV-3						d151562	Sthylenol
		3	-			TANK TO SERVICE AND ADDRESS OF THE PARTY OF			OKShortlist
	1004		1		2				
	-	BIMK	7.5		~	55		-	
	(1:004	RECION-07	1		a				
4	-	DIS	IT	-	1	Paragraphic Control of the Control o		0.12/20/	Jamilla A
117/117	ac				-		G .	401210	uery low
7		BIK	+	-	-	106		-	
	वर	4	-					212000	OKShert 1.5
	1 1069		1/5		7			719838	Color
	QC	0000	15		-	THE		9121299	OKShort 1.54
	C1004	RSC1004-05	5		マ			110011	O-COM 11-31
		9,29024-1151	1		1	65	1	9/1/239	
	a_	d -ms01	1		-			1	
L	00		_	- 1		The same of		9121300	LOW
				METT					
						1			
				4					

Rev.0 12/20/2007

000105

Reviewed By:

Date:

LABORATORY	LAB SAMPLE ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	SDG	CAS NUMBER	PARAMETER	RESULT	MDL	QUALIFIER	UNITS	REPORTING LIMIT	DILUTION	METHOD
TestAmerica Pittsburgh	C0A020000053B	INTRA-LAB BLANK	WATER	12/18/2009	9:15	1/5/2010	C9L230421	7439-89-6	Iron-DISS	100	11.9	U	ug/L	100	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000053C	CHECK SAMPLE	WATER	12/18/2009	9:15	1/5/2010	C9L230421	7439-89-6	Iron-DISS	1020	11.9		ug/L	100	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-38-2	Arsenic	10	2.7	U	ug/L	10	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7439-89-6	Iron	100	11.9	U	ug/L	100	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7439-93-2	Lithium	50	2.8	U	ug/L	50	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7439-95-4	Magnesium	5000	20.7	U	ug/L	5000	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7439-96-5	Manganese	15	0.68	U	ug/L	15	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7439-98-7	Molybdenum	40	1.4	U	ug/L	40	-1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-39-3	Barium	200	0.62	U	ug/L	200	1.	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-02-0	Nickel	40	1.6	U	ug/L	40	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-41-7	Beryllium	4	0.23	U	ug/L	4	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7782-49-2	Selenium	5	3	U	ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-22-4	Silver	5	0.68	U	ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-23-5	Sodium	5000	215	U	ug/L	5000	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-24-6	Strontium	50	0.093	U	ug/L	50	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-66-6	Zinc	20	2.5	U	ug/L	20	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-47-3	Chromium	5	0.57	U	ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-42-8	Boron	200	1.3	U	ug/L	200	-1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-43-9	Cadmium	5	0.13	U	ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-70-2	Calcium	5000	9.7	Ü	ug/L	5000	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-48-4	Cobalt	50	0.4	u	ug/L	50	1.	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-50-8	Copper	25	2.7	U	ug/L	25	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054B	INTRA-LAB BLANK	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7429-90-5	Aluminum	200	9.7	U	ug/L	200	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-38-2	Arsenic	1990	2.7		ug/L	10	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7439-89-6	Iron	1040	11.9		ug/L	100	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7439-93-2	Lithium	1030	2.8		ug/L	50	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7439-95-4	Magnesium	50000	20.7		ug/L	5000	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7439-96-5	Manganese	489	0.68		ug/L	15	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7439-98-7	Molybdenum	1010	1,4		ug/L	40	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-39-3	Barium	1980	0.62		ug/L	200	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-02-0	Nickel	495	1.6		ug/L	40	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-41-7	Beryllium	49.6	0.23		ug/L	4	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7782-49-2	Selenium	2000	3		ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-22-4	Silver	48.9	0.68		ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-23-5	Sodium	50500	215		ug/L	5000	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-24-6	Strontium	1000	0.093	-	ug/L	50	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-66-6	Zinc	501	2,5	-	ug/L	20	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-47-3	Chromium	191	0.57		ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-42-8	Boron	1030	1.3	-	ug/L	200	1 1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-43-9	Cadmium	47	0.13		ug/L	5	10	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-70-2	Calcium						1	
	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-48-4	Cobalt	50400 491	9.7	-	ug/L ug/L	5000	1	SW846 6010B SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7440-50-8	Copper	251	2.7	-	ug/L	25	1	SW846 6010B
TestAmerica Pittsburgh	C0A020000054C	CHECK SAMPLE	WATER	12/28/2009	14:00	1/5/2010	C9L230421	7429-90-5	Aluminum	2020	9.7			200	1	SW846 6010B
TestAmerica Pittsburgh	C0A040000194C	CHECK SAMPLE	WATER	12/22/2009	10:00	1/4/2010	C9L230421	Q925	Hq	7.03			ug/L	200	1	SM20 4500-H+E
TestAmerica Pittsburgh	C0A050000053B	INTRA-LAB BLANK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q132	Chemical Oxygen Demand (COD)		5.2	U		10	1	MCAWW 410.4
TestAmerica Pittsburgh	C0A050000053G	CHECK SAMPLE	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q132	Chemical Oxygen Demand (COD) Chemical Oxygen Demand (COD)	613	5.2	0	mg/L mg/L	10	1	MCAWW 410.4
TestAmerica Pittsburgh	C0A050000053L	DUPLICATE CHECK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q132	Chemical Oxygen Demand (COD)	612	5.2		mg/L mg/L	10	1	MCAWW 410.4
TestAmerica Pittsburgh	C0A050000157B	INTRA-LAB BLANK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q181	Specific Conductance	1	J.Z	U	umhos/cm	10	1	SM20 2510B
TestAmerica Pittsburgh	C0A050000157C	CHECK SAMPLE	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q181	Specific Conductance	76.5		0	umhos/cm	1	1	SM20 2510B
TestAmerica Pittsburgh	C0A060000015B	INTRA-LAB BLANK	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-97-6	Mercury	0.039	0.038	В		0.2	1	SW846 7470A
TestAmerica Pittsburgh	C0A060000015C	CHECK SAMPLE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-97-6	Mercury	2.44	0.038	В	ug/L ug/L	0.2	1	SW846 7470A
TestAmerica Pittsburgh	C0A070000116B	INTRA-LAB BLANK	WATER	1/5/2010	10:30	1/7/2010	C9L230421	Q356	Hardness, as CaCO3	-		U		5	1	SM20 2340C
	C0A070000116C	CHECK SAMPLE	WATER	1/5/2010	10:30	1/7/2010	C9L230421	Q356	Hardness, as CaCO3	50	1.5	U	mg/L	5		SM20 2340C
	C9L230000224B	INTRA-LAB BLANK	WATER	12/21/2009	14:11	12/28/2009	C9L230421	Q74	Biochemical Oxygen Demand		0.79	11	mg/L	2	1	SM20 2340C SM20 5210B
	C9L230000224C	CHECK SAMPLE	WATER	12/21/2009	14:11	12/28/2009	C9L230421	Q74		197		U	mg/L	-		SM20 5210B
TestAmerica Pittsburgh	C9L230000224L	DUPLICATE CHECK	WATER	12/21/2009	14:11	12/28/2009	C9L230421	Q74 Q74	Biochemical Oxygen Demand		0.79		mg/L	2	1	
	C9L230000364B	INTRA-LAB BLANK	WATER	12/22/2009					Biochemical Oxygen Demand	200	0.79	1	mg/L	2	1	SM20 5210B
	C9L230000364C	CHECK SAMPLE	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q479	Nitrate as N	0.05	0.0077		mg/L	0.05	1	MCAWW 300.0
	C9L230000364L	DUPLICATE CHECK			10:00	12/23/2009	C9L230421	Q479	Nitrate as N	2.45	0.0077		mg/L	0.05	1	MCAWW 300.0
	C9L230000365B	INTRA-LAB BLANK	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q479	Nitrate as N	2.46	0.0077		mg/L	0.05	1	MCAWW 300.0
	C9L230000365C	CHECK SAMPLE	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q481	Nitrite as N	0.05	0.0032		mg/L	0.05	1	MCAWW 300.0
	C9L230000365L		WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q481	Nitrite as N	2.67	0.0032		mg/L	0.05	1	MCAWW 300.0
	C9L230000365E	DUPLICATE CHECK	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q481	Nitrite as N	2.67	0.0032		mg/L	0.05	1 1	MCAWW 300.0
	C9L230000366C	INTRA-LAB BLANK	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q138	Chloride	1	0.053	U	mg/L	1	1	MCAWW 300.0
Marsinellea Fillsburgh	Calzauduuadol	CHECK SAMPLE	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q138	Chloride	50	0.053		mg/L	1	1	MCAWW 300.0

TestAmerica Pittsburgh	C9L230000366L	DUPLICATE CHECK	I WATER I	12/22/2009	10:00	12/24/2009	C9L230421	Q138	Chloride	I 50.1	0.053		mg/L	1 1	-1	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230000367B	INTRA-LAB BLANK	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q605	Sulfate	0.059	0.031	В	mg/L	1	1	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230000367C	CHECK SAMPLE	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q605	Sulfate	50	0.031		mg/L	1	1	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230000367L	DUPLICATE CHECK	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q605	Sulfate	50	0.031		mg/L	1	1	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230000368B	INTRA-LAB BLANK	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q85	Bromide	0.2	0.014	U	mg/L	0.2	1	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230000368C	CHECK SAMPLE	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q85	Bromide	9.46	0.014	U	mg/L	0.2	-	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230000368L		WATER	12/22/2009				Q85		9.42		-		0.2	1	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421001	DUPLICATE CHECK	111000 0000		10:00	12/24/2009	C9L230421		Bromide		0.014	v-	mg/L	250	250	MCAWW 300.0A
		WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q138	Chloride	15300	13,2	-	mg/L			MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q605	Sulfate	116	0.31	J	mg/L	10	10	
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q479	Nitrate as N	0.5	0.077	GU	mg/L	0.5	10	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q85	Bromide	210	0.14	200	mg/L	2	10	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q481	Nitrite as N	0.5	0.032	GU	mg/L	0.5	10	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/29/2009	C9L230421	Q18	Total Alkalinity	157	0.41	J	mg/L	5	1	SM18 2320 B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/29/2009	C9L230421	Q2240	Oil & Grease (HEM)	190	1.5		mg/L	4.6	0.93	CFR136A 1664A HEM
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-97-6	Mercury	0.2	0.038	U	ug/L	0.2	1	SW846 7470A
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/30/2009	C9L230421	71-43-2	Benzene	240	9.9		ug/L	50	10	SW846 8260B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/30/2009	C9L230421	108-88-3	Toluene	530	8.5		ug/L	50	10	SW846 8260B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/30/2009	C9L230421	17060-07-0	1,2-Dichloroethane-d4	107			PERCENT		10	SW846 8260B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/30/2009	C9L230421	2037-26-5	Toluene-d8	92			PERCENT		10	SW846 8260B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/30/2009	C9L230421	1868-53-7	Dibromofluoromethane	104			PERCENT		10	SW846 8260B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/30/2009	C9L230421	460-00-4	4-Bromofluorobenzene	101			PERCENT		10	SW846 8260B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7439-89-6	Iron-DISS	6270	11.9		ug/L	100	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7440-38-2	Arsenic	17.2	2.7		ug/L	10	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7439-89-6	Iron	6470	11.9		ug/L	100	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7439-93-2	Lithium	12500	2.8		ug/L	50	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7439-95-4	Magnesium	188000	20.7	-	ug/L	5000	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7439-96-5	Manganese	1310	0.68		ug/L	15	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7439-98-7	Molybdenum	14.1	1.4	В	ug/L	40	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010		7440-39-3	Barium	9430	0.62	ь	ug/L	200	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00		C9L230421			-		11		4	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001					1/5/2010	C9L230421	7440-41-7	Beryllium	4	0.23	U	ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh		WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7782-49-2	Selenium	5	3	U	ug/L			
	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7440-22-4	Silver	5	0.68	U	ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7440-66-6	Zinc	32.1	2,5		ug/L	20	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7440-47-3	Chromium	0.84	0.57	В	ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7440-42-8	Boron	7760	1.3		ug/L	200	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7440-43-9	Cadmium	0.19	0.13	В	ug/L	5	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7440-50-8	Copper	6.5	2.7	В	ug/L	25	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	7429-90-5	Aluminum	180	9.7	В	ug/L	200	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-02-0	Nickel	29.2	15.6	В	ug/L	400	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-70-2	Calcium	1790000	96.8		ug/L	50000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-48-4	Cobalt	4.2	4	В	ug/L	500	10	SW846 6010B
TestAmerica Pittsburgh		WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-23-5	Sodium	6920000	10800		ug/L	250000	50	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-24-6	Strontium	215000	4.6		ug/L	2500	50	SW846 6010B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q477	Ammonia Nitrogen	37.7	0.094		mg/L	1	10	MCAWW 350.1
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q132	Chemical Oxygen Demand (COD)	1520	52	(1	mg/L	100	10	MCAWW 410.4
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/30/2009	C9L230421	Q540	Total Recoverable Phenolics	0.054	0.0014	J	mg/L	0.01	1	MCAWW 420.4
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/7/2010	C9L230421	Q356	Hardness, as CaCO3	5600	76.9		mg/L	250	50	SM20 2340C
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/4/2010	C9L230421	Q925	pH	6.9	0		-	in.	1	SM20 4500-H+B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q594	Total Dissolved Solids	26100	200		mg/L	200	20	SM20 2540C
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q595	Total Suspended Solids	276	10		mg/L	20	5	SM20 2540D
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/31/2009	C9L230421	Q1083	Acidity	5	5	U	mg/L	5	1	SM20 2310B (4a)
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q181	Specific Conductance	59800			umhos/cm	1	1	SM20 2510B
TestAmerica Pittsburgh	C9L230421001	WASHINGTON COUNTY FLOW BACK	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q74	Biochemical Oxygen Demand	>399	0.79		mg/L	2	1	SM20 5210B
	C9L230421001X	WASHINGTON COUNTY FLOW BACK DUP	WATER	12/22/2009	10:00	1/4/2010	C9L230421	Q925	pH	7	0		- Ingre	-	1	SM20 4500-H+B
	C9L230421001X	WASHINGTON COUNTY FLOW BACK DUP	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q594	Total Dissolved Solids	26400	10		mg/L	200	20	SM20 2540C
	C9L230421001X	WASHINGTON COUNTY FLOW BACK DUP	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q594 Q595	Total Suspended Solids	278	2		mg/L	20	5	SM20 2540D
	C9L230421001X	WASHINGTON COUNTY FLOW BACK DUP	WATER	12/22/2009	10:00	12/31/2009	C9L230421	Q1083	Acidity	5	5	U	mg/L	5	1	SM20 2310B (4a)
TestAmerica Pittsburgh	C9L230421001X	WASHINGTON COUNTY FLOW BACK DUP	WATER	12/22/2009						57900	- 0	0	umhos/cm	1	1	SM20 2510B (4a)
	C9L230421001X				10:00	1/5/2010	C9L230421	Q181	Specific Conductance		122			2500	2500	MCAWW 300.0A
	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/23/2009	C9L230421	Q138	Chloride	157000	132	D. 1	mg/L			
		WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/23/2009	C9L230421	Q605	Sulfate	41.9	1.6	BJ	mg/L	50	50	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/23/2009	C9L230421	Q479	Nitrate as N	2.5	0.38	GU	mg/L	2.5	50	MCAWW 300.0A
	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/23/2009	C9L230421	Q85	Bromîde	1590	0.72		mg/L	10	50	MCAWW 300.0A
	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/23/2009	C9L230421	Q481	Nitrite as N	2.5	0.16	GU	mg/L	2.5	50	MCAWW 300.0A
	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/29/2009	C9L230421	Q18	Total Alkalinity	52.3	0.41	J	mg/L	5	1	SM18 2320 B
	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/29/2009	C9L230421	Q2240	Oil & Grease (HEM)	17.6	1.5	14-	mg/L	4.7	0.94	CFR136A 1664A HEN
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7439-97-6	Mercury	0.045	0.038	BJ	ug/L	0.2	1	SW846 7470A
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/30/2009	C9L230421	71-43-2	Benzene	5	0.99	U	ug/L	5	1	SW846 8260B

TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/30/2009	C9L230421	108-88-3	Toluene	1 5 1	0.85	U	ug/L	5 1	1 1	SW846 8260B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/30/2009	C9L230421	17060-07-0	1,2-Dichloroethane-d4	118	-		PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/30/2009	C9L230421	2037-26-5	Toluene-d8	101	100		PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/30/2009	C9L230421	1868-53-7	Dibromofluoromethane	112			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/30/2009	C9L230421	460-00-4	4-Bromofluorobenzene	80			PERCENT	-		SW846 8260B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7439-89-6	Iron-DISS	110000	298		ug/L	2500	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/7/2010	C9L230421	7440-23-5	Sodium	48400	215		ug/L	5000	4	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/7/2010	C9L230421	7440-24-6	Strontium	5800000	93		ug/L	50000	1	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-38-2	Arsenic	90.8	68.5	В	ug/L	250	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7439-89-6	Iron	119000	298		ug/L	2500	25	SW846 6010B
TestAmerica Pittsburgh TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7439-93-2	Lithium	104000	69.5		ug/L	1250	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002 C9L230421002	WESTMORELAND PRODUCTION BRINE WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7439-95-4 7439-96-5	Magnesium	1300000	518		ug/L	125000 375	25 25	SW846 6010B SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7439-96-5	Manganese Molybdenum	1000	17 34.5	U	ug/L ug/L	1000	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-41-7	Beryllium	1000	5.8	U	ug/L	100	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7782-49-2	Selenium	125	76	U	ug/L	125	25	SW846 6010B
estAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-22-4	Silver	125	17	U	ug/L	125	25	SW846 6010B
estAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-66-6	Zinc	146	61.5	В	ug/L	500	25	SW846 6010B
estAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-47-3	Chromium	16	14.2	В	ug/L	125	25	SW846 6010B
estAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-42-8	Boron	94700	32.8		ug/L	5000	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-43-9	Cadmium	125	3.2	U	ug/L	125	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-50-8	Copper	90.2	67.8	В	ug/L	625	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7429-90-5	Aluminum	1880	242	В	ug/L	5000	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-39-3	Barium	1410000	31	0.00	ug/L	10000	50	SW846 6010B
TestAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-02-0	Nickel	2000	78	Ų	ug/L	2000	50	SW846 6010B
estAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L23()421	7440-70-2	Calcium	17600000	484		ug/L	250000	50	SW846 6010B
estAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/6/2010	C9L230421	7440-48-4	Cobalt	2500	20	U	ug/L	2500	50	SW846 6010B
estAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/28/2009	C9L230421	Q477	Ammonia Nitrogen	372	1.9		mg/L	20	200	MCAWW 350,1
estAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/5/2010	C9L230421	Q132	Chemical Oxygen Demand (COD)	12300	130		mg/L	250	25	MCAWW 410.4
estAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/30/2009	C9L230421	Q540	Total Recoverable Phenolics	0.38	0.0014	J	mg/L	0.01	1	MCAWW 420.4
estAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/7/2010	C9L230421	Q356	Hardness, as CaCO3	66000	769		mg/L	2500	500	SM20 2340C
estAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/4/2010	C9L230421	Q925	pH	5.7	0		+		1	SM20 4500-H+B
estAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/28/2009	C9L230421	Q594	Total Dissolved Solids	277000	200		mg/L	200	20	SM20 2540C
TestAmerica Pittsburgh TestAmerica Pittsburgh	C9L230421002 C9L230421002	WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/24/2009	C9L230421	Q595	Total Suspended Solids	74.8	2		mg/L	4	1	SM20 2540D
estAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	12/31/2009	C9L230421	Q1083	Acidity	540	5		mg/L	5	500	SM20 2310B (4a) SM20 2510B
estAmerica Pittsburgh	C9L230421002	WESTMORELAND PRODUCTION BRINE WESTMORELAND PRODUCTION BRINE	WATER	12/21/2009	10:00	1/5/2010	C9L230421	Q181 Q74	Specific Conductance	614000	0.79	_	umhos/cm	500 2	1	SM20 5210B
estAmerica Pittsburgh	C9L230421002X	WESTMORELAND PRODUCTION BRINE DUP	WATER	12/21/2009	10:00	12/29/2009	C9L230421	Q18	Biochemical Oxygen Demand Total Alkalinity	57.5	0.79		mg/L mg/L	5	1	SM18 2320 B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q138	Chloride	31300	26.4		mg/L	500	500	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q605	Sulfate	105	0.31	3	mg/L	10	10	MCAWW 300.0A
estAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q479	Nitrate as N	0.5	0.077	GU	mg/L	0.5	10	MCAWW 300.0A
estAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q85	Bromide	359	0.14		mg/L	2	10	MCAWW 300.0A
estAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/23/2009	C9L230421	Q481	Nitrite as N	0.5	0.032	GU	mg/L	0.5	10	MCAWW 300.0A
estAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/29/2009	C9L230421	Q18	Total Alkalinity	115	0.41	J	mg/L	5	1	SM18 2320 B
estAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/29/2009	C9L230421	Q2240	Oil & Grease (HEM)	7.9	1.5		mg/L	4.6	0.93	CFR136A 1664A HE
estAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-97-6	Mercury	0.2	0.038	U	ug/L	0.2	1	SW846 7470A
estAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	71-43-2	Benzene	5	0.99	U	ug/L	5	1	SW846 8260B
estAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	108-88-3	Toluene	5	0.85	U	ug/L	5	1	SW846 8260B
estAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	17060-07-0	1,2-Dichloroethane-d4	111			PERCENT	-	1	SW846 8260B
estAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	2037-26-5	Toluene-d8	89			PERCENT		1	SW846 8260B
stAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	1868-53-7	Dibromofluoromethane	113			PERCENT		1	SW846 8260B
estAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	460-00-4	4-Bromofluorobenzene	98			PERCENT		1	SW846 8260B
estAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-89-6	Iron-DISS	28000	119	-	ug/L	1000	10	SW846 6010B
stAmerica Pittsburgh	C9L230421003		WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-38-2	Arsenic	100	27.4	U	ug/L	100	10	SW846 6010B
estAmerica Pittsburgh	C9L230421003 C9L230421003		WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-89-6	Iron	27400	119		ug/L	1000	10	SW846 6010B
stAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-93-2	Lithium	21500	27.8		ug/L	500	10	SW846 6010B
stAmerica Pittsburgh	C9L230421003		WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-95-4	Magnesium	295000	207		ug/L	50000	10	SW846 6010B SW846 6010B
stAmerica Pittsburgh	C9L230421003		WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-96-5	Manganese	722 400	6,8	U	ug/L ug/L	150 400	10	SW846 6010B
stAmerica Pittsburgh	C9L230421003		WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-98-7	Molybdenum	19000		U		2000	10	SW846 6010B
estAmerica Pittsburgh	C9L230421003		WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-39-3 7440-02-0	Barium Nickel	400	15.6	U	ug/L ug/L	400	10	SW846 6010E
stAmerica Pittsburgh	C9L230421003		WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-02-0	Beryllium	400	2.3	U	ug/L ug/L	400	10	SW846 6010E
estAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7782-49-2	Selenium	50	30.4	U	ug/L	50	10	SW846 6010B
stAmerica Pillsburgh	C9L230421003		WATER	12/22/2009				7440-22-4		50	6.8	U	ug/L ug/L	50	10	SW846 6010B
estAmerica Pittsburgh	C9L230421003		WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-22-4	Silver	83.9	24.6	В	ug/L ug/L	200	10	SW846 6010B
stAmerica Pittsburgh	C9L230421003		WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-66-6	Chromium	11.5	5.7	В	ug/L ug/L	50	10	SW846 6010B
י יונונונונונונונונוניוניוניוניוניוניוניונ			· vvetter i	LEICEICUUS	IU.UU	MUZUIU	I USLEGUAZ]	1 1940-4/-3	Chiomani	1 11.0	. 0.1		UU/L	JU		L CALACTO COLOR

		The state of the s														1 1000000 24144
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-43-9	Cadmium	50	1.3	U	ug/L	50	10	SVV846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-70-2	Calcium	3140000	96.8		ug/L	50000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-48-4	Cobalt	8.8	4	В	ug/L	500	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-50-8	Copper	250	27.1	U	ug/L	250	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7429-90-5	Aluminum	508	96.8	В	ug/L	2000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/7/2010	C9L230421	7440-24-6	Strontium	693000	9.3		ug/L	5000	100	SW846 6010B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-23-5	Sodium	12000000	5380	_	ug/L	125000	25	SW846 6010B
									100000000000000000000000000000000000000			-			25	MCAWW 350.1
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q477	Ammonia Nitrogen	84.7	0.24		mg/L	2.5		
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q132	Chemical Oxygen Demand (COD)	2600	52		mg/L	100	10	MCAWW 410.4
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	Q540	Total Recoverable Phenolics	0.013	0.0014	J	mg/L	0.01	1	MCAWW 420.4
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/7/2010	C9L230421	Q356	Hardness, as CaCO3	10600	76.9		mg/L	250	50	SM20 2340C
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/4/2010	C9L230421	Q925	pH	6.6	0		-	-	1	SM20 4500-H+B
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q594	Total Dissolved Solids	54800	200		mg/L	200	20	SM20 2540C
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q595	Total Suspended Solids	9.6	2		mg/L	4	1	SM20 2540D
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/31/2009	C9L230421	Q1083	Acidity	5	5	U	mg/L	5	1	SM20 2310B (4a)
TestAmerica Pittsburgh							A STATE OF THE PARTY OF THE PAR				3	U			100	SM20 2510B
	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q181	Specific Conductance	125000	250		umhos/cm	100		
TestAmerica Pittsburgh	C9L230421003	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q74	Biochemical Oxygen Demand	283	0.79		mg/L	2	_1_	SM20 5210B
TestAmerica Pittsburgh	C9L230421003D	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-97-6	Mercury	12	0.038	N.	PERCENT	0.2	1	SW846 7470A
TestAmerica Pittsburgh	C9L230421003S	FAYETTE COUNTY BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-97-6	Mercury	15	0.038	N	PERCENT	0.2	1	SW846 7470A
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/24/2009	C9L230421	Q138	Chloride	27700	26.4		mg/L	500	500	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/23/2009	C9L230421	Q605	Sulfate	69.3	0.31	J	mg/L	10	10	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/23/2009	C9L230421	Q479	Nitrate as N	0.5	0.077	GU	mg/L	0.5	10	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/23/2009	C9L230421	Q85	Bromide	261	0.14		mg/L	2	10	MCAWW 300.0A
												0.11			10	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/23/2009	C9L230421	Q481	Nitrite as N	0.5	0.032	GU	mg/L	0.5		
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/29/2009	C9L230421	Q18	Total Alkalinity	174	0.41	J	mg/L	5	1	SM18 2320 B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/29/2009	C9L230421	Q2240	Oil & Grease (HEM)	5.8	1.6		mg/L	4.8	0.97	CFR136A 1664A HEM
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7439-97-6	Mercury	0.2	0.038	U	ug/L	0.2	1	SW846 7470A
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/30/2009	C9L230421	71-43-2	Benzene	1.1	0.99	J	ug/L	5	1	SW846 8260B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/30/2009	C9L230421	108-88-3	Toluene	1.1	0.85	J	ug/L	5	1	SW846 8260B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/30/2009	C9L230421	17060-07-0	1,2-Dichloroethane-d4	107			PERCENT	-	1	SW846 8260B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/30/2009	C9L230421	2037-26-5	Toluene-d8	92		-	PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421004		WATER	12/21/2009						108	-		PERCENT		1	SW846 8260B
		WESTMORELAND FLOW BACK		the second secon	10:30	12/30/2009	C9L230421	1868-53-7	Dibromofluoromethane			_				
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/30/2009	C9L230421	460-00-4	4-Bromofluorobenzene	97			PERCENT	-	1	SW846 8260B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7439-89-6	Iron-DISS	43000	119		ug/L	1000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-38-2	Arsenic	100	27.4	U	ug/L	100	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7439-89-6	Iron	43500	119		ug/L	1000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7439-93-2	Lithium	19800	27.8		ug/L	500	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7439-95-4	Magnesium	278000	207		ug/L	50000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7439-96-5	Manganese	2540	6.8		ug/L	150	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7439-98-7	Molybdenum	400	13.8	U	ug/L	400	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	-	1/6/2010	C9L230421		Barium		6.2		-	2000	10	SW846 6010B
					10:30			7440-39-3		107000		, n	ug/L			
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-02-0	Nickel	33.2	15.6	В	ug/L	400	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-41-7	Beryllium	40	2.3	U	ug/L	40	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7782-49-2	Selenium	50	30.4	U	ug/L	50	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-22-4	Silver	50	6.8	U	ug/L	50	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-66-6	Zinc	65.7	24.6	В	ug/L	200	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-47-3	Chromium	7.8	5.7	В	ug/L	50	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-42-8	Boron	12800	13.1		ug/L	2000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-43-9	Cadmium	50	1.3	U	ug/L	50	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-70-2	Calcium	2730000	96.8	-	ug/L	50000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-48-4	Cobalt	500	4	T)		500	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004										-		ug/L			
		WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-50-8	Copper	250	27.1	U	ug/L	250	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7429-90-5	Aluminum	519	96.8	В	ug/L	2000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-24-6	Strontium	670000	9.3		ug/L	5000	100	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/6/2010	C9L230421	7440-23-5	Sodium	12700000	10800		ug/L	250000	50	SW846 6010B
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/28/2009	C9L230421	Q477	Ammonia Nitrogen	52.4	0.094		mg/L	1	10	MCAWW 350.1
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/5/2010	C9L230421	Q132	Chemical Oxygen Demand (COD)	2740	52		mg/L	100	10	MCAWW 410.4
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/30/2009	C9L230421	Q540	Total Recoverable Phenolics	0.012	0.0014	1	mg/L	0.01	1	MCAWW 420.4
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/7/2010	C9L230421	Q356	Hardness, as CaCO3	8900	76.9		mg/L	250	50	SM20 2340C
TestAmerica Pittsburgh	C9L230421004		_									_				SM20 4500-H+B
	and the second second second second	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	1/4/2010	C9L230421	Q925	pH	6.5	0		-		1 20	
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/28/2009	C9L230421	Q594	Total Dissolved Solids	41700	200		mg/L	200	20	SM20 2540C
TestAmerica Pittsburgh	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/24/2009	C9L230421	Q595	Total Suspended Solids	30.8	2		mg/L	4	1	SM20 2540D
	C9L230421004	WESTMORELAND FLOW BACK	WATER	12/21/2009	10:30	12/31/2009	C9L230421	Q1083	Acidity	108	5		mg/L	5	1	SM20 2310B (4a)
		WESTMODELAND FLOW DACK	WATER	12/21/2009	10:30	1/5/2010	C9L230421	Q181	Specific Conductance	116000			umhos/cm	100	100	SM20 2510B
	C9L230421004	WESTMORELAND FLOW BACK	MANIENT					and the second s								
TestAmerica Pittsburgh	C9L230421004 C9L230421004						C9I 230421	074	Biochemical Oxygen Demand	821	0.79		ma/L	2	1	SM20 5210B
TestAmerica Pittsburgh TestAmerica Pittsburgh		WESTMORELAND FLOW BACK TRIP BLANK	WATER	12/21/2009 12/21/2009	10:30	12/28/2009 12/30/2009	C9L230421 C9L230421	Q74 71-43-2	Biochemical Oxygen Demand Benzene	821	0.79	U	mg/L ug/L	5	1	SM20 5210B SW846 8260B

TestAmerica Pittsburgh	C9L230421005	TRIP BLANK	WATER	12/21/2009	0:00	12/30/2009	C9L230421	17060-07-0	1.2-Dichloroethane-d4	105		_	PERCENT		4	SW846 8260B
TestAmerica Pittsburgh	C9L230421005	TRIP BLANK	WATER	12/21/2009	0:00	12/30/2009	C9L230421	2037-26-5	Toluene-d8	90		-	PERCENT		- 1	SW846 8260B
TestAmerica Pittsburgh	C9L230421005	TRIP BLANK	WATER	12/21/2009	0:00	12/30/2009	C9L230421	1868-53-7	Dibromofluoromethane	107			PERCENT	-	1	SW846 8260B
TestAmerica Pittsburgh	C9L230421005	TRIP BLANK	WATER		0:00	12/30/2009	THE RESERVE OF THE PARTY OF THE						PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	- 124 · 127 · · · · · · · · · ·			12/21/2009			C9L230421	460-00-4	4-Bromofluorobenzene	99	100			2500		MCAWW 300.0A
	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q138	Chloride	192000	132	D.1	mg/L	2500	2500	
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q605	Sulfate	41.8	1.6	BJ	mg/L	50	50	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q479	Nitrate as N	0.74	0.38	В	mg/L	2.5	50	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q85	Bromide	1920	0.72		mg/L	10	50	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q481	Nitrite as N	2,5	0.16	GU	mg/L	2.5	50	MCAWW 300.0A
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/29/2009	C9L230421	Q18	Total Alkalinity	190	0.41	J	mg/L	5	1_	SM18 2320 B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/29/2009	C9L230421	Q2240	Oil & Grease (HEM)	9.4	1.5		mg/L	4.7	0.94	CFR136A 1664A HEM
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-97-6	Mercury	0.2	0.038	U	ug/L	0.2	1	SW846 7470A
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	2658-24-4	Aziridine, 2,2-dimethyl-	0.2		NJ	ug/L		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	75-83-2	Butane, 2,2-dimethyl-	0.66		NJ	ug/L		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	100014-00-1	Butanoic acid, 2-ethylhexyl ester	0.48		NJ	ug/L		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	124-38-9	Carbon dioxide	290		NJ	ug/L		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	67-63-0	Isopropyl Alcohol	45		27	ug/L		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	112-30-1	1-Decanol	5.4		NJ	ug/L		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	104-76-7	1-Hexanol, 2-ethyl-	41		NJ	ug/L		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	32038-83-8	2-Propynenitrile, 3-fluoro-	0.18		NJ	ug/L		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	100014-32-6	3,3-Dimethyl-4-phenylamino-butan-2-one	0.17		NJ	ug/L		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	100014-76-4	6-Nitro-8-methoxy-2H-chromene	0.19		NJ	ug/L		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	100014-76-4	6-Nitro-8-methoxy-2H-chromene	0.35		NJ	ug/L		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	71-43-2	Benzene	5	0.99	U	ug/L	5	1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	108-88-3	Toluene	5	0.85	Ü	ug/L	5	1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	17060-07-0	1.2-Dichloroethane-d4	105			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	2037-26-5	Toluene-d8	91			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	1868-53-7	Dibromofluoromethane	110			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	460-00-4	4-Bromofluorobenzene	101			PERCENT		1	SW846 8260B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-89-6	Iron-DISS	99900	298		ug/L	2500	25	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-38-2	Arsenic	27.4	27.4	В	ug/L	100	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-89-6	Iron	21100	119	-	ug/L	1000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-93-2	Lithium	15300	27.8		ug/L	500	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-95-4	Magnesium	250000	207		ug/L	50000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-96-5	Manganese	1080	6.8		ug/L	150	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7439-98-7	Molybdenum	15	13.8	В	ug/L	400	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-39-3	Barium	3700	6.2	ь	ug/L	2000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-02-0	Nickel	23.4	15.6	В	ug/L	400	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-02-0		40		U	ug/L ug/L	400	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00				Beryllium	50	2.3	U	-	50	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009		1/6/2010	C9L230421	7782-49-2	Selenium		30.4	U	ug/L	50	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	1		10:00	1/6/2010	C9L230421	7440-22-4	Silver	50	6.8	-	ug/L	200	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-66-6	Zinc	61.8	24.6	В	ug/L	50	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009		1/6/2010	C9L230421	7440-47-3	Chromium	24.7	5.7	В	ug/L	2000		SW846 6010B
TestAmerica Pittsburgh	C9L230421008			12/22/2009	10:00	1/6/2010	C9L230421	7440-42-8	Boron	25700	13.1	- 0	ug/L		10	
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-43-9	Cadmium	50	1.3	u	ug/L	50	10	SW846 6010B
		GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-70-2	Calcium	2440000	96.8		ug/L	50000	10	SW846 6010B
TestAmerica Pittsburgh TestAmerica Pittsburgh	C9L230421008 C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-48-4	Cobalt	8.8	4	В	ug/L	500	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-50-8	Copper	250	27.1	U	ug/L	250	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7429-90-5	Aluminum	629	96.8	В	ug/L	2000	10	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-24-6	Strontium	587000	9.3		ug/L	5000	100	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/6/2010	C9L230421	7440-23-5	Sodium	11900000	10800		ug/L	250000	50	SW846 6010B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q477	Ammonia Nitrogen	72.3	0.47		mg/L	5	50	MCAWW 350.1
		GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q132	Chemical Oxygen Demand (COD)	3060	52	-	mg/L	100	10	MCAWW 410.4
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/30/2009	C9L230421	Q540	Total Recoverable Phenolics	0.014	0.0014	J	mg/L	0.01	1	MCAWW 420.4
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/7/2010	C9L230421	Q356	Hardness, as CaCO3	7700	76.9		mg/L	250	50	SM20 2340C
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/4/2010	C9L230421	Q925	pH	5.6	0		1000	-	1	SM20 4500-H+B
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q594	Total Dissolved Solids	313000	200		mg/L	200	20	SM20 2540C
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q595	Total Suspended Solids	53.6	2		mg/L	4	1	SM20 2540D
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/31/2009	C9L230421	Q1083	Acidity	5	5	U	mg/L	5	1	SM20 2310B (4a)
TestAmerica Pittsburgh	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	1/5/2010	C9L230421	Q181	Specific Conductance	779000			umhos/cm	500	500	SM20 2510B
	C9L230421008	GREENE COUNTY PRODUCTION BRINE	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q74	Biochemical Oxygen Demand	4.9	0.79		mg/L	2	1	SM20 5210B
	C9L240000059B	INTRA-LAB BLANK	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q594	Total Dissolved Solids	10	10	U	mg/L	10	1	SM20 2540C
	C9L240000059C	CHECK SAMPLE	WATER	12/22/2009	10:00	12/28/2009	C9L230421	Q594	Total Dissolved Solids	530	10		mg/L	10	1	SM20 2540C
TestAmerica Pittsburgh	C9L240000061B	INTRA-LAB BLANK	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q595	Total Suspended Solids	4	2	U	mg/L	4	1	SM20 2540D
	COLDADODDOGAO	CHECK SAMPLE	WATER	12/22/2009	10:00	12/24/2009	C9L230421	Q595	Total Suspended Solids	84	2		mg/L	4	3	SM20 2540D
	C9L240000061C	STILOR OAWI LE	A STATE OF STREET	10100100												
	C9L280000110B	INTRA-LAB BLANK	WATER	12/18/2009	8:45	12/28/2009	C9L230421	Q477	Ammonia Nitrogen	0.1	0.0094	U	mg/L	0,1	1	MCAWW 350.1

TestAmerica Pittsburgh	C9L280000359B	INTRA-LAB BLANK	WATER	12/21/2009	10:00	12/29/2009	C9L230421	Q18	Total Alkalinity	1.4	0.41	В	mg/L	5	1	SM18 2320 B
TestAmerica Pittsburgh	C9L280000359C	CHECK SAMPLE	WATER	12/21/2009	10:00	12/28/2009	C9L230421	Q18	Total Alkalinity	245	0.41		mg/L	5	1	SM18 2320 B
estAmerica Pittsburgh	C9L290000255B	INTRA-LAB BLANK	WATER	12/16/2009	11:50	12/29/2009	C9L230421	Q2240	Oil & Grease (HEM)	5	1,6	U	mg/L	5	1	CFR136A 1664A HEM
estAmerica Pittsburgh	C9L290000255C	CHECK SAMPLE	WATER	12/16/2009	11:50	12/29/2009	C9L230421	Q2240	Oil & Grease (HEM)	33.3	1.6		mg/L	5	1	CFR136A 1664A HEM
estAmerica Pittsburgh	C9L290000255L	DUPLICATE CHECK	WATER	12/16/2009	11:50	12/29/2009	C9L230421	Q2240	Oil & Grease (HEM)	33.9	1.6	-	mg/L	5	1	CFR136A 1664A HEM
estAmerica Pittsburgh	C9L290000316B	INTRA-LAB BLANK	WATER	12/29/2009	8:30	12/30/2009	C9L230421	Q540	Total Recoverable Phenolics	0.0053	0.0014	В	mg/L	0.01	1	MCAWW 420.4
estAmerica Pittsburgh	C9L290000316C	CHECK SAMPLE	WATER	12/29/2009	8:30	12/30/2009	C9L230421	Q540	Total Recoverable Phenolics	0.185	0.0014		mg/L	0.01	1	MCAWW 420.4
estAmerica Pittsburgh	C9L300000341B	INTRA-LAB BLANK	WATER	12/22/2009	8:40	12/30/2009	C9L230421	71-43-2	Benzene	5	0.99	U	ug/L	5	1	SW846 8260B
estAmerica Pittsburgh	C9L300000341B	INTRA-LAB BLANK	WATER	12/22/2009	8:40	12/30/2009	C9L230421	108-88-3	Toluene	5	0.85	U	ug/L	5	1	SW846 8260B
estAmerica Pittsburgh	C9L300000341B	INTRA-LAB BLANK	WATER	12/22/2009	8:40	12/30/2009	C9L230421	17060-07-0	1,2-Dichloroethane-d4	104			PERCENT		1	SW846 8260B
estAmerica Pittsburgh	C9L300000341B	INTRA-LAB BLANK	WATER	12/22/2009	8:40	12/30/2009	C9L230421	2037-26-5	Toluene-d8	102			PERCENT		1	SW846 8260B
estAmerica Pittsburgh	C9L300000341B	INTRA-LAB BLANK	WATER	12/22/2009	8:40	12/30/2009	C9L230421	1868-53-7	Dibromofluoromethane	100			PERCENT		1	SW846 8260B
estAmerica Pittsburgh	C9L300000341B	INTRA-LAB BLANK	WATER	12/22/2009	8:40	12/30/2009	C9L230421	460-00-4	4-Bromofluorobenzene	103			PERCENT		1	SW846 8260B
estAmerica Pittsburgh	C9L300000341C	CHECK SAMPLE	WATER	12/22/2009	8:40	12/30/2009	C9L230421	71-43-2	Benzene	39.4	0.99		ug/L	5	1	SW846 8260B
estAmerica Pittsburgh	C9L300000341C	CHECK SAMPLE	WATER	12/22/2009	8:40	12/30/2009	C9L230421	108-88-3	Toluene	40.2	0.85		ug/L	5	1	SW846 8260B
estAmerica Pittsburgh	C9L300000341C	CHECK SAMPLE	WATER	12/22/2009	8:40	12/30/2009	C9L230421	79-01-6	Trichloroethene	38.5	0.8		ug/L	5	1	SW846 8260B
estAmerica Pittsburgh	C9L300000341C	CHECK SAMPLE	WATER	12/22/2009	8:40	12/30/2009	C9L230421	17060-07-0	1,2-Dichloroethane-d4	97			PERCENT		1	SW846 8260B
estAmerica Pittsburgh	C9L300000341C	CHECK SAMPLE	WATER	12/22/2009	8:40	12/30/2009	C9L230421	2037-26-5	Toluene-d8	96			PERCENT		1	SW846 8260B
estAmerica Pittsburgh	C9L300000341C	CHECK SAMPLE	WATER	12/22/2009	8:40	12/30/2009	C9L230421	1868-53-7	Dibromofluoromethane	95			PERCENT		1	SW846 8260B
estAmerica Pittsburgh	C9L300000341C	CHECK SAMPLE	WATER	12/22/2009	8:40	12/30/2009	C9L230421	460-00-4	4-Bromofluorobenzene	97			PERCENT		1	SW846 8260B
estAmerica Pittsburgh	C9L300000341C	CHECK SAMPLE	WATER	12/22/2009	8:40	12/30/2009	C9L230421	108-90-7	Chlorobenzene	40.1	0.53		ug/L	5	1	SW846 8260B
estAmerica Pittsburgh	C9L300000341C	CHECK SAMPLE	WATER	12/22/2009	8:40	12/30/2009	C9L230421	75-35-4	1,1-Dichloroethene	37	1.1		ug/L	5	1	SW846 8260B
estAmerica Pittsburgh	C9L310000043B	INTRA-LAB BLANK	WATER	12/22/2009	10:00	12/31/2009	C9L230421	Q1083	Acidity	5	5	U	mg/L	5	1	SM20 2310B (4a)
estAmerica Pittsburgh	C9L310000043C	CHECK SAMPLE	WATER	12/22/2009	10:00	12/31/2009	C9L230421	Q1083	Acidity	256	5		mg/L	5	1	SM20 2310B (4a)



TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Form 26R

Lot #: C9L230458

Stephanie Eliason

Rnvironmental Coordination Srv 3237 US Hwy 19 Cochranton, PA 16314

TESTAMERICA LABORATORIES, INC.

Christina M. Kovitch Project Manager

January 26, 2010

METHODS SUMMARY

C9L230458

PARAMET	ER	ANALYTICAL METHOD	PREPARATION METHOD
Gamma S	pectroscopy - Cesium-137 & Hits	EPA 901.1 MOD	
Gross A	lpha/Beta by GFPC	SW846 9310 MOD	
Stronti	um 90 by GFPC	EML SR-03-RC MO	
Trace I	nductively Coupled Plasma (ICP) Metals	SW846 6010C	
Referen	"ENVIRONMENTAL MEASUREMENTS LABORATORY HASL-300 28TH EDITION, VOLUME I and II		
EPA	"EASTERN ENVIRONMENTAL RADIATION FACIL PROCEDURES MANUAL" US EPA EPA 520/5-8	A Marie Control of the state of	
SW846	"Test Methods for Evaluating Solid Was Methods", Third Edition, November 1986	0 M (1881)	cal

Tes., America chain of Custouy Record

THE LEADER IN ENVIRONMENTAL TESTING

COC ID: KOVITCHC19038-1194-2

T	es	tA	m	eri	ca	. 1	nc.
						, .	

TestAmerica Pittsburgh 301 Alpha Drive Pittsburgh, PA 15238 (412) 963-7058 (412) 963-2468 - fax

Project Information:	Form 26R			Quote #:	84855		Client: Atlas	99 MARANES 100		
Date: 12-32 C9 Project Manager:	John Collins			Carrier/Waybill #:			800 Ma	0 Mountain View Dr.		
Phone:	724-317-2293						Smithfie	eld 15478		
SAMP	LE ID	DATE/TIME	MATRIX	ВС	BOTTLE TYPE #		PRESERVATIVE	ANALYSIS		
GREENE COUN	ty Flau BACK	12/22/09 1000 AM	WATER	1LP	Plastic -1 Liter	1	None	WATER, Addity, T-ALK, Cond, TDS, TSS		
1	1	100 - 1 rawn	WATER	1LAG	Glass - 1 Liter Amber	2	Hydrochloric Acid	WATER, 1664A HEM, O&G		
1			WATER	250P	Plastic - 250mL	1	Nitric Acid	WATER, 2340C, T-Hardness		
(-)			WATER	500P	Plastic - 500mL (16oz)	1	Sulfuric Acid	WATER, 351.2 TKN TA Nashville		
/			WATER	250AG	Glass - 250mL (8oz)	1	Sulfuric Acid	WATER, 420.4, Total Phenolics		
/			WATER	1LP	Plastic -1 Liter	1	None	WATER, 425.1 MBAS TA Nashville		
1			WATER	1LP	Plastic -1 Liter	1	None	WATER, 5210B, BOD		
			WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B Diss-Metal (Fe Only)		
			WATER	500P	Plastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B T-Metals+ HG (26R List)		
	-		WATER	1LP	Plastic -1 Liter	1	Nitric Acid	WATER, 6010C Metals U,Th,Sr		
/			WATER	w	Glass - 40mL Vial	2	Hydrochloric Acid	WATER, 8015 Ethylene Glycol TA Buffalo		
			WATER	W	Glass - 40mL Vial	3	Hydrochloric Acid	WATER, 8260B, VOA (B&T only)		
			WATER	1LP	Plastic -1 Liter	1	None	WATER, Br,CI,NOZ, NO3,SO4		
			WATER	500P	Plastic - 500mL (16oz)	1	Sulfuric Acid	WATER Ammonia Nitrogen, COD		
GREENE COUNTY	HON BACK	12-22-09 300PM	WATER	1GP	Plastic - 1 Gallon	1	None	WATER. Gamma Emitters Cesium Grass Alpha Beta		
Special Requirements:					(*****					
Possible Hazard Identification	Non-Hazard	Flammable Skin Irritant	Poison B	Unknown San	nple Disposal; Return to Clien	it [Disposal by Lab	Archive for Months (A fee may apply if samples an retained longer than 3 months)		
Turn Around Time Required:	Normal	Rush Other	QC Level:	1 0 0	Project Specific Requirements (S	Specify):	-			
Whe Care	Equisfed by Carrie			109 300 PM				Date/Time:		
Relinquished by:	linquished by:				Received by:			Date/Time:		
Relinquished by:			Date/Time:		Received by:		C	0ate/mmd 3/09 9		
Comments:					7		1	7-7-1-1		

THE LEADER IN ENVIRONMENTAL TESTING

COC ID: KOVITCHC19038-1194-2

restAmerica, inc.

TestAmerica Pittsburgh 301 Alpha Drive Pittsburgh, PA 15238 (412) 963-7058 (412) 963-2468 - fax

Project Information:	Form 26R				Quote #:	84855			Client: Atlas		# ****
Date: 12.21-69					Carrier/Waybill #				800	Mountain View Dr.	
Project Manager:	John Collins		-								
Phone:	724-317-2293								1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	hfield	
				37.7					PA		15478
SAMP	LE ID	DAT	E/TIME	MATRIX	- E	OTTLE T	YPE	#	PRESERVATI	VE ANAL	YSIS
Westmoreland	Flow BA	CK 12/21/09	1030A4	WATER	1LP		Plastic -1 Liter	1	None	WATER, Acidity, T-ALK,	Cond,TDS,TSS
1	1	1	1	WATER	1LAG	G	Blass - 1 Liter Amber	2	Hydrochloric A	cid WATER, 1664A HEM, OS	kG .
	1		11	WATER	250P		Plastic - 250mL	1	Nitric Acid	WATER, 2340C, T-Hardn	ess
				WATER	500P	PI	astic - 500mL (16oz)	1	Sulfuric Acid	WATER, 351.2 TKN TA	Nashville
		/ /	. /	WATER	250AC	3 6	Glass - 250mL (8oz)	1	Sulfuric Acid	WATER, 420.4, Total Phe	enolics
	11			WATER	1LP		Plastic -1 Liter	1	None	WATER, 425.1 MBAS T	A Nashville
	11			WATER	1LP		Plastic -1 Liter	1	None	WATER, 5210B, BOD	######################################
	1	1		WATER	500P	PI	astic - 500mL (18oz)	1	Nitric Add	WATER, 6010B Diss-Me	tal (Fe Only)
	1			WATER	500P	PI	astic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B T-Metals	+ HG (26R List)
	11	11.	1.	WATER	1LP		Plastic -1 Liter	1	Nitric Acid	WATER, 6010C Metals	U,Th,Sr
				WATER	W		Glass - 40mL Vlal	2	Hydrochloric A	cld WATER, 8015 Ethylene (Slycol TA Buffalo
				WATER	vv	- 1	Glass - 40mL Vial	3	Hydrochloric A	dd WATER, 8260B, VOA (B	&T only)
				WATER	1LP		Plastic -1 Liter	1	None	WATER, Br,CI,NO2, ND3,	S04
1				WATER	500P	PI	astic - 500mL (16oz)	1	Sulfurio Acid	WATER,Ammonia Nitroge	en, COD
WESTMORELANC	I Flow BA	CK 12/21/09	1030AM	WATER	1GP		Plastic - 1 Gallon	1	None	WATER, Gamma Emitten	s Cesium Grass Alpha Beta
Special Requirements:	-										
Possible Hazard Identification	Non-Hazard	Flammable	Skin Irritant	Paison B	Unknown S	emple Dispo	sal: Return to Clien		Disposal by Lab	Archive for Months	(A fee may apply if samples are retained longer than 3 months)
Turn Around Time Required:	Normal	Rush	Other	QC Level:	1_0	III Project	t Specific Requirements (S	pedfy):			
Reinquistred By:	ceis			Date/Time:	67 2:000	Receiv	red by:				Date/Time:
Refinquished by:	ur-,			Date/Time:		Receiv	ed by:		_		Deta/Time:
Relinquished by:				Date/Time:		Receiv	ed by.	3	20	4-1	Date Tirle: 12 /23/09 988
Comments:							-				referred 1



Chain of Custouy Record

THE LEADER IN ENVIRONMENTAL TESTING

COC ID: KOVITCHC19038-1194-2

restamenta, inc.

TestAmerica Pittsburgh 301 Alpha Drive Pittsburgh, PA 15238 (412) 963-7058 (412) 963-2468 - fax

Project Information:	Form 26R			Quote #:	84855			Client: A	Atlas	Client: Atlas 800 Mountain View Dr.				
Date: 12-22-09				Carrier/Waybill #:		-		8	300 Mos	untain View Dr.				
Project Manager:	John Collins							- 11						
Phone:	724-317-2293								Smithfie PA	eld	15478			
											13476			
SAME	PLE ID	DATE/TIME	MATRIX	Bo	TTLE TY	PE	#	PRESERV	VATIVE	ANAL	YSIS			
WAShington Co	runty Flow Back	12-22-09 1000AH	WATER	1LP		Plastic -1 Liter	1	None	e	WATER, Addity, T-ALK,	Cond,TDS,TSS			
			WATER	1LAG	Gla	ss - 1 Liter Amber	2	Hydrochlor	ric Acld	WATER, 1664A HEM, O	\$G			
			WATER	250P		Plastic - 250mL	1	Nitric A	Acid	WATER, 2340C, T-Hardr	ness			
			WATER	500P	Plas	tlc - 500mL (16oz)	1	Sulfuric	Acid	WATER, 351.2 TKN TA	Nashville			
			WATER	250AG	Gla	ss - 250mL (8oz)	1	Sulfuric.	Acid	WATER, 420.4, Total Pho	enolics			
			WATER	1LP		Plastic -1 Liter	1	None	e	WATER, 425.1 MBAS T	A Nashville			
			WATER	1LP		Plastic -1 Liter	1	None	e	WATER, 5210B, BOD				
			WATER	500P	Plas	tic - 500mL (16oz)	1	Nitric A	Acid	WATER, 6010B Diss-Me	tal (Fe Only)			
			WATER	500P	Plas	tic - 500mL (16oz)	1	Nitric A	Acid	WATER, 6010B T-Metals	+ HG (26R List)			
			WATER	1LP		Plastic -1 Liter	1	Nitric A	Acid	WATER, 6010C Metals	U,Th,Sr			
			WATER	VV	G	lass - 40mL Vial	2	Hydrochlor	ric Acid	WATER, 8015 Ethylene	Glycol TA Buffalo			
			WATER	w	G	lass - 40mL Vial	3	Hydrochlor	nic Acid	WATER, 8260B, VOA (6	&T only)			
			WATER	1LP		Plastic -1 Liter	1	None	e	WATER, Br.Cl, NO2, NO3,	S04			
			WATER	500P	Plas	tic - 500mL (16oz)	1	Sulfuric	Acid	WATER, Ammonia Nitrog	en, COD			
WAShing for Co	why Plan BACK	12-22-09 JOCO AM	WATER	1GP	P	lastic - 1 Gallon	1	None	e	WATER, Gamma Emitter	s Ceslum Grass Alpha Beta			
Special Requirements:											*			
Possible Hazard Identification	n: Non-Hazard	Flammable Skin Irritant	Poison B	Unknown Sa.	mple Dispose	Return to Clien		Disposel by L	ab [Archive for Month	(A fee may apply if samples are retained longer than 3 months)			
Turn Around Time Required:	Normal	Rush Other	QC Level:	111	Project S	pacific Requirements (S	pecify):							
Removies by: Call	in		Date/Tigre:	19 BOOPH	Received	t by:		4 91			Dats/Time:			
Relinquished by:			Date/Time:		Received	t by:		7		>	Date/Time:			
Relinquished by:			Date/Time:		Received	l by:	-	K		5	Date/Time/23/09 9 4			
Comments:											1-1-1-1			



COC ID: KOVITCHC19038-1194-2

lestAmerica, inc.

TestAmerica Pittsburgh 301 Alpha Drive Pittsburgh, PA 15238 (412) 963-7058 (412) 963-2468 - fax

Project Information:							T		Client: Atla	ratios			
Date: 12-21-09					Carrier/Waybill #:		<u></u>		800	Mountain View Dr.			
Project Manager:	John Collins												
Phone:	724-317-2293								Sm PA	ithfield	R		
SAMP	PLE ID		ATE/TIME	MATRIX	В	OTTLET	PE	#	PRESERVAT	IVE ANALYSIS			
WESTMORELAN	d PROduction	Bane	12-21-0	9 10 COST	1LP	-10	Plastic -1 Liter	1	None	WATER, Acidity, T-ALK, Cond, TDS, TSS			
5	1	1	1	WATER	1LAG	GI	ass - 1 Liter Amber	2	Hydrochloric /	Acid WATER, 1864A HEM, O&G			
	1		1	WATER	250P		Plastic - 250mL	1	Nitric Acid	WATER, 2340C, T-Hardness			
				WATER	500P	Pla	stic - 500mL (16oz)	1	Sulfuric Aci	WATER, 351.2 TKN TA Nashville			
		1	1	WATER	250AG	GI	ass - 250mL (8oz) Amber	1	Sulfuric Aci	d WATER, 420.4, Total Phenolics			
		/		WATER	1LP		Plastic -1 Liter	1	None	WATER, 425.1 MBAS TA Nashville			
		/	1	WATER	1LP		Plastic -1 Liter	1	None	WATER, 5210B, BOD	-1-		
				WATER	500P	Pla	stic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B Diss-Metal (Fe Only)			
			1	WATER	500P	Pla	stic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B T-Metals+ HG (26R List)			
		1		WATER	1LP		Plastic -1 Liter	1	Nitric Acid	WATER, 5010C Metals U,Th,Sr			
				WATER	W	-	Glass - 40mL Vial	2	Hydrochloric	Acid WATER, 8015 Ethylene Glycol TA Buffalo			
		/	1	WATER	W	-	Blass - 40mL Vial	3	Hydrochloric A	Acid WATER, 8260B, VOA (B&T only)			
-		/	/	WATER	1LP		Plastic -1 Liter	1	None	WATER, Br,CI,N02, N03,S04			
		(1	WATER	500P	Pla	stic - 500mL (16oz)	1	Sulfuric Aci	d WATER.Ammonia Nitrogen, COD			
WESTMARELAND	Production Be	WE 12.	1-09 10:0	WATER WATER	1GP		Plastic - 1 Gallon	1	None	WATER, Gamma Emitters Cesium Grass Alph	ia Beta		
Special Requirements:							100						
Possible Hazard Identification	Non-Hezard	Flemmable	Skin Irrit	ant Poison B	Unknown Sa	mple Dispos	Return to Cilen		Disposal by Lab	Archive for Months (A fee may apply if san retained longer than 3	mples are		
Turn Around Time Required:	Normal	Rush	Other_	OC Level:	_11_	III Project	Specific Requirements (S	ipecify):			II .		
Religionation Con	wis			Date/Time	07 1:00P	Receive	d by:		(0.05-0)	Date/Time:			
Resignatished by:	industrial by:			Date/Time					Date/Time:				
Relinquished by:				Date/Time		Receive	d by:	2	10	Date/Tiple: 12/23/09	90		
Comments:							-			> 19-19-1	1		



THE LEADER IN ENVIRONMENTAL TESTING

COC ID: KOVITCHC19038-1194-2

l'estamenta, mo. TestAmerica Pittsburgh 301 Alpha Drive

Pittsburgh, PA 15238 (412) 963-7058 (412) 963-2468 - fax

Project Information:	Form 26R			Quote #:	84855	1		Client	Atlas		
Date: 12.22-09				Cerrier/Waybill #:		- L			800 Mot	untain View Dr.	
Project Manager:	John Collins							- 4			
Phone:	724-317-2293								Smithfie	ld	
									PA	154	178
SAME	PLE ID	DATE/TIME	MATRIX	ВС	TTLE TY	PE	#	PRESE	RVATIVE	ANALYSIS	sar-
FANETHE COUNTY	Flow BACK	12-22-09 1000 AH	WATER	1LP		Plastic -1 Liter	1	No	one	WATER, Acidlty, T-ALK, Cond, TDS, TSS	
7-11-1	1100		WATER	1LAG	Gla	ass - 1 Liter Amber	2	Hydroch	loric Acid	WATER, 1664A HEM, O&G	
			WATER	250P		Plastic - 250mL	1	Nitric	Acid	WATER, 2340C, T-Hardness	
			WATER	500P	Pla	stic - 500mL (16oz)	1	Sulfur	fc Acid	WATER, 351.2 TKN TA Nashville	
			WATER	250AG	Gl	ass - 250mL (Boz)	1	Sulfur	ic Acid	WATER, 420.4, Total Phenolics	
			WATER	1LP		Plastic -1 Liter	1	No	one	WATER, 425.1 MBAS TA Nashville	
			WATER	1LP	a E	Plastic -1 Liter	1	No	one	WATER, 5210B, BOD	
			WATER	500P	Pla	stic - 500mL (16oz)	1	Nitric	Acid	WATER, 6010B Diss-Metal (Fe Only)	
			WATER	500P	Pla	stic - 500mL (16oz)	1	Nitrio	Acid	WATER, 6010B T-Metals+ HG (26R List)	
			WATER	1LP		Plastic -1 Liter	1	Nitric	Acid	WATER, 6010C Metals U,Th,Sr	
			WATER	w	0	ilass - 40ml. Vial	2	Hydroch	loric Acld	WATER, 8015 Ethylene Glycol TA Buffalo	
			WATER	W	0	ilass - 40mL Vial	3	Hydroch	loric Acid	WATER, 8260B, VOA (8&T only)	
			WATER	1LP		Plastic -1 Liter	1	No	one	WATER, Br,CI,N02, N03,S04	
			WATER	500P	Pla	stic - 500mL (16oz)	1	Sulfur	ic Acid	WATER,Ammonia Nitrogen, COD	
FAYETTE COUNTY	HOW BACK	12-22-09 1060 AM	WATER	1GP	F	Plastic - 1 Gallon	1	No	one	WATER, Gamma Emitters Cesium, Grass A	lpha Beta
Special Requirements:			-11-							- N	
Possible Hazard Identification	n: Non-Hazard	Flammable Skin Irritard	Poison 8	Unknown Ser	nple Disposi	/: Return to Clien		Disposal by	y Lab	Archive for Months (A fee may apply if retained longer than	samples an
Turn Around Time Required:	Nomai	Rush Other	QC Level:	_111	Project :	Specific Requirements (S	pecify):				
Relinquished of An	Caccini		Date/Time:	-09 /1000 PM	Receive	d by:				Date/Time:	
Relinquished by:			Date/Time:	/	Receive	d by:			_	Date/Time:	
Relinquished by:			Date/Time:		Receive	d by:	7	. C	1	Date/Time/	99
Comments:			-		-	H	_	_		8	

Tesi, merica chain of Custouy Record

COC ID: KOVITCHC19038-1194-2

resummerica, mc. TestAmerica Pittsburgh 301 Alpha Drive Pittsburgh, PA 15238 (412) 963-7058 (412) 963-2468 - fax

Project Information:	Form 26R			Quote #:	84855			Client: Atlas	
ate: 12/22/09 roject Manager:	John Collins			Carrier/Waybill	# .			the same of the sa	untain View Dr.
hone:	724-317-2293							Smithfie PA	eld 15478
SAMP	LEID	DATE/TIME	MATRIX		BOTTLE	TYPE	#	PRESERVATIVE	ANALYSIS
FAYEHE	County-Bring	12/22/09-10:00 AM	WATER	1LP		Plastic -1 Liter	1	None	WATER, Addity, T-ALK, Cond, TDS, TSS
1	- viny diffe	7	WATER	1LA	G (Glass - 1 Liter Amber	2	Hydrochloric Acid	WATER, 1664A HEM, O&G
			WATER	250	9	Plastic - 250mL	1	Nitric Acid	WATER, 2340C, T-Hardness
)			WATER	5008	p p	lastic - 500mL (16oz)	1	Sulfuric Acid	WATER, 351.2 TKN TA Nashville
i i			WATER	250A	G (Glass - 250mL (8oz)	1	Sulfuric Acid	WATER, 420.4, Total Phenolics
1			WATER	1LP		Plastic -1 Liter	1	None	WATER, 425.1 MBAS TA Nashville
			WATER	1LP		Plastic -1 Liter	1	None	WATER, 5210B, BOD
i)	WATER	5001	P	lastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B Diss-Metal (Fe Only)
			WATER	500	P P	lastic - 500mL (16oz)	1	Nitric Acid	WATER, 6010B T-Metals+ HG (26R List)
1			WATER	1LP		Plastic -1 Liter	1	Nitric Acid	WATER, 6010C Metals U,Th,Sr
(1	WATER	W		Glass - 40mL Vial	2	Hydrochloric Acid	WATER, 8015 Ethylene Glycol TA Buffalo
			WATER	w		Glass - 40mL Vial	3	Hydrochloric Acid	WATER, 8260B, VOA (B&T only)
5			WATER	1LP		Plastic -1 Liter	1	None	WATER, Br,CI,N02, N03,S04
1		2	WATER	5008	Р	lastic - 500mL (16oz)	1	Sulfuric Acid	WATER,Ammonia Nitrogen, COD
		7	WATER	1GP	2	Plastic - 1 Gallon	1	None	WATER, Gamma Emitters Cesium Grass Alpha Beta
pecial Requirements:						1-		-	1 10
ssible Hazard Identification	Non-Hazard	Flammable Skin Irritant	Poison B	Unknown	Sample Dispo	Ketom to Cherk		Disposal by Lab	Archive for Months (A fee may apply if samples a retained longer than 3 months
n Around Time Required;	Normal F	Rush Other	QC Level:	_11	_III Projec	t Specific Requirements (S	pecify):		
inquished by:	no Time		Date/Time:	04/3:008	A Recei	ved by:			Date/Time;
inquished by:	0		Date/Time:			ved by:		20	Date/Time:
finquished by:			Date/Time:		Para	ved by:	1	//	Date/Time/



THE LEADER IN ENVIRONMENTAL TESTING

COC ID: KOVITCHC19038-1194-2

1	es	LA	m	eri	ca	 nc.
-						

TestAmerica Pittsburgh 301 Alpha Drive Pittsburgh, PA 15238 (412) 963-7058 (412) 963-2468 - fax

Project Information:	Form 26R				Quote #:	84855	7		Client: A	Atlas 800 Mountain View Dr.			
Date: 12:22:09					Camer/Waybill #				8	00 Mo	untain View Dr.		
Project Manager.	John Collins												
Phone:	724-317-2293		-						1.5	mithfie	eld	7536	
									P	A		15478	
SAMP	PLEID	DATE/	TIME	MATRIX	E	OTTLE TY	PE	#	PRESERV	ATIVE	ANAL	YSIS	
GROOME CHONES	/ Reduction BriNe	12-22-19	IDIODAH	WATER	1LP		Plastic -1 Liter	1	None	9	WATER, Acidity, T-ALK,	Cond,TDS,TSS	
-	7,0000,000	1	70.00	WATER	1LAG	GI	sss - 1 Liter Amber	2	Hydrochlor	ic Acid	WATER, 1664A HEM, OR	iG -	
	\			WATER	250P		Plastic - 250mL	1	Nitric A	cid	WATER, 2340C, T-Hardri	ess	
	1	-		WATER	500P	Pla	stic - 500mL (16oz)	1	Sulfuric	Acid	WATER, 351.2 TKN TA	Nashville	
				WATER	250AC	GI	ass - 250mL (8oz)	1	Sulfuric	Acid	WATER, 420.4, Total Phe	nolics	
		1		WATER	1LP		Plastic -1 Liter	1	None		WATER, 425.1 MBAS T	A Nashville	
				WATER	1LP		Plastic -1 Liter	1	None		WATER, 5210B, BOD		
		1		WATER	500P	Pla	stic - 500mL (16oz)	1	Nitric A	dd	WATER, 6010B Diss-Me	tal (Fe Only)	
1		1		WATER	500P	Pla	stic - 500mL (16oz)	1	Nitric A	cld	WATER, 6010B T-Metals	+ HG (26R List)	
			1	WATER	1LP		Plastic -1 Liter	1	Nitric A	cid	WATER, 6010C Metals	U,Th,Sr	
		/	/	WATER	W	(Slass - 40mL Vial	2	Hydrochlor	ic Acid	WATER, 8015 Ethylens	Glycol TA Buffalo	
		1		WATER	w	(Glass - 40mL Vial	3	Hydrochlor	ic Acid	WATER, 8260B, VOA (B	&T only)	
				WATER	1LP	- 1	Plastic -1 Liter	1	None	9	WATER, Br,CI,N02, N03,	S04	
				WATER	500P	Pla	stic - 500mL (16oz)	1	Sulfuric	Acid	WATER, Ammonia Nitroge	en, COD	
Greene County PA	eduction Beine	13.33.09	10:00 AM	WATER	1GP		Plastic - 1 Gallon	1	None	3	WATER. Gamma Emitter	s Ceslum Grass Alpha Beta	
Special Requirements:				-				-					
Possible Hezard Identification	Non-Hazard	Flammable	Skin Irritant	Poison B	Unknown S	ample Disposi	Return to Clien		Disposal by L	ab [Archive for Months	(A fee may apply if samples are retained longer than 3 months)	
Tum Around Time Required:	Normal	Rush	Other	QC Level:	11	III Project	Specific Requirements (S	(pecify):				Y	
Relinguished by	cenis			Date/Time:	09 300 A	Receive	d by:					Date/Time:	
Relinguished by:				Date/Time:		Receive	f by:			7		Dale/Time:	
Relinquished by:	iquished by:			Date/Time:	Date/Time: Received by.				Detertime/ 3/09 9				
Comments:								_			8	1-1-4-1	

C9L230458

INTER-COMPANY CHAIN OF CUSTODY

COMMENTS:

Project Manager:

Chris Kovitch

Project: Report Type:

B1 Std Rep - CD only

Form 26R

Date Received:

2009-12-23

Analytical Due Date:

2010-01-22

Report Due Date: 2010-01-22

367970 - Cash in Advance / Prepaid Sales lent WORK LOCATION: 06 TestAmerica St. Louis ADDRESS: 13715 Rider Trail North Earth City MO 63045 CLIENT ID: GREENE COUNTY FLOW BACK 1 DATE/TIME SAMPLED: 20091222 1000 SMP# 1 MATRIX: 1 WATER SAMPLE COMMENT METHOD: Gemma Cs-137 & Hits by EPA 901.1 MOD ZI EPA 901.1 MOD

METHOD:

EXTRACTION:

G7

Direct Addition of Sample to Geometry

QC TYPE: 01 STANDARD TEST SET

WORKORDER LRJT71AH

EXTRACTION:

SW846 ZA

8310 MOD Evaporative Preparation, Total GROSS A/B BY GFPC 5W846 9310 MOD

QC TYPE: 01 STANDARD TEST SET

WORKORDER LRJT71AC METAL: XX

METHOD: EXTRACTION:

SW846 15 GJ METALS, TOTAL - 2% HCL

6010C

Inductively Coupled Plasma (6010C Trace)

OC TYPE: 01 STANDARD TEST SET

WORKORDER LRJT71AE

WORKORDER LRJT71AF WORKORDER LRJT71AD

METAL: METAL: SR

METAL:

TH

UX

METAL: XX

METHOD: ZV EXTRACTION: RA

RAD SCREEN IN-HOUSE RAD SCREEN

RAD SCREEN

OC TYPE: 01 STANDARD TEST SET

WORKORDER LRJT71AG

METAL: XX

METAL: XX

METAL: XX

METAL: XX

SR

UX

METAL:

METAL:

METAL:

METHOD: EXTRACTION:

ZK

SR-03-RC MOD Strontium-90 by GFPC DOE SR-03-RC MOD Precipitate, Separation

OC TYPE: 01

STANDARD TEST SET

WORKORDER

LRJT71AA

SMP# 2

CLIENT ID: WESTMORELAND FLOW BACK

DATE/TIME SAMPLED: 20091221

1030

MATRIX: I WATER

SAMPLE COMMENT

METHOD: EXTRACTION: 27 G7

901.1 MOD Direct Addition of Sample to Geometry

Gamma Cs-137 & Hits by EPA 901.1 MOD

QC TYPE: 01 STANDARD TEST SET

METHOD:

ZA SW846

EPA

9310 MOD

LRJVE1AH

GROSS A/B BY GFPC SW846 9310 MOD

EXTRACTION:

FR

Evaporative Preparation, Total

LRJVE1AC

OC TYPE: 01 STANDARD TEST SET

METHOD:

15 SW846

6010C

Inductively Coupled Plasma (6010C Trace)

EXTRACTION:

GJ

METALS, TOTAL - 2% HCL

QC TYPE: 01 STANDARD TEST SET

WORKORDER WORKORDER

WORKORDER

WORKORDER

WORKORDER

LRJVE1AD LRJVE1AF

LRJVE1AG

WORKORDER LRJVE1AE

METHOD: EXTRACTION: ZV RA

RAD SCREEN IN-HOUSE RAD SCREEN

OC TYPE: 01 STANDARD TEST SET

METHOD:

EML ZK

SR-03-RC MOD Strontium-90 by GFPC DOE SR-03-RC MOD

RAD SCREEN

METAL: XX

TestAmerica Pillsburgh

printed on:

Wednesday, December 23, 2009 01:49 PM

Page 1

INTER-COMPANY CHAIN OF CUSTODY C9L230458 COMMENTS: Date Received: 2009-12-23 Chris Kovitch Project Manager: Analytical Due Date: 2010-01-22 Project: Form 26R Report Due Date: 2010-01-22 Std Rep - CD only Report Type: 367970 - Cash in Advance / Prepaid Sales Kent EXTRACTION: QC TYPE: 01 STANDARD TEST SET FX Precipitate, Separation WORKORDER LRJVE 1AA METAL: XX SMP# 3 CLIENT ID: WASHINGTON COUNTY FLOW BACK DATE/TIME SAMPLED: 20091222 1000 MATRIX: I WATER SAMPLE COMMENT METHOD: EPA 901.1 MOD Gamma Cs-137 & Hits by EPA 901.1 MOD **Z7** QC TYPE: 01 STANDARD TEST SET EXTRACTION: **G7** Direct Addition of Sample to Geometry WORKORDER **LRJVJ1AH** METAL: XX METHOD: GROSS A/B BY GFPC SW846 9310 MOD SW846 9310 MOD Evaporative Preparation, Total QC TYPE: 01 STANDARD TEST SET EXTRACTION: FR WORKORDER **LRJVJ1AC** METAL: XX METHOD: SW846 6010C Inductively Coupled Plasma (6010C Trace) 15 METALS, TOTAL - 2% HCL EXTRACTION: GJ OC TYPE: 01 STANDARD TEST SET **LRJVJ1AD** WORKORDER METAL: SR WORKORDER **LRJVJ1AE** METAL: TH WORKORDER **LRJVJ1AF** METAL: UX METHOD: RAD SCREEN RAD SCREEN ZV EXTRACTION: RA IN-HOUSE RAD SCREEN QC TYPE: 01 STANDARD TEST SET WORKORDER LRJVJ1AG METAL: XX METHOD: SR-03-RC MOD Strontium-90 by GFPC DOE SR-03-RC MOD ZK EML EXTRACTION: FX Precipitate, Separation QC TYPE: 01 STANDARD TEST SET WORKORDER **LRJVJ1AA** METAL: XX SMP# 4 CLIENT ID: WESTMORELAND PRODUCTION BRIN DATE/TIME SAMPLED: 20091221 1000 MATRIX: 1 WATER SAMPLE COMMENT METHOD: **EPA** 901.1 MOD Gamma Cs-137 & Hits by EPA 901.1 MDD **Z7** Direct Addition of Sample to Geometry QC TYPE: 01 STANDARD TEST SET EXTRACTION: **G7** LRJVL1AH WORKORDER METAL: XX METHOD: SW848 9310 MOD GROSS A/B BY GFPC SW846 9310 MOD ZA EXTRACTION: FR Evaporative Preparation, Total QC TYPE: D1 STANDARD TEST SET WORKORDER LRJVL1AC METAL: XX METHOD: 15 SWB46 6010C Inductively Coupled Plasma (5010C Trace) METALS, TOTAL - 2% HCL OC TYPE: 01 STANDARD TEST SET EXTRACTION: GJ LRJVL1AE WORKORDER METAL: TH WORKORDER LRJVL1AD METAL: SR WORKORDER LRJVL1AF METAL: UX METHOD: RAD SCREEN RAD SCREEN ZV EXTRACTION: RA IN-HOUSE RAD SCREEN QC TYPE: 01 STANDARD TEST SET WORKORDER LRJVL1AG METAL: XX

TaciAmarina Piltchumh

METHOD:

EXTRACTION:

EML

Precipitate, Separation

ZK

printed on: Wednesday December 23 2009 01:49 PM

SR-03-RC MOD Strontium-90 by GFPC DOE SR-03-RC MOD

QC TYPE: 01 STANDARD TEST SET

Page 2

C9L230458

INTER-COMPANY CHAIN OF CUSTODY

COMMENTS:

Report Type:

Project Manager:

Chris Kovitch

Project:

Form 26R

B1 Std Rep - CD only

Date Received:

2009-12-23

Analytical Due Date:

2010-01-22

Report Due Date:

2010-01-22

			WORKOR	DER	LRJVL	IAA				+1	METAL:	XX
SMP# 5	CLIENT ID: FA		COUNTY FLO	W BAC	K 2	A	SAMPLED: 200	113	amal		WAT	-
	METHOD: EXTRACTION:	Z7 G7	EPA Direct Addi	tion of S	MOD ample to 0	Seometry	OC TYPE:	EPA	V		METAL:	хх
44P P	METHOD: EXTRACTION:	ZA FR	SW846 Evaporative WORKOR		110000	1	VB BY GFPC SV QC TYPE:		310 MOD STANDARD TEST S	SET	METAL:	xx
5101	METHOD; EXTRACTION:	1\$ GJ	SW846 METALS, T				ly Coupled Plas		010C Trace) STANDARD TEST S			307
			WORKOR	DER	LRJVN1	IAE					METAL: METAL:	ТН
	METHOD: EXTRACTION:	ZV RA	IN-HOUSE WORKOR	RAD SC	SCREEN CREEN LRJVN1	RAD SCR	CC TYPE:	01	STANDARD TEST S	BET	METAL:	
	Office Resource											
	METHOD: EXTRACTION:	ZK FX	Precipitate, WORKORI	Separa			90 by GFPC DO QC TYPE:		-03-RC MOD STANDARD TEST S		METAL:	xx
SMP# 6	# 1.75 m 10 to 11 to 12	FX YETTE (Precipitate, WORKORI	Separa DER	lion LRJVN1	IAA		01	STANDARD TEST S			_
HP	EXTRACTION: CLIENT ID: FA	FX YETTE (Precipitate, WORKORI	Separal DER NE 901.1	lion LRJVN1	DATE/TIME Gamma Comelry	QC TYPE:	01 91222 EPA	STANDARD TEST S 1000 MAT	RIX: 1		ER.
HP.	CLIENT ID: FA' SAMPLE COMME METHOD:	YETTE C	Precipitate, WORKORI COUNTY BRIM EPA Direct Addit	Separal DER 901.1 lion of Si DER 9310 M	MOD LRJVQ1 MOD LRJVQ1 MOD ation, Total	Gamma Commetry AH GROSS A	OC TYPE: SAMPLED: 200 Sa-137 & Hits by OC TYPE:	01 91222 EPA 1 01	STANDARD TEST S 1000 MAT 01.1 MOD STANDARD TEST S	RIX: 1	WATI	ER XX
u.P	CLIENTID: FA' SAMPLE COMME METHOD: EXTRACTION: METHOD:	YETTE CENT Z7 G7	Precipitate, WORKORI COUNTY BRIM EPA Direct Addit WORKORI SW846 Evaporative WORKORI SW846 METALS, T	Separation of Score 9310 March 2008 6010C OTAL -	MOD Ample to G LRJVQ1 MOD Stion, Total LRJVQ1	Gamma Commetry AH GROSS A	SAMPLED: 200 Sa-137 & Hits by QC TYPE: VB BY GFPC SW QC TYPE:	01 91222 01 01 01	STANDARD TEST S 1 1000 MAT 1001.1 MOD STANDARD TEST S 310 MOD STANDARD TEST S	RIX: 1	METAL:	XX XX
u.P	EXTRACTION: CLIENT ID: FA' SAMPLE COMME METHOD: EXTRACTION: METHOD: EXTRACTION:	YETTE CENT Z7 G7 ZA FR	Precipitate, WORKORI COUNTY BRIM EPA Direct Addit WORKORI SW846 Evaporative WORKORI SW846	Separal DER 901.1 Lion of S. DER 9310 M Prepara 6010C OTAL - DER	MOD ample to G LRJVQ1 MOD ation, Total LRJVQ1 LRJVQ1 LRJVQ1 LRJVQ1 LRJVQ1	Gamma Commonly AH GROSS A AC Inductive	SAMPLED: 200 Sa-137 & Hits by QC TYPE: VB BY GFPC SW QC TYPE:	01 91222 01 01 01	STANDARD TEST S 1000 MAT 101.1 MOD STANDARD TEST S 310 MOD STANDARD TEST S	SET	METAL:	XX XX SR UX
SMP# 6	EXTRACTION: CLIENT ID: FA' SAMPLE COMME METHOD: EXTRACTION: METHOD: EXTRACTION:	YETTE CENT Z7 G7 ZA FR	Precipitate, WORKORI COUNTY BRIM EPA Direct Addit WORKORI SW846 Evaporative WORKORI SW846 METALS, T WORKORI WORKORI	Separal DER 901.1 Lion of S. DER 9310 A Prepara DER DER DER DER DER RAD S RAD S RAD S	MOD Ample to G LRJVQ1 LRJVQ1 LRJVQ1 LRJVQ1 LRJVQ1 LRJVQ1 LRJVQ1 LRJVQ1	Gamma Commetry AH GROSS A AC Inductive AD AF AE RAD SCRI	OC TYPE: SAMPLED: 200 Sa-137 & Hits by OC TYPE: VB BY GFPC SW OC TYPE: Iy Coupled Plass OC TYPE:	01 091222 01 01 01 01 01	STANDARD TEST S 1000 MAT 101.1 MOD STANDARD TEST S 310 MOD STANDARD TEST S	SET SET	METAL: METAL: METAL:	XX XX SR UX

COT. 22 NA SR

12

C9L230458

INTER-COMPANY CHAIN OF CUSTODY

COMMENTS:

Project Manager:

Chris Kovitch

Project:

367970 - Cash in Advance / Prepaid Sales

Report Type: Alent:

Std Rep - CD only **B1**

Form 26R

Precipitate, Separation WORKORDER

Date Received:

2009-12-23

Analytical Due Date:

2010-01-22

Report Due Date:

2010-01-22

			WORKORDE	R LRJVO	ITAA				METAL:	XX
SMP# 7	CLIENT ID: GR		COUNTY PRODU	CTION BRIN	DATE/TIME S	AMPLED: 2009	1222	1000 MATRIX) WAT	ER
	METHOD:	27	EPA 9	01.1 MOD	Gamma Cs	-137 & Hits by E	PA 901.	MOD		
	EXTRACTION:	G7	Direct Addition			OC TYPE:	01 S7	ANDARD TEST SET	METAL:	XX
	METHOD;	ZA	SW846 9	310 MOD	GROSS AM	BY GFPC SW8	46 9310	MOD		
	EXTRACTION:	FR	Evaporative Pr			QC TYPE:	01 ST	ANDARD TEST SET	2000000	
1.0			WORKORDE					4747	METAL:	XX
4	METHOD:	15		D10C	Inductively	Coupled Plasm				
P	EXTRACTION:	GJ	METALS, TOT	AL - 2% HCL		QC TYPE:	01 57	ANDARD TEST SET		
			WORKORDE	LRJVR	1AF				METAL:	UX
			WORKORDE	R LRJVR	IAE				METAL:	TH
			WORKORDE	B LRJVR	1AD				METAL:	SR
	METHOD:	ZV	R	AD SCREEN	RAD SCRE	EN				
	EXTRACTION:	RA	IN-HOUSE RA	D SCREEN		QC TYPE:	01 ST	ANDARD TEST SET		
			WORKORDER	RJVR	1AG				METAL:	XX
	METHOD:	ZK	EML S	R-03-RC MOD	Strontium-	0 by GFPC DOE	SR-03-	RC MOD		

The sample(s) listed on this form are being sent to your location for the specified analysis. If you have any questions, please contact the Project Manager listed above. PLEASE RETURN THE ORIGINAL SIGNED FORM WITH THE REPORT AT THE COMPLETION OF ANALYSIS.

LRJVR1AA

Thank You

TestAmerica Pittsburgh Sample Receiving

EXTRACTION:

RELINQUISHED BY:

RECEIVED FOR LAB BY:

OC TYPE: 01 STANDARD TEST SET

METAL: XX

Гe	stAme	erica Lot	#(s): _(C9/2309	458	
	EADER IN ENVIRONM		-			
0		PON RECEIPT FORM				
4	Quote No:	MA		297		
nitia	ated By:	W/	Da	to: 12:24.	09	Time: 0930
1.	oing # (s):* 43 42	edEx) UPS DHL Courier Clie	nt Ot	ormation her:	Sample Ten	nultiple Packages: Y N nperature (s):** Auentic & 12-24 19
						7
						8
						9
5.		10			The second second	ot, note contents below. Temperature
lum	bered shipping lines	correspond to Numbered Sample Temp lines				als-Liquid or Rad tests- Liquid or Solids
one	N N	for yes, "N" for no and "N/A" for not applicable): Are there custody seals present on the cooler?	8.	Y (N)	Are there cust	ody seals present on bottles?
	Y (N) N/A	Do custody scals on cooler appear to be tampered with?	9,	NNW	Do custody se tampered with	als on bottles appear to be
	OP N	Were contents of cooler frisked after opening, but before unpacking?	10.	Y N WA		eceived with proper pH'? (If not
	BN	Sample received with Chain of Custody?	11.	O N	Sample receiv	ed in proper containers?
. (9 N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	Y N WA	Headspace in (If Yes, note san	VOA or TOX liquid samples? pole ID's below)
	YO	Was sample received broken?	13.	YN N/A	Was Internal	COC/Workshare received?
_	ЙЙ	Is sample volume sufficient for analysis?	1	-		by original TestAmerica lab?
ote		ANI, Sandia) sites, pH of ALL containers received in	must be v	Carlot EXCEPT V	elest out	L #7
_		1 00		000		0.0 mlbe
		much sample		005	1 50	enal. Nev
					Christian	10 12:30-09
	ective Action:					
	Client Contact N Sample(s) proce			Informed by:		
3	Sample(s) on ho	ld until:	If rele	eased, notify:		10.0136

ADMIN-0004, REVISED 10/21/08 \Shart 1/QA\FORMS\ST-LOUIS\ADMIN\Admin\004 rev11.doc

SAMPLE SUMMARY

C9L230458

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LRJVE	002	WESTMORELAND FLOW BACK	12/21/09	10:30
LRJVJ	003	WASHINGTON COUNTY FLOW BACK	12/22/09	10:00
LRJVL	004	WESTMORELAND PRODUCTION BRINE	12/21/09	10:00
LRJVQ	006	FAYETTE COUNTY BRINE	12/22/09	10:00
LRJVR	007	GREENE COUNTY PRODUCTION BRINE 3	12/22/09	10:00
LRJVR		GREENE COUNTY PRODUCTION BRINE 3	12/22/09	10:

NOTE(S):

⁻ The analytical results of the samples listed above are presented on the following pages.

⁻ All calculations are performed before rounding to avoid round-off errors in calculated results.

⁻ Results noted as "ND" were not detected at or above the stated limit.

⁻ This report must not be reproduced, except in full, without the written approval of the laboratory.

⁻ Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Client Sample ID: WESTMORELAND FLOW BACK

TOTAL Metals

Lot-Sample #...: C9L230458-002

Date Sampled ... 12/21/09

Date Received..: 12/23/09

Matrix....: WATER

Date Sampled.	: 12/21/09	Date	Received.	.: 12/23/09	
		REPORTI	NG		PREPARATION- WORK
PARAMETER	RESULT	LIMIT	UNITS	METHOD	ANALYSIS DATE ORDER #
Prep Batch #.	: 0008078				
Strontium	562000 J	500	ug/L	SW846 6010C	01/08-01/12/10 LRJVB1AT
		Dilution Fa	ctor: 100	Analysis Time: 12:	09 MS Run # 0008074
		MDL	: 54.0		
Thorium	2620 B	4000	ug/L	SW846 6010C	01/08-01/12/10 LRJVK1AE
		Dilution Fa	ctor: 20	Analysis Time: 13:	38 MS Run #: 0008074
		MDL	: 712		
Uranium	ND	500	ug/L	SW846 6010C	01/08-01/11/10 LRJVE1AF
		Dilution Fa	ctor: 1	Analysis Time: 15:	11 MS Run #: 0008074
		MDL	23.5		

NOTE (S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

Client Sample ID: WASHINGTON COUNTY FLOW BACK

TOTAL Metals

Lot-Sample #...: C9L230458-003

Date Sampled...: 12/22/09

Date Received..: 12/23/09

Matrix....: WATER

		REPORTI	NG			PREPARATION-	WORK
PARAMETER	RESULT	LIMIT	UNITS	METHO	0	ANALYSIS DATE	ORDER #
Prep Batch #.	: 0008078						
Strontium	213000 J	250	ug/L	SW846	6010C	01/08-01/12/10	LRJVJ1AD
		Dilution Fa	ctor: 50	Analysis	Time 10:42	MS Run #	.: 0008074
		MDL	: 27.0				
Thorium	754 B	2000	ug/L	SW846	6010C	01/08-01/12/10	LRJVJ1AB
		Dilution Fa	ctor: 10	Analysis	Time: 10:27	MS Run #	.: 0008074
		MDL	: 356				
Uranium	ND	500	ug/L	SW846	6010C	01/08-01/11/10	LRJVJ1AF
		Dilution Fa	ctor: 1	Analysis	Time: 15:49	MS Run #	.: 0008074
		MDL	: 23.5				

NOTE (S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level

B Estimated result. Result is less than RL.

Client Sample ID: WESTMORKLAND PRODUCTION BRINE

TOTAL Metals

Lot-Sample #...: C9L230458-004 Matrix....: WATER

Date Sampled	: 12/21/09	Date	Received.	.: 12/23/0	19		
		REPORTIN	īG			PREPARATION-	WORK
PARAMETER	RESULT	LIMIT	UNITS	METHOI)	ANALYSIS DATE	ORDER #
Prep Batch #	: 0008078						
Strontium	5870000 J	5000	ug/L	SW846	6010C	01/08-01/12/10	LRJVL1AD
		Dilution Fac	tor: 1000	Analysis	Time: 17:21	MS Run #	.: 0008074
		MDL	: 540				
Thorium	35900 B	100000	ug/L	SW846	6010C	01/08-01/12/10	LRJVL1AR
		Dilution Fac	tor: 500	Analysis	Time: 14:19	MS Run #	.: 0008074
		MDL	: 17800				
Uranium	ND	500	ug/L	SW846	6010C	01/08-01/11/10	LRJVL1AF
		Dilution Fac	tor: 1	Analysis	Time: 15:56	MS Run #	.: 0008074
		MDL,	: 23.5				

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level-

B Estimated result. Result is less than RL.

Client Sample ID: FAYETTE COUNTY BRINE

TOTAL Metals

Lot-Sample #...: C9L230458-006

Date Sampled	: 12/22/09	Date	Received.	.: 12/23/1	09		
		REPORTI	NG			PREPARATION-	WORK
PARAMETER	RESULT	LIMIT	UNITS	METHO	D	ANALYSIS DATE	ORDER #
Prep Batch #	: 0008078						
Strontium	780000 J	1000	ug/L	SW846	6010C	01/08-01/12/10	LRJVQ1AD
		Dilution Fa	ctor; 200	Analysis	Time: 12:54	MS Run #	.: 0008074
		MDL	: 108				
Thorium	3650 B	4000	ug/L	SW846	6010C	01/08-01/12/10	LRJVQIAE
		Dilution Fa	ctor: 20	Analysis	Time: 14:09	MS Run #	. 0008074
		MDL,	: 712				
Uranium	ND	500	ug/L	SW846	6010C	01/08-01/11/10	LRJVQ1AF
		Dilution Fa	ctor: 1	Analysis	Time: 16:02	MS Run #	.: 0008074
		MDL	23.5				

NOTE (S):

Matrix..... WATER

I Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

Client Sample ID: GREENE COUNTY PRODUCTION BRINE 3

TOTAL Metals

Lot-Sample #...: C9L230458-007 Matrix....: WATER

Date Sampled...: 12/22/09 Date Received..: 12/23/09

nate sampled	: 12/22/09	Date	Received.	: 12/23/09			
		REPORTIN	IG .			PREPARATION-	WORK
PARAMETER	RESULT	LIMIT	UNITS	METHOD		ANALYSIS DATE	ORDER #
Prep Batch #	: 0008078						
Strontium	3870000 J	5000	ug/L	SW846 6010C		01/08-01/12/10	LEJVELAD
		Dilution Fac	tor: 1000	Analysis Time:	17:27	MS Run #	.: 0008074
		MDL	: 540				
Thorium	24100 B	100000	ug/L	SW846 6010C		01/08-01/12/10	IRJVR1AE
		Dilution Fac	tor: 500	Analysis Time:	14:25	MS Run #	.: 0008074
		MDL	: 17800				
Uranium	455 B,J	500	ug/L	SW846 6010C		01/08-01/11/10	LRJVR1AF
Assessed and		Dilution Fac	tor: 1	Analysis Time	16:09	MS Run #	.: 0008074
		MDL	: 23.5	President de l'action		75000 0000	

NOTE(S):

I Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C9L230458

Matrix....: WATER

		REPORTI	NG			PREPARATION-	WORK
PARAMETER	RESULT	LIMIT	UNITS	METHOL)	ANALYSIS DATE	ORDER #
MB Lot-Sample	#: F0A08000	0-078 Prep	Batch #:	0008078			
Strontium	1.1 B	5.0	ug/L	SW846	6010C	01/08-01/12/10	LROWWLAA
		Dilution Fa	ctor: 1				
		Analysis Ti	me: 09:50				
Thorium	ND	200	ug/L	SW846	6010C	01/08-01/11/10	LROWW1AC
		Dilution Fa	otor: 1				
		Analysis Ti	ne.,: 18:55				
Uranium	92.9 B	500	ug/L	SW846	6010C	01/08-01/11/10	LROWWIAD
		Dilution Fa	ctor: 1			Carlo Control Control	
		Analysis Ti	ne: 14:58				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot # ...: C9L230458 Matrix....: WATER PERCENT RECOVERY PREPARATION-PARAMETER RECOVERY LIMITS METHOD ANALYSIS DATE WORK ORDER # LCS Lot-Sample#: F0A080000-078 Prep Batch #...: 0008078 (80 - 120) SW846 6010C Strontium 01/08-01/12/10 LROWWIAE 105 Dilution Factor: 1 Analysis Time..: 09:56 Thorium 96 (80 - 120) SW846 6010C 01/08-01/11/10 LROWWIAF Dilution Factor: 1 Analysis Time..: 19:01

01/08-01/11/10 LROWWIAG

Analysis Time ..: 15:04

(80 - 120) SW846 6010C

Dilution Factor: 1

MOTE(S):

Uranium

Calculations are performed before rounding to avoid round-off errors in calculated results.

108

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

	PERCENT	RECOVERY	RPD		PREPARATION-	WORK
PARAMETER	RECOVERY		LIMITS METH	OD	ANALYSIS DATE	
MS Lot-Samp	le #: C9L23	0458-002 Prep B	atch #: 00	08078		
Strontium	3300 N	(75 - 125)	SW84	6 6010C	01/08-01/12/10	LRJVEIAK
	1110 N	(75 - 125) 3.8 Dilution Fact Analysis Time	or: 100	6 6010C	01/08-01/12/10	LRJVE1AL
		MS Run #	: 0008074			
Thorium	87	(75 - 125)	SW84	6 6010C	01/08-01/12/10	LRJVE1AM
	78	(75 - 125) 2.4 Dilution Fact Analysis Time MS Run #	tor: 20 2: 13:50	6 6010C	01/08-01/12/10	LRJVEIAN
Uranium	99	(75 - 125)	SW84	6 6010C	01/08-01/11/10	LRJVE1AF
40	100	(75 - 125) 1.4 Dilution Fact Analysis Time MS Run #	cor: 1 3: 15:37	6 6010C	01/08-01/11/10	LRJVE1AÇ

NOTE (S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

Client Sample ID: WESTMORELAND FLOW BACK

Radiochemistry

Lab Sample ID: C9L230458-002

Date Collected:

12/21/09 1030

Work Order: Matrix:

LRJVE WATER Date Received:

12/23/09 0940

To	t		1	
The	-	-	_	

Parameter	Result	Quel	Uncert. (2 s+/-)	RL	nde	Prep	Ammlysis Date
Strontium-90 by	SPPC DOE BR-03-1	RC MOD	p	Ci/L	Batch i	9363104	Y1d % 96
Strontium 90	0.008	U	0,18	3,00	0,32	12/29/09	01/06/10
GROSS A/B BY GFP	C 5W846 9310 MOI	D	р	C1/L	Batch	# 9362134	Yld &
Gross Alpha	480		260	3	310	12/28/09	12/31/09
Gross Bets	290		160		240	12/28/09	12/31/09
Gamma Cs-137 & H	its by RPA 901.	COM I	р	Ci/L	Batch	# 9362322	Yld %
Cesium 137	-5	U	12	20	21	12/28/09	01/18/10

NOTE (6)

Data are incomplete without the case parrative.

MDC is determined by instrument performance only, sold results are greater than the MDC.

Cash in Advance / Prepaid Sales Client Sample ID: WESTMORELAND FLOW BACK DUP

Radiochemistry

Lab Sample ID: C9L230458-002X

Work Order: Matrix

LRJVB WATER

Date Collected:

12/21/09 1030

Date Received:

12/23/09 0940

motal.

Parameter	Result	Dua1	(2 g+/-)	RL,	ndo	Prep Date	Analysis Date
Gamma Cs-137 &	Hits by MPA 901	.1 MOD	po	1/1	Batch	# 9362322	Yld &
Cesium 137	-0.9	U	8.3	20.0	15	12/28/09	01/18/10

(B) aron

Data are incomplete without the case narrative.

MDC is determined by instrument performance only. 'd results are greater than the MDC.

Cash in Advance / Prepaid Sales Client Sample ID: WASHINGTON COUNTY FLOW BACK

Radiochemistry

Lab Sample ID: C9L230458-003

Work Order: Matrix:

LRJVJ WATER Date Collected:

12/22/09 1000

Date Received:

12/23/09 0940

Parometer	Result	Qual	Total Uncert. (2 g+/-)	RL	ndo	Prep Date	Analysis Date
Strontium-90 by GF	PC DOE ER-03-F	C MOD	pc	11/1	Batch #	9363104	Y1d & 89
Btrontium 90	0.44	O	0.15	3.00	0.55	12/29/09	01/06/10
GROSS A/S BY GFPC	BW846 9310 MOI	,	pc	4/1	Batch #	9362134	AIG #
Gross Alpha	340		160	3	180	12/28/09	12/31/09
Gross Beta	103	U	80	4	120	12/28/09	12/31/09
Gamma Cs-137 & Hit	s by EPA 901.3	MOD COM	po	71/L	Batch #	9362322	Yld %
Cesium 137	1.2	U	8.3	20.0	15	12/28/09	01/18/10

NOTE (8)

Data are incomplate without the case narrative.

WC is determined by instrument performance only. old results are greater than the MC.

Cash in Advance / Prepaid Sales Client Sample ID: WESTMORELAND PRODUCTION BRINE

Radiochemistry

Lab Sample ID: C9L230458-004

Work Order Matrix:

LRJVL WATER Date Collected:

12/21/09 1000

Date Received:

940

12,	23/	09	0

Parameter	Result	Qual	Total Uncert. (2 g+/-)	RL	nda	Prep Date	Analysis Date
Strontium-90 by GP	PC DOR BR-03-	RC MOD	p	Ci/L	Batch #	9363104	Y14 % 91
Strontium 90	0.005	O.	0.18	3.00	0.31	12/29/09	01/06/10
GROSS A/B BY GFPC	BW846 9310 MO	p	p	C1/L	Batch #	9362134	Yld %
Gross Alpha	2610		980	3	940	12/28/09	12/31/09
Gross Bets	2190		460	4	460	12/28/09	12/31/09
Gamma Cs-137 & Hit	s by EPA 901.	1 MOD	p	C1/L	Batch #	9362322	Yld %
Cesium 137	-13	บ	19	20	31	12/28/09	01/25/10

NOTE (B)

Data are incomplete without the case navrative.

NDC is determined by instrument performance only. 'd results are greater than the MDC.

Cash in Advance / Prepaid Sales Client Sample ID: FAYETTE COUNTY BRINE

Radiochemistry

Lab Sample ID: C9L230458-006

Work Order: Matrix:

LRJVQ WATER Date Received:

Date Collected: 12/22/09 1000

12/23/09 0940

Parameter	Rosult	Qual	Uncert. (2 s+/-)	ndo	Prop Date	Analysis Date	
Strontium-90 by G	PC DOB BR-03	RC MOD	pt	il/L	Batch #	9363104	Y1d % 91
Strontium 90	0,20	ū	0.18	3.00	0.28	12/29/09	01/06/10
GROSS A/B BY GFPC	8W846 9310 MG	סס		H/L	Batch #	9362134	Yla %
Gross Alpha	230	υ	200	3	340	12/26/09	12/31/09
Gross Beta	370		160	•	220	12/28/09	12/31/09
Gamma Cs-137 & Hi	s by BPA 901	1 MOD	p	ci/L	Batch f	9362322	Ald #
Cesium 137	-2.2	U	9.1	20.0	17	12/28/09	01/18/10

NOTE (S)

Date are incomplete without the case narrative.

MDC is determined by instrument performance only. ld results are greater than the MDC.

Cash in Advance / Prepaid Sales Client Sample ID: GREENE COUNTY PRODUCTION BRINE 3

Radiochemistry

Lab Sample ID: C9L230458-007

Work Order:

Matrix:

LRJVR WATER

Date Collected:

12/22/09 1000

Date Received:

12/23/09 0940

Tot	1
Unc	ert.
- 22	

Parameter	Result	Qual	Prep Date	Analysis Date			
GROBS A/B BY GFP	C 8W846 9310 MO	מ	2	CI/L	Batch	# 0012128	Yld %
Gross Alpha	70	υ	180	3	320	01/12/10	01/13/10
Gross Beta	250		150	4	230	01/12/10	01/13/10
Gamma Cs-137 & H	its by BPA 901.	1 MOD	1	C1/L	Batch	# 9362322	Yld %
Cesium 137	-2.6	U	8.9	20.0	15	12/28/09	01/18/10

NOTE (B)

Data are incomplete without the case narrative.

woo is determined by instrument performance only. d results are greater than the MDC.

METHOD BLANK REPORT

Radiochemistry

Client Lot ID: '

C9L230458

Matrix:

WATER

Parameter	Regult	Qual	Total Uncert, (2 g+/-)	RI,	KDC		Prep Date	Lab Sample ID Analysia Date
GROSS A/B BY GFT	C BW846 9310	MOD	pCi/L	Batch #	0012128	Yld &	2	ON120000-128B
Gross Alpha	0.11	υ	0.37	3.00	0.69		01/12/10	01/13/10
Gross Beta	-0,23	U	0.84	4.00	1.5		01/12/10	01/13/10
GROSS A/B BY GF	PC 8W846 9310	MOD	pci/L	Batch #	9362134	Yld %	1	91280000-1348
Gross Alpha	0,11	U	0.37	3.00	0.70		12/28/09	12/31/09
Gross Bota	-0.52	U	0.82	4.00	1.5		12/28/09	12/31/09
Garama Cs-137 & 1	Hits by EPA 9	01,1 MOD	pci/L	Batch #	9362322	Yld \$	1	91280000-3221
Cesium 137	-1.2	U	7.0	20.0	13		12/28/09	01/18/10
Strontium-90 by	GFPC DOR SR-	03-RC MOD	pci/L	Batch #	9363104	Yld %	80 1	9L290000-104E
Strontium 90	0.02	U	0.17	3.00	0.30		12/29/09	01/05/10

NOTE (8)

Data are incomplete without the case parrative.

C is determined using instrument performance only old results are greater than the MDC.

Result is less than the sample detection limit.

Laboratory Control Sample Report

Radiochemistry

Client Lot ID:

C91230458

Matrix

WATER

						Total				Lab	Sample ID
Parameter	Spi	ke Ano	unt	Result		(2 s+/-)		MDC	\$ ¥1d	1 Rec	QC Control Limits
GROSS A/B BY GF	PC BW846	9310	MOD		pc1/L		9310	MOD		POAL	20000-128C
Gross Bets	68	.2		71.3		6.0		1.5		104	(58 - 133)
		Batch		0012128				Analysis Date:	01/1	/10	
GROSS A/B BY GF	PC BW846	9310	MOD		PCI/L		9310	MOD		FOAT	20000-128C
Gross Alpha	49	.4		50.1		5.4		1		101	(62 - 134)
		Batch		0012128				Analysis Date:	01/1	/10	
GROSS A/B BY GF	PC BWB46	9310	MOD		pCi/L		9310	MOD		¥91,	80000-134C
Gross Bets	68	.3		72.4		6.1		1.5		106	(77 - 123)
		Batch		9362134				Analysis Date:	12/3	1/09	
GROSS A/B BY GF	PC SW846	9310	MOD		pci/L		9310	MOD		F9L	280000-134C
Gross Alpha	49	.4		49.0		5.1		1.0		101	(80 - 140)
		Batch	*1	9362134				Analysis Date:	12/3	1/09	
Gamma Cs-137 &	Hite by	BPA 9	01.1	MOD	pc1/L		901.	1 MOD		F9L	289000-322C
ericium 241	14	1900		144000		11000		500		102	(90 - 110)
Cesium 137	53	100		52600		3000		200		99	(90 - 110)
Cobalt 60	87	900		85000		4800		200		97	(90 - 110)
		Batch		9362322				Analysis Date:	01/1	8/10	

NOTE (B)

ADC is determined by instrument performance only Calculations are performed before reguling to avoid round-off error in calculated results

Laboratory Control Sample/LCS Duplicate Report

Radiochemistry

Client Lot ID:

C9L230458

Matrix

WATER

							Total			Lab	Dample	ID
Perameter		2	Spika	Amount	Result		(2 a +/-)	& Y14	1 Reo	QC Control Limits	Pres	ision
Strontium-90	by	GFPC	DOE	BR-03-RC	MOD	pci/L	SR-03	-RC MOD		F91.2	90000	-104C
Strontium 90	Бр	. 2	6,82		8.24		0.90 0.87	78 78	121 116	(90 - 143) (90 - 143)	4	• RPD
				Batch #1	9363104		4.6.	Analysis	Dates	01/06/10		,

NOTE (B)

Calculations are performed before rounding to avoid round-off error in calculated results

MATRIX SPIKE REPORT

Radiochemistry

Client Lot Id: Matrix: F9L220480

WATER

Date Sampled:

12/18/09

Date Received:

12/22/09

					makes.	QC Sample	ID
Perameter	Spike Amount	Spike Result	Total Undert, (2a +/-)	Spike Sample Yld. Result		SYLD SREC	OC Control
GROSS A/B BY GPPC SW846	9310 MOD		pci/L	9310 NO)	P9L220480	-001
Gross Beta	68.3	75.1	6.3	1.9	1.1	107	(71 - 146)
	Batch #:	9362134	Ar	alysis Date:	12/31/09		
GROSS A/B BY GFPC BW846	9310 MOD		pci/L	9310 MO	D	F9L220480	0-007
Gross Alpha	49.4	53.2	5.7	0.58	0.65	105	(33 - 150)
	Batch #:	9362134	VI	alyais Date:	12/31/09		
GROSS A/S BY GFPC SW846	9310 MOD		pci/L	9310 MO	D	C9131048	9-001
Gross Alpha	49.4	20.4	4.2	1.6	1,3	38	(35 - 150
	Batch #:	0012129	ha	nalysis Date:	01/13/10		
GROSS A/B BY GYPC SW846	9310 MOD		pci/L	9310 MO	D	C9L31048	9-001
Orosa Beta	68.2	69.4	5.9	1.72	0.85	99	154 - 250
	Batch #:	0012128	A	nalysis Duce:	01/13/10		

NOTE (8)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off errors in calculated results.

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID:

C9L230458

Matrix: WATER

Date Sampled:

12/18/09

Date Received:

12/22/09

			Total				Total		C Sample ID	
Parameter	Hemult Result		(2g+/-)	* Y14	Result	772	(2 s+/-)	\$ Y14	Preciei	ao
GROSS A/B BY GFPC	BW846 931	COM C		pci/L	9310	MOD COM	-	79	L220480-00	1
Gross Alpha	0.58	υ	0.65		0.38	U	0.63		41	*RPD
Gross Beta	1.9	J	1.1		2.8	J	1,2		37	*RPD
	Dat	oh #1	9362134	(Sample)	9362	134 ID	uplicate)			
Gamma Ca-137 & Hit	s by RFA	901.1	MOD	pci/L	901	.1 MOD		C9	L230458-00)2
Cesium 137	-5	U	12		-0.9	U	B. 3		140	FRPD
VI. 4. 10.	Bat	ob fi	9362322	(Sample)	9362	322 (D	uplicate)			
GROSS A/B BY GPPC	SW846 931	CON 0		pci/L	931	COM C		C9	L310489-0	1
Grose Alpha	1.8	3	1.3		1.9	3	1.4		8	*RPD
Gross Bets	1.72	J	0.85		1.93	J	0.82		11	TRPL
	Bal	cab #1	0012128	(Sample)	0012	128 (0	uplicate)			

NOTE (9)

nets are incomplete without the case marrative.

louistions are performed before rounding to avoid round-off error in calculated results

Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

LABNAME	LABSAMPID	QCTYPE	MATRIX	PREPLIATE	ANADATE	BATCH	METHODGODE	METHODNAME	PREPNAME	ANALYTE	L'ACMINICEDI	SUGDONATE	710	erna.	70	ni.	1 ages	MOTAL VIII	MARIN	I em respecti	Component	- transmin	menure's event	Ne navemul	anto	Lunnerson 7	(miamora)	Bener	T 44/4/ North	V memorane	TANGET 1	Augus	ANALYTEORDE
TestAmerica Nasrville	B124869 BLK1	Blank	Water	12/29/2009 15:34:00	12/29/2009 15:34:00		MBAS SMSS40 C	SM5540 C	MO PRED	MIDAC (metal 520)	EX TS A	FREE	TALCE	MESOLI	2/4	RL	UNITS	HETOMOL	BASIS	DICUTION	SOURCED	DUNGERES	SPIKELEVEL	RECOVERY	KPD	UPPERCE	TOWERCE	KFUGE	ANALYST	PSULUS	LNUTE	ANOTE	AMALTIEUMU
TensAmerica Nautwille	9124568-BS1	LCS	Water	12/29/2009 15:34:00	12/29/2009 15:34:00			EMESTOC	NO OPER	MBAS (mol.wt 320)	51-73-4	FALSE	FALSE	MU	0.0300	0,0500	- mg/L	FALSE	NA.	- 1							1		DAB		-		
TestAmerica Nastville	9124869-BSDI	LCS Due	Water				MBAS SM5540 C	SM5540 C	NO PREP		61-73-4	FALSE	FALSE	0.726	0.0305	0.0500	mg/L	FALSE	NA				0,750	07		115	85		DAB				
	9124859-DUP	Duplicate	Water	12/29/2009 T5:34:00		D124000	MDAS CHASIOC		-	MBAS (mal et 320)	61-73-4	FALSE	FALSE	0.742	0.0300	0.0500	mp/L	FALSE	NA.	1			0.750	99	2	115	65	20	DAB				
unica Nurhville.	19124569-DUP2	Dupleate	Water	12/28/2009 15:34:00	12/29/2009 15-34:00	9174860	MONS CHUSHUC		NO PREP	MBAS (mol wt 320)	81-73-4	FALSE	FALSE	1.71	0.0300	0.0500	mg/L	FALSE	NA		NSL2726-02	1.71	1		0.07			50	DAE		1		
serion Nashville	19124869-MS1	Mitty Spike	Water	12/29/2009 15:34:00	12/20/2000 16:54-00	D124009	MONS SMOOTUC	SM5540 C			61-73-4	FALSE	FALSE	0.021	0,0300	0.0500	mort	FALSE	NA.	- 1-	NSL2749-01	0.950			3			50	DAB				
America Nantielle		Matrix Spike Du		12/29/2009 15:34:00					NO PREP	MBAS (molyw 320)	61-73-4	FALSE	FALSE	0,730	D.0300	0.0500	mg/L	FALSE	NA		NSL2759-01	0.0509	0,750	91		115	85		DAB			1	1-
	G125286-BLK1		_	01/04/2010 08:55:00						MBAS (molyer 320)	61-73-4	FALSE	FALSE	0.734	0,0300	0.0500	mp/L	FALSE	NA.	-1	NSL2759-01	0.0509	0.750	81	2.5	115	85	20	DAB			Part	F
	9125285-BS1					9125280	1000000			The state of the s		FALSE	FALSE	NO	0.0500	0.100	mg/L	FALSE	MA	1		200		F-00-1-1-1					SAB				
	@125285-DUP						TXN 251.2			Total Kjeldahl Nivogen		FALSE	FALSE	2.67	D.0500	0.100	mg/L	FALSE	NA	1	1		2.50	99		110	80		SAB				1
										Total Kjeldahi Nitrogen		FALSE	FALSE	179	1.00	2.00	mo/L	FALSE	NA:	20	NSL2725-07	195	100 mg		9			46	SAB			12	1
		Matrix Spore					TKN 3512			Total Kjeldahl Nitragen		FALSE	FALSE	6.49	0.0590	0.100	mg/L	FALSE	NA:	1	N3L2726-01	5.46	2.50	41		110	90		SAB		10000	Mā	1
LESOVINELICIA LAMINIMIE	IN 1202BG-MSI/I	Matrix Epike Dup	Water	01/04/2010 08:55:00	01/05/2010 11:00:00	9125286	TKN 251.2	EPA 351,2	NO PREP	Total Kjeldahl Nitrogen	TKN	FALSE	FALSE	9.73	0.0000	0,100	mgd	FALSE	NA	- 1	NSI 2776-01	546	5.00	AS I	40	110	90	46	SAB			AAT	1

MARINER PEDAGE TA Parameteria Like CR (2003) Testinance trapide (0.02047) I SiAmetro Pedage TA Parameteria Like (0.0304) Testinance Marine (0.02047)	185,3776-01 Water 12737700 10 00 00 010 08 35 10 01057010 11 07	00 8122780 7KN 5512 BPA 3013 NO	THE THEAT PLANSAGE PRINCE	TiQ!	ANCTE YA	456 1.40	0,000	6,100	SA FALM	HA	BA VOCE 5	MELLENS WICO	MAIL SHAME	Tomes.	BAR PER	00 Decid	ANCHE Later	THE CHARGE	-	THE PERSON NAMED IN		District Property	\$48031 BROAT	Property Trees	the second
ethorica Pintorgii TA Fungerifinino Dini CR2304(1) Testinonica Napolia CR2304(1) Glaveria Pittorgii TA Pungerifinina limo CR2304(1) Testinonica Napolia CR2304(1)	NS 27,9-07 Water Water 12010000 10 0000 (21,040,010 00 51.00 (21,050,010 11 00	00 91252M TKN-2012 FF4-2012 NO	REF Type/ Kendah/ Manag	N 81-75-4	FALSE FA	MEE DEN	0.0000	0.100 e	ST FAIR	144					1340		HO	-			-				
America Philosoph TA-Personylysma Lites CR.2(X42) Terbinasius nachrille CR.2(X42). 5	NIL2776-01 Wales Whee 12/02/03/ 10:00:00 (01/02/00/ 15:34:00 (12/02/03/ 15:34 NIL2776-01 Wales Whee 12/02/03/ 10:00:00 (01/04/00/ 06:55:	DO BOSSES THE STATE OF THE STATE OF	NEW MEAS (motest \$70	E 21.73-4	TALSE TA	MES 171	0.0000	6.000d	TALES	HA.					DAS.		加								
era Pictureti TAPeremphena Sen (SE2007) Teighenica Nathiga (SE2007) era Pictureti TAPeremphena Sen (SE2007) Teighenica Nathiga (SE2007) CSE2007)	N(6277e-03) White Water 12/20/2000 10 20 20 20 20 20 20 20 20 20 20 20 20 20	DO 31240019 MINAS SAMOAS C SAMOAS C NOT	High MeAn Inches 200	81-75-4	TABLE TA	ALE SAS	630)	0,600	OF FASE	No.	10				CAG		10								
ina Protocon 13. Person syland Sen. CR20021 Telebrania Natione CR20021.4	HSL1776-04 Wires Wise 17/21/708 10:30:00 15/990000 15 42:00 12/59/108 15 6	TOT BY DENS HARE SAMOND C SAMOND C NO.	NEP THEN KINDS INC. of 370	01/25-4	FALSE FA	4.54 3.65 4.54 4.65	0.000	0.100 s	ot I FALSE	144	10				DAS		10			-				-	
Analys Finitions TAP executationis Sten CR 20001 Tenturation Nationis Cla 20001 d	NS(2778-07) Well Wide 17/27/008 thorosol 12/29/008 th-sq ool 12/29	CONTRACTOR TRANSITY OF A PROJECT INC.	REP MEAN AND A TO	7991	FRASE FA	157 425	0,000	0.100	MAN TALLE	100	1				138		VO.								
Anarca Pitologo TA-Parameteria Silin Cit. 2000) Technique Mainide Cit. 2000) I d'Anarca Pitologo TA-Parameteria Silin Cit. 2001 Technique National Cit. 2001) I	HISTOTICA Water Water United to 10 10 10 10 10 10 10 10 10 10 10 10 10	01 8175296 TRU 2013 UA 2013 NO.	HEP Total Plantary Meson APP MARK Insulant 200	m tol	FALSE EA	ALDE 256	3,00	- 0.00	ros FALSE		100				546		70				3				
of Joseph Philippin 13-Personality of the CA-70001 Testimona hashide Ca-100714	(4)1.2776-01 Water Whater 12/72/2008 (0:00 00) 01/04/2010 08 53:00 01/04/2010 11 05	00 912536 19913512 EPA 2512 60	STP Total Quiter Int.	mh Tribi	FASE TA	158 158	1.00		WA TAN				1000	-	DAD DAD		HO								
Printed State Control of the Control	1/2/1/2010 Applied 1/2/2010 (1/2/200) (1/2/2000 (1/2/200) (1/2/2000 (1/2/2000 (1/2/2000 (1/2/2000 (1/2/2000 (1/2)) (1/2/2000 (1/2)) (1/2/2000 (1/2)) (1/2/2000 (1/2)) (1/2/2000 (1/2)) (1/2/2000 (1/2)) (1/2/2000 (1/2)) (1/2/2000 (1/2)) (1/2/2000 (1/2)) (1/2/2000 (1/2)) (1/2/2000 (1/2)) (1/2/2000 (1/2)) (1/2/2000 (1/2)) (1/2/2000 (1/2)) (1/2/2000 (1/2)) (1/2) (1/2) (1/2)) (1/2	COUNTY AND AND AND SHEET OF THE PROPERTY OF TH	ate L thist may be	11-25-4	TALES THE	5 TH	1 1/2530	5 6005	TALL PASSE	H					7344	-	194					-	-		

LNOTE

QUALI	IFIEI DESCRIPTION	
НЗ	Sample was received and analyzed past holding time.	
M8	The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).	

A CHARLEST	To be a service of	popular.	424.573	200000000000000000000000000000000000000	1003.5749	W. 407 V	A CHARLES BOOK TO SEE A	METHOD	CONTRACTOR OF THE PARTY OF THE	washing and	and the second		18.5		100	2. 1127	00 000 000		
LABNAME	LABSAMPID	QCTYPE	MATRIX	PREPDATE	ANADATE	BATCH	METHODCODE	NAME	PREPNAME	ANALYTE	CASNUMBER	SURROGATE		RESULT	-	RL UN			DILUTION
TestAmerica Buffalo	9L29024-BLK1	Blank	Water	12/30/2009 06:00:00	12/30/2009 08:45:33	9L29024	8015 Glycols	8015	8015 Glycols	Ethylene Glycol	107-21-1	FALSE	FALSE	1,8	0.76	_		NA	1 1
TestArnerica Buffalo	9L29024-BLK1	Blank	Water	12/30/2009 06:00:00	12/30/2009 08:45:33	9L29024	8015 Glycols	8015	8015 Glycols	1,4-Butanediol	110-63-4	TRUE	FALSE	109	-	mg		NA	1
TestAmerica Buffalo	9L29024-BS1	LCS	Water	12/30/2009 06:00:00	12/30/2009 09:25:08	9L29024	8015 Glycols	8015	8015 Glycols	Ethylene Glycol	107-21-1	FALSE	FALSE	23.4	0.76			NA	1
TestArnerica Buffalo	9L29024-BS1	LCS	Water	12/30/2009 06:00:00	12/30/2009 09:25:08	9L29024	8015 Glycols	8015	8015 Glycols	1,4-Butanediol	110-63-4	TRUE	FALSE	108	-	mg		NA	1
TestAmerica Buffalo	9L29024-MS1	Matrix Spike	Water	12/30/2009 06:00:00	12/30/2009 15:19:08	9L29024	8015 Glycols	8015	8015 Glycols	Ethylene Glycol	107-21-1	FALSE	FALSE		0.76			NA	1
TestArnerica Buffalo	9L29024-MS1	Matrix Spike	Water	12/30/2009 06:00:00	12/30/2009 15:19:08	9L29024	8015 Glycols	8015	8015 Glycols	1,4-Butanediol	110-63-4	TRUE	FALSE	70.6	10.70	m		NA	1
TestAmerica Buffalo	9L29024-MSD1	Matrix Spike Dup	Water	12/30/2009 06:00:00	12/30/2009 15:34:25	9L29024	8015 Glycols	8015	8015 Glycols	Ethylene Glycol	107-21-1	FALSE	FALSE	9.68	0.76			NA	1
TestArnerica Buffalo	9L29024-MSD1	Matrix Spike Dup	Water	12/30/2009 06:00:00	12/30/2009 15:34:25	9L29024	8015 Glycols	8015	8015 Glycols	1,4-Butanediol	110-63-4	TRUE	FALSE	50,5		m		NA	1
TestAmerica Buffalo	RF90109-CAL1	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:07:59	RF90109	8015 Glycols	8015	9E28001	2-Ethoxyethanol	110-80-5	FALSE	FALSE	5.00		m		NA.	1
TestArnerica Buffalo	RF90109-CAL1	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:07:59	RF90109	8015 Glycols	8015	9E28001	Propylene glycol	57-55-6	FALSE	FALSE	5.00	-	m		NA	1
TestAmerica Buffalo	RF90109-CAL1	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:07:59	RF90109	8015 Glycols	8015	9E28001	Ethylene Glycol	107-21-1	FALSE	FALSE	5.00	-	m		NA NA	+ +
TestAmerica Buffalo	RF90109-CAL1	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:07:59	RF90109	8015 Glycols	8015	9E28001	Diethylene glycol	111-46-6	FALSE	FALSE	5.00	-	m		NA	1
TestAmerica Buffalo	RF90109-CAL1	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:07:59	RF90109	8015 Glycols	8015	9E28001	Triethylene Glycol	112-27-6	FALSE	FALSE	5.00	-	m		NA	1
TestAmerica Buffalo	RF90109-CAL1	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:07:59	RF90109	8015 Glycols	8015	9E28001	1,4-Butanediol	110-63-4	TRUE	FALSE	20.0	-	m		NA NA	1
TestAmerica Buffalo	RF90109-CAL1	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:07:59	RF90109	8015 Glycols	8015	9E28001	Ethylene Glycol Monomethyl Ether	109-86-4	FALSE	FALSE	5.00	-	m		NA NA	1
TestAmerica Buffalo	RF90109-CAL2	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:23:16	RF90109	8015 Glycols	8015	9E28001	2-Ethoxyethanol	110-80-5	FALSE	FALSE	10.0		m		NA NA	1
TestAmerica Buffalo	RF90109-CAL2	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:23:16	RF90109	8015 Glycols	8015	9E28001	Propylene glycol	57-55-6	FALSE	FALSE	10.0	-	m		NA.	1
TestAmerica Buffalo	RF90109-CAL2	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:23:16	RF90109	8015 Glycols	8015	9E28001	Ethylene Glycol	107-21-1	FALSE	FALSE	10.0		m		NA NA	
TestAmerica Buffalo	RF90109-CAL2	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:23:16	RF90109	8015 Glycols	8015	9E28001	Diethylene glycol	111-46-6	FALSE	FALSE			m		NA.	1
TestAmerica Buffalo	RF90109-CAL2	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:23:16	RF90109	8015 Glycols	8015	9E28001	Triethylene Glycol	112-27-6	FALSE	FALSE	10.0	-	m		NA	1
	RF90109-CAL2	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:23:16	RF90109	8015 Glycols	8015	9E28001	1,4-Butanediol	110-63-4	TRUE	FALSE	30.0	-	m		NA.	1-1-
TestAmerica Buffalo	RF90109-CAL2	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:23:16	RF90109	8015 Glycols	8015	9E28001	Ethylene Glycol Monamethyl Ether	109-86-4	FALSE	FALSE	10.0		m		NA	1
TestAmerica Buffalo	RF90109-CAL3	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:38:33	RF90109	8015 Glycols	8015	9E28001	2-Ethoxyethanol	110-80-5	FALSE	FALSE	20.0	-	m		NA	
TestAmerica Buffalo	RF90109-CAL3	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:38:33	RF90109	8015 Glycols	8015	9E28001	Propylene glycol	57-55-6	FALSE	FALSE	20.0		m		NA	1
TestAmerica Buffalo	RF90109-CAL3	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:38:33	RF90109	8015 Glycols	8015	9E28001	Ethylene Glycol	107-21-1	FALSE	FALSE	20.0		m		NA	1
TestAmerica Buffalo	RF90109-CAL3	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:38:33	RF90109	8015 Glycols	8015	9E28001	Diethylene glycol	111-46-6	FALSE	FALSE	20.0	-	m		NA	1
TestAmerica Buffalo	RF90109-CAL3	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:38:33	RF90109	8015 Glycols	8015	9E28001	Triethylene Glycol	112-27-6	FALSE	FALSE	20.0	-	m			1 1
TestAmerica Buffalo	RF90109-CAL3	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:38:33	RF90109	8015 Glycols	8015	9E28001	1,4-Butanediol	110-63-4	TRUE	FALSE	40.0	-	m		_	1
TestAmerica Buffalo	RF90109-CAL3	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:38:33	RF90109	8015 Glycols	8015	9E28001	Ethylene Glycol Monomethyl Ether	109-86-4	FALSE	FALSE	20.0	-	m		NA.	1 1
TestAmerica Buffalo	RF90109-CAL4	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:53:52	RF90109	8015 Glycols	8015	9E28001	2-Ethoxyethanol	110-80-5	FALSE	FALSE	30.0	100	m			1
TestAmerica Buffalo	RF90109-CAL4	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:53:52	RF90109	8015 Glycols	8015	9E28001	Propylene glycol	57-55-6	FALSE	FALSE		-	m			1
TestAmerica Buffalo	RF90109-CAL4	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:53:52	RF90109	8015 Glycols	8015	9E28001	Ethylene Glycol	107-21-1	FALSE	FALSE	30.0		m		_	1
	RF90109-CAL4	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:53:52	RF90109	8015 Glycols	8015	9E28001	Diethylene glycol	111-46-6	FALSE	FALSE	30.0	-	m		_	+
TestAmerica Buffalo	RF90109-CAL4	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:53:52	RF90109	8015 Glycols	8015	9E28001	Triethylene Glycol	112-27-6	FALSE	FALSE	30.0	-	m		_	1
TestAmerica Buffalo	RF90109-CAL4 RF90109-CAL4	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:53:52	RF90109	8015 Glycols	8015	9E28001	1,4-Butanediol	110-63-4	TRUE	FALSE	50.0	-	m		_	
TestAmerica Buffalo		Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 13:53:52	RF90109	8015 Glycols	8015	9E28001	Ethylene Glycol Monomethyl Ether	109-86-4	FALSE	FALSE	30.0	-	m		_	1
TestAmerica Buffalo	RF90109-CAL5	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 14:09:10	RF90109	8015 Glycols	8015	9E28001	2-Ethoxyethanol	110-80-5	FALSE	FALSE	40.0		m			-
TestAmerica Buffalo	RF90109-CAL5	Cal Standard	Water	05/26/2009 00:00:00	05/26/2009 14:09:10	RF90109	8015 Glycols	8015	9E28001	Propylene glycol	57-55-6	FALSE	FALSE	40.0		m			_
	RF90109-CAL5	Cal Standard	Water		05/26/2009 14:09:10			8015	9E28001	Ethylene Glycol	107-21-1	FALSE	FALSE		-		g/L TRUE		_
	RF90109-CAL5	Cal Standard	Water			RF90109		8015	9E28001	Diethylene glycol	111-46-6	FALSE	FALSE		-	m			_
	RF90109-CAL5	Cal Standard	Water	05/26/2009 00:00:00		RF90109		8015	9E28001	Triethylene Glycol	112-27-6	FALSE	FALSE			n		_	
	RF90109-CAL5	Cal Standard	Water	05/26/2009 00:00:00		RF90109		8015	9E28001	1,4-Butanediol	110-63-4	TRUE	FALSE		+	m			
	RF90109-CAL6	Cal Standard	Water			RF90109		8015	9E28001	Ethylene Glycol Monomethyl Ether	109-86-4	FALSE	FALSE		-	n		_	
	RF90109-CAL6	Cal Standard	Water	05/26/2009 00:00:00		RF90109		8015	9E28001	2-Ethoxyethanol	110-80-5	FALSE	FALSE		-				
	RF90109-CAL6	Cal Standard	Water	05/26/2009 00:00:00		RF90109		8015	9E28001	Propylene glycol	57-55-6	FALSE	FALSE		-	π		_	_
	RF90109-CAL6	Cal Standard	Water	05/26/2009 00:00:00		RF90109		8015	9E28001	Ethylene Glycol	107-21-1	FALSE	FALSE		-		g/L TRUE		
	RF90109-CAL6	Cal Standard	Water	05/26/2009 00:00:00		RF90109		8015	9E28001	Diethylene glycol	111-46-6	FALSE	FALSE		-		g/L TRUE		_
	RF90109-CAL6	Cal Standard Cal Standard	Water	05/26/2009 00:00:00		RF90109		8015	9E28001	Triethylene Glycol	112-27-6	FALSE	FALSE		-		g/L TRUE		
	RF90109-CAL6	Cal Standard	Water					8015	9E28001	1,4-Butanediol	110-63-4	TRUE	FALSE		-				
	RF90109-SCV1	Secondary Cal Check	Water	05/26/2009 00:00:00		RF90109		8015	9E28001	Ethylene Glycol Monomethyl Ether	109-86-4	FALSE	FALSE		-			_	
		Secondary Cal Check	Water	05/26/2009 00:00:00		RF90109		8015	9E28001	2-Ethoxyethanol	110-80-5	FALSE	FALSE		1		g/L TRUE	_	_
		Secondary Cal Check	Water	05/26/2009 00:00:00		RF90109		8015	9E28001	Propylene glycol	57-55-6	FALSE	FALSE		-				
		Secondary Cal Check	Water	05/26/2009 00:00:00		RF90109		8015	9E28001	Ethylene Glycol	107-21-1	FALSE	FALSE		-		g/L TRUE		
			Water	05/26/2009 00:00:00		RF90109		8015	9E28001	Diethylene glycol	111-46-6	FALSE	FALSE		1		g/L TRUE		_
		Secondary Cal Check	Water	05/26/2009 00:00:00		RF90109		8015	9E28001	Triethylene Glycol	112-27-6	FALSE	FALSE	58.9	-		g/L TRUE	_	
the same of the sa		Secondary Cal Check	Water	05/26/2009 00:00:00		RF90109		8015	9E28001	1,4-Butanediol	110-63-4	TRUE	FALSE			-	g/L TRUE		
	RL93102-CCV1	Secondary Cal Check	Water	05/26/2009 00:00:00		RF90109		8015	9E28001	Ethylene Glycol Monomethyl Ether	109-86-4	FALSE	FALSE		-		g/L TRUE	_	
resummented Dullall	ME30102-00V1	Calibration Check	Water	12/30/2009 00:00:00	12/30/2009 08:30:27 12/30/2009 10:12:52	RL93102 RL93102		8015	9L29024 9L29024	Ethylene Glycol	107-21-1 107-21-1	FALSE	FALSE		-		g/L TRUE	_	
	RL93102-CCV2	Calibration Check	Water	12/30/2009 00:00:00				8015		Ethylene Glycol							g/L TRUE	NA.	1

CLIENT PROJECT PROJECTNUM CAMPLE LABORATE LABORATE MATE	OF INSTRUCTOR SECTION CONTRACTOR		Control of the Contro																	
TestAmenica Pristoria: 367010 CIP. COL 230101 LettAmenica Bulbic: WASHINGTON COUNTY I) OW BACK: With 1004 O' Washington	Water 12/21/2006 10:00:00: 12/202200 00:00:00 12/20220	E SEATCH METHODODOS METHODOS METHODOS	ODHA PREPHANE (ANALYTE CANHAM	ER ELIPHOGATITIC	Fresht E	A INC	DHIES IRPTONCS.	LAME DILUTIO	H SPINELEVEL TE	COVERY (UPPERC). LO	MERCL MALLYST	PSOLIDS LINOTE	ANCITE	LAMITUDE LINETTUDE SCIENTIFIC SAIOT	ti takires	ENGTES ESTONS	CTUS SHOTER	MOTE PHOTE	A. SHOTES	MACHINETT AMALYTECHDEN
Trest/mence Produced (2017/00 Com. Com. 2004/2) Trest/mence (India) (WASHINGTON COLORTY FLOW BACK, USS, 1004 07 WASHINGTON COLORTY FLOW BACK, USS, 1004 07	Water 1222/2008 (0.00 00 127)07/2000 00:00:00 142/30/20	N CD-10(07 (8.29024 8015 Gregor 8015	NOIS Group 11 4 Patronesia F11G-63-4	TRUE FALSE	10.00	B 160	mol Time	16	- w	100	GFD	DOS. 25	-		1					13
Technical Patients 19000 CIA CO 20047 Instance Balls (W STACKET AND FROZIAL FOR W RILL STACKET HOLES)	Wheet (12/21/2008 10:00/00 12/20/2008 01:00/00/00	THE REPORT NOTE AND CONCESS SOILS	5010 Great Electron Carcal 103-21-1	PAGE TALE	13 19	76 150	mest trous	W I	7		GFD	Po	118				_		-	
* SEPTIMENT MILETO CO. CELTONO TELASSACE MAN TAYETTE COLARY BIDE RIS 1004 (7) Water	White 12/7/7/000 \$0,000 00 17/7/2/000 00,000 00 17/7/000	3 10 28 03 Ta 23004 MO15 Green WO15	19015 Charge Floring March 110-60-8	TRUE FALSE	715	** **	mg/ HAVE	14	100 78	100 18	(SPD)	99								
Pithbursh 187919 Can Cit 250271 Instances Balley FATELTE COUNTY Bridge Ris 1004 07 West	Walter 1/2/27/2009 10:00:00 12/20/2009 00:00:00 12/20/200	96-119-28-03 PL29024 8015-Ghom. 8015	5015 Gheck 1 Advantos 1110-63-e	TRUE FALSE	106.0	10 10	mat Train	u	NO NO	170 66	680	100	2.0							1
FERROUS SETUTO COM COLLEGES TRACE TRACE WESTWOTELAND FLOW DACK THE TOP OF THE	Water 127/1/2009 10:200 00 127/0/2009 00:0000 12/20/200	9-10-56/50 9-79034 With Glencon (6015-	8015 Glycon (Fithyron Glycos (101-01-1	FASE FRE	6.7	76 10	men. THUSE IN	9. 1	190		GFD	F9	AB							1
co Printings Militig CAR (CAR 2002) Talamenta Buttle: GREENE COUNTY FLOW BACK V RIS, 1004 OS Wille	Witten 12/22/2008 to 00:00 12/20/2008 00:00:00 112/20090	X 15-00-57 (9.29074 (8015 Green 6015	15015 Chesse Linders Chess 107-21-1	FALSE VALUE	82.4	4 100	met trive i	9 !	100 53	130 6	GFD	P0	27.0						_	
Testamenta Pershapir 1907/10 Call (CBL 20142) Testamenta Buffer FAYETTE COLATIT N ON BACK RID 1014/05 (Water	Modes 12020000 100000 100000 00 00 00 120000	2015 0151 017604 0015 (Decon 19715	5015 Ghoos 1.4 Butarestol (110-63-4	THE PALSE	109		mgA TRUE II	4 5	700 100	130 (6	1050	D06 P9	CT							
TelA-mic Pesilosis Millio CIR (CIL2300) TelA-mics Basis (FAYETTI COUNTY NOV BACK 2 HTL 1004.0) With	White 12/22/2006 10:00000 12/00/2006 (0:00000 12/2/2006	# 12 10 26 10 20024 10015 Green 10015	6015 Ghitzia Etnyiese Etiess (107-21-1	FASE FASE	3.6	T# 10	≠ot TRUE D	u 1			GFD.	P5.C1	1.8							5
THE MARKET PRINTED SETTING AND COMPANY TO THE PRINTED SETTING THE	White: 12/70/2006 to 00:00 12/00/2009 06:00:00 12/200/20	12 40 57 (9.2902+ MO15 Grycols (0.015	18015 Glecon (Etropene Garcos 1107-31-1	FALSE FALSE	22 6	16 110	mot TRUE	4	120 65	730 /6	GFD:	19, 67	17					-		1
Hesternia Personal Introduction (Ca.2004) Deuterna habita (CRESIV county responsible needing (Ostell West	Many Haldhorn retailed Haladdorn duteroy Haladdo.	5-17-40-57 (sc20024 6010 Grock 6015	8015 Gyana 1 4 Supressol 110 53-4	TRUE PASE	573		TRUE I	u li	100 00	I'm W	Torra	99.61	19					-	\rightarrow	(K

SOURCEID	SOURCERES	SPIKELEVEL	RECOVERY	RPD	UPPERCL	LOWERCL	RPDCL	ANALYST	PSOLIDS	LNOTE		1
		100	440		1			GFD		1	J	L
		100	109		130	66		GFD	-	-		L
		20.0	117		150	50	50	GFD			В	L
		100	108		130	66		GFD				L
RSL1004-02	1.34	20.0	67		150	50	50	GFD		P9, C7	В	L
RSL1004-02		100	71		130	66	7 - V	GFD		P9, C7		L
RSL1004-02	1.34	20.0	42	41	150	50	50	GFD		P9, C7	M8, J, B	L
RSL1004-02		100	51		130	66		GFD		P9, C7	Z6	L
		5.00	100					tch				
		5.00	100					tch				L
		5.00	100					tch				
		5.00	100				1	tch				
		5.00	100					tch				
		20.0	100					tch				I
		5.00	100					tch				I
		10.0	100					tch				
	(10)	10.0	100		1			tch	3			ſ
		10.0	100		10 7			tch				ſ
		10.0	100		96 - 4			tch			1 3	ſ
		10.0	100					tch				ſ
		30.0	100					tch				ſ
		10.0	100					tch				ľ
		20.0	100					tch				Ī
Company (Company)		20.0	100					tch			-	ľ
		20.0	100					tch				Ì
		20.0	100					tch			1 1	ľ
		20.0	100					tch				ľ
		40.0	100					tch				t
		20.0	100					tch				t
		30.0	100					tch				İ
		30.0	100					tch				Ì
		30.0	100				0.536	tch				ľ
		30.0	100					tch				t
		30.0	100					tch		100.00		Ì
		50.0	100					tch	0			ľ
		30.0	100					tch		8 4	1	t
		40.0	100					tch				t
		40.0	100					tch			-	t
		40.0	100					tch				t
		40.0	100				1	tch				t
		40.0	100			1		tch				t
		60.0	100		1			tch				t
		40.0	100					tch				t
		50.0	100		1 2			tch				t
		50.0	100					tch				t
		50.0	100					tch				t
		50.0	100		-			tch				t
		50.0	100					tch				t
		80.0	100					tch				t
		50.0	100				7	tch				t
		40.0	97		200	0		tch				t
		30.0	110		200	0		tch				t
		10.0	119		200	0	1	tch				t
		40.0	107		200	0		tch				t
		50.0	118		200	0		tch				ł
- 1		50.0	102		200	0		tch				ł
		20.0	104		200	0		tch				ł
		20.0	104	_	115	85		GFD				ł
		20.0	94		115	85		GFD				ł
		20.0	100		115	85		tchro				1

Page 3

URCERES	SPIKELEVEL	RECOVERY	RPD	UPPERCL	LOWERCL	RPDCL	ANALYST	PSOLIDS	LNOTE		ANALYTEORDER
	-						GFD			J	3
	100	109		130	66		GFD				7
	20.0	117		150	50	50	GFD			В	3
101	100	108		130	66		GFD		D0 07	_	7
1.34	20.0	67		150	50	50	GFD		P9, C7	В	3
	100	71		130	66	-	GFD		P9, C7		7
1.34	20.0	42	41	150	50	50	GFD			M8, J, B	3
	100	51		130	66		GFD		P9, C7	Z6	7
	5.00	100					tch		1		1
	5.00	100					tch				2
	5.00	100	_	-			tch				3
	5.00	100					tch				4
-	5.00	100					tch				5
	20.0	100					tch				7
	5.00	100					tch				7
	10.0	100					tch				1
	10.0	100					tch				2
	10.0	100					tch	11			3
	10.0	100					tch				4
	10.0	100					tch				5
	30.0	100					tch				7
	10.0	100					tch				7
	20.0	100					tch-				1
	20.0	100					tch				2
	20.0	100				1	tch				3
	20.0	100					tch				4
	20.0	100					tch				5
	40.0	100		3			tch				7
	20.0	100					tch				7
	30.0	100					tch				1
	30.0	100					tch		-		2
	30.0	100					tch				3
	30.0	100					tch				4
	30.0	100					tch				5
	50.0	100		1	11		tch			7	7
	30.0	100				0	tch			1	7
	40.0	100					tch			1	1
	40.0	100					tch				2
	40.0	100					tch				3
	40.0	100					tch				4
	40.0	100					tch				5
	60.0	100					tch				7
	40.0	100					tch				7
	50.0	100					tch				1
	50.0	100					tch				2
	50.0	100					tch				3
	50.0	100					tch	(1		4
	50.0	100					tch		4		5
	80.0	100					tch	Lane V	- 1		7
	50.0	100					tch				7
	40.0	97		200	0		tch				1
	30.0	110		200	0		tch		1 - 4		2
	10.0	119		200	0	75	tch			-	3
	40.0	107		200	0		tch				4
	50.0	118		200	0		tch				5
	50.0	102		200	0	3	tch		1		7
	20.0	104		200	0		tch				7
	20.0	104		115	85		GFD				3
	20.0	94		115	85		GFD		Lea		3
	20.0	100		115	85		tchro	Mark Toll			3

LABNAME	LABSAMPID	QCTYPE	MATRIX	PREPDATE	ANADATE	BATCH	METHODCODE	METHOD	PREPNAME	ANALYTE	CASNUMBER	SURROGATE	TIC	RESULT	DL R	LUNITS	RPToMDL	BASIS	DILUTION
TestAmerica Buffalo	RL93102-CCV4	Calibration Check	Water	12/30/2009 00:00:00	12/30/2009 13:11:23	RL93102	8015 Glycols		9L29024	Ethylene Glycol	107-21-1		FALSE	12.8		ma/l	TRUE	NA	1
TestArnerica Buffalo	RL93102-CCV5	Calibration Check		12/30/2009 00:00:00					9L29024	Ethylene Glycol	107-21-1		FALSE	20.7		mall	TRUE	NA	1
TestAmerica Buffalo	RL93102-CCV6	Calibration Check	Water	12/30/2009 00:00:00	12/30/2009 14:44:09	RL93102	8015 Glycols	8015	9L29024	Ethylene Glycol	107-21-1		FALSE	21.1		mg/L	TRUE	NA NA	1
TestAmerica Buffalo	RL93102-CCV7	Calibration Check	Water	12/30/2009 00:00:00	12/30/2009 15:49:40	RL93102	8015 Glycols	8015	9L29024	Ethylene Glycol	107-21-1	0.000	FALSE	13.7		mg/L	TRUE	NA	1

SOURCEID	SOURCERES	SPIKELEVEL	RECOVERY	RPD	UPPERCL	LOWERCL	RPDCL	ANALYST	PSOLIDS	LNOTE	ANOTE
		20.0	64		115	85		tchro		P	C7
		20.0	104		115	85		tchro			
		20.0	106		115	85	100	tchro			
		20.0	69		115	85		tchro			C4

Page 4



SOURCERES	SPIKELEVEL	RECOVERY	RPD	UPPERCL	LOWERCL	RPDCL	ANALYST	PSOLIDS	LNOTE	ANOTE	ANALYTEORDER
	20.0	64		115	85		tchro			C7	3
	20.0	104		115	85		tchro				3
	20.0	106		115	85		tchro	1			3
	20.0	69		115	85		tchro			C4	3

LNOTE

QUALIFIER	DESCRIPTION		
В	Analyte was detected in the associated Method Blank.		
C4	Calibration Verification recovery was below the method control limit for this analyte.		
C 7	Calibration Verification recovery was below the method control limit due to matrix in analytical samples. The matrix interference was confirmed by reanalysis with the samples.		ried over from
D08	Dilution required due to high concentration of target analyte(s)		
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or ed Limit (MDL). Concentrations within this range are estimated.	qual to the Met	hod Detection
M8	The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).		
P9	This analyte has been shown to degrade upon preservation with HCl and cannot ac	curately be qu	antitated.
Z	Due to sample matrix effects, the surrogate recovery was below the acceptance lim	nits.	
Z 3	The sample required a dilution due to the nature of the sample matrix. Because of spike concentration in the sample was reduced to a level where the recovery calculinformation.		
Z6	Surrogate recovery was below acceptance limits.		

Page 1



Atlas Exh 3A1 tobil Fluid Prediction - reduce

Laure & Well bear	Mak N	4/20/2012 4/20/201	· anamon	a tradrama	4/22/2001	4/24/2012	4/25/2015	4/26/2015 4/27/2	or I would	11 4/20/2011	4/20/2013	E (2/2011	E/2/2011	E/2/7003		E/E/2011	E/E/PD4									-					To a / A 1
Lease & Well Name XXX-REDACTED-XXX	Well# 23707	4/19/2011 4/20/201	1 4/21/2011	4/22/2011	4/23/2011	-	4/25/2011	4/26/2011 4/27/20	0 4/28/20	11 4/8/2011	4/30/2011	-	5/2/2011	100000	5/4/2011	5/5/2011	5/6/201		8			-	-	-		6	4	0		23.70	To a (A)
XXX-REDACTED-XXX	23649	6	6	6	0.8	6	0.6	4	6	8 1	1 0.0	0.6	0.8			6 5	7	5	5	5	5	6	6	5	6	6	6	5	6 6	177.00	99 ,434
XXX-REDACTED-XXX	23704	0	1	n	0.8	8	0.8	0	0	1 1	0 0.4	0.4	0.4	1		1 0	0	8	8	B	0	0	1	0	4	4	4	0	1 0	12.20	51
XXX-REDACTED XXX	23938	26 2	9 2	6 2	+		27		29	23	0 29	1	-	-	2	6 26	7	8	8	8	5	6	4	5	9	9	9	6	8	810.00	,02
XXX-REDACTED-XXX	25901	0	0	0	0 0	0	i a	0	0	0 1	0 0	0	0) (0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0 0		-
XXX-REDACTED-XXX	22971	9 1	1	2	1 11	1	11	12	11	11 1	0 11	11	11	12	1 1	1 11	1	0	0	0	10	0	3	7	8	8	8	12	12 2	307,00	12,894
XXX-REDACTED-XXX	23142	1	0 1	0 1	8 1	0.8	0.8	0	0	0	0 0	0	0	1	0	0 0	1	0	0	0	0	2	0	1	0.4	4	4	0	0 0	10,20	428
XXX-REDACTED-XXX	23363	0	0 1	0	1 3	3	3	7	5	2	2 7	7	7		2	1 3	1	2	2	2	2	1	2	-	0	0	0	1	0 0	91.00	3,822
XXX-REDACTED-XXX	22536	38 3	34 31	8 3	5	35	35	8	34	40 3	3 37	37	37	34	3	3 36	36	37	37	37	34	34	30	30	30	30	30	36	31 36	1,078.00	45,276
XXX-REDACTED-XXX XXX-REDACTED-XXX	22666	0	5 1	0 1	1 13	12	13	0	13	0	9 19	15	15				0	15	15	15	0	13	0	5	22	22	22	1	4 9	285.00	126 11,970
XXX-REDACTED-XXX	24405	24 2	0 2	2 2				25		25 1	-	_	-	-	2 2	2 23	74	23	23	-	-	24	17	17	23	23	23	23	23 25	701.00	29,442
XXX-REDACTED-XXX	22056	0	0 1	0	0 0	0	0	0	0	0	0 0	0	0			0 0	0	0	0	0	0	0	0	0	0	ol	0	0	0 0	702.00	55/176
XXX-REDACTED-XXX	22058	0 1	2	0 1.	2 1.1	1.1	1.1	0	0	0 1.	1 0.4	0.4	0.4	1.	1 1.	1 0	1.1	1.1	1.1	1.1	0	0	2,3	1.1	0.9	0,9	0.9	1	1.1 1.1	23,90	1,004
XXX-REDACTED-XXX	22063	18.6 17.	8 13.	5 4.1	20.8	20.8	20.8	8 7	0.5	16 13.	7 16.7	16.7	16.7	13	20.	5 8	15.5	16.1	15.1	16.1	21.7	27.3	16	18.2	3.4	3.4	3.4	18.3	21.7 13.7	477.60	20,059
XXX-REDACTED-XXX	23361	0 1	1 1	0 1.	1 0.4	0.4	0.4	1.1	0	1.1	0 0		0) (1	1 1.1	0	0.4	0.4	0.4	0	1.1	0	1.1	1.1	1.1	1.1	0	1.1 1.1	16.70	701
XXX-REDACTED-XXX	23544	11.4 21.	.6 12.5	5 37.	5 19	19	19	18.2	9.1 1	4.8 23.	9 18.6	18.6	18,6	17.1	36.	5 26	21.7	19.3	19,3	19.3	18.2	11.3	4.6	17.2	28.5	28.5	28.5	20.5	9.1 8	596,20	
XXX-REDACTED-XXX	24048	21.6 18	-	1 28.	-	-	-	33.1	8.5 1	3.8 1,	1 23,2	23.2	23.2	1.3	1 6.	1	0	1.2	1.2	1.2	18.2	17.1	10.3	17.9	32.9	32.9	32.9	6.8	0 0	432.40	18,161
XXX-REDACTED-XXX	25370		.0	9	5 22	-	- 11	5	8	7	8 7	7	7		9	7 1.1		8	8	8	9	25	19	18	15	15	15	13	8 4,1	338.20	14,204
XXX-REDACTED-XXX XXX-REDACTED-XXX	23694	12.5 19	4 11.0	4 11.	8.7	1	8.7	16.4	1.4	17 13.	7 11.4	11.4	11.4	12.5	12.	0 12.5	14.2	11	11	11	13.7	16	13.7	14.8	14.8	14.8	14.8	0	0 14.2	391.40 42.50	
XXX-REDACTED-XXX	23387	1	0	1	0.3		0.3	0	0	0	0 1	1	1			0 12.3	0	1	1	1	0	0	0	0	1	1	1	1	0 0	13.90	1,785 584
XXX-REDACTED-XXX	23937	0	0 1	0	0 0	0		0	0	0	0 0		0			0 0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	-	2
XXX-REDACTED-XXX	24074	0	0	0 1	0 0	0	0	0	0	0	0 0	0	0			0 0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	-	942
XXX-REDACTED-XXX	24301	10	8	3 1	0 3	3	3	2	9	5	9 6	6	6	5	9	5	5	8	8	8	7	6	23	9	7	7	7	7	7 9	212.00	8,904
XXX-REDACTED-XXX	23676		14 1	8 19	9 22	22	22	17	75	22 4	-		22	1	2 200	0 22	33	36	36	36	38	30	9	25	32	32	32	21	11 14	1,052.00	44,184
XXX-REDACTED-XXX	23675		1	2	9	9	9	10	11	48 1	-	-	12		0	0 0	- 0	0	0	0	0	0	0	0	0	0	0	0	0 0	198.00	8,316
XXX-REDACTED-XXX	22705	26 3	30 31	6 3	6 38	38	38	33	31	36 3	3 32	32	32	3	3 3	0 34	31	30	30	30	31	9	33	33	4.1	4,1	4.1	27	30 20	884.30	37,141
XXX-REDACTED-XXX XXX-REDACTED-XXX	22777	8 2	6 1	3 2	4 58	58	58	18	21	18 2	7 85	85	85	12	B 1	4 18	10	25.9	25.9	25.9	22	-	32	5	18	18	18	6	0 0	16.00 854.70	672 35,897
XXX-REDACTED-XXX	22785		7 1		1		-	54	-	17 1	-		-	+	1	-	16	15.2	+	-	-	18	9	17	17.3	17.3	17.3	0	24 10	659.50	27,699
XXX-REDACTED-XXX	25037		26 2	-	-	-		32	*	24 3	-	-	-	-			23		1		1	28	27	15	19	19	19	22	22 28	894.00	37,548
XXX-REDACTED-XXX	22701	-	1 2		-		+	26		31 3	+		27	+	-	-	-	+	-	+		0	34	25	30.3	30.3	30,3	29	26 25	819.90	34,436
XXX:REDAGTED:XXX	21729	26 1	8 1	7	7 15	16	16	6	9	20	0 13	3 13	13		3	2 7	30	9	9	9	22	10	14	3	20	20	20	19	15 19	421.00	17,682
XXX-REDACTED-XXX	24075	1	-	1	0 0	0	0	2	0	1	0 1	1 1	1		b i	0 1	0	0	0	0	1	0	1	0	0	0	0	1	0 0	12.00	504
XXX-REDACTED-XXX	24157		1	8	7 3	3	3	1	8	1 8	-	-	-	_	_		14	3.67	_			2	2	12	10	10	10	0	1 62	475.01	19,950
XXX-REDACTED-XXX	24302	18 1	8 1	4 1	6 17	17	17	16	22	14 1	6 42	42	42	2 2	2 1	7 15	17	17.34	17.34	17.34			17	14	18	18	18	16	14 17	597.02	25,075
XXX-REDACTED-XXX	25213 25583	28 1	5 1	2 1	6 20	20	20	16	29	24	7 24	24	24	2	4 2	7 35	41	23	23	23	21	25	12	11	12	12	12	13	13 16	621.00	26,082
XXX-REDACTED-XXX	25584	4	0	2	0 0	0	14	0	3	2	0 0		13	+	4	3 3	1 0		38	1		19	9	7	2	0	50	3	25 3	256.00	10,752
XXX-REDACTED-XXX	24079	7 1	.0 10	0 1	0 28	28	28	10	7	10 1	0 25	29	-	1	1	7 10	10	28	-	_	+	10	10	6	9.6	9.6	9.6	7	10 2	437.80	18,388
XXX-REDACTED-XXX	23982	11 1	0 1	0 1	0 9	9	9	42	10	9	9 1	8	8	3	в.	8 9	9	9	9	9	7	8	9	0	0	0	0	0	0 0	247.00	10,374
XXX-REDACTED-XXX	22831	20 1	5 1	5 1	1 14	14	14	15	16	13 1	3 14	1 14	14	1 1	6	7 8	13.9	14	14	14	11	15	15	9	14	14	14	14	18 10	420.90	17,678
XXX-REDACTED-XXX	21561			9 2	-	40	-	22	-	21 1	-	+	-		_	1 (0	25	-	-	1	23	22	23	22	22	22	22	1 22	578.00	24,276
XXX REDACTED XXX	26018		1 2				-	23		22 2		+		1		6 28	_		-		-	30	31	33	33	33	33	29	21 24	867.00	36,414
XXX-REDAGTED-XXX	24408		21 2	0 1	-		1	23		26 2	-		-	_	9 1	0 16	-	19	-	-	-	11	14	27	17	17	17	11	13 17	591.00	24,822 21,168
XXX-REDACTED-XXX	23614			4 1	-		-	10		14 1	-	+	+	-			_	14	-	-	1	11	18	14	11	11	11	10	10 13	380.00	15,960
XXX-REDACTED-XXX	25857	+	9 2	-		-	+	24	-	21	0 0	0 0	0	3:	-	-		32		-	-	29	30	19	25	25	25	27	22 23	713.00	29,946
XXX:REDAGTED:XXX	24893		13 50	+	+	_	43	43	47	46 4	8 46	5 46	39	4	7 4	7 17	50	46		-	1	46	46	47	49	47	41	44	47 46	1,397.00	58,674
XXX-REDACTED-XXX	24894	0	0 31	0 14	2 96	96	96	105	99	91 9	1 80	80	80	6	3 8	0 78	10	0	0	0	0	0	0	0	0	0	0	0	0 0	1,597.00	67,074
XXX-REDACTED-XXX	24860		14 3	6 3	-	34	34	32	34	31 3	4 3	1 34	31	_	-		-	32	31	30	_	31	32	27	31	33	33	32	33 33	996,00	41,832
XXX REDACTED-XXX	24861	1	1 4	9 4	2 0	0	0	0	0	0	0 (0	0	5		7 55	42	30	30	30	30	32	30	29	24	24	24	27	29 29	714.00	29,988
XXX-REDACTED-XXX XXX-REDACTED-XXX	24862	9 1	3	5	8 6	6	5	3	0	0	0 .	2	2	2 1	0	6 7	22	2	2	2	3	2	0	2	2	2	2	2	0 0	119.00 29.00	4,998 1,218
XXX-REDACTED-XXX	24863	0	0	0	0 0	0	0	0	0	0	0 1				0	0 0	- 22	1 0	0	0	0	0	0	0	0	0	0	0	0 0	29,00	1,216
XXX-REDACTED-XXX	23300	3	-	3	6 2	2	2 2	5	3	3	3		2 2	2	-	3 1	1	2	2 2	2	5	2	2	3	3	3	3	3	3 2	84.00	
XXX REDACTED-XXX	23371	5	7	7	5 5	5	5	3	5	3	3	3	3	1	3	5	3	1	1	3	6	3	2	2	6	6	6	3	3 5	119.00	
XXX-REDACTED-XXX	23221	5	5	1	2 3	3	3	3	3	1	0 (0	0	1	0	2		0	0	0	1	2	2	3	3	3	3	2	3 1	55.00	2,310
XXX-REDACTED-XXX	23223	21 1	5 1	5 1	4 22	14	11	10	14	9	9 10	17	14	1	3 1	4 14	15	18	16	10	14	13	1,3	15	14	19	10	10	13 15	431,00	
XXX-REDACTED-XXX	23225	6	5	5	5 1	1	1	8	1	6	3	5	5		3	3		2	2 2	2	3	3	5	5	1	1	1	2	5 5	102.00	
XXX.REDACTED-XXX	23226	0	6	0	0	0	0	0	0	0	3		1 0		2	9 (-	1	2 2	0 0	0	2	6	0	0	2	2	2	3 3	76,00	-
XXX-REDACTED-XXX	24857	49 3	5 4	9 4	8 54	47	42	46	46	43 4	7 4	5 47	38	3 4	6 4	7 3:	44	48	_	-	49		30	30	47	47	42	50	49 48	1,380.00	
XXX-REDACTED-XXX	25119	6	5	3	3 5	-	5	8	3	5	3	2	2 2	2	2	3 :		2	2 2	1 2	+	1	1	3	4	4	4	3	2 2	103.00	
XXX:REDACTED-XXX	25166	5	1 1.	1	2 1	1	1	2	2	2	3	2	2 2	2	2	1		1	1	1	1	1	2	2	1	1	1	2	3 3	54.10	
XXX-REDACTED-XXX	24690	10 1	16	9 0.		11	11	10	14	11	B 12	2 13	12			5 1	_	11	-	+			13	11	9	9	9	9	9 11		13,041
XXX-REDACTED-XXX	24691	25 2	25 2	-	-	23	23	20		23 2	2 20	20	20	_	-	6 18	21		1	-	-	_	17	17	18	18	18	18	18 20		
XXX-REDACTED, XXX	23942	0	0	-	1 1	.1	-	0	1	0	0	1 1	1	1	0	1 (1	1	1		1	0	0	1	1	1	0	1 1	18.00	-
XXX-REDAGTED-XXX	23943		0	-	0 0			0	0	0	0 1	0 (0		0	0 (0	0	-	0	0	0	0	0	0	0	0 0	375.00	15 750
XXX-REDACTED-XXX	23944				5 30	30	-	13	2B	30 2	5 1		-		_	1 39	+		-				27	25	13	28	28	14	13 14		15,750 36,960
XXX-REDAGTED-XXX XXX-REDACTED-XXX	25079	36 3	3 3	1	5 30	30	30	30	0	0 2	2 3	3	31	1 2		0 3	28	1	30	-	1	0	0	0	0.66	0.66	0.66	0	0 0	9.98	
FAIRBANK ROD & GUN CLUB #			0	0	0 0	0	1 0	0	0	0	0 1	1			o o	0		-	1 0	1	0	0	n	0	0.00	0	0	0	0 0	5.00	
FAIRBAK ROD & GUN CLUN #6	-		3 1	_	0 21	-	-	26	-		9 2	9 29	-	-	5 2	6 3:	-	-	30	30	31	34	23	23	23	23	23	25	35 26	817.00	
XXX-REDACTED-XXX	25267		33 2		1 33		+		_		5 3	-			+	4 2		+	-		_		24	22	22	22	22	22	22 22	793.00	
XXX-REDACTED-XXX	26229		4 1	+	1 13	-	-				1 1	-	-	-	-	7 10	+	+			1		11	7	17	9	7	15	13 10		
XXX-REDACTED-XXX	25870	19 1	18 1	6 1	6 17	17	1 17	16	16	15 1	5 1	5 1	_	-	6 1	4 1	15	16	16	16	15	16	2	21	19	19	19	0	16 16	478.00	20,076
XXX-REDACTED-XXX	21947	0	0	1	0 0	0	0	0	0		-	0		_	0	1 1) (0	0	0 0	0	-	0	2	0	0	0	1	0 0	6.00	
XXX-REDACTED-XXX	21956	-	6 1	1	9 1.5	-	_	-	-		0 10	-		-	9	1 1		11			-		5	1	0	0	0		14.7 5	194.20	
GAMELANDS #2	25727		3 1	1	7 14	-	-			-	1 1	5 1	19	-	_	9 1	14	_	_	+			17	7	6	6	6	12	17 8	398.00	200 200
GAME LANDS UT #1	25726		6 1	-	3 16	-	+		10		2 12	7	9 9	7 6.		1 10	12.7	-			-		4.6	12	10.6	10.6	10.6	11.4	12 8 12.6 11.4	339,00 367.70	14,238 15,443
XXX-REDACTED-XXX XXX-REDACTED-XXX	24046 25145	11.4	8 13.	5 9.	1 12.2	-	-		14	0.3 18.	2 13.	7 13.7	13.7	-	9 15. 5 1	-	+	-	-	+	-	13	11	14	13	10.6	13	11.4	12.6 11.4		
XXX-REDACTED-XXX	22970	0	0	1	0 0	15	15		1	0	1	2	2	2	0	0	1	1	1 1	1	0	1	1	0	0	0	0	0	1 1	18.00	
XXX-REDACTED-XXX	22812	0	0	0	0 0	0	0	0	0	0	0	0	0	0	a	0) (0 0		0	0	0	0	0	0	0	0	0 0	+	
XXX-REDACTED-XXX	24496	15 1	8 1	1	6 10	10	10	15	16	15	0 1	2 1	2 17	2	6 1	0 1	15	1	7 7	7	11	8	9	8	10	10	10	8	10 10	322.00	13,524
Water Committee of the																															

EXPRESSION SINCE ALL AND ALL A	/2011 Total (BBL) Total (1 5/19/2011	5/18/2011	5/17/2011	5/16/2011 5	/15/2011	5/14/2011 5/	3/2011 5		5/12/201	/11/2011	5/10/2011 5	9/2011	5/8/2011	5/7/2011	5/6/2011	5/5/2011	5/4/2011	5/3/2011	5/2/2011	5/1/2011	4/30/2011	4/29/2011	4/28/2011	4/27/2011	4/26/2011	4/25/2011	4/24/2011	4/23/2011	4/22/2011	21/2011	/20/2011 4/	4/19/2011	Well#	Lease & Well Name
The presentation The present	2.34 95.77		3.51	5-32-5-3	Committee and the last				-	Contract of the Contract of th	-	-			2000		100000000000000000000000000000000000000	-	100		3		The second of		ALL PROPERTY.	Description of the last	T-May bearing	-	the same of the sa	Activities and the second	1000000	Administration of the Parks			
MARRIENTON SOUTH 15 15 15 15 15 15 15 15	0 23.40	0 0	0		_				0		0	-		1.1		0	0	1.1		1.1	1.1	1.1	0	1.1	0	1.1	1.1	1.1	1.1	0	0	0	1.1	23362	DACTED-XXX
SAME MATCHINGS 25/12 33 36 27 27 27 27 27 39 33 27 38 39 39 39 39 39 39 39	20.5 732.93	.9 20.5	23.9	20.5	22.8	22.8	22.8	22.8	6.2	26.	19.4	26.2	22.8	22.8	22.8	22.8	22.8	23.9						_		21.7					_				
Properties Pro	0 207.00	0 11	2	32	10	10	10	10	10	-	10	10	10	10	10	20	1 10	3				40			-	5	-	-	-	13	-	-		-	
EXPANDED NAME OF PART OF A 19 19 19 19 19 19 19 18 18	0 686.00	0 0	0		22		-	_		_					24	24	-						-						26	30				- Contract	
Property Conference 1986 0 0 25 20 15 15 15 15 15 15 15 1	14.8 463.50	5 14.8	12.5	18.5	14.4	_			-				-		16.1	13.7	_		-			16	-					14.8	14.8	13.9	-		_	_	Comment of the Commen
EXPANDATION OF THE PROPERTY OF	9.1 118.97	.6 9,1	4.6	8	3,4	3.4	3.4	3.47	5.7	5.	1.1	6.8	5.5	5.5	5.5	3.4	3.4	2.2	5.1	- 3	3	. 3	1,1	2,3	0.1	1.1	2.7	2.7	2.7	5.1	4.2	3.8	4.6	21969	DACTED-XXX
EXPRENDENTS XX 2889 0 2 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0	0 538.00	0 0	0	31	34			11	0		- "		_	_	20	0	18	50	44	0	0	. 0	43	21	14	0	15	15	15	26	52	0	0	The second second	DACTED-XXX
EXPRENDENCE MAY 1997 7 7 7 7 8 9 9 9 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7 323.30	0 7	0	8	12	12	12	0	26	2	10		10	10	10	8.9	3.4	9	16	12	12	12	11	5	5	13	15	15	15	9	11	5	15	100000000000000000000000000000000000000	
EXPANDATION NO. SAMPLE 1	0 29.00	5 0	15	0	0 20	0 29	0 20	5	0		5	0	0	0	0	10		0		0	0	0	0	0	0	1	0	- 0	0	0	0	2	.0	_	
EXPANDING MATERIAL NATION 1.5	6 249.00	0 6	0	7	9	9	9	7	9	3- 50	-	10	10	10	10	10	- 11	9	-	9	9	9	9	2	8	9	9	9	9	7	7	7	7		
OXFORMENTIAN 2 64965 14 6 14 10 13 14 14 13 14 13 12 17 17 12 12 12 13 13 14 13 13 14 13 13 14 13 10 0 22 22 12 17 17 13 13 14 13 17 13 13 14 13 10 0 22 22 12 17 17 13 13 14 13 17 13 13 14 13 13 14 13 10 0 22 12 12 12 13 13 14 13 14 13 14 13 14 13 14 13 14 13 14 13 14 13 14 13 14 13 14 13 14 13 14 13 14 13 14 13 14 14 14 14 14 14 14 14 14 14 14 14 14	24 352.00	7 24	7	7	5	5	5	0	11	1			_				21	26	38	11	11	11	2	3	2	2	3	3	3	8	15	27	36		THE PARTY OF THE P
DOMESTICKNOCK 22966 9 9 7 9 8 8 6 8 8 9 9 8 8 8 8 8 8 8 8 8 8 8 9 7 0 0 0 3 1 3 3 0 155 0 150 0 150 0 1 1 1 1 1 1 1 1 1 1	17 450.00	9 17	19	17	72	22	22	22	0		13	18	13		13	17	_		1			12	17	12	13	13	14	14	14	13	10	14	_		
Decomposition Confidentification Confidentifi	18 483.00	8 18	18	18	0	0	0	0	16	1	21	17	21	21	21	15	17	18	14	17	17	17	21	17	17	20	17	17	17	18	14	20	19	24695	DACTED-XXX
DOMESTICATION SAME 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	11 215.00		15	.0	. 3	3	3	0	0	1	7	-	8	8		8	-	-	-	8	-	8	8	8	9	9	8	8	8	8	9	7	9		
Description of the content of the	2 191.50			5	6	6	6	7	В		9		6	6	6	7	1	10	1	6	-	6	6	5	5	7	6.3	6.3	5.3	6	7	7	5	_	
Description Conference Co	0 14.00	-		1	0	0	0	0	1		0	1	0	0	0	- 0		- 0		- 0	-	- 0	0	0	0	0	0	0	- 0	0	0	0	0		
DOMESTICATION NATE 24800 0 26 15 33 29 29 29 13 30 90 70 70 70 70 70 70 7	1 13.00	1 1	1	0	1	1	1	0	0		1	0	0.34	0.34	0.34	0				0.33		0.33	0	1	0	0	- 0.33	0.44	0.33	1	0	0	1	-	
XXX. PRINCELED/XXX	26 728.00	1 26	1	25	27	27	27	25	25	- 2	25	25				29	26	29	-			-	0	30	30			29	29	32	25	24	0		
DOCESTICATION 1994 3 0 1 1 1 2 1 1 3 1 0 0 0 1 1 1 1 1 1 1 0 0 1 0 0 1 0 0 2 2 48 41 43 34 34 34 34 34 34 34 34 34 34 34 34	5 126.00	5 5	25	2	2	1	3	2	4		3	4	4	2	2	5	1	- 4		3	1	3	4	3	6	4	3	3	5	3	9	0	3		
SOCREDIATED-XXX 24998 3	5 124.00	7 5	7	9	9	4	3	2	3		5	4	4	3	0	5		3		3	4	1	6	0	1	7	4	3	10	3	4	0	3		DACTED-XXX
DOCARDATED/XXX 24308 33 38 21 14 35 55 59 0 35 90 27 27 27 27 30 25 23 29 22 22 22 22 22 24 24 24 24 24 24 24 24	39 1,344.00	3 39	3	34	34	34	34	43	41	- 4	48	52	20	20	20	48	_		50	48		- 10	_	55	66	47	54	54	54	57	52	64	56		OR COMPANY TO THE OWNER OF THE OWNER OW
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	2 66.00	-		1	1	0	0	0	1 20		0	0	0	1	0	0			- (1			-	0	- 0	1	3	1	2	1	1	0	3		
XXX REPORTED PAX 2280	25 807.00 9.1 324.40								-	-			-	_			-	-	-	15.2				30	-	30		-22	35						
DXX-REDACTED-DXX 22241 7 8 11 11 9 9 9 10 15 10 11 10 10 10 22 9 5.7 10.3 10 10 10 13 9 13 13 12 12 12 12 13 13	10 392.70		11.4						_		_		8	8	7.5 R	-	_		-					11		15						6		_	
SOCKREDACTED-DOX 24972 13	10 339.00	-	13			_		-	_		9		10	10	10		-	9	-						-		9	9	9	-	20	9			
DOX-REDACTED/XXX 24974 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	18 400.80	_	10				13		_		13		14	-		15.2		14	10					11	11	16	12	12	12		11	11	13		DACTED XXX
ΧΟΧ/REDACTED/XXX 25078 7 8 15 11 9 9 9 12 9 9 12 10 10 10 11 10 11 10 10 10 11 10 10 11 10 10 11 10 10 11 10 10 11 10 10 11 10 10 11 10 10 10 11 11 10 10 10 11 11 10 10 10 10 10	8 349.20	-	11	11				10			11	18				-	6.8	7	1	13	13	13	10	10	6	17	12	12	12	13	13	10	13		
XXX-REDACTED-XXX	2 10.00	0 2		0				0			1	0									0	0	0	2	0	. 0	0	0	0	0	0	1			
XXX/REDACTED/XXX	160 474.00 10 388.00			9	10	_	10	8			10	- 11	10		10	12			-	9	9						9	9	9	11	15	8	-		COST TOWNS
XXX/REDACTED/XXX 23865 13 18 16 16 17 17 17 18 18 18 16 15 15 17 17 17 18 18 18 16 15 16 16 16 16 16 16 16 16 16 16 16 16 16	1 29.00	0 1	0	1	1	10	1	0	0	-	2	1	2	2	7	0		11	1	10	10	1	0	1	12/	10	10	9	1	0	1	0	9		
XXX-REDACTED-XXX 23925 11 14 8 13 17 17 17 13 11 11 13 12 12 12 12 9 8 11 5 11 11 11 10 16 9 9 11 11 11 11 9 10 XXX-REDACTED-XXX 25674 9 9 9 9 9 9 9 9 9 9 9 9 11 9 11 11 10 9 9 9 9	17 518.00	7 17	17	17	19	19	19	18	18	1	18	18	16	16	16	16	16	17	10	16	16	16	13	16	18	18	17	17	17	16	16	18	13		
XXX-REDACTED-XXX	11 355.00		10	9			11	9	-		16		11				-		1	12	_			-	11	13	17	17	17		8	-			
XXX.REDACTED:XXX Z4G43 41 48 43 49 51 51 51 38 45 45 44 131 131 131 40 44 40 44 62 62 62 34 50 43 40 43.6	9 309.00	10 9	10	11	11	11	11	13	11	1	6	10	11	11	11	13	- 11	9		9	9	9	10	11	9	11	9	9	9	9	9	9	9	25674	DACTED:XXX
XXX-REDACTED-XXX 24254 5 18 14 11 13 13 13 14 10 14 14 10 10 10 11 24 14 11 12 12 12 12 18 3 3 11 11 11 11 16 18 XXX-REDACTED-XXX 25616 3 2 2 2 2 2 0 4 2 2 2 1 1 1 3 2 3 2 2 2 2 1 1 1 1 3 2 3 2	0 213.00	0 0	0	8				0		_	-	8	8	8			7	9	1	8	8	8	0	2	8	9	9	9	9	8	7	9			
XXX-REDACTED:XXX 25616 3 2 2 2 2 2 2 0 4 2 2 2 1 1 3 2 3 2 2 2 1 0 1 2 2.3 XXX-REDACTED:XXX 25605 28 26 28 29 18 18 18 18 24 30 29 31 29 29 29 1 16 30 29 32 32 32 32 25 29 31 31 28 22 XXX-REDACTED:XXX 24937 75 68 67 71 65 65 65 70 66 76 68 80 80 80 80 66 71 66 68 64 64 64 62 67 66 60 71 71 71 71 64 49	33 1,654.80					_		40	43	_	-			_	_		-		_				- 74			-					-		41	-	
XXX-REDACTED;XXX 25605 28 26 28 29 18 18 18 18 24 30 29 31 29 29 29 1 16 30 29 32 32 32 23 25 29 31 31 31 28 22 XXX-REDACTED;XXX 24937 75 68 67 71 65 65 65 70 66 76 68 80 80 80 66 71 66 68 64 64 64 62 67 66 60 71 71 71 71 64 49	16 384.00 2 60.30			16	11	11	11	3	3		18	12	12	12	12	11	10	24	1	10	10	10	14	14	10	14	13	13	13	11	14	18	5	_	
XXX ^T REDACTED:XXX 24937 75 68 67 71 65 65 65 70 66 76 68 80 80 80 66 71 66 68 64 64 62 67 66 60 71 71 71 71 64 49	22 803.00	-		28	31	31	31	29	-		23	23	32	32	32	29	30	16		29	29	29	31	29	30	74	18	19	18	79	28	26	28		
	66 2,106.00	-	49					_	_				64				-		-					-						71	-	-		and the same of th	
	15 411.00	9 15	9	13	14	14	14	16	15	- 3	14	8	13	13	13	15	1	11	1	13	13	13	15	13	19	11	13	13	13	11	13	14		24077	D'ACTED-XXX
XXX-REDACTED:XXX 23652 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0	0 0	0	0	0	0	0	0	0	1	0	0	0	0		0	(4	0	0	0	0	0	0	0	0	0	0	0	0	-	0	23652	DACTED-XXX
XXX-REDIACTED-XXXX 23653 9 10 8 10 9 9 9 9 8 9 10 10 10 10 10 9 8 9 9 9 8 9 10 9 9 9 9 8	9 281.00	8 9	8	9	9	9	9	9	10	_	9	8	9	9		9				10	10	10	10	9	8	9	9	9	9	10	8	10	-	_	
XXX-REDACTED-XXX	2 18.00 15 357.00	0 2	14	0		0	0	-	1	_	-	0	12	1	1	0	1	10		2	2	2	0	0	0	0	1	1	1	0	0	1			
XXX.REDACTED.XXX	13 329.00	9 13	9			_	11	7	11	_	-	8	8	13	1.2	-	-	10	_		_		9			9	13			16		10	-		AND RESIDENCE OF THE PARTY OF T
XXXXFREDACTED-XXXX 20438 0 0 0 0 0 1 1 1 1 1 0 0 0 0 0 1 0 1 1 1 1 1 1 0	0 17.00	1 0	1	0	0	0	0	0	0		0	0	0	0			-			0	0	0	0	0	0	1	1	1	1	0	0	0			
XXX-REDAGTED.XXX 23391 0 0 1 0 0 0 0 0 0 0 1 1 1 1 1 1 1 0	1 13.00	0 1	0	1	1	1	1	1	0		2	0	0	0		0		- 0		0	0	0	1	0	0	2	0	0	0	0	1	0	0		
XXX-REDÁGTED-XXX 25758 30 26 23 26 24 24 24 20 24 21 29 67 67 67 25 24 22 25 80 80 80 24 28 20 24 24 26 26 26 26 26 27 26 27 27 28 28 20 24 24 26 26 27 28 28 28 20 24 24 26 26 27 28 28 28 20 24 24 26 26 27 28 28 28 28 28 28 28 28 28 28 28 28 28	25 1,043.00	26 25	26	16	24	24	24	24	20	1	28	24	80	80	80	25	2	24	2.	67	67	67	29	21	24	20	24	24	24	26	23	26	30	25758	D'ACTED-XXX
	0 6.60	_	1.1	0		-0	0	0	1.1	1	0	-	0	0	C	-	_		_	-	0	0	0	0	0	0	0	-	-			0			The state of the s
	3 76,00	0 3	0	5	5	5	5	_	2		2	4	0	0		3		1		-	3	3	0	3	1	2	3	3	3	1		1			
XXX-REDACTED-XXXX 30092 6 0 0 0 3 3 3 0 4 0 3 0 0 0 0 0 0 0 0 0 0	2 40.00	0 2	0	4	0	0	0		0		4	0	0	0		0		1			0	0	3	0	4	0	3	3	3	0	0	0			
XXX-REDACTED;XXX 23939 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 20.04	0 0	0	0	-	0		_	0			0		0.34	0.34	0		_	_			0.34	0	1	0			0	0	0	1				
XXX/REDACTED/XXX 23278 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1.00	0 0	0	0		0	0		0		1	-	0	0	0.50	0	1			0		0	0	0	0	_		0	0	0	_				
XXX/RED/ACTED/XXX 23274 16 0 0 0 9.67 9.67 9.67 16 0 21 0 0 0 0 17.1 0 7 7 7 0 26 30 2 1 1 1 33 2	0 216.11	2 0	2	33	1	1	1	2			26		7	7		-	17.:			0	0	0	0	21	0	16	9.67	9.67	9.67	0	0			23274	DACTED XXX
1000) 100 100 100 100 100 100 100 100 10	19 287.70	-	-							-	-		_	-		-	-	-	+		-11	11			3										
	6 509.80	-	11					-	_				14	14	14	8,9		-			0	0	0	19	0		-	0		260					
Principal Approximation and the second secon	1 16.00	1 0	0	0		-		_				-	2	2	- 3	0					0	0	1	2	0	- 4	-	0		-0	-				
XXX/REDACTED-XXXX 23308 0 1 0 25 0 0 0 1 0 1 0 1 0 1 1 1 1 0 0 0 0 0 0	25 362,00	-	0	31			-	_	_	_	-	0	0	-	1	0		-	-	_	0	-		-	0			75		25	_				the same of the sa
XXX-REDACTED-XXX 2339 21 25 0 0 25 25 25 4 0 21 24 0 0 0 0 0 0 0 0 0 1 1 1 1 1 0 0 1 1 1 1 0 0 1 1 1 0	1 17.00	0 1	0		_	-			1	1		0	0	0		0			_		1	1	0	1	0	0	1	1	1	1	-		1		Name and Address of the Owner o
	5 225.50	3 5	3			_			5		0	6	6	6		4		1		26	26	25	5	4	4	18	5	5	5	1	4	-	5		
XXX-REDACTED-XXX 25651 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0	0 0	0	0		0	0		0	1		0	0			0				0	-	-	0	0	0	0	0	0	0	0	0		0	25651	DACTED-XXX
	21 641.00	-							_				20		_	-			_												_		100		
	25 586.00								_	-			7	$\overline{}$					+					-	-	-	_			_					
	35 1,272.00	0 35	39	38	39	39	39	_	200			39	38		38	37	4:	44	8	42	42	42	41	40	41	40	40	40	40	38	40	42			
	12.5 452.80	14 12.5	14	171	14.8	14.8	14.8	-	~	_		2.0	15.6	-	15.6	197	12	16	1	15.6	15.6	15.6	16	137	16	13.0	15.1	15.1	15.1	15.4	145	74.8	- 0		Contract the Contract of the C
	22 167.00		22		7	7	7				44.3 B					13.7	13.0	10	1	15.6		42.0	10	13.7	10	13.9	15.1 n	15.1	15.1	10.4	0				
XXX-REDACTED-XXX	1 15,00	2 1	2		1	1	1	1	0	1	0	1	1		1	0				0	0	0	0	3	0	0	0	0	0	1	0	0			
XXX-REDACTED-XXX 24030 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 -	0 0	0	0	0	0	0	_	0		0	0	0	-		0			1	0	a	0	0	0	0	0	0	0	0	0	0	0	0		
XXX-REDACTED-XXX 23979 16 20 12 21 17 17 19 18 21 24 19 19 19 20 19 11 21 17 17 19 18 26 15 15 15 16 2	17 539.00	-	2		15	15	15		_	_	18	19			-		-	_	2	19		19	24	21	18	19	17	17	17	21	12	20	16		
	3 150,00	20 3	20	40	0	0	0	-	4		- 6	6	4	4	- 4	3	4	- 4		4	4	4	3	4	3	3	3	3	3	- 4	1	2	1		
XXX.RED.XXXX 21250 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0	0 0	0	a	0	0	0	- 4	0		0	0	0	0		-0	1			0	0	٥	0	0	0	0	0	- 0	0	0	0	-0	0	The second second	
XXX-REDACTED-XXX 2333 2 47 1 1 0 0 0 2 16 1 45 32 32 32 13 12 7 47 7 7 7 26 45 72 48 10 10 10 0 0 XXX-REDACTED-XXX 23887 0 15 2 7 2 2 0 5 7 9 13 13 13 13 11 7 7 7 7 7 10 16 10 9 6 6 6 7 5	1 533,00	0 1	0	-			10	48		-			7	7	-	-		-	-				45	1	16	2	0	0	Ω	- 1	1		2		
XXX-REDACTED-XXX	8 226.00 0 15,98	1 0	- 5				0.66	9		_		10	7	-	1	7	1		1	19	13	13	9	7	5	0	2	2	2	7	2		0		
XXX-REDACTED-XXX	0 9.00	0 0				0.00	0.66	0	-	-	-	0	p 2	-		3				0	0	0	0	n	0	0	1	7	1	0	0	-	0		
	25 1,354.10	11 25	41			46	46	29	-	_		44	-	-	47	44	4	5	5	52		52	54	52	54	27	42	42	42	48	36		46		
	32 1,050,00	-	32						_	_				_	-							-		-	_	-								the second second	
XXX-REDACTED-XXX 23884 32 29 0 25 40 40 40 42 42 44 36 44 44 43 28 26 28 29 29 29 27 28 26 25 27 27 27 26 36	36 999.00	36	36	26	27	27	27	25	26	1	20	22	20	20	20	20	1 10	1 20	1	100	4.4	4 4 5	25	4.1	45	43	3.0	10	40	20		2.0	20	33004	DACTED VVV

Lease & Well Name	Well #	4/19/2011	4/20/2011	4/21/20	011 4/2	22/2011	4/23/2011	4/24/201	4/25/2	2011 4/2	26/2011 4	/27/2011	4/28/2011	4/29/2011	4/30/2011	5/1/2011	5/2/2011	5/3/2011	5/4/2011	5/5/2011	5/6/2	011 5/7/3	011 5/8/20	011 5/9	/2011 5/1	10/2011 5	/11/2011 5	/12/2011	5/13/2011	5/14/2011	5/15/2011	5/16/201	5/17/20	11 5/18/2	2011 5/19/	2011 Total (BBL)	Total (GAL)
XXX-REDACTED-XXX	24174	1	5 1	0	2	0	1.3	1	.3	1.3	18	18	16	2	16.67	16.6	7 16.67	15	5 1	4 1	6	12	16	16	16	10	14	15	12	15	1	5	5	15	14	14 399.91	16,79
XXX-REDACTED-XXX	24175	2	1	7	18	0	9.8	9	8.6	9.8	6	8	9	18	48	4	8 48	13	1	8 1	6	11	14	14	14	17	15	25	19	25	. 25		5	6	6	12 532.40	22,36
XXX-REDACTED-XXX	24083			a	0	0	0		0	0	0	0	0	1	0 0		0 0		0	0	۵	0	0	0	0	D	0	0	0	0		0	0	0	0	0 -	
XXX-REDACTED-XXX	24834			0	0	0	0	1.0	0	D	0	0			0		0 0		0	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0 -	
XXX-REDACTED-XXX	30424	1	7 3	4	34	21	25		18	16	23	27	37	4	1 34	3	4 37	39	9 3	7 3	17	30	30	30	30	34	37	27	7	41	1	3	4	34	34	30 927.00	38,93
XXX-REDACTED-XXX	25742	2	3	0	29	25	30		14	0	0	0		(0		0 0		0	0 5	7	37	30	43	37	34	37	27	9	0			0	57	41	30 588,00	24,69
XXX-REDACTED-XXX	22132		1	9	4	7	41	- 4	41	41	7	9			3.3	3.	3 3.3	4.5	5	7 20.	.5	9	6.3	5.3	6.3	9	7	8	9	9.5	9.	9	5 8	5.8	6.8	6.8 335.70	14,09
XXX REDACTED-XXX	24824			9	58	6	22	-	22	22	6	6	- 5		5 6		6 6		6	3	5	5	5	5	5	6	6	7	6	6		5	5	5	5	6 276.00	11,59
XXX-REDACTED-XXX	25027		4	5	8	14	15		15	15	7	16		26	5 13	1	4 14		0	0 1	7	12	7	7	7	D	7	7	11	3		3	3	0	10	14 314,00	13,18
XXX-REDACTED-XXX	24823	- A	10	o	10	64	6		6	5	2	0	- 4		1 10	1	0 10		0	0	2	2	2	2	2	2	- 1	6	8	5			5	23	0	B 226.00	9,49
XXX-REDACTED-XXX	25026	2	3 2	7	15	20	21	- 3	21	21	12	15	16	13	7		7	1	0	0 2	7	20	17	17	17	0	3	5	3	22	2	1	-	0	0	0 404.00	16,96
XXX-REDACTED-XXX	21626			0	0	0	1		1	1	20	n	-		0 /		0 0		0	0	5	0	0	0	- 0	0	n	0	0	0	-		0	0	0	0 28.00	
XXX-REDACTED-XXX	23184)	1	1	0	2		2	2	5	1	-		2	,	1 2	1	6	1	5	2	2	2	2	2	1	3	0	0		2	0	0	0	0 107.00	4,49
XXX-REDACTED-XXX	25235	1	1 30	0	10	9	10	-	10	10	96	9	11	1	1 11		0 10		0 2	9 11.	4	0	12	12	12	7	q	12	8	0		1	0	11	2	0 352.40	-
XXX-REDACTED-XXX	24295	4.0	-	-	10.3	12.5	11	_	11	12	11.4	10.3	9.1	-	-	-	-	-	-	+	_	10.3		10.5	10.5	5.2	10.3	9.1	10.3	11	1	-	-	-	9.1	10.3 310.60	13,04
XXX-REDACTED-XXX	25304	3:	-	-	31	31	31	_	31	31	30	28	30	+	-	2	_		_	-	_	28	29	29	29	29	28	29	29	26			-	26	29	26 902.00	37,88
XXX-REDACTED-XXX	23700	3.	3	0	10	12	13		13	13	13	20	17	-	5 7.5	4	+	-	-	_	12	14	12	12		12	11	12	29	20	- 2		-	-		10 305.50	
XXX-REDACTED-XXX	23741	2:	2	2	20	25	23	_	23	73	22	21		-	-	-	-	-	-	7	9	22	20	20	20	21		23	12	22	-	2 2	-	12	12	11 646.00	
XXX-REDACTED-XXX	24463	51	_	_	60	54	59	_	59	59	46	62	55	_	-	-	5 45	-		2 5	-		48	48		57	21	-	39		4	-		44	10		27,13
THE RESERVE OF THE PARTY OF THE	23650		0	2	00	34	59	,	29	39	40	02	33	91	4:	9	3 43	34	2 3	2 3	0	55	48	48	48	5/	50	40	39	44	4	4	4	94	46	43 1,561.00	-
XXX-REDACTED-XXX	_	_		-	0	0	- 0		2	-0	- 0	0	- '	-		1	0	-	0	0	4	0	0	· u	U	- 0	- 0	- 0	0	3		2	3	0	0	0 9.00	
XXX-REDACTED-XXX	24756			41	3	3	- 3		3	3	4	3			1		3		a l	2	4	3	3	3	3	3	3	9	3	3		3	3	3	- 2	3 96.00	4,03
XXX-REDACTED-XXX	24895	-		1	0	1	0		0	-0	0	-0	- (1	1		0		0	0	0	0	0	0	0	0	0	- 0	0	0		2	0	0	0	0 4.00	-
XXX-REDACTED-XXX	22850	1.	-	1	0	01	1		1	1	0	- 0		2.5	1	1	0 ((ir g	0	2	0	1	1	1	0	1	0	0	0.66	0.6	5 D.6	6	0	1	0 16.38	
XXX-REDACTED-XXX	23165		2	3	2	В	10		10	10	1	11		_	1	1	0 10	- 11	1	9 1	1	- 3	.01	0	0	0	0	0	.0	0		2	0	0	0	0 143.00	
XXX-REDACTED-XXX	23166	19		1	20	16	20		20	20	18	18	18	10	5	3	3	7	7	0	7	21	11	11	11	4	4	1.0	22	22	2.	2 7	2	0	7	18 414.00	17,38
XXX-REDACTED-XXX	22423	1	-	0	0	0	. 0	_	0	0	0	0			0 0		0 (-	0	0	0	0	0	0	0	.0	. 0	0	0	0		5	0	0	0	0 -	-
XXX-REDACTED-XXX	23852		+	0	0	0	0	_	.0	0	0	0	- (0		0 (0	0	0	0	0	0	0	.0	0	0	0	0		0	0	0	0	0	- 6
XXX-REDACTED-XXX	24557	1	_	9	8	9	10	_	10	10	7	11	11		0 1	1	6 1	-	4	-	10	10	12	12	12	10	10	11	9	13		_	-	11	10	10 323.00	13,56
XXX-REDACTED-XXX	24152	-	2	0	1	0	. 0		0	0	0	- 0	- (1.	1 ()	0 ((0 1	-	0	1.1	0.8	0.8	0.8	0	1.1	0	0	0.4		-	-	0	1.1	0 10.10	
XXX-REDACTED-XXX	24153	_	1.	_	0	1.1		_	0	0	1.1	D			0 0		0 ((0 1	-	-	0	0	0	0	1.1	0	1.1	2.3	1.1	1.	1 1	1	1.1	2,2	1.1 17.80	-
XXX-REDACTED-XXX	24154	19	13.	7 1	13.5	19	14.1	14	1,1	14.1	17.8	9.1	16	17.	1 10	3	6 1	20.5	5 14.	8 16	.5	13.7	15.2	15.2	15.2	3.4	4.6	11.4	17.1	16	1	5	6 13	2.5	12.5	14.5 447.60	18,79
XXX-REDACTED-XXX	22847	10	- 1	8	21	9	10	1	10	10	9	9	10		9 5		9 9	9	9 1	0	9	9	9	9	9	9	1	5	2	6		6	6	8	0	0 239.00	10,03
XXX-REDACTED-XXX	25887	1)	0	0	.0	0		0	0	90	-0	- (0 (0		0	0	0	0	0	0	0	0	100	32	21	22	2	2	2	31	0	0 340,00	14,28
XXX-REDACTED-XXX	23981	3	3.	2	31	26	30	- 3	30	30	29	31	35	3:	3	3	2 3	26	6 2	1 3	38	26	26	26	26	29	27	27	30	26	2	5	6	17	25	24 879.00	36,91
XXX-REDACTED-XXX	24927	15	1	3	29	16	19		19	19	6	23	16	1	7 1	1	5 1	18	8 1	6 1	18	19	17	17	17	23	17	17	11	17	1	7	.7	17	11	17 527.00	22,13
XXX-REDACTED-XXX	24430	30	3:	1	27	32	33	- 3	33	33	32	34	32	30	6 3	1	4 3	33	2 4	1 4	11	39	42	42	42	37	45	39	38	42	4.	2 4	2	40	39	36 1,134.00	47,62
XXX-REDACTED-XXX	20773)	O O	0	0	0		0	0	0	0			0 4		0 ((0	0	0	0	0	0	0	0	0	0	0	0	- 2	0	0	0	0	0 -	
XXX-REDACTED-XXX	25389	1	1	8	19	18	18		18	18	17	19	16	1	5 1	1	6 10	11	8 1	4 1	15	17	17	17	17	15	18	17	16	14	1	4 :	4	14	15	15 508.00	21,33
XXX-REDACTED-XXX	24047	2.	-	3	5.7	4.6			5,8	6.8	8	4.5	- 5	13.	7 9.:	9	-	-	-		_	14.8	12.2	12.2	12.2	17.9	11.4	12.5	16.5	5.3		_	3 1	4.2	12.5	16 309.40	-
XXX-REDACTED-XXX	23618			0	0	1.1	1.1	1	.1	1.1	0	1.1	- (1.			0 0	1	0 1	_	0	0	0	0	0	1.1	0	1.1	0	0.3	0.	9 0	_	0	0	1.1 11.90	
XXX-REDACTED-XXX	23359	10.3	18.	2 7	23.9	34.2	21.3	-21	L.3	21.3	18.2	39.9	37.6	36.	35.7	35.7	3 35.73	33	3 39.	9 31	.9	34.2	98	98	98	57	26.2	35.3	39.9	22	2	2	2 3	1.9	34.2	31.9 1,145.29	-
XXX-REDACTED-XXX	23528	5.	+		9.1	11.4		-		28.5	29.6	21.7					-	-			_		30.8	30.8	30.8	8	3.4	3.4	2.3	14.8		-		4.6	16	2.3 546.21	
XXX-REDACTED-XXX	23530	1	-	+	8	17		-	15	15	19	16		1	5 1	_		+	8	3	8	9	11	11	11	12	11	6	6	2	-	2	2	0	13	2 318.00	
XXX-REDACTED-XXX	22270	1	-	_	11	16	13	_	13	13	15	4			3 11		-		9	4 1	18	15	16	16	16	16	14	14	12	10	1	0	0	9	5	4 342.00	
XXX-REDACTED-XXX	23673	10.	-	~	11.4	11.4		-		10.3	12.5	2	12.5	12.	5 3.	-	-	-	-	-	-	13.7	9.9	9.9	9.9	11.4	11.4	10.3	2.3		-	-	3	6.8	4.6	9.1 294.59	+
XXX-REDACTED-XXX	24739	10	-		10	13	11	_	11	11	12		10		2 1	_			_		13	14	1	1	1	0	12	10	11	14	1	4		13	11	11 323.00	+
XXX-REDACTED-XXX	24740	1	-		18	18	14	_	14	14	22	21	41	1	2 1	-		_	_		10	11	10	10	10	11	15	14	15	15	1	5	-	16	19	18 448.00	
XXX-REDACTED-XXX	25048	1	1	s	3	10	14		2	6	44	- 41		1	1		3	1		6	0	6	6	7	6	10	7		23	5		7	6	5	5	8 168.00	
XXX-REDACTED-XXX	24410		1	6	11	- 4	12.6	122	2.6	12.6	9	10	10		9 63	6	5 6.	1		-	3	11	22	22	33	10		14	13	25	-	-	15	14	14	7 436.30	4
	_	_		-		17	14.504	-	75.	2217	17	-	_	+	-	-	-	_	-	-	-			17		8	8				-	-		-		_	4
XXX-REDACTED-XXX	23267	1	_	_	15	17	17	_	17	17		17		-	7 1	1		+		-	15	16	17	17	17	17	17	15	17	16		_		16	17	15 512.00	
XXX-REDACTED-XXX	25247	5.		/	26	27	26	-	26	26	30	29	28	2	2	4	7 2	-	3	0 3	30	30	25	25	25	27	25	32	30	30	-	-		28	29	28 561.00	-
XXX-REDACTED-XXX	24177		+	6	6	0	6.3	_	5.3	6.3	5	- 6			7 2		-	+	6	5	5	5	6.5	6.5	5.5	6	3	4	3	10	-			1	1	8 229.40	-
XXX-REDACTED-XXX	24507	2		9	23	23	22	_	22	22	22	21	23	2	1 21.	_			_	-	19	23	21	21	21	25	27	21	17	22.5	22.			2.5	23	21 675.60	100,000
XXX-REDACTED-XXX	22153	1	5 1	4	15	14	15.3	1 15	5.3	15.3	15	15	15	1	5 1	5	6 1	1	31 1	5 1	15	15	14.8	14.8	14.8	15	15	15	13	14.3	14.	3 14	.3.	16	15	14 461.20	19,37

Lease & Well Name	Wells	4/19/20	11 4/20/2011	4/21/2011	4/22/2011	A/23/2011	4/24/2021	4/25/2011	4/26/2011	A/27/2011	4/28/2011	4/29/2011	4/30/2011 5/1/2	011 5/2/2	011 5/3/20	1 5/4/201	1 5/5/201	1 5/6/201	1 5/7/201	1 6/9/2011	E/9/2011	T 2/10/2011	6/14/2011	6/17/2011	E/13/3011	Elsalahaa	6/25/2011	E/16/2011	E/17/2011	E/10/2011	e/salansi	Total (PRI)	Total (CALL
XXX-REDACTED-XXX	23707	31.212	1	Tana San	0	1 0.8	C 20.	12000	100000	0	1	SLEDIEUR.	0.8	0.8	0.8	0 3/4/202	1	1		.8 0.8	-		-	SIACIONI	3(13/201)	5/14/2011		-		3/19/2014	3(13) 2011	Total (88L) 23.70	Total (GAL) 995
XXX-REDACTED-XXX	23649		6	5	6	5 (6		4	6	8	11	1 4	4	4	5	6	5	7	5 5	5 5	_	5	6		5 5	6	6 6	-	5 6	. 6	177.00	7,434
XXX-REDACTED-XXX	23704		0	1	0	0.8				Q	1		0.4	0.4	0.4	0	1	0		8.0	+	-	0 0	1		0.4		-	-	1		12.20	512
XXX-REDACTED-XXX XXX-REDACTED-XXX	23938		0 0	2	0 2	6 2	-	27	26	29	23		29	29	29	28 2	26 2	0	27 2	28 28	21	8 2	5 26	24	2	29	29	9 29	21	5 25	28	B10.00	34,020
XXX-REDACTED-XXX	22971		9 1		2	1 1	11	11	12	11	11	10	11	11	11	11	11 1	u :	11 1	10 10	10	0 1	0 10	13		7 8		8 8	1	2 12	12	307.00	12,894
XXX-REDACTED-XXX	23142		1 ()	0 1.	1 0.8	8.0	0.8	0	- 0	0		0	0	0	0	0	0 1	.1	0 0	0 0	0	0 2,3	2 0	1.	1 0.4	0,4	4 0.4	1	0 0	0	10.20	
XXX-REDACTED-XXX XXX-REDACTED-XXX	23363		38 34	3	8 3	6 3	3 35	35	38	34	40	33	3 37	37	37	34	33 3	36	36 3	2 37 37	7 3	2 2	4 34	30	2	-	-	0 0	3	1 0	0	91.00	3,822
XXX-REDACTED-XXX	22656		0 (0	0 3	1 1	33	0	0	0	3	0 0	0	0	0	0	0	0	0 0	0 0	0	0 (1	3	30		0 30) 3	5 31	36	1,078.00	45,276 126
XXX-REDACTED-XXX	24403		8 5	5	0 1	_		13	1	13	0	9	15	15	15	1	1	1	9 1	15 15	15	5	0 1	3 0		5 22	22	2 27	2	1 4	8	285.00	11,970
XXX-REDACTED-XXX	24405		24 20	2	2 2	4 2	23	23	25	22	25	19	24	24	24	22	22 2	23	24 2	23 23	3 2		-	1	-	-	23	3 23	2	3 23	25	701.00	29,442
XXX-REDACTED-XXX XXX-REDACTED-XXX	22056	_	0 1.3		0 1.	2 1.1	1.1	1.1	0	0	0	1.1	0 0	0.4	0.4	.1 1	1	0 1	1 1	.1 1.1	1 1.	-	0 0	2.3	1.	-	0.5	9 0.9	1	1 1.1	1.1	23.90	1,004
XXX-REDACTED-XXX	22063	18	3.6 17.8	-		-			-	20.5	16	-	-			13 20	-	8 15			_	-	,	1	1	_		-	-	+	-	11	20,059
XXX-REDACTED-XXX	23361		0 1.1	_	0 1.	_	-	-			1.1	-	0	0	0	0 1			0 0		-	4	0 1,		1,	1 1,1	1.3	1 1.1	1	0 1,1	1,1	16.70	701
XXX-REDACTED-XXX XXX-REDACTED-XXX	23544	21	1.4 21.6	+		+	-	-		9.1	14.8	-				.8 36		26 21			+	+	-	+	-	-			-	-	. B	596.20	25,040
XXX-REDACTED-XXX	25370	-	8 10	_	9	5 2	-	-	1	20.5	13.8	1.7	23.2	7	7	1 6	7 1	1	9	8 8	2 1.7	2 18.	2 17.:			-		-	_	+	4.1	432.40 338.20	18,161 14,204
XXX-REDACTED-XXX	23694	17	2,5 19.4	11.	4 11	4 8.7		-	15,4	11.4	17	13.7	11.4	11.4	11.4 1	.5 12			.2 1	11 11	1 1	1 13.	-	1	-	-		-	-	8 17.1	-	391.40	16,439
XXX-REDACTED-XXX	23246	36/	0	2	0		_	1		- 5	- 0	1	1 0	0	0	0	0 12	.5	0	0 0	0 0	0	-			-	1	1 1	1 (0 0	14.2		1,785
XXX-REDACTED-XXX XXX-REDACTED-XXX	23387	7	0 0		1	0.	0.3	0.3	0	0	0	-	1 1	0	1	0	0	0	0	0 0	1 1	1	0 1			0 0	-	1 1	1	1 0	0 0	13.90	
XXX-REDACTED-XXX	24074		0 0		0	0 0	0 0	0	0	0	0		0 0	0	0	0	0	0	-	0 0		0	0 0			-		0	0	0 0	0		3
XXX-REDACTED-XXX	24301		10 8	3		0 3	3	3	2	9	.5	9	6	6	6	9	5	7	5	8 8	В 1	В	•	5 23		9 7		7	7	7 7	7 9	212.00	8,904
XXX-REDACTED-XXX	23676		22 24	+	3 1	9 27	22	22					1	22		32 20	00	22	33 3	36 36	5 36		8 30		2		-	2 3	2 2	1 11	1 14		44,184
XXX-REDACTED-XXX XXX-REDACTED-XXX	23675		19 21 26 30	1	6 3	6 38	38	38	10		48			32	32	33	30 3	0	31 3	0 0	30	9	0 0	1	-	0 0		1 4.:	1 2	7 30	20	198.00 884.30	8,316 37,141
XXX-REDACTED-XXX	22777		1 (0	0 0	0	0	8	1	4		0 0	0	0	0	0	0	0	0 0	0 0	0	0 (1	-	0 0		-	-	2 0	0	16,00	672
XXX-REDACTED-XXX	22974		8 26		-	-	- 50	-		100	18	-	-	85	-	-	_		10 25		-	+	2		1	5 18	-	-	-	6 0	-	854.70	35,897
XXX-REDACTED-XXX XXX-REDACTED-XXX	22785		17 17 23 26				-		-		17	_	-	33	33	_	27		18 15	27 15.2	-	-	7 1		1	+		-	+	0 24	+	659.50	
XXX-REDACTED-XXX	22701		27 21	_	-		_	-		-	-	33	30	27	27	7.0	24		23 2	25 25	-	-	6 2	7	-	-	-	-	+				37,548 34,436
XXX-REDACTED-XXX	21729		26 18	1	7	7 16	16	16	6	9	20		13	13	13	3	2		30	9 9		-	2 10	14	1	3 20		1		-	-		17,682
XXX-REDACTED-XXX	24075		1 ()	1	0 0	0	0	2	0	1		0 1	1	1	0	0	1	0	0 0	0 (0	1 1	1		0 0		0 0	9	1 0	0	12,00	
XXX-REDACTED-XXX XXX-REDACTED-XXX	24157		53 11 18 18	+	4 1	6 17	17	17	16	22	14	81	-	42		-	17	-	14 3.6 17 17.3	-	-	_	4 1	7 17	1 1		-	-	+	6 14	1 62		19,950 25,075
XXX-REDACTED-XXX	25213		0 (0	0 (0	0	0	0	0	-	0 0	0	0	0	0	0	0	0 0	0 (0	0 1	0 0)	0 0	- (0 0) 1	0 0	0	337102	23,073
XXX-REDACTED-XXX	25583		28 15	1	2 1	6 20	20	20	16	29	24		7 24	24	24	24	27	35	41 2	23 23	3 2	3 2	1 2	11	1	1 12	13	2 1	2 1	3 13	16	621.00	26,082
XXX-REDACTED-XXX XXX-REDACTED-XXX	25584		7 16	1	0 1	0 28	0 0	14	_	3	10	10	0 0	29	13	4	3	3	0	8 38	-	_	-	_		7 2	_	0 50	_	3 25	-	256,00	10,752
XXX-REDACTED-XXX	23982		11 10	-		-	9	20	42	_	9	10	9 8	8	29	2	8	9	10 2	9 28	9 9	-	7 10	3 3		6 9.6	-	6 9.6	0	7 10	0 0	437.80 247.00	18,388
XXX-REDACTED-XXX	22831		20 15	1	5 1	1 14	14	14	15	16	13	13	3 14	14	14	16	7	6 13	.9 1	14 14	1 1	4 1	1 1	15		9 14	14	4 1	1 1	4 18	10	420.90	17,678
XXX-REDACTED-XXX	21561		21 24	+	-		-	-		-		_		21		18	1	0		25 25	-	-	_		_	-	-	_			22		
XXX-REDACTED-XXX XXX-REDACTED-XXX	26018	_	31 31	-	-	+	_	_	-	-	22	-	-	26	26	26		-	25 3	19 19	3 19	-	3 3	1	-			-	+	-	24	1	36,414 24,822
XXX-REDACTED-XXX	23432		17 14	1	-	-	-	18	-			-		17		-	-	-	16 1	16 16	-	-	1 1	+		-	-	-	5 1	-	-		
XXX-REDACTED-XXX	23614		13 14		+	+	-	-	-		14		-	11			11 ;	-	11 1	14 14	-	-	3 1	-	1	4 11	-	-	_	0 10		380.00	15,960
XXX-REDACTED-XXX XXX-REDACTED-XXX	25857		22 19	-	-	-		-	-			-	-	46	_		-		29 3	32 37	-	-	8 4	-	-	-			+	-	-	1 23.00	29,946 58,674
XXX-REDACTED-XXX	24894		0 0	31	-	_	-	-	-	-	91	9:	-	80	80	-	80	_	10	0 (0 0	0	0 1	1		0 0	1	0 0	0	0 0	0 0	1,597.00	67,074
XXX-REDACTED-XXX	24860	_	33 14	_		-	34	34	32	34	31	34	4 31	34	31		_	_	35	32 31	-	-	-	1 32	2 2	7 31	33	3 3	3 3	2 33	3 33	996,00	41,832
XXX-REDACTED-XXX XXX-REDACTED-XXX	24861		9 19		9 4	2 (0 0	9	0	0	0		0 0	0	0	15	7 5	55	42 3	30 30	30	0 3	0 3	2 30	2	9 24	24	4 24	2	7 29	29	714.00	
XXX-REDACTED-XXX	25005		0 0	-	7	0 (0		0	0	0	-	0 0	0	0	0	0	0	22	0 0	0 1	0	0	0 0		0 0	1	0 0	0	0 0	0 0	119.00	
XXX-REDACTED-XXX	24863		0 (0	0 (0		0	0	0		0 0	0	0	0	0	0	0	0 0	0 0	0	0 1	0 0)	0 0		0 0	0	0 0	0 0		
XXX-REDACTED-XXX	23300		3	3	3	6	2 2		5	3	3		3 2	2	2	2	3	1	2	2 3	2	2	5	2	2	3 3		3	3	3	3 2	84.00	
XXX-REDACTED-XXX XXX-REDACTED-XXX	23371	_	5 5	4	1	5	5		3	3	3		3 3	0	0	0	5	1	0	0 0	0 1	0	6	3	2	2 6		3	6	2 1	3 5	119.00 55.00	4,998 2,310
XXX-REDACTED-XXX	23223		21 19		5 1	4 2	14	11	10	14	9		9 10	17		13	14	14	-	18 16	5 10	0 1	4 1	3 1	1	5 14	15	-		0 13		1	
XXX-REDACTED-XXX	23225		6 5		5	5	1 1	1	8	-	6	-	3 5	5	5	3	3	2	0	2 3	2 :	2	-	3 5		5 1	1	1	1	2	5 5	102.00	4,284
XXX-REDACTED-XXX XXX-REDACTED-XXX	23226		3 3		5) (0	1 9	5	0	5		0 0	0	0	0	0	0	3	0 0	2 .	0	0 1			3 3	1	0 1	0	0 0	3 .	76.00	-
XXX-REDACTED-XXX	24857		49 35	4	9 4	8 54	47	42	46	46			7 45	47	38	46	47	31	44 4	48 46	6 4	1 4	9 4		3	0 47	4	7 4	2 5	0 49	9 48	1	57,960
XXX-REDACTED-XXX	25119		6 5	5	3	3 5		9	8	3	5		3 2	2	2	2	3	1	5	2	2	2	5	1		3 4		4	4	3 2	2	103.00	4,326
XXX-REDACTED-XXX	25166 24690		5 1	1.		2	1		2	2	2		3 2	2	2	2	1	3	1	1	1	1	1	1 7	2			1	1	2 3	3 3	54.10	
XXX-REDACTED-XXX XXX-REDACTED-XXX	24690		10 16		9 0.2	-			-	1		+	2 20	20		1C 23	-	18	-	11 11		+		3 17	+	-	-	8 1	8 1	8 16	8 20	310.50 623.00	13,041 26,166
XXX-REDACTED-XXX	23942		0 0	+	0	1	1 1		. 0	1	0	+	+	1	1	0		0	0	1		-	0			0 1	-	1	_	0 1	1 1	18.00	
XXX-REDACTED-XXX	23943	_	0 (0 1	0 (0		0	0	0		0 0	0	0	0	0	0	0	0 (-	-	-	0 ()	0 0	_	0	-	0 0	0 0		
XXX-REDACTED-XXX XXX-REDACTED-XXX	23944 25079	_	11 16				1 1	30	13	_	30	2	5 13	13		_	_	-	-	15 15	+	_	0 2	+	-		_	8 2	-	4 13 3 14	-	375.00 880.00	2011.50
XXX-REDACTED-XXX	22905	_	0 0	3	1 1	_	30	_	0	0	30	-	2 1	1	1	0	0	0	1	0 0	-	0	1	0 0	-	0 0.66	_		-	0 0	0 0	9.98	-
FAIRBANK ROD & GUN CLUB #3	23639	_	5 ()	0	0 (0		0	.0	0		0 0	0	0	0	0	0	0	0 0	0	0	0	0 0)	0 0		0	0	0 0	0 0	5.00	
FAIRBAK ROD & GUN CLUN #6	23642		33 3		_				1		18	-	-	29	_			_	_	30 30		-	-		_	3 23		3 2			+	9271199	
XXX-REDACTED-XXX XXX-REDACTED-XXX	25267	_	33 33	-	_	1 3	-		+	_	11	1	5 33 1 11	11	10	14	_	_		25 25	_	-		-	-	2 22	-	2 2	7 1	_		793.00	
XXX-REDACTED-XXX	25870		19 18	-		+	-	-	+	-	_	+	_	15	15	_				16 16	-	-	-	+		1 19	-	9 1	_	0 16	_		
XXX-REDACTED-XXX	21947		0 (_	1	-	0		1	1	0	1	1 0	0	0		-	0	0	0 0	-	_	_	_		2 0	_	+	0	1 (0 0	6.00	
XXX-REDACTED-XXX	21956		6 16			9 1.5		+		8	15	-	0 10	10	10	-	-	0	-	11 1:	-		0 1			1 0	_	0 1	0	0 14.7		194.20	8,156
GAMELANDS #2 GAME LANDS UT #1	25727 25726		0 10	-	-	-	-	-	+		11	1	-	15	_		19	_		19 19	-	-	+	1 10		7 6		7	6 1 7 1	_	+	398.00	
XXX-REDACTED-XXX	24046	11	_	13.	_	_		-	-	-	10.3	-		13.7	_	-	33	_		12 17	_			+	_	3 10.6	_		_	_		-	-
XXX-REDACTED-XXX	25145		7	3	6	8 1	5 15		-	14		1.	5 2	2	2		_			14 14	-	_	5 1		-	-	-	3 1	-	-	+	325.00	13,650
XXX-REDACTED-XXX	22970		0 0		1	0 (-		1	1	0	-	1 2	2	2	0	-	0	1	1	1	-	0	-	1		-	0	0	0 1	1 1	18.00	
XXX-REDACTED-XXX XXX-REDACTED-XXX	22812		0 (1	1	5 10	0 10	10	15	16	15	-	0 0	12	12	-	-	10	19	7	+	7 1	1	8 3		8 10	_	0 1	0	D 0	0 0	322.00	13,524
WWW. LIFELING I FR. WWW	24430		10	1	*1	V 10	10	1 10	15	1.0	1.5		44	16	14	ul.	101	LUI	42)	41	11	ri 1	A	41	4	- 10	1	1	4	- 10	11	11 522,00	13,524

Martin M	Total America	1	Later transfer		. International	[manual]	tartant lite	ener Tree	the state of the state of	- Inning	atentes a la	malana I n	minari Lamo	and I at the things	- Interes	distant.	- te lane	oss ramoss	Professor	r tan tanas r	tra maia rtun	7/12/2011	Plantonia	ette Pana etael	1200 × 120120	et letentania	Letter trace	T (mni)	Total (CAI)
Services of the control of the contr	Lease & Well Name	Well #	Carried Street			-	Carlo Santa			ALC: UNKNOWN			-		S. Street, Section 5	The Revenue of the	Participation of the Participa	2 2 2 2 2			CONTRACTOR DISCORDING	-	-	The second second			The second second	Total (BBL)	Total (GAL)
Services (1)		-		3,51 3,5	3.51										1	1	3.51		-	3.51	2.51						2.34		4,022 983
Company	STATE OF THE PARTY		-	25 25	2 22.0					-					1.1	-	22.0			26.2	19.4		-				9 205		30,783
Company						-				_				_		9	9	0 0	0 0	0	2	0	0 0	0	0	0	2 0		8,694
Services	The same of the sa	-			-	-	22	-		-		19		-		18	20	18 18	8 18	18	19	19 1	19	19	19	32 (0 11		24,780
Second Column	XXX-REDACTED-XXX				_	26	26	26				26		26 2	-	1	24	24 24	4 24	23	22	24 2	3 22	22	22	16	0 0		28,812
March Marc	XXX-REDACTED-XXX	23672	10.3	18.2 21.	7 13.9	14.8	14.8	14.8	8.9 15.	9 14.8	15.5	16	16	16 12	5 16	16.5	13.7	16.1 16.1	1 16.1	17.1	17.1	11.4 10.	14.4	14.4	14.4 1	8.5 12.5	5 14.8	463.50	19,467
Martin	XXX-REDACTED-XXX	21969	4.6	3.8 4.	.2 5.1	2.7	2.7	2.7	1.1 0,	1 2.3	1.1	3	3		-	3.4	3.4	5.5 5.5	5 5.5	6.8	1.1	5.7 3.4	3.4	3.4	3.4	8 4.6	6 9.1	118.97	4,997
Seminary Control of the control of t	XXX-REDACTED-XXX		0	0 5	2 25	15	15	15	0 1	4 21		0	0		-		0		-	-	0	0 1			34	31	0 0		22,596
Series	XXX-REDACTED-XXX	-	15	5 1	1 9	15	15	15	13	5 5	11	12	12	12 1	6 9	3.4	8.9		-	14	10	26	12	12	12	8 (0 7		13,579
STATE OF THE PARTY			0	2	0 0	0	0	0	1	0 0	0	0	0	0	0 0	0	1	0 0	0 0	0	5	0	5 0	0	0		1		1,218
Services			7	7	7 7	9	9	9	2	1 1	1	9	9	9	5 9	11		8 8	8 8	3	1	3	0.38	0.38	0.38	2	2 0		6,936 10,458
March Marc		_	26	27 3	/ /	8	8)	8	9	3 3	3	11	-	11 2	9 26	31			-		10	11	5	5	5	7	7 36		14,784
Service of the control of the contro						14	14	14	12 1	3 12	17					-			1	-	-		2 22	22	22	17 19	-		18,900
See -					-	_							_		-	+			+		- 57		0 0						20,286
Seminary Market No. 1			9	7	9 8	8	8	8	9	9 8	8	8	8	8	9 0	8	8	8 8	8 8	9	7	0	3	3	3	0 1	5 11		9,030
Seminary of the control of the contr	XXX-REDACTED'XXX	23647	5	7	7 6	6.3	6.3	6.3	7	5 5	6	6	6	6	7 10	2	7	6 6	6 6	2,6	9	8	7 6	6	6	5 1	1 2	191,50	8,043
STATE OF STA	XXX-REDACTED-XXX	30418	0	0	0 0	0	0	0	0	0 0	0	0	0	0	0 0	0	0	0 (0 0	0	0	0	0 0	0	0	0 0	0 0		4
Secretary Secret	XXX-REDACTED'XXX	22460	1	0	1 0	1	1	1	0	1 0	0	1	1	1	0 1	0	1	0 0	0 0	1	0	1	0 0	0	0	1 (0 0	14.00	588
Seminary Sem	XXX-REDACTED-XXX	_	1	0	0 1	0.33	0.33	0.33	0	0 1	0	0.33	0.33	0,33	-	-			-		1	0	1	1	1		1 1		546
STATE	XXX-REDACTED-XXX	-	0	24 2	25 32	29	29	29	13 3	30	0	20	20	20 2	9 29	26	29	27 27	7 27	25	25	25 2	5 27	27	27	+			30,576
Secretary Market			3	0	9 3	5	3	3	4	6 3	4	3	1	3	5 4	3	5	2	4	4	3	4	3	1	2	2 25	5 5		5,292
Secretary Secret			3	0	4 3	10	3	4	47	6 0		1	40	40	0 3	3	5	20 3	0 30	4	3	41	3	24	20	24	3 30		5,208 56,448
Selection of the control of the cont		The second second	36	04 5	57	54	54	34	1 6	0 55	25	48	48	40 5	0 48	48	48	0 20	1 20	52	48	1 4	54	94	1		3 39		2,772
STATE OF STA			30	38	1 14	25	35	35	30 3	5 20	22	27	27	27	0 35	27	25	23 2	3 23	25	21	29 3	34	24	24		0 25		33,894
STATEMENT OF THE PARTY OF THE P						-	-			_					-	-	10		-				1				4 9.1		13,625
THE PROPERTY 1990 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	XXX-REDACTED XXX	-			-	-								-	-				8 8				-				_		16,493
Seminary 1979 1979 1979 1979 1979 1979 1979 197	XXX-REDACTED-XXX	-	7		+	9	9	9				-			3 9	5.7	10.3	10 10	0 10	13	9	13 1	3 12	12	12				14,238
STATE OF STA	XXX-REDACTED:XXX		13	11 1	11 13	12	12	12	16 1	1 11	10	12	12	12 1	0 14	4.6	15.2	14 1	-		13	17 2	-			10	0 18		16,834
STATEMENT OF STATE	XXX-REDACTED:XXX	The second second	13	10 1	13 13	12	12	12	17	6 10	10	13	13	13 1	1 7	6.8	11.4		-	18	11		+			11 1:	1 8		14,666
STATEMENT OF THE PARTY OF THE P	XXX-REDACTED-XXX	_	0	1	0 0	0	0	0	0	0 2	0	0	0	0	0 0	0			-	0	1		-			0 (0 2		420
STATE OF THE PARTY			7	8 1	-	-	9	9	-		-	9	9	-	-	9	12	-	-	11	10	-	8 10						19,908
Seminarion March 19 10 10 10 10 10 10 10 10 10 10 10 10 10			9	7	3 7	7	9	10	10 12	5	12	9	10	10	5 11	9	9	7 1	3 11	6	6	10	9	10	8	11 10	0 10		16,296
STATE			2	0	1 0	1	1	1	1	1 1	0	1	1	1	0 2	1	0	2 2	2 2	1	2	0	0 1	1	1	1	0 1		1,218
TAMES STATE OF STATE		100000			-	-		40		-			-		0 0	11	10		1			10 1			11	**			21,756 14,910
Memory Memory 1964				- 0	0 0	17	0					9	9	9	9 9	11	13		-	-	6	11 1	-		11		-		12,978
STANDAMPSON MAGE OF A			8	9	7 8	9	9	9	9	8 2	0	8	В	8	8 9	7	8	8 1	-	8	0	0	+			8 0	0 0		8,946
Models of the control	XXX-REDACTED-XXX		41	48 4	13 49	51	51	51	38 4	15 45	44	131	131	131 4	0 44	40	44	62 6	2 62	34	50	43 4	43.6	43.6	43.6	31 40	0 33		69,502
SAMPANDESCRIPTION SAMP	XXX-REDACTED:XXX	24254	5	18 1	14 11	13	13	13	14 1	0 14	14	10	10	10 1	1 24	14	11	12 1	2 12	12	18	3	3 11	11	11	16 18	8 16	384.00	16,128
EXPRINENCE SAME AND ALL ASSESSMENT SAME AND ALL ASSESS	XXX-REDACTED-XXX	25616	3	2	2 2	2	2	0	4	2 2	2	1	1	3	2 3	2	2	1	3 2	3	2	2	2 1	0	1	2 2.	3 2	60.30	2,533
SEMPLE PROPERTY OF SET	XXX-REDACTED-XXX					-		18		-				29	_	-	29						1				-		33,726
EXPRINENTIALS 1867 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	XXX+REDACTED-XXX				-	1	65	65	70 6	-	68				-1	1		-	+ - +	62		-	1		71	64 49	9 66		88,452
EXAMPLE STATE STAT		_	16		13 11	13	13	13	11 1	19 13	15	13	13	13	1 11	13	15	13 1	3 13	8	14	15 1	6 14	14	14	13	9 15		17,262
SAME AND COLOR 13 0 0 3 1 0 0 0 0 0 0 0 0 0			0		0 0	0	0	0	0	0 0	10	10	10	10	0 0	0	0	0	0 0	0	0	10	0 0	0	0	0	0 0		11,802
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX			9		0 0	1	1	1	0	0 0	0	7	3	2	1 0	1	0	1	1 1	0	0	1	0 0	0	0	0	0 2		756
No.			11		16 3	15	15	15	9 1	4 11	0	11	11	11 1	4 10	15	13	13 1	3 13	14	11	1 1	4 12	12	12	11 1	4 15		14,994
MARINESTINION 2579 0 0 0 1 1 0 0 0 0 1 0 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 1 1 0	XXX-REDACTED-XXX	_		19 1	11 16	13		13	0 1	9 7	9			11	8 3	11	13	8 1	8 8	В	11	11	_		11	14	9 13		13,818
100 100	XXX-REDACTED-XXX	20438	0	0	0 0	1	1	1	1	0 0	0	0	0	0	1 0	11	0	0	0 0	0	0	0	0 0	.0	0	0	1 0	17.00	714
No.	XXX-REDACTED; XXX	23391	0	0	1 0	0	0	0	2	0 0	1	0	0	0	1 0	0	0	0	0 0	0	2	0	1 1	1	1	1 1	0 1		546
No. HIGHSTON 1999 C	THE RESIDENCE OF THE PARTY OF T					-	24	24	20 2	24 21	29	67			+	22		80 8	0 80	_	28		-		24		_		43,806
SQM				_		1	0	0	0	0 0	0	0	0	0 1	1 0	0	1.1	0	0 0	_	0	1.1	-		0	_			277
NOMERANCHING NO. 20 0 0 0 0 0 0 0 0		_	0	-	-	-	31	-	2	1 3	0	3	3	3	3 2	3	3		-	4	2	2	-		5	-	1		3,192
No.	AND ADDRESS OF THE PARTY OF THE		6	0	0 0	3	3	0	0	0 0	3	0	0	0	0 0	2	0	0	0 0	0	0	0	0 0	0	0	0	0 0	-	1,680
			0	0	1 0	0	0	0	0	0 1	0	D 34	0.34	0.34	1 0	0	0	0.34 0.3	4 0.34	0	0	0 1	5 0	0	n	0	0 0		842
DAMESTOR	XXX-REDACTED-XXX		1 1	-	0 0	-	0		0	0 0	0	0	0		0 0	0	0		-	-	1				0		-	-	42
MONTE PROPERTY 12 12 13 13 13 13 13 13	XXX-REDACTED;XXX		16	0	0 0	9.67	9.67	9.67	16	0 21	0	0	0	0	0 0	17.1	a	7	1		26	30	-		1	33	2 0		9,077
DOMERSHANTED/SXX 23896 O 1 O O O O O O O O	XXX!REDACTED!XXX	_	11	6 1			13	13	0	3 2	18	11	11	11	5 0	0		9	-	14	8	10 1	+		11	9	1 19		12,083
DOMERSHANDOWN 23900	XXX-REDACTED:XXX		18		26 260	0	0		0	0 19	0	0	0	0		1	8.9		-		5	14	-		11	_			21,412
NOMERONATION 19399 21 22 0 0 0 25 25 25 25	XXX-REDACTED-XXX	_	0		0 0	0	0		3	0 2	1	O	0	0	1 0	0	0	2	2 2		1	0	-		0	0 1	0 1		672
NORMERONATION 1830 1			0			-	0		1	0 1	0	1	1	1	0 0	0	0	1	1 1		1	0	_		0	0	1 0		1,512
NOMERONATION 28650 5 4 4 1 1 5 5 5 5 18 4 4 5 5 26 26 26 5 7 5 5 4 6 6 6 6 0 5 5 4 6.5 5 5 6.5 6.5 6 3 9 2250 9 9 2250 9 9 2250 20 20 1 8 2 2 2 1 1 2 1 2 1 1 1 2 1 1 1 1 1 1			21		0 0	25	25	-	4	0 21	24	0	0	1	1 0	10	0		-		25	51	-		24	31	0 25		15,204
Non-Repart Prince 1985 0	THE RESERVE OF THE PARTY OF THE		1		4 1	1		2	19	A 1	0	76	26	76	5 7	0		6	6 6	-	1	1	-		65		3 6		714 9,471
SOCREDATES DOX 2 1795			0	-	0 0	0	0	o	0	0 0	0	0	0	_	0 0	0	0	0	0 0	-	ol	0	-		0	0	0 0		9,4/1
SECREPARTICESPOX 10 10 10 10 10 10 10 1	XXX REDACTED XXX		20		21 22	-	21		18 1	19 21	21	22	22	-	20 20	21	21	-	-	-	23				20	20 1	8 21		26,922
XXX.RED.ACTED.XXXX 2583	XXX-REDACTED-XXX	THE RESERVE THE PERSON NAMED IN			-	-	9			-	1				_	-			-		0		-				-		24,612
XXXX-REDACTED-XXXX 2383 12.5 14.8 14.5 16.4 15.1 15.1 15.1 15.1 15.1 15.1 15.1 15	XXX-REDACTED-XXX					-	40								-	_			8 39		41							1,272.00	53,424
XXX.REDACTED-XXX	XXX-REDACTED-XXX		0	0	0 0				0	0 0	0	Ö			-	0			-	0	0			0	0		-		
XXX-REDACTED-XXX	XXX-REDAGTED-XXX		12,5	14.8 14.	.5 16.4	15.1	15.1		13.9 1	16 13.7	15	15.6		15.6		-	13.7		-		12.5		-			_		the state of the s	19,018
XXX.REDACTED.XXX 23979 16 20 12 21 17 17 17 19 18 21 24 19 19 19 20 19 11 21 17 17 17 19 18 21 17 17 17 19 18 21 24 19 19 19 20 19 11 21 17 17 17 19 18 26 15 15 15 15 15 15 15 15 15 15 15 15 15	Control of the Contro		0	0	0 5	. 0	0	0	1	0 0	0	6	-	6	-	0	1	_	-	_	8		1	-	7		2 22		7,014
XXX-REDACTED-XXX 23979 16 20 12 21 17 17 17 19 18 21 24 19 19 19 20 19 11 21 17 17 17 19 18 26 15 15 15 15 15 16 2 17 539.00 22 XXX-REDACTED-XXX 24036 1 2 1 1 1 3 3 3 3 3 3 4 3 4 4 4 4 3 4 4 5 6 6 4 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	California Charles and Associated and California Charles and		0		0 1		0	0	0	0 3	0	0	0		-	0	0		-	1	0		1	_	1	_	2 1		630
XXX-REDACTED-XXX 21230 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	The second secon		0		7		-	-	10	0 0	24	10	10	-		0	21	-	71	10	19		-		15		-		22.538
XXX-REDACTED-XXX 2130 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			16			+	2/	37	19 1	3 4	24	19				-	21		-	19		20 1	-						22,638 6,300
XXX-REDACTED-XXX 23887 0 15 2 77 2 2 2 2 0 5 7 9 13 13 13 13 13 13 13 13 17 7 7 7 7 26 45 72 48 10 10 10 0 0 0 1 5 53.00 22 XXX-REDACTED-XXX 23887 0 15 2 77 2 2 2 2 0 5 7 9 13 13 13 13 13 13 13 13 13 14 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	THE RESERVE THE PROPERTY OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLU		n		7	-	0	0	0	0 0	0	0		0	0 0	0	a l	0	0 0	0		0	-		0				6,300
XXX-REDACTED-XXX 23887 0 15 2 7 2 2 2 0 5 7 9 13 13 13 13 13 13 7 7 7 7 10 16 10 9 6 6 6 7 5 8 226.00 9 XXX-REDACTED-XXX 24173 0 1 0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0	XXX-REDACTED-XXX		2		1 1	-	0	0	-	-	45	32		32	13 12	7		7	7 7	26		-	-		10		-		22,386
XXX-REDACTED-XXX 2473 0 1 0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0	XXX-REDACTED-XXX	and the second second	0		2 7	2	2	2	0	5 7	9	-			-	-		7	7 7				9 6	6	6	7	5 8		9,492
XXX-REDACTED-XXX	XXX-REDACTED-XXX		0		0 0	1	1	1	0	0 0	0	0	0	0		+		2	2 2	0	0	0	0.66	0.66	0.66	0	1 0		671
XXX-REDACTED-XXX 2383 34 34 34 34 34 34 34 34 34 34 32 35 38 40 40 40 40 30 32 33 31 32 34 34 34 34 34 34 34 29 32 32 1,050.00 44	XXX-REDACTED-XXX	22827	0	0	0 0	2	2	2	0	0 0	0	0	0	0	~		3	0	0 0	0	0	0	0 0	0	0	0	0 0	9.00	378
	XXX-REDACTED-XXX					-	7.5																						56,872
XXX-REDACIED-XXX 2384 32 29 0 25 40 40 40 42 42 44 44 44	XXX-REDACTED-XXX															-							-						44,100
	AAA-KEDALTED-XXX	23384	32	29	0] 25	40	40	40]	42] 4	44	36	44	44]	44	28	26	28	20 2	29	27	28	26 2	27	21	2/1	26 3	36	999.00	41,958

Lease & Well Name	Well#	4/19/2011 4	/20/2011	4/21/2011	4/22/2011	4/23/2011	4/24/2011 4	4/25/2011	4/26/2011	4/27/2011	4/28/2011	4/29/2011	4/30/2011	5/1/2011	5/2/2011	5/3/2011	5/4/2011	5/5/2011	5/6/2011	5/7/2011	5/8/2011	5/9/2011 5/1	0/2011 5/	11/2011	5/12/2011	5/13/2011	5/14/2011 5	/15/2011	5/16/2011	5/17/2011	5/18/2011	5/19/2011	Total (BBL)	Total (
K-REDACTED-XXX	24174	16	10	2	2 (0 13	3 1.3	1,3	18	18	16	22	15.67	16.67	16.67	15	14	15	12	16	16	16	10	14	15	12	15	15	15	15	14	14	399.91	
K-REDACTED-XXX	24175	20	17	18	3	9.8	9.8	9.8	6	8	9	18	48	48	48	11	8	16	11	14	14	14	17	15	25	19	25	25		6	8	12	532.40	
K-REDACTED-XXX	24083	0	0	0) (0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0		
(-REDACTED-XXX	24834	0	- 0	0) (0 0	0 0	0	0	0	0	0	0	ď	0	0	0	0	0	0	0	0	0	0	0	0	0	Ö	0		0	0	-	-1.
-REDACTED-XXX	30424	17	34	34	2	1 25	5 18	16	23	27	37	41	34	34	37	39	37	37	30	30	30	30	34	37	27	7	41	18	34	34	34	30	927.00	
-REDACTED-XXX	25742	21	30	29	25	5 30	0 14	0	- 0	0	0	0	0	0	0	0	0	57	37	1	43	37	34	37	27	9	0	0					588.00	
-REDACTED-XXX	22132	9	9	4	1	7 41	1 41	41	7	9	8		3,3	3.3	3.3	4.5	7	20.5		6.3	6.3	6.3	9	7	8	9	9.5	9.5	9.5		-			-
-REDACTED-XXX	24824	3	9	58		6 27		22	6	6	5	6	6	6	6	6	3	5	5	-	5	5	- 6	5	7	6	6	5	6		5	6	276.00	
-REDACTED-XXX	25027	0	45	8	14	_	-	15	7	16	3	26	14	14	14	.0	0	17	12	7	7	7	0	7	7	11	3	3	3		10	74	314.00	
REDACTED-XXX	24823	9	10	10	-	-	5 5	6	- 2	0	4	1	10			0	0	2	2	2	7	2	7	1	6	8	5	5	5	23	-	24	226.00	1
REDACTED-XXX	25026	23	27	-	_	-	1 21	21	12	15	16	17	7	7	7	0	0	27	20	-	17	17	0	3		9	22	22	-		0	0	404.00	+
REDACTED-XXX	21626	0	0		1	0	1	1	20		0	-	0	0	0	0	0		0	1	- 0		0	0	0	0	0	0	-		0	0	28.00	-
REDACTED-XXX	23184	0	1	1	1	0	2 2	2	5	1	2	- 0	21	22	21				3	0	2	0	2		7	0	0	0	-	-	0	0		-
REDACTED-XXX	25235	11	10	10		9 10	0 10	10		1	- 3	- 1			21		1 20	3	- 4	2	- 4	2	2	1	- 3	0	0		-	-	0	0	107.00	-
		-			+				96		11		10	10	10					12	12	12	/	9	12	8	0	0		11	- 2	0	362.40	-
REDACTED-XXX	24295	4.6	11.4		-	-	-	11	11.4		9.1					40.10		7.01			10.5	10.5	5.2	10.3	9,1	10.3	11	11						-
EDACTED-XXX	25304	32	32	31		-		31	30		30					.29	_				29	29	29	28	29	29	26	26	+	-			902.00	
EDACTED-XXX	23700	1	0	10				13	13		12		7.5								12		12	11	12	8	5	5			-		305.50	
EDACTED-XXX	23741	25	23					23	22		21										20		21	21	23	12	22	22	22				646.00	
EDACTED-XXX	24463	58	62	60		_	9 59	59	46	62	55	48	45	45	45	52	52	50	55	48	48	45	57	50	40	39	44	44	44	44	46	43	1,561.00	
EDACTED-XXX	23650	0	0	0) (0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	O	3	3	3		0	0	9.00	
EDACTED-XXX	24756	3	- 4	3	3	3	3	3	4	3	3	3	- 3	3	3	-4	2	- 4	3	3	3	3	3	3	4	3	3	3	3		- 2	- 3	96.00	
EDACTED-XXX	24895	1	1	0	1	1 (0 0	0	0	0.	0	1	0	0	. 0	0	0	0	0	. 0	0	0	0	10	0	0	0	0	0		0	0	4,00	
DACTED-XXX	22850	1.1	1	0) (0 3	1 1	1	- 0	0	0	2.3	0	0	0	0	0	2	0	1	1	1	0	1	a	0	0.66	0.66	0.66		1	0	16.38	
DACTED-XXX	23165	2	3	2	2 8	3 10	10	10	1	11	11	11	10	10	10	11	9	11	3	0	0	0	0	0	a	D	0	0	0		0	0	143.00	
DACTED-XXX	23166	19	21	20	16	6 20	4	20	18		18			3	3	7	0	7	21	11	11	11	4	4	10	22	22	22	22	-	7	18	414,00	
DACTED-XXX	22423	0	0	0	1	0 0	0 0	0	0	0	0	0		0	0	n	0		0	1	0	0	0	0	0	0	0	0	0		n		42400	
DACTED-XXX	23852	0	0	0	1	0	0 0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	_	0	0		
EDACTED-XXX	24557	13	9	2		9 10		10	7	11	- 11		16	16	16	4	-		10		12	12	10	10	11	9	13	13	-	-	10	10	-	
EDACTED-XXX	24152	- 0	- 0	1		0 0	1	10	- 6	- 11	41	1.1		0	0		1.1	-			0.8		10	1.1	0	9	0.4	0.4				_	10.10	_
EDACTED-XXX	24153	0	1.1	- 1	1.1		0	0	1.1	0	- 0	1.1		0	0	- 0	-		4	0.8	0.8	0.8	- 0	1.1		- 0			1		-		1	+
REDACTED-XXX	24154		-					- 4				0	- 0	0	u	0	1.1			0	0	45.0	1.1	0	1.1	2.3	1.1	1.1	-				-	+
ATTACA CONTRACTOR OF THE PARTY		16	13.7		+	+	-	14.1	17.8	9.1	16		16	16	16	20,5	_		13.7	15.2	15.2	15.2	3.4	4.6	11.4	17,1	16	16	16	12.5	12.5	14.5		-
EDACTED-XXX	22847	10	8	11		9 10	0 10	10	9	9	10		9	9	9	- 9	10	-	9	9	9	9	9	1	5	2	- 6	- 5	6		0	0	239,00	-
EDACTED-XXX	25887	0	- 0	0		0 0	0	0	90	0	0		0	0	0	0	0		0	-	-0	0	0	100	32	21	22	22	-		-		340.00	_
DACTED-XXX	23981	30	32	31	_		-	30	29	-						26	21		-		26	26	29	27	27	30	26	26	-		-			
EDACTED-XXX	24327	19	13	29	16	6 19	9 19	19	6	23	16		15	15	15	18	16	18	19	17	17	17	23	17	17	11	17	17	17	17	11	17	527.00	
DACTED-XXX	24430	30	31	27	32	2 33	3 33	33	32	34	32	36	34	34	34	32	41	41	39	42	42	42	37	45	39	38	42	42	42	40	39	36	1,134,00	
DACTED-XXX	20773	- 0	0	0		0 0	0 0	0	0	0	0	0	0	0	0	. 0	0	0	0	0	0	0	0	0	0	0	0	0	0	- 0	0	0	8	
DACTED-XXX	25389	17	18	19	18	8 18	18	18	17	19	16	15	16	16	16	18	14	15	17	17	17	17	15	18	17	16	14	14	14	14	15	15	508.00	
DACTED-XXX	24047	2.3	2,3	5.7	4.6	6 6.8	6.8	6.8	8	4.6	9	13.7	9.1	9.1	9,1	16	13.7	13.5	14.8	12.2	12.2	12,2	17.9	11.4	12.5	16.5	5.3	5.3	5.3	10,2	12,5	16	309.40	1
DACTED-XXX	23618	0	0	0	1.1	1 1.1		1.1	0	1.1	0	1.1		0	0	0	1.1		0	0	0	0	1.1	0	1.1	D	0.3	0.3			0	1.1		
DAGTED-XXX	23359	10.3	18.2	23.9				21.3	18.2		37.6			35.73	35.73	33			34.2	98	98	98	57	26.2	35.3	39.9	22	22			34.2			
DACTED-XXX	23528	5.7	11.4					28.5	29.6	21.7	23.9										30,8		8	3.4	3.4	2.3	14.8	14.8		_	4			-
DACTED-XXX	23530	14	13		1		1	15	19	-	12						2	8		11	11	11	12	11	6		2	2	2 7	- 1	13		318.00	+
DACTED-XXX	22270	12	12		-			13	15	4	2	3	10			0	- 4	18	-		16	16	16	14	14	12	10	10	10		6	-	342.00	+
DACTED-XXX	23673	10.3	10.3					10.3	12.5	- 0	12.5	12.5				11.4	10.3	-	-		9.9	9.9	11.4	11.4	10.3	2.3	12.53	12.53		_	4 4 4			_
D'AGTED-XXX	24739	10.5	10.3		_	_					12.5			_		-		_		1	9.9	9.9	11.4				-		+		-	9.1		_
				-	-			11	12		417			11		12	-		_		1	1	0	13	10	11	14	14		_	-	11	323.00	
DACTED-XXX	24740	11	19	18	15	8 14		14	22	_	9	12	14	14	14	12	15	_	-	10	10	10	11	15	14	15	16	16	_	_	19	18	448,00	+
DACTED-XXX	26048	3	5	3	- 4	4 2	2 2	6	4	8	6	1	6	3	- 6	8	4	В	_	6	7	6	10	7	6	6	5	7	5		5	8	168.00	-
DAGTED-XXX	24410	8	16	11	_	9 12.6	_	12.6	- 8	10		-	6.5					-		-	33	-	8	8	14	13	25	25	-	-	-		436.30	_
DACTED-XXX	23267	16	17		+	_		17	17		16	-					18	15	16		17		17	17	16	17	16	16	16	16	17	15	512.00	1
DACTED-XXX	25247	27	27	26	27		1	26	30	29	28	28			27	26	30	30	30	25	25	25	27	25	32	30	30	30	30	-28	29	28	861.00	
DACTED-XXX	24177	6	- 5	6		0 6.3	6.3	6.3	5	6	6	7	24	24	24	6	5	5	5	6.5	6.5	6,5	6	3	4	3	10	10	10		1	8	229.40	
EDACTED-XXX	24507	23	19	23	23	3 27	2 22	22	22	21	23	21	21.2	21.2	21.2	21	21	19	23	21	21	21	25	27	21	17	22.5	22.5	22.5	22.5	23	21	675.60	
DACTED-XXX	22153	16	14	15	1/	4 15.3	3 15.3	15.3	15	15	15						15			-	14.8	14.8	15	15	15	13	14.3	14.3	+	-	-	14		
		-			1	1		20.07	-			- 20		-	-	-		-							-						- 40	-	83,381.13	
																																	03,304,13	1

Exhibit 3B1

Section 3(b) EPA Response - April 19, 2011 to May 1, 2011 Summary Treatment and Disposal Facilities Used for Core County Marcellus Shale Wells

Information provided is preliminary and subject to correction and/ or supplementation.

Facility 1			
Address	Facility Type	Fluid Total in Barrels	Fluid Total in Gallons
Advanced Waste Services 1001 Sampson Street New Castle, PA 16101	Waste Water Treatment Plant	22,234	933,828
(724) 657-8777			

Facility 2			
Address	Facility Type	Fluid Total in Barrels	Fluid Total in Gallons
Appalachian Water Services 195 Enterprise Lane Connellsville, PA 15425	i waste water kecycie	777	32,634
(724) 628-8408			

Facility 3				
Address		Facility Type	Fluid Total in Barrels	Fluid Total in Gallons
Hunter's Disposal	P.O.			
Box 430	Remo,	Well Injection	19,412	815,304
OH 45773-0430				
(740) 783-2233				

Facility 4			
Address	Facility Type	Fluid Total in Barrels	Fluid Total in Gallons
PA Brine - Josephine Plant P.O. Box 296 Bells Mill Road Josephine, PA 15750	Waste Water Treatment Plant	10,237	429,954
(814) 437-3593			

Facility 5			
Address	Facility Type	Fluid Total in Barrels	Fluid Total in Gallons
PA Brine - Franklin Plant	Waste Water		
5148 US 322	Treatment Plant	982	41,244
Franklin, PA 16323	meatinent Plant		
(814) 437-3593			

Facility 6			
Address	Facility Type	Fluid Total in Barrels	Fluid Total in Gallons
B & B Oilfield Services			
P.O. Box 367	Well Injection	510	21,420
Garrettsville, OH			

(330) 221-6681			
----------------	--	--	--

Facility 7			
Address	Facility Type	Fluid Total in Barrels	Fluid Total in Gallons
North Star Disposal Services			
2761 Salt Springs Road	Well Injection	9,254	388,668
Youngstown, OH 44509			
(330) 792-9524			

Facility 8			
Address	Facility Type	Fluid Total in Barrels	Fluid Total in Gallons
WVOG			
157 Lower Eureka Road	Well Injection	5,377	225,834
Saint Mary's, WV 26170			
(304) 665-2461			

Facility 9				
Address	Facility Type	Fluid Total in Barrels	Fluid Total in Gallons	
Tunnelton Liquids Company	Waste Water			
P.O. Box 667	Treatment Plant	6,392	268,464	
Clarion, PA 16214	Treatment Plant			
(814) 226-5016				

Facility 10			
Address	Facility Type	Fluid Total in Barrels	Fluid Total in Gallons
McCutcheon Enterprises, Inc.	Masta Mater		
250 Park Road	Waste Water	850	35,700
Apollo, PA 15613	Treatment Plant		
(724) 568-3623			

Total for Core County	76.025	2 402 050
Wells	76,025	3,193,050

Section 3(c) EPA Response - April 19, 2011 to May 19, 2011 Summary Recycled Water from Core County Marcellus Shale Wells

	Barrels	Gallons
Untreated Recycled Water	32,193	1,352,106
Recycled Water Treated at Appalachian Water Services	777	32,634

Information provided is preliminary and subject to correction and/ or supplementation.

Exhibit 3B3

Exhibit 3B3 - List of Transporters

Burkholtz Welding 195 Second Street Box 68 Heilwood, PA 15745

Devonian Services 297 Boy Scout Camp Road Morgantown, WV 26508

Heckman Water Resources Formerly Devonian 297 Boyscout Rd. Morgantown, WV. 26508

Harmony Gas, Oil & Timber Co. 1448 Patchen Highway Cherry Tree, PA 15724

Sanders Excavating Inc PO Box 668 Ravenna, Ohio 44266 330-297-7980

Well Services, Inc. 1308 Morrell Ave. Connellsville,Pa. 15425

Whipstock Natural Gas Services LLC 13646 Rte 403 Hwy N Clymer, PA 15728 724-254-0500

Exhibit 3B4 – List of Treatment and Disposal Facilities

Advanced Waste Services 101 River Park Drive New Castle, PA 16101

Appalachian Water Services, LLC AKA Ronco Water Treatment Facility River Avenue Extension Masontown, PA 15461

B&B Oilfield Service – Clinton #2 PO Box 367 Garrettsville, Ohio 44231 330-527-5377

Hunter Disposal, LLC 38505 Marietta Rd Dexter City, OH 45727 740-783-2233

McCutcheon Enterprises, Inc. 250 Park Road Apollo, PA 15613 724-568-3623

North Star Oilfield Services 2761 Saltsprings Rd Youngstown, Ohio 44509 330-292-2723

Pennsylvania Brine Treatment – Josephine Plant 931 Bells Mills Rd Josephine, PA 15750 724-248-1000

Tunnellton Liquids Co. 671 Hogue Dr. Saltsburg, PA 15681 724-459-6138

West Virginia Oil Gathering U.S. Rt. 119 Spencer, WV 25276 Ergon, Inc. (purchases condensate) P.O. Box 1639

Jackson, Miss. 39215-1639

Attus Exhibit 3G - reduck / Use of Pits

Well Pad Name	County	Township	Latitude	Longitude	Pit Dimensions	Pit capacity	Contents
MIN 922122 1122				-	-		
XXX-REDACT-XXX	Fayette	Dunbar	39.58.01.03	79.41.29.42.	80'x 120'		Was drill cuttings*
XXX-REDACT-XXX	Fayette	Dunbar	39.58.01.03	79.41.29.42	150' X 250'	1.6 MG @2' freeboard	Was flowback/fresh*
XXX-REDACT-XXX	Fayette	Dunbar	39.58.01.03	79.41.29.42	150' x 275'	1.6 MG @ 2'freeboard	Was flowback/fresh*
Producing							
XXX-REDACT-XXX	Westmoreland	Rostraver	40.08.14.6	79.45.48.2	150' x 80'		Was drill cuttings*
XXX-REDACT-XXX	Westmoreland	Rostraver	40.08.14.6	79.45.48.2	125' x 225'	1.6 MG @ 2' freeboard	Was flowback/fresh*
XXX-REDACT-XXX	Westmoreland	Rostraver	40.08.14.6	79.45.48.2	125' x 225'	1.6 MG @ 2' freeboard	Was flowback/fresh*
XXX-REDACT-XXX	Westmoreland	Rostraver	40.08.14.6	79.45.48.2	125' x 225'	1.6 MG @ 2' freeboard	Was flowback/fresh*
Shut-in due to lack of pipeline connection availability							
XXX-REDACT-XXX	Fayette	Menallen	79.45.40.35	39.57.25.38	120' x 245'		Drll cuttings
XXX-REDACT-XXX	Fayette	Menallen	79.45.40.35	39.57.25.38	145' x 200'	1.6 MG @ 2' freeboard	Flowback/fresh
XXX-REDACT-XXX	Fayette	Menallen	79.45.40.35	39.57.25.38	145' x 200'	1.6 MG @ 2' freeboard	Flowback/fresh
XXX-REDACT-XXX	Fayette	Menallen	79.45,40.35	39.57.25.38	120' x 245'	1.6 MG @ 2' freeboard	Fresh only
sites still remain. Not fraced or produced		112			1000		
XXX-REDACT-XXX	Fayette	Redstone	39.56.06.83	79.51.12.90	120' x 200'		Drill cuttings
XXX-REDACT-XXX	Fayette	Redstone	39.56.06.83	79.51.12.90	120' x 245'	1.6 MG @ 2' freeboard	Flowback/Fresh
XXX-REDACT-XXX	Fayette	Redstone	39.56.06.83	79.51.12.90	120' x 245'	1.6 MG @ 2' freeboard	Flowback/Fresh
Currently Drilling		114					

^{*} Pits may have been in use after 4/19/2011; currently pits are closed or in process of closure

Altus Exhibit 6 - redocted

SUMMARY OF RELEASE INCIDENTS

DATE	TIME	LOCATION	TYPE OF INCIDENT	QTY SPILLED	WHAT HAPPENED	CORRECTIVE ACTION	AGENCIES INVOLVED
2/6/09		X-REDACT-X	oil leak	unknown	Oil in pit with hole in it	ECS&R remediated	none
2/20/09	11:30 AM	X-REDACT-X	Drip gas	l ppr	BOP around tubing failed and sprayed onto location	Cleaned up	DEP
3/16/09	2:00 PM	X-REDACT-X	Contractor fuel spill	4 gallons	Water truck ran over steel bar and punctured fuel tank, lost about 4 gallons on ground	Atlas and Shallenberger cleaned up spill and disposed of properly	none
4/12/09	12:00 PM	X-REDACT-X	Brine spill	30 ЬЫ	Brine spill from frac tank; valve was opened up slightly	Cleaned up spill and disposed of properly	Notified Jack with DEP
5/7/09	6:05 AM	X-REDACT-X	Soap spill	unknown	Soap spill while drilling	Cleaned up	Rich Freese - DEP
5/8/09	8:57 AM	X-REDACT-X	fire	minimal	Oil line in Turbo let loose and oil sprayed on exhaust on blender	Fire put out immediately	none
5/8/09	2:43 PM	#11	Diesel fuel spill	10 gallons	Pressure from pump blew hose fitting apart – 10 gallons of diesel fuel spilled	Immediately cleaned up with absorbents	none
6/2/09	1:00 PM	X-REDACT-X	Diesel spill	20 gallons	Fuel hose sprung leak while refueling trailer pumps on location	Superior cleaned up spill	none
6/17/2009	9:00 AM	X-REDACT-X	Drip gas leak	unknown	When digging new water pit, drip gas was in ground. Frac tank leaked out of bottom of tank.	Cleaned up drip and got rid of tank	none
6/9/2009	?	X-REDACT-X	Diesel spill	unknown	Found diesel on ground possibly from rig	Cleaned up site	none
6/28/2009	pm	X-REDACT-X	Brine spill	25 bbls	Brine spill on site – not sure if it was vandals	Cleaned up spill	State Police, DEP
7/10/2009	3:00 PM	X-REDACT-X	Brine release	unknown	Brine spilled from frac tanks killing vegetation	Cleaned up location	DEP
8/21/09	8:40 AM	X-REDACT-X	Diesel spill	I gallon	Frac spilled approx. I gallon diesel on location	Leaking hose	none

DATE	TIME	LOCATION	TYPE OF INCIDENT	QTY SPILLED	WHAT HAPPENED	CORRECTIVE ACTION	AGENCIES INVOLVED
8/21/09	11:00 AM	X-REDACT-X	H2S, CO release	NA	H2S and CO were released	consultant called in to oversee	none
8/15/09	11:45 AM	X-REDACT-X	Brine spill	unknown	Pit liner developed a hole and brine leached out onto site and into E&S ditch	Cleaned up site – looking to build pits on cut side	DEP notified
9/1/09	8:00 AM	X-REDACT-X	Acid spill	500 gallons	Valve on HCL truck was accidentally kicked loose and spilled approx, 500 gallons of acid on location	Cleaned up	DEP
9/11/09	8:00 AM	X-REDACT-X	Brine spill	small amount	Landowner mowing field got too close to dump line and hit line spilling a minor amount of brine on ground	Cleaned up soil and repaired dump line	none
9/15/09	9:00 AM	X-REDACT-X	Brine spill	unknown	Pit had holes in liner spilling brine on property and field	Cleaned up soil	DEP
10/30/09	?	X-REDACT-X	diesel spill	790 gallons	Union Drilling spillede diesel fuel on location	cleaned up	DEP
12/6/09	Unknown	X-REDACT-X	Water spill from pits	50,000 -90,000 gallons	Baker Pump failed spilling water off location	cleaned up	DEP - Vince Yantko
12/11/09	am	X-REDACT-X	Water spill	unknown	Baker overfilled frac tanks	cleaned up	none
12/7/09	3:30 PM	X-REDACT-X	Friction reducer/water spill	200 gallons	Leak in blender pump	cleaned up	DEP was called
12/9/09	8:00 AM	X-REDACT-X	Spill/fire	unknown	Transmission line on pump engine broke causing fluid to pour onto pump engine and catch fire	Extinguished quickly – very little fluid hit ground. Soaked up with pads	NA
12/19/09	8:00 AM	X-REDACT-X	Fire, transmission oil leak	minimal	Pump engine broke causing transmission fluid to spill on engine and catch fire	Put out fire and cleaned up spill	?
12/23/09	3:23 PM	X-REDACT-X	Frac water spill Material damage	unknown	Isolation valve cracked and released fluid on ground	Sucked up water	NA

DATE	TIME	LOCATION	TYPE OF INCIDENT	QTY SPILLED	WHAT HAPPENED	CORRECTIVE ACTION	AGENCIES INVOLVED
12/29/09	8:00 AM	X-REDACT-X	Hydraulic leak	2 galions	Hydraulic hose split and leaked approx. 2 gallons on ground	Cleaned up rig and ground with absorbent.	NA
1/1/10	7:00 AM	X-REDACT-X	Diesel fuel & oil spill	4 gallons	Oil hose on air pack broke, fuel from changing filters		none
1/2/10	12:00 PM	X-REDACT-X	Transmission leak	2 cups	Logging truck leaked out approx. 2 cups transmission fluid on location	cleaned up	none
1/18/10	7:20 AM	X-REDACT-X	Materials damage, gas release, spill	Misting toward and into pit.	Whipstock water truck backed into well head causing gas leak and water leak on location	fixed equipment. Shut in well	DEP
1/24/10	2:25 PM	X-REDACT-X	Contractor hydraulic leak	I gt.	Hydraulic hose sprung a leak from surge of pressure and leaked on ground	Cleaned up spill	none
1/29/10		X-REDACT-X	Oil and soap leak	I cup oil, I gallons soap	Oil dripped down frame from Air Pack	Cleaned up leak	none
2/12 – 2/15	2	X-REDACT-X	Brine spill	200 gal	Well overflowed through conduit to sensing line due to being shut in and pressure building up in the line. Outside of dike	Cleaned up site and will monitor wells more often that are shut in for short periods of time	None
2/23/10	4:00 PM	X-REDACT-X	Fuel spill	I gal	Air compressor was being moved and diesel fuel leaked onto ground from skid	Cleaned up spill	None
2/23/10	4:00 PM	X-REDACT-X	Soap spil!	.5 gallons	Soap Gaylord tipped over and small leak onto ground	Cleaned up spill and uprighted Gaylord	None
3/4-3/5	?	X-REDACT-X	Mud spill	100 gallons	Approx. 100 gallons of drill mud on location	cleaned up	None
3/16/10	8:30 AM	X-REDACT-X	Contractor Hydraulic spill/leak	2 gallons	Hydraulic hose burst while idling and oil spilled on ground	Cleaned up spill	None
3/11/10	4:00 AM	X-REDACT-X	Contractor Diesel spill	250 gallons	Approx. 250 gallons diesel leaked on ground from air compressor	Cleaned up spill	DEP

DATE	TIME	LOCATION	TYPE OF INCIDENT	QTY SPILLED	WHAT HAPPENED	CORRECTIVE ACTION	AGENCIES INVOLVED
3/12/10	4:30 PM	X-REDACT-X	Contractor Hydraulic oil spill	l gal	Hydraulic hose failed and leaked approx. I gallon on ground	Cleaned up spill and will inspect more frequently	None
3/10/10	3:30 PM	X-REDACT-X	Unknown diesel leak	5 gal	Found diesel spots on site. No one on location	Cleaned up with absorbents	None
3/11/10	4:00 AM	X-REDACT-X	Diesel spill	60 bbls	Air compressor leaked out approx. 60 bbl of diesel on ground	cleaned up	DEP
3/31/10	8:00 AM	X-REDACT-X	fire	NA	condensate pit AND TANK caught fire	cleaned up site	DEP
4/12/10	9:45 AM	X-REDACT-X	H2S release	NA	Monitors detected H2S on location	Evacuated site and called in Specialty Services	DEP
4/14/10	3:40 PM	X-REDACT-X	Brine leak	5 bbls	Tank gasket on clean out plate leaked (approx. 5 bbls)	Cleaned up contaminated soil, sealed pipe and gasket	DEP
4/25/10	2:00 AM	X-REDACT-X	Spill/leak	4 gallons	Kelly hose leaked approx. 4 gallons MOBM on ground	Cleaned up soil	None
4/29/10	4:30pm	X-REDACT-X	Pump oil Spill	1-2 gallons	Devonian leaked approx. 1-2 gallons pump oil on ground (did not notify Atlas)	Cleaned up sol	DEP – courtesy call
6/8/10	1:30 PM	X-REDACT-X	brine spill	2-3 bbls	annulus valve turned upside down and was cross threaded. While taking apart, nipple separated from annulus and well unloaded water.	cleaned up. new wells to be inspected more thoroughly for annulus placement. Crowne was contacted about incident since they installed it.	none
8/2/10	4:00 PM		brine spill	110 gallons	frac tank leaked onto containment pad. Had hole in the bottom of tank from rust	cleaned up	none
8/13/10	?	X-REDACT-X	spill	3 gallons	spill from super sucker on ground	cleaned up spill	NA

DATE	TIME	LOCATION	TYPE OF INCIDENT	QTY SPILLED	WHAT HAPPENED	CORRECTIVE ACTION	AGENCIES INVOLVED
9/9/10	?	X-REDACT-X	brine spill	less than 5 gallons	some dried up brine on lease road - possibly leaked from water trucks	cleaned up area and discussed with water haulers	NA
9/17/10	11:48 AM	X-REDACT-X	spill, material damage	2 gallons brine	contractor dropped fence post onto site glass on tank and broke site glass causing minor brine spill on ground	cleaned up spill and fixed site glass	NA
9/24/10	9:05 AM	X-REDACT-X	brine spill	3 bbls	Baker pump employee forgot to replace poly line in tank and Atlas employee started up pump and spilled in between pits on ground	cleaned up	DEP
10/4/10	9:30 AM	X-REDACT-X	chemical foam	foam bubbles	Flomax flowed into pit and foam was blown across field	Cleaned up foam	DEP
10/12/10	12;00 AM	X-REDACT-X	brine leak	25 gallons	Auto dump failed causing relief valve to pop off and blow brine out onto ground	cleaned up	DEP
Sept	7	X-REDACT-X	brine spill	<5 gallons	leak from line on location onto	cleaned up and notified trucks	NA
10/14/10	9:00 AM	X-REDACT-X	H2S release	NA	H2S readings in tanks.	Evacuated site and developed plan to circulate water in pits	NA
10/27/10	12:00 PM	X-REDACT-X	hydraulic oil spill	2 gallons	mud pump not level, oil water mix from rod oiler dripped out and onto ground	cleaned up	пА
11/10/10	4:30 AM	X-REDACT-X	Unislik spill	60 gallons	forktruck poked hole in tote and spilled onto ground	cleaned up spill	DEP was called
12/2/10	11:30 AM	X-REDACT-X	diesel spill	less than 5 gallons	left pump unattended while filling heater with diesel	cleaned up. assure all employees know not to leave equipment unattended.	State Police

DATE	TIME	LOCATION	TYPE OF INCIDENT	QTY SPILLED	WHAT HAPPENED	CORRECTIVE ACTION	AGENCIES INVOLVED
12/4/10	10:00 AM	X-REDACT-X	brine leak	2.5 gallons	suction on truck released and spilled some brine on lease road	cleaned up spill.	none
12/9/10	10:15 AM	X-REDACT-X	diesel fuel spill	5 gallons	Truck had loose fuel cap due to broken seal.	Clean up contaminated material. Replaced fuel cap	none
12/16/10	10:00 AM	X-REDACT-X	acid spill	<5 gallons	Universal back flushing into acid buggie overfilling the truck. Holes in containmnet allowed acid to seep into ground	cleaned up spill	none
2/8/11	11:00 AM	X-REDACT-X	drip gas leak	10 gallons	defective valves - o-rings cracked	replaced with I piece enclosed system	NA
2/28/11	11:31 AM	X-REDACT-X	diesel spill	approx, 1 gallon	tank too full and spill into catch tray and leaked onto ground outside of conatinment area	cleaned up spill	DEP