# BOOK 2 of 2



## NYSEG

NEW YORK STATE ELECTRIC & GAS CORPORATION James A. Carrigg Center, 18 Link Drive, P.O. Box 5224 Binghamton, New York 13902-5224

### INTERIM REMEDIAL MEASURES

## FINAL ENGINEERING REPORT

FOR REMOVAL OF GAS HOLDER FOUNDATION N<sup>0.</sup> 2 ASSOCIATED WITH

BINGHAMTON COURT STREET FORMER MANUFACTURED GAS PLANT SITE City of Binghamton, Broome County, New York

### September 2006

Prepared By: NYSEG Site Investigation and Remediation

Reviewed and Approved By: New York State Department of Conservation And New York State Department of Health

# APPENDIX E

# ANALYTICAL RESULTS FOR ENDPOINT CONFIRMATION SAMPLES

	Results	Former Ma 2004 Interim	hamton Court Inufactured Ga Remedial Mea Excavation (C	is Plant Site asures Proj	ect		
Map No.	Sample ID	Collection Date	Depth Below Grade (feet)	Total PAH (ppm)	Total cPAH (ppm)	Benzene (ppm)	Naphthalene (ppm)
1	BCTUCCRFL0401	10/26/2004	14	322 J	23.1 J	3.4	97 D
2	BCTUCCRSW0401	10/26/2004	8	61.2 J	5 J	8	16
3	BCTUCCRFL0402	10/26/2004	15	55.3 J	3.43 J	0.64 J	17
4	BCTUCCRSW0402	10/26/2004	16	96.9 J	4.5 J	0.44 J	42 D
5	BCTVCCRFL0403-Q	10/28/2004	16	808 J	54.7 J	21	280 D
6	BCTVCCRSW0403-Q	10/28/2004	15	2,140 J	718 J	0.39 J	130
7	BCTVCCRFL0404-Q	11/11/2004	16	234 J	25.6 J	2.4	40
8	BCTVCCRSW0404-Q	11/11/2004	9	773 J	71.2 J	1.9	180 D
9	BCTVCCRFL0405-Q	11/19/2004	16	197 J	24.7	6.8	47 D
10	BCTVCCRFL0406-Q	12/2/2004	17	1.32 J	0.4 U	0.13	0.87
11	BCTVCCR-SW0407-Q	12/8/2004	15	6,460 J	1,330 J	50	220
12	BCTVCCR-FL0408-Q	12/8/2004	15	2,520 J	170	58	1,400 D
13	BCTVCCR-0409-Q	12/8/2004	15	56.7 J	27.1 J	0.008 U	2.1 J
14	BCTVCCR-FL0411-Q	12/15/2004	15	3,530 J	378 J	23	1,300 D
15	BCTVCCR-SW0410-Q	12/15/2004	15	1,690 J	168	60	570 D
16	BCTVCCR-0413-Q	12/21/2004	15	377 J	52.5	0.011	49

Notes:

D = Diluted sample concentration reported.

J = Estimated concentration.

U = Not detected at the given detection limit.

ppm = Parts per million.

NEW YORK STATE ELECTRIC & CAS NYSEE METHOD 8260 - BIEX ANALYSIS DATA SHEET

Client No.

Lab Name: <u>STL Buffalo</u> Contract: <u>EDMC</u>	MSPA MAP NS 1
Lab Code: RECNY Case No.: SAS No.:	SDG No.:
Matrix: (soil/water) <u>SOIL</u>	Lab Sample ID: <u>A4A59701</u>
Sample wt/vol: $4.12$ (g/mL) G	Lab File ID: <u>R1761.RR</u>
Level: (low/red) MED	Date Samp/Recv: 10/26/2004 10/27/2004
% Moisture: not dec. <u>20.3</u> Heated Purge: N	Date Analyzed: <u>11/03/2004</u>
GC Column: <u>DB-624</u> ID: <u>0.25</u> (mm)	Dilution Factor: <u>2.00</u>
Soil Extract Volume: 10000 (UL)	Soil Aliquot Volume: 100.00 (uL)
CAS NO. COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u> Q

#### CAS NO. COMPOUND

71-43-2	3400
100-41-4ETAVIRENZENE	45000
108-88-3TOLIENE	8300
1330-20-7TOTAL XYLENES	55000

NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

 Lab Name: STL Buffalo
 Contract: EBMC MSPA
 ETUIRFL0401

 Lab Code: REONY
 Case No.:
 SAS No.: \_\_\_\_\_
 SDG No.: \_\_\_\_\_

 Matrix: (soil/water) SOIL
 Lab Sample ID:
 A4A59701\_\_\_\_\_

 Sample wt/vol:
 30.81 (g/mL) G
 Lab File ID:
 U02675.RR\_\_\_\_\_\_

 Level:
 (low/med)
 LOW
 Date Samp/Recv:
 10/26/2004 10/27/2004

 % Moisture:
 20.0
 decanted: (Y/N) N
 Date Extracted:
 10/28/2004

Concentrated Extract Volume: 1000(uL)

Injection Volume: 1.00 (uL)

GPC Clearup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:

Date Analyzed: 10/29/2004

Dilution Factor: 5.00

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CAS NO. COMPOU	ND	(ug/L or ug/Kg)	UG/KG_	C
3-32-9ACENAL	HISENE		21000	
208-96-8ACENAL			7600	
120-12-7ANTHRA	CENE		12000	
6-55-3BENZO	(A) ANTHRACENE		6500	
205-99-2BENZO	(B) FLLORANTHENE		2200	1.0
07-08-9BENZO	(K) FLIORANIHENE		2600	
91-24-2BENZO	(GHI) PERYLENE		1800	J
0-32-8BENZO			4400	
18-01-9CHRYSE	NE		5900	
3-70-3DIBENZ			2000	U
06-44-0FLIDRA	NTHENE		12000	
6-73-7FLUORE	NE		15000	
93-39-5 INDENC	(1,2,3-00) PYRENE		1500	J
1-57-62-METH	MNAPHTHALENE		52000 62000 P	Ð
1-20-3NAPHIN			-81000 47200 D	₽
5-01-8PHENAN	THRONE		41000 50 000 D	B
29-00-0PYRENE			18000	0.0
32-64-9DIBENZ	OFURAN		2400	1.1

NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8260 - BIEX ANALYSIS DATA SHEET 15/354

Client No.

	C. C. S. Sant	BCTUCCRSW0401
Leb Name: <u>SIL Buffalo</u> Contract: <u>EBMC MSRA</u>	The second second	MAP Nº Z
Lab Code: REDNY Case No.: SAS No.:	SDG No.:	
Matrix: (soil/water) SOIL	Leb Sample ID:	<u>A4A59702</u>
Sample wt/vol: $4.02$ (g/mL) G	Lab File ID:	<u>R1760.RR</u>
Level: (low/med) MED	Date Samp/Recv:	10/26/2004 10/27/2004
% Moisture: not dec. <u>26.5</u> Heated Purge: N	Date Analyzed:	11/03/2004
C Colum: <u>DB-624</u> ID: <u>0.25</u> (nm)	Dilution Factor:	:1.00
Soil Extract Volume: 10000 (ui)	Soil Aliquot Vol	ume: <u>100.00</u> (uL)
Cr	MIRATION INITS:	Section and the

CAS NO. COMPOUND

(ug/L or ug/Kg) UG/HG

<u>Q</u>

71-43-2BENZENE	8000
100-41-4EIHYLBENZENE	9000
108-88-3TOLUENE -	22000
1330-20-7TUPAL XYLENES	35000

NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

Client No.

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20/354

Lab Name: STL Buffalo Contract: EDMC MSPA	and the state of a	3.100.0000401
Lab Code: RICNY Case No.; SAS No.;		
Matrix: (soil/water) SOIL	Lab Sample D:	<u>A4A59702</u>
Sample wt/vol: $30.62$ (g/mL) G	Leb File ID:	U02678.RR
Level: (low/med) LOW	Date Samp/Recv:	10/26/2004 10/27/200
* Moisture: <u>28.0</u> decanted: (Y/N) N	Date Extracted:	10/28/2004
Concentrated Extract Volume: 1000 (uL)	Date Analyzed:	10/29/2004
Injection Volume: 1.00 (ur.)	Dilution Factor:	5.00
GPC Clearup: (Y/N) N pH:		

CAS NO.	COMPOUND	(ug/L or ug/Kg)	TS: UG/KG	Q
83-32-9	ACENAPHIHENE		5800	
208-96-8	ACENAPHTHYLENE		1400	J
120-12-7	ANIHRACENE		2600	1
56-55-3	BENTO (A) ANIHRACENE		1800	J
205-99-2	BENZO (B) FLIDRANTHENE		2200	U
207-08-9	BENZO (K) FLUORANIHENE		2200	U
191-24-2	BENZO (GHI) PERVIENE		2200	U
50-32-8	BENZO (A) PYRENE		1500	J
218-01-9	CHRYSENE		1700	J
53-70-3	DIPENZO (A, H) ANIHRACENE	Country of the second s	2200	U
206-44-0	FUORANDHENE	10	3100	
86-73-7	FLUORENE		3100	1
193-39-5	INDEND (1, 2, 3-CD) PYRENE		2200	U
91-57-6			10000	
91-20-3	NAPHIFALENE		16000	1.1
85-01-8	PHENANTHRENE		9300	
129-00-0	PYRENE		4900	1
132-64-9	DIBENZOFURAN		2200	U

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NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8260 - BTEX ANALYSIS DATA SHEET

		Client No.
Lab Name: SIL Buffalo Contract: EMC·MSPA		BCIUCCRFL0402 MAP Nº 3
Leb Code: RECNY Case No.: SAS No.:	SDG No.:	
Matrix: (soil/water) SOIL	Lab Sample ID:	<u>A4A59703</u>
Sample wt/vol:4.07 (g/mL) G	lab File ID:	R1759.RR
Level: (low/med) MED	Date Samp/Recv:	10/26/2004 10/27/2004
% Moisture: not dec. <u>20.1</u> Heated Purge: N	Dete Analyzed:	11/03/2004
GC Column: DB-624 ID: _0.25 (mm)	Dilution Factor:	1.00
Soil Extract Volume: 10000 (uL)	Soil Aliquot Vol	ume: <u>100.00</u> (111)
CIN	CENTRATIN INTTO-	1. All 1.

(ug/L or ug/Kg) UG/KG\_

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71-43-2BENZENE	640	J
100-41-4EINYLBENZENE	29000	
108-88-3TOLLENE	710	J
1330-20-7TOTAL XMIENES	25000	1

CAS NO.

COMPOUND

FORM I - GC/MS VOA

NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

Client No.

19/354

Leb Name: STL Buffa	<u>lo</u> Ca	ntract: EEMC MSPA		BCILICRFL0402
Iab Code: REONY	Case No.:	SAS No.:	SDG No. :	
Matrix: (soil/water	) <u>soil</u>		Lab Sample ID:	A4A59703
Sample wt/vol:	<u>30.29</u> (g/mL) <u>G</u>		Lab File ID:	<u>U02679.RR</u>
Level: (low/med)	LOW		Date Samp/Recv:	10/25/2004 10/27/200
% Moisture: <u>23.0</u>	decanted: (Y/N)	N	Date Extracted:	10/28/2004
Concentrated Extrac	t Volume: 1000 (uL)		Date Analyzed:	10/29/2004
Injection Volume:	1.00 (UL)		Dilution Factor:	5.00
GPC Cleanup: (Y/N)	<u>N</u> <u>DH</u> :			

CAS NO.	COMPOUND	(Ug/L or Ug/Kg)		Q
83-32-9	ACENAPRIHENE		1500	J
208-96-8	ACENAPHIHYLENE	the second se	4000	
120-12-7	ANTHRACENE		2200	1
56-55-3	BENZO (A) ANTHRACENE		1300	J
205-99-2	BENZO (B) FLUORANIHENE		2100	U
207-08-9	BENZO (K) FLLORANDHENE		2100	U
191-24-2	BENZO (GHI) PERYLENE		2100	U
50-32-8	BENZO (A) FYRENE		930	J
218-01-9	CHRYSENE		1200	J
53-70-3	DIBENZO (A, H) ANTHRACENE		2100	U
206-44-0	FLUGRANITHENE		2200	
	FLUCRENE		2600	
193-39-5	INDENO (1, 2, 3-OD) PYRENE		2100	U
91-57-6	2-MEININAPHTHALDNE		11000	-
91-20-3	NAPHIHALENE		.17000	
85-01-8	PHENANTHRENE	240	7800	
129-00-0	PYRENE		3600	
132-64-9	DIBENZOFURAN		2100	U

NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8250 - BIEX ANALYSIS DATA SHEET

		ULIERE NO
Iab Name:         SIL Buffalo         Contract:         EEMC-MSPA	<u></u>	SCILCORSW0402
Lab Code: REDNY Case No.: SAS No.:	SDG No.;	
Matrix: (soil/water) SOIL	iab Sample ID:	<u>A4A59704</u>
Sample wt/vol: $(g/mL) G$	Lab File ID:	<u>R1750.RR</u>
Level: (low/med) MED	·Date Samp/Recv:	10/26/2004 10/27/2004
% Moisture: not dec. <u>25.0</u> Heated Purge: <u>N</u>	Date Analyzed:	11/02/2004
GC Column: <u>BB-624</u> ID: <u>0.20</u> (mm)	Dilution Factor:	1.00
Soil Extract Volume: 10000 (uL)	Soil Aliquot Vol	ume: <u>100.00</u> (uL)

CONCENTRATION UNITS: · (ug/L or ug/Kg) UG/HG Q

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71-43-2BENZENE	440	J
100-41-4EIHYTBENZENE	26000	6
108-88-3TOLLIENE	570	J
1330-20-7TOTAL XYLENES	21000	

CAS NO.

COMPOUND

NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

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Client No.

Lab Name: SIL Buffalo	Contract: EEMC MSPA		BCIUCKSW0402
Lab Code: RECNY Case No.:	SAS No.:	SDG No.:	
Matrix: (soil/water) SOIL		Lab Sample ID:	<u>A4A59704</u>
Sample wr/vol: _30.38 (g/mL)	<u>G</u>	Lab File ID:	102680.RR
Level: (low/med) LOW	· ·	Date Samp/Recv:	10/26/2004 10/27/2004
% Moisture: <u>26.9</u> decanted: (Y/	(ท) <u>ท</u>	Date Extracted:	10/28/2004
Concentrated Extract Volume: 1000 (u	<u>II)</u>	Dete Analyzed:	10/29/2004
Injection Volume: 1.00(uL)		Dilution Factor:	5.00
GPC Cleanup: (Y/N) N pH:			

CAS NO.	COMPOUND	(ug/L or ug/Kg)		Q
83-32-9	ACENAPHIHENE		7100	1
208-96-8	ACENAPHTHYLENE		1400	J
120-12-7	ANIHRACENE		2800	1
56-55-3	BENZO (A) ANTHRACENE		1800	J
205-99-2	BENZO (B) FLUDRANIHENE		2200	U
207-08-9	BENZO (K) FLLORANIHENE		2200	U
191-24-2	BENZD (GHI) PERMIENE		2200	U
50-32-8	BENZO (A) PYRENE		1200	J
218-01-9	ORVSENE	Contraction of the second	1500	J
53-70-3	DIRENZO (A, H) ANTHRACENE	and the second second	2200	U
206-44-0	FLIDRANTHENE		2900	1
86-73-7	FLIORENE		3500	
193-39-5	INDENO (1,2,3-CD) PYRENE		2200	U
91-57-6			19000	
91-20-3	NAPHIHALENE	and the second second	40000 12000	PB-
85-01-8	CENANDERONE	with the second second	9000	
129-00-0	PYRENE		4000	
132-64-9	DIBENZOFURAN		740	J

# NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8260 - BIEX ANALYSIS DATA SHEET

Client No.

	ZIVERFLO403-Q
Lab Name: <u>SIL Buffalo</u> Contract: <u>EPMC MSP</u>	MAP Nº 5
Lab Code: REONY Case No.: SAS No.:	SEG No.:
Matrix: (soil/water) SOIL	Lab Sample ID: <u>A4A71101</u>
Sample wt/vol: $4.02$ (g/mL) G	Lab File ID: R1765.RR
Level: (low/med) MED	Date Samp/Recv: 10/28/2004 10/29/2004
% Moisture: not dec. <u>28.4</u> Heated Purge: <u>N</u>	Date Analyzed: <u>11/03/2004</u>
GC Column: <u>DB-624</u> ID: <u>0.25</u> (mm)	Dilution Factor: <u>1.00</u>
Soil Extract Volume: 10000 (uL)	Soil Aliquot Volume: 100.00 (uL)
	NCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u> Q

71-43-2BENZENE	21000
100-41-4EEHYLRENZENE	H ( 20033 - 80054-
108-88-3TOLUENE	52000-53000 P 2
1330-20-7TOTAL XYLENES	88000

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NEW YORK STATE ELECTRIC & GAS NYSEC METHOD 8270-HSL PAH + DEBENY OFURAN ANALYSIS DATA SHEET

Client No.

N.5.01

Lab Name: SIL Buffalc	Contract: EEMC MSPA	and the sheet of	BCIVCEPFI.0403-Q
Lab Code: <u>REONY</u> Case	No.: SAS No.;	SDG No.:	
Matrix: (soil/water) <u>SOI</u>	L	Lab Sample ID:	<u>A4A71101</u>
Sample wt/vol: _30	. <u>57</u> (g/mL) <u>G</u>	Lab File ID:	V07161RR
Level: (low/med) LOW	1	Date Samo/Recv:	10/28/2004 10/29/2004
% Moisture: <u>23.8</u> dec	anted: (Y/N) N	Date Extracted:	10/29/2004
Concentrated Extract Vol	une: <u>1000</u> (uL)	Date Analyzed:	11/01/2004
Injection Volume: 1.0	0(11)	Dilution Eactor:	10.00
GPC Clearup: (Y/N) N	pH:		

CAS NO.	COMPOUND	(ug/L or ug/Kg)	the second se	Q
83-32-9	ACENAPHIYENE	1 ON 5 OF R 1 STORE 1410	20000	1
208-96-8	ACENAPHIHYLENE		46000	1
120-12-7	ANIHRACENE		28000	
56-55-3	EENZO (A) ANTHRACENE		12000	
205-99-2	BENZO (B) FLUORANTHENE		4800	
207-08-9	BENZO (K) FUIDRAWIPENE		7200 j	
	BENZO (GHI) PERYLENE		5500	1
	EENZO (A) PYRENE		10000	
218-01-9	CHRYSENE		13000	
53-70-3	DIHENZO (A, H) ANIHRACENE		4200	UJ
and the second	FLIDRANIHENE		25000	
86-73-7	FLIORENE		34000	
193-39-5	INDEND (1,2,3-CD) PYRENE		3500	J
91-57-6			-20000-160000)	÷
91-20-3	NAPHTHALENE		220000-280000	B
85-01-8	PENANTHRENE		-120003-94000)	3-
129-00-0		× 1	55000 J	
132-64-9	DIBENZDEURAN		5000	

15/302

Client No.

NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8250 - BIEX ANALYSIS DATA SHEET

BOTVERSW0403-Q Lab Name: STL Buffalo Contract: EENC MSFA MAP Nº 6 Lab Code: REDNY Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_ Matrix: (soil/water) SOIL Lab Sample ID: A4A71102 Sample wt/vol: 4.09 (g/mL) G Lab File ID: R1754.RR Date Samp/Recv: 10/28/2004 10/29/2004 Level: (low/med) MED % Moisture: not dec. 37.0 Heated Purge: N Date Analyzed: 11/03/2004 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.00 Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100.00 (uL) CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Q CAS NO. COMPOUND

	and the second	
71-43-2EENZENE	390	J
100-41-4ETHYLBENZENE	13000	
108-88-3TOLUENE	540	J
1330-20-7TOTAL XYLENES	23000	
	the second se	

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### NEW YORK STATE ELECTRIC & CAS NYSEG METHOD 8270-HSL RAH + DIBENZOFURAN ANALYSIS DATA SHEET

Client No.

18/302

Lab Name: SIL Buffalo	Contract: EEMC MSPA		BCTVCRSW0403-Q
Lab Code: <u>REONY</u> Case No.:	SAS No.:	SDG No.:	
Matrix: (soil/water) SOIL		Lab Sample ID:	<u>A4A71102</u>
Sample wt/vol: _30.68 (g/mL)	G	Lab File ID:	V07162.RR
Level: (low/med) LOW		Date Samo/Recv:	10/28/2004 10/29/2004
% Moisture: <u>41.2</u> decanted: (Y	/N) <u>N</u>	Date Extracted:	10/29/2004
Concentrated Extract Volume: 10000 (	(ـ1د)	Date Analyzed:	11/01/2004
Injection Volume: 1.00 (uL)		Dilution Factor:	20.00
GPC Cleanup: (Y/N) N pH:			

CAS NO.	COMPOUND	CONCENERATION UNITS (ug/L or ug/Kg)	UG/KG Q
83-32-9	ACENAPHIHENE	170	- 0000
208-96-8	ACENAPHIHYLENE	120	0000
120-12-7	ANTHRACENE	86	5000 J
56-55-3	BENZO (A) ANTERACENE	94	1000 J
205-99-2	BENZO (B) FILORANIHENE	99	J 0006
207-08-9	BENZO (K) FLLORANTHENE	120	6 0000
191-24-2	BENZO (GHI) PERYLENE	140	0000
	BENZO (A) FYRENE	130	0000
218-01-9	CHRYSENE	80	7000 J
53-70-3	DIBENZO (A, H) ANTHRACENE	110	LU 0000
206-44-0	FUIDRANTHENE	14(	L 0000
86-73-7	FLIDRENE	97	7000 J
193-39-5	INDENO (1,2,3-CD) PYRENE	78	3000 J
91-57-6	2-METHYLNAPHTHALENE	110	U 0000
91-20-3	NAPHIHALENE	130	0000
85-01-8	PHENANIHRENE	300	0000
129-00-0	PYRENE	240	L 0000
132-64-9	DIBENZOFURAN	110	U 0000

Client No.

NEW YORK STATE ELECTRIC & CAS NYSEC METHOD 8260 - BIEX ANALYSIS DATA SHEET

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Lab Name: SIL Buffalo Contract: SEMC N	BCTVCCRFL0404-Q
	MAP Nº 7
Lab Code: REONY Case No.: SAS No.:	SDG No.:
Matrix: (soil/water) <u>SOIL</u>	Lab Sample ID: <u>A4B26401</u>
Sample wr/vol: (g/mL) G	Lab File ID: R2008.RR
Level: (low/med) MED	Date Samp/Recv: 11/11/2004 11/12/200
* Moisture: not dec. 22.4 Heated Rurge: N	Date Analyzed: 11/16/2004
GC Column: DB-624 D: 0.25 (mm)	Dilution Factor:1.00
Soil Extract Volume: 10000 (UL)	Soil Aliquot Volume: 100.00 (UL)
CAS NO. COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u> Q

71-43-2	2400	
100-41-4STHYLRENZENE	9100	
108-88-3TOLLENE	720	J
1330-20-7TOTAL XYLENES	11000	

NEW YORK STATE ELECTRIC & GAS NYSEC METHOD 8270-HSE PAH + DIEENZOFURAN ANALYSIS DATA SHEET

### 16/284

Client No.

BCTVCCRFI.0404-Q Lab Name: STL Buffalo Contract: EEMC MSPA Lab Code: REDNY Case No.: \_\_\_\_ SAS No.: \_\_\_\_ SDG No.: \_ Matrix: (soil/water) SOIL Lab Sample ID: A4B26401 Sample wt/vol: \_30.37 (g/mL) G Lab File ID: W00695.RR Level: (low/med) LOW Date Samp/Recv: 11/11/2004 11/12/2004 % Moisture: 21.9 decanted: (Y/N) Y Date Extracted: 11/12/2004 Concentrated Extract Volume: 1000 (uL) Date Analyzed: <u>11/15/2004</u> Injection Volume: 1.00(uL) Dilution Factor: 10.00 GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	(Ug/L or Ug/Kg)		Q
83-32-9	ACENAPHINENE	-	15000	1
	ACENARYTHYLENS		6200	
	ANTHRACENE		13000	
	BENZO (A) ANTHRACENE		6000	
	HENZO (B) FLLORAVIHENS		5800	
	BENZO (K) FLUORANTHENS	Contraction of the second second	3500	J
	BENZO (CHT) FERYLENE		2900	J
	BENZO (A) PYRENE	Constanting - Start and -	6100	1
	CHRYSENE		4200 1	
53-70-3	DIBENZO (A, H) ANTHRACENE		4200	U
	FULORANTHENE		16000	
86-73-7	FLUORENE		16000	
193-39-5	INDEND (1, 2, 3-OD) FYRENE		4200	U
91-57-6			29000	
91-20-3	NAZHTHALENE		40000	
85-01-8	PEDNANIHRENE		47000	1.0
129-00-0	PYRENE		22000	3
132-64-9	DIEENZOFURAN		1500	J

FORM I - GC/MS ENA

15/284

NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8260 - BTEX ANALYSIS DATA SHEET

		Client No.
		BCTVCCRSW0404-Q
Lab Name: <u>STL Buffalo</u> Contract: <u>EENC</u>	MSPA	MAP Nº 8
(ab Code: <u>REONY</u> Case No.: SAS No.:	SDG No.:	
Matrix: (soil/water) SOIL	Lab Sample ID:	<u>A4826402</u>
Sample wt/vol:4.13 (g/mL) G	Lab File ID:	R2005.RR
Level: (low/med) MED	Date Samp/Recv:	11/11/2004 11/12/2004
% Moisture: not dec. <u>28.8</u> Heated Purge: N	Date Analyzed:	11/16/2004
32 Column: <u>DB-624</u> ID: <u>0.25</u> (mm)	Dilution Factor:	1.00
Soil Extract Volume: 10000 (uL)	Soil Aliquot Vol	ume: <u>100.00</u> (uL)
CAS NO. COMPOUND	CONCENTRATION UNITS: (Ug/L or ug/Kg)	

71-43-2BENZENE	1900	1. 1.
100-41-4ETHYLEENZENE	13000	
108-88-3TOLLENE	660	J
1330-20-7TOTAL XYLENES	12000	C. Parks

NEW YORK STATE ELECTRIC & GAS NYSEG METHCE 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

The second

Client No.

17/284

Lab Name: STL Buffalo Contract: EEMC MSPA		BCIVCCRSW0404-Q
Lab Code: REONY Case No.: SAS No.:	SDG No.:	
Matrix: (soil/water) SOIL	lab Sample ID:	<u>A4B26402</u>
Sample wt/vol: _30.52 (g/mL) G_	Lab File ID:	W00696.RR
Level: (low/med) LOW	Date Samp/Recv:	11/11/2004 11/12/2004
% Moisture: <u>27.7</u> decanted: (Y/N) N	Date Extracted:	11/12/2004
Concentrated Extract Volume: 1000 (uL)	Date Analyzed:	11/15/2004
Injection Volume: 1.00 (ul.)	Dilution Factor:	10.00
GPC Cleanup: (Y/N) <u>N</u> pH:		

CAS NO.	COMPOUND	(ug/L or ug/Kg)		Q
11-1				-
	ACENAPHIHENE		73000 84000 0	8
208-96-8	ACENA PHINMLENE		10000	
120-12-7	ANISRACENE	A CONTRACTOR OF A CONTRACTOR OFTA CONTRACTOR O	36000	
56-55-3	BENZO (A) ANTHRACENE		15000	
205-99-2	BENZO (B) FILORANTHENE		12000	100
207-08-9	BENZO (K) FLUORANTHENE		11000 )	1
191-24-2	BENZO (GHI) PERYLENE		5100	100
50-32-8	BENZO (A) PYRENE		12000	
218-01-9	CHRYSENE	and the second second	17000	
53-70-3	DIBENZO (A, H) ANTHRACENE		4500	17
	FUIDRANTHENE		33000	-
86-73-7	FLIORENE	CALL COLLEGE COLLEGE	42000	
193-39-5	INDEND (1,2,3-CD) FYRENE		4200	J
	2-METHYINAPHTYALENE		120000 140 000 )	E
91-20-3			160000 Bear ?	
85-01-8	PENANTARENE		110000 120000 7	8
129-00-0	PYRENE		46000	
132-64-9	DIEENZOFURAN		5200	

### NEW YORK STATE ELECTRIC & CAS NISEG METHOD 8260 - BTEX ANALYSIS DATA SHEET

Client No.

	BCIVIRFL0405-Q
Lab Name: <u>STL Buffalo</u> Contract: <u>EMC 1</u>	MAP Nº 9
Lab Code: REONY Case No.: SAS No.:	SDS No.:
Matrix: (soil/water) SOIL	Lab Sample ID: <u>A4B63501</u>
Sample wt/vol: $4.05$ (g/mL) G	Lab File ID: R2166.RR
Level: (low/med) MED	Date Samp/Recv: 11/19/2004 11/20/2004
* Moisture: not dec. $25.6$ Heated Purge: N	Date Analyzed: 11/23/2004
GC Colum: <u>DB-624</u> ID: <u>0.25</u> (mm)	Dilution Factor:5.00
Soil Extract Volume: 10000 (uL)	Soil Aliquot Volume: 100.00 (uL)
CAS NO. COMPOUND	CONCENTRATION UNITS: (Ug/L or ug/Kg) UG/KG Q

71-43-2BENZENE	6800	
100-41-4EIPYLEPNZENE	24000	
108-88-3TOLUENE	2500	J
1330-20-7TOTAL XYLENES	19000	

FORM I - GC/MS VOA

### 8/211

NEW YORK STATE ELECTRIC & CAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

Client No.

9/211

Lab Name: STL Buffalo Contract: SEMC-MSPA		BCIVCCRFL0405-Q
Lab Code: REONY Case No.: SAS No.:	SDG No.:	
Matrix: (soil/water) SOIL	Lab Sample ID:	<u>A4B63501</u>
Sample wt/vol: $30.46$ (g/mL) G	Lab File ID:	WOCB13.RR
Lavel: (low/med) LOW	Date Sano/Recv:	11/19/2004 11/20/2004
% Moisture: <u>20.4</u> decented: (Y/N) <u>Y</u>	Date Exizacted:	<u>11/23/2004</u>
Concentrated Extract Volume: 1000 (uL)	Date Analyzed:	11/24/2004
Injection Volume: 1.00 (uL)	Dilution Factor:	5.00
GPC Clearsp: (Y/N) N pH:		

CAS NO.	COMPOUND	CONCENTRATION (MITS: (ug/L or ug/Kg) UG/I	KG	Q
83-32-9	ACENAPHINENE	18000		
208-96-8	ACENAPHTHYLENE	2900	1	
120-12-7	ANTHRACENE	11000		
56-55-3	BENZO (A) ANTHRACENE	5100		
205-99-2	BENZO (B) FLUORANIPENE	2600		
207-08-9	BENZO (K) FLUORANTHENE	3000		
191-24-2	BENZO (CHI) PERYLENE	3600		
	BENZO (A) PYRENE	5000		
	CHRYSENE	6600	100	
53-70-3	DIBENZO (A, H) ANIHRACENE	2000		IJ
	FLIDRANTHEVE	1,5000		
36-73-7	FILORENE	8000	7	
193-39-5	INDENO (1,2,3-CD) PYRENE	2400		
		10000		
91-20-3	NAPHIHALENE	46000	47000 D	E
35-01-8		34000		2
29-00-0	PYRENE	21000		
132-64-9	DIBENZOFURAN	2000		1 J

FORM I - GC/MS ENA

12/193

Client No.

NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8260 - BIEX ANALYSIS DATA SPEET

and the plan of the second state of the second	BCTVCCRFL0406-Q
Lab Name: SIL Buffalo Contract: EDMC MSPA	
Lab Code: REDNY Case No.: SAS No.:	SDG No.:
Matrix: (soil/water) <u>SOIL</u>	Lab Sample ID: A4C01001
Sample wt/vol: $5.10$ (g/mL) G	Lab File ID: F5105.RR
Level: (low/med) LOW	Date Samp/Recv: 12/02/2004 12/03/2004
* Moisture: not dec. <u>15.5</u> Heated Purge: <u>Y</u>	Date Analyzed: <u>12/06/2004</u>
GC Column: <u>DB-624</u> ID: <u>0.20</u> (mm)	Dilution Factor: <u>1.00</u>
Soil Extract Volume: (uL)	Soil Aliquot Volume: (uL)
	NEWIRATION UNITS: ug/L or ug/Kg) <u>UG/KG</u> Q
71 (2-2 DEAVENE	720

130	- SI
6	
19	
21	(* * )
	6 19

Client No.

### NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

		(
Lao Name: STL Buffalo Contract: EEMC MSRA		SCTVCCRFL0406-Q
Lab Name: SUL Buffalo Contract: EEMC MSRA		
Lab Code: <u>REDNY</u> Case No.: SAS No.:	SDG No.:	教育などで
Matrix: (soil/water) SOIL	Lab Sample ID:	<u>A4C01001</u>
Sample wt/vol: $30.25 (g/\pi L) G$	Lab File ID:	U03165.RR
Level: (low/med) LOW	Date Samp/Recv:	12/02/2004 12/03/2004
% Moisture: <u>17.5</u> decanted: (Y/N) <u>N</u>	Date Extracted:	12/03/2004
Concentrated Extract Volume: 1000(LL)	Date Analyzed:	12/06/2004
Injection Volume: 1.00(uL)	Dilution Factor:	1.00

GPC Cleanup: (Y/N) N pH:\_

CON MIRATION UNITS: (ug/L or ug/Kg) <u>UG/Kg</u> Q	Dilution Fact	or: <u>1.</u>	00
		TC .	
			Q

CAS NO.	COMFOUND	(ug/L or ug/Kg)	UG/KG_	Q
83-32-9			400	U
208-96-3	ACENAPHTHYLENE		400	U
120-12-7	ANTHRACENE		400	U
56-55-3	BENZO (A) ANTHRACENE		400	U
205-99-2	BENZO (B) FLI DRANTHENE		400	U
207-08-9	BENZO (K) FLUORANTHENE		400	U
191-24-2	BENZO (GHI) FERYLENE		400	U
50-32-8	BENZO (A) PYRENE		400	U
218-01-9	CHRYSENE		400	U
53-70-3	DIBENZO (A, H) ANTHRACENE		400	U
206-44-0	FLICRANTEDNE		400	U
	FLUCRENE		400	U
193-39-5	INDENO (1,2,3-CD) PYRENE		400	U
91-57-6	2-METHYLNAPHIMALENE		170	J
91-20-3	NAPHDHALENE		870	
85-01-8	PHENANTHRENE		280	J
129-00-0			400	U
132-64-9	DIEENZOFURAN		400	U

NEW YORK STATE BLECTRIC & GAS NYSEG METHOD 8260 - BTEX ANALYSIS DATA SHEET

	Client No.
	BCIVER-SW0407-Q
Lab Name: <u>STL Buffalo</u> Contract: <u>FE</u>	MAP Nº 11
Leb Code: <u>REONY</u> Case No.: SAS No.:	SDG No.:
Matrix: (soil/water) SOIL	Lab Sample ID: <u>A4C27801</u>
Sample wt/vol: $4.00$ (g/nL) G	Leb File ID: R2484.RR
Level: (low/med) MED	Date Samp/Recv: 12/08/2004 12/09/2004
% Moisture: not dec. <u>44.4</u> Heated Purge: N	Date Analyzed: <u>12/10/2004</u>
CC Column: <u>DB-624</u> ID: <u>0.20</u> (mm)	Dilution Factor: 10.00
Soil Extract Volume: 10000 (uL)	Soil Aliquot Volume: 100.00 (uL)
CAS NO. COMPOUND	CONCENTRATION UNITS: (Ug/L or Ug/Kg) <u>UG/KG</u> Q

71-43-2	50000
100-41-4STHYLEENZENE	340000
108-88-3TOLDENE	30000
1330-20-7TCIAL XVIENES	180000

### NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 3270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

Mede ....

Client No.

14/336

BCTVCCR-SW0407-0 Lab Name: SIL Buffalo Contract: EEMC MSPA Lab Code: RECINY Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_ Matrix: (soil/water) SOIL Lab Sample ID: A4C27801 Sample wt/vol: \_\_\_\_\_\_\_\_ 30.20 (g/mL) G\_\_\_\_\_\_ Lab File ID: W01026.RR Level: (low/med) LOW Date Samp/Recv: 12/08/2004 12/09/2004 % Moisture: 51.9 decanted: (Y/N) N Date Extracted: <u>12/09/2004</u> Date Analyzed: 12/10/2004 Concentrated Extract Volume: 1000 (uL) Injection Volume: 1.00 (uL) Dilution Factor: 20.00 GPC Clearne: (Y/N) N pH: \_

### CAS NO. COMPOUND

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG_	Q
83-32-9	ACENAPHTHENE		200000	
208-96-8	ACENAPHTHYLENE		180000	
120-12-7	ANTHRACENE	4	230000 280000	E
56-55-3	BENZO (A) ANTHRACENE		210000	
205-99-2	BENZO (B) FLUORANTHENE		250000	EJ
207-08-9	BENZO (K) FLUORANTHENE		270000	E7
191-24-2	BENZO (GHI) PERYLENE		130000	
50-32-8	BENZO (A) PYRENE		230000 25000)	B
218-01-9	CHRYSENE		210000	
53-70-3	DIBENZO (A, H) ANTYRACENE		14000	
206-44-0	FLUORANTHENE		660000 80000)	E
86-73-7	FLUORDNE		250000 30000 3	8
193-39-5	INDENO (1, 2, 3-0) FYRENE		95000	
91-57-6			32000	
91-20-3	NAPHTHALENE		220000	-
85-01-8	PHENANIHRONE		1200000 120000 9	<del>2</del> -
129-00-0	PYRENE		-9800691300000)	B
132-64-9	DIBENZOPURAN		4700	J

CINCENTRATION UNITS:

140 1

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Client No.

NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8260 - BTEX ANALYSIS DATA SHEET

		3CTVCIR-FL0408-Q
Lab Name: <u>SIL Buffalo</u> Contract: <u>ESMC M</u>	ISPA	MAP Nº 12
Leb Code: RECNY Case No.: SAS No.:	SDG No.:	
Matrix: (soil/water) <u>SOIL</u>	Lab Sample ID:	<u>A4C27802</u>
Sample wt/vol: $4.10$ (g/mL) G	Lab File ID:	R2483.RR
Level: (low/med) MED	Date Samp/Recv:	12/08/2004 12/09/2004
% Moisture: not dec. 21.3 Heated Purge: N	Date Analyzed:	12/10/2004
GC Column: <u>DB-624</u> ID: <u>0.20</u> (mm)	Dilution Factor:	10.00
Soil Extract Volume: 10000 (uL)	Soil Aliquot Volu	me: <u>100.00</u> (uL)
CAS NO. COMPOUND	CONCENTRATION UNITS: (Ug/L or ug/Kg) U	

71-43-2BENZENE	58000
100-41-4EIHYLBENZENE	100000
108-88-3TOLUENE	130000
1330-20-7TOTAL XYLENES	140000

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NEW YORK STATE ELECTRIC & GAS NYSEE METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

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Client No.

12/336

Lab Name: SIL Buffalo Contract: ZEMC-MSPA		BCIVCCR-FL0408-Q
Lab Code: RECRY Case No.: SAS No.:	SDG No.:	
Matrix: (soil/water) SOIL	Lab Sample ID:	<u>A4C27802</u>
Sample wt/vol: 30.38 (g/mL) G	Lab File ID:	W01027.RR
Level: (low/med) LOW	Date Samp/Recv:	12/08/2004 12/09/2004
% Moisture: <u>19.1</u> decanted: (Y/N) N	Date Extracted:	12/09/2004
Concentrated Extract Volume: 1000 (uL)	Date Analyzed:	12/10/2004
Injection Volume: 1.00 (uL)	Dilution Factor:	20.00
GPC Clearup: (Y/N) N pH;		

EAS NO.	COMFOUND	(ug/L or ug/Kg)	JG/KG	Q
83-32-9	ACENAPHTHENE	210	000	
208-96-8	ACENAPHIHYLENE	1000	000	
	ANTHRACENE	800	000	
55-55-3	HENZO (A) ANTHRACENE	310	000	
205-99-2	BENZO (B) FLUCRANIHENE	300	000	
207-08-9	BENZO (K) FLUORANTHENE	340	000	
191-24-2	BENZO (GHI) PERYLENE	150	000	
50-32-8	BENZO (A) FYRENE	330	000	
218-01-9	CHRYSENE	310	000	
53-70-3	DIBENZO (A, H) ANTHRACENE	80	000 U	J
206-44-0	FLIORANIHENE	790	000	
86-73-7	FLUORENE	710	000	
193-39-5	INDENO (1,2,3-CD) FYRENE	110	000	
91-57-6	2-METHYINAPHTHALENE	1800	000 200000 B	÷
91-20-3	NAPHTHALENE	30000	000 inc coc a E	3-
85-01-8	PHENANIHRENE		100 140 000 D E	
129-00-0	PYRENE	1200	000	
132-64-9	DIBENZOFURAN	70	000 J	r

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Client No.

### NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8260 - BIEX ANALYSIS DATA SHEET

	BCTVCCR-0409-Q
Lab Name: <u>SIL Buffalo</u> Contract: <u>EDMC I</u>	MAP Nº13
izb Code: REONY Case No.: SAS No.:	SDG No.:
Matrix: (soil/water) SOIL	Lab Sample ID: <u>A4C27803</u>
Sample wt/vol: $5.01$ (g/mL) G	Iab File ID: F5208.RR
Level: (low/med) LOW	Date Samp/Recv: 12/08/2004 12/09/2004
% Moisture: not dec. 39.6 Heated Ange: Y	Date Aralyzed: <u>12/11/2004</u>
GC Column: <u>DB-624</u> ID: <u>0.20</u> (mm)	Dilution Factor: <u>1.00</u>
Soil Extract Volume: (uL)	Soil Aliquot Volume: (uL)
CAS NO. COMPOUND	CINCENTRATION UNITS: (Ug/L or Ug/Kg) <u>UG/KG</u> Q
71-43-2BENZENE 100-41-4ETHYLEENZENE 108-88-3TOLUENE	8 U 140 8 U

1330-20-7----TOTAL XYLENES

### NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

Client No.

Lab Name: SIL Buffalo Contract: EDMC MSRA		BCIVCCR-0409-Q
Lab Code: RECNY Case No.: SAS No.:	SDG No.:	
Matrix: (soil/water) SOIL	Lab Sample ID:	A4C27803
Sample wt/vol: _30.02 (g/mL) G	Lab File ID:	W01028.RR
Level: (low/med) LOW	Date Samp/Recv:	12/08/2004 12/09/2004
% Moisture: <u>44.0</u> decanted: (Y/N) N	Date Extracted:	12/09/2004
Concentrated Extract Volume: 1000(uL)	Date Analyzed:	12/10/2004
Injection Volume: <u>1.00 (uL)</u>	Dilution Factor:	5.00
GPE Cleanup: (Y/N) N pH:		

CAS NO.	COMPOUND	CONCENTRATION UNI (ug/L or ug/Kg)	TS: UG/KG	Q
83-32-9	ACENAPHIHENE		2900	U
208-96-8	ACENAPHIHMLENS		2600	J
120-12-7	ANTHRACENE		2900	U
56-55-3	BENZO (A) ANTHRACENE		3200	
205-99-2	BENZO (B) FLICERANTHENE		4600	
207-08-9	BENZO (K) FLUORANTHENE		5500	
191-24-2	BENZO (GHI ) PERVLENE		12000	
50-32-8	BENZO (A) PYRENE		2700	J
218-01-9	CHRYSENE		4500	
53-70-3	DIBENZO (A, H) ANEHRACENE		2900	U
206-44-0	FLUORANIHENE		3700	1.1
86-73-7	FLLORENE		2900	U
193-39-5	INDENO (1,2,3-CD) PYRENE		6600	
91-57-6			2900	U
91-20-3	NAPHIMALENE		2100	J
85-01-8	PHENANTHRENE		1300	J
129-00-0	PYRENE		7900	
132-64-9	DIBENZOFURAN		2900	U

#### NEW YORK STATE ELECTRIC & CAS NYSEG METHOD 8260 - BTEX ANALYSIS DATA SHEET

### 9/279

Client No.

	100		SCIVCCR-FL0411-Q
Lab Name: SIL Buffalc	Contract: <u>EEMC_M</u>	<u>SPA</u>	MAP Nº 14
Lab Code: <u>REONY</u> Case No.:	SAS No.:	SDG No.:	
Matrix: (soil/water) SOTL		Lab Sample ID:	<u>A4C52502</u>
Sample wt/vcl: (g/mL)	G	Lab File ID:	R2669.RR
Level: (low/med) MED		Date Samp/Recv:	<u>12/15/2004 12/16/2004</u>
* Moisture: not dec. <u>21.3</u> Heater	d Purge: N	Date Analyzed:	12/18/2004
GC Column: <u>DB-624</u> <u>ID</u> : <u>0.25</u> (n	(mn	Dilution Factor:	2.00
Soil Extract Volume: 10000 (uL)		Soil Aliquet Vel	une: <u>100.00</u> (uL)



CONCENTRATION UNITS:

(ug/Lorug/Kg) UG/KG Q

71-43-2BENZENE	23000
100-41-4ETHYLBENZENE	48000
108-88-3TOLLIENE	42000
1330-20-7TOTAL XYLENES	52000

#### NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

Client No.

11/279

Lab Name: STL Buffalo Contract: EEMC MSPA		BCTVCCR-FL0411-Q
Lab Code: REONY Case No.: SAS No.:	SDG No.:	
Matrix: (soil/water) <u>SOIL</u>	Lab Sample ID:	<u>A4C52602</u>
Sample wt/vol: <u>30.38</u> (g/mL) <u>G</u>	Lab File ID:	<u>U03343.RR</u>
Level: (low/med) LOW	Date Samp/Recv:	12/15/2004 12/16/2004
* Moisture: <u>17.4</u> decanted: (Y/N) N	Date Extracted:	12/16/2004
Concentrated Extract Volume: 1000 (uL)	Date Analyzed:	12/17/2004
Injection Volume: 1.00 (ui)	Dilution Factor:	10.00
GPC Cleanup: (Y/N) N pH:		

### CAS NO. COMPOUND

101 3

#### CONCENTRATION UNITS: (ug/I, or ug/Kg) UG/HG

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/HG	C
83-32-9	ACENAPTINENE	-68000 7000	E (60
208-96-8	ACENAPHIHYLENE	200000	EJ
120-12-7	ANTHRACENE	130000	EJ
56-55-3	BENZO (A) ANTHRACENE	72000	EJ
205-99-2	BENZO (B) FLLORANIHENE	66000	EJ
207-08-9	BENZO (K) FLUORANTHENE	73000	EJ
191-24-2	BENZO (GHI) PERYLENE	23000	
50-32-8	BENZO (A) FYRENE	57000	EJ
218-01-9	CHRYSENE	71000	LE
53-70-3	DIPENZO (A, H) ANTHRACENE	9600	
206-44-0	FLUORANTHENE	- <del>12000</del> 3 //000	-3 CC
86-73-7	FLUORENE	150000	E.)
193-39-5	INDENO (1, 2, 3-0) PYRENE	19000	
91-57-6	2-METHYLNAPHTHALENE	340000 SZC0	E Co
91-20-3	NAPHTHALENE	5000013000	ODE
85-01-8	PERANTHRENE	260002 400 00	日日
129-00-0	PYRENE	-140005190000	DE
132-64-9	DIBENZOFURAN	28000	

NEW YORK STATE ELECTRIC & GAS NYSES METHOD 8260 - BIEX ANALYSIS DATA SHEET

		Client No
Lab Name: STL Buffalo Contract: EEMC M	SPA	BCIVER-5W0410-Q MAP Nº 15
Lab Code: REONY Case No.: SAS No.:	SDG No.:	
Matrix: (soil/water) <u>SOIL</u>	Lab Sample ID:	<u>A4C52601</u>
Sample wt/vol: $4.16$ (g/mL) G	Lab File ID:	R2667.RR
Level: (low/med) MED	Date Samp/Recv:	12/15/2004 12/15/2004
% Moisture: not dec. <u>27.4</u> Heated Purge: N	Date Analyzed:	12/18/2004
GC Colum: <u>DB-624</u> ID: <u>0.25</u> (nm)	Dilution Factor	5.00
Soil Extract Volume: 10000 (uL)	Soil Aliquot Vol	ute: <u>100.00</u> (uL)
CAS NO. COMPOUND	CONCENTRATION UNITS: (Ug/L or Ug/Kg)	

71-43-2BENZENE	60000
100-41-4ETHYLEENZENE	100000
108-88-3TOLUENE	-96000
1330-20-7TOTAL XYLENES	110000

NEW YORK STATE ELECTRIC & GAS NYSEG METHO 8270-HSL PAH + DIEENZOFURAN ANALMSIS DATA SHEET

Client No.

13/279

Lab Name: SIL Buffalc	2 0	mtract: ZEMC MSPA		BUIVER-SW0410-Q
Lab Code: <u>RECNY</u> Ca	ase No.:	SAS No.:	SDG No.:	
Matrix: (soil/water)	SOIL		Leb Sample ID:	<u>A4C52601</u>
Sample wt/vol:	<u>30.09</u> (g/mL) G		Lab File ID:	U03340.RR
Level: (low/med)	LOW		Date Samp/Recv:	12/15/2004 12/16/2004
% Moisture: <u>25.5</u>	decanted: (Y/N)	) <u>N</u>	Date Extracted:	12/16/2004
Concentrated Extract	Volume: 1000 (ul.)	Mary - port	Date Analyzed:	12/17/2004
Injection Volume:	1.00 (11L)		Dilution Factor:	10.00
GPC Cleanup: (Y/N) N	pH:			

CAS NO.	COMPOUND	CONCENTRATION UNITS: (Ug/L or ug/Kg) <u>UG/</u>	<u>kg</u> Q
83-32-9	ACENAPHTHENE	34000	
208-96-8	ACENAPHIHMIENE	110000	EJ
120-12-7	ANTHRACENE	66000	
56-55-3	BENZO (A) ANTHRACENE	35000	
205-99-2	BENZO (B) FLLORANCHENE	27000	
207-08-9	BENZO (K) FLUCRANTHENE	30000	
191-24-2	BENZO (CHI) PERYLENE	16000	
50-32-8	BENZO (A) PYRENE	27000	
218-01-9	CHRYSENE	32000	
53-70-3	DIBENZO (A, H) ANTHRACENE	5100	1.00
206-44-0	FLUORANTHENE	85000	EJ
86-73-7	FLIDRENE	62000	
193-39-5	INDENO (1, 2, 3-CD) PYRENE	12000	1.
91-57-6	2-METHYLNAZHIHALENE		2400007 3-
91-20-3	NAPHIHALENE	· 46000	5700000
85-01-8	PHENANTHRENE	210000	EJ
129-00-0	PYRENE	120000	EJ
132-64-9	DIBENZOFURAN	13000	

### NYSEG MEIHOD 8260 - TCI. VOLATILE ORGANICS ANALYSIS DATA SHEET

9/392

	100 Nation 10 (1999年)	Client No.
		BCIVCCR-0413-Q
Lab Name: SIL Buffalo Contract: EEMC MSP	<u>A</u>	MAPNe 16
Tab. Code: REONY Case No.: SAS No.:	SDG No.:	
Matrix: (soil/water) SOIL	Lab Sample ID:	<u>A4C73901</u>
Sample wt/vol: 5.00 (g/mL) G	Lab File ID:	F5498.RR
Level: (low/ned) LOW	Date Samp/Recv:	<u>12/21/2004: 12/22/2004</u>
* Moisture: not dec. 9.5 Heated Aurge: Y	Date Analyzed:	12/28/2004
GE Column: <u>DB-624</u> ID: <u>0.20</u> (nm)	Dilution Ractor:	A Annual Contraction of the
Soil Extract Volumer (uL)	1. Sec. 2.	ume: (uL)
SOLI EALIACE VOLULE: (UD)	SOUT MELODE VOI	
	NCENTRATION UNITS: (Ug/Li or Ug/Kg)	
67-64-1ACETONE		25 U
71-43-2		11
75-27-4DICHLOROBROMOMETHANE	the second s	5 U
75-25-2BROMOFORM		5 0
74-83-9METRYLEROMIDE		5 0
		25, U
78-93-3METHYL ETHYL KEIONE		
75-15-0CARBON DISULFILE	1	2: J
56-23-5CAREON TERAFILORIDE		5 U-1.
108-90-7CHLOROBENZENE	and the second second	5 0
75-00-3 CYLORDETHANE:		5 0
67-66-3CHLOROFORM	1	· 5 U
74-87-3CHIORMETHANS		5 U
124-48-1CHEORODIBROMOMETHANE		5
75-34-31,1-DICHLOROETHAME:		5 0.1
107-06-21,2-DICTOROETHANE		5 0
75-35-41,1-DICHLOROETHYLENE	1. 21	5 U
540-59-01,2 DICHLOROSTHENE (TOTAL)	300 M 200 A 1	
78-87-51,2-DICHLOROPROPANE		5 U
10061-01-5CIS-I, 3-DECHLOROPROPENE	MALE AND A MALE	5 U
10061-02-6TRANS-1, 3-DICHLOROPROPENE	2 21	5. U-
100-41-4ETHYLBENZENE		98
591-78-62-HEXANDRE		25 U
75-09-2METAYLANE CHLORIDE	Lit .	
108-10-14-METHYL-2-PENTANONE		25 U
100-42-5STIRENE		130
79-34-51,1,2,2-TEIRA HICROETHANE		
127-18-4TETRACHEOROFILENE		
		5 U
108-88-3TOLUENE:		100:
71-55-61, 1, 1-TRICHLOROETHANE	1	5 U .
79-00-51,1,2-TRICHLOROETHANE	6	5. U
79-01-6TRICHLORDETHENE		5 . U 1
108-05-4VINYL ACEDATE		25. U
75-01-4VINYL CHORIDE		10 <sup>.</sup> U
1330-20-7TUTAL XYERNES		200
	1 4	

FORM I - GC/MS VOA

### NEW YORK STATE ELECTRIC & GAS NYSEG 8270 - TCL: SEMI-VOLATILE ORGANICS + PYRIDINE ANALYSIS DATA SHEET

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Client No.

Lab Name: SIL Buffalo Contract: FENC MSPA		BCIVCCR-0413-Q
Lab Code: REONY Case No.: SAS No.:	SDG No.;	
Matrix: (soil/water) SOIL	Lab Sample ID:	<u>A4C73901</u>
Sample wt/vol: $30.46$ (g/mL) G	Lab File ID:	W01282.RR
Level: (low/med) LOW	Date Samp/Recy:	12/21/2004 12/22/2004
% Moisture: <u>12.7</u> decanted: $(Y/N) \underline{Y}$	Date Extracted:	12/22/2004
Concentrated Extract Volume: 1000 (uL)	Date Analyzed:	12/27/2004
Injection Volume: <u>1.00</u> (uL)	Dilution Factor:	10.00
GPC Cleaming: (Y/N) N DH:		

CAS NO.	CIMPOIND	CONCENTRATION UNI (Ug/L or Ug/Kg)	TS: <u>UG/KG</u>	Q
83-32-9	ACENAPHTHENE	- 1	25000	100
208-96-5	ACENAPATHYLENE		18000	
120-12-7	ANIHRACENE		19000	
56-55-3	BENZO (A) ANTHRACENE		13000	1.0
205-99-2	BENZO (B) FLUORANTHENE		5900	
207-08-9	BENZO (K) ELLORANTHENE		5400	
191-24-2	BENZO (CHI) PERYLENE		5900	
50-32-8	BENZO (A) PYRENE		11000	1.1
65-85-0	BENZOIC ACID		54000	UJ
	BENZYL ALCOHOL		3700	U
111-91-1	BIS (2-CHLOROETHOXY) METHANE		3700	U
	BIS (2-CHLOROETHYL) EIHER		3700	U
	BIS (2-CHLOROISOPROPYL) ETHE	R	3700	U
	BIS (2-ETHYLHEXYL) PHIHALATE		3700	U
101-55-3	4-BROMOPHENYL PHENYL EIHER	2	3700	U
85-68-7	BUIYL BENZYL PHERALATE		3700	U
106-47-8			3700	U
	4-CHLORO-3-METHYLPHENOL		3700	U
91-58-7			3700	U
	2-CHIOROPHENOL		3700	U
	4-CHLOROPHENYL FRENYL ETHE	R	3700	U
	CHRYSENE		13000	
53-70-3	DIBENZO (A, H) ANTHRACENE	the state of the s	3700	U
32-64-9	DIBENZOFURAN		3000	J
	DI-N-BUIYL PHIMALATE	State of the second second	3700	U
95-50-1	1, 2-DICHLOROBENZENE		3700	U
541-73-1	1, 3-DICHLOROBENZENE		3700	U
	1, 4-DICHLOROBENZENE		3700	U
			7400	U
	2, 4-DICHLOROPHENOL		3700	U
	DIETHYLPHTHALATE		3700	IJ
			3700	U

FORM I - GC/MS ENA

### NEW YORK STATE ELECTRIC & CAS NYSEG 8270 - TCL SEMI-VOLATILE ORGANICS + PYRIDINE ANALYSIS DATA SHEET

Client No.

Leb Name: STL Buffalo	Contract: <u>EEMC MSPA</u>		BCIVCCR-0413-Q	
Lab Code: RECNY Case No.:	SAS No.:	SDG No.:		
Matrix: (soil/water) SOIL	1. 17	Lab Sample ID:	<u>A4C73901</u>	
Sample wt/vol: _30.46 (g/mL)	G	Lab File ID:	W01282.RR	
Level: (low/med) IOW		Date Samp/Recv:	12/21/2004 12/22/2004	
<pre>% Moisture: <u>12.7</u> decanted: (Y)</pre>	/N) <u>Y</u>	Date Extracted:	12/22/2004	
Concentrated Extract Volume: 1000 (	(متد	Date Analyzed:	<u>12/27/2004</u>	
Injection Volume: 1.00 (uL)		Dilution Factor:	10.00	
GPC Cleaning (Y/N) N DH:				

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG_	Q
131-11-3	DIMETHYLPHTHALATE		3700	U
534-52-1	4, 6-DINITRO-O-CRESOL		18000	U
51-28-5	2,4-DINITROPHENOL		18000	101
	2,4-DINITROTOLUENE		3700	U
506-20-2			3700	U
117-84-0	DI-N-OCTYL PHIHAIATE		3700	U
206-44-0	FLUORANTHENE		23000	
85-73-7	FLUORENE		24000	
118-74-1	HEXACHLORÓBENZENE		3700	U
87-68-3	HEXACHLORO-1, 3-BUTADIENE		3700	U
77-47-4	HEXACHLOROCYCLOPENIADIENE		3700	U
67-72-1	HEXACHLOROEIHANE		3700	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE		4200	
	ISOTHORONE		3700	U
91-57-6	2-METHYINAPHTHALENE		46000	
	2-METHYLPHENOL		3700	U
105-44-5	4-METHYLPHENDL		3700	U
91-20-3	NAPHTHALENE		49000	
88-74-4	2-NITROANILINE		18000	U
99-09-2			18000	ប
100-01-6	4-NITROANILINE		18000	U
98-95-3	NITROBENZENE	÷	3700	U
88-75-5			3700	U
190-02-7	4-NTIROPHENOL		18000	U
86-30-6	N-NITROSODI PHENYLAMINE		3700	U
621-64-7	N-NTIROSODI -N-PROPYLAMINE		3700	U
87-86-5	PENTACHLOROPHENOL		18000	U
85-01-8	PENANTHRENE		59000 73000)	큔-
108-95-2	PHENOL		3700	U
129-00-0	PYRENE		39000	
	1,2,4-TRICHLOROBENZENE		3700	U
			9000	U

FORM I - GC/MS ENA

NEW YORK STATE ELECTRIC & GAS NYSEG 8270 - TCL SEMI-VOLATILE ORCANICS + FYREDINE ANALYSIS DATA SHEET

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Client No.

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12/392

Lab Name: STL Buffalo Contract: EEMC MSRA		BCIVER-0413-Q
Lab Code: RECIVY Case No.: SAS No.:	SDG No.:	. The second
Matrix: (soil/water) SOIL	Lab Sample ID:	<u>A4C73901</u>
Sample wt/vol: 30.46 (g/mL) G	Lab File ID:	W01282.RR
Level: (low/med) LOW	Date Samp/Recv:	12/21/2004 12/22/2004
% Moisture: <u>12.7</u> decanted: (Y/N) Y	Date Extracted:	12/22/2004
Concentrated Extract Volume: 1000 (uL)	Date Analyzed:	12/27/2004
Injection Volume: 1.00 (uL)	Dilution Factor:	10.00
GPC Clearup: (Y/N) N pH:		
GPC Cleanup: (Y/N) N pH:		

		CENTRALION UNITS:		
CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
88-06-2	2,4,6-TRICHLOROPHENCL		3700	U
	Total Cresols		7400	U
110-86-1	PYRIDINE		17000	U

## NEW YORK STATE ELECTRIC & GAS NYSEC DIESEL RANCE ORGANICS - MEINOD 8015B ANALYSIS DATA SHEET

Client No.

				BCTVCCR-0413-Q
Lab Name: STL Buffal	<u>.o</u>	Contract: EEMC	<u>MSPA</u>	
Lab <u>Coda</u> : <u>REONY</u> C	zse No.:	SAS No.:	SEG No.:	
Matrix: (soil/water)	SOIL		Lab Sample ID:	<u>A4C73901</u>
Sample wt/vol: _	30.41 (g/mL) G		Lab File ID:	24A11052.TX0
% Moisture: 12.7	decanted: (Y/N)	N	Date Samp/Recv:	12/21/2004 12/22/2004
Extraction: (SepF/Co	nt/Sonc/Soxh): <u>SO</u>	<u>IC</u>	Date Extracted:	12/27/2004
Concentrated Extract	Volume:1000 (ui	L)	Date Analyzed:	12/28/2004
Injection Volume:	1.00 (uL)		Dilution Factor:	10.00
GPC Cleanup: (Y/N)	N pH:_		Sulfur Clearup:	(Y/N) <u>N</u>
CAS NO. CO	MPOUND		NRATION UNITS: , or ug/Kg) <u>Mg/Kg</u> _	Q
Die	esel Range Organio	cs	1200	



DATA USABILITY SUMMARY REPORT

DATA USABILITY SUMMARY REPORT NYSEG - COURT STREET BINGHAMTON, NEW YORK

SDG #A04-A597

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## VOLATILE AND SEMIVOLATILE ANALYSES

Analyses performed by:

Severn Trent Laboratories Buffalo, New York

Review performed by:



Blasland, Bouck & Lee, Inc. Syracuse, New York

## Summary

The following is an assessment of the data package for Sample Delivery Group (SDG) #A04-A597 for sampling from the NYSEG Binghamton Court Street Site. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Sample ID	Lab ID	Matrix	Sample	4.515		Analysis		u kan
	The state of the second se	Date	voc	svoc	PCB	MET	MISC		
BCTUCCRFL0401	A4A59701	Soil	10/26/2005	Х	X <sup>1</sup>		-	-	
BCTUCCRSW0401	A4A59702	Soil	10/26/2005	Х	X	-			
BCTUCCRFL0402	A4A59703	Soil	10/26/2005	Х	X			- 1	
BCTUCCRSW0402	A4A59704	Soil	10/26/2005	Х	X				
201.24									

1. Matrix spike/matrix spike duplicate (MS/MSD) analyses performed on sample.

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VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

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## Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8260. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant Quality Control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

## 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2.
	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cooled @ 4 °C.

All samples were analyzed within the specified holding times.

## 2. Blank Contamination

Quality assurance blanks (i.e., method, trip, and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure contamination of samples during shipment. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

No compounds were detected in the associated blanks.

## 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

System performance and column resolution were acceptable.

#### 4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

## 4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibited a %RSD less than the control limit (15%) and an RRF value greater than control limit (0.05).

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## 4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less then the control limit (20%) and RRF value greater than control limit (0.05).

All calibration criteria were within the control limits.

## 5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

## 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standards were within control limits.

## 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

No MS/MSD samples were submitted with this SDG.

## 8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

## 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures 5336R.doc

and analytical method.

No field duplicate sample was submitted with this SDG.

## 10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

## 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

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SEMI-VOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

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## Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8270. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

## 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C

All samples were analyzed within the specified holding times.

## 2. Blank Contamination

Quality assurance blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A BAL of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

No compounds were detected in the associated blanks.

## 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

System performance and column resolution were acceptable.

## 4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

## 4.3 Initial Calibration

The method specifies percent %RSD and RRF limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) and RRF value greater than control limit (0.05).

## 4.4 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a %D less then the control limit (20%) and RRF value greater than control limit (0.05).

All calibration criteria were within the control limits.

## 5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

## 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the SVOC to exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) the area counts of the associated continuing calibration standard.

All internal standard areas and retention times were within established limits.

## 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The RPD between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compounds concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	Recovery
BCTUCCRFL0401	Acenaphthene <sup>1</sup>	0.0%
BUTUUUKFLU401	Pyrene <sup>1</sup>	20%

1. The compound associated with the parent sample analysis exhibited a concentration greater than four times the MS/MSD concentration; therefore none of the associated sample results were qualified.

## 8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LSC analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

## 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method.

No field duplicate sample was submitted with this SDG.

## 10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
	2-Methylnaphthalene	52000 E	62000 D	62000 D
BCTUCCRFL0401	Naphthalene	81000 E	97000 D	97000 D
	Phenanthrene	41000 E	50000 D	50000 D
BCTUCCRSW0402	Naphthalene	40000 E	42000 D	42000 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentration greater than the linear range qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

## 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

CORRECTED SAMPLE ANALYSIS DATA SHEETS

## NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8260 - BTEX ANALYSIS DATA SHEET

## 13/354

Client No.

Leb Name OTT Diffele		3CTUCCRFL0401
Lab Name: STL Buffalo Contract: ESMC MSPA		
Lab Code: REONY Case No.: SAS No.:	SDG No. :	
Matrix: (soil/water) <u>SOIL</u>	Lab Sample ID:	<u>A4A59701</u>
Sample wt/vol: $4.12$ (g/mL) G	Lab File ID:	R1751.RR
Level: (low/med) MED	Date Samp/Recv:	10/26/2004 10/27/2004
% Moisture: not dec. <u>20.3</u> Heated Purge: N	Date Analyzed:	11/03/2004
CC Column: <u>DB-624</u> ID: <u>0.25</u> (mm)	Dilution Factor:	2.00
Soil Extract Volume: 10000 (uL)	Soil Aliquot Vol	ume: <u>100.00</u> (uL)
KOD	NCENTRATION UNITS	



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 71-43-2-----BENZENE
 3400

 100-41-4-----ETHYLBENZENE
 45000

 108-88-3----TOLUENE
 8300

 1330-20-7----TUTAL XYLENES
 55000

(ug/L or ug/Kg)

UG/KG

Q

NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8260 - BTEX ANALYSIS DATA SHEET

Client No.

14/354

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710

25000

	SCTUERFL0402
Iab Name:         STL Buffalo         Contract:         EBMC N	MSPA
Lab Code: REONY Case No.: SAS No.:	SDG No.:
Matrix: (soil/water) SOIL	Lab Sample ID: A4A59703
Sample wt/vol: $4.07$ (g/mL) G	Lab File ID: <u>R1759.RR</u>
Level: (low/med) MED	Date Samp/Recv: 10/26/2004 10/27/2004
% Moisture: not dec. <u>20.1</u> Heated Purge: <u>N</u>	Date Analyzed: <u>11/03/2004</u>
GC Column: <u>DB-624</u> ID: <u>0.25</u> (mm)	Dilution Factor:1.00
Soil Extract Volume: 10000 (uL)	Soil Aliquot Volume: 100.00 (uL)
CAS NO. COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u> Q
71-43-2BENZENE 100-41-4ETHYLBENZENE	640 J 29000

108-88-3----TOLUENE

1330-20-7---- TUTAL XYLENES

FORM I - GC/MS VOA

## NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8260 - BIEX ANALYSIS DATA SHEET

Client No.

15/354

Lab Name: SIL Buffalo	Contract: EBMC MSPA	_	BCTUCCRSW0401
Lab Code: <u>RECNY</u> Case No.:	SAS No.:	SDG No.:	
Matrix: (soil/water) SOIL		Lab Sample ID:	<u>A4A59702</u>
Sample wt/vol: (g/mil	L) <u>G</u>	Lab File ID:	R1760.RR
Level: (low/med) MED		Date Samp/Recv:	10/26/2004 10/27/2004
* Moisture: not dec. <u>26.6</u> Heat	ted Purge: N	Date Analyzed:	11/03/2004
GC Column: <u>DB-624</u> ID: <u>0.25</u>	(mm)	Dilution Factor:	1.00
Soil Extract Volume: 10000 (uL)		Soil Aliquot Vol	ume: <u>100.00</u> (uL)
		E MICH INITES	



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(Ug/L or Ug/Kg) UG/KG

UG/KG Q

71-43-2BENZENE	8000
100-41-4ETHYLBENZENE	9000
108-88-3TOLUENE	22000
1330-20-7TOTAL XYLENES	35000

NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8250 - BTEX ANALYSIS DATA SHEET

CAS NO. COMPOUND

CONCENTRATION UNITS:

· (ug/L	or ug/Kg)	UG/KG_	Q

71-43-2BENZENE	440	J
100-41-4ETHYLBENZENE	26000	1
108-88-3TOLUENE	570	J
1330-20-7TOTAL XYLENES	21000	20.08

16/354

Client No.

NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

	Client H	No.
	SCTUCERFL0401	
Lab Name: <u>STL Buffalo</u> Contract: <u>EDMC</u>	MSPA	
Lab Code: <u>RECIVY</u> Case No.: SAS No.:	SDG No.:	
Matrix: (soil/water) SOIL	Lab Sample ID: <u>A4A59701</u>	
Sample wt/vol: (g/mL) G	Lab File ID: <u>U02675.RR</u>	
Level: (low/med) <u>LOW</u>	Date Samp/Recv: 10/26/2004 10/27/200	04
% Moisture: <u>20.0</u> decanted: (Y/N) <u>N</u>	Date Extracted: 10/28/2004	
Concentrated Extract Volume: 1000 (uL)	Date Analyzed: <u>10/29/2004</u>	
Injection Volume: <u>1.00 (uL)</u>	Dilution Factor: 5.00	
GPC Clearup: (Y/N) N pH:		

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CAS NO.	COMPOUND	CONCENTRATION UNI (Ug/L or Ug/Kg)		Ç
83-32-9	ADNAPHTHENE		21000	1
208-96-8	ACENAPHIHYLENE		7600	-
120-12-7	ANTHRACENE		12000	1.50
56-55-3	BENZO (A) ANTHRACENE		6500	123
205-99-2	BENZO (B) FLUCRANTHENE		2200	
207-08-9	BENZO (K) FLUORANIHENE		2600	
191-24-2	BENZO (GHI) PERYLENE		1800	J
50-32-8	BENZO (A) FYRENE		4400	
218-01-9	CHRYSENE		5900	1
53-70-3	DIBENZO (A, H) ANTHRACENE		2000	U
206-44-0	FLUORANTHENE		12000	
86-73-7	FLIORENE		15000	
193-39-5	INDENO (1,2,3-CD) PYRENE		1500	J
91-57-6	2-METHYINAPHTHALENE	States and the second	52000 62000 0	Đ
91-20-3	NAPHIHALENE		·81000 47000 9	E
85-01-8	PEDNANTHRENE	and the second second second	-41000 50 000 D	E
129-00-0	PYRENE	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	18000	100
132-64-9	DIBENZOFURAN		2400	-

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18/354

## NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

Client No.

		BITUCRFL0401
Lab Name: <u>STL Buffalo</u> Contract: <u>EEMC MSPA</u>	-	
Lab Code: REONY Case No.: SAS No.:	SDG No.:	
Matrix: (soil/water) SOIL	Lab Sample ID:	A4A59701DL
Sample wt/vol:30.81 (g/mL) G	Lab File ID:	U02683.RR
Level: (low/med) LOW	Date Samp/Recv:	10/26/2004 10/27/2004
<pre>% Moisture: <u>20.0</u> decanted: (Y/N) N</pre>	Date Extracted:	10/28/2004
Concentrated Extract Volume: 1000 (uL)	Date Analyzed:	11/01/2004
Injection Volume: 1.00 (uk)	Dilution Factor:	50.00
GPC Cleanup: (Y/N) N pH:		
	CENTRATION UNITS:	

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG_	Q
83-32-9	ACENAPHIHENE		24000	D
208-96-8	ACENAPHIHYLENE		6900	DJ
120-12-7	ANTHRACENE		14000	DJ
56-55-3	BENZO (A) ANTHRACENE		20000	U
	BENZO (B) FLUORANTHENE		20000	U
207-08-9	BENZO (K) FLUORANTHENE		20000	U
	BENZO (GHI) PERYLENE		20000	U
	BENZO (A) PYRENE		20000	U
	CHRYSENE		20000	U
53-70-3	DIBENZO (A, H) ANTHRACENE		20000	U
206-44-0	FLURANTHENE		14000	DJ
86-73-7	FLUORENE	A A A A A A A A A A A A A A A A A A A	16000	DJ
193-39-5	INDENO (1,2,3-CD) FYRENE		20000	U
91-57-6	2-METHYLNAPHISALENE		62000	D
91-20-3	NAPHTHALENE	NAME OF TAXABLE PARTY OF TAXABLE PARTY	97000	D
85-01-8	PHENANIHRENE		50000	D
129-00-0	PYRENE		21000	D
132-64-9	DIBENZOFURAN		20000	U

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NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

			Client No.
Lab Name: SIL Buffalo	Contract: EEMC MSPA		BCIUCCRFL0402
Lab Code: RECOVY Case No .:	SAS No.:	SDG No.:	
Matrix: (soil/water) SOIL		Lab Sample ID:	<u>A4A59703</u>
Sample wt/vol: _30.29 (g/mL)	<u>G</u>	Lab File ID:	<u>U02679.RR</u>
Level: (low/med) LOW		Date Samp/Recv:	10/25/2004 10/27/2004
* Moisture: <u>23.0</u> decanted: (Y	/N) <u>N</u>	Date Extracted:	10/28/2004
Concentrated Extract Volume: 1000 (	uL)	Date Analyzed:	10/29/2004
Injection Volume: 1.00(uL)		Dilution Factor:	5.00
GPC Cleanup: (Y/N) N pH:			

		CONCENTRATION UNITS:		
CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG_	Q
83-32-9	ACENAPHIHENE		1500	J
208-96-8	ACENAPHTHYLENE		4000	
	ANIHRACENE		2200	10 50
56-55-3	BENZO (A) ANTHRACENE	Landard College and	1300	J
	BENZO (B) FLUORANIHENE		2100	U
207-08-9	BENZO (K) FLUORANTHENE		2100	U
191-24-2	PENZO (GHI) PERYLENE		2100	U
50-32-8	BENZO (A) PYRENE	Participation and the states	930	J
218-01-9	CHRYSENE		1200	J
53-70-3	DIBENZO (A, H) ANTHRACENE		2100	U
206-44-0	FLUORANTHENE		2200	1 68
	FLUORENE		2600	
193-39-5	INDENO (1,2,3-CD) PYRENE		2100	U
91-57-6	2-MEIHYINAPHIHALENE		11000	
91-20-3	NAPHIHALENE	1	17000	
85-01-8	PHENANTHRENE		.7800	
129-00-0	PYRENE		3600	
132-64-9	DIBENZOFURAN	CALL & BERNING SALE	2100	U

## NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

Client No.

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			SCIVCCRSW0401
Lab Name: STL Buffalo	Contract: <u>EEMC MSPA</u>		
Lab Code: <u>REONY</u> Case No	.: SAS No.:	SDG No.:	
Matrix: (soil/water) <u>SOIL</u>		Lab Sample ID:	<u>A4A59702</u>
Sample wt/vol: _30.6	2 (g/mi) <u>G</u>	Iab File ID:	<u>U02678.RR</u>
Level: (low/med) <u>LOW</u>		Date Samp/Recv:	10/26/2004 10/27/2004
* Moisture: <u>28.0</u> decan	ted: (Y/N) N	Date Extracted:	10/28/2004
Concentrated Extract Volum	e:_ <u>1000</u> (ນ <u>L</u> )	Date Analyzed:	10/29/2004
Injection Volume: 1.00(	uL)	Dilution Factor:	5.00
GPC Cleanup: (Y/N) N pH			

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG_	Q
83-32-9	ACENAPHTHENE		5800	
208-96-8	ACENAPHIHYLENE	And Antonio and	1400	J
20-12-7	ANIHRACENE		2600	
6-55-3	BENZO (A) ANTHRACENE	Contraction of the second second	1800	J
.05-99-2	BENZO (B) FLIDRANTHENE		2200	U
07-08-9	BENZO (K) FLUORANTHENE	AND A STATE OF A STATE	2200	U
	BENZO (GHI) PERYLENE		2200	U
0-32-8	BENZO (A) PYRENE	the second second second second	1500	J
18-01-9	CHRYSENE		1700	J
3-70-3	DIBENZO (A, H) ANIHRACENE	States and the states of the	2200	U
06-44-0	FUDRANTHENE	State a state and state and	3100	
6-73-7	FLUORENE		3100	
93-39-5	INDEND (1,2,3-CD) PYRENE		2200	U
1-57-6			10000	
1-20-3	NAPHIHALENE		16000	
5-01-8	PHENANIHRENE	State And the second second	9300	1
.29-00-0			4900	1
132-64-9	DIESNY OPURAN	State and the second	2200	U

CONTENTRATION UNITS:

NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

		Client No.
Lab Name: SIL Buffalo Contract: EEMC MSPA		BCTULIRSW0402
Lab Code: <u>RECNY</u> Case No.: SAS No.:		
Matrix: (soil/water) <u>SOIL</u>	Lab Sample ID:	<u>A4A59704</u>
Sample wt/vol: $30.38$ (g/mL) G	Lab File ID:	<u>U02680.RR</u>
Level: (low/med) LOW	Date Samp/Recv:	10/26/2004 10/27/2004
% Moisture: <u>26.9</u> decanted: (Y/N) <u>N</u>	Date Extracted:	10/28/2004
Concentrated Extract Volume: 1000 (uL)	Date Analyzed:	<u>10/29/2004</u>
Injection Volume: <u>1.00(uL)</u>	Dilution Factor:	5.00
GPC Cleanup: (Y/N) N pH:		

CAS NO.	COMPOUND	COVENIRATION UNI (ug/L or ug/Kg)	TS: UG/NG	Q
83-32-9	ACENAPHIHENE		7100	
208-96-8	ACENAPHIHYLENE		1400	J
120-12-7	ANTHRACENE	and the second s	2800	10 Parts
56-55-3	BENZO (A) ANTHRACENE		1800	J
205-99-2	BENZO (B) FLLURANIHENE		2200	U
207-08-9	BENZO (K) FLUORANIHENE		2200	U
191-24-2	BENZO (GHI) PERYLENE	100 Mar 100 Mar 100 Mar	2200	U
	BENZO (A) PYRENE		1200	J
	CHRYSENE		1500	J
53-70-3	DIBENZO (A, H) ANIYRACENE		2200	U
	FLUORANTHENE	A CONTRACT OF	2900	
	FLIORENE		3500	1120.0
	EDEND (1,2,3-CD) FYRENE		2200	U
	2-METHYINAFHTHALENE	the second s	19000	
	NAPHIHALENE		40000 4200	ODE
	PHENANTHRONE		9000	
129-00-0		NUMBER OF STREET	4000	Cold III
	DIBENZOFURAN		740	J

FORM I - GC/MS ENA

## NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

Client No.

			ZTUCRSW040	2
Lab Name: SIL Buffalo	Contract: EEMC MSPA	-		100
Lab Code: REONY Case No.:	SAS No.:	SDG No.:		
Matrix: (soil/water) SOIL		Lab Sample ID:	A4A59704DL	
Sample wt/vol:	<u>G</u>	Lab File ID:	U02684.RR	
Level: (low/med) LOW		Date Samp/Recv:	10/26/2004 10	/27/2004
* Moisture: <u>26.9</u> decanted: (Y/	/N) <u>N</u>	Date Extracted:	10/28/2004	
Concentrated Extract Volume: 1000 (1	止)	Date Analyzed:	11/01/2004	
Injection Volume: 1.00 (ub)		Dilution Factor:	25.00	
GPC Clearup: (Y/N) N pH:		IN THE PARTY		
		איזיזאר אז אאיזיאר איז איזיאר איזיאר איזיאראיז איזיאראיז איזיאראיז איזיאראיז איזיאראיז איזיאראיז איזיאראיזיארא		

## CONCENTRATION UNITS:

CAS ND.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
83-32-9	ACENAPHTHENE		7900 -	DJ
208-96-8	ACENAPHTHYLENE		11000	U
120-12-7	ANIHRACENE		11000	U
56-55-3	BENZO (A) ANTHRACENE		11000	U
	BENZO (B) FLUORANTHENE	1	11000	U
	BENZO (K) FILORANTHENE		11000	U
	BENZO (GHI) PERYLENE	1	11000	U
	BENZO (A) PYRENE		11000	U
218-01-9			11000	U
53-70-3	DIBENZO (A, H) ANTHRACENE		11000	U
	FLUCRANTHENE		11000	U
86-73-7	FLUORENE		11000	U
193-39-5	INDEND (1,2,3-CD) FYRENE		11000	U
			18000	D
	NAPHINALENE		42000	D
85-01-8	PHENANIHRENE		9700	DJ
129-00-0	PYRENE		4400	DJ
132-64-9	DIBENZOFURAN	and the three services of the	11000	U

## SAMPLE COMPLIANCE REPORT

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## SAMPLE COMPLIANCE REPORT

Sample		5 3 5		Contraction of	26.18	Compliancy <sup>1</sup>				Noncompliance
Delivery Group	Sampling Date	Protocol	Sample ID	Matrix	voc	SVOC	PCB/PEST/ HERB	MET	MISC	
A04-A597	10/26/2005	SW-846	BCTUCCRFL0401	Soil	Yes	Yes	-	-		
A04-A597	10/26/2005	SW-846	BCTUCCRSW0401	Soil	Yes	Yes				
A04-A597	10/26/2005	SW-846	BCTUCCRFL0402	Soil	Yes	Yes	-	-	-	
A04-A597	10/26/2005	SW-846	BCTUCCRSW0402	Soil	Yes	Yes	-	-	-	
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										Solve State
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1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

# DATA USABILITY SUMMARY REPORT

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NYSEG - COURT STREET

BINGHAMTON, NEW YORK

SDG #A04-A711

## VOLATILE AND SEMIVOLATILE ANALYSES

Analyses performed by:

Severn Trent Laboratories Buffalo, New York

Review performed by:



Blasland, Bouck & Lee, Inc. Syracuse, New York

## Summary

The following is an assessment of the data package for Sample Delivery Group (SDG) #A04-A711 for sampling from the NYSEG Binghamton Court Street Site. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample			Analysis		
Sugar in Sugar			Date	voc	svoc	РСВ	MET	MISC
BCTVCCRFL0403-Q	A4A71101	Soil	10/28/2005	Х	X			
BCTVCCRSW0403-Q	A4A71102	Soil	10/28/2005	X	X			
						-		
						(		
		-						-

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VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

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## Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8260. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant Quality Control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

## Holding Times

1.

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
	Water	14 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2.
SW-846 8260	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cooled @ 4 °C.

All samples were analyzed within the specified holding times.

## 2. Blank Contamination

Quality assurance blanks (i.e., method, trip, and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure contamination of samples during shipment. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

No compounds were detected in the associated blanks.

## 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

System performance and column resolution were acceptable.

## 4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

## 4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibited a %RSD less than the control limit (15%) and an RRF value greater than control limit (0.05).

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## 4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less then the control limit (20%) and RRF value greater than control limit (0.05).

All calibration criteria were within the control limits.

## 5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

## 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standards were within control limits.

#### 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

No MS/MSD samples were submitted with this SDG.

## 8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

## 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures

and analytical method.

No field duplicate sample was submitted with this SDG.

## 10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
	Ethylbenzene	41000 E	66000 D	66000 D
BCTVCCRFL0403-Q	Toluene	52000 E	58000 D	58000 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentration greater than the linear range qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

## 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

SEMI-VOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

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### Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8270. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

#### Holding Times

1.

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C
000-040 0270	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C

All samples were analyzed within the specified holding times.

#### 2. Blank Contamination

Quality assurance blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A BAL of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

No compounds were detected in the associated blanks.

#### 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

System performance and column resolution were acceptable.

#### 4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

#### 4.3 Initial Calibration

The method specifies percent %RSD and RRF limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) and RRF value greater than control limit (0.05).

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#### 4.4 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a %D less then the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
		Fluoranthene	15.6%
BCTVCCRFL0403-Q	ICV %RSD	Benzo(k)fluoranthene	17.3%
BCTVCCRSW0403-Q		Indeno(1,2,3-cd)pyrene	17.2%
		Dibenzo(a,h)anthracene	18.9%
BCTVCCRFL0403-Q BCTVCCRSW0403-Q	CCV %D	Benzo(k)fluoranthene	27.4%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification	
A State of Connected	RRF <0.05	Non-detect	R	
		Detect	J	
Initial and	RRF < 0.01 <sup>1</sup>	Non-detect	R	
Continuing	RRF <0.01	Detect	J	
Calibration	RRF >0.05 or RRF >0.01 <sup>1</sup>	Non-detect		
		Detect	No Action	
		Detect	R	
Initial Calibration		Non-detect	UJ	
Initial Calibration	%RSD > 15%	Detect	J	
	%D >20%	Non-detect	No Action	
Continuing	(increase in sensitivity)	Detect	J	
Calibration	%D >20%	Non-detect	UJ	
	(decrease in sensitivity)	Detect	J	

 RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e. ketones, 1,4-Dioxane, etc.)

#### 5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

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Sample locations associated with surrogates exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Surrogate	Recovery
	Nitrobenzene-d5	D
BCTVCCRFL0403-Q DL	2-Fluorobiphenyl	D
	Terphenyl-d14	D
	Nitrobenzene-d5	D
BCTVCCRSW0403-Q	2-Fluorobiphenyl	D
	Terphenyl-d14	D

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results associated with the deviant fraction are qualified as documented in the table below.

Control Limit	Sample Result	Qualification	
> the upper control limit (UL)	Non-detect	No Action	
Contraction of the part of the	Detect	J	
< the lower control limit (LL) but > 10%	Non-detect	J	
and the second se	Detect	J	
< 10%	Non-detect	R	
	Detect	J	
Two surrogate exhibiting recovery outside the control limits but greater	Non-detect	No Action	
than 10%.	Detect		
Surrogates diluted below the	Non-detect	No Action	
calibration curve due to the high concentration of a target compounds	Detect		

#### 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the SVOC to exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) the area counts of the associated continuing calibration standard.

All internal standard areas and retention times were within established limits.

#### 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The RPD between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compounds concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

No MS/MSD samples were submitted with this SDG.

#### 8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LSC analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

Sample locations associated with LCS analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	Recovery
BCTVCCRFL0403-Q	Pyrene	157%
BCTVCCRSW0403-Q	Pyrene	157%

The criteria used to evaluate the LCS recoveries are presented in the following table. In the case of an LCS deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	J
	Detect	J
< 10%	Non-detect	R

#### 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method.

No field duplicate sample was submitted with this SDG.

#### 10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
	2-Methylnaphthalene	200000 E	160000 D	160000 D
BCTVCCRFL0403-Q	Naphthalene	220000 E	280000 D	280000 D
	Phenanthrene	120000 E	94000 D	94000 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentration greater than the linear range qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

# 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

CORRECTED SAMPLE ANALYSIS DATA SHEETS

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NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8260 - BTEX ANALYSIS DATA SHEET

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5	NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8260 - BTEX ANALYSIS DATA SHEET	Client No.
1.1		
	Lab Name: STL Buffalo Contract: EDMC MSPA	BCTVCIRFL0403-Q
ų., .	Lab Code: <u>REONY</u> Case No.: SAS No.: SDG No.:	and the second
	Matrix: (soil/water) SOIL Iab Sample ID:	<u>A4A71101</u>
ш.,	Sample wt/vol: (g/mL) G Lab File ID:	R1765.RR
	Level: (low/med) MED Date Samp/Recv:	10/28/2004 10/29/2004
-	* Moisture: not dec. <u>28.4</u> Heated Purge: <u>N</u> Date Analyzed:	11/03/2004
1	GC Column: <u>DB-624</u> ID: <u>0.25</u> (mm) Dilution Factor:	1.00
Ξ.,	Soil Extract Volume: 10000 (uL) Soil Aliquot Vol	une: 100.00 (uL)
L	CAS NO. COMPOUND (Ug/L or ug/Kg)	
	100-41-4ETHYLESNZENE .41 108-88-3TOLUENE .52	000 B- Coo- Ssoce 2 B 000

Client No.

NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8260 - BTEX ANALYSIS DATA SHEET

N COMPARENTS		BCTVCCRFL0403-Q
Lab Name: STI, Buffalo Contract: EEVC MS	<u>PA</u>	Contraction of the second
Lab Code: RECNY Case No.: SAS No.:	SDG No.:	Server a state of the
Matrix: (soil/water) SOIL	Lab Sample ID:	A4A71101DL
Sample wt/vol: $4.02$ (g/mL) G	Lab File ID:	<u>R1769.RR</u>
Level: (low/med) MED	Date Samp/Recv:	10/28/2004 10/29/200
* Moisture: not dec. <u>28.4</u> Neated Purge: N	Date Analyzed:	11/03/2004
3C Column: <u>DB-624</u> ID: <u>0.25</u> (mm)	Dilution Factor:	4.00
Soil Extract Volume: 10000 (uL)	Soil Aliquot Vol	ume: <u>100.00</u> (uL)
CAS NO. COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	
71-43-2BENZENE 100-41-4ETHYLEENZENE 108-88-3TOLLÊNE 1330-20-7TOTAL XYLENES	66	L000         D           5000         D           3000         D           3000         D           3000         D

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### NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8260 - BTEX ANALYSIS DATA SHEET

Client No.

Lab Name: STL Buffalo Contract: EEMC N	SPA
Lab Code: RECNY Case No.: SAS No.:	SDG No.:
Matrix: (soil/water) SOIL	Lab Sample ID: A4A71102
Sample wt/vol: $4.09$ (g/mL) G	Lab File ID: R1754.RR
Level: (low/med) MED	Date Samp/Recv: 10/28/2004 10/29/2004
% Moisture: not dec. <u>37.0</u> Heated Purge: N	Date Analyzed: <u>11/03/2004</u>
GC Column: <u>DB-624</u> ID: <u>0.25</u> (mm)	Dilution Factor: <u>1.00</u>
Soil Extract Volume: 10000 (uL)	Soil Aliquot Volume: <u>100.00</u> (uL)
CAS NO. COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u> Q
71-43-2BENZENE 100-41-4EIMYLBENZENE 108-88-3TOLUENE	390 J 13000 540 J

1330-20-7----TOTAL XYLENES

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NEW YORK STATE ELECTRIC & GAS NYSEG MEIHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

		Client No.
Lab Name: <u>STL Buffalo</u> Contract: <u>EBMC MSPA</u>		BCIVCCRFL0403-Q
Lab Code: RECNY Case No.: SAS No.:	SDG No.:	and Links has a
Matrix: (soil/water) <u>SOIL</u>	Lab Sample ID:	<u>A4A71101</u>
Sample wt/vol: $30.57$ (g/mL) G	Lab File ID:	<u>V07161.RR</u>
Level: (low/med) <u>LOW</u>	Date Samp/Recv:	<u>10/28/2004 10/29/2004</u>
Moisture: <u>23.8</u> decanted: (Y/N) <u>N</u>	Date Extracted:	10/29/2004
Concentrated Extract Volume: 1000(uL)	Date Analyzed:	11/01/2004
Injection Volume: 1.00 (UL)	Dilution Factor:	10.00
FPC Cleanup: (Y/N) N pH:		

Cas NO.	COMPOUND	CONCENTRATION UNI (ug/L or ug/Kg)		Q
83-32-9	ACENAPHIHENE		20000	1.1
208-96-8	ACENAPHTHYLENE	A STATE OF A STATE OF A STATE OF A STATE	46000	
120-12-7	ANIHRACENE	and and the second of the	28000	100
56-55-3	BENZO (A) ANTHRACENE		12000	120
205-99-2	BENZO (B) FLUORANIHENE		4800	1.1
207-08-9	BENZO (K) FLIDRANIHENE		7200 1	1
191-24-2	BENZO (GHI) PERYLENE	and the set of the set	5500	
50-32-8	BENZO (A) PYRENE		10000	1.00
218-01-9	CHRYSENE	CHARLES STORE MAN	13000	196
53-70-3	DIBENZO (A, H) ANTHRACENE	Charles and the second second	4200	UJ
206-44-0	FLUDRANTHENE		26000 1	
86-73-7	FLICRENE	a the state of the state	34000	Mirz.
193-39-5	INDEND (1,2,3-CD) PYRENE		3500	J
91-57-6	2-METHYINAPHIHALENE		280000-160000)	E
91-20-3	NAPHIHALENE		22000 280000	B
85-01-8	PHENANIHRENE		120000-9400c)	H .
129-00-0	PYRENE		55000 1	Distant.
132-64-9	DIBENZOFURAN		5000	

# NEW YORK STATE ELECIRIC & GAS NYSEC METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

Client No.

3	Lab Name: STL Buffalo Contract: EEMC MS	ארי	BCTVCCRFL0403-Q
	Lab Name: <u>SIL Buffalo</u> Contract: <u>EEMC MS</u>	<u></u>	
	Lab Code: RECNY Case No.: SAS No.:	SDG No.:	and With some
	Matrix: (soil/water) SOIL	Lab Sample ID:	A4A71101DL
	Sample wt/vol: $30.57$ (g/mL) G	Lab File ID:	V07184.RR
	Level: (low/med) LOW	Date Samp/Recv:	<u>10/28/2004 10/29/2004</u>
	* Moisture: 23.8 decented: (Y/N) N	Date Extracted:	10/29/2004
	Concentrated Extract Volume: 1000 (UL)	Date Analyzed:	11/02/2004
	Injection Volume: 1.00 (uL)	Dilution Factor:	100.00
	GPC Cleanup: (Y/N) N pH:		
		CONDENTRATION UNITS:	

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CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
83-32-9	ACENAPHTHENE		21000	IJ
208-96-8	ACENAPHIHYLENE		41000	LI
120-12-7	ANTHRACENE		23000	IJ
56-55-3	BENZO (A) ANTHRACENE		42000	U
205-99-2	BENZO (B) FLUORANTHENE		19000	LI
207-08-9	BENZO (K) FLLORANTHENE		32000	DJ
191-24-2	BENZO (GHI) PERYLENE		42000	U
	BENZO (A) PYRENE		42000	U
218-01-9	CHRYSENE		42000	U
53-70-3	DIBENZO (A, H) ANTHRACENE		42000	U
206-44-0	FLICRANTHENE		36000	DJ
86-73-7	FLUORENE		29000	DJ
193-39-5	INDEND (1,2,3-CD) PYRENE		42000	U
91-57-6	2-METENINAPHTHALENE	BERN FASE ALSO AND	160000	D
91-20-3	NAPHTHALENE		280000	D
	PHENANIHRENE	A DAMAST AND AND A THE COL	94000	D
129-00-0	PYRENE	AND AND AND THE POINT OF A DISCOUNTS	46000	D
132-64-9	DIBENZOFURAN	the state of the second state	42000	U

# NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

			Client No.
Lab Name: STL Buffalo	Contract: EEMC MSPA	1.1	BCTVCCRSW0403-Q
Lab Coole: <u>RECNY</u> Case No.:	SAS No.:	SDG No.:	
Matrix: (soil/water) SOIL		Lab Sample ID:	<u>A4A71102</u>
Sample wt/vol: _30.68 (g/mL)	<u>G</u> _	Lab File ID:	<u>V07162.RR</u>
Level: (low/med) LOW		Date Samp/Recv:	10/28/2004 10/29/2004
% Moisture: <u>41.2</u> decanted: (Y,	/N) <u>N</u>	Date Extracted:	10/29/2004
Concentrated Extract Volume: 10000 (1	uL)	Date Analyzed:	11/01/2004
Injection Volume: 1.00 (uL)		Dilution Factor:	20.00
GPC Cleanup: (Y/N) N pH:			

CAS NO.	CIMPOIND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
83-32-9	ACENAPHIHENE	170000	-
208-96-8		120000	1
120-12-7	ANTHRACENE	86000	J
56-55-3	BENZO (A) ANTHRACENE	94000	J
205-99-2	BENZO (B) FLUORANTHENE	99000	J
	BENZO (K) FLLORANTHENE	120000 )	
191-24-2	BENZO (GHI) PERYLENE	140000	1000
50-32-8	BENZO (A) FYRENE	130000	100
218-01-9	CHRYSENE	87000	J
53-70-3	DIBENZO (A, H) ANTHRACENE	110000	UJ
206-44-0	FLUORANTHENE	140000 \	ALL DA
	FLUORENE	97000	J
193-39-5	INDEND (1,2,3-0D) PYRENE	78000	J
91-57-6	2-METHYLNAPHTHALENE	110000	U
	NAPHIHALENE	130000	
85-01-8	PHENANIHRENE	300000	11.14
129-00-0		240000 J	10 5 15
132-64-9	D DENZOFURAN	110000	U

SAMPLE COMPLIANCE REPORT

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#### SAMPLE COMPLIANCE REPORT

	Sampling Date Proto	Protocol				Compliancy <sup>1</sup>				Noncompliance
Sample Delivery Group			Sample ID	ID Matrix		svoc	PCB/PEST/ HERB	MET	MISC	
A04-A711	10/28/2005	SW-846	BCTVCCRFL0403-Q	Soil	Yes	No			-	SVOC - ICAL %RSD, CCAL %D, LCS %Recovery
A04-A711	10/28/2005	SW-846	BCTVCCRSW0403-Q	Soil	Yes	No	-	-	-	%D, LCS %Recovery SVOC - ICAL %RSD, CCAL %D, LCS %Recovery
						-				

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

# DATA USABILITY SUMMARY REPORT NYSEG - COURT STREET BINGHAMTON, NEW YORK

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SDG #A04-B264

# VOLATILE AND SEMIVOLATILE ANALYSES

Analyses performed by:

Severn Trent Laboratories Buffalo, New York

Review performed by:



Blasland, Bouck & Lee, Inc. Syracuse, New York

#### Summary

The following is an assessment of the data package for Sample Delivery Group (SDG) #A04-B264 for sampling from the NYSEG Binghamton Court Street Site. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID M	Matrix		Analysis					
			Date	voc	svoc	РСВ	MET	MISC	
BCTVCCRFL0404-Q	A4B26401	Soil	11/11/2005	Х	X				
BCTVCCRSW0404-Q	A4B26402	Soil	11/11/2005	Х	X				
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			1940.24						
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				-				-	
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VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

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#### Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8260. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant Quality Control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

#### 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2.
	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cooled @ 4 °C.

All samples were analyzed within the specified holding times.

#### 2. Blank Contamination

Quality assurance blanks (i.e., method, trip, and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure contamination of samples during shipment. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

No compounds were detected in the associated blanks.

#### 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

System performance and column resolution were acceptable.

#### 4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

#### 4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibited a %RSD less than the control limit (15%) and an RRF value greater than control limit (0.05).

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# 4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less then the control limit (20%) and RRF value greater than control limit (0.05).

All calibration criteria were within the control limits.

#### 5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

#### 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standards were within control limits.

#### 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

No MS/MSD samples were submitted with this SDG.

#### 8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method.

No field duplicate sample was submitted with this SDG.

# 10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

#### 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

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SEMI-VOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

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### Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8270. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

#### Holding Times

1.

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW/ 846 8270	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C
SW-846 8270	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C

All samples were analyzed within the specified holding times.

#### 2. Blank Contamination

Quality assurance blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A BAL of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

No compounds were detected in the associated blanks.

#### 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

System performance and column resolution were acceptable.

#### 4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

#### 4.3 Initial Calibration

The method specifies percent %RSD and RRF limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) and RRF value greater than control limit (0.05).

#### 4.4 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a %D less then the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
BCTVCCRFL0404-Q	ICV %RSD	Chrysene	15.7%
BCTVCCRSW0404-Q		Benzo(k)fluoranthene	16.8%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification	
1	RRF < 0.05	Non-detect	R	
	KKF <0.05	Detect	J	
Initial and	RRF < 0.01 <sup>1</sup>	Non-detect	R	
Continuing	RRF < 0.01	Detect	J	
Calibration	States and the second	Non-detect	No Action	
	RRF >0.05 or RRF >0.01 <sup>1</sup>	Detect		
		Detect	R	
	%RSD > 15%	Non-detect	UJ	
Initial Calibration	%RSD > 15%	Detect	J	
	%D >20%	Non-detect	No Action	
Continuing	(increase in sensitivity)	Detect	J	
Calibration	%D >20%	Non-detect	UJ	
and the state of the state of the state of the state of the state of the state of the state of the state of the	(decrease in sensitivity)	Detect	J	

1. RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e. ketones, 1,4-Dioxane, etc.)

#### 5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

#### 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the

SVOC to exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) the area counts of the associated continuing calibration standard.

All internal standard areas and retention times were within established limits.

#### 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The RPD between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compounds concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

No MS/MSD samples were submitted with this SDG.

# 8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LSC analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

#### 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method.

No field duplicate sample was submitted with this SDG.

#### 10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
BCTVCCRSW0404-Q	2-Methylnaphthalene	120000 E	140000 D	140000 D
	Acenaphthene	73000 E	84000 D	84000 D
	Naphthalene	160000 E	180000 D	180000 D
	Phenanthrene	110000 E	120000 D	120000 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentration greater than the linear range qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

#### 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

# CORRECTED SAMPLE ANALYSIS DATA SHEETS

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NEW YORK STATE ELECTRIC & CAS NYSEG METHOD 8260 - BIEX ANALYSIS DATA SHEET

Client No.

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Lab Name: STL Buffalo	Contract: <u>SEMC 1</u>	MSPA	
Lab Code: <u>REONY</u> Cas	e No.: SAS No.:	SDG No.:	
Matrix: (soil/water) S	OIL	Lab Sample ID:	<u>A4B26401</u>
Sample wt/vol: _	<u>4.10</u> (g/mL) <u>G</u>	Lab File ID:	R2008.RR
Level: (low/med) M		Date Samp/Recv:	11/11/2004 11/12/2004
* Moisture: not dec	22.4 Heated Purge: N	Date Analyzed:	11/16/2004
SC Column: DB-624	ID: <u>0.25</u> (mm)	Dilution Factor:	1.00
Soil Extract Volume: 1	.0000 (uL)	Soil Aliquot Vol	ume: <u>100.00</u> (uL)
CAS NO.	COMPOUND	CONENTRATION UNITS: (Ug/L or Ug/Kg)	UG/KG_Q
71-43-2	-BENZENE	2	400

100-41-4----EIHYLBENZENE

1330-20-7----TOTAL XYLENES

108-88-3----TOLUENE

NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8260 - BTEX ANALYSIS DATA SHEET

Client No.

ish Nama	SIL Buffalo Contract: EEMC MSI	DA	BCTVCCRSW0404-Q
GAD MAILE:		<u></u>	
Lab Cude:	REDNY Case No.: SAS No.:	SDG No.:	
Matrix: (	(soil/water) SOIL	Lab Sample ID:	<u>A4B26402</u>
Sample wt	c/vol:4.13 (g/mL) <u>G</u>	Lab File ID:	R2005.RR
Level:	(low/med) MED	Date Samp/Recv:	11/11/2004 11/12/2004
% Moistur	re: not dec. <u>28.8</u> Heated Purge: N	Date Analyzed:	11/16/2004
30 Colum	n: <u>DB-624</u> ID: <u>0.25</u> (mm)	Dilution Factor:	1.00
Soil Extr	ract Volume: 10000 (uL)	Soil Aliquot Vola	ume: <u>100.00</u> (uL)
		UNCENTRATION UNITS: (Ug/L or ug/Kg)	
1.52.2	71-43-2BENZENE	1	900

71-43-2BENZENE	1900		-
100-41-4ETHYLRENZENE	13000	1000	
108-88-3TOLUENE	660	J	113
1330-20-7TOTAL XYLENES	12000		14

# NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

Client No.

	BCTVCCRFL0404-Q
Lab Name: <u>STL Buffalo</u> Contract: <u>EPMC M</u>	SPA
Lab Code: <u>RECIVY</u> Case No.: SAS No.:	SDG No.:
Matrix: (soil/water) <u>SCIL</u>	Lab Sample ID: <u>A4B26401</u>
Sample wt/vol: $30.37$ (g/mL) G	Lab File ID: W00695.RR
Level: (low/med) LOW	Date Samp/Recv: <u>11/11/2004 11/12/2004</u>
% Moisture: <u>21.9</u> decanted: (Y/N) <u>Y</u>	Date Extracted: <u>11/12/2004</u>
Concentrated Extract Volume: 1000 (uL)	Date Analyzed: <u>11/15/2004</u>
Injection Volume: 1.00 (uL)	Dilution Factor:10.00
GPC Cleanup: (Y/N) N pH:	
	CONCENTRATION UNITS:

L

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q	
83-32-9	ACENAPHIHENE	- San San San San	15000		
208-96-8	ACENAPHTHYLENE	NUMBER OF STREET, STRE	6200	123	
120-12-7	ANTHRACENE		13000	18181	
56-55-3	BENZO (A) ANTHRACENE		6000	1923	
205-99-2	BENZO (B) FLUORANTHENE		5800	3	
207-08-9	BENZO (K) FLUORANTHENE		3500	J	
191-24-2	BENZO (GHI) PERYLENE		2900	J	
	BENZO (A) PYRENE		6100	- 121	
218-01-9	CHRYSENE		4200 \$	1.1	
53-70-3	DISENZO (A, H) ANTHRACENE		4200	U	
206-44-0	FLIORANTHENE		16000	1.4	
86-73-7	FLUORENE		16000	5 15/2	
193-39-5	INDENO (1,2,3-CD) FYRENE		4200	U	
			29000	1	
	NAPHTHALENE		40000	1.00	
85-01-8	PHENANIHRENE		47000	1 Car	
129-00-0	PYRENE		22000	3 2 M	
132-64-9	DIBENZOFURAN		1500	J	

#### NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

Client No.

			BCIVCCRSW0404-Q
Lab Name: STL Buffalo	Contract: <u>EEMC MSPA</u>		
Lab Code: <u>REONY</u> Case No.:	SAS No.:	SDG No.:	
Matrix: (soil/water) <u>SOIL</u>		Lab Sample ID:	<u>A4B26402</u>
Sample wt/vol:30.52 (g/mL) :	<u>G</u>	Lab File ID:	W00696.RR
Level: (low/med) LOW		Date Samp/Recv:	11/11/2004 11/12/2004
<pre>% Moisture: <u>27.7</u> decanted: (Y/</pre>	N) <u>N</u>	Date Extracted:	11/12/2004
Concentrated Extract Volume: 1000 (u	L)	Date Analyzed:	11/15/2004
Injection Volume: 1.00(uL)		Dilution Factor:	10.00
GPC Cleamup: (Y/N) N pH:			

# CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG_	Q
83-32-9	ACENAPHIHENE		73000 Steer D	E
208-96-8	ACENAPHIHYLENE		10000	1.4.1
120-12-7	ANTHRACENE		36000	
56-55-3	BENZO (A) ANTHRACENE		15000	1
205-99-2	BENZO (B) FLUORANTHENE		12000	
207-08-9	BENZO (K) FLUORANTHENE		11000 3	b an a
	BENZO (GHI) PERYLENE		5100	100
	BENZO (A) PYRENE		12000	
	CHRYSENE		17000	
53-70-3	DIBENZO (A, H) ANTHRACENE		4500	U
	FLUORANTHENE		33000	
	FLLORENE		42000	1312
193-39-5	INDEND (1,2,3-D) FYRENE	and the second states and the	4200	J
			120000 HO 000 )	E
91-20-3	NAPHTHALENE		160000 Bear )	5
85-01-8	PHENANIHRENE		110000 120000 9	£
129-00-0	FYRENE		46000	1
132-64-9	DIBENZOFURAN		5200	

# NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 827C-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

Client No.

		BCIVCORSW0404-Q DL
Lab Name: <u>SIL Buffalo</u> Contract: <u>EEMC MSPA</u>	-	
Lab Code: RECNY Case No.: SAS No.:	SDG No.:	
Matrix: (soil/water) SOIL	Lab Sample ID:	A4B26402DL
Sample wt/vol30.52 (g/mL) G	lab File D:	W00718.RR
Level: (low/med) LOW	Date Samp/Recv:	11/11/2004 11/12/2004
<pre>% Moisture: _27.7 decanted: (Y/N) N</pre>	Date Extracted:	11/12/2004
Concentrated Extract Volume: 1000 (uL)	Date Analyzed:	11/16/2004
Injection Volume: 1.00 (UL)	Dilution Factor:	50.00
GPC Cleaning: (Y/N) N pH:		

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CAS NO. COMPOUND	(ug/L or ug/Kg)	UG/HG_	Q	
83-32-9ACENAPHTHENE		84000	D	
208-96-8ACENAPHTHYLENE		12000	DJ	
120-12-7ANTHRACENE		39000	D	
56-55-3BENZO (A) ANTHRACENE		18000	LDJ	
205-99-2BENZO (B) FLLORANTHENE		22000	U	
207-08-9BENZO (K) FILORANTHENE	1	22000	U	
191-24-2BENZO (GHI) PERYLENE		22000	U	
50-32-8BENZO (A) PYRENE		13000	DJ	
218-01-9CHRYSENE		22000	U	
53-70-3DIBENZO (A, H) ANTHRACENE		22000	U	
206-44-0FLIDRANTHENE		34000	D	
36-73-7FILORENE		46000	D	
193-39-5 INDEND (1, 2, 3-0) PYRENE		22000	U	
91-57-62-METHYLNAPHTHALENE		140000	D	
91-20-3NAPHTHALENE		180000	D	
35-01-8PHENANIHRENE		120000	D	
29-00-0PYRENE		50000	D	
32-64-9DISENZOFURAN		22000	U	

CONCENTRATION UNITS:

# SAMPLE COMPLIANCE REPORT

### SAMPLE COMPLIANCE REPORT

Comple					Compliancy <sup>1</sup>				Noncompliance	
Sample Delivery Sampl Group Date	Sampling Date	Protocol	Sample ID	Matrix	voc	svoc	PCB/PEST/ HERB	MET	MISC	
A04-B264	11/11/2005	SW-846	BCTVCCRFL0404-Q	Soil	Yes	No				SVOC - ICAL %RSD
A04-B264	11/11/2005	SW-846	BCTVCCRSW0404-Q	Soil	Yes	No	-			SVOC - ICAL %RSD
12.2.0										
-										
_								-		
							-			
					1	-			-	1

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

# DATA USABILITY SUMMARY REPORT NYSEG - COURT STREET BINGHAMTON, NEW YORK

SDG #A04-B635

# VOLATILE AND SEMIVOLATILE ANALYSES

Analyses performed by:

Severn Trent Laboratories Buffalo, New York

Review performed by:



Blasland, Bouck & Lee, Inc. Syracuse, New York

# Summary

The following is an assessment of the data package for Sample Delivery Group (SDG) #A04-B635 for sampling from the NYSEG Binghamton Court Street Site. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID Matrix	Matrix	Sample Date	Analysis				
Viete Press		Date	voc	svoc	PCB	MET	MISC	
BCTVCCRFL0405-Q	A4B63501	Soil	11/19/2005	Х	X			
				1.09				
		-			-		_	-
							-	
								-
								-
	1.1.2.1.6.8							<u> </u>
	100000							
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VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

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# Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8260. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant Quality Control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

#### 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2.
	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cooled @ 4 °C.

All samples were analyzed within the specified holding times.

#### 2. Blank Contamination

Quality assurance blanks (i.e., method, trip, and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure contamination of samples during shipment. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

No compounds were detected in the associated blanks.

#### 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

System performance and column resolution were acceptable.

#### 4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

#### 4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibited a %RSD less than the control limit (15%) and an RRF value greater than control limit (0.05).

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# 4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less then the control limit (20%) and RRF value greater than control limit (0.05).

All calibration criteria were within the control limits.

# 5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

#### 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standards were within control limits.

# 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

No MS/MSD samples were submitted with this SDG.

# 8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

## 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method.

No field duplicate sample was submitted with this SDG.

# 10. Compound Identification

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Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

# 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

SEMI-VOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

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## Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8270. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

# Holding Times

1.

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C
000-040 0270	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C

All samples were analyzed within the specified holding times.

## 2. Blank Contamination

Quality assurance blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A BAL of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

No compounds were detected in the associated blanks.

#### 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

System performance and column resolution were acceptable.

## 4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

## 4.3 Initial Calibration

The method specifies percent %RSD and RRF limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) and RRF value greater than control limit (0.05).

# 4.4 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a %D less then the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
	14.1683	Acenaphthylene	20.5%
BCTVCCRFL0405-Q	ICV %RSD	Dibenzofuran	19.3%
		Fluorene	18.6%
	001/11/2	Dibenzofuran	35.3%
BCTVCCRFL0405-Q	CCV %D	Fluorene	21.4%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification	
	RRF <0.05	Non-detect	R	
Initial and Continuing Calibration	RRF <0.05	Detect	J	
		Non-detect	R	
	RRF < 0.01 <sup>1</sup>	Detect	J	
	RRF >0.05 or RRF >0.01 <sup>1</sup>	Non-detect	No Action	
		Detect		
		Detect	R	
	%RSD > 15%	Non-detect	UJ	
Initial Calibration		Detect	J	
136	%D >20%	Non-detect	No Action	
Continuing	(increase in sensitivity)	Detect	J	
Calibration	%D >20%	Non-detect	UJ	
	(decrease in sensitivity)	Detect	J	

1. RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e. ketones, 1,4-Dioxane, etc.)

# 5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

#### 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the SVOC to exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) the area counts of the associated continuing calibration standard.

All internal standard areas and retention times were within established limits.

# 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The RPD between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compounds concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

No MS/MSD samples were submitted with this SDG.

#### 8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LSC analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

#### 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method.

No field duplicate sample was submitted with this SDG.

#### 10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
BCTVCCRFL0405-Q	Naphthalene	46000 E	47000 D	47000 D

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Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
	Phenanthrene	34000 E	34000 D	34000 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentration greater than the linear range qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

# 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

CORRECTED SAMPLE ANALYSIS DATA SHEETS

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Client No.

NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8260 - BTEX ANALYSIS DATA SHEET

BCTVCIRFL0405-Q Lab Name: STL Buffalo Contract: EDMC MSPA Lab Code: RECINY Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_ Lab Sample ID: A4B63501 Matrix: (soil/water) SOIL Lab File ID: R2166.RR Sample wt/vol: 4.05 (g/mL) G Date Samp/Recv: 11/19/2004 11/20/2004 Level: (low/med) MED % Moisture: not dec. 25.6 Heated Purge: N Date Analyzed: 11/23/2004 GC Column: <u>DB-624</u> ID: <u>0.25</u> (nm) Dilution Factor: 5.00 Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: \_100.00 (uL) CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Q CAS NO. COMPOUND

71-43-2BENZENE	6800	
100-41-4EIHYLBENZENE	24000	1
108-88-3TOLUENE	2500	J
1330-20-7TUTAL XYLENES	19000	

NEW YORK STATE ELECIPIC & CAS NYSEG MEIHOD 8270-HSL PAH + DIRENZOFURAN ANALYSIS DATA SHEET

Client No.

		BCIVCCRFL0405-Q
Lab Narre: <u>STL Buffalo</u> Contract	EEMC MSPA	
Lab Code: <u>REONY</u> Case No.: SAS N	No.: SDG No.:	
Matrix: (soil/water) <u>SOIL</u>	Lab Sample ID:	<u>A4B63501</u>
Sample wt/vol: _30.46 (g/mL) G_	Lab File ID:	W00813.RR
Level: (low/med) LOW	Date Samp/Recv:	11/19/2004 11/20/2004
% Moisture: 20.4 decanted: (Y/N) Y	Date Extracted:	11/23/2004
Concentrated Extract Volume: 1000 (uL)	Date Analyzed:	11/24/2004
Injection Volume: 1.00 (uL)	Dilution Factor:	5.00
GPC Cleanup: (Y/N) N pH:		
	CONCENTRATION UNITS:	

CAS NO.	COMPOUND	(ug/L or ug/Kg)		Q
83-32-9	ACENAPHIHENE		18000	
208-95-8	ACENAPHIHYLENE		2900 1	
120-12-7	ANIHRACENE		11000	1
56-55-3	BENZO (A) ANTHRACENE		5100	122
205-99-2	BENZO (B) FLUORANIHENE	Contraction of the second second	2600	
207-08-9	BENZO (K) FLUORANTHENE		3000	1.1
191-24-2	BENZO (GHI) PERYLENE		3600	
50-32-8	BENZO (A) PYRENE	Reinflord and the second second	5000	1.1.1
218-01-9	CHRYSENE		6600	1.11
53-70-3	DIBENZO (A, H) ANTHRACENE	THE REAL PROPERTY OF THE PROPERTY OF THE REAL PROPERTY OF THE REAL PROPERTY OF THE REAL PROPERTY OF THE REAL PROPERTY OF THE REAL PROPERTY OF THE REAL PROPERTY OF THE REAL PROPERTY OF THE REAL PROPERTY OF THE REAL PROPERTY OF THE REAL PROPERTY OF THE REAL PROPE	2000	U
	FILORANTHENE		15000	
86-73-7	FLUCRENE	A THE REPORT OF A DESCRIPTION OF A DESCRIPANTI OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCR	9000 7	
193-39-5	INDENO (1,2,3-CD) PYRENE		2400	
91-57-6	2-METHYINAPHIHALENE		10000	111
91-20-3	NAPHIHALENE			E.
85-01-8	PHENANIHRENE	the stand of the second	34000 D	E
129-00-0	PYRENE	and a second second second second	21000	
132-64-9	DIBENZOFURAN		2000	Ln

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# 10/211

NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 2270-HSL PAH + DIBENZOFURAN ANALASIS DATA SHEET

Client No.

			BCIVCCRFL0405-Q DL
Lab Name: STL Buffalo	Contract: EEMC MSPA		
Lab Code: REONY Case No.:	SAS No.:	SDG No.:	
Matrix: (soil/water) SOIL		Lab Sample ID:	A4B63501DL
Sample wt/vol: _ <u>30.46</u> (g/mL)	<u>G</u>	Lab File ID:	W00815.RR
Lavel: (low/med) LOW		Date Samp/Recv:	11/19/2004 11/20/2004
% Moisture: 20.4 decanted: (Y,	/N) <u>Y</u>	Date Extracted:	<u>11/23/2004</u>
Concentrated Extract Volume: 1000 (	<u>uL)</u>	Date Analyzed:	11/24/2004
Injection Volume: <u>1.00</u> (uL)		Dilution Factor:	25.00
GPC Cleanup: (Y/N) N pH:			

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CAS NO. COMPOUND		CONCENTRATION (ug/L or ug/H		Q
83-32-9ACENAPHTHE 208-96-8ACENAPHTHE 200-20-20			17000 10000 11000	D U D
120-12-7ANIHRACENE 56-55-3BENZO (A) AN			10000	U
205-99-2BENZO (B) FLI 207-08-9BENZO (K) FLI	DRANTHENE	<u></u>	10000	U
191-24-2BENZO (GHI) 1 50-32-8BENZO (A) PY		1	10000 4700	U DJ
218-01-9CHRYSENE 53-70-3DIBENZO(A,)			6200 10000	DJ U
206-44-0FLUORANTHE 86-73-7FLUORENE	Æ		14000 7800	D L
193-39-5INDENO(1,2) 91-57-62-METHYINA			10000 9500	U LI
91-20-3NAPHTHALEN 85-01-8PHENANIHRD			47000 34000	D D
129-00-0PYRENE 132-64-9DIBENZOFUR	4N		20000 10000	D U

# SAMPLE COMPLIANCE REPORT

# SAMPLE COMPLIANCE REPORT

Cample					Compliancy <sup>1</sup>					Noncompliance
Sample Delivery Group	Sampling Date	Protocol	Sample ID	Matrix	voc	svoc	PCB/PEST/ HERB	MET	MISC	
A04-B635	11/19/2005	SW-846	BCTVCCRFL0405-Q	Soil	Yes	No				SVOC - ICAL %RSD, CCAL %D

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

# DATA USABILITY SUMMARY REPORT NYSEG - COURT STREET BINGHAMTON, NEW YORK

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SDG #A04-C010

# VOLATILE AND SEMIVOLATILE ANALYSES

Analyses performed by:

Severn Trent Laboratories Buffalo, New York

Review performed by:



Blasland, Bouck & Lee, Inc. Syracuse, New York

# Summary

The following is an assessment of the data package for Sample Delivery Group (SDG) #A04-C010 for sampling from the NYSEG Binghamton Court Street Site. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample	Analysis					
	State State		Date	voc	svoc	PCB	MET	MISC	
BCTVCCRFL0406-Q	A4C01001	Soil	12/2/2005	X	X <sup>1</sup>				
		-		-				-	
12									
					-				
11 A 11 A 11 A 11 A 11 A 11 A 11 A 11									
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		-							
		1.22							
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1. Matrix spike/matrix spike duplicate (MS/MSD) analyses performed on sample.

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VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

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# Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8260. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant Quality Control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

# 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
	Water	14 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2.
SW-846 8260	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cooled @ 4 °C.

All samples were analyzed within the specified holding times.

## 2. Blank Contamination

Quality assurance blanks (i.e., method, trip, and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure contamination of samples during shipment. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

No compounds were detected in the associated blanks.

#### 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

System performance and column resolution were acceptable.

#### 4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

# 4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibited a %RSD less than the control limit (15%) and an RRF value greater than control limit (0.05).

# 4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less then the control limit (20%) and RRF value greater than control limit (0.05).

All calibration criteria were within the control limits.

#### 5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

# 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standards were within control limits.

# 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

No MS/MSD samples were submitted with this SDG.

# 8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

## 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures 5347R.doc

and analytical method.

No field duplicate sample was submitted with this SDG.

# 10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

# 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

SEMI-VOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

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# Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8270. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

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- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

# 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C

All samples were analyzed within the specified holding times.

## 2. Blank Contamination

Quality assurance blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A BAL of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

No compounds were detected in the associated blanks.

# 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

System performance and column resolution were acceptable.

#### 4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

#### 4.3 Initial Calibration

The method specifies percent %RSD and RRF limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) and RRF value greater than control limit (0.05).

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# 4.4 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a %D less then the control limit (20%) and RRF value greater than control limit (0.05).

All calibration criteria were within the control limits.

# 5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

## 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the SVOC to exhibit area counts that are not greater than two times (+100%) or less than one-half(-50%) the area counts of the associated continuing calibration standard.

All internal standard areas and retention times were within established limits.

# 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The RPD between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compounds concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD exhibited acceptable recoveries.

#### 8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LSC analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

#### 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method.

No field duplicate sample was submitted with this SDG.  $_{\rm 5347R,doc}$ 

# 10. Compound Identification

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Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

# 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

CORRECTED SAMPLE ANALYSIS DATA SHEETS

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NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8260 - BTEX ANALYSIS DATA SHEET

Client No.

	BCIVCERFL0406-Q
Lab Name: <u>STL Buffalo</u> Contract: <u>EEMC N</u>	
Lab Code: <u>RECNY</u> Case No.: SAS No.:	SDG No.:
Matrix: (soil/water) SOIL	Lab Sample ID: A4C01001
Sample wt/vol: $5.10$ (g/mL) G	Lab File ID: F5105.RR
Level: (low/med) <u>LOW</u>	Date Samp/Recv: 12/02/2004 12/03/2004
% Moisture: not dec. <u>15.5</u> Heated Purge: $\underline{Y}$	Date Analyzed: <u>12/06/2004</u>
GC Column: <u>DB-624</u> ID: <u>0.20</u> (mm)	Dilution Factor:1.00
Soil Extract Volume: (uL)	Soil Aliquot Volume: (uL)
CAS NO. COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u> Q
71-43-2BENZENE 100-41-4EDYLBENZENE 108-88-3TOLUENE 1330-20-7TUTAL XYLENES	130 6 19 21

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# NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

Client No.

	BCTVCCRFL0406-Q
Lab Name: <u>STL Buffalo</u> Contract: <u>EEMC MS</u>	SPA
Lab Code: <u>RECNY</u> Case No.: SAS No.:	
Matrix: (soil/water) SOIL	Lab Sample ID: <u>A4C01001</u>
Sample wt/vol: $30.25$ (g/mL) <u>G</u>	Lab File ID: <u>U03165.RR</u>
Level: (low/med) LOW	Date Samp/Recv: <u>12/02/2004 12/03/2004</u>
% Moisture: <u>17.5</u> decanted: (Y/N) N	Date Extracted: <u>12/03/2004</u>
Concentrated Extract Volume: 1000 (uL)	Date Analyzed: 12/06/2004
Injection Volume: 1.00 (uL)	Dilution Factor: <u>1.00</u>
GPC Cleanup: (Y/N) N pH:	
	CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)		Q
83-32-9	ACENAPHTHENE		400	U
208-96-8	ACENAPHTHYLENE	Constant and the second second second	400	U
120-12-7	ANTHRACENE		400	U
56-55-3	BENZO (A) ANTHRACENE		400	U
205-99-2	BENZO (B) FLUORANTHENE		400	U
207-08-9	BENZO (K) FLUORANTHENE	Contraction of the second second	400	U
191-24-2	BENZO (GHI) PERYLENE		400	U
50-32-8	BENZO (A) PYRENE		400	U
218-01-9	CHRYSENE		400	U
53-70-3	DIBENZO (A, H) ANTHRACENE		400	U
206-44-0	FIJORANTHENE		400	U
86-73-7	FLUORENE		400	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE		400	U
91-57-5	2-METHYINAPHTHALENC		170	J
91-20-3	NAPHTHALENE		870	1
85-01-8	PHENANTHRENE	- VOID STOLE	280	J
129-00-0			400	U
132-64-9	DIBENZOFURAN		400	U

# SAMPLE COMPLIANCE REPORT

# SAMPLE COMPLIANCE REPORT

Sample		1.1.1.2			Compliancy <sup>1</sup>					Noncompliance
Delivery Sampling Group Date	pling ate Protocol Sample ID Matrix	voc	svoc	PCB/PEST/ HERB	MET	MISC				
A04-C010	12/2/2005	SW-846	BCTVCCRFL0406-Q	Soil	Yes	Yes				
						1	12.23			
		1								11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
						-				
							1.1.1.1			
	101.00									-

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

# DATA USABILITY SUMMARY REPORT NYSEG - COURT STREET BINGHAMTON, NEW YORK

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SDG #A04-C278

## VOLATILE AND SEMIVOLATILE ANALYSES

Analyses performed by:

Severn Trent Laboratories Buffalo, New York

Review performed by:



Blasland, Bouck & Lee, Inc. Syracuse, New York

## Summary

The following is an assessment of the data package for Sample Delivery Group (SDG) #A04-C278 for sampling from the NY SEG Binghamton Court Street Site. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID Matrix Sample	Analysis						
	1	- ward	Date	voc	svoc	PCB	MET	MISC
BCTVCCR-SW0407-Q	A4C27801	Soil	12/8/2005	X	X			
BCTVCCR-FL0408-Q	A4C27802	Soil	12/8/2005	Х	Х			
BCTVCCR-0409-Q	A4C27803	Soil	12/8/2005	Х	X			
			2.1					
		1.5						
					_			
	51.75.00	-						
		100				P.C.		
	wist.		2.2.7.4					
						1		-
	181 I. I. I.	1.00						
	100,00							
		1						
		10-12-0				1.1.1		

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

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## Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8260. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant Quality Control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

## 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
	Water	14 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2.
SW-846 8260	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cooled @ 4 °C.

All samples were analyzed within the specified holding times.

#### 2. Blank Contamination

Quality assurance blanks (i.e., method, trip, and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure contamination of samples during shipment. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

No compounds were detected in the associated blanks.

## 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

System performance and column resolution were acceptable.

## 4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

#### 4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibited a %RSD less than the control limit (15%) and an RRF value greater than control limit (0.05).

## 4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less then the control limit (20%) and RRF value greater than control limit (0.05).

All calibration criteria were within the control limits.

#### 5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

## 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standards were within control limits.

## 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

No MS/MSD samples were submitted with this SDG.

## 8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

#### 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method.

No field duplicate sample was submitted with this SDG.

## 10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

## 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

SEMI-VOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

## Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8270. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

## 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Water from		7 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C
311-040 0270	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C

All samples were analyzed within the specified holding times.

#### 2. Blank Contamination

Quality assurance blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A BAL of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

No compounds were detected in the associated blanks.

## 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

System performance and column resolution were acceptable.

#### 4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

## 4.3 Initial Calibration

The method specifies percent %RSD and RRF limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) and RRF value greater than control limit (0.05).

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### 4.4 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a %D less then the control limit (20%) and RRF value greater than control limit (0.05).

All calibration criteria were within the control limits.

## 5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

Sample locations associated with surrogates exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Surrogate	Recovery	
	Nitrobenzene-d5	D	
BCTVCCR-SW0407-Q DL	2-Fluorobiphenyl	D	
	Terphenyl-d14	D	
A STORE STREAM STREAM	Nitrobenzene d5	D	
BCTVCCR-FL0408-Q DL	2-Fluorobiphenyl	D	
	Terphenyl-d14	D	

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results associated with the deviant fraction are qualified as documented in the table below.

Control Limit	Sample Result	Qualification	
> the upper control limit (UL)	Non-detect	No Action	
	Detect	J	
< the lower control limit (LL) but > 10%	Non-detect	J	
	Detect	J	
< 10%	Non-detect	R	
	Detect	L	
Two surrogate exhibiting recovery outside the control limits but greater	Non-detect	No Action	
than 10%.	Detect		
Surrogates diluted below the	Non-detect		
calibration curve due to the high concentration of a target compounds	Detect	No Action	

#### 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the SVOC to exhibit area counts that are not greater than two times (+100%) or less than one-half(-50%) the area counts of the associated continuing calibration standard.

All internal standard areas and retention times were within established limits.

## 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The RPD between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compounds concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

No MS/MSD samples were submitted with this SDG.

## 8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LSC analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

#### 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method.

No field duplicate sample was submitted with this SDG.

#### 10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
	Anthracene	230000 E	280000 D	280000 D
	Benzo(b)fluoranthene	250000 E	270000 U	250000 EJ
	Benzo(k)fluoranthene	270000 E	200000 DJ	270000 EJ
BCTVCCR-SW0407-Q	Benzo(a)pyrene	230000 E	280000 D	280000 D
	Fluoranthene	660000 E	860000 D	860000 D
	Fluorene	260000 E	320000 D	320000 D
	Phenanthrene	1200000 E	1600000 D	1600000 D
	Pyrene	980000 E	1300000 D	1300000 D
BCTVCCR-FL0408-Q	2-Methylnaphthalene	180000 E	200000 D	200000 D

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Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
	Naphthalene	1000000 E	1400000 D	1400000
	Phenanthrene	210000 E	260000 D	260000 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentration greater than the linear range qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

## 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

CORRECTED SAMPLE ANALYSIS DATA SHEETS

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## NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8260 - BTEX ANALYSIS DATA SHEET

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Client No.

	BCTVCR-0409-Q
Lab Name: <u>SIL Buffalo</u> Contract: <u>EEMC</u>	MSPA
Lab Code: RECNY Case No.: SAS No.:	SDG No.:
Matrix: (soil/water) SOIL	Lab Sample ID: A4C27803
Sample wt/vol:5.01 (g/mL) G	Lab File ID: F5208.RR
level: (low/ned) LOW	Date Samp/Recv: 12/08/2004 12/09/2004
% Moisture: not dec. <u>39.6</u> Heated Purge: $\underline{Y}$	Date Analyzed: <u>12/11/2004</u>
GC Colum: <u>DB-624</u> ID: <u>0.20</u> (mm)	Dilution Factor: <u>1.00</u>
Soil Extract Volume: (uL)	Soil Aliquot Volume: (uL)
CAS NO. COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u> Q
71-43-2BENZENE	8 U

71-43-2BENZENE	8	υ
100-41-4ETHYLEENZENE	140	2.1
108-88-3TOLUENE	8	U
1330-20-7TOTAL XYLENES	53	

NEW YORK STATE ELECTRIC & GAS NYSEG MEIHOD 8260 - BTEX ANALYSIS DATA SHEET

Client No.

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Lab Name: <u>SIL Buffalo</u> Contract: <u>EEMC M</u>	SPA
Lab Code: RECNY Case No.: SAS No.:	SDG No.:
Matrix: (soil/water) SOIL	Lab Sample ID: A4C27802
Sample wt/vol: $4.10$ (g/mL) G	Lab File ID: R2483.RR
Level: (low/med) MED	Date Samp/Recv: <u>12/08/2004 12/09/2004</u>
% Moisture: not dec. 21.3 Heated Purge: N	Date Analyzed: 12/10/2004
GC Column: <u>DB-624</u> ID: <u>0.20</u> (mm)	Dilution Factor:10.00
Soil Extract Volume: 10000 (uL)	Soil Aliquot Volume: 100.00 (uL)
CAS NO. COMEDUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u> Q

71-43-2BENZENE	58000
100-41-4ETHYLEPNZENE	100000
108-88-3TOLUENE	130000
1330-20-7TOTAL XYLENES	140000

FORM I - GC/MS VOA

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NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8260 - BTEX ANALYSIS DATA SHEET

Client No.

			BCIVER-SW0407-Q
Lab Name: STL Buffalo	Contract: EEMC MSPA		
Lab Code: RECNY Case No.:	SAS No.:	SDG No.:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Matrix: (soil/water) SOIL		Lab Sample ID:	<u>A4C27801</u>
Sample wt/vol: $4.00$ (g/mL)	G	Lab File ID:	R2484.RR
Level: (low/med) MED		Date Samp/Recv:	12/08/2004 12/09/2004
% Moisture: not dec. <u>44.4</u> Heate	d Rurge: N	Date Analyzed:	12/10/2004
CC Column: <u>DB-624</u> ID: <u>0.20</u> (a	nm)	Dilution Factor:	10.00
Soil Extract Volume: 10000 (UL)		Soil Aliquot Vol	lune: <u>100.00</u> (uL)
CAS NO. COMPOUND		NGNIRATION UNITS: ug/L or ug/Kg)	
			2000

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71-43-2BENZENE	50000
100-41-4ETHYLBENZENE	340000
108-88-3TOLUENE	30000
1330-20-7TOTAL XYLENES	180000

NEW	YURK STATE ELECTRIC & GAS	
	NYSEG	
METHOD	8270-HSL PAH + DIBENZOFURAN	
	ANDLYSTS DATA SHEET	

			BUTVUER-0409-Q
Lab Name: SIL Buffalo	Contract: EEMC MSPA	-3. **	
Lab Code: <u>RECINY</u> Case No.:	SAS No.:	SDG No.:	
Matrix: (soil/water) SOIL		Lab Sample ID:	A4C27803
Sample wt/vol: _30.02 (g/mL)	G	Lab File ID:	W01028.RR
Level: (low/med) LOW		Date Samp/Recv:	12/08/2004 12/09/2004
<pre>% Moisture: _44.0 decanted: (Y/</pre>	N) <u>N</u>	Date Extracted:	12/09/2004
Concentrated Extract Volume: 1000 (u	L)	Date Analyzed:	12/10/2004
Injection Volume: 1.00 (uL)		Dilution Factor:	5.00
GPC Cleanup: (Y/N) N pH:			

CAS NO.	COMPOUND	CONCENTRATION UNI (ug/L or ug/Kg)	TS: <u>UG/KG</u>	Q
83-32-9	ACENAPHIHENE		2900	U
208-96-8	ACENAPHTHYLENE		2600	3
120-12-7	ANIHRACENE		2900	U
56-55-3	BENZO (A) ANTHRACENE		3200	1 2.
	BENZO (B) FLUORANTHENE		4600	1
207-08-9	BENZO (K) FILORANIHENE		5500	
	BENZO (GHI) PERYLENE		12000	1
	BENZO (A) PYRENE		2700	J
	CHRYSENE		4500	
53-70-3	DIBENZO (A, H) ANTHRACENE	Sector Sector Sector	2900	U
	FLUORANTHENE		3700	
86-73-7	FLIORENE	fine-en	2900	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE		6600	
91-57-6	2-METHYLNAPHTHALENE	and the second second second second second second second second second second second second second second second	2900	U
91-20-3	NAPHTHALENE		2100	J
85-01-8	FHENANIHRENE		1300	J
129-00-0	PYRENE		7900	
132-54-9	DIBENZOFURAN		2900	U

Client No.

# 12/336

## NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

Client No.

			BCTVCCR-FLC408-Q
Lab Name: STL Buffalo	Contract: EEMC MSPA		
Lab Code: <u>RECNY</u> Case No.:	SAS No.:	SDG No.:	
Matrix: (soil/water) <u>SOIL</u>		Lab Sample ID:	<u>A4C27802</u>
Sample wt/vol: _30.38 (g/mL)	G	Lab File ID:	W01027.RR
Level: (lcw/med) <u>LOW</u>		Date Samp/Recv:	12/08/2004 12/09/2004
% Moisture: <u>19.1</u> decanted: ()	(/N) <u>N</u>	Date Extracted:	12/09/2004
Concentrated Extract Volume: 1000	(111.)	Date Analyzed:	<u>12/10/2004</u>
Injection Volume: <u>1.00(uL)</u>		Dilution Factor:	20.00
GPC Cleanup: (Y/N) N pH:			

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CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG_	Ç
83-32-9	ACENAPHTHENE		21000	
208-96-8	ACENAPHIHYLENE		100000	
120-12-7	ANTHRACENE		80000	
55-55-3	BENZO (A) ANTHRACENE	Manufactory and the state of the	31000	
205-99-2	BENZO (B) FLUORANTHENE		30000	
207-08-9	BENZO (K) FLUORAN (HENE	CONTRACTOR OF CONTRACTOR	34000	
191-24-2	BENZO (GHI) PERYLENE		15000	
50-32-8	BENZO (A) FYRENE		33000	
218-01-9	CHRYSENE		31000	100
53-70-3	DIBENZO (A, H) ANTHRACENE		8000	U
206-44-0	FLUORANIHENE		79000	
85-73-7	FLUORENE		71000	
193-39-5	INDENO (1,2,3-CD) PYRENE		11000	1.1
21-57-6			180000 20000 b	B
51-20-3	NAPHTHALENE		1000009 He dice b	B
35-01-8	PHENANIHRENE		210000 140 000 0	
29-00-0	PYRENE		120000	
132-64-9	DIBENZOFURAN		7000	J

CONCENTRATION UNITS:

NEW YORK STATE ELECIRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

BCIVCR-FL0408-Q Lab Name: SIL Buffalo Contract: EEMC MSPA\_ Lab Code: RECNY Case No.: \_\_\_\_ SAS No.: \_\_\_\_ SDG No.: \_\_\_\_ Matrix: (soil/water) SOIL Lab Sample ID: A4C27802DL Lab File ID: W01041.RR \_<u>30.38</u> (g/mL) G Level: (low/med) LOW Date Samp/Recv: 12/08/2004 12/09/2004 % Moisture: <u>19.1</u> decanted: (Y/N) N Date Extracted: 12/09/2004 Date Analyzed: <u>12/10/2004</u> Concentrated Extract Volume: 1000 (uL) Dilution Factor: \_400.00

CONCENTRATION UNITS:

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	CAS NO.	COMPOUND
GPC Clear	rid: (X/N) N	рН:
Injection	Volume: 1	.00 (uL)

Sample wt/vol:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG_	Q
83-32-9	ACENAPHTHENE		160000	U
208-96-8	ACENAPHIHYLENE		120000	DJ
20-12-7	ANTHRACENE		92000	DJ
56-55-3	BENZO (A) ANTHRACENE		160000	U
205-99-2	BENZO (B) FLUORANTHENE		160000	U
	BENZO (K) FLUORANTHENE		160000	U
.91-24-2	BENZO (GHI) PERYLENE		160000	U
0-32-8	BENZO (A) FYRENE		160000	U
18-01-9	CHRYSENE		160000	U
3-70-3	DIBENZO (A, H) ANTHRACENE		160000	U
	FLUORANTHENE		92000	IDJ
6-73-7	FLUORENE		79000	DJ
93-39-5	INDENO (1,2,3-CD) FYRENE		160000	U
	2-METHYINAPHIHALENE	A CONTRACTOR OF A CONTRACTOR OF A CONTRACTOR OF A CONTRACTOR OF A CONTRACTOR OF A CONTRACTOR OF A CONTRACTOR OF	200000	D
1-20-3	NAPHTHALENE	1	400000	D
5-01-8	PHENANTHRENE		260000	ם
29-00-0	PYRENE		140000	DJ
132-64-9	DIBENZOFURAN	- 740,014 A	160000	VU

## NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

Client No.

Lab Name: <u>STL Buffalo</u> Contract: <u>EEMC M</u>	SPA	BCIVCCR-SW0407-Q
Lab Code: <u>REONY</u> Case No.: SAS No.:	SDG No.:	
Matrix: (soil/water) SOIL	Iab Sample ID:	<u>A4C27801</u>
Sample wt/vol:30.20 (g/mL) G	Lab File ID:	W01026.RR
Level: (low/med) LOW	Date Samp/Recv:	12/08/2004 12/09/2004
% Moisture: <u>51.9</u> decanted: $(Y/N)$ N	Date Extracted:	12/09/2004
Concentrated Extract Volume: 1000 (uL)	Date Analyzed:	<u>12/10/2004</u>
Injection Volume: <u>1.00(uL</u> )	Dilution Factor:	20.00
GPC Cleanup: (Y/N) <u>N</u> pH:		

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# CONCENTRATION UNITS: (ug/L or ug/Kg) UG/HG Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)		Q
83-32-9 208-96-8 120-12-7 56-55-3 205-99-2 207-08-9 191-24-2 50-32-8 218-01-9 53-70-3 206-44-0 86-73-7 193-39-5	ACENAPHTHENE ACENAPHTHENE ANTHRACENE BENZO (A) ANTHRACENE BENZO (B) FLUORANTHENE BENZO (K) FLUORANTHENE BENZO (CHI) PERYLENE BENZO (A) PYRENE DIBENZO (A, H) ANTHRACENE FLUORANTHENE FLUORENE FLUORENE INDENO (1, 2, 3-CD) PYRENE		US/HG 200000 180000 230000 210000 250000 270000 130000 230000 230000 240000 14000 660000 32000 () 260000 32000 () 95000	e ej ej e
91-20-3 85-01-8 129-00-0	2 - METHYI NAPHTHALENE NAPHTHALENE PHENANTHRENE PYRENE DIBENZOFURAN		32000 220000 1200000 1200000 1300000 9800009/300000 4700	

NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

Client No.

	BCTVCCR-SW0407-0	
Lab Name: <u>STL Buffalo</u> Contract: <u>EEMC M</u>	SPA	
Lab Code: REON Case No.: SAS No.:	SDG No.:	
Matrix: (soil/water, <u>SOIL</u>	Lab Sample ID: A4C27801DL	
Sample wt/vcl: $30.20$ (g/mL) G	Lab File ID: W01040.RR	
Level: (low/med) LOW	Date Samp/Recv: <u>12/08/2004 12/09/20</u>	04
% Moisture: <u>51.9</u> decanted: (Y/N) N	Date Extracted: <u>12/09/2004</u>	
Concentrated Extract Volume: 1000 (uL)	Date Analyzed: <u>12/10/2004</u>	
Injection Volume: <u>1.00</u> (uL)	Dilution Factor: 400.00	
GPC Cleanup: (Y/N) N pH:		
	CONCENTRATION UNITS:	

CAS NO.	COMPOUND	(ug/L or ug/K	g) <u>UG/KG</u>	Q
83-32-9	ACENAPHTHENE		240000	DJ
208-95-8	ACENAPHIHYLENE		220000	DJ
120-12-7	ANTHRACENE	/	280000	D
56-55-3	BENZO (A) ANTHRACENE		240000	DJ
	BENZO (B) FLUORANTHENE	1	270000	U
207-08-9	BENZO (K) FILORANIHENE	1	200000	LDJ
191-24-2			270000	U
50-32-8	BENZO (A) PYRENE		280000	D
218-01-9			250000	La
	DIBENZO (A, H) ANTHRACENE		270000	U
	FLUORANTHENE	1	860000	D
86-73-7			320000	D
193-39-5	INDENO (1,2,3-CD) PYRENE		270000	U
			2.70000	U
91-20-3			250000	DJ
85-01-8	PHENANIHRENE	and the state of	1600000	D
129-00-0	PYRENE		1300000	D
132-64-9	DIBENZOFURAN		270000	U

SAMPLE COMPLIANCE REPORT

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## SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	Protocol	Sample ID Matrix		Compliancy <sup>1</sup>				Noncompliance	
				voc	SVOC	PCB/PEST/ HERB	MET	MISC		
A04-C278	12/8/2005	SW-846	BCTVCCR-SW0407-Q	Soil	Yes	No			-	SVOC - Linear Calibration
A04-C278	12/8/2005	SW-846	BCTVCCR-FL0408-Q	Soil	Yes	Yes	-		-	
A04-C278	12/8/2005	SW-846	BCTVCCR-0409-Q	Soil	Yes	Yes	-	-		
		1								
				_						
						-		_		

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

## DATA USABILITY SUMMARY REPORT

## NYSEG - COURT STREET

## BINGHAMTON, NEW YORK

## SDG #A04-C526

## VOLATILE AND SEMIVOLATILE ANALYSES

Analyses performed by:

Severn Trent Laboratories Buffalo, New York

Review performed by:



Blasland, Bouck & Lee, Inc. Syracuse, New York

## Summary

The following is an assessment of the data package for Sample Delivery Group (SDG) #A04-C526 for sampling from the NYSEG Binghamton Court Street Site. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample	Analysis VOC SVOC PCB MET	1992	14.73		
			Date		svoc	РСВ	MET	MISC
BCTVCCR-SW0410-Q	A4C52601	Soil	12/15/2005	Х	X <sup>1</sup>	-	-	
BCTVCCR-FL0411-Q	A4C52602	Soil	12/15/2005	Х	X			-
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				-				

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Matrix spike/matrix spike duplicate (MS/MSD) analyses performed on sample.

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VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

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## Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8260. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant Quality Control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

## 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
	Water	14 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2.
SW-846 8260	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cooled @ 4 °C.

All samples were analyzed within the specified holding times.

### 2. Blank Contamination

Quality assurance blanks (i.e., method, trip, and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure contamination of samples during shipment. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

No compounds were detected in the associated blanks.

#### 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

System performance and column resolution were acceptable.

## 4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

#### 4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibited a %RSD less than the control limit (15%) and an RRF value greater than control limit (0.05).

## 4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less then the control limit (20%) and RRF value greater than control limit (0.05).

All calibration criteria were within the control limits.

## 5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

## 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standards were within control limits.

## 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

No MS/MSD samples were submitted with this SDG.

## 8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method.

No field duplicate sample was submitted with this SDG.

## 10. Compound Identification

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Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

## 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

SEMI-VOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

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## Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8270. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

#### **Holding Times**

1.

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW/ 946 9270	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C
SW-846 8270	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C

All samples were analyzed within the specified holding times.

#### 2. Blank Contamination

Quality assurance blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A BAL of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

No compounds were detected in the associated blanks.

## 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

System performance and column resolution were acceptable.

#### 4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

#### 4.3 Initial Calibration

The method specifies percent %RSD and RRF limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) and RRF value greater than control limit (0.05).

### 4.4 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a %D less then the control limit (20%) and RRF value greater than control limit (0.05).

All calibration criteria were within the control limits.

## 5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

Sample locations associated with surrogates exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Surrogate	Recovery
	Nitrobenzene-d5	D
BCTVCCR-SW0410-Q DL	2-Fluorobiphenyl	D
	Terphenyl-d14	D
	Nitrobenzene-d5	D
BCTVCCR-FL0411-Q DL	2-Fluorobiphenyl	D
	Terphenyl-d14	D

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results associated with the deviant fraction are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	J
	Detect	J
< 10%	Non-detect	R
	Detect	J
Two surrogate exhibiting recovery outside the control limits but greater	Non-detect	No Action
than 10%.	Detect	
Surrogates diluted below the calibration curve due to the high concentration of a target compounds	Non-detect	No Action

## 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the SVOC to exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) the area counts of the associated continuing calibration standard.

All internal standard areas and retention times were within established limits.

## 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The RPD between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compounds concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	Recovery
BCTVCCR-SW0410-Q	Acenaphthene <sup>1</sup>	148%
BUIVUUR-300410-Q	Pyrene <sup>1</sup>	0.0%

1. The compound associated with the parent sample analysis exhibited a concentration greater than four times the MS/MSD concentration; therefore none of the associated sample results were qualified.

Sample locations associated with MS/MSD recoveries exhibiting an RPD outside of the control limits presented in the following table.

Sample Locations	Compound	Recovery
BCTVCCR-SW0410-Q	Acenaphthene <sup>1</sup>	200.0%

1. The compound associated with the parent sample analysis exhibited a concentration greater than four times the MS/MSD concentration; therefore none of the associated sample results were qualified.

## 8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LSC analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

## 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method.

No field duplicate sample was submitted with this SDG.

## 10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
	Acenaphthylene	110000 E	84000 DJ	110000 EJ
	Fluoranthene	85000 E	220000 U	85000 EJ
BCTVCCR-SW0410-Q	2-Methylnaphthalene	350000 E	240000 D	240000 D
BC1VCCR-SV0410-Q	Naphthalene	460000 E	570000 D	570000 D
	Phenanthrene	210000 E	190000 DJ	210000 EJ
	Pyrene	120000 E	93000 DJ	120000 EJ
and the second	Acenaphthene	68000 E	70000 DJ	70000 DJ
	Acenaphthylene	200000 E	190000 DJ	200000 EJ
	Anthracene	130000 E	130000 DJ	130000 EJ
	Benzo(a)anthracene	72000 E	200000 U	72000 EJ
	Benzo(b)fluoranthene	66000 E	200000 U	66000 EJ
	Benzo(k)fluoranthene	73000 E	200000 U	73000 EJ
BCTVCCR-FL0411-Q	Benzo(a)pyrene	67000 E	200000 U	67000 EJ
BCTVCCR-FL0411-Q	Chrysene	71000 E	200000 U	71000 EJ
	Fluoranthene	120000 E	140000 DJ	140000 DJ
	Fluorene	150000 E	120000 DJ	150000 EJ
	2-Methylnaphthalene	340000 E	520000 D	520000 D
	Naphthalene	500000 E	1300000 D	1300000 D
	Phenanthrene	260000 E	400000 D	400000 D
	Pyrene	140000 E	190000 DJ	190000 DJ

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentration greater than the linear range qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification	
Diluted sample result within calibration range	D	
Diluted sample result less than the calibration range	DJ	
Diluted sample result greater than the calibration range	EDJ	
Original sample result greater than the calibration range	EJ	

# 11. System Performance and Overall Assessment

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Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

CORRECTED SAMPLE ANALYSIS DATA SHEETS

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NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8260 - STEX ANALYSIS DATA SHEET

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		Client No.
Lab Name: STL Buffalo Contract	: EEMC MSPA	BCIVCCR-FL0411-Q
Lab Code: REONY Case No.: SAS N	6.: SDG No.:	
Matrix: (soil/water) SOIL	Lab Sample ID:	<u>A4C52602</u>
Sample wt/vol: $4.10$ (g/mL) G	Iab File ID:	<u>R2669.RR</u>
Level: (low/med) MED	Date Samp/Recv:	12/15/2004 12/16/2004
& Moisture: not dec. <u>21.3</u> Heated Purge:	N Date Analyzed:	12/18/2004
GC Column: <u>D8-624</u> ID: <u>0.25</u> (mm)	Dilution Factor:	2.00
Soil Extract Volume: 10000 (uL)	Soil Aliquot Volu	me: <u>100.00</u> (uL)
CAS NO. COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) [	г./кс 0

71-43-2BENZENE	23000
100-41-4ETHYLBENZENE	48000
108-88-3TOLUENE	42000
1330-20-7TOTAL XYLENES	52000

NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8260 - BTEX ANALYSIS DATA SHEET

		BCIVCCR-SW0410-Q
Leb Name: <u>SIL Buffalo</u> Contract: <u>EEMC MSPA</u>		
Lab Code: <u>RECNY</u> Case No.: SAS No.:	SDG No.:	
Matrix: (soil/water) <u>SOIL</u>	Lab Sample ID:	<u>A4C52601</u>
Sample wt/vol: $4.16 (g/mL) G$	Lab File ID:	R2667.RR
Level: (low/med) MED	Date Samp/Recv:	12/15/2004 12/16/2004
* Moisture: not dec. <u>27.4</u> Heated Purge: <u>N</u>	Date Analyzed:	12/18/2004
GC Column: <u>DB-624</u> ID: <u>0.25</u> (mm)	Dilution Factor:	5.00
Soil Extract Volume: 10000 (uL)	Soil Aliquot Vol	une: <u>100.00</u> (UL)
m	STINI INTERIO	

CAS NO.

COMPOUND

(UG/L or UG/Kg) UG/KG

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Client No.

71-43-2BENZENE	60000
100-41-4ETHYLBENZENE	100000
108-88-3TOLUENE	-96000
1330-20-7TOTAL XYLENES	110000

FORM I - GC/MS VOA

### NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

Client No.

				BCTVCCR-FL0411-Q
Lab Name: <u>STL Buffa</u>	<u>lo</u> Co	ntract: <u>FEWC MSPA</u>		THE STREET
Lab Code: <u>RBONY</u>	Case No.:	SAS No.:	SDG No.:	
Matrix: (soil/water	) <u>SOIL</u>		Leb Sample ID:	<u>A4C52602</u>
Sample wt/vol:	<u>_30.38</u> (g/mL) <u>G</u>		Lab File ID:	<u>U03343.RR</u>
Lavel: (low/med)	LOW		Date Samp/Recv:	12/15/2004 12/16/2004
% Moisture: <u>17.4</u>	decanted: $(Y/N)$	N	Date Extracted:	12/16/2004
Concentrated Extrac	t Volume: 1000 (uL)		Date Analyzed:	12/17/2004
Injection Volume:	<u>1.00</u> (บL)		Dilution Factor:	10.00
GPC Cleanup: (Y/N)	<u>N</u> DH:			

#### CAS NO. COMPOUND

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#### CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Q

	CC. 200.0	001100	
83-32-9	ACENAFHIHENE	-68000 70000)J	·E
208-96-8	ACENAPHIHYLENE	200000	EJ
120-12-7	ANTHRACENE	130000	EJ
56-55-3	BENZO (A) ANIHRACENE	72000	ЕJ
205-99-2	BENZO (B) FLUORANTHENE	66000	EJ
207-08-9	BENZO (K) FLUORANIHENE	73000	EJ
191-24-2	BENZO (GHI) PERYLENE	23000	
50-32-8	BENZO (A) PYRENE	57000	EJ
218-01-9	CHRYSENE	71000	EJ
53-70-3	DIBENZO (A, H) ANTHRACENE	9600	
206-44-0	FLUORANTHENE	-120000 //2000 ]]	E
86-73-7	FLUORENE	150000	EJ
193-39-5	INDENO (1,2,3-CD) FYRENE	19000	
91-57-6	2-METHYLNAPHTHALENE	340000 52000)	E
91-20-3	NAPHTHALENE	500000/3000000	E
35-01-8	PHENANTHRENE	260000 400000)	E
129-00-0	PYRENE	140006/focceD)	E
132-64-9	DIB9NZOFURAN	28000	

### NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

Client No.

Lab Name: <u>SIL Buffalo</u> Contract: <u>EDMC MSPA</u>	ALC: NOT	BCTVCCR-FL0411-Q
Lab Code: REONY Case No.: SAS No.:	SEG No.:	
Matrix: (soil/water) SOIL	Lab Sample ID:	A4C52602DL
Sample wt/vol:30.38 (g/mL) G	Lab File ID:	U03358.RR
Level: (low/med) LOW	Date Samp/Recv:	12/15/2004 12/16/2004
& Moisture: <u>17.4</u> decanted: (Y/N) N	Date Extracted:	12/16/2004
Concentrated Extract Volume: 1000 (uL)	Date Analyzed:	12/17/2004
Injection Volume: 1.00 (uL)	Dilution Factor:	500.00
GPC Cleanup: (Y/N) N DH:		

# CONCENTRATION UNITS:

CAS NO.	COMPOIND	(ug/L or ug/Kg)		Q
83-32-9	ACENAPHTHENE		70000	LD
208-95-8	ACENAPHIHYLENE		190000	DJ
120-12-7	ANTHRACENE		130000	DJ
56-55-3	BENZO (A) ANTHRACENE		200000	U
205-99-2	BENZO (B) FLUORANTHENE		200000	U
207-08-9	BENZO (K) FLUORANIHENE		200000	U
191-24-2	BENZO (GHI) PERYLENE		200000	U
50-32-8	BENZO (A) PYRENE		200000	U
	CHRYSENE		200000	U
53-70-3	DIBENZO (A, H) ANTHRACENE		200000	U
206-44-0	FLUORANTHENE	Z.	140000	DJ
	FILORENE		120000	DJ
193-39-5	INDENO (1, 2, 3-CD) PYRENE	/	200000	U
91-57-6	2-METHYINAPHTHALENE	and the second second second second second second second second second second second second second second second	520000	D
91-20-3	NAPHTHALENE		1300000	D
85-01-8	PHENANIHRENE		400000	D
129-00-0	PYRENE		190000	DJ
132-64-9	DIBENZOFURAN		200000	U

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NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET

Client NO.

Lab Name: STL Buffalo	Contract: EEMC MSPA		301V0CR-5W0410-Q
and the second second second second second second second second second second second second second second second			
Lab Code: <u>RSONY</u> Case No.:	SAS No.:	SDG No.:	
Matrix: (soil/water) SOIL		Lab Sample ID:	<u>A4C52601</u>
Sample wt/vol: _30.09 (g/mL)	G	Lab File ID:	<u>U03340.RR</u>
Level: (low/med) LOW		Date Samp/Recv:	12/15/2004 12/16/2004
% Moisture: <u>25.5</u> decanted: (Y,	/N) <u>N</u>	Date Extracted:	12/16/2004
Concentrated Extract Volume: 1000 (	(גזט)	Date Analyzed:	12/17/2004
Injection Volume: 1.00 (uL)		Dilution Factor:	10.00
GPC Cleanup: (Y/N) N pH:			

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# CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG_	(
83-32-9	ACENAPHTHENE		34000	-
208-96-8	ACENAPHIAMLENE		110000	EL
120-12-7	ANTHRACENE		66000	-
56-55-3	BENZO (A) ANTHRACENE		35000	
	BENZO (B) FLUCRANTHENE		27000	1000
	BENZO (K) FLUCRANTHENE		30000	
	BENZO (GHI) PERYLENE		16000	
	BENZO (A) FYRENE		27000	100
218-01-9			32000	
	DIBENZO (A, H) ANTHRACENE		5100	1
	FLUORANTHENE		85000	EJ
86-73-7	FLUORENE		62000	
	INDENO (1,2,3-CD) PYRENE		12000	100
	2-METHYLNAPHTHALENE		350000 24000	DZ
91-20-3	NO PHTHALENE		-460000-570 car	
	PHENANTHRENE	Contraction of the	210000	EJ
129-00-0	PYRENE	A DECEMBER OF	120000	EJ
132-64-9	DIBENZOFURAN		13000	

NEW YORK STATE ELECTRIC & GAS NYSEG METHOD 8270-HSL PAH + DIBENZOFURAN ANALYSIS DATA SHEET'

Client No.

Lab Name: <u>STL Buffalo</u>	Contract: EEMC MSPA	<u> </u>	BCTVCCR-SW0410-Q
Lab Code: <u>RECVY</u> Case No.:	SAS No.:	SDG No. :	
Matrix: (soil/water) <u>SOIL</u>		Lab Sample ID:	A4C52501DL
Sample wt/vol: _30.09 (g/mL)	G	Lab File ID:	<u>U03357.RR</u>
Level: (low/med) LOW		Date Samp/Recv:	<u>12/15/2004 12/16/2004</u>
<pre>% Moisture: <u>25.5</u> decanted: (Y</pre>	/N) <u>N</u>	Date Extracted:	12/16/2004
Concentrated Extract Volume: 1000	uL)	Date Analyzed:	12/17/2004
Injection Volume: <u>100(uL)</u>		Dilution Factor:	500.00
GPC Cleanup: (Y/N) N pH:			

# CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG_	Q
83-32-9		E.S. S. S. S. S. S.	220000	U
208-95-8	ACENAPHIHYLENE	2011-	84000	DJ
120-12-7	ANTHRACENE		220000	U
56-55-3	BENZO (A) ANIHRACENE		220000	U
	BENZO (B) FLUORANTHENE	CONTRACTOR OF TAXABLE	220000	U
	BENZO (K) FLUORANTHENE	in a standard some some	220000	U
	BENZO (GHI) PERYLENE		220000	U
	BENZO (A) PYRENE	X	220000	U
	CIRYSENE		220000	U
53-70-3	DIBENZO (A, H) ANTHRACENE		220000	U
	FLUORANTHENE		220000	U
86-73-7	FLUORENE		220000	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE		220000	U
91-57-6	2-METHYLNAPHTHALENE		240000	D
91-20-3	NAPHIHALDNE		570000	D
85-01-8	FHENANTHRENE		190000	DJ
129-00-0	PYRENE		93000	LD
132-54-9	DIBENZOFURAN		220000	U

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# SAMPLE COMPLIANCE REPORT

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Sample							Compliancy <sup>1</sup>			Noncompliance
Delivery Group	Sampling Date	Protocol	Sample ID	Matrix	voc	SVOC	PCB/PEST/ HERB	MET	MISC	
A04-C526	12/15/2005	SW-846	BCTVCCR-SW0410-Q	Soil	Yes	No				SVOC - Linear Calibration
A04-C526	12/15/2005	SW-846	BCTVCCR-FL0411-Q	Soil	Yes	No				SVOC – Linear Calibration
1000										
							A. T.I.Z			
2100										
-										
1.1.1										
				-						

### SAMPLE COMPLIANCE REPORT

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

# DATA USABILITY SUMMARY REPORT

NYSEG - COURT STREET

BINGHAMTON, NEW YORK

SDG #A04-C739

# VOLATILE AND SEMIVOLATILE ANALYSES

Analyses performed by:

Severn Trent Laboratories Buffalo, New York

Review performed by:



Blasland, Bouck & Lee, Inc. Syracuse, New York

# Summary

The following is an assessment of the data package for Sample Delivery Group (SDG) #A04-C739 for sampling from the NYSEG Binghamton Court Street Site. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample		1	Analysis	1.2	A.L.
			Date	voc	svoc	РСВ	MET	MISC
BCTVCCR-0413-Q	A4C73901	Soil	12/21/2005	Х	X <sup>1</sup>		-	Х
		12.						
		-		-				-
		1.5		-				-
			10150					-
	1.1			19.3				
		1. Carlo 1.						
		_						
-				-				
			-	-				
			1.3-16.3					
			1.1.1.1.1.1					_
			10.00					
	1.4.1							
								-
1.1.1								
							1.1.1.	
		1.5			-		-	-
				-				

1. Matrix spike/matrix spike duplicate (MS/MSD) analyses performed on sample. 2.

Miscellaneous parameters include Diesel Range Organics (DRO).

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VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

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#### Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8260. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant Quality Control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

#### Holding Times

1.

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
States Security of the	Water	14 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2.
SW-846 8260	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cooled @ 4 °C.

All samples were analyzed within the specified holding times.

#### 2. Blank Contamination

Quality assurance blanks (i.e., method, trip, and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure contamination of samples during shipment. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All compounds associated with the QA blanks exhibited a concentration less than the MDL, with the exception of the compounds listed in the following table. Sample results associated with the following sample locations were qualified.

Sample Locations	Compounds	Sample Result	Qualification
BCTVCCR-0413-Q	Methylene chloride	Detected sample results >RL and <bal< td=""><td>U at detected sample concentration</td></bal<>	U at detected sample concentration

RL = reporting limit

#### 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

System performance and column resolution were acceptable.

#### 4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

#### 4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibited a %RSD less than the control limit (15%) and an RRF value greater than control limit (0.05).

#### 4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less then the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
BCTVCCR-0413-Q	ICV %RSD	Methylene chloride	23.1%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
	RRF <0.05	Non-detect	R
	RRF <0.05 RRF <0.01 <sup>1</sup> RRF >0.05 or RRF >0.01 <sup>1</sup>	Detect	J
Initial and		Non-detect	R
Continuing		Detect	J
Calibration		Non-detect	
		Detect	No Action
	1441 - 0.01	Detect	R
Initial Calibration	%RSD > 15%	Non-detect	UJ
	%R3D > 15%	Detect	J
	%D >20%	Non-detect	No Action
Continuing	(increase in sensitivity)	Detect	J
Calibration	%D >20%	Non-detect	UJ
	(decrease in sensitivity)	Detect	J

1. RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e. ketones, 1,4-Dioxane, etc.)

#### 5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

#### 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standards were within control limits.

#### 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

No MS/MSD samples were submitted with this SDG.

#### 8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

#### 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method.

No field duplicate sample was submitted with this SDG.

#### 10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

#### 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

SEMI-VOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

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#### Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8270. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

#### Data Assessment

#### **Holding Times**

1.

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C
377-040 0270	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C

All samples were analyzed within the specified holding times.

#### 2. Blank Contamination

Quality assurance blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A BAL of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

No compounds were detected in the associated blanks.

#### 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable.

System performance and column resolution were acceptable.

#### 4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

#### 4.1 Initial Calibration

The method specifies percent %RSD and RRF limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) and RRF value greater than control limit (0.05).

#### 4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a %D less then the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
BCTVCCR-0413-Q	ICV %RSD	Benzoic acid	54.8%
DCTVCCR-0413-Q		2,4-Dinitrophenol	19.6%
BCTVCCR-0413-Q	CCV %D	Benzoic acid	66.5%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification	
	RRF <0.05	Non-detect	R	
	KKF \$0.05	Detect	J	
Initial and	RRF < 0.01 <sup>1</sup>	Non-detect	R	
Continuing Calibration	KKF \$0.01	Detect	J	
	RRF >0.05 or RRF >0.01 <sup>1</sup>	Non-detect	No Action	
		Detect		
	1111 - 0.01	Detect	R	
Initial Calibration		Non-detect	UJ	
Initial Calibration	%RSD > 15%	Detect	J	
100	%D >20%	Non-detect	No Action	
Continuing Calibration	(increase in sensitivity)	Detect	J	
	%D >20%	Non-detect	UJ	
	(decrease in sensitivity)	Detect	J	

2. RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e. ketones, 1,4-Dioxane, etc.)

#### 5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

#### 6. Internal Standard Performance

Internal standard performance criteria insure that GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the SVOC to exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) the area counts of the associated continuing calibration standard.

All internal standard areas and retention times were within established limits.

#### 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The RPD between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compounds concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	Recovery
BCTVCCR-0413-Q	Acenaphthene <sup>1</sup>	0.0%
DC # VCCR-0413-Q	Pyrene <sup>1</sup>	0.0%

1. The compound associated with the parent sample analysis exhibited a concentration greater than four times the MS/MSD concentration; therefore none of the associated sample results were qualified.

Sample locations associated with MS/MSD recoveries exhibiting an RPD outside of the control limits presented in the following table.

Sample Locations	Compound	Recovery
	Acenaphthene <sup>1</sup>	>100.0%
BCTVCCR-0413-Q	Pyrene <sup>1</sup>	>100.0%

1. The compound associated with the parent sample analysis exhibited a concentration greater than four times the MS/MSD concentration; therefore none of the associated sample results were qualified.

The criteria used to evaluate the RPD between the MS/MSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification	
> UL	Non-detect	J	
	Detect	J	

#### 8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of

matrix interferences. The compounds associated with the LSC analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

#### 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method.

No field duplicate sample was submitted with this SDG.

#### 10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
BCTVCCR-0413-Q	Phenanthrene	69000 E	73000 D	73000 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentration greater than the linear range qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

#### 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DIESEL RANGE ORGANICS (DRO) ANALYSES

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#### Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8015B. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by GC/MS.
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

#### 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8015B	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C

All samples were analyzed within the specified holding times.

#### 2. Blank Contamination

Quality assurance blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

No compounds were detected in the associated blanks.

#### 3. System Performance

System performance and column resolution were acceptable.

#### 4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

#### 4.1 Initial Calibration

A maximum RSD of 20% is allowed.

#### 4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibited percent difference (%D) less then the control limit (15%).

All calibration criteria were within the control limits.

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#### 5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. TPH-GRO and TPH-DRO/TPH-RRO analyses require that all surrogate compounds must exhibit recoveries within the laboratory established acceptance limits.

Sample locations associated with surrogates exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Surrogate	Recovery
BCTVCCR-0413-Q	o-Terphenyl	D

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results associated with the deviant fraction are qualified as documented in the table below.

Control Limit	Sample Result	Qualification	
> the upper control limit (UL)	Non-detect	No Action	
	Detect	J	
< the lower control limit (LL) but > 10%	Non-detect	J	
and the second second second second second second second second second second second second second second second	Detect	No Action J	
< 10%	Non-detect	R	
	Detect	J	
Two surrogate exhibiting recovery outside the control limits but greater	Non-detect	No Action	
than 10%.	Detect	ct J detect J ct J detect R ct J detect Q detect No Action ct	
Surrogates diluted below the calibration curve due to the high concentration of a target compounds	Non-detect	No Action	

#### 6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit a RPD within the laboratory established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compound's concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

No MS/MSD samples were submitted with this SDG.

#### 7. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LSC analysis must exhibit a percent recovery within the laboratory established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

# 8. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method.

No field duplicate sample was submitted with this SDG.

### 9. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

CORRECTED SAMPLE ANALYSIS DATA SHEETS

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#### NYSEG MEIHOD 8260 - TCL VOLATILE ORGANICS ANALYSIS DATA SHEET

Client No.

9/392

Lob Marros OTT Dufferla	Contract Diago Mar		BCTVCCR-0413-Q
Lab Name: STL Buffalo	Contract: EEMC MSR	<u>e</u>	
Iab Code: <u>REONY</u> Case No.:	SAS No.:	SDG No.:	
Matrix: (soil/water) SOIL		Lab Sample ID:	<u>A4C73901</u>
Sample wt/vol:5.00 (g/mL	) <u>G</u>	Lab File ID:	F5498.RR
Level: (low/med) LOW		Date Samp/Recv:	12/21/2004: 12/22/2004
* Moisture: not dec. <u>9.5</u> Heat	ed Purge: Y	Date Analyzed:	12/28/2004
GC Column: <u>DB-624</u> ID: <u>0.20</u>	(mn)	Dilution Factor:	1.00-
Soil Extract Volume: (uL)		Soil Aliquot Vol	une: (uL)
	Q	NEENTRATION UNITS:	

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG 0 67-64-1----ACETONE U . .25 71-43-2----BENZENE 11 12 75-27-4-----DICHLOROBROMOMETHANE . 5: U 75-25-2----BROMOFORM; 5 U 74-83-9----METHYLBROMIDE 5 U 78-93-3-----METHYL EIHYL KETONE 25: U 75-15-0----CARBON DISULFIDE J 2. 56-23-5-----CARBON TETRACHLORIDE. 5 U 108-90-7----CHLOROBENZENE 5 U 75-00-3-----CHLOROETHANE 5 U. ... 67-66-3----CHICROFORM U 5 74-87-3-----CHIOPOMETHANE U 5 124-48-1----CHJORODIBRONDMETHANE U. S 75-34-3-----1, 1-DICHLOKOETHANE 5 U .: 107-06-2----1, 2-DICHLOROETHANE 5 U ... 75-35-4-----1, 1-DICHLOROETHYLENE 5 U 540-59-0-----1,2 DICHLOROETHENE (TOTAL) 10 U 78-87-5-----1,2-DICHLOROPROPANE 5 U 10061-01-5 --- CIS-1, 3-DICHLOROPROPENE U 5 10061-02-6----TRANS-1, 3-DICHLOROPROPENE U 5. ... 100-41-4----ETHYLBENZENE 98 591-78-6----2-HEXANONE U 25 BUJ 75-09-2----METHYLENE CHLORIDE ND (8.) 108-10-1-----4-METHYL-2-PENTANONE U 25 100-42-5----STYRENE 130 79-34-5-----1, 1, 2, 2-TETRACHLOROFTHANE U 5 127-18-4----TEIRACHLORDETHENE 5 U 103-88-3---- TOLUENE 100. 71-55-6-----1, 1, 1-'IRICHLOROETHANE U : 5 79-00-5-----1,1,2-TRICHLOROETHANE 5. U 79-01-6----TRICHLOROSTHENE U 5 . 4 108-05-4----VINYL ACETATE 25. U 75-01-4-----VINYL CHLORIDE U 10' 1330-20-7----TUTAL XYLENES 200

FORM I - GC/MS VOA

### NEW YORK STATE ELECTRIC & GAS NYSEG 8270 - TCL SEMI-VOLATILE ORGANICS + PYRIDINE ANALYSIS OATA SHEET

Client No.

Lab Name: SIL Buffalo	Contract: EEMC MSPA		BCIVCCR-0413-Q
Lab Code: <u>REONY</u> Case No.:	SAS No.:	SDG No.:	a state and a
Matrix: (soil/water) SOIL		Lab Sample ID:	<u>A4C73901</u>
Sample wt/vol: _30.46 (g/mL)	<u>G</u>	Lab File ID:	W01282.RR
Level: (low/med) LOW		Date Samp/Recv:	12/21/2004 12/22/2004
% Moisture: <u>12.7</u> decanted: (Y	√N) ≚	Date Extracted:	12/22/2004
Concentrated Extract Volume: 1000(	uL)	Date Analyzed:	12/27/2004
Injection Volume: 1.00 (UL)		Dilution Factor:	10.00
GPC Cleanup: (Y/N) N pH:			

CAS NO.	COMPOUND	(ug/L or ug/Kg)	TS: UC/KG	Q
83-32-9	ACENAPHIHENE	-	25000	
208-96-8	ACENAPHTHYLENE		18000	1.5
	ANTHRACENE	WENT RUT LINE NO	19000	1
56-55-3	BENZO (A) ANIHRACENE		13000	
205-99-2	BENZO (B) FLUORANTHENE		5900	2.8
207-08-9	BENZO (K) FLUORANTHENE		5400	-
191-24-2	BENZO (GHI) PERYLENE		5900	1000
50-32-8	BENZO (A) PYRENE		11000	1.
65-85-0	BENZOIC ACID		54000	Uj
	BENZYL ALCOHOL		3700	U
	BIS (2-CHLOROETHOXY) METHANE	MISON	3700	U
	BIS (2-CHLOROEIHYL) ETHER		3700	U
108-60-1	BIS (2-CHLOROISOPROPYL) ETHER		3700	U
117-81-7	BIS (2-ETHYLHEXYL) PHIMALATE		3700	U
101-55-3	4-BROMOPHENYL PHENYL ETHER		3700	U
85-68-7	BUTYL BENZYL PHTHALATE		3700	U
105-47-8	4-CHLOROANILINE		3700	U
59-50-7	4-CHLORO-3-METHYLPHENOL		3700	U
91-58-7			3700	U
95-57-8	2-CHLOROPHENOL		3700	U
7005-72-3			3700	U
218-01-9	CHRYSENE		13000	
53-70-3	DIBENZO (A, H) ANTHRACENE	Share Care and	3700	U
132-64-9	DIBENZOFURAN	and the second se	3000	J
84-74-2	DI-N-BUTYL PHIHALATE		3700	U
95-50-1	1,2-DICHLOROBENZENE		3700	U
541-73-1	1, 3-DICHLOROBENZENE		3700	U
	1, 4-DIGLOROBENZENE		3700	U
91-94-1	3,3'-DICHLOROBENZIDINE		7400	U
120-83-2	2,4-DICHLOROPHENOL		3700	U
84-66-2	DIETHYLPHTHALATE		3700	U
105-67-9	2,4-DIMETHYLPHENOL		3700	U

FORM I - GC/MS BNA

11/392

## NEW YORK STATE ELECTRIC & GAS NYSEG 8270 - TCL SEMI-VOLATTLE ORGANICS + PYRIDINE ANALYSIS DATA SHEET

#### Client No.

			BCIVCCR-0413-0
Lab Name: SIL Buffalo	Contract: EEMC MSP/	<u> </u>	
Lab Code: <u>RECNY</u> Case No.:	SAS No.:	SDG No.:	A CAR AND AND AN
Matrix: (soil/water) SOIL		Lab Sample ID:	<u>A4C73901</u>
Sample wt/vol: _ <u>30.46</u> (g/mi)	<u>C</u>	Lab File ID:	W01282.RR
Level: (low/med) <u>LOW</u>		Date Samp/Recv:	12/21/2004 12/22/2004
<pre>% Moisture: <u>12.7</u> cecanted: (Y</pre>	/N) <u>Y</u>	Date Extracted:	12/22/2004
Concentrated Extract Volume: 1000 (	<u>uL)</u>	Date Analyzed:	12/27/2004
Injection Volume: <u>1.00</u> (uL)		Dilution Factor	10.00
GPC Cleanup: (Y/N) N pH:			

CONCENTRATION UNITS:

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CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG_	Q
131-11-3	DIMETHYLPHTHALATE		3700	U
534-52-1			18000	U
51-28-5	2,4-DINITROPHENOL		18000	10
	2,4-DINITROTOLUENE		3700	U
	2,5-DINITROTOLUENE		3700	U
	DI -N-OCTYL PHTHALATE		3700	U
205-44-0	FLUCRANTHENE	E States and the	23000	
85-73-7	FILORENE	ALL DE LE DIVE	24000	1.1
118-74-1	HEXACHLOPOBENZENE		3700	U
87-68-3	HEXACHLORO-1, 3-BUTADIENE		3700	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	and the second s	3700	U
	HEXACHLOROETMANE	the provide an and the provide and	3700	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE		4200	
	ISOPHORONE		3700	U
	2-METHYLNAPHTHALEL ENE		46000	
			3700	IJ
			3700	U
91-20-3	NPPHTHALENE	A CONTRACTOR OF A CONTRACTOR OFTA CONTRACTOR O	49000	
88-74-4			18000	U
			18000	U
100-01-6			18000	U
98-95-3	NITROBENZENE		3700	U
88-75-5	2-NITROPHENOL	A DESCRIPTION OF THE OWNER OF THE	3700	U
100-02-7		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	18000	U
86-30-6	N-NITROSODIPHENYLAMINE	CONTRACTOR OF STREET	3700	U
	N-NITROSODI-N-PROPYLAMINE		3700	U
	PENTACHLOROPHENOL		18000	IJ
	PHRIANTHRENE		69000 73000	<b>E</b> -
108-95-2		Contraction of the local data	3700	Ũ
129-00-0			39000	
	1,2,4-TRICHLOROBENZENE	States and the second	3700	U.
	2,4,5-TRICHLOROPHENOL		9000	U

FORM I - CC/MS ENA

### NEW YORK STATE ELECTRIC & GAS NYSEG 8270 - TCL SEMI-VOLATILE ORGANICS + PYRIDINE ANALYSIS DATA SHEET

Client No.

			BCTVCCR-0413-Q
Lab Name: STL Buffalo	CONCIACE: <u>LEVE MSPA</u>	-	
Lab Code: <u>REONY</u> Case No.:	SAS No.:	SDG No.:	
Matrix: (soil/water) SOIL		Lab Sample ID:	<u>A4C73901</u>
Sample wt/vol:	<u>G</u>	Lab File ID:	W01232.RR
Level: (low/med) LOW		Date Samp/Recv:	12/21/2004 12/22/2004
% Moisture: <u>12.7</u> decanted: (Y/)	N) Y	Date Extracted:	12/22/2004
Concentrated Extract Volume: 1000 (u	<b>Г</b> )	Date Analyzed:	12/27/2004
Injection Volume: 1.00 (uL)		Dilution Factor:	10.00
GPC Cleanup: (Y/N) N pH:			
	CO.V	ENTRATION UNITS:	

 CAS NO.
 COMPOUND
 (ug/L or ug/Kg)
 UG/KG
 Q

 88-06-2----2,4,6-TRICHLOROPHENCL
 3700
 U

 -----Total Cresols
 7400
 U

 110-86-1----PYRIDINE
 17000
 U

IJ

U

U

IJ

U

7400

15000

7400

7400

7400

### NEW YORK STATE ELECTRIC & GAS NYSEG 8270 - TCL SEMI-VOLATILE ORGANICS + PYRIDINE ANALYSIS DATA SHEET

Client No.

		BCTVCCR-0413-Q DL
Lab Namè: <u>SIL Buffalo</u> Contra	ct: <u>EEMC MSPA</u>	
Lab Code: REONY Case No.: SAS	No.: SDG No.:	
Matrix: (soil/water) <u>SOIL</u>	Lab Sample ID:	A4C73901DL
Sample wt/vol:30.46 (g/mL) G	Leb File ID:	W01285.RR
Level: (low/med) LOW	Date Samp/Recv:	12/21/2004 12/22/2004
% Moisture: <u>12.7</u> decanted: $(Y/N) \underline{Y}$	Date Extracted:	12/22/2004
Concentrated Extract Volume: _1000 (uL)	Date Analyzed:	12/27/2004
Injection Volume: 1.00 (ub)	Dilution Factor:	20.00
GPC Cleanup: (Y/N) N pH:		

CAS	NO.	
-----	-----	--

106-45-7-----1, 4-DICHLOROBENZENE

120-83-2----2, 4-DICHLOROPHENOL

105-67-9-----2, 4-DIMETHYLPHENOL

84-66-2----DIETHYLPHTHALATE

91-94-1-----3, 3'-DICHLOROBENZIDINE

CAS NO. COMPOUND	(ug/L or ug/Kg)	UG/XG	Q
83-32-9ACENAPHIHENE		27000	D
208-96-8ACENAPHIHYLENE		20000	D
120-12-7ANIHRACENE	Services In All of All	20000	D
56-55-3BENZO (A) ANTHRACENE		13000	D
205-99-2BENZO (B) FLUORANTHENE		5100	DJ
207-08-9BENZO (K) FLUORANTHENE		6500	DJ
191-24-2BENZO (GHI) PERYLENE		5600	U
50-32-8BENZO (A) PYRENE		12000	D
65-85-0BENZOIC ACID		110000	U
100-51-6BENZYL ALCOHOL		7400	U
111-91-1BIS (2-CHLOROEIHOXY) METHANE		7400	U
111-44-4BIS (2-CHLOROEIHYL) ETHER		7400	U
108-60-1BIS (2-CHLOROISOPROPYL) EIHER		7400	U
117-81-7BIS (2-ETHYLHEXYL) PHTHALATE		7400	U
101-55-34-BROMOPHENYL PHENYL EIHER		7400	U
85-68-7BUIYL BENZYL PHIHALATE		7400	U
106-47-84-CHLOROANILINE		7400	U
59-50-74-CHLORO-3-METHYLPHENOL		7400	U
91-58-72-CHLORONAPHTHALENE		7400	U
95-57-82-CHLOPOPHENOL		7400	U
7005-72-34-CHLOROPHENYL PHENYL EIHER		7400	U
218-01-9CHRYSENE	THE PARTY OF A	13000	D
53-70-3DIBENZO (A, H) ANTHRACENE	a strain and the	7400	U
132-64-9DIEENZOFURAN		3100	\DJ
84-74-2DI-N-BUTYL PHTHALATE		7400	V
95-50-11, 2-DICHLOROBENZENE	The second second	7400	U
541-73-11, 3-DICHLOROBENZENE	Contraction of the	7400	U

CONCENTRATION UNITS:

FORM I - GC/MS ENA

#### NEW YORK STATE ELECTRIC & GAS NYSEG 8270 - TCL SEMI-VOLATILE ORGANICS + PYRIDINE ANALYSIS DATA SHEFT

Client No.

	BCIVCCR-0413-Q DL
Lab Name: <u>SIL Buffalo</u> Contract: <u>EEMC MS</u>	<u>2A</u>
Lab Code: RROWY Case No.: SAS No.:	SDG No.:
Matrix: (soil/water) SOIL	Lab Sample ID: <u>A4C73901DL</u>
Sample wt/vol: 30.46 (g/mL) G	Lab File ID: W01285.RR
Level: (low/med) Low	Date Samp/Recv: <u>12/21/2004 12/22/200</u>
<pre>% Moisture: <u>12.7</u> decanded: (Y/N) ¥</pre>	Date Extracted: <u>12/22/2004</u>
Concentrated Extract Volume: 1000 (uL)	Date Analyzed: <u>12/27/2004</u>
Injection Volume: 1.00 (uL)	Dilution Factor: <u>20.00</u>
GPC Cleanup: (Y/N) N pE:	
	CONCENTRATION UNITS:

CAS NO.	COMPOUND (ug/L or	ug/Kg) UG/HG	Q
131-11-3	DIMETHYLPHIHALATE	7400	IJ
534-52-1	4, 6-DINITRO-O-CRESOL	35000	U
51-28-5	2,4-DINITROPHENOL	36000	U
121-14-2	2,4-DINITROIDLUENE	7400	IJ
606-20-2	2, 6-DINITROTOLUENE	7400	U
117-84-0	DI-N-OCTYL PHTHALATE	7400	U
206-44-0	FLUORANIHENE	24000	D
86-73-7	FLUORENE	20000	D
118-74-1		7400	U
87-68-3	HEXACHLORO-1, 3-BUTADIENE	7400	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	7400	U
67-72-1	HEXACHLOROETHANE	7400	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	7400	U
78-59-1	ISOPHORONE	7400	U
91-57-6	2-METHYLNAPHINALENE	50000	D
95-48-7	2-METHYLPHENOL	7400	U
106-44-5	4-METHYLPHENOL	7400	U
91-20-3	NAPHTHALENE	53000	D
88-74-4	2-NITROANILINE	36000	U
99-09-2	3-NITROANILINE	36000	U
100-01-6	4-NITROANILINE	35000	U
98-95-3	NIIROBENZENE	7400	U
88-75-5	2-NITROPHENOL	7400	V
	4-NITROPHENOL	36000	D.
86-30-6	N-NITROSODIPHENYLAMINE	7400	U/
621-64-7	N-NITROSODI-N-PROPYLAMINE	7400	U
87-86-5	PENDACHLOROPHENOL	36000	U
	PHENANIHRENE	73000	D
108-95-2		7400	U
129-00-0	PYRENE	39000	D
120-82-1	1,2,4-TRICHLOROBENZENE	7400	U
	2,4,5-TRICHLOROPHENOL	18000	U

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# NEW YORK STATE ELECTRIC & GAS NYSEG 8270 - TCL SEMI-VOLATILE ORGANICS + FYRIDINE ANALYSIS DATA SHEET

Client No.

		BCIVOCR-0413-Q DL
Lab Name: <u>STL Buffalo</u> Contract: <u>EEVC MS</u>	DA	
Lab Code: RECINY Case No.: SAS No.:		
Matrix: (soil/water) <u>SOIL</u>	Iab Sample ID:	A4C73901DL
Sample wt/vol:30.46 (g/mL) G	Lab File ID:	WC1285.RR
Level: (low/med)	Date Samp/Recv:	12/21/2004 12/22/2004
% Moisture: <u>12.7</u> decented: $(Y/N) Y$	Date Extracted:	12/22/2004
Concentrated Extract Volume: 1000 (uL)	Date Analyzed:	12/27/2004
Injection Volume: 1.00 (uL)	Dilution Factor:	20.00
GPC Cleanup: (Y/N) N pH:		
CAS NO CONDINE	CONCENTRATION UNITS:	

88-06-22,4,6-TRICHLOROPHENOL	7400	U
Total Cresols	15000	U
110-86-1PYRIDINE	34000	U

NEW YORK STATE ELECTRIC & GAS NYSEG DIESEL RANGE ORGANICS - METHOD 80158 ANALYSIS DATA SHEET

Lab Nate: SIL Buffalo Contrac	t: <u>EEMC MSPA</u>	BCIVCCR-0413-Q
Lab Code: RECNY Case No.: SAS No.:	5DG No.:	
Matrix: (soil/water) <u>SOIL</u>	Lab Sample ID:	<u>A4C73901</u>
Sample wt/vol: $30.41$ (g/mL) <u>G</u>	Lab File ID:	24A11052.TX0
% Moisture: <u>12.7</u> decanted: (Y/N) <u>N</u>	Date Samp/Recv:	12/21/2004 12/22/2004
Extraction: (SepF/Cont/Sonc/South): SONC	Date Extracted:	12/27/2004
Concentrated Extract Volume: 1000 (uL)	Date Analyzed:	12/28/2004
Injection Volume: <u>100 (uL</u> )	Dilution Factor:	10.00
GPC Cleanup: (Y/N) N pH:_	Sulfur Cleanup:	(Y/N) <u>N</u>
CAS NO. COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>MG/KG</u>	Q
Diesel Range Organics	1200	

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Client No.

FORM I - GC EXT

# SAMPLE COMPLIANCE REPORT

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# SAMPLE COMPLIANCE REPORT

Sample		10-45			5.2.4		Compliancy <sup>1</sup>			Noncompliance
Sample Delivery Group	Sampling Date	Protocol	Sample ID	Matrix	voc	svoc	PCB/PEST/ HERB	MET	MISC	
A04-C739	12/21/2005	SW-846	BCTVCCR-0413-Q	Soil	Yes	No			Yes	VOC - ICAL %RSD, SVOC - ICAL %RSD, CCAL %D
								1		
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1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

# **APPENDIX G**

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# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION APPROVAL LETTER