ADDITIONAL REMEDIAL ACTION COMPLETION REPORT: REGENOX COMPLEX INJECTION AND GROUNDWATER AND SOIL TESTING ON 1/18/06 AND 2/8/06 AT 1101 LINWOOD STREET BROOKLYN, NEW YORK 11208

SUBMITTED UNDER THE NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION VOLUNTARY CLEANUP PROGRAM FOR SITE #V00582 WITH VOLUNTARY CLEANUP AGREEMENT INDEX #D2-0001-02-08

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FIELD SAMPLING:

ROBERT A. LO PINTO, P.E. LARRY ZEMAN, B.A. MILANA KONONENKO, M.S.

LABORATORY ANALYSIS:

DATA ANALYSIS AND REPORT PREPARATION: H2M LABS, INC.

ROBERT A. LO PINTO, P.E. MILANA KONONENKO, M.S.

RECAPITULATION

RegenOx complex injection and groundwater and soil testing was performed at 1101 Linwood Street, Brooklyn, New York on 1/18/06 - 1/20/06 and 2/8/06. One (1) groundwater sample was collected from a new permanent down gradient monitoring well, installed on the Linwood Street sidewalk on the southwest side of the building and three (3) soil samples were collected from three new soil sample locations at Essex Street on the northeast side of the building. The groundwater sample included: one sample from the monitoring well, one matrix spike, one matrix spike duplicate, one trip blank and one field blank. The soil samples included: one sample from each boring at locations #1, 2 & 3 (see Site Plan dwg.) as well as one matrix spike and one matrix spike duplicate from location #1 and one trip blank.

The results indicate that there are no detectable levels of BTEX in the groundwater samples, while the soil samples indicate the presence of BTEX.

A total of 3960 pounds of RegenOx complex was injected into the groundwater at 7 new locations (see Site Plan dwg.) using Geo-Probe equipment. This was performed to promote the reduction of groundwater contamination.

MK:RAL:SM

ROBERT A. LO PINTO, P.E. MAY 4, 2006

SITE PLAN DWG.

SAMPLING/INJECTION LOCATION PLAN

ADDITIONAL REMEDIAL ACTION COMPLETION REPORT

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GENERAL DISCUSSION

S&S X-Ray Products has entered into a Voluntary Cleanup Agreement (VCA) for the property at 1101 Linwood Street, Brooklyn, New York 11208 with the NYSDEC, which became effective on 9/22/02. In accordance with the November 4, 2005 Additional Remedial Action Work Plan for 1101 Linwood Street, Brooklyn, New York, amended on November 30, 2005 (accepted by NYS DEC on November 30, 2005), soil sampling at three new locations within the prior excavation area was performed on 1/18/06. After the samples had been taken, the three soil borings was extended to 26 feet below grade and additional 26-foot deep borings were placed with about a 7-foot interval from each other in the area of the prior excavation. Approximately 252 gallons of RegenOx oxidizer and activator complexes (OAC) were injected into each of seven (7) borings, a total of 3960 lbs. The quantity of RegenOX used was based on calculations conducted by the manufacturer. Placing the OAC into the borings was designed to help in removing the contamination from the groundwater.

Also, groundwater samples were taken on 2/8/06 from the permanent down gradient monitoring well that was installed on 01/18/06 on the Linwood Street sidewalk on the southwest side of the building.

Soil sampling was performed by representatives from Unitech Services Group, Aquifer Drilling & Testing (ADT) and Shapiro Engineering, P.C. in the presence of Michael MacCabe, P.E., the NYS DEC Senior Environmental Engineer from the Division of Environmental Remediation.

SOIL SAMPLING AND ANALYSIS

On 1/18/06 soil samples were collected utilizing a portable Geo-Probe unit equipped with a Macrocore® soil sampler from three new sample locations placed in the area of the earlier excavations through the sidewalk outside the building (see Sampling/ Injection Location Plan). Two of them were made in the area of the larger excavation (Locations #1 & 2). One boring was placed in the area of the smaller excavation (Location #3). One soil sample was collected from each boring just below the bottom of the original excavation, which is below the demarcation line of plastic sheeting approximately 12-foot deep. Two additional samples (a matrix spike sample and a matrix spike duplicate sample) were taken from Location #1. All the soil samples, together with a trip blank sample were delivered to H2M Labs, Inc., which is a NYS DOH approved laboratory for individual BTEX compound analysis, using USEPA Method 8260B. The laboratory analytical results are included at Appendix "C".

REGENOX COMPLEX INJECTION

After the samples had been taken, the three soil borings were extended to 26 feet below grade and an additional four 26-foot deep borings were placed with about a 7-foot interval from each other in the area of the prior excavation. 26-foot long 1-inch diameter drive rods were inserted in turn into each boring, to ensure adequate conditions for RegenOx complexes injection utilizing a portable Geo-Probe unit. The total amount of RegenOx, 3,960 lbs. (including 1,980 lbs. of oxidizer and 1,980 lbs. of activator), was considered to be optimal for the site conditions and one-time OAC application required

by NYS DEC. This total amount was divided into several portions to be completely injected with a time interval of approximately two hours, depending on the soil permeability.

Due to the soil conditions at Location #1, RegenOx complex was rejected from being pumped in. Instead, a new Location #8 was placed nearby. Approximately 252 gallons of RegenOx oxidizer and activator complexes (OAC) were injected into each of the seven borings.

RegenOx was supplied in two separate parts: Part A - oxidizer complex, which is a fine white powder, and Part B - activator complex that comes as a liquid gel. Based on Regenesis calculations, oxidizer was mixed with water to create a 13.5% solution and was kept stirred up to the moment when it was injected into the boring to prevent an excess reaction and flocculation. A half-gallon of water was added into each bucket of the activator and was mixed for at least 5 minutes until a homogenous mixture was formed. Immediately before the injection, the activator complex was added to the solution of the oxidizer. The mixture of the two complexes was stirred constantly in the barrel of the GS 2000 pump utilized for injection and RegenOx was pumped into the borings, while the mixing process continued in the drums for the next portion of OAC.

The delivery hose was connected to the pump outlet and the delivery sub-assembly. Water was circulated though the hose and the delivery sub-assembly to displace air in the hose. The sub-assembly was connected to the drive rod. After confirming that all of the connections were secure, the RegenOx was pumped through the delivery system.

RegenOx injection continuously progressed while the drive rods were slowly withdrawn at 1-foot intervals. The predetermined volume of RegenOx was pumped into the aquifer across the desired treatment area. When aquifer acceptance was low, enough time was allowed for the aquifer to equilibrate prior to removing the drive rod. The rods were cleaned after each injection.

The procedure was repeated until it reached the top of the targeted treatment interval and treatment of the entire 14-foot contaminated vertical zone was achieved. The procedure was repeated for each of the seven borings until all the RegenOx was inserted into the groundwater zone.

A bentonite seal was installed above the RegenOx material in each boring. A proper surface seal assures that the RegenOx remains properly placed and will prevent contaminant migration from the surface. Each borehole was sealed immediately following RegenOx application to minimize RegenOx surfacing during the injection process.

The borings were finished at the surface with a concrete cap. A quick set concrete was used to provide a good surface seal with minimal set up time. Prior to emplacing the boring seal, clean sand was placed in the boring to the top of the RegenOx treatment zone. Bentonite chips or granular bentonite was placed immediately above the treatment zone, followed by a cement/bentonite grout to roughly 0.5 feet below ground surface. Quick-set concrete then was used as a surface seal.

Placing the OAC into the borings was designed to help in removing the contamination from the groundwater.

GROUNDWATER SAMPLING AND ANALYSIS OF ESTABLISHED WELLS

On 2/8/06, a groundwater sample was collected utilizing a Waterra WSP-12V-2 12 volt submersible pump equipped with flow controller. It was performed using the low flow purging and sampling procedure employed by EPA Region II from a new permanent down gradient monitoring well (see Sampling Plan). The groundwater sample was collected at a 21-foot depth.

In addition to groundwater sampling performed at the monitoring well, one matrix spike, one matrix spike duplicate, one field blank, and one trip blank were also taken.

After all sampling activities were completed, samples were delivered to H2M Labs, Inc. 575 Broad Hollow Road, Melville, New York 11747, where they were analyzed for xylene, benzene, toluene, and ethylbenzene using analytical Method 8260B.

Prior to well sampling, the well was purged until measurements of pH, conductivity, dissolved oxygen (DO), and turbidity were stable for 3 consecutive readings. The purpose of this low flow purging and sampling procedure is to collect groundwater samples from a monitoring well that are representative of groundwater conditions in the geological formation. Hence, the intake velocity of the sampling pump was set at a 200 ml/min flow rate, which would limit drawdown inside the well casing. The actual volume of groundwater in the monitoring well casing was approximately 5.16 gallons. The actual volume of groundwater purged was approximately 5.02 gallons. Equilibrium was determined and purging terminated by testing the pumped water for pH, conductivity, DO and turbidity using a Horiba U22XD water quality monitoring system. Immediately

after the well was purged, groundwater samples were collected and placed in 40 ml vials with HCL Preservative.

The groundwater elevation was measured using a Solinst 122 Mini Interface Meter, to the nearest one hundredth of a foot (0.12 inches) relative to the top of the well casing. The Solinst 122 Mini Interface Meter was used to measure the free product thickness in the monitoring well. A record of all measurements was maintained, including the linear measurement of groundwater in the well casing. No free product was detectable in the well using the Solinst 122 Meter, which has a 0.01-foot detection limit (0.12 inches).

RESULTS

Sample results received from H2M Laboratories, Inc. present the concentration of VOC contaminants detected for all the groundwater and soil sampling (see Appendix "C").

Table #1 presents a summary of the groundwater sample location and the concentration in ug/L (ppb) of each compound analyzed.

Table #2 presents a summary of the soil sample locations and the concentration in ug/kg (ppb) of each compound analyzed.

FINDINGS

Concentrations of groundwater testing conducted at 1101 Linwood Street, Brooklyn, New York 11208 from a new permanent down gradient monitoring well indicate no presence of BTEX compounds.

The three (3) soil samples that were taken utilizing the Geo-Probe had elevated levels of ethylbenzene and xylene at the locations #1 & 2 and an elevated level of xylene at the location #3.

DISCUSSION

Analysis of the groundwater obtained from the new monitoring well revealed that the sample contained no detectable levels of BTEX. All three soil samples collected at locations # 1, 2 & 3 contained elevated levels of BTEX.

CONCLUSION

Results from the January 2006 soil testing indicate that the level of contamination, which occurred prior to the purchase of the building by S&S X-Ray in 1986, appear to be high around the spill area. Results of the February 2006 groundwater testing indicate no presence of contaminants at the permanent down gradient monitoring well. Removal of the contaminated soil, as discussed in the Remedial Action Work Plan dated April 9, 2004, and RegenOx injection into the groundwater immediately under the excavation area should eliminate any potential adverse environmental impact. No additional remediation is recommended.

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(516) 7	91-2300							FAX: (516) 791-0782
				TAE	BLE #1			
			PERMANENT			NITORING	WELL	
			G	ROUNDWA	TER SUMM	ARY		
	CLIENT: SH	SFLATLAN	IDS LLC	JOB NO.: 01-44				
ļ	ADDRESS:	80 F.	AHY AVENUE, STATEN ISL	AND, NY 10314				
\$	AMPLING A	DDRESS:	1101 LINWOOD STREET, BR	OOKLYN, NEW Y	ORK 11208			
	SAMP	LE	SAMPLE		ANALYTI	CAL PARAMET	ERS (ug/L) PPB	
	LOCAT	ION	DATE	MTBE	BENZENE	TOLUENE	ETHYLEBENZE	XYLENE
	GWP	1	02/08/2006	< 5	< 0.7	< 5	< 5	< 5
QUALI	FIERS FOR	ORGANIC	S DATA					
< =			OUND WAS ANALYZED FOR					
J =	INDICATE	ES AN EST	TIMATED VALUE-LESS THEN	I THE QUANTIFIC.	ATION LIMIT BUT G	REATER THEN ZE	ERO	
	ANALYTI	CAL DATA	WAS OBTAINED FROM H2	MLABS. INC. SEE	H2M LABS' RESUL	TS IN APPENDIX '	"C".	
					LARRY ZEMAN		D41	F
					SIGNATURE		DAT	E

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181	SOUTH FRANKLIN					M. N.Y. 11	581	
					net.att.net			
(516) 791-2300							F	AX: (516) 791-0782
	RESULTS OF	COIL C	TABLE		CATIONS #	4 0 0 2		
	RESULTS OF	SOIL SA		ALLO	CATIONS #	1,2 & 3		
CLIENT: SHSFLATLA	NDS LLC	ров ио.: р	1-44					
ADDRESS: 80 FAH	IY AVENUE, STATEN ISL	AND, NY 103	14					
SAMPLING ADDRESS	1101 LINWOOD STREET	BROOKLYN	, NEW YOR	K 11208				
SAMPLE	SAMPLE				AL PARAMETE	BS (va Ka) P	PB	
LOCATION	DATE	мтв		NZENE				XYLENE
SB - 1	01/18/2006	< 60		8	410	20000		1200000 D
SAMPLE	SAMPLE				AL PARAMETE			
LOCATION	DATE	MTB		NZENE	TOLUENE	ETHYLEBE		XYLENE
SB - 2	01/18/2006	< 56		8	< 56	1000		29000 D
SAMPLE	SAMPLE		<u> </u>		AL PARAMETE	BS (va Ka) P	08	
LOCATION	DATE	мтв		NZENE				XYLENE
SB - 3	01/18/2006	< 57		8	< 57	< 57		20000 D
QUALIFIERS FOR ORGANI								
INDICATES COMPO D = SAMPLE DILUTED F		OR BUT NOT	DETECTED	AT QUANTI	FICATION LIMIT I	NDICATED		
D = SAMPLE DILUTED F	UR ANALTSIS							
ANALYTICAL DATA	WAS OBTAINED FROM H	I I2M LABS, IN	C. SEE H2M	LABS' RES	ULTS IN APPENDI	IX "C".		
							++	
			LARE	Y ZEMAN	:			
			SIGN	ATURE			DATE	

APPENDIX "A"

SAMPLING LOCATIONS AND RESULTS

DRAWING

APPENDIX "B"

WELL PURGING AND SAMPLING FORM

(516) 791-2300 SHAPIRO ENGIN CONSULTING N 181 SOUTH FRANKLIN AVENUE, SUITE 30: E-MAIL: shapiroenginee Wall Payming and 6	MNGINEERS 5, VALLEY 8 ers@worldnet	STREAM, NEV	W YORK I		:(516) 791-0	782
Well Purging and S						
Client: S&S X-Ray Products, Inc. & SHS FLATLANDS, LLC Conta	ct Person: Ro	bert LoPinto, 1	P.E., SPEC			
Project Location: 1101 Linwood Street, Brooklyn, N.Y. 11208	Job #:	01-4	4			
Date:02/08/06	_Time:	9:55		_		
Weather Conditions: Cold, Sunny						
Well Information						
Well #: \mathcal{CWP} Well Location (in reference to permanent structures or features): $\mathcal{Sod4}$ Well Coordinates (in reference to permanent structures or features): \mathcal{E} Diameter of Well Flush Mount: \mathcal{S} , \mathcal{S} , \mathcal{S}	ewalk o	on hinwa	d St. S	rethu	rest to	the
Well Coordinates (in reference to permanent structures or features).	UTL8" NO	HH \$ 51	2" into	et ha	buil	sing,
Pierre and the second structures of features).	1 0 100	un of u	200	ther e	1 South	hurest Sitter
Diameter of Well Flush Mount:				,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	J
Diameter of Casing:						
Before Purging						
Is Free Product Present (Yes/No, thickness) (ft., in.):						
Total Depth of Well From Top of Casing or Surveyor's Mark (fl., in.):	21'					
Depth From Top of Casing or Surveyor's Mark to Groundwater (ft., in.)	. 13.15	-/				
Linear Measurement of Groundwater in the Casing (ft., in.):						
Estimated Volume of Groundwater in Casing ($V=\pi^*r^{2*}h$ or =0.7856*h*	d ² , 1 gal.=0.1					a. 1
Purging		10:30	pH 6.21			Cond.
Start Purge Time (24 hr. Clock): 9:55		10:35	6.23	7.56	369	1.99
End Purge Time (24 hr. Clock):		10:40	6.26	10.28	184	1.99
	00	10:45	6.29	11:52	215	002
Purge Method (bladder pump, bailer, etc.): prump in wet		10:30	6.29	0.19	180	1.97
Purge Rate (gal/min.):200 ml/min_			6.28		000	1.19
Purge Range (Estimated Volume of Groundwater in the Casing multiplie	d by 2 and 5)	11:05	6.31	0.00	141	1.98
	d by 5 and 5)	(gal.):	6.30	5.00	112	1.96
Total Volume Purged (gal.):		11	C 07	0 00	000	100
Sampling		11:20	6.28	0.00	28.5	1.98
Groundwater Sample #: <u>GWP-1</u> , <u>GWP-1-MS</u> ; <u>GWP-1</u>	-MSD	11:25	6.28	0.00	27 0	1.97
Sampling Method: Submersille Pump		11:30	6:28	0.00	26.9	1.97
Start Sample Time (24 hr. Clock): <u>11:33</u>	Samp	led by:	rzyż	emai	1	
		ture: Jay	Ne			
End Sample Time (24 hr. Clock): 34	Signi					
Sampling Groundwater Sample #: <u>GWP-1</u> , <u>GWP-1-MS', GWP-1</u> Sampling Method: <u>Submetsible Pump</u> Start Sample Time (24 hr. Clock): <u>11:33</u> End Sample Time (24 hr. Clock): <u>11:34</u> DATAOPFICE/REPORTS/S&S X-RAY/Well Form/hep	Signi	011				
End Sample Time (24 hr. Clock): <u>11, 34</u>	Signi	011				
End Sample Time (24 hr. Clock): <u>11:34</u>	Signi	071				

APPENDIX "C"

CHAIN OF CUSTODY H2M LABS, INC. LABORATORY RESULTS

EXTERNAL CHAIN OF CUSTODY	H2M SDG NO:	Project Contact: BOB Lo Pink, A.F.	Phone Number: 516-791-2300					. NO. REMARKS:	ulsul	FB	TB								LABORATORY USE ONLY	1 Shipped or Hand Delivered Airbill#	 Ambient or chiled Received in good condition: Y or N A Dimensional Y or N 	 Topeny preserved. To N 5. Samples returned to lab Hrs from collection. COCTage was. Doctage was. 	 Untroven on outer package V or N Untroven on outer package Y or N COC record present & complete upon sample receipt: Y or N
RNAL CHAIN		NOTES:					INORG.	Metal CX LABI.D. NO		The second s		The second second					1 1		LABORA	Discrepancies Between Sample Labels and	cord? Y or N	Explain.	
CTER	15					ESTED													Time	Time		Time	Time
Ê	e	1	*		* -	ANALYSIS REQUESTED		+	4	A.	14		11			2/111		1	Date	Date		Date	Date
12481	CLIENT: Shall		e Contair noitgion		< <	etz	ontain ORGANIC		65 64-	2 2	2 2	1	Vellac .	1	*	14 AL 21	1		(a)	(a)		1 10 - (eu	(au
TAT-5076	No. No.						The Est	FIELD I.D.	, 6409-M3, 0401-	AG TH		 as los a	MS /11 - 2 M	Z CANIX _ ALAN		1-1-9-10-1-1-1	1401 5 1000		Time Received by/(Signature)		in man	Time Received by (Signature	Time Received by (Signature)
ABS. d, Meiville, NY 1174	Fax: (516) 420-84.	BER y Predfets	1101 LINWOON 51-17)/Client			N N N		C-WP-				(own-1-	1 2. 44 04	THE THE	1+W	1		Date Date	2	Lehal.	Date	Date
H2M LABS, IN 575 Broad Hollow Rd, Melville, NY 11747-5076	Tel: (516) 694-3040 Fax: (516) 420-8436	PROJECT NAMENUMBER 545 X-RAY Preducts	1101 LINWOUR BRUCKLYN NYY	LARAFLERS: (signature)/Client	1 July 1		TURNAROUND TIME:	DATE TIME MATRIX							No the second se		No la se		Relinquished by (Signature)	Relinquished by (Signature)		Reinquished by. (Signature)	Relinquished by (Signature)

H2M SDG NO:	Project Contact:	Solution Phone Number:	2/10.791.1300	CAT B-FUN BTEX											Date Time LABORATORY USE ONLY	Time Discrepancies Between Sample Labels and	Time Explain:	Date Time 1. Present on outer package: Y or N 2. Unbroken on outer package: Y or N 3. COC record present & complete upon sample receipt
CI IENT.		noitainer noita an So B an C		(<u>co</u>	R sue	enieti	ORGANIC AND	1 1	1 1	1 1	1 1	1 1			nature)	(entre	nature)	nature)
575 Broad Hollow Rd, Melville, NY 11747-5076	ax. (210) +20-0+30	1 P 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Client	isherro .	2			LOCATION #1	Loching HI MATRIXSAIC	Lection #1 Main ustraip	LUCATION #2	LUCATION AS			Date Time Received by: (Signature)	0 3	Date Time Received by (Signature	Date Time Received by: (Signature)
Broad Hollow Rd,	PROJECT NAME/NUMBER	thomas has x sta	SAMPLERS: (signature)/Client	minning Kongrenko	DELIVERABLES:	TURNAROUND TIME:		IO DAMA	-	1 1 K/00 10 00 m 20.2	Inder to even Sail	Idou Munn Son			Relinquished by (Signature)	Relinquished by: (Signature)	inquished by: (Signature)	Relinquished by: (Signature)

VOLAT	1A TILE ORGANICS ANALYSIS DATE	CURRENT.	BPA SAMPLE NO.
	ANDISIS DAIL	ORBET	GWP-1
Lab Name: <u>H2M LAB</u>	S, INC. Contr	act:	
Lab Code: <u>10478</u>	Case No.: SHA SAS	5 No.:	SDG No.: SHA002
Matrix: (soil/wate:	r) WATER	Lab Sample ID:	0602274-001A
Sample wt/vol:	2 (g/mL) <u>ML</u>	Lab File ID:	A\A44844.D
Level: (low/med)	LOW	Date Received:	02/08/06
Moisture: not dec		Date Analyzed:	02/16/06
C Column: <u>R-502.</u>	2 ID: <u>.53</u> (mm.)	Dilution Factor:	1.00
Soil Extract Volume	: (µL)	Soil Aliquot Volu	ime (µL)
CAS NO.	COMPOUND	CONCEN	TRATION UNITS:

1634-04-4	Mothul tout 1	that of have ogly	Q
71-43-2	mengi cerc bucyr echer	5	U
108-88-3	Benzene Toluene	0.7	U
	Ethylbenzene	5	U
	Xylene (total)	5	U
	Aylene (cotal)	5	U

SHA002 S16

FORM I VOA - 1

OLMO4.2

	18		EPA SAMPLE NO
VOLATILI	ORGANICS ANALYSIS	3 DATA SH eet	LOCATION #1
Lab Name: <u>H2M LABS,</u>	INC.	Contract:	
Lab Code: <u>10478</u>	Case No.: SHA	SAS No.:	SDG No.: SHA00
atrix: (soil/water)	SOIL	Lab Sample ID:	0601503-001 λ
ample wt/vol: 5	(g/mL) <u>G</u>	Lab File ID:	6\P30853.D
evel: (low/med)	LOW	Date Received:	01/18/06
Moisture: not dec.	16.1	Date Analyzed:	01/26/06
GC Column: <u>R-502.2</u>	ID: <u>.53</u>	(mm) Dilution Factor	: 10.00
Soil Extract Volume:	(µL)	Soil Aliquot Vo	lume (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(pg/L or pg/Kg UG/KG	Q
1634-04-4	Methyl tert-butyl ether	60	U
71-43-2	Benzene	8	U
108-88-3	Toluene	410	
100-41-4	Ethylbenzene	390000	E
1330-20-7	Xylene (total)	290000	E

SHA001 S15

OLM04.2

FORM I VOA - 1

	12		EPA SAMPLE NO.
VOLATIL	E ORGANICS ANALYSIS DAT	A SHEET	LOCATION #1DL
Lab Name: <u>H2M LABS,</u>	INC. Cont	ract:	
Lab Code: 10478	Case No.: SHA SI	AS No.:	SDG No.: SHA001
Matrix: (soil/water)	SOIL	Lab Sample ID:	0601503-001ADL
Sample wt/vol: 4	(g/mL) g	Lab File ID:	A\A44550.D
Level: (low/med)	MED	Date Received:	01/18/06
% Moisture: not dec.	16.1	Date Analyzed:	01/27/06
GC Column: <u>R-502.2</u>	ID: <u>.53</u> (mmn)	Dilution Factor:	1,000.00
Soil Extract Volume:	10000 (µL)	Soil Aliquot Vol	ume 100 (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(pg/L or pg/Kg UG/KG	Q
1634-04-4	Methyl tert-butyl ether	15000	U
71-43-2	Benzene	2100	U
108-88-3	Toluene	15000	U
100-41-4	Ethylbenzene	200000	D
1330-20-7	Xylene (total)	1200000	D

SHA001 S16

FORM I VOA - 1

OLM04.2

	13		EPA SAMPLE NO.
VOLATILE	ORGANICS ANALYSIS DATA	SHEET	LOCATION #2
ab Name: <u>H2M LABS,</u>	INC. Contra	act:	6
Lab Code: <u>10478</u>	Case No.: SHA SAS	No.:	SDG No.: SHA001
Matrix: (soil/water)	SOIL	Lab Sample ID:	0601503-002A
Sample wt/vol: 5	(g/mL) @	Lab File ID:	6\P30857.D
Level: (low/med)	LOW	Date Received:	01/18/06
Moisture: not dec.	10.2	Date Analyzed:	01/26/06
GC Column: <u>R-502.2</u>	ID: <u>.53</u> (mman)	Dilution Factor:	10.00
Soil Extract Volume:	(µL)	Soil Aliquot Vol	.ume(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg UG/KG	Q	
1634-04-4	Methyl tert-butyl ether	56	U	
71-43-2	Benzene	8	U	
108-88-3	Toluene	56	U	
100-41-4	Ethylbenzene	1000		
1330-20-7	Xylene (total)	15000	E	

FORM I VOA - 1

OLM04.2

SHA001 S17

	11		EPA SAMPLE NO.
VOLATILI	ORGANICS ANALYSI	S DATA SHBET	LOCATION #2DL
Lab Name: <u>H2M LABS,</u>	INC.	Contract:	
Lab Code: <u>10478</u>	Case No.: SHA	SAS No.:	SDG No.: SHA001
Matrix: (soil/water)	SOIL	Lab Sample ID:	0601503-002ADL
Sample wt/vol: 4	(g/mL) g	Lab File ID:	A\A44551.D
Level: (low/med)	MED	Date Received:	01/18/06
% Moisture: not dec.	10.2	Date Analyzed:	01/27/05
GC Column: <u>R-502.2</u>	ID: <u>.53</u>	(mm) Dilution Factor:	1.00
Soil Extract Volume:	10000 (µL)	Soil Aliquot Vol	ume 100 (µL)

CONCENTRATION UNITS:

CAS NO. COMPOUND		(µg/L or µg/Kg UG/KG	Q	
1634-04-4	Methyl tert-butyl ether	700	U	
71-43-2	Benzene	97	U	
108-88-3	Toluene	700	U	
100-41-4	Ethylbenzene	1800	D	
1330-20-7	Xylene (total)	29000	D	

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OLM04.2

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11		EPA SAMPLE NO.
VOLATILE ORGANICS ANALYS	IS DATA SHEET	LOCATION #3
Lab Name: H2N LABS, INC.	Contract:	
Lab Code: 10478 Case No.: SHA	SAS No.:	SDG No.: SHA001
Matrix: (soil/water) SOIL	Lab Sample ID:	0601503-003A
Sample wt/vol: <u>5</u> (g/mL) <u>G</u>	Lab File ID:	6\P30859.D
Level: (low/med) <u>LOW</u>	Date Received:	01/18/06
% Moisture: not dec. <u>13</u>	Date Analyzed:	01/26/05
GC Column: <u>R-502.2</u> ID: <u>.53</u>	(mm) Dilution Factor:	10.00
Soil Extract Volume: (µL	.) Soil Aliquot Vol	ume (µL)

CONCENTRATION UNITS:

CAS NO. COMPOUND		(µg/L or µg/Kg UG/KG	
1634-04-4	Methyl tert-butyl ether	57	U
71-43-2	Benzene	8	U
108-88-3	Toluene	57	U
100-41-4	Ethylbenzene	57	U
1330-20-7	Xylene (total)	25000	E

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OLM04.2

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	12		BPA SAMPLE NO).
VOLATILE ORGANICS ANALYSIS DATA SHEET		LOCATION #3DI		
Lab Name: <u>H2M LABS</u>	, INC. Contra			
Lab Code: 10478	Case No.: SHA SAS	No.:	SDG No.: SHA00	L
Matrix: (soil/water) <u>soil</u>	Lab Sample ID:	0601503-003ADL	
Sample wt/vol: 4	(g/mL) g	Lab File ID:	A\A44552.D	
Level: (low/med)	MED	Date Received:	01/18/06	
% Moisture: not dec	. <u>13</u>	Date Analyzed:	01/27/05	
GC Column: <u>R-502.2</u>	ID: <u>.53</u> (mm)	Dilution Factor:	1.00	
Soil Extract Volume	: <u>10000</u> (µL)	Soil Aliquot Vol	VIRATION UNITS:	
CAS NO.	COMPOUND		or µg/Kg UG/KG	
1634-04-4	Methyl tert-butyl ether		720	_
71-43-2	Benzene		100	-
108-88-3	Toluene		720	-
100-41-4	Ethylbenzene		720	-
1330-20-7	Xylene (total)		20000	-

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OLM04.2

APPENDIX "D"

PHOTOGRAPHIC LOG AND PHOTOGRAPHS



01/18/2006 - Permanent Down Gradient Monitoring Well Installation Boring



01/18/2006 - Groundwater Well



01/18/2006 - Soil Sampling with Geo-Probe Unit 01/18/2006 - Capped Monitoring Well



01/19/2006 - RegenOx Mixing

01/19/2006 - Adding Activator to the Mixture



01/18/2006 - RegenOx Injection

01/20/2006 - RegenOx Injection at Location # 8



01/20/2006 - RegenOx Injection at Location # 3

02/08/2006 - Groundwater Purging



02/08/2006 - Monitoring Well Locked after Sampling 02/08/2006 - Sealed Monitoring Well

APPENDIX "E"

DATA USABILITY SUMMARY REPORT

DATA USABILITY SUMMARY REPORT

<u>GENERAL</u>

This Data Usability Summary Report (DUSR) provides a thorough evaluation of the analytical data submitted by H2M Labs, Inc. for the purpose of determining whether or not the data meets the required level of quality. The DUSR is developed by reviewing and evaluating the analytical data packages. This review is facilitated by answering standard questions relating to the quality of the data, and by following guidance in the USEPA Contract Laboratory Program (CLP) Statement of Work for Organic Analysis. A groundwater sample collected at 1101 Linwood Street, Brooklyn, was analyzed under data sample package SHA002, while three soil samples were analyzed under data Package, followed by summary comments on the overall data.

DATA PACKAGE SHA002

1. Is the data package complete under the requirements of New York State Department of Environmental Conservation Analytical Services Protocol (ASP) Category B?

A review of the data package indicates it contains all the required documentation. This data package consists of one sample, one matrix spike, one matrix spike duplicate, one trip blank and one field blank. The chain of custody is complete, and matches the data in the report regarding sample identification. The sample receipt checklist indicates the sample and chain of custody as delivered were in compliance with the appropriate requirements, including preservation, except that some vials had headspace.

2. Have all holding times been met?

GWP-1 sample was collected on 2/8/06. The sample was analyzed on 2/16/06, within at least 9 days, which is well below the limit of 14 days for preserved samples. No flags, actions or qualifications were applied to the data based on the holding time.

3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analysis, laboratory controls and sample data fall within the protocol required limits and specifications?

A review of QA/QC data indicates no discrepancies with the following: the initial and continuing calibration; internal standards; the contract required detection Imit (CRDL) standard; method blank; field blank; trip blank; and spike samples. The sample results' data are within the protocol and instrument limits. Samples GWP-1-MS and GWP-1-MSD were utilized for the spike and the duplicate QC analysis. The spike and duplicate analyses were within the required limits.

4. Have all of the data been generated using established and agreed upon analytical methods?

The analytical method 8260B used for analysis is the approved method listed in Item No. 180.2 of the NYS Department of Health Environmental Laboratory Approval Program Certification Manual.

5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and Quality Control verification forms?

Yes, an evaluation of the raw data confirms the results provided in the data summary sheets and the Quality Control verification forms.

6. Have the correct data qualifiers been used?

A review of all QA/QC results indicates that the laboratory applied the correct qualifiers to the appropriate sample results. Also, the proper qualifiers have been noted in the report's table of results.

7. Conclusion

Based on a review of the entire data package, it has been determined that all data results are acceptable and meet or exceed the required Quality Controls.

DATA PACKAGE SHA001

1. Is the data package complete under the requirements of New York State Department of Environmental Conservation Analytical Services Protocol (ASP) Category B?

A review of the data package indicates it contains all the required documentation. This data package consists of three samples, one matrix spike, one matrix spike duplicate, and one trip blank. The chain of custody is complete, and matches the data in the report regarding sample identification. The sample receipt checklist indicates the samples and chain of custody as delivered were in compliance with the appropriate requirements, including preservation. Sample location #1 was analyzed as the matrix spike/matrix spike duplicate.

2. Have all holding times been met?

The samples were collected on 1/18/06. The samples were analyzed on 1/26/06 and 1/27/06, within 9 - 10 days, which is well below the limit of 14 days. No flags, actions or qualifications were applied to the data based on the holding time.

3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analysis, laboratory controls and sample data fall within the protocol required limits and specifications?

A review of QA/QC internal standards indicates no discrepancies with the following: the initial and continuing calibration; internal standards the contract required detection limit (CRDL) standard; method blanks and surrogate spike sample. The samples' results data are within the protocol and instrument limits. Samples matrix spike and matrix spike duplicate from location #1 were utilized for the spike and duplicate QC analysis. The spike analysis and duplicate were within the required limits.

4. Have all of the data been generated using established and agreed upon analytical methods?

The analytical method 8260B used for analysis is the approved method listed in Item No. 180.3 of the NYS DOH Environmental Laboratory Approval Program Certification Manual.

5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and Quality Control verification forms?

Yes, an evaluation of the raw data confirms the results provided in the data summary sheets and the Quality Control verification forms.

6. Have the correct data qualifiers been used?

A review of all QA/QC results indicates that the laboratory applied the correct qualifiers to the appropriate sample results. Also, the proper qualifiers have been noted in the report's table of results.

7. Conclusion

Based on a review of the entire data package, it has been determined that all data results are acceptable and meet the required Quality Controls.

<u>SUMMARY</u>

The data presented on the report's table of results is an acceptable representation of the true value of all contaminants tested. Where laboratory results were above the instrument detection limit, but below the laboratory required detection limit, the actual value is presented.

> ELLIOT J. SHAPIRO, P.E., DEE, F, NSPE NEW YORK 38645 MAY 4, 2006

CERTIFICATION

The data produced in this Report is certified to be a true copy of the Field and Analytical Data.

ROBERT A. LO PINTO, P.E., NSPE NEW YORK #53312 MAY 4, 2006