MATRIX
ENVIRONMENTAL TECHNOLOGIES INC.
3730 California Road
P.O. Box 427
Orchard Park, NY 14127-0427
p: 716.662.0745
f: 716.662.0946
www.matrixbiotech.com

April 3, 2015

Ms. Francine Gallego
NYSDEC - Region 9
270 Michigan Avenue
Buffalo, New York 14203

RE: **Offsite Subsurface Investigation Results**
Former Sunoco Station
905 Elmwood Avenue
Buffalo, New York
METI Project #10-046
Sunoco DUNS# 0003-0387
Former NYSDEC Spill #0803566

Dear Ms. Gallego:

In accordance with the work plan date January 9, 2015, Matrix Environmental Technologies Inc. (METI) completed an offsite subsurface investigation, with respect to the referenced site, in February 2015. More specifically, four (4) soil borings, identified as SB108, SB109, SB110, and SB111 were completed as shown in **Figure 1** and borings SB109 and SB111 were completed as groundwater monitoring wells MW-A and MW-B, respectively, on February 5, 2015. Groundwater elevation gauging and sampling was completed on February 26, 2015. It was necessary to change (slightly) the locations of the soil borings from what was proposed due to conflicts with buried utilities.

Soil Borings and Soil Sampling Results

Prior to performing the soil borings, each location was hand-cleared using compressed air and hand tools to a depth of 5 feet below ground surface (bgs) to confirm the absence or presence of buried utilities. Nothnagle Drilling used a track-mounted Geoprobe 6610 to complete the soil borings and install the groundwater monitoring wells. Continuous soil samples were collected from each borehole via four foot Macrocore sample tubes.

Borings SB108 and SB110 were completed in the right of way directly north and west, respectively, of the Site. Borings SB109 and SB111 were completed in the right of way on the east side of Elmwood Avenue and in the sidewalk on the north side of West Delevan Avenue, respectively. The predominant soil type consists of a mix of reddish-brown silt and fine grained sand. Wet soils were observed between 5 to 8 feet bgs. Sampler refusals from assumed contact with bedrock were encountered in each boring from between 11.2 to 11.9 feet bgs. Refer to the attached soil boring logs for descriptions of the soil type and organic vapor meter (OVM) measurements.

Hydrocarbon odor and elevated OVM measurements, recorded in parts per million (ppm), were observed in boring SB108 from 5-9 feet bgs and in boring SB110 from 5-

11.5 feet bgs. Impacts were greatest in SB108 in the 5-6 foot depth interval (1,367 ppm OVM) and in SB110 in 5-6 foot sample depth interval (363 ppm OVM). Samples from those intervals were placed in glass jars and submitted to Accutest Laboratories for NYSDEC STARS-list volatile organic compound (VOC) concentrations analysis using EPA Method 8260. In accordance with the work plan, additional samples from the deepest depth intervals from borings SB108 and SB110 were also submitted for VOC analysis. No evidence of impacts was observed in borings SB109 and SB111; therefore, only samples from the groundwater interface from those borings were submitted for analysis.

The soil analytical results were compared to 6 NYCRR Part 375 Table 375-6.8(a), Unrestricted Use Soil Cleanup Objectives (SCOs) values and are summarized in **Table 1**, attached. Of the nine detected compounds in sample SB108 (5'-6'), five exceeded their respective SCO, with VOCs totaling 21,945 µg/kg (part per billion). Sample SB110 (10'-11.5') contained seven detected VOCs, only one of which exceeded its respective SCO. The total VOC concentration in SB110 (10'-11.5') was 4,883 µg/kg. The compounds in the remaining samples were below detection limits (ND).

Monitoring Well Installations and Groundwater Sampling Results

Groundwater monitoring wells MW-A and MW-B were constructed of 2-inch ID SCH40 PVC and consisted of 9 foot lengths of 0.01-inch slotted well screen with a threaded bottom cap connected to a 2 foot length of solid riser to just below ground surface. The well annulus was filled with #00N sand to approximately 12 inches above the top of the well screen and capped with bentonite. Each well was covered and protected with a flush-mounted steel, limited access curb box encased in concrete. Well construction details are attached.

Each well was developed on February 24, 2015, using a surge block and bailer. Groundwater elevation gauging and low-flow sampling using a peristaltic pump was performed on February 26, 2015. Samples were collected once parameters normalized or following 25 minutes, whichever came first. Copies of the field groundwater sampling summary sheets are attached for reference. Samples were collected and submitted for NYSDEC STARS-list VOC analysis using EPA Method 8260. Both samples were non-detect. Refer to **Table 2** for a summary of the groundwater sampling results. Copies of the Commercial B Level 2 laboratory analytical reports are attached. A data usability summary report (DUSR) using the full NYASP Commercial B results is being completed and will submitted under separate cover.

Based on the February 2015 Site data, it can be concluded that although hydrocarbon impacts were identified in soil in the right of way near the north and west property boundaries, the extents of the impacts appear limited and do not appear to extend further north across West Delavan Avenue or further west across Elmwood Avenue.

If you have any questions, please contact Matrix Environmental at 716-662-0745.

Sincerely,
Matrix Environmental Technologies Inc.

D. Robert Gill, C.P.G.
Sr. Geologist

Craig D. Zink, P.G., C.P.G.
Sr. Project Manager

cc: Ms. Kinyorda Sliwiak, Sunoco, Inc. (R&M)
Mr. David Locey, NYSDEC
Mr. Martin Doster, NYSDEC
Mr. Bill Paladino, Ellicott Development
Mr. Mike Lesakowski, Benchmark Environmental Engineering & Science, PLLC

Attachments: Figure 1 – Site Map with Soil Boring and Monitoring Well Locations
Table 1 – Soil VOC Concentration Summary Table (2/5/15)
Table 2 – Groundwater VOC Concentration Summary Table (2/26/15)
Soil Boring Logs – SB109-SB111
Groundwater Monitoring Well Construction Detail (MW-A & MW-B)
Groundwater Sampling Summary Sheets (February 26, 2015)
Laboratory Analytical Reports – February 5, 2015 (soil) and February 26, 2015 (groundwater)

FIGURES

EVANS BANK

SB111/MW-A
5.8'-6.5'
ND

WEST DELEVAN AVENUE

Street Lights

Sidewalk

U U U

SB108
5'-6'
21,945

P-7 P-8 P-6 87,690 P-11 8,063 P-3 221,870 P-4 496,600 P-5

P-10 P-9 648,610 P-12 6,310,000

B102
20,528
6'-8'

Pavement

UST

492,840

P-1

Former UST

P-2

B101
12,140
6'-8'

200,000

20,000

2,000

GAS

GAS

UST

3-Story Building
w/ Basement
Great Wall Chinese Restaurant
& Apartments

3-Story Residence w/ Basement

3-Story Residence w/ Basement

R w/

Store

B103
79,030
6'-8'

20,000

2,000

SB110
10'-11.5'
4,883

B104
2,796
8'-10'

Repair Bays

Sidewalk

CANOPY & DISPENSER ISLAND

B105
4,421
4'-7.5'

B106
8,970
4'-6'

2,000

Repair Bays

Cement

Kerosene Pump

B107
ND
8'-9.5'

Pavement

SB109/MW-A
5.8'-6.5'
ND

ELMWOOD AVENUE

3-Story Building
w/ Basement
Evolution Yoga
& Residence

LEGEND

- Approximate Property Line
- Fence
- U — Electrical and Fiber Optic Utilities
- P-7 — Geoprobe Boring completed by EmpireGEO Services (11/20/10)
- Storm Drain Grate
- Geoprobe Boring completed by Matrix (4/21/11)
- Total VOC concentrations shown in micrograms per kilogram.
- Soil Boring Location by Matrix (2 / 5 / 15)
- Soil Boring & Groundwater Monitoring Well Location by Matrix (2 / 5 / 15)

Note: Figure details are approximate and should not be relied on for purposes other than those specifically authorized by METI. Figure details based on Erie County Mapping System property lines and 2008 aerial overlay. Boring and UST locations approximated, based on EmpireGEO Services unscaled Figure 1 dated 11/17/10.

SCALE
1" = 20'

0 20

DRAWN BY	HLP	4/21/11
CHECKED BY		
APPROVED BY		
REVISED	DRG	3/31/15

PROJECT # 10-046

FORMER GASOLINE STATION
905 ELMWOOD AVENUE
BUFFALO NEW YROK
prepared for
SUNOCO, INC. (R&M)
SYRACUSE, NY

Figure 1:

SITE MAP with
SOIL BORING &
GROUNDWATER MONITORING
WELL LOCATIONS
(FEBRUARY 5, 2015)

MATRIX
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TABLES

TABLE 1
SOIL VOC CONCENTRATIONS SUMMARY (µg/kg)

Gas Station
905 Elmwood Avenue
Buffalo, NY
Sunoco DUNS #0003-0387
(February 5, 2015)

Compound	Part 375 SCOs*	SB108 5'-6'	SB108 11'-11.5'	SB109 5.8'-6.5'	SB110 5'-6'	SB110 10'-11.5'	SB111 6.5'-8'
Benzene	60	ND<32	ND<34	ND<33	ND<28	ND<29	ND<31
n-Butylbenzene	12,000	**917**	ND<340	ND<330	ND<280	ND<290	ND<310
sec-Butylbenzene	11,000	ND<320	ND<340	ND<330	ND<280	ND<290	ND<310
tert-Butylbenzene	5,900	ND<320	ND<340	ND<330	ND<280	ND<290	ND<310
Ethylbenzene	1,000	**1,110**	ND<140	ND<130	ND<110	**299**	ND<130
Isopropylbenzene	2,300	**388**	ND<340	ND<330	ND<280	ND<290	ND<310
p-Isopropyltoluene	10,000	ND<320	ND<340	ND<330	ND<280	ND<290	ND<310
n-Propylbenzene	3,900	**1,100**	ND<340	ND<330	ND<280	**363**	ND<310
Toluene	700	ND<320	ND<340	ND<330	ND<280	ND<290	ND<310
1,2,4-Trimethylbenzene	3,600	**8,400**	ND<340	ND<330	ND<280	**2,290**	ND<310
1,3,5-Trimethylbenzene	8,400	**2,680**	ND<340	ND<330	ND<280	**662**	ND<310
m,p-Xylene	260	**5,530**	ND<140	ND<130	ND<110	**1,100**	ND<130
o-Xylene	260	**1,820**	ND<140	ND<130	ND<110	**169**	ND<130
Total STARS	-	**21,945**	ND	ND	ND	**4,883**	ND

MTBE	930	ND<130	ND<140	ND<130	ND<110	ND<120	ND<130
Naphthalene	12,000	**950**	ND<340	ND<330	ND<280	**637**	ND<310

* = 6 NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives, Table 375-6.8(a)
ND = compound not detected
Bold indicates compound detected above detection limit.
Highlighted concentrations exceed part 375 SCO
Samples analyzed using EPA Method 8260

TABLE 2
GROUNDWATER VOC CONCENTRATIONS SUMMARY (µg/L)

Gas Station
905 Elmwood Avenue
Buffalo, NY
Sunoco DUNS #0003-0387
(February 26, 2015)

Compound	MW-A	MW-B
Benzene	ND<0.50	ND<0.50
n-Butylbenzene	ND<5.0	ND<5.0
sec-Butylbenzene	ND<5.0	ND<5.0
tert-Butylbenzene	ND<5.0	ND<5.0
Ethylbenzene	ND<1.0	ND<1.0
Isopropylbenzene	ND<5.0	ND<5.0
p-Isopropyltoluene	ND<5.0	ND<5.0
n-Propylbenzene	ND<5.0	ND<5.0
Toluene	ND<1.0	ND<1.0
1,2,4-Trimethylbenzene	ND<5.0	ND<5.0
1,3,5-Trimethylbenzene	ND<5.0	ND<5.0
m,p-Xylene	ND<1.0	ND<1.0
o-Xylene	ND<1.0	ND<1.0
Xylene (total)	ND<1.0	ND<1.0
TOTAL STARS VOCs	ND	ND
MTBE	ND<1.0	ND<1.0
Naphthalene	ND<5.0	ND<5.0

ND = compound not detected
Samples analyzed using EPA Method 8260
MW-A installed in completed boring MW109 in front of Evolation Yoga
MW-B installed in completed boring MW111 in front of Evans Bank

SOIL BORING LOGS

Matrix Environmental Technologies Inc. **SUBSURFACE LOG**

PROJECT & LOCATION:	905 Elmwood Ave., Buffalo, NY	PROJECT No.	10-046
CLIENT:	Sunoco	WELL/BORING ID:	**SB108**
START DATE:	2/5/2015 COMPLETION DATE: 2/5/2015	RECORDED BY:	C. Zink
GROUNDWATER DEPTH WHILE DRILLING:	approx. 7.5'	GROUNDWATER DEPTH AFTER COMPLETION:	not measured
WEATHER:	extremely cold DRILLING CONTRACTOR/DRILLERS: Nothnagle Drilling		
DRILL RIG:	GEOPROBE DRILL SIZE & TYPE: 6610 DIRECT PUSH	HAMMER Type:	HYDRAULIC
		Sampler Type:	MACROCORE (MC)

Sample Depth (ft)	Sample No.	Sample Interval (feet)	OVM Reading (ppm)	Recovery (inches)	Material Classification trace – 1-10% little – 11-20% some – 21-35% and – 36-50% f-fine m-medium c-coarse
					Air knife used to hand-clear the boring for utilities (0'-5'), samples of cuttings collected but not characterized.
1					
2		0-2	42		
3		2-3	3.4		
4		3-4	3.4		
5		4-5	3.4		
	1	5-8		36	Reddish brown SILT, some f Sand, little (-) f Gravel (angular to subangular), moist to wet, firm,
6		5-6	1,367		hydrocarbon odor
7		6-7	1,092		
					Reddish brown SILT, some f Sand, little (-) cf Gravel (angular to subangular), wet, firm,
8		7-8	1,107		hydrocarbon odor
		8-11.9		38	
9		8-9	64.8		
					Reddish brown SILT, some f Sand, little (+) cf Gravel (angular to subangular), saturated, firm,
10		9-10	10.1		slight hydrocarbon odor.
11		10-11	11.3		
		11-11.9	11.5		Brown SILT, little f Sand, trace f Gravel (angular to subangular), saturated, firm, no hydrocarbon odor
12					Refusal at 11.9', assumed top of bedrock.
					Bottom of boring - 11.9 feet
13					
14					
15					
16					
18					
20					
22					
24					
26					
28					
30					

MC - Geoprobe Macrocore SS - Split Spoon SH - Shelby Tube C - Bedrock Core ND - Non-detect

Matrix Environmental Technologies Inc. **SUBSURFACE LOG**

PROJECT & LOCATION:	905 Elmwood Ave., Buffalo, NY	PROJECT No.	10-046
CLIENT:	Sunoco	WELL/BORING ID:	**SB109**
START DATE:	2/5/2015 COMPLETION DATE: 2/5/2015	RECORDED BY:	C. Zink
GROUNDWATER DEPTH WHILE DRILLING:	approx. 7.5'	GROUNDWATER DEPTH AFTER COMPLETION:	not measured
WEATHER:	extremely cold DRILLING CONTRACTOR/DRILLERS: Nothnagle Drilling		
DRILL RIG:	GEOPROBE DRILL SIZE & TYPE: 6610 DIRECT PUSH	HAMMER Type:	HYDRAULIC
		Sampler Type:	MACROCORE (MC)

Sample Depth (ft)	Sample No.	Sample Interval (feet)	OVM Reading (ppm)	Recovery (inches)	Material Classification trace – 1-10% little – 11-20% some – 21-35% and – 36-50% f-fine m-medium c-coarse
					Air knife used to hand-clear the boring for utilities (0'-5'), samples of cuttings collected but not characterized.
1					
2		0-2	2.0		
3		2-3	0		
4		3-4	0		
5	1	5-8		36	Reddish brown SILT, some f Sand, moist, firm, no hydrocarbon odor
6		5-6	0		Reddish brown f SAND, some Silt, little (-) f Gravel (angular to subangular), trace c Gravel (SA to SR)
7		6-7	0		wet at 7.5', firm, no hydrocarbon odor
8		7-8	0		
9		8-11.2		36	Brown f SAND, lttle Silt, trace f Gravel (SA-SR), saturated, no hydrocarbon odor.
10		8-9	0		
11		9-10	0		
		10-11	0		
		11-11.2	0		Refusal at 11.2', assumed top of bedrock.
12					Bottom of boring - 11.2'
13					
14					
15					
16					
18					
20					
22					
24					
26					
28					
30					

Notes: 2-inch diameter PVC monitoring well installed in the boring with 9 feet of 0.010-inch slot screen and approx. 2 feet of casing.

MC - Geoprobe Macrocore SS - Split Spoon SH - Shelby Tube C - Bedrock Core ND - Non-detect

Matrix Environmental Technologies Inc. **SUBSURFACE LOG**

PROJECT & LOCATION:	905 Elmwood Ave., Buffalo, NY	PROJECT No.	10-046
CLIENT:	Sunoco	WELL/BORING ID:	**SB110**
START DATE:	2/5/2015 COMPLETION DATE: 2/5/2015	RECORDED BY:	C. Zink
GROUNDWATER DEPTH WHILE DRILLING:	approx. 7.5'	GROUNDWATER DEPTH AFTER COMPLETION:	not measured
WEATHER:	extremely cold DRILLING CONTRACTOR/DRILLERS: Nothnagle Drilling		
DRILL RIG:	GEOPROBE DRILL SIZE & TYPE: 6610 DIRECT PUSH	HAMMER Type:	HYDRAULIC
		Sampler Type:	MACROCORE (MC)

Sample Depth (ft)	Sample No.	Sample Interval (feet)	OVM Reading (ppm)	Recovery (inches)	Material Classification trace – 1-10% little – 11-20% some – 21-35% and – 36-50% f-fine m-medium c-coarse
					Air knife used to hand-clear the boring for utilities (0'-5'), samples of cuttings collected
1					but not characterized.
2		0-2	0		
3		2-3	0		
4		3-4	0		
				41	
5					
	1	5-8			Brown to Reddish brown SILT and f Sand, little f Gravel, (angular to subangular), firm, hydrocarbon
6		5-6	363		odor
7		6-7	139		
8		7-8	2		
		8-11.2		40	Reddish brown SILT, little f Sand, little (-) mf Gravel (angular to subangular)
9		8-9	0		wet, firm, no hydrocarbon odor
					Brown to reddish brown f SAND and SILT, little (-) mf Gravel (A to SA), saturated, hydrocarbon odor.
10		9-10	76.8		
					Brown f SAND, some Silt, little (+) cf Gravel (A to SA), saturated, hydrocarbon odor.
11		10-11.5	168		
					Refusal at 11.5', assumed top of bedrock.
12					Bottom of boring - 11.5'
13					
14					
15					
16					
18					
20					
22					
24					
26					
28					
30					

MC - Geoprobe Macrocore SS - Split Spoon SH - Shelby Tube C - Bedrock Core ND - Non-detect

Matrix Environmental Technologies Inc. **SUBSURFACE LOG**

PROJECT & LOCATION:	905 Elmwood Ave., Buffalo, NY	PROJECT No.	10-046
CLIENT:	Sunoco	WELL/BORING ID:	**SB111**
START DATE:	2/5/2015 COMPLETION DATE: 2/5/2015	RECORDED BY:	C. Zink
GROUNDWATER DEPTH WHILE DRILLING:	approx. 7.5'	GROUNDWATER DEPTH AFTER COMPLETION:	not measured
WEATHER:	extremely cold DRILLING CONTRACTOR/DRILLERS: Nothnagle Drilling		
DRILL RIG:	GEOPROBE DRILL SIZE & TYPE: 6610 DIRECT PUSH	HAMMER Type:	HYDRAULIC
		Sampler Type:	MACROCORE (MC)

Sample Depth (ft)	Sample No.	Sample Interval (feet)	OVM Reading (ppm)	Recovery (inches)	Material Classification trace – 1-10% little – 11-20% some – 21-35% and – 36-50% f-fine m-medium c-coarse
1					Air knife used to hand-clear the boring for utilities (0'-5'), samples of cuttings collected but not characterized.
2		0-2	0		
3		2-3	0		
4		3-4	0		
5	1	5-8		36	Reddish brown SILT, some f Sand, little (-) mf Gravel (angular to subrounded), trace c Gravel (SR)
6		5-6	0		mosit, wet at 7', firm, no hydrocarbon odor
7		6-7	0		
8		7-8	0		
9		8-11.2		36	Reddish brown f SAND and SILT, little (-) mf Gravel (SA to SR), trace c Gravel (SR), saturated, no hydrocarbon odor
10		8-9	0		
11		9-10	0		Reddish brown f SAND, some SILT, little cf Gravel (SA to SR), saturated, no hydrocarbon odor.
12		10-11	0		
		11-11.2	0		Refusal at 11.3', assumed top of bedrock.
					Bottom of boring - 11.3'.

Notes: 2-inch diameter PVC monitoring well installed in the boring with 9 feet of 0.010-inch slot screen and approx. 2 feet of casing.

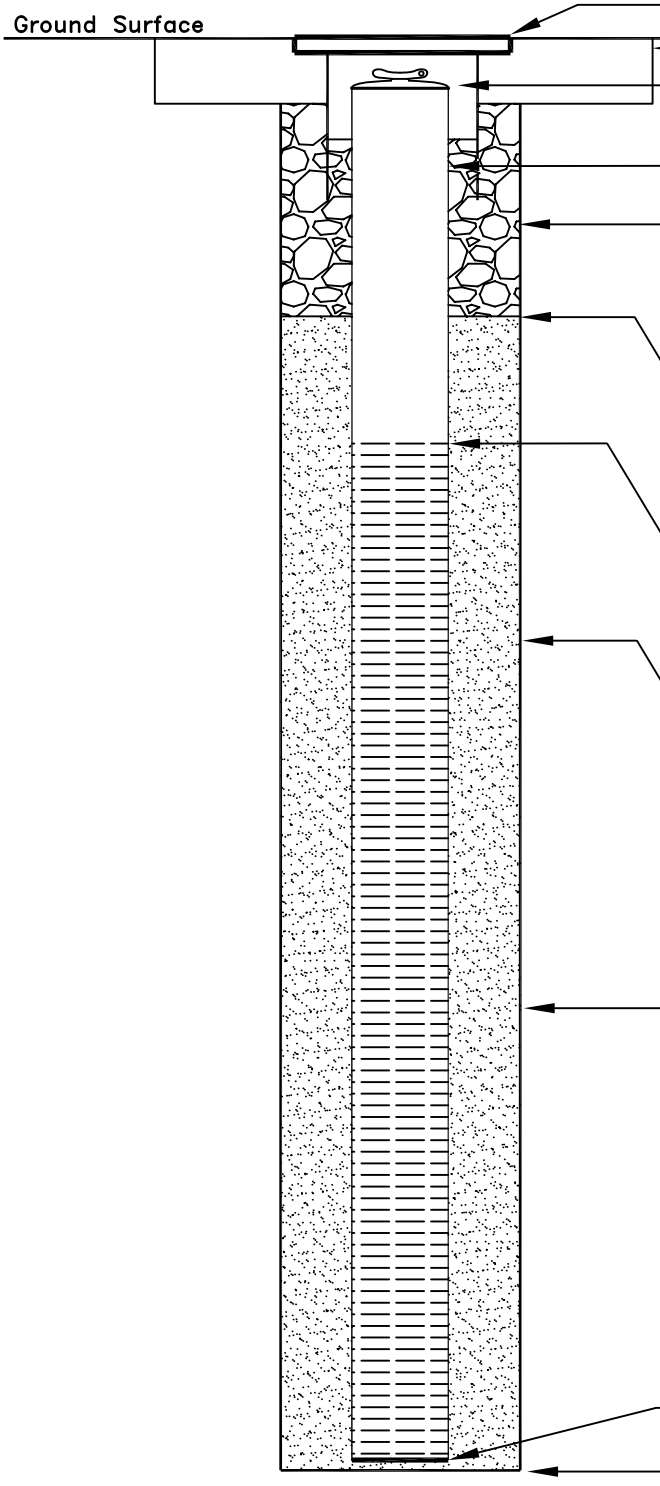
MC - Geoprobe Macrocore SS - Split Spoon SH - Shelby Tube C - Bedrock Core ND - Non-detect

WELL CONSTRUCTION DETAILS

MATRIX
Environmental Technologies

WELL CONSTRUCTION DETAIL

PROJECT LOCATION:	905 Elmwood Ave., Buffalo, NY	PROJECT NUMBER:	10-046
WELL TYPE:	Groundwater Monitoring Well	WELL NUMBER:	MW-A and MW-B
CONSTRUCTION DATE:	FEBRUARY 5, 2015	SUPERVISED BY:	MATRIX (CDZ)
DRILLING COMPANY:	NOTHNAGLE DRILLING	DRILLERS:	JEFF
DRILL RIG MODEL:	GEOPROBE MODEL 6610		NICK



PROTECTIVE 8 in STEEL CURB BOX

CONCRETE PAD

CASING ELEVATION (FT): NOT SURVEYED

TYPE OF RISER: 2 in ID SCH 40 PVC

TYPE OF SURFACE SEAL: Bentonite Mix

TOP OF FILTER PACK: 1.6'

TOP OF SCREEN: 2.2'

TYPE OF SCREEN: 2 in ID SCH 40 PVC .010 slot

TYPE OF FILTER PACK: #00N silica sand

DIAMETER OF BOREHOLE: 6.25 inch OD Nominal

BOTTOM OF SCREEN: 11.0'

11.2' MW-A

BOTTOM OF BOREHOLE: 11.3' MW-B

NOT TO SCALE

FIELD SAMPLING SHEETS

FIELD OBSERVATIONS

Facility: 915 Elmwood Sample Point ID: MW-4

Field Personnel: DK Sample Matrix: GW

MONITORING WELL INSPECTION

Date/Time: 2-26-15 Condition of seal: (✓) Good ( ) Cracked %

( ) None ( ) Buried

Horriba U53G

Prot. Casing/Riser Height: Condition of Prot. Casing/Riser: ( ) unlocked (✓) Good ( ) loose ( ) flush mount ( ) Damaged

if prot casing; depth to riser below:

Gas Meter Calibration/Reading: % Gas % LEL:

Vol. Organic Matter (Calibration/Reading): Volatiles (ppm):

PURGE INFORMATION

Date/Time Initiated: 9:10 Date/Time Completed: 10:30

Surf. Meas. Point: ( ) Pro Casing (✓) Riser Riser Diameter (inches) 2"

Initial Water Level (ft): 7.60 Elevation G/W MSL:

Well Total Depth (ft): Method of Well Purge Peristaltic

One (1) Riser Vol (gal): Dedicated: Y (N)

Total Volume Purged (gal): Appx 2.5L Purged to Dryness: Y (N)

Purge Observations: Clear water Start 9:15 Finish 10:30

PURGE DATA (if applicable)

Time	Water Level	Purge Rate (~~gpm/hr~~)	Cumulative Volume	Temp (C)	pH (SU)	Conductivity (~~umhos/cm~~) mS/cm	Turb. (NTU)	ORP	DO	Other
10:00	8.18	175 mL/min		5.55	5.46	20.5 ms/cm	34	180	3.91	
10:05	8.53	125		4.51	6.38	16.1	15	130	4.36	
10:10	8.77	<125		2.62	6.71	17.4	4.8	113	2.19	
10:15	9.02	<125		2.70	6.96	17.3	0.0	96	1.28	
10:20	9.28	↓		2.45	7.12	17.8	0.0	79	0.70	
10:25	9.44	↓		2.09	7.20	18.1	0.0	66	0.00	

↳ Sample 10°F

FIELD OBSERVATIONS

Facility: 905 Elmwood Sample Point ID: MW B

Field Personnel: DK Sample Matrix: GW

MONITORING WELL INSPECTION

Date/Time: 2-26-15 10:45 Condition of seal: (✓) Good ( ) Cracked ____ %

Horriba U-53G ( ) None ( ) Buried

Prot. Casing/Riser Height: ____ Condition of Prot. Casing/Riser: ( ) unlocked (✓) Good ( ) loose ( ) flush mount ( ) Damaged ____

if prot casing; depth to riser below: ____

Gas Meter Calibration/Reading: % Gas ____ % LEL: ____

Vol. Organic Matter (Calibration/Reading): ____ Volatiles (ppm): ____

PURGE INFORMATION

Date/Time Initiated: 10:52 Date/Time Completed: 11:50

Surf. Meas. Point: ( ) Pro Casing (✓) Riser Riser Diameter (inches) 2"

Initial Water Level (ft): 7.26 Elevation G/W MSL: ____

Well Total Depth (ft): ____ Method of Well Purge Peristaltic

One (1) Riser Vol (gal): ____ Dedicated: Y (N)

Total Volume Purged (gal): ____ Purged to Dryness: Y / (N)

Purge Observations: Clear water Start Clear Finish got cloudy, a little bit

PURGE DATA (if applicable)

ml/min ms/cm

Time	Water Level	Purge Rate (gpm/htz)	Cumulative Volume	Temp (C)	pH (SU)	Conductivity (umhos/cm)	Turb. (NTU)	ORP	DO	Other
11:12	8.10	25		5.01	7.80	0.887	63	110	5.51	
11:17	8.35	125		5.11	7.54	0.865	52	127	4.09	
11:22	8.57	<125		5.31	7.44	0.861	365	131	3.94	
11:27	8.81	↓		4.73	7.39	0.858	46	131	4.09	
11:32	8.98			4.90	7.40	0.831	3.7	130	3.49	
11:37	9.13			4.93	7.40	0.819	0.0	130	3.13	

↳ Sample

11°F Sunt clouds

LABORATORY ANALYTICAL REPORTS (copies)

New England ACCUTEST LABORATORIES

02/16/15

Technical Report for

Sunoco

MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo

10-046

Accutest Job Number: MC36792

Sampling Date: 02/05/15

Report to:

analytical@matrixbiotech.com

ATTN: Distribution6

Total number of pages in report: **27**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

Test results relate only to samples analyzed.

Sections: 1 2 3 4 5

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Sample Summary

Sunoco

Job No: MC36792

MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY
Project No: 10-046

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC36792-1	02/05/15	09:40	CDZM	02/07/15	SO	Soil	SB110(5'-6')
MC36792-2	02/05/15	09:55	CDZM	02/07/15	SO	Soil	SB110(10'-11.5')
MC36792-3	02/05/15	10:20	CDZM	02/07/15	SO	Soil	SB108(5'-6')
MC36792-4	02/05/15	10:45	CDZM	02/07/15	SO	Soil	SB108(11'-11.5')
MC36792-5	02/05/15	10:55	CDZM	02/07/15	SO	Soil	SB111(6.5'-8.5')
MC36792-6	02/05/15	11:30	CDZM	02/07/15	AQ	Field Blank Soil	FIELD BLANK
MC36792-7	02/05/15	13:08	CDZM	02/07/15	SO	Soil	SB109(6.5'-8.5')
MC36792-8	02/05/15	13:35	CDZM	02/07/15	SO	Soil	SBXT
MC36792-9	02/05/15	00:00	CDZM	02/07/15	AQ	Trip Blank Water	TRIP BLANK

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Summary of Hits

Job Number: MC36792
Account: Sunoco
Project: MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY
Collected: 02/05/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC36792-1	**SB110(5'-6')**					
No hits reported in this sample.						
MC36792-2	**SB110(10'-11.5')**					
Ethylbenzene		299	120		ug/kg	SW846 8260C
Naphthalene		637	290		ug/kg	SW846 8260C
n-Propylbenzene		363	290		ug/kg	SW846 8260C
1,2,4-Trimethylbenzene		2290	290		ug/kg	SW846 8260C
1,3,5-Trimethylbenzene		662	290		ug/kg	SW846 8260C
m,p-Xylene		1100	120		ug/kg	SW846 8260C
o-Xylene		169	120		ug/kg	SW846 8260C
Xylene (total)		1270	120		ug/kg	SW846 8260C
MC36792-3	**SB108(5'-6')**					
n-Butylbenzene		917	320		ug/kg	SW846 8260C
Ethylbenzene		1110	130		ug/kg	SW846 8260C
Isopropylbenzene		388	320		ug/kg	SW846 8260C
Naphthalene		950	320		ug/kg	SW846 8260C
n-Propylbenzene		1100	320		ug/kg	SW846 8260C
1,2,4-Trimethylbenzene		8400	320		ug/kg	SW846 8260C
1,3,5-Trimethylbenzene		2680	320		ug/kg	SW846 8260C
m,p-Xylene		5530	130		ug/kg	SW846 8260C
o-Xylene		1820	130		ug/kg	SW846 8260C
Xylene (total)		7350	130		ug/kg	SW846 8260C
MC36792-4	**SB108(11'-11.5')**					
No hits reported in this sample.						
MC36792-5	**SB111(6.5'-8.5')**					
No hits reported in this sample.						
MC36792-6	**FIELD BLANK**					
No hits reported in this sample.						
MC36792-7	**SB109(6.5'-8.5')**					
No hits reported in this sample.						

Summary of Hits

Job Number: MC36792
Account: Sunoco
Project: MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY
Collected: 02/05/15

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method

MC36792-8 SBXT

No hits reported in this sample.

MC36792-9 TRIP BLANK

No hits reported in this sample.

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	SB110(5'-6')		
Lab Sample ID:	MC36792-1	**Date Sampled:**	02/05/15
Matrix:	SO - Soil	**Date Received:**	02/07/15
Method:	SW846 8260C	**Percent Solids:**	89.1
Project:	MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K85345.D	1	02/10/15	JM	n/a	n/a	MSK2670
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	11.1 g	10.0 ml	100 ul
Run #2			

VOA STARS List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	28	ug/kg	
104-51-8	n-Butylbenzene	ND	280	ug/kg	
135-98-8	sec-Butylbenzene	ND	280	ug/kg	
98-06-6	tert-Butylbenzene	ND	280	ug/kg	
100-41-4	Ethylbenzene	ND	110	ug/kg	
98-82-8	Isopropylbenzene	ND	280	ug/kg	
99-87-6	p-Isopropyltoluene	ND	280	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	110	ug/kg	
91-20-3	Naphthalene	ND	280	ug/kg	
103-65-1	n-Propylbenzene	ND	280	ug/kg	
108-88-3	Toluene	ND	280	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	280	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	280	ug/kg	
	m,p-Xylene	ND	110	ug/kg	
95-47-6	o-Xylene	ND	110	ug/kg	
1330-20-7	Xylene (total)	ND	110	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		65-141%
2037-26-5	Toluene-D8	103%		65-129%
460-00-4	4-Bromofluorobenzene	97%		63-137%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB110(10'-11.5')		
Lab Sample ID:	MC36792-2	**Date Sampled:**	02/05/15
Matrix:	SO - Soil	**Date Received:**	02/07/15
Method:	SW846 8260C	**Percent Solids:**	91.5
Project:	MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K85346.D	1	02/10/15	JM	n/a	n/a	MSK2670
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	10.3 g	10.0 ml	100 ul
Run #2			

VOA STARS List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	29	ug/kg	
104-51-8	n-Butylbenzene	ND	290	ug/kg	
135-98-8	sec-Butylbenzene	ND	290	ug/kg	
98-06-6	tert-Butylbenzene	ND	290	ug/kg	
100-41-4	Ethylbenzene	299	120	ug/kg	
98-82-8	Isopropylbenzene	ND	290	ug/kg	
99-87-6	p-Isopropyltoluene	ND	290	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	120	ug/kg	
91-20-3	Naphthalene	637	290	ug/kg	
103-65-1	n-Propylbenzene	363	290	ug/kg	
108-88-3	Toluene	ND	290	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	2290	290	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	662	290	ug/kg	
	m,p-Xylene	1100	120	ug/kg	
95-47-6	o-Xylene	169	120	ug/kg	
1330-20-7	Xylene (total)	1270	120	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		65-141%
2037-26-5	Toluene-D8	96%		65-129%
460-00-4	4-Bromofluorobenzene	99%		63-137%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB108(5'-6')		
Lab Sample ID:	MC36792-3	**Date Sampled:**	02/05/15
Matrix:	SO - Soil	**Date Received:**	02/07/15
Method:	SW846 8260C	**Percent Solids:**	85.8
Project:	MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K85347.D	1	02/10/15	JM	n/a	n/a	MSK2670
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	10.5 g	10.0 ml	100 ul
Run #2			

VOA STARS List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	32	ug/kg	
104-51-8	n-Butylbenzene	917	320	ug/kg	
135-98-8	sec-Butylbenzene	ND	320	ug/kg	
98-06-6	tert-Butylbenzene	ND	320	ug/kg	
100-41-4	Ethylbenzene	1110	130	ug/kg	
98-82-8	Isopropylbenzene	388	320	ug/kg	
99-87-6	p-Isopropyltoluene	ND	320	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	130	ug/kg	
91-20-3	Naphthalene	950	320	ug/kg	
103-65-1	n-Propylbenzene	1100	320	ug/kg	
108-88-3	Toluene	ND	320	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	8400	320	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	2680	320	ug/kg	
	m,p-Xylene	5530	130	ug/kg	
95-47-6	o-Xylene	1820	130	ug/kg	
1330-20-7	Xylene (total)	7350	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		65-141%
2037-26-5	Toluene-D8	102%		65-129%
460-00-4	4-Bromofluorobenzene	100%		63-137%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB108(11'-11.5')		
Lab Sample ID:	MC36792-4	**Date Sampled:**	02/05/15
Matrix:	SO - Soil	**Date Received:**	02/07/15
Method:	SW846 8260C	**Percent Solids:**	88.1
Project:	MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K85348.D	1	02/10/15	JM	n/a	n/a	MSK2670
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	9.22 g	10.0 ml	100 ul
Run #2			

VOA STARS List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	34	ug/kg	
104-51-8	n-Butylbenzene	ND	340	ug/kg	
135-98-8	sec-Butylbenzene	ND	340	ug/kg	
98-06-6	tert-Butylbenzene	ND	340	ug/kg	
100-41-4	Ethylbenzene	ND	140	ug/kg	
98-82-8	Isopropylbenzene	ND	340	ug/kg	
99-87-6	p-Isopropyltoluene	ND	340	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	140	ug/kg	
91-20-3	Naphthalene	ND	340	ug/kg	
103-65-1	n-Propylbenzene	ND	340	ug/kg	
108-88-3	Toluene	ND	340	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	340	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	340	ug/kg	
	m,p-Xylene	ND	140	ug/kg	
95-47-6	o-Xylene	ND	140	ug/kg	
1330-20-7	Xylene (total)	ND	140	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		65-141%
2037-26-5	Toluene-D8	97%		65-129%
460-00-4	4-Bromofluorobenzene	100%		63-137%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB111(6.5'-8.5')		
Lab Sample ID:	MC36792-5	**Date Sampled:**	02/05/15
Matrix:	SO - Soil	**Date Received:**	02/07/15
Method:	SW846 8260C	**Percent Solids:**	88.2
Project:	MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K85349.D	1	02/10/15	JM	n/a	n/a	MSK2670
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	10.1 g	10.0 ml	100 ul
Run #2			

VOA STARS List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	31	ug/kg	
104-51-8	n-Butylbenzene	ND	310	ug/kg	
135-98-8	sec-Butylbenzene	ND	310	ug/kg	
98-06-6	tert-Butylbenzene	ND	310	ug/kg	
100-41-4	Ethylbenzene	ND	130	ug/kg	
98-82-8	Isopropylbenzene	ND	310	ug/kg	
99-87-6	p-Isopropyltoluene	ND	310	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	130	ug/kg	
91-20-3	Naphthalene	ND	310	ug/kg	
103-65-1	n-Propylbenzene	ND	310	ug/kg	
108-88-3	Toluene	ND	310	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	310	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	310	ug/kg	
	m,p-Xylene	ND	130	ug/kg	
95-47-6	o-Xylene	ND	130	ug/kg	
1330-20-7	Xylene (total)	ND	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		65-141%
2037-26-5	Toluene-D8	103%		65-129%
460-00-4	4-Bromofluorobenzene	97%		63-137%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FIELD BLANK		
Lab Sample ID:	MC36792-6	**Date Sampled:**	02/05/15
Matrix:	AQ - Field Blank Soil	**Date Received:**	02/07/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U26147.D	1	02/10/15	GK	n/a	n/a	MSU1100
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA STARS List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		67-134%
2037-26-5	Toluene-D8	100%		79-121%
460-00-4	4-Bromofluorobenzene	99%		71-133%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB109(6.5'-8.5')		
Lab Sample ID:	MC36792-7	**Date Sampled:**	02/05/15
Matrix:	SO - Soil	**Date Received:**	02/07/15
Method:	SW846 8260C	**Percent Solids:**	87.1
Project:	MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K85350.D	1	02/10/15	JM	n/a	n/a	MSK2670
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	9.83 g	10.0 ml	100 ul
Run #2			

VOA STARS List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	33	ug/kg	
104-51-8	n-Butylbenzene	ND	330	ug/kg	
135-98-8	sec-Butylbenzene	ND	330	ug/kg	
98-06-6	tert-Butylbenzene	ND	330	ug/kg	
100-41-4	Ethylbenzene	ND	130	ug/kg	
98-82-8	Isopropylbenzene	ND	330	ug/kg	
99-87-6	p-Isopropyltoluene	ND	330	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	130	ug/kg	
91-20-3	Naphthalene	ND	330	ug/kg	
103-65-1	n-Propylbenzene	ND	330	ug/kg	
108-88-3	Toluene	ND	330	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	330	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	330	ug/kg	
	m,p-Xylene	ND	130	ug/kg	
95-47-6	o-Xylene	ND	130	ug/kg	
1330-20-7	Xylene (total)	ND	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		65-141%
2037-26-5	Toluene-D8	97%		65-129%
460-00-4	4-Bromofluorobenzene	97%		63-137%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SBXT		
Lab Sample ID:	MC36792-8	**Date Sampled:**	02/05/15
Matrix:	SO - Soil	**Date Received:**	02/07/15
Method:	SW846 8260C	**Percent Solids:**	87.5
Project:	MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K85351.D	1	02/10/15	JM	n/a	n/a	MSK2670
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	9.95 g	10.0 ml	100 ul
Run #2			

VOA STARS List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	32	ug/kg	
104-51-8	n-Butylbenzene	ND	320	ug/kg	
135-98-8	sec-Butylbenzene	ND	320	ug/kg	
98-06-6	tert-Butylbenzene	ND	320	ug/kg	
100-41-4	Ethylbenzene	ND	130	ug/kg	
98-82-8	Isopropylbenzene	ND	320	ug/kg	
99-87-6	p-Isopropyltoluene	ND	320	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	130	ug/kg	
91-20-3	Naphthalene	ND	320	ug/kg	
103-65-1	n-Propylbenzene	ND	320	ug/kg	
108-88-3	Toluene	ND	320	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	320	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	320	ug/kg	
	m,p-Xylene	ND	130	ug/kg	
95-47-6	o-Xylene	ND	130	ug/kg	
1330-20-7	Xylene (total)	ND	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		65-141%
2037-26-5	Toluene-D8	103%		65-129%
460-00-4	4-Bromofluorobenzene	97%		63-137%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	MC36792-9	**Date Sampled:**	02/05/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/07/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U26145.D	1	02/10/15	GK	n/a	n/a	MSU1100
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA STARS List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		67-134%
2037-26-5	Toluene-D8	99%		79-121%
460-00-4	4-Bromofluorobenzene	100%		71-133%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

FED-EX Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest Job #: MC36792

Client / Reporting Information

Company Name: Matrix Environmental
Street Address: PO Box 427
City / State / Zip: Orchard Park NY 14127
Project Contact: Craig Zinke / Rob Gill   E-mail:
Phone #: 716 662 0745   Fax #:
Sampler(s) Name(s): Craig A. Zinke   Phone #: 716 598 1907

Project Information

Project Name: 608 Former Sunoco Station
Street: 905 Elmwood Ave.
City: Buffalo
Project#: 10-046
Client PO#:
Project Manager: Rob Gill

Billing Information (If different from Report to)
Company Name:
Street Address:
City / State / Zip:
Attention: / PO#:

Requested Analysis (see TEST CODE sheet): EPA 8260 (STARS List)

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Bisulfate	EPA 8260 (STARS List)
-1	SB 110 (5'-6')		2-5-15	9:40A	CDZ	Soil	1					X					X
-2	SB 110 (10'-11.5')		2-5-15	9:55A	CDZ	Soil	1					X					X
-3	SB 108 (5'-6')		2-5-15	10:20A	CDZ	Soil	1					X					X
-4	SB 108 (11'-11.5')		2-5-15	10:45A	CDZ	Soil	1					X					X
-5	SB 111 (6.5'-8.5')		2-5-15	10:55A	CDZ	Soil	1					X					X
-6	Field Blank		2-5-15	11:30A	MJ	Water	3	X									X
-7	SB 109 (6.5'-8.5')		2-5-15	1:08P	CDZ	Soil	1					X					X
-8	SB XT		2-5-15	1:35P	CDZ	Soil	1					X					X
-9	Trip Blank						2										

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED - Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB - Equipment Blank; RB - Rinse Blank; TB - Trip Blank

LAB USE ONLY: 37 / 353

Turnaround Time (Business days)

- [x] Std. 10 Business Days
- [ ] Std. 5 Business Days (By Contract only)
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY

Approved By (Accutest PM): / Date:

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [x] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] CT RCP
- [ ] MA MCP
- [ ] NYASP Category A
- [x] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

ACCUTEST SYRACUSE-SC

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	2/6/15 1200	1 [signature]	2 [signature]		2 FX
3 [signature]	2/7/15 10:00	3 [signature]	4		4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	☐ Intact ☐ Not intact	Preserved where applicable ☐ / On Ice ☑ / Cooler Temp. 1.4°C

MC36792: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC36792 **Client:** MATRIX **Project:** 10-46

Date / Time Received: 2/7/2015 10:00:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (1.4/1.4);

Cooler Security

	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature

	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Thermometer ID:	G1;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation

	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation

	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition

	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions

	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:(508) 481-6200

495 Technology Center West, Bldg One
F: (508) 481-7753

Marlborough, MA 01752
www/accutest.com

MC36792: Chain of Custody
Page 2 of 2

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC36792
Account: SUNOCOSS Sunoco
Project: MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2670-MB	K85342.D	1	02/10/15	JM	n/a	n/a	MSK2670

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC36792-1, MC36792-2, MC36792-3, MC36792-4, MC36792-5, MC36792-7, MC36792-8

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	25	ug/kg	
104-51-8	n-Butylbenzene	ND	250	ug/kg	
135-98-8	sec-Butylbenzene	ND	250	ug/kg	
98-06-6	tert-Butylbenzene	ND	250	ug/kg	
100-41-4	Ethylbenzene	ND	100	ug/kg	
98-82-8	Isopropylbenzene	ND	250	ug/kg	
99-87-6	p-Isopropyltoluene	ND	250	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	100	ug/kg	
91-20-3	Naphthalene	ND	250	ug/kg	
103-65-1	n-Propylbenzene	ND	250	ug/kg	
108-88-3	Toluene	ND	250	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	250	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	250	ug/kg	
	m,p-Xylene	ND	100	ug/kg	
95-47-6	o-Xylene	ND	100	ug/kg	
1330-20-7	Xylene (total)	ND	100	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	105%	65-141%
2037-26-5	Toluene-D8	97%	65-129%
460-00-4	4-Bromofluorobenzene	97%	63-137%

Method Blank Summary

Job Number: MC36792
Account: SUNOCOSS Sunoco
Project: MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSU1100-MB	U26143.D	1	02/10/15	GK	n/a	n/a	MSU1100

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC36792-6, MC36792-9

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	91%	67-134%
2037-26-5	Toluene-D8	98%	79-121%
460-00-4	4-Bromofluorobenzene	96%	71-133%

Blank Spike Summary

Job Number: MC36792
Account: SUNOCOSS Sunoco
Project: MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2670-BS	K85339.D	1	02/10/15	JM	n/a	n/a	MSK2670

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC36792-1, MC36792-2, MC36792-3, MC36792-4, MC36792-5, MC36792-7, MC36792-8

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	2500	2240	90	67-124
104-51-8	n-Butylbenzene	2500	2310	92	68-129
135-98-8	sec-Butylbenzene	2500	2190	88	71-128
98-06-6	tert-Butylbenzene	2500	2140	86	67-128
100-41-4	Ethylbenzene	2500	2470	99	75-120
98-82-8	Isopropylbenzene	2500	2210	88	70-129
99-87-6	p-Isopropyltoluene	2500	2260	90	73-126
1634-04-4	Methyl Tert Butyl Ether	2500	2340	94	64-126
91-20-3	Naphthalene	2500	2070	83	51-164
103-65-1	n-Propylbenzene	2500	2180	87	68-129
108-88-3	Toluene	2500	2280	91	76-122
95-63-6	1,2,4-Trimethylbenzene	2500	2220	89	73-124
108-67-8	1,3,5-Trimethylbenzene	2500	2320	93	69-122
	m,p-Xylene	5000	4770	95	77-121
95-47-6	o-Xylene	2500	2350	94	78-122
1330-20-7	Xylene (total)	7500	7120	95	78-121

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	65-141%
2037-26-5	Toluene-D8	100%	65-129%
460-00-4	4-Bromofluorobenzene	97%	63-137%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC36792
Account: SUNOCOSS Sunoco
Project: MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSU1100-BS	U26140.D	1	02/10/15	GK	n/a	n/a	MSU1100

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC36792-6, MC36792-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	59.4	119	74-127
104-51-8	n-Butylbenzene	50	61.5	123	75-140
135-98-8	sec-Butylbenzene	50	59.5	119	74-139
98-06-6	tert-Butylbenzene	50	58.8	118	71-141
100-41-4	Ethylbenzene	50	53.2	106	75-129
98-82-8	Isopropylbenzene	50	58.3	117	76-138
99-87-6	p-Isopropyltoluene	50	59.7	119	77-137
1634-04-4	Methyl Tert Butyl Ether	50	59.6	119	62-134
91-20-3	Naphthalene	50	57.4	115	32-196
103-65-1	n-Propylbenzene	50	56.6	113	74-138
108-88-3	Toluene	50	55.0	110	75-134
95-63-6	1,2,4-Trimethylbenzene	50	59.8	120	76-133
108-67-8	1,3,5-Trimethylbenzene	50	63.8	128	72-131
	m,p-Xylene	100	103	103	74-129
95-47-6	o-Xylene	50	51.5	103	77-127
1330-20-7	Xylene (total)	150	154	103	75-128

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	103%	67-134%
2037-26-5	Toluene-D8	103%	79-121%
460-00-4	4-Bromofluorobenzene	100%	71-133%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC36792
Account: SUNOCOSS Sunoco
Project: MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC36792-8MS	K85352.D	1	02/10/15	JM	n/a	n/a	MSK2670
MC36792-8MSD	K85353.D	1	02/10/15	JM	n/a	n/a	MSK2670
MC36792-8	K85351.D	1	02/10/15	JM	n/a	n/a	MSK2670

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC36792-1, MC36792-2, MC36792-3, MC36792-4, MC36792-5, MC36792-7, MC36792-8

CAS No.	Compound	MC36792-8 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		3230	3000	93	3230	2970	92	1	34-139/30
104-51-8	n-Butylbenzene	ND		3230	3140	97	3230	3090	96	2	10-164/30
135-98-8	sec-Butylbenzene	ND		3230	3030	94	3230	2780	86	9	15-160/30
98-06-6	tert-Butylbenzene	ND		3230	3020	94	3230	2590	80	15	16-158/30
100-41-4	Ethylbenzene	ND		3230	3290	102	3230	3390	105	3	24-146/30
98-82-8	Isopropylbenzene	ND		3230	3030	94	3230	2860	89	6	20-158/30
99-87-6	p-Isopropyltoluene	ND		3230	3110	96	3230	2920	90	6	12-161/30
1634-04-4	Methyl Tert Butyl Ether	ND		3230	2950	91	3230	3230	100	9	47-138/30
91-20-3	Naphthalene	ND		3230	2460	76	3230	2590	80	5	10-188/30
103-65-1	n-Propylbenzene	ND		3230	2980	92	3230	2920	90	2	10-167/30
108-88-3	Toluene	ND		3230	3050	94	3230	3210	99	5	30-147/30
95-63-6	1,2,4-Trimethylbenzene	ND		3230	3040	94	3230	2940	91	3	10-173/30
108-67-8	1,3,5-Trimethylbenzene	ND		3230	3200	99	3230	3040	94	5	10-161/30
	m,p-Xylene	ND		6460	6410	99	6460	6560	102	2	25-147/30
95-47-6	o-Xylene	ND		3230	3180	98	3230	3250	101	2	24-147/30
1330-20-7	Xylene (total)	ND		9690	9590	99	9690	9810	101	2	25-147/30

CAS No.	Surrogate Recoveries	MS	MSD	MC36792-8	Limits
1868-53-7	Dibromofluoromethane	100%	100%	101%	65-141%
2037-26-5	Toluene-D8	99%	108%	103%	65-129%
460-00-4	4-Bromofluorobenzene	99%	96%	97%	63-137%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC36792
Account: SUNOCOSS Sunoco
Project: MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC36775-4MS	U26153.D	5	02/10/15	GK	n/a	n/a	MSU1100
MC36775-4MSD	U26154.D	5	02/10/15	GK	n/a	n/a	MSU1100
MC36775-4	U26148.D	1	02/10/15	GK	n/a	n/a	MSU1100

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC36792-6, MC36792-9

CAS No.	Compound	MC36775-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		250	313	125	250	321	128	3	69-136/30
104-51-8	n-Butylbenzene	ND		250	300	120	250	316	126	5	65-147/30
135-98-8	sec-Butylbenzene	ND		250	284	114	250	286	114	1	72-143/30
98-06-6	tert-Butylbenzene	ND		250	267	107	250	259	104	3	66-146/30
100-41-4	Ethylbenzene	ND		250	270	108	250	272	109	1	67-141/30
98-82-8	Isopropylbenzene	ND		250	282	113	250	279	112	1	71-144/30
99-87-6	p-Isopropyltoluene	ND		250	292	117	250	297	119	2	72-141/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	306	122	250	379	152* [a]	21	48-149/30
91-20-3	Naphthalene	ND		250	234	94	250	291	116	22	19-200/30
103-65-1	n-Propylbenzene	ND		250	281	112	250	278	111	1	67-145/30
108-88-3	Toluene	ND		250	300	120	250	297	119	1	72-141/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	293	117	250	300	120	2	66-142/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	308	123	250	314	126	2	68-135/30
	m,p-Xylene	ND		500	521	104	500	533	107	2	67-138/30
95-47-6	o-Xylene	ND		250	257	103	250	277	111	7	72-135/30
1330-20-7	Xylene (total)	ND		750	778	104	750	810	108	4	67-139/30

CAS No.	Surrogate Recoveries	MS	MSD	MC36775-4	Limits
1868-53-7	Dibromofluoromethane	99%	111%	126%	67-134%
2037-26-5	Toluene-D8	106%	111%	108%	79-121%
460-00-4	4-Bromofluorobenzene	103%	97%	86%	71-133%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC36792
Account: SUNOCOSS Sunoco
Project: MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC36792-6	U26147.D	94	100	99
MC36792-9	U26145.D	95	99	100
MC36775-4MS	U26153.D	99	106	103
MC36775-4MSD	U26154.D	111	111	97
MSU1100-BS	U26140.D	103	103	100
MSU1100-MB	U26143.D	91	98	96

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	67-134%
S2 = Toluene-D8	79-121%
S3 = 4-Bromofluorobenzene	71-133%

Volatile Surrogate Recovery Summary

Job Number: MC36792
Account: SUNOCOSS Sunoco
Project: MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY

Method: SW846 8260C **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC36792-1	K85345.D	100	103	97
MC36792-2	K85346.D	104	96	99
MC36792-3	K85347.D	100	102	100
MC36792-4	K85348.D	104	97	100
MC36792-5	K85349.D	98	103	97
MC36792-7	K85350.D	101	97	97
MC36792-8	K85351.D	101	103	97
MC36792-8MS	K85352.D	100	99	99
MC36792-8MSD	K85353.D	100	108	96
MSK2670-BS	K85339.D	102	100	97
MSK2670-MB	K85342.D	105	97	97

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	65-141%
S2 = Toluene-D8	65-129%
S3 = 4-Bromofluorobenzene	63-137%

New England ACCUTEST LABORATORIES

02/16/15

Technical Report for

Sunoco

MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo

10-046

Accutest Job Number: MC36792

Sampling Date: 02/05/15

Report to:

analytical@matrixbiotech.com

ATTN: Distribution6

Total number of pages in report: **27**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

Test results relate only to samples analyzed.

Sections: 1 2 3 4 5

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Sample Summary

Sunoco

Job No: MC36792

MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY
Project No: 10-046

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC36792-1	02/05/15	09:40	CDZM	02/07/15	SO	Soil	SB110(5'-6')
MC36792-2	02/05/15	09:55	CDZM	02/07/15	SO	Soil	SB110(10'-11.5')
MC36792-3	02/05/15	10:20	CDZM	02/07/15	SO	Soil	SB108(5'-6')
MC36792-4	02/05/15	10:45	CDZM	02/07/15	SO	Soil	SB108(11'-11.5')
MC36792-5	02/05/15	10:55	CDZM	02/07/15	SO	Soil	SB111(6.5'-8.5')
MC36792-6	02/05/15	11:30	CDZM	02/07/15	AQ	Field Blank Soil	FIELD BLANK
MC36792-7	02/05/15	13:08	CDZM	02/07/15	SO	Soil	SB109(6.5'-8.5')
MC36792-8	02/05/15	13:35	CDZM	02/07/15	SO	Soil	SBXT
MC36792-9	02/05/15	00:00	CDZM	02/07/15	AQ	Trip Blank Water	TRIP BLANK

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Summary of Hits

Job Number: MC36792
Account: Sunoco
Project: MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY
Collected: 02/05/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC36792-1	**SB110(5'-6')**					
No hits reported in this sample.						
MC36792-2	**SB110(10'-11.5')**					
Ethylbenzene		299	120		ug/kg	SW846 8260C
Naphthalene		637	290		ug/kg	SW846 8260C
n-Propylbenzene		363	290		ug/kg	SW846 8260C
1,2,4-Trimethylbenzene		2290	290		ug/kg	SW846 8260C
1,3,5-Trimethylbenzene		662	290		ug/kg	SW846 8260C
m,p-Xylene		1100	120		ug/kg	SW846 8260C
o-Xylene		169	120		ug/kg	SW846 8260C
Xylene (total)		1270	120		ug/kg	SW846 8260C
MC36792-3	**SB108(5'-6')**					
n-Butylbenzene		917	320		ug/kg	SW846 8260C
Ethylbenzene		1110	130		ug/kg	SW846 8260C
Isopropylbenzene		388	320		ug/kg	SW846 8260C
Naphthalene		950	320		ug/kg	SW846 8260C
n-Propylbenzene		1100	320		ug/kg	SW846 8260C
1,2,4-Trimethylbenzene		8400	320		ug/kg	SW846 8260C
1,3,5-Trimethylbenzene		2680	320		ug/kg	SW846 8260C
m,p-Xylene		5530	130		ug/kg	SW846 8260C
o-Xylene		1820	130		ug/kg	SW846 8260C
Xylene (total)		7350	130		ug/kg	SW846 8260C
MC36792-4	**SB108(11'-11.5')**					
No hits reported in this sample.						
MC36792-5	**SB111(6.5'-8.5')**					
No hits reported in this sample.						
MC36792-6	**FIELD BLANK**					
No hits reported in this sample.						
MC36792-7	**SB109(6.5'-8.5')**					
No hits reported in this sample.						

Summary of Hits

Job Number: MC36792
Account: Sunoco
Project: MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY
Collected: 02/05/15

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method

MC36792-8 SBXT

No hits reported in this sample.

MC36792-9 TRIP BLANK

No hits reported in this sample.

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	SB110(5'-6')		
Lab Sample ID:	MC36792-1	**Date Sampled:**	02/05/15
Matrix:	SO - Soil	**Date Received:**	02/07/15
Method:	SW846 8260C	**Percent Solids:**	89.1
Project:	MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K85345.D	1	02/10/15	JM	n/a	n/a	MSK2670
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	11.1 g	10.0 ml	100 ul
Run #2			

VOA STARS List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	28	ug/kg	
104-51-8	n-Butylbenzene	ND	280	ug/kg	
135-98-8	sec-Butylbenzene	ND	280	ug/kg	
98-06-6	tert-Butylbenzene	ND	280	ug/kg	
100-41-4	Ethylbenzene	ND	110	ug/kg	
98-82-8	Isopropylbenzene	ND	280	ug/kg	
99-87-6	p-Isopropyltoluene	ND	280	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	110	ug/kg	
91-20-3	Naphthalene	ND	280	ug/kg	
103-65-1	n-Propylbenzene	ND	280	ug/kg	
108-88-3	Toluene	ND	280	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	280	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	280	ug/kg	
	m,p-Xylene	ND	110	ug/kg	
95-47-6	o-Xylene	ND	110	ug/kg	
1330-20-7	Xylene (total)	ND	110	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		65-141%
2037-26-5	Toluene-D8	103%		65-129%
460-00-4	4-Bromofluorobenzene	97%		63-137%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB110(10'-11.5')		
Lab Sample ID:	MC36792-2	**Date Sampled:**	02/05/15
Matrix:	SO - Soil	**Date Received:**	02/07/15
Method:	SW846 8260C	**Percent Solids:**	91.5
Project:	MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K85346.D	1	02/10/15	JM	n/a	n/a	MSK2670
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	10.3 g	10.0 ml	100 ul
Run #2			

VOA STARS List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	29	ug/kg	
104-51-8	n-Butylbenzene	ND	290	ug/kg	
135-98-8	sec-Butylbenzene	ND	290	ug/kg	
98-06-6	tert-Butylbenzene	ND	290	ug/kg	
100-41-4	Ethylbenzene	299	120	ug/kg	
98-82-8	Isopropylbenzene	ND	290	ug/kg	
99-87-6	p-Isopropyltoluene	ND	290	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	120	ug/kg	
91-20-3	Naphthalene	637	290	ug/kg	
103-65-1	n-Propylbenzene	363	290	ug/kg	
108-88-3	Toluene	ND	290	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	2290	290	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	662	290	ug/kg	
	m,p-Xylene	1100	120	ug/kg	
95-47-6	o-Xylene	169	120	ug/kg	
1330-20-7	Xylene (total)	1270	120	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		65-141%
2037-26-5	Toluene-D8	96%		65-129%
460-00-4	4-Bromofluorobenzene	99%		63-137%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB108(5'-6')		
Lab Sample ID:	MC36792-3	**Date Sampled:**	02/05/15
Matrix:	SO - Soil	**Date Received:**	02/07/15
Method:	SW846 8260C	**Percent Solids:**	85.8
Project:	MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K85347.D	1	02/10/15	JM	n/a	n/a	MSK2670
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	10.5 g	10.0 ml	100 ul
Run #2			

VOA STARS List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	32	ug/kg	
104-51-8	n-Butylbenzene	917	320	ug/kg	
135-98-8	sec-Butylbenzene	ND	320	ug/kg	
98-06-6	tert-Butylbenzene	ND	320	ug/kg	
100-41-4	Ethylbenzene	1110	130	ug/kg	
98-82-8	Isopropylbenzene	388	320	ug/kg	
99-87-6	p-Isopropyltoluene	ND	320	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	130	ug/kg	
91-20-3	Naphthalene	950	320	ug/kg	
103-65-1	n-Propylbenzene	1100	320	ug/kg	
108-88-3	Toluene	ND	320	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	8400	320	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	2680	320	ug/kg	
	m,p-Xylene	5530	130	ug/kg	
95-47-6	o-Xylene	1820	130	ug/kg	
1330-20-7	Xylene (total)	7350	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		65-141%
2037-26-5	Toluene-D8	102%		65-129%
460-00-4	4-Bromofluorobenzene	100%		63-137%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB108(11'-11.5')		
Lab Sample ID:	MC36792-4	**Date Sampled:**	02/05/15
Matrix:	SO - Soil	**Date Received:**	02/07/15
Method:	SW846 8260C	**Percent Solids:**	88.1
Project:	MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K85348.D	1	02/10/15	JM	n/a	n/a	MSK2670
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	9.22 g	10.0 ml	100 ul
Run #2			

VOA STARS List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	34	ug/kg	
104-51-8	n-Butylbenzene	ND	340	ug/kg	
135-98-8	sec-Butylbenzene	ND	340	ug/kg	
98-06-6	tert-Butylbenzene	ND	340	ug/kg	
100-41-4	Ethylbenzene	ND	140	ug/kg	
98-82-8	Isopropylbenzene	ND	340	ug/kg	
99-87-6	p-Isopropyltoluene	ND	340	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	140	ug/kg	
91-20-3	Naphthalene	ND	340	ug/kg	
103-65-1	n-Propylbenzene	ND	340	ug/kg	
108-88-3	Toluene	ND	340	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	340	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	340	ug/kg	
	m,p-Xylene	ND	140	ug/kg	
95-47-6	o-Xylene	ND	140	ug/kg	
1330-20-7	Xylene (total)	ND	140	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		65-141%
2037-26-5	Toluene-D8	97%		65-129%
460-00-4	4-Bromofluorobenzene	100%		63-137%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB111(6.5'-8.5')		
Lab Sample ID:	MC36792-5	**Date Sampled:**	02/05/15
Matrix:	SO - Soil	**Date Received:**	02/07/15
Method:	SW846 8260C	**Percent Solids:**	88.2
Project:	MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K85349.D	1	02/10/15	JM	n/a	n/a	MSK2670
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	10.1 g	10.0 ml	100 ul
Run #2			

VOA STARS List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	31	ug/kg	
104-51-8	n-Butylbenzene	ND	310	ug/kg	
135-98-8	sec-Butylbenzene	ND	310	ug/kg	
98-06-6	tert-Butylbenzene	ND	310	ug/kg	
100-41-4	Ethylbenzene	ND	130	ug/kg	
98-82-8	Isopropylbenzene	ND	310	ug/kg	
99-87-6	p-Isopropyltoluene	ND	310	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	130	ug/kg	
91-20-3	Naphthalene	ND	310	ug/kg	
103-65-1	n-Propylbenzene	ND	310	ug/kg	
108-88-3	Toluene	ND	310	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	310	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	310	ug/kg	
	m,p-Xylene	ND	130	ug/kg	
95-47-6	o-Xylene	ND	130	ug/kg	
1330-20-7	Xylene (total)	ND	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		65-141%
2037-26-5	Toluene-D8	103%		65-129%
460-00-4	4-Bromofluorobenzene	97%		63-137%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FIELD BLANK		
Lab Sample ID:	MC36792-6	**Date Sampled:**	02/05/15
Matrix:	AQ - Field Blank Soil	**Date Received:**	02/07/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U26147.D	1	02/10/15	GK	n/a	n/a	MSU1100
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA STARS List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		67-134%
2037-26-5	Toluene-D8	100%		79-121%
460-00-4	4-Bromofluorobenzene	99%		71-133%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB109(6.5'-8.5')		
Lab Sample ID:	MC36792-7	**Date Sampled:**	02/05/15
Matrix:	SO - Soil	**Date Received:**	02/07/15
Method:	SW846 8260C	**Percent Solids:**	87.1
Project:	MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K85350.D	1	02/10/15	JM	n/a	n/a	MSK2670
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	9.83 g	10.0 ml	100 ul
Run #2			

VOA STARS List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	33	ug/kg	
104-51-8	n-Butylbenzene	ND	330	ug/kg	
135-98-8	sec-Butylbenzene	ND	330	ug/kg	
98-06-6	tert-Butylbenzene	ND	330	ug/kg	
100-41-4	Ethylbenzene	ND	130	ug/kg	
98-82-8	Isopropylbenzene	ND	330	ug/kg	
99-87-6	p-Isopropyltoluene	ND	330	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	130	ug/kg	
91-20-3	Naphthalene	ND	330	ug/kg	
103-65-1	n-Propylbenzene	ND	330	ug/kg	
108-88-3	Toluene	ND	330	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	330	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	330	ug/kg	
	m,p-Xylene	ND	130	ug/kg	
95-47-6	o-Xylene	ND	130	ug/kg	
1330-20-7	Xylene (total)	ND	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		65-141%
2037-26-5	Toluene-D8	97%		65-129%
460-00-4	4-Bromofluorobenzene	97%		63-137%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SBXT		
Lab Sample ID:	MC36792-8	**Date Sampled:**	02/05/15
Matrix:	SO - Soil	**Date Received:**	02/07/15
Method:	SW846 8260C	**Percent Solids:**	87.5
Project:	MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K85351.D	1	02/10/15	JM	n/a	n/a	MSK2670
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	9.95 g	10.0 ml	100 ul
Run #2			

VOA STARS List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	32	ug/kg	
104-51-8	n-Butylbenzene	ND	320	ug/kg	
135-98-8	sec-Butylbenzene	ND	320	ug/kg	
98-06-6	tert-Butylbenzene	ND	320	ug/kg	
100-41-4	Ethylbenzene	ND	130	ug/kg	
98-82-8	Isopropylbenzene	ND	320	ug/kg	
99-87-6	p-Isopropyltoluene	ND	320	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	130	ug/kg	
91-20-3	Naphthalene	ND	320	ug/kg	
103-65-1	n-Propylbenzene	ND	320	ug/kg	
108-88-3	Toluene	ND	320	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	320	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	320	ug/kg	
	m,p-Xylene	ND	130	ug/kg	
95-47-6	o-Xylene	ND	130	ug/kg	
1330-20-7	Xylene (total)	ND	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		65-141%
2037-26-5	Toluene-D8	103%		65-129%
460-00-4	4-Bromofluorobenzene	97%		63-137%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	MC36792-9	**Date Sampled:**	02/05/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/07/15
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U26145.D	1	02/10/15	GK	n/a	n/a	MSU1100
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA STARS List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		67-134%
2037-26-5	Toluene-D8	99%		79-121%
460-00-4	4-Bromofluorobenzene	100%		71-133%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST LABORATORIES

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

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FED-EX Tracking # | Bottle Order Control #
Accutest Quote # | Accutest Job # MC36792

Client / Reporting Information

Company Name: Matrix Environmental
Street Address: PO Box 427
City: Orchard Park State: NY Zip: 14127
Project Contact: Craig Zinke / Rob Gill E-mail:
Phone #: 716 662 0745 Fax #:
Sampler(s) Name(s): Craig A. Zinke Phone #: 716 598 1907

Project Information

Project Name: 638 Former Sunoco Station
Street: 905 Elmwood Ave.
City: Buffalo
Project#: 10-046
Client PO#:
Project Manager: Rob Gill

Billing Information (If different from Report to)
Company Name:
Street Address:
City: State: Zip:
Attention: PO#:

Requested Analysis (see TEST CODE sheet): EPA 8260 (STARS List)

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Bisulfate	EPA 8260 (STARS List)
-1	SB 110 (5'-6')		2-5-15	9:40A	CDZ	Soil	1					X					X
-2	SB 110 (10'-11.5')		2-5-15	9:55A	CDZ	Soil	1					X					X
-3	SB 108 (5'-6')		2-5-15	10:20A	CDZ	Soil	1					X					X
-4	SB 108 (11'-11.5')		2-5-15	10:45A	CDZ	Soil	1					X					X
-5	SB 111 (6.5'-8.5')		2-5-15	10:55A	CDZ	Soil	1					X					X
-6	Field Blank		2-5-15	11:30A	MJ	Water	3	X									X
-7	SB 109 (6.5'-8.5')		2-5-15	1:08P	CDZ	Soil	1					X					X
-8	SB XT		2-5-15	1:35P	CDZ	Soil	1					X					X
-9	Trip Blank						2										

Matrix Codes
DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED - Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB - Equipment Blank
RB - Rinse Blank
TB - Trip Blank

LAB USE ONLY: 3A 353

Turnaround Time (Business days)
- [x] Std. 10 Business Days
- [ ] Std. 5 Business Days (By Contract only)
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information
- [ ] Commercial "A" (Level 1)
- [x] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] CT RCP
- [ ] MA MCP
- [ ] NYASP Category A
- [x] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

ACCUTEST SYRACUSE-SC

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	2/6/15 1200	1 [signature]	2		2 FX
Relinquished by Sampler: 3 [signature] FX	2/7/15 10:00	3 [signature]	4		4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	☐ Intact ☐ Not intact	Preserved where applicable ☐ On Ice ☑ Cooler Temp. 1.4°

MC36792: Chain of Custody
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Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC36792 **Client:** MATRIX **Project:** 10-46

Date / Time Received: 2/7/2015 10:00:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (1.4/1.4);

Cooler Security

	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature

	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Thermometer ID:	G1;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation

	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation

	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition

	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions

	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:(508) 481-6200

495 Technology Center West, Bldg One
F: (508) 481-7753

Marlborough, MA 01752
www/accutest.com

MC36792: Chain of Custody
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New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC36792
Account: SUNOCOSS Sunoco
Project: MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2670-MB	K85342.D	1	02/10/15	JM	n/a	n/a	MSK2670

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC36792-1, MC36792-2, MC36792-3, MC36792-4, MC36792-5, MC36792-7, MC36792-8

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	25	ug/kg	
104-51-8	n-Butylbenzene	ND	250	ug/kg	
135-98-8	sec-Butylbenzene	ND	250	ug/kg	
98-06-6	tert-Butylbenzene	ND	250	ug/kg	
100-41-4	Ethylbenzene	ND	100	ug/kg	
98-82-8	Isopropylbenzene	ND	250	ug/kg	
99-87-6	p-Isopropyltoluene	ND	250	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	100	ug/kg	
91-20-3	Naphthalene	ND	250	ug/kg	
103-65-1	n-Propylbenzene	ND	250	ug/kg	
108-88-3	Toluene	ND	250	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	250	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	250	ug/kg	
	m,p-Xylene	ND	100	ug/kg	
95-47-6	o-Xylene	ND	100	ug/kg	
1330-20-7	Xylene (total)	ND	100	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	105%	65-141%
2037-26-5	Toluene-D8	97%	65-129%
460-00-4	4-Bromofluorobenzene	97%	63-137%

Method Blank Summary

Job Number: MC36792
Account: SUNOCOSS Sunoco
Project: MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSU1100-MB	U26143.D	1	02/10/15	GK	n/a	n/a	MSU1100

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC36792-6, MC36792-9

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	91%	67-134%
2037-26-5	Toluene-D8	98%	79-121%
460-00-4	4-Bromofluorobenzene	96%	71-133%

Blank Spike Summary

Job Number: MC36792
Account: SUNOCOSS Sunoco
Project: MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2670-BS	K85339.D	1	02/10/15	JM	n/a	n/a	MSK2670

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC36792-1, MC36792-2, MC36792-3, MC36792-4, MC36792-5, MC36792-7, MC36792-8

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	2500	2240	90	67-124
104-51-8	n-Butylbenzene	2500	2310	92	68-129
135-98-8	sec-Butylbenzene	2500	2190	88	71-128
98-06-6	tert-Butylbenzene	2500	2140	86	67-128
100-41-4	Ethylbenzene	2500	2470	99	75-120
98-82-8	Isopropylbenzene	2500	2210	88	70-129
99-87-6	p-Isopropyltoluene	2500	2260	90	73-126
1634-04-4	Methyl Tert Butyl Ether	2500	2340	94	64-126
91-20-3	Naphthalene	2500	2070	83	51-164
103-65-1	n-Propylbenzene	2500	2180	87	68-129
108-88-3	Toluene	2500	2280	91	76-122
95-63-6	1,2,4-Trimethylbenzene	2500	2220	89	73-124
108-67-8	1,3,5-Trimethylbenzene	2500	2320	93	69-122
	m,p-Xylene	5000	4770	95	77-121
95-47-6	o-Xylene	2500	2350	94	78-122
1330-20-7	Xylene (total)	7500	7120	95	78-121

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	65-141%
2037-26-5	Toluene-D8	100%	65-129%
460-00-4	4-Bromofluorobenzene	97%	63-137%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC36792
Account: SUNOCOSS Sunoco
Project: MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSU1100-BS	U26140.D	1	02/10/15	GK	n/a	n/a	MSU1100

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC36792-6, MC36792-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	59.4	119	74-127
104-51-8	n-Butylbenzene	50	61.5	123	75-140
135-98-8	sec-Butylbenzene	50	59.5	119	74-139
98-06-6	tert-Butylbenzene	50	58.8	118	71-141
100-41-4	Ethylbenzene	50	53.2	106	75-129
98-82-8	Isopropylbenzene	50	58.3	117	76-138
99-87-6	p-Isopropyltoluene	50	59.7	119	77-137
1634-04-4	Methyl Tert Butyl Ether	50	59.6	119	62-134
91-20-3	Naphthalene	50	57.4	115	32-196
103-65-1	n-Propylbenzene	50	56.6	113	74-138
108-88-3	Toluene	50	55.0	110	75-134
95-63-6	1,2,4-Trimethylbenzene	50	59.8	120	76-133
108-67-8	1,3,5-Trimethylbenzene	50	63.8	128	72-131
	m,p-Xylene	100	103	103	74-129
95-47-6	o-Xylene	50	51.5	103	77-127
1330-20-7	Xylene (total)	150	154	103	75-128

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	103%	67-134%
2037-26-5	Toluene-D8	103%	79-121%
460-00-4	4-Bromofluorobenzene	100%	71-133%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC36792
Account: SUNOCOSS Sunoco
Project: MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC36792-8MS	K85352.D	1	02/10/15	JM	n/a	n/a	MSK2670
MC36792-8MSD	K85353.D	1	02/10/15	JM	n/a	n/a	MSK2670
MC36792-8	K85351.D	1	02/10/15	JM	n/a	n/a	MSK2670

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC36792-1, MC36792-2, MC36792-3, MC36792-4, MC36792-5, MC36792-7, MC36792-8

CAS No.	Compound	MC36792-8 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		3230	3000	93	3230	2970	92	1	34-139/30
104-51-8	n-Butylbenzene	ND		3230	3140	97	3230	3090	96	2	10-164/30
135-98-8	sec-Butylbenzene	ND		3230	3030	94	3230	2780	86	9	15-160/30
98-06-6	tert-Butylbenzene	ND		3230	3020	94	3230	2590	80	15	16-158/30
100-41-4	Ethylbenzene	ND		3230	3290	102	3230	3390	105	3	24-146/30
98-82-8	Isopropylbenzene	ND		3230	3030	94	3230	2860	89	6	20-158/30
99-87-6	p-Isopropyltoluene	ND		3230	3110	96	3230	2920	90	6	12-161/30
1634-04-4	Methyl Tert Butyl Ether	ND		3230	2950	91	3230	3230	100	9	47-138/30
91-20-3	Naphthalene	ND		3230	2460	76	3230	2590	80	5	10-188/30
103-65-1	n-Propylbenzene	ND		3230	2980	92	3230	2920	90	2	10-167/30
108-88-3	Toluene	ND		3230	3050	94	3230	3210	99	5	30-147/30
95-63-6	1,2,4-Trimethylbenzene	ND		3230	3040	94	3230	2940	91	3	10-173/30
108-67-8	1,3,5-Trimethylbenzene	ND		3230	3200	99	3230	3040	94	5	10-161/30
	m,p-Xylene	ND		6460	6410	99	6460	6560	102	2	25-147/30
95-47-6	o-Xylene	ND		3230	3180	98	3230	3250	101	2	24-147/30
1330-20-7	Xylene (total)	ND		9690	9590	99	9690	9810	101	2	25-147/30

CAS No.	Surrogate Recoveries	MS	MSD	MC36792-8	Limits
1868-53-7	Dibromofluoromethane	100%	100%	101%	65-141%
2037-26-5	Toluene-D8	99%	108%	103%	65-129%
460-00-4	4-Bromofluorobenzene	99%	96%	97%	63-137%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC36792
Account: SUNOCOSS Sunoco
Project: MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC36775-4MS	U26153.D	5	02/10/15	GK	n/a	n/a	MSU1100
MC36775-4MSD	U26154.D	5	02/10/15	GK	n/a	n/a	MSU1100
MC36775-4	U26148.D	1	02/10/15	GK	n/a	n/a	MSU1100

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC36792-6, MC36792-9

CAS No.	Compound	MC36775-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		250	313	125	250	321	128	3	69-136/30
104-51-8	n-Butylbenzene	ND		250	300	120	250	316	126	5	65-147/30
135-98-8	sec-Butylbenzene	ND		250	284	114	250	286	114	1	72-143/30
98-06-6	tert-Butylbenzene	ND		250	267	107	250	259	104	3	66-146/30
100-41-4	Ethylbenzene	ND		250	270	108	250	272	109	1	67-141/30
98-82-8	Isopropylbenzene	ND		250	282	113	250	279	112	1	71-144/30
99-87-6	p-Isopropyltoluene	ND		250	292	117	250	297	119	2	72-141/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	306	122	250	379	152* [a]	21	48-149/30
91-20-3	Naphthalene	ND		250	234	94	250	291	116	22	19-200/30
103-65-1	n-Propylbenzene	ND		250	281	112	250	278	111	1	67-145/30
108-88-3	Toluene	ND		250	300	120	250	297	119	1	72-141/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	293	117	250	300	120	2	66-142/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	308	123	250	314	126	2	68-135/30
	m,p-Xylene	ND		500	521	104	500	533	107	2	67-138/30
95-47-6	o-Xylene	ND		250	257	103	250	277	111	7	72-135/30
1330-20-7	Xylene (total)	ND		750	778	104	750	810	108	4	67-139/30

CAS No.	Surrogate Recoveries	MS	MSD	MC36775-4	Limits
1868-53-7	Dibromofluoromethane	99%	111%	126%	67-134%
2037-26-5	Toluene-D8	106%	111%	108%	79-121%
460-00-4	4-Bromofluorobenzene	103%	97%	86%	71-133%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC36792
Account: SUNOCOSS Sunoco
Project: MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC36792-6	U26147.D	94	100	99
MC36792-9	U26145.D	95	99	100
MC36775-4MS	U26153.D	99	106	103
MC36775-4MSD	U26154.D	111	111	97
MSU1100-BS	U26140.D	103	103	100
MSU1100-MB	U26143.D	91	98	96

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	67-134%
S2 = Toluene-D8	79-121%
S3 = 4-Bromofluorobenzene	71-133%

Volatile Surrogate Recovery Summary

Job Number: MC36792
Account: SUNOCOSS Sunoco
Project: MATNYOP: DUNS#00030387, Former Sunoco Station, 905 Elmwood Avenue, Buffalo, NY

Method: SW846 8260C **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC36792-1	K85345.D	100	103	97
MC36792-2	K85346.D	104	96	99
MC36792-3	K85347.D	100	102	100
MC36792-4	K85348.D	104	97	100
MC36792-5	K85349.D	98	103	97
MC36792-7	K85350.D	101	97	97
MC36792-8	K85351.D	101	103	97
MC36792-8MS	K85352.D	100	99	99
MC36792-8MSD	K85353.D	100	108	96
MSK2670-BS	K85339.D	102	100	97
MSK2670-MB	K85342.D	105	97	97

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	65-141%
S2 = Toluene-D8	65-129%
S3 = 4-Bromofluorobenzene	63-137%