## Phase II Remedial Investigation Work Plan

Millington Quarry Site Stonehouse Road Block 6001, Lot 6 Basking Ridge, New Jersey

**Prepared for:** 

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> March 2011 JMS Project # 2008.226

**Prepared by:** 

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## **Table of Contents**

1		INTRODUCTION1
2		PHYSICAL SETTING1
	2.1	Site Topography and Drainage1
	2.2	Site Geology2
	2.3	Site Hydrogeology2
	2.4	Site Soils2
3		PHASE I RI AND FILL SAMPLING DATA
	3.1	Phase I Sampling of Fill Area A - RI Findings3
	3.2	Previous Sampling of Fill Area B - RI Findings3
	3.3	Previous Sampling of Fill Area C - RI Findings3
	3.4	Groundwater4
4		PHASE II REMEDIAL INVESTIGATION
	4.1	Phase II RI Concept Plan4
	4.2	Fill Area A Sampling Plan5
	4.3	Fill Area C Sampling Plan6
	4.4	Groundwater Monitoring Well6
5		QUALITY ASSURANCE PROJECT PLAN
	5.1	Project Organization and Responsibilities6
	5.2	Identification of Applicable Remediation Standards7
	5.3	Laboratory Analysis and Validation7
	5.4	Analytical Methods / Quality Assurance Summary8
	5.5	Quality Control8
	5.5.	.1Field Decontamination8
	5.5.	2Drilling and Trackhoe Equipment9
	5.5.	.3Subsurface Soil Sampling9
	5.5.	.4Field Instrument Calibration and Maintenance9
6		HEALTH AND SAFETY PLAN9
7		CERTIFICATIONS

## **Table of Contents (Continued)**

#### **FIGURES**

- Figure 1: Site Location Map
- Figure 2: Site Plan showing Fill Areas and Existing Monitoring Wells
- Figure 3: Site Plan showing Fill Area A's Phase I Soil Sampling Locations
- Figure 3A: Site Plan showing Fill Area B and C's Phase I Soil Sampling Locations
- Figure 4: Site Plan showing Phase II Proposed Soil Sampling and Monitoring Well Locations

#### **TABLES**

Table 1: JMS' Previous Soil Sampling Analytical Results Summary

 Table 2: Groundwater Analytical Results Summary

#### **APPENDICES**

Appendix A: Health and Safety Plan

Appendix B: Icon's Previous Soil Sampling Analytical Results Summary



## **1 INTRODUCTION**

JM Sorge, Inc. (JMS) was retained by Day Pitney, LLP (Day Pitney) on behalf of Millington Quarry, Inc. (MQI) and by K&L Gates, LLP (K&L Gates) on behalf of Tilcon New York Inc. (Tilcon) to evaluate the environmental quality of the imported fill soils placed within the Millington Quarry, Inc. (MQI) site. Fill soils were brought into the quarry from 2006 to 2008, to "pad" the steep rock slopes as mandated by the site reclamation plan approved by Bernards Township for the site.

A Phase I investigation plan was approved by the Department in October 2009 and the results report was submitted the in April 2010. The Department issued comments in October 2010 and required the completion of a Phase II investigation to provide additional fill characterization information. The following Phase II Remedial Investigation Work Plan (RIWP) for Case Number 09-05-01-1130-55 provides a brief summary of previous sampling conducted and presents a detailed plan to complete the additional fill sampling required by NJDEP to characterize the imported fill.

## 2 PHYSICAL SETTING

The Millington Quarry site is designated as Tax Block No. 6001 Lot 6 on the Bernards Township tax map. The site is located on Stonehouse Road, in Bernards Township, Somerset County, New Jersey. The site has operated over the past century as a trap rock mining and quarry operation. The site includes approximately 180 acres, roughly two thirds of which comprise the quarry pit, with the remainder used for stockpiling quarry over burden soils and non-trap rock stone materials. The site is located at approximately 40° 40′ 45″ N latitude and 74° 32′ 13″ W longitude. The site is bordered by residential property to the south and west along Stonehouse Road. The Delaware Railroad borders the site to the north and east with residential property beyond the railroad in these directions. A site location map is included as Figure 1 and a site map showing the three fill areas is provided as Figure 2.

#### 2.1 Site Topography and Drainage

The property occupies the southern edge of a "reversed C" shaped ridge which extends from Somerset County to Passaic County. The current site topography primarily slopes inward towards the quarry floor which is in excess of 200 feet deep towards the northern end of the quarry. The nearest surface water bodies are two (2) tributaries of the Passaic River. One tributary is located north of the subject property and the other tributary is located southwest of the property. The Passaic River is located to the east of the site. In addition, there is also a quarry settling pond located at the base of the present quarry which collects runoff within the Quarry. The location of the quarry settling pond has changed repeatedly over the operational history of the site. Within the quarried areas, collected surface runoff is used for dust control and stone product processing. Excess accumulation of runoff, which is collected in the quarry settling pond, is discharged to the Passaic River under an active New Jersey Pollution Discharge Elimination System (NJPDES) permit.

#### 2.2 Site Geology

The quarry is located within the Piedmont Physiographic Province, which is described as a low rolling plain interspersed with a series of higher ridges. The quarry is part of the Hook Mountain Basalt (Jh) Formation. It is light to dark greenish gray, medium to coarse-grained amyghdaloial composed of plagioclase, clinopyroxene and iron-titanium oxides such as magnetite and ilmenite. Hook Mountain Basalt Formation consists of basalt that is high in calcic-plagioclase feldspar and pyroxene, as well; apatite and magnetite are also nearly always present. Olivine may also occur.

The Hook Mountain Formation was formed by volcanic activity. The volcanic activity was also associated with the rifting, as indicated by the basalt and diabase interlayered with the sandstone and shale. Therefore the Hook Mountain Formation contains large intrusions of diabase rock and basalt. Between these ridges are pockets of shale and sandstone. Arsenic is associated with diabase intrusions in this region.

#### 2.3 Site Hydrogeology

Groundwater in the vicinity of the quarry is present within the underlying bedrock of the Towaco formation as documented in the Hydrologic Impacts Assessment prepared by Leggette, Brashears & Graham, Inc. (LBG). Groundwater flow, based on regional data, occurs primarily within the fractures, faults and bedding planes of the underlying sedimentary rock.

Three on-site monitoring wells have been installed at the site. Two monitoring wells are installed in Area A and one in Area C. Groundwater elevation has been measured during several quarterly sampling events conducted at the site.

#### 2.4 Site Soils

According to the Soil Survey of Somerset County - USDA Soil Conservation Service and NJDEP I-Map, soils surrounding the site are comprised of silts and silty clay of the Neshaminy – Mount Lucas Series (NkC). Gravel sized and boulder sized bedrock fragments as well as in-situ weathered bedrock are also present in the overburden soil at the Quarry. Due to quarry operations, the majority of the overburden has been stockpiled on the southern portion of the property in order to allow mining to proceed to the north. Prior to quarry operations, soils and weathered bedrock may have extended to depths of up to 30 feet thick across portions of the site.

## 3 PHASE I RI AND FILL SAMPLING DATA

The objective of the approved Phase I RIW was to characterize the fill present within the identified areas of the Millington Quarry site. In October and November 2009, a total of 85 soil samples were collected in Fill Areas A, B and C. The results confirmed that the fill contains sporadic low levels of contaminants slightly in excess of residential standards.

### 3.1 Phase I Sampling of Fill Area A - RI Findings

The borings, test pits, and monitoring well locations completed within Fill Area A are shown on Figure 2. As shown, a total of 4 deep and 20 shallow test pit / soil borings were installed within Fill Area A in October and November 2009. Samples were collected by JMS on behalf of the Quarry and a duplicate set of split samples was collected by ICON Engineering on behalf of Bernards Township. They were analyzed for BNAs+25, Metals, PCBs and Pesticides with 25% selected for chromium analysis.

The test pits were advanced until groundwater was encountered or a maximum depth of reach of the excavator. Deep soil borings were installed using either mud rotary or Odex drill rig. All soil borings were advanced until bedrock or refusal was encountered. JMS personnel logged the soil descriptions, PID and XRF readings and site observations while in the field.

JMS submitted 64 samples for laboratory analysis from Area A. The analysis results were submitted in the Remedial Investigation Report (RIR) dated April 2010. The results confirmed the scattered presence of low levels of metals, semi-volatiles, and other typical fill related contaminants, as anticipated. There was no correlation with sample depth or location within the fill. No hexavalent chromium was identified in the fill and no contaminants in excess of the default synthetic precipitation leachate procedure (SPLP) were identified. The SPLP analysis was conducted to determine if the presence of the fill would impact underlying groundwater quality. Analysis results for JMS and Icon are presented on Figure 3.

#### 3.2 Previous Sampling of Fill Area B - RI Findings

Area B consists of 2.65 acres area representing a small northeastern portion of the quarry site. JMS and Icon collected split samples in the test pit/soil boring locations depicted on Figures 2 and 3A. JMS installed two soil borings and two test pit locations within fill Area B. JMS collected a total of eight soil samples from Area B. No metals, PCBs or pesticides were identified in excess of the residential standard. However, two of the eight samples (MB-2A and MB-2B), slightly exceeded NJDEP's strictest remediation standard for semi-volatiles. The laboratory analytical data obtained by JMS are summarized in Table 1. Icon also analyzed 8 samples from Area B, no contamination was identified in any of the Icon samples from Area B. Icon's analytical data is summarized in Appendix B. JMS and Icon's soil sampling analytical results are depicted on Figure 3A.

#### 3.3 Previous Sampling of Fill Area C - RI Findings

Area C is the oldest area of fill and consists of approximately 6.42 acres which was present prior to 1998. Area C represents a combination of native fill and some historically imported fill which was used to construct the current quarry access road. During Phase I of the investigation, a total of four soil borings were installed (see Figure 2). Two shallow soil borings were advanced to a depth of 40 feet below grade and sampled at random depths. The two deep soil borings were randomly field screened using a calibrated PID and an XRF. Soil descriptions, PID and XRF readings and site observations were logged in the field. JMS collected and analyzed a total of thirteen soil

samples from Fill area C. No contaminants were identified in excess of the Department's unrestricted use (residential) soil cleanup standard.

#### 3.4 Groundwater

Due to the un-anticipated difficulties encountered in installing deep borings on the site, the Phase I program was expanded to include groundwater sampling. Three permitted groundwater monitoring wells (MW-1, MW-2, and MW-3) were installed at the site. Monitoring wells MW-1 and MW-2 were installed in Area A and monitoring well MW-3 was installed in Area C using a combination of dual rotary and Odex drilling techniques. Two weeks following the monitoring well installation, JMS personnel sampled the monitoring wells. Monitoring Well MW-3 did not contain sufficient groundwater for sampling; therefore this well was properly abandoned and replaced with MW-3R.

Five rounds of groundwater sampling were conducted for MW-1 and MW-2 and four rounds for MW-3R, from January 2010 to January 2011. The JMS and ICON sampling results are provided in Table 2. As discussed in the RI report, Arsenic is a component of the native diabase bedrock in the Quarry; therefore, its presence in the down-gradient well by the settling pond represents a natural background condition and does not warrant further concern. Groundwater elevations were recorded during each sampling event. Based on the results groundwater flow is directed generally to the east as shown on Figure 4.

The results obtained by JMS show levels of Benzo(a)Anthracene, Benzo(a)Pyrene, Benzo(f)Fluoranthene, Benzo(k)Fluoranthene, Bis(2-ethylhexyl)phthalate, Dibenzo(a,h)Anthracene, Indeno(1,2,3-cd)Pyrene, Arsenic, Lead, Chlordane, and p,p'-DDT in well MW-1. ICON results did not confirm the JMS results. However, we believe that semivolatile and other low levels of groundwater contamination reported are valid based on our review of laboratory data. JMS proposes to continue monitoring the groundwater quality on a quarterly basis in the Quarry and to install an additional well as discussed below.

## **4 PHASE II REMEDIAL INVESTIGATION**

The Phase II Work Plan (RIWP) was developed in response to the Department's response to the Phase I RI report dated October 4, 2010. The objective is to complete additional characterization sampling to the extent feasible within the Quarry in order to obtain sufficient data to support the final remedy. The vertical and horizontal extent of this fill has been determined; however, additional characterization sampling data is required by the Department to provide additional characterization of the fill soil present.

#### 4.1 Phase II RI Concept Plan

Drilling deep soil borings proved to be impossible within the deep fill in Area A during the Phase I investigation. Due to the variability of the size and type of fill present, it was not possible to maintain drilling fluid within a borehole and thus severely limited the depth of sampling which could be achieved in the Area A fill. The following plan was developed to

achieve the additional vertical characterization sampling of the fill requested by the Department; while reducing the need for deep drilling.

#### 4.2 Fill Area A Sampling Plan

Area A is the most difficult fill area to investigate due to the extremely difficult drilling conditions, the extensive depth of fill, and the extreme slopes. The Phase II plan includes additional test pits, the installation of an additional monitoring well and deep boring within the Area A fill. In addition, ten additional locations will be selected for deep vertical sampling during excavation of the face of the Area A fill during final grading. An additional eleven test pits will be installed using a track hoe, at the approximate locations shown on Figure 4. The goal is to increase the general areal coverage of shallow (15 to 20') soils, since these soils represent the greatest direct contact risk. In addition, the historical data used to establish the boundary between Area A and Area B fill is not precise. Therefore, additional test pits are required along the Area A and B fill boundary to confirm the fill boundary in this area of the site to support the final remedial design for the proposed engineered cap.

A deep boring will be installed along the rock wall to the north of the Area A fill (Figure 4). The boring will be continuously scanned and logged with laboratory samples collected at depth intervals of approximately 15 feet, as previously approved by the Department for Phase I. Following sampling the boring will be converted to a permitted groundwater well. The boring will be advanced to bedrock or refusal. The objective is to provide a supplemental down gradient well to insure that the sporadic impacts observed in MW-1 (Table 2 as discussed in section 3.4) are completely delineated. A second deep boring will be installed as shown on Figure 4. The boring will be advanced to refusal or bedrock. It should be noted that based on previous drilling and sampling attempts in this area, it may not be possible to install this boring to bedrock.

The third component of the Phase II plan will utilize the proposed re-grading and consolidation of Area A fill as a means to obtain additional vertical fill characterization data for the site. The Quarry proposes to consolidate the present extent of the Area A fill to support the proposed final capping remedy at the site. This will reduce the extent of the Area A fill to approximately 45 acres. The approximate consolidation line is shown on Figure 4.

A comparison of the current anticipated fill depth along the consolidation line shows that fill ranges in depth from 60 to over 80 feet deep along the consolidation line. JMS is proposing to conduct vertical fill sampling from the excavation face at ten locations. Each vertical face location will be continuously logged and scanned. A minimum of 4 samples per location will be selected for laboratory analysis. The consolidation sampling will be deferred until the regrading of the fill is conducted during the initial field work associated with the final remedy selected for the site. A total of 22 shallow soil samples and a total of 10 deep soil samples will be collected in Fill Area A during the initial program and an additional 40 vertical characterization samples will be collected during re-grading.

#### 4.3 Fill Area C Sampling Plan

Fill Area C is located adjacent to Fill Area A (southwest corner), approximately 150 feet from the southwestern property boundary of the site and covers approximately 6.42 acres of the site. The imported fill in this area is older and was placed earlier than the fill present in Area A or B.

JMS will advance three shallow soil test pits or borings into Fill Area C to complete the characterization of the imported fill at the locations shown on Figure 4. Each test pit will be advanced to refusal or the maximum depth of reach of the excavator (14 to 14.5 feet below grade), whichever occurs first. Soils will be continuously screened within each boring. The soils will be visually inspected, logged and screened with a calibrated PID. Soil descriptions, PID readings, and site observations will be logged during the investigation. A maximum of 2 samples per shallow test pit will be submitted for laboratory analysis for BNs+25, TAL Metals, and Pesticides/PCBs. Samples selected for laboratory analysis will be biased toward any areas which are visually stained or where high readings are detected.

#### 4.4 Groundwater Monitoring Well

Three monitoring wells have already been installed at the site. Two monitoring wells are installed in Area A and one in Area C. The groundwater appears to flow in a northeast as shown on Figure 4. Therefore, the deep boring located along the northern wall will be converted into a groundwater monitoring well as previously discussed. Figure 4 illustrated the location of this proposed monitoring well. As mentioned in section 4.3, soil samples will be collected from this boring prior to the installation of the monitoring well.

## 5 QUALITY ASSURANCE PROJECT PLAN

This Quality Assurance Project Plan (QAPP) has been prepared by JMS for this Phase II RIW in accordance with N.J.A.C. 7:26E-2.2. The QAPP follows the requirements provided under N.J.A.C. 7:26E-2.2(a)1. Quality Assurance/Quality Control (QA/QC) protocols to ensure that the precision accuracy, representiveness, comparability, and completeness (PARCC parameters) of data collected during the Phase II RI activities meets the objectives of this RIW, the NJDEP FSPM and the TRSR (N.J.A.C. 7:26E). The QA/QC protocols for the Phase II RIW will include project management and organization, laboratory analysis and validation procedures, field decontamination procedures, calibration and maintenance of field instruments, and QA/QC sampling procedures. The following section outlines the QA/QC protocols for each of these issues.

#### 5.1 Project Organization and Responsibilities

The responsibilities of the key project personnel are detailed below.

• The Project Manager is responsible for overseeing the implementation of the RI tasks. The Project Manager will review all documents and correspondence concerning the activities performed. The Project Manager is also responsible for the overall QA

including technical adequacy of the RI activities and reports, and conformance to the scope of work.

- The RI Team members include the sampling team and support staff, who are responsible for work in their respective specialty areas, which are or may be required to meet the project objectives.
- The Project Health and Safety Coordinator is responsible for implementing the sitespecific health and safety directives in the HASP and for contingency response.
- The Site Scientist is responsible for coordination of the activities of field personnel and of the drilling and surveying subcontractors; adherence of the field work to the procedures specified in the RIW; and documentation of the fieldwork. The Site Scientist is also designated as the Site Safety Officer.
- The Data Validator is responsible for review of laboratory data for compliance with the QA objectives for the PARCC parameters, and notifications to the Project Manager of any QC deficiencies.

### 5.2 Identification of Applicable Remediation Standards

The soil remediation standards applicable to the site are the Soil Remediation Standards established by the NJDEP on June 2, 2008 (N.J.A.C. 7:26D) and the applicable impact to groundwater soil criteria (October 2005 guidelines) for any contaminants identified on the site.

All soil samples collected will be submitted to an NJDEP certified laboratory for analysis for Base Neutrals plus forward library search, Target Analyte List (TAL) Metals, Pesticides, and Polychlorinated Biphenyl's (PCBs). These represent the Contaminants of Concern (COC) within the imported fill soils based on the historical data.

Contaminants of Concern	Acronym	Laboratory
		Method
Base Neutrals + 25	BN	8270C
Target Analyte List (TAL) Metals	PPM	6010B/6020
Pesticides and Polychlorinated	Pesticides &	8081/8082
Biphenyl's	PCBs	

The Quarry will split all samples with representatives of Bernards Township as conducted during the Phase I investigation, if desired.

#### 5.3 Laboratory Analysis and Validation

All laboratory analysis will be conducted by a NJDEP certified laboratory. The laboratory analyses will be reviewed for completeness and technical compliance with the RIR. The review of the analytical results will include checking chain-of-custody forms, sample holding times,

blank contamination, spike recoveries, surrogate recoveries, internal standards, precision of duplicate sample analysis, and laboratory control samples.

	Sampling Summary Table Millington Quarry Site														
Sample Location	Matrix	Sample Depths	Holding Time	Analytical Parameters (Analytical Method)	Required Preservative	Sampling Method									
	Soil	To be	BN - 7 day extraction	BN+25 (EPA 8270C) TAL Metals (EPA		Split									
All Soil Borings		determined in the field	PPM - 6 months Pesticides - 7 day extraction	6010B / 6020) Pesticides (8081)	Cool, 4 C	spoon samplers									
			PCBs – 14 day extraction	PCBs (8082)											

## 5.4 Analytical Methods / Quality Assurance Summary

#### 5.5 Quality Control

During field sampling activities, field QC samples consisting of field blanks will be collected. These samples will be submitted to the analytical laboratory for analysis concurrently with actual field samples. As stated in the NJDEP FSPM, trip blanks are not required for nonaqueous matrices and will not be collected. The field blank will be used for BN, PPM, and Pesticides analyses and is a mechanism of control on sample equipment handling, preparation, storage, and shipment. At the field sampling location, the field blank water will be passed from the full set of bottles through the dedicated or field-decontaminated sampling equipment to comparable laboratory supplied glassware. The field blank is also used to indicate potential contamination from ambient air as well as from sampling instruments used to collect and transfer samples from point of collection into sample containers. Field blanks will be preserved in the same manner as environmental samples. One field blank per sampling event for each analytical parameter will be collected.

#### 5.5.1 Field Decontamination

Field decontamination will be conducted on all non-dedicated, reusable sampling equipment used during implementation of the RIW. Examples of this equipment include drilling rigs, split spoon samplers and trackhoe bucket. Field decontamination will be conducted in accordance with the NJDEP Field Sampling Procedures Manual (August 2005).

#### 5.5.2 Drilling and Trackhoe Equipment

The drilling equipment will be controlled by a New Jersey licensed well driller. The trackhoe equipment will be controlled by a licensed trackhoe operator. Prior to drilling each soil boring location, the split spoon sampling equipment will be properly cleaned to minimize cross contamination.

#### 5.5.3 Subsurface Soil Sampling

Subsurface soil samples will be collected and logged at depths designated within the plan. Test pit samples will be collected using laboratory supplied glassware. The procedure for split-spoon sampling consists of the collection and extraction of undisturbed soil cores of 24 inches in length. A series of consecutive cores may be extracted with a split-spoon sampler to give a complete soil column profile, or an auger may be used to drill down to the desired depth for sampling. The split spoon is then driven to its sampling depth through the bottom of the augured hole and the core extracted. When split-spoon sampling is performed to gain geologic information, all work will be performed in accordance with ASTM D 1586-67 (reapproved 1974). Split spoons will be constructed of stainless steel.

After driving and retrieving the split spoon sampler, the soil will be screened visually and with a calibrated photo ionization detector (PID). Soil descriptions, PID readings, and site observations will be logged during the investigation and then the appropriate soil samples will be collected for laboratory analyses.

#### 5.5.4 Field Instrument Calibration and Maintenance

The field instruments such as the PID will be calibrated daily according to the manufacturer's instructions. Instrument calibrations will be documented on the applicable Daily Log. The calibration of laboratory instrumentation used for the analysis of samples will be performed in accordance with the specified analytical method and reported by the certified laboratory performing the calibrations.

## 6 HEALTH AND SAFETY PLAN

A Site Specific Health and Safety Plan (HASP) was prepared for the Phase I RIW as required by N.J.A.C. 7:26E-4.2 and N.J.A.C. 7:26E-1.9. The HASP was developed in accordance with the most recently adopted pertinent regulations under the Occupation Safety and Health Administration rules for HAZWOPER projects. The Phase I HASP is provided as Appendix A and will be used for the Phase II program as well.

## 7 CERTIFICATIONS



#### N.J.A.C. 7:26C-1.2 et. seq.

Any person making a submission to the Department required by this chapter and pursuant to N.J.A.C. 7:26E, shall include the following signature and notarized certification, for each technical submittal. Additionally, the certification shall indicate the case name and address, case number, type of documents submitted, e.g. Remedial Action Report, for each technical submittal.

TYPE OF DOCUMENT \_\_\_\_\_ Phase II Remedial Investigation Work Plan

CASE NAME Millington Quarry Site

CASE ADDRESS Stonehouse Road, Basking Ridge, Somerset County, N

CASE NUMBER 09-05-01-1130-55

The following certification shall be signed by:

- 1. For a corporation, by a principal executive officer of at least the level of vice president;
- 2. For a partnership or sole proprietorship, by a general partner of the proprietor, respectively, or,
- 3. For a municipality, State, Federal or other public agency, be either a principal executive officer or ranking elected official.
- 4. Duly authorized representative of a corporation, partnership, sole proprietorship, municipality, state or Federal or other public agency, as applicable. A person is deemed to be a duly authorized representative if the person is authorized in writing by an individual described in 1, 2, or 3 above and the authorization meets the following criteria:
  - The authorization specifies either an individual or a position having responsibility for the overall operation of the industrial establishment or activity, such as the position of plant manager, or superintendent or person of equivalent responsibility (a duly authorized representative may thus be either a named individual or any individual occupying a named position);
  - The written authorization is submitted to the Department; and
  - If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the industrial establishment or activity, a new authorization satisfying the requirements listed above shall be submitted to the Department prior to, or together with, any reports, information, or applications to be signed by an authorized representative.

"I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement that I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties."

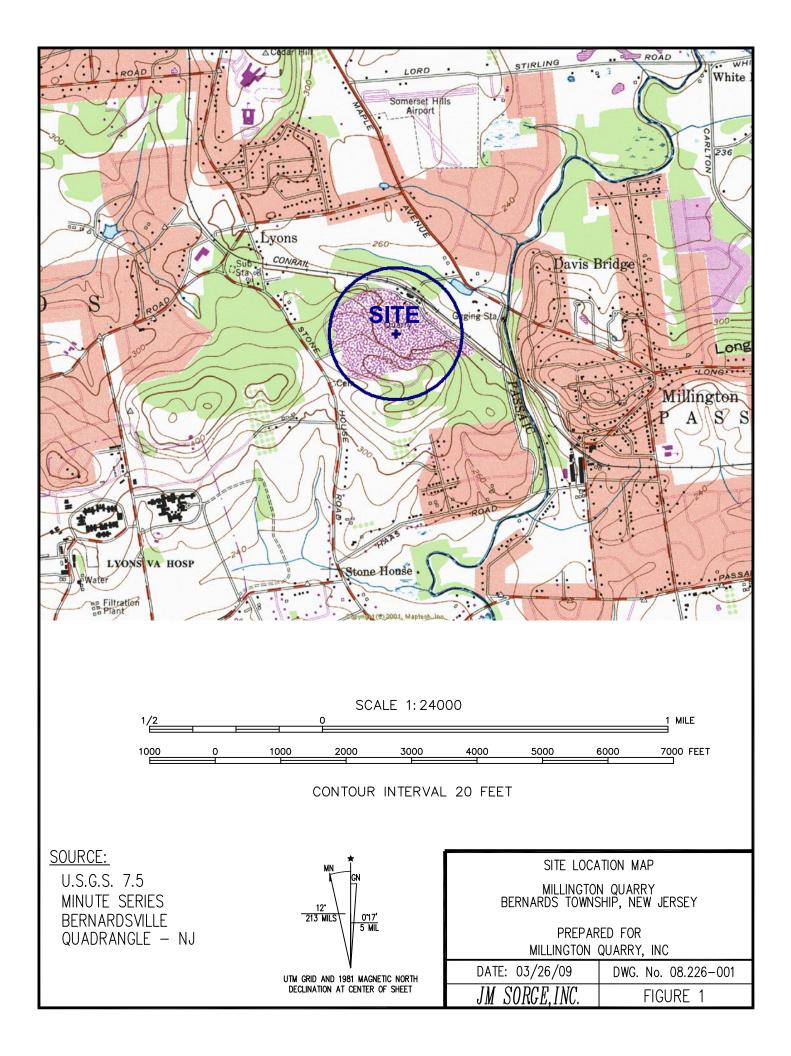
PRINTED NAME Gary Mahan /		_TITLE <u>President</u>	
o/b/o Millington Quarry, Inc.			
SIGNATURE		DATE <b>3-14-11</b>	
Sworn to and Subscribed Before Me on this			
Day of Marda 2011		ELFANOR P. D.C.	
C. F.	_Notary	ELEANOR E PLOSHAY NOTARY PUBLIC STATE DE NEULIC	
		MY COMMISSION FYRING	
JM Sorge, Inc. environmental consultants		JUNE 20, 2011	Page 11 of 12

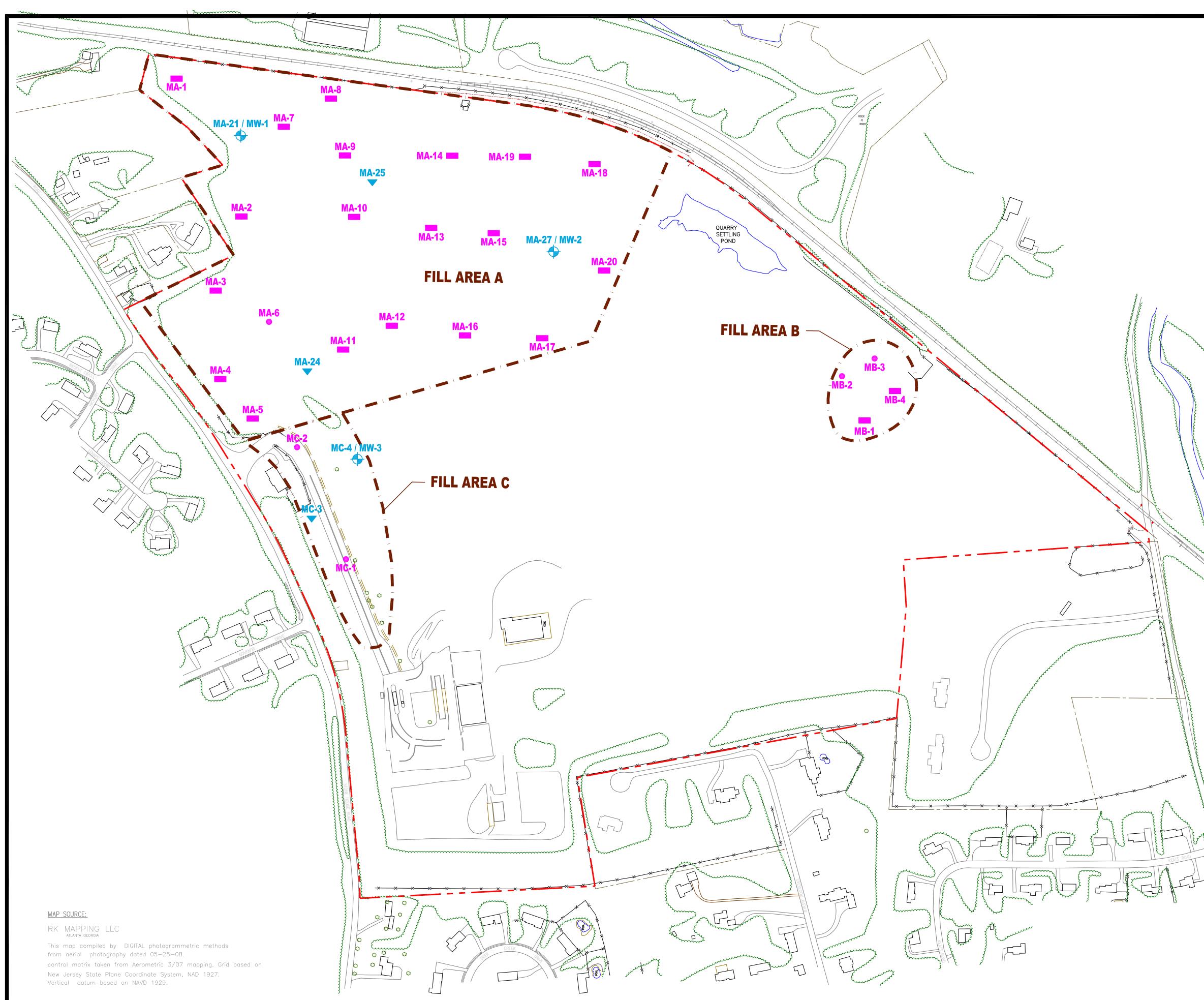
PRINTED NAME George Thompson	TITLE		Vice President
o/b/o Tilcon New York Inc.			
SIGNATURE Sworn to and Subscribed Before Me on this		DATE	3.15.11
Day of March 2011			
Wendy Arias	_Notary		
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Wendy Arias ID; 2294400 Notary Public - New Jersey Expiration 11-28-2012

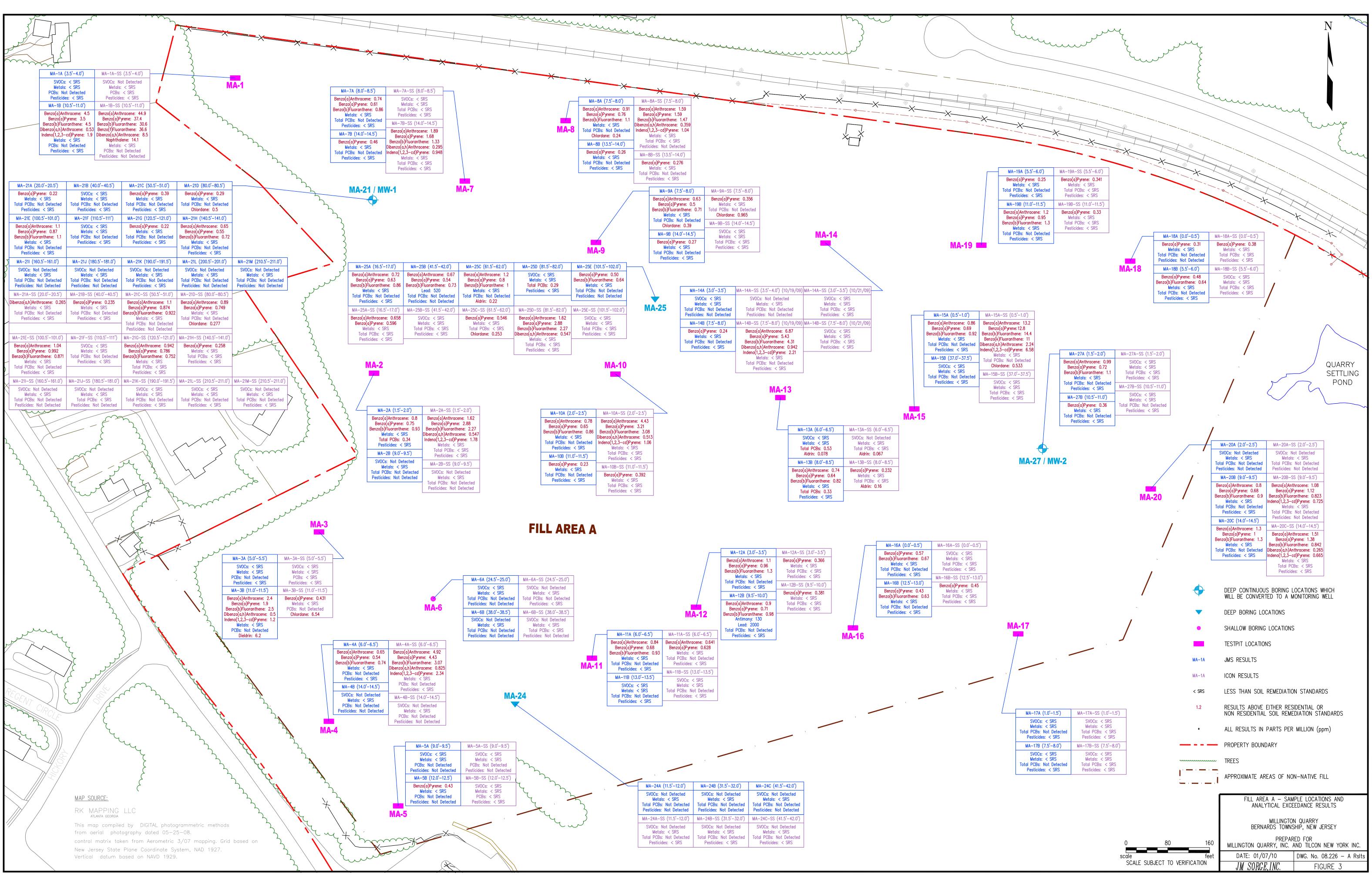
## **FIGURES**

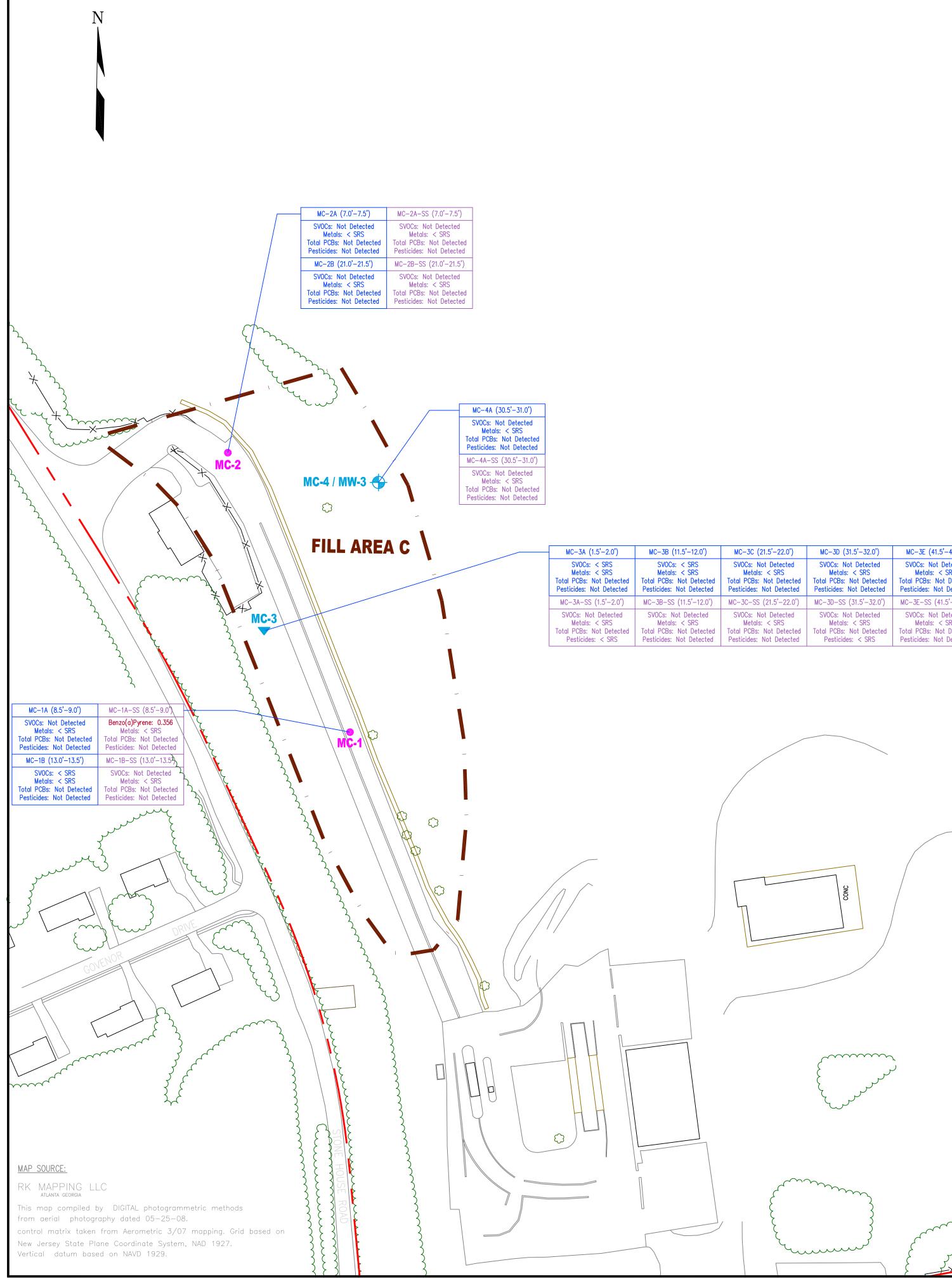






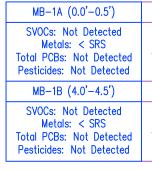
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, , , , , , , , , , , , , , , , , , ,	DEEP BC SHALLOW TESTPIT PROPERT TREES APPROXI NON-NA SAMPLING PLAN SHOWING THROUGH DECEMBER 2009 MILLINGTO BERNARDS TOWN	ONTINUOUS BORING NS WHICH WILL BE TED TO A MONITORING WELL ORING LOCATIONS W BORING LOCATIONS LOCATIONS TY BOUNDARY MATE AREAS OF TIVE FILL G FILL AREAS AND OCTOBER 9 SOIL SAMPLING LOCATIONS ON QUARRY ISHIP, NEW JERSEY RED FOR AND TILCON NEW YORK INC. DWG. No. 08.226–20091229





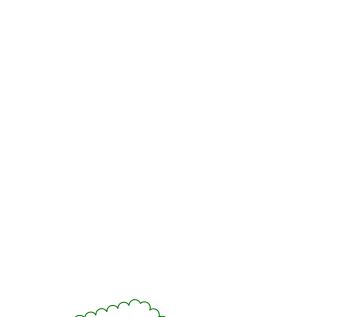
MB-3A (4.0'-4.5')	MB-3A
SVOCs: Not Detected Metals: < SRS Total PCBs: Not Detected Pesticides: Not Detected	SVOCs Me Total PC Pesticid
MB-3B (11.5'-12.0')	MB-3B-
SVOCs: Not Detected Metals: < SRS Total PCBs: Not Detected Pesticides: Not Detected	SV Me Total PC Pesticid

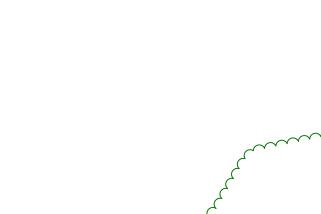
MB-2A (9.5'-10.0')	MB-2A-SS (9.5'-10.0')	
Benzo(a)Anthracene: 0.64 Benzo(a)Pyrene: 0.54 Benzo(b)Fluoranthene: 0.74 Metals: < SRS Total PCBs: Not Detected	SVOCs: < SRS Metals: < SRS Total PCBs: < SRS Pesticides: < SRS	
Pesticides: < SRS	MB-2B-SS (15.0'-15.5')	
MB-2B (15.0'-15.5')	SVOCs: < SRS Metals: < SRS	
Benzo(a)Anthracene: 1.2 Benzo(a)Pyrene: 0.85 Benzo(b)Fluoranthene: 1.1	Total PCBs: < SRS Pesticides: Not Detected	
Metals: < SRS Total PCBs: Not Detected Pesticides: Not Detected		

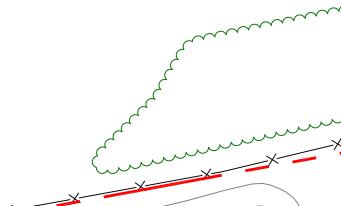


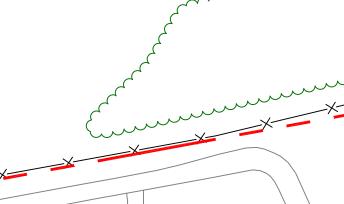
2 (21.5'-22.0')	MC-3D (31.5'-32.0')	MC-3E (41.5'-42.0')	MC-3F (81.5'-82.0')	MC-3G (91.5'-92.0')	MC-3H (101.5'-102.0')
Not Detected als: < SRS 3s: Not Detected s: Not Detected	SVOCs: Not Detected Metals: < SRS Total PCBs: Not Detected Pesticides: Not Detected	SVOCs: Not Detected Metals: < SRS Total PCBs: Not Detected Pesticides: Not Detected	SVOCs: < SRS Metals: < SRS Total PCBs: Not Detected Pesticides: Not Detected	SVOCs: Not Detected Metals: < SRS Total PCBs: Not Detected Pesticides: Not Detected	SVOCs: Not Detected Metals: < SRS Total PCBs: Not Detected Pesticides: Not Detected
SS (21.5'–22.0')	MC-3D-SS (31.5'-32.0')	MC-3E-SS (41.5'-42.0')	MC-3F-SS (81.5'-82.0')	MC-3G-SS (91.5'-92.0')	MC-3H-SS (101.5'-102.0')
Not Detected als: < SRS 3s: Not Detected s: Not Detected	SVOCs: Not Detected Metals: < SRS Total PCBs: Not Detected Pesticides: < SRS	SVOCs: Not Detected Metals: < SRS Total PCBs: Not Detected Pesticides: Not Detected	SVOCs: Not Detected Metals: < SRS Total PCBs: Not Detected Pesticides: Not Detected	SVOCs: Not Detected Metals: < SRS Total PCBs: Not Detected Pesticides: Not Detected	SVOCs: Not Detected Metals: < SRS Total PCBs: Not Detected Pesticides: Not Detected

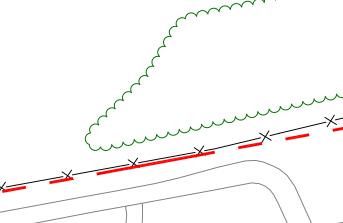


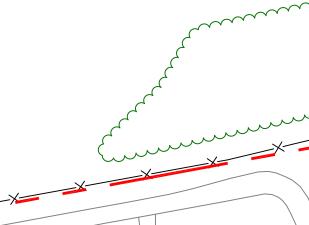


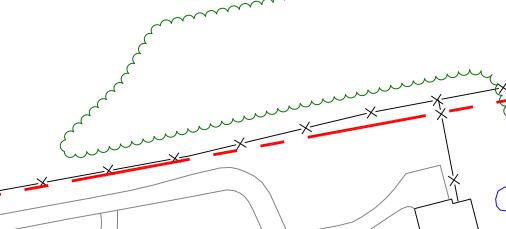


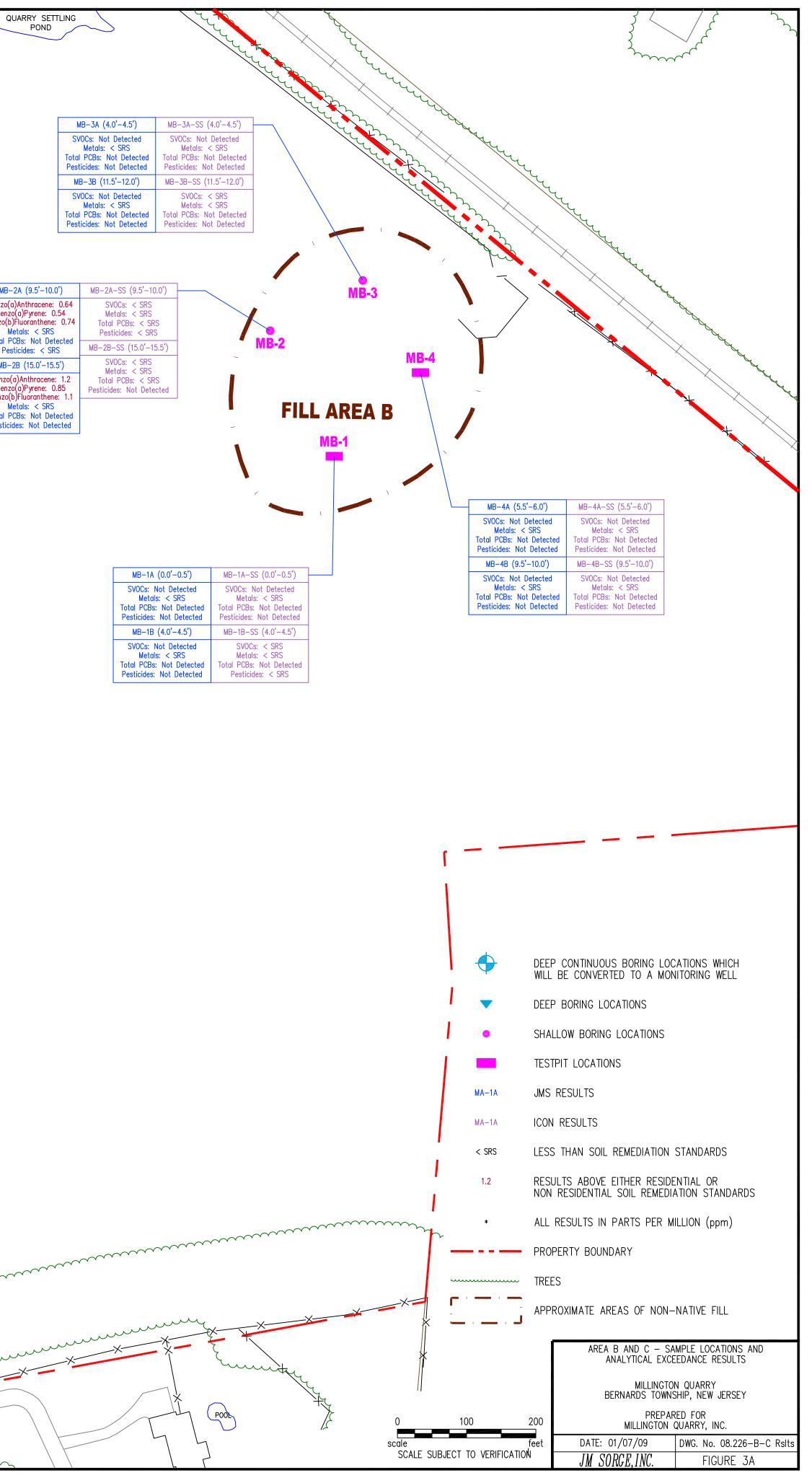


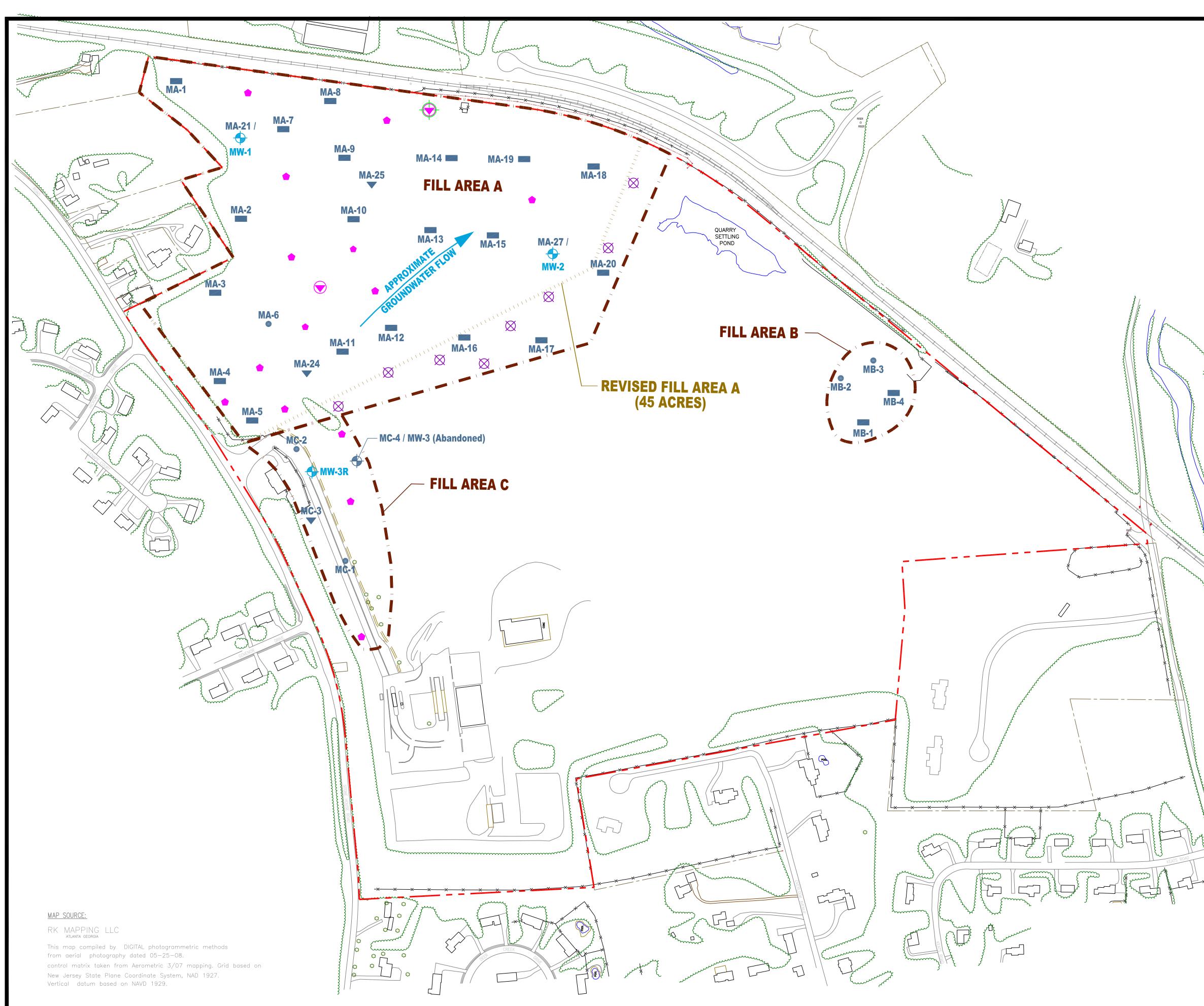












	<ul> <li>PROPOSED SHALLOW TESTPITS</li> <li>PROPOSED DEEP BORING</li> </ul>
3	PROPOSED DEEP DEFERRED SAMPLES
	PROPOSED MONITORING WELL / DEEP BORING
te te te te te	PREVIOUS DEEP CONTINUOUS BORING LOCATIONS WHICH WILL BE CONVERTED TO A MONITORING WELL
And the state of t	▼ PREVIOUS DEEP BORING LOCATIONS
	PREVIOUS SHALLOW BORING LOCATIONS
- Terr	PREVIOUS TESTPIT LOCATIONS
× X E	PROPERTY BOUNDARY TREES
	APPROXIMATE AREAS OF NON-NATIVE FILL
	SITE PLAN SHOWING PHASE I AND PROPOSED PHASE II SOIL SAMPLING LOCATIONS AND MONITORING WELL
	MILLINGTON QUARRY
	BERNARDS TOWNSHIP, NEW JERSEY PREPARED FOR
0 200 400 scale feet	MILLINGTON QUARRY, INC. AND TILCON NEW YORK INC.
SCALE SUBJECT TO VERIFICATION	JM SORGE.INC. FIGURE 4

N

## **TABLES**



## Table 1 Millington Quarry, Basking Ridge, NJ Area A - JMS' Soil Sample Analytical Results Summary

Sample Name	2008 NJ Soil	2008 NJ Soil	2008 Impact to	MA-1A	MA-1B	MA-2A	MA-2B	MA-3A	MA-3B	MA-4A	MA-4B	MA-5A	MA-5B	MA-6A	MA-6B	MA-7A	MA-7B	MA-8A	MA-8B	MA-9A	MA-9B	MA-10A	MA-10B
Laboratory Id	Remediation	Remediation	Groundwater	AC47934-015	AC47934-016	AC47934-013	AC47934-014	AC47934-011	AC47934-012	AC47934-017	AC47934-018	AC47934-019	AC47934-020	AC47963-005	AC47963-006	AC47934-009	AC47934-010	AC47934-007	AC47934-008	AC47904-013	AC47904-014	AC47904-015	AC47904-016
Sample Date	Standards	Standards	Initial Screening	10/22/2009	10/22/2009	10/22/2009	10/22/2009	10/22/2009	10/22/2009	10/22/2009	10/22/2009	10/22/2009	10/22/2009	10/26/2009	10/26/2009	10/22/2009	10/22/2009	10/22/2009	10/22/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009
Sample Depth (in feet)	Residential	Non - Residential	Level	3.5-4.0	10.5-11.0	1.5-2.0	9.0-9.5	5.0-5.5	11.0-11.5	6.0-6.5	14-14.5	9.0-9.5	12.0-12.5	24.5-25.0	38.0-38.5	8.0-8.5	14.0-14.5	7.5-8.0	13.5-14.0	7.5-8.0	14.0-14.5	2.0-2.5	11-11.5
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Semi-Volatile Compounds																							
Acenaphthene	3,400	37,000	74	ND	0.64	0.089	ND	ND	0.32	ND	ND	ND	0.089	ND	ND	0.085	0.09	ND	ND	ND	ND	ND	ND
Acenaphthylene	NA	300,000	NA	ND	ND	ND	ND	ND	0.086	ND	ND	0.079	ND	ND	ND	ND	ND						
Benzo[a]anthracene	0.6	2	0.5	ND	4.5	0.8	ND	0.18	2.4	0.65	ND	0.16	0.51	0.16	ND	0.74	0.56	0.91	0.28	0.63	0.33	0.78	0.31
Benzo[a]pyrene	0.2	0.2	0.2	ND	3.5	0.75	ND	0.16	1.9	0.54	ND	0.14	0.43	0.14	ND	0.61	0.46	0.76	0.26	0.5	0.27	0.65	0.23
Benzo[b]fluoranthene	0.6	2	2	0.075	4.5	0.93	ND	0.21	2.5	0.74	ND	0.19	0.53	0.19	ND	0.86	0.6	1.1	0.36	0.71	0.37	0.86	0.3
Benzo[g,h,i]perylene	380,000	30,000	NA	ND	2.2	0.53	ND	0.1	1.4	0.38	ND	0.098	0.28	0.095	ND	0.45	0.35	0.56	0.2	0.35	0.19	0.47	0.17
Benzo[k]fluoranthene	6	23	16	ND	1.2	0.35	ND	0.096	0.88	0.2	ND	ND	0.19	ND	ND	0.24	0.2	0.33	0.12	0.17	0.1	0.29	0.095
Bis(2-Ethylhexyl)phthalate	35	140	790	ND	ND	ND	ND	ND	0.086	ND	ND	ND	ND	ND	ND	0.09	ND	ND	ND	0.088	ND	ND	ND
Butylbenzylphthalate	1,200	14,000	150	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.13	ND	ND	ND	ND	ND	ND
Carbazole	24	96	NA	ND	0.5	0.097	ND	ND	0.37	ND	ND	ND	ND	ND	ND	0.091	ND	0.076	ND	ND	ND	ND	ND
Chrysene	62	230	52	ND	5.3	0.77	ND	0.18	2.4	0.66	ND	0.16	0.49	0.16	ND	0.71	0.55	0.89	0.28	0.66	0.32	0.78	0.29
Dibenzo[a,h]anthracene	0.2	0.2	0.5	ND	0.53	0.14	ND	ND	0.5	0.096	ND	ND	0.093	ND	ND	0.11	0.078	0.14	ND	0.1	ND	0.11	ND
Dibenzofuran	NS	NS	NS	ND	0.36	ND	ND	ND	0.18	ND	ND	ND	ND	ND	ND	ND	ND						
Fluoranthene	2,300	24,000	840	0.093	8.9	1.4	ND	0.36	4.8	0.92	ND	0.31	0.85	0.36	ND	1.4	0.89	1.5	0.56	0.93	0.4	1.1	0.44
Fluorene	2,300	24,000	110	ND	0.58	0.077	ND	ND 0.1	0.3	ND	ND	ND	0.12	ND	ND	0.091	ND	ND	ND 0.16	ND	ND 0.10	ND	ND
Indeno[1,2,3-cd]pyrene 2-Methylnaphthalene	0.6 230	2 2.400	5 5	ND ND	1.9 ND	0.47 ND	ND ND	0.1 ND	1.2 ND	0.32 ND	ND ND	0.08 ND	0.24 ND	ND ND	ND ND	0.37 ND	0.28 ND	0.49 ND	0.16 ND	0.3 ND	0.16 ND	0.4 ND	0.13 ND
Naphthalene	230	2,400	5 16	ND	0.25	ND	ND	ND	0.15	ND	ND	ND	ND	ND	ND	ND ND	ND	ND ND	ND	ND	ND	ND	ND
Phenanthrene	NA	300,000	NA	ND	0.25 8.9	1.1	ND	0.3	3.9	0.54	ND	0.26	0.67	0.26	ND	1.1	0.55	0.85	0.24	0.79	0.28	0.91	0.37
Pyrene	1,700	18,000	550	0.084	13	1.1	ND	0.35	3.9 6	1.5	ND	0.28	1.2	0.26	ND	1.7	1.2	1.9	0.58	1.3	0.28	1.6	0.66
Fylene	1,700	10,000	550	0.004	15	1.5	ND	0.55	0	1.5	ND	0.55	1.2	0.34	ND	1.7	1.2	1.5	0.56	1.5	0.00	1.0	0.00
Semi-Volatile TICs	NS	NS	NS	220 J	270 J	110 J	170 J	140 J	250 J	270 J	220 J	170 J	210 J	200 J	200 J	190 J	220 J	180 J	230 J	190 J	230 J	200 J	240 J
Metals																							
Antimony	31	450	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.7	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	19	19	19	3.9	3.8	3	5	3.9	5.2	3.4	5	4.7	5	4.1	5.1	3	6.8	3.9	5.4	3.3	3.7	4.1	4.7
Barium	16000	59,000	1300	97	120	86	120	130	110	33	110	97	110	90	120	120	83	150	82	98	130	140	71
Beryllium	16	140	0.5	ND	ND	ND	1.2	ND	ND	ND	1.3	1.2	1	ND	ND	ND	0.71	ND	ND	ND	ND	ND	ND
Cadmium	78	78	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Hexavalent	240	20	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Total <sup>a</sup>				7.8	110	19	80	47	18	9.7	26	28	28	63	160	18	55	23	18	15	32	19	20
Copper	3,100	45,000	7300	15	29	33	51	160	26	14	29	35	51	69	85	37	34 57	78	29	24	43	39	22
Lead	400	800 65	59	39	230	51	21	30 ND	160	17	15	21	24	17	14 ND	160	0.	130	95	100	100	110	67
Mercury Nickel	23 1,600	23,000	0.1 31	0.093 6.3	0.7 140	0.18 22	ND 29	ND 46	0.56 18	ND 8.9	ND 13	ND 23	ND 20	ND 30	ND 44	0.14 14	0.15 24	0.33	0.17 25	0.28 28	0.22 29	0.32 21	0.35 13
Selenium	390	5,700	31	ND	ND	ND	ND	40 ND	ND	ND	ND	ND 23	20 ND	ND	ND	ND	ND	26 ND	ND 25	20 ND	ND	ND	ND
Silver	390	5,700	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND ND	ND	ND ND	ND	ND ND	ND	ND	ND
Thallium	5	79	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	23000	110,000	600	64	150	65	59	110	130	33	54	64	65	73	69	220	90	140	240	83	120	110	87
		,000		, , , , , , , , , , , , , , , , , , ,							~7	~7			50			. +0	210		.20		ς.
PCBs																							
Aroclor-1242				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1254				ND	ND	0.34	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total PCBs	0.2	1	0.2	ND	ND	0.34	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pesticides		<b></b>		<b> </b> '														<b> </b>					
Aldrin	0.04	0.2	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0095	ND	ND	ND	ND
beta-BHC	0.04	2	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND ND	0.0095 ND	ND ND	ND	ND	ND
Chlordane	0.4	1	0.002	0.05	0.037	0.033 d	ND	0.025	6.2	0.077	ND	ND	ND	ND	ND	0.12	0.055	0.24	0.035	0.39	0.11	0.011	0.03
Dieldrin	0.2	0.2	0.003	0.0052	0.037 ND	0.033 d ND	ND	0.025 ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0055 0.0014 d	ND	0.035	ND	0.0016 d	0.011 d	ND
Heptachlor	0.04	0.2	0.003	0.0032 ND	ND	ND	ND	ND	0.084	ND	0.0014 d ND	ND	ND	0.021	ND	ND	ND						
p,p'-DDD	3	13	3	0.072 d	ND	0.0045	ND	ND	0.084 ND	0.0038	0.004	ND	ND	ND	ND	0.0033 d	0.0061 d	0.0057	ND	0.021 ND	ND	0.018	0.67
p,p'-DDE	2	9	12	0.072 0	ND	0.0043 0.0051 d	ND	ND	0.062 d	0.0036 d	ND	ND	ND	ND	ND	0.0073	0.0093	0.0039	ND	0.0077	0.004	0.0092	0.0043
p,p'-DDT	2	8	7	0.22	ND	0.0031 d	ND	ND	0.002 u ND	0.012	ND	ND	ND	ND	ND	0.0073 0.0050 d	0.0093 ND	0.0039 0.014 d	ND	0.0077 ND	0.004 ND	0.0092 0.018 d	0.0030 d
				<u> </u>		0.011 0				0.012						0.0000 0		0.017.0				5.5.0 u	0.0000 0

Notes: J - Estimated concentration d - Pesticide % Diff > 50% between columns due to coelution. Lower concentration used. In accordance with NJDEP's letter dated July 14, 2009; 25% of the Chromium that exceed 20 ppm were analyzed for Hexavalent Chromium. ND - Not Detected NS - No Standards ppm - Parts per million

# Table 1 (continued) Millington Quarry, Basking Ridge, NJ Area A - JMS' Soil Sample Analytical Results Summary

Comple Name	2009 N I S-1	2008 NJ Soil	2009 Impact to	NAA 44A	MA 11D	MA 10A	MA 10D	MA 124		MA 14A		MA 15A	MA 15D	MA 16A	MA 16D	MA 17A	MA 17D	MA 49A		MA 104	MA 10B	MA 20A	MA 20B	MA 200
Sample Name Laboratory Id	2008 NJ Soil Remediation	2008 NJ Soli Remediation	2008 Impact to Groundwater	MA-11A AC47904-017	MA-11B AC47904-018	MA-12A AC47904-019	MA-12B AC47904-020	MA-13A AC47904-001	MA-13B AC47904-002	MA-14A AC47904-003	MA-14B AC47904-004	MA-15A AC47829-001	MA-15B AC47865-001	MA-16A AC47904-005	MA-16B AC47904-006	MA-17A AC47904-007	MA-17B AC47904-008	MA-18A AC47904-009	MA-18B AC47904-010	MA-19A AC47904-021	MA-19B AC47904-022	MA-20A AC47904-023	MA-20B AC47904-024	MA-20C AC47904-025
Sample Date	Standards	Standards	Initial Screening	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/19/2009	10/20/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009
Sample Depth (in feet)	Residential	Non - Residential	Level	6.0-6.5	13.0-13.5	3.0-3.5	9.5-10.0	6.0-6.5	8.0-8.5	3.0-3.5	7.5-8.0	0.5-1.0	37.0-37.5	0.0-0.5	12.5-13.0	1.0-1.5	7.5-8.0	0.0-0.5	5.5-6.0	5.5-6.0	11-11.5	2.0-2.5	9.0-9.5	14.0-14.5
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Semi-Volatile Compounds																								
Acenaphthene	3,400	37,000	74	0.11	ND	0.1	0.11	ND	0.11	ND	ND	ND	ND	0.11	ND	ND	ND	ND	ND	ND	0.16	ND	ND	0.14
Acenaphthylene	NA	300,000	NA 1500	ND 0.27	ND	ND	0.088	ND ND	ND 0.25	ND	ND	ND 0.22	ND	ND	0.087	ND	ND	ND	ND 0.11	ND	0.11	ND ND	0.077	0.078
Anthracene Benzo[a]anthracene	17,000 0.6	30,000 2	1500 0.5	0.27	ND 0.11	0.27	0.31 0.9	0.098	0.25 0.74	ND ND	ND 0.27	0.22	ND 0.19	ND 0.6	0.16 <b>0.51</b>	ND 0.15	ND 0.13	0.11 0.44	0.11 0.58	ND 0.25	0.3 1.2	ND ND	0.16 <b>0.8</b>	0.34 1.3
Benzo[a]pyrene	0.0	0.2	0.3	0.68	0.084	0.96	0.71	0.082	0.64	ND	0.24	0.69	0.13	0.57	0.43	0.13	0.12	0.44	0.48	0.25	0.95	ND	0.68	1.5
Benzo[b]fluoranthene	0.6	2	2	0.93	0.12	1.3	0.98	0.11	0.82	0.097	0.34	0.92	0.22	0.67	0.63	0.19	0.17	0.43	0.64	0.35	1.3	ND	0.9	1.3
Benzo[g,h,i]perylene	380,000	30,000	NA	0.45	ND	0.61	0.47	ND	0.45	ND	0.19	0.41	0.14	0.38	0.32	0.11	0.091	0.25	0.38	0.18	0.58	ND	0.46	0.65
Benzo[k]fluoranthene	6	23	16	0.25	ND	0.38	0.27	ND	0.33	ND	0.088	0.23	0.092	0.24	0.24	ND	ND	0.13	0.2	0.12	0.38	ND	0.29	0.41
Bis(2-Ethylhexyl)phthalate	35	140	790	0.34	ND	ND	0.43	ND	0.11	ND	0.1	0.089	ND	ND	0.32	ND	ND	0.62	ND	ND	0.15	ND	ND	0.15
Butylbenzylphthalate	1,200	14,000	150	ND	ND ND	ND	ND 0.45	0.3 ND	ND 0.11	ND	ND	ND	ND ND	ND ND	ND ND	ND ND	ND	0.4	ND ND	ND ND	ND	ND ND	ND ND	ND 0.13
Carbazole Chrysene	24 62	96 230	NA 52	0.12 0.87	0.098	0.093 1.1	0.15 0.95	0.086	0.11	ND ND	ND 0.28	0.085 0.9	ND 0.2	ND 0.53	0.47	0.13	ND 0.12	0.081 0.45	0.59	ND 0.24	0.12 1.3	ND	0.82	1.3
Dibenzo[a,h]anthracene	0.2	0.2	0.5	0.13	0.030 ND	0.16	0.33	ND	0.12	ND	ND	0.12	ND	0.55	0.085	ND	ND	ND	0.09	ND	0.16	ND	0.02	0.19
Dibenzofuran	NS	NS	NS	0.081	ND	ND	0.13	ND	0.086	ND	ND	0.076												
Fluoranthene	2,300	24,000	840	1.3	0.19	1.8	1.5	0.17	1.5	0.13	0.52	1.1	0.35	1.1	0.93	0.27	0.26	0.76	0.72	0.5	1.8	ND	1	1.9
Fluorene	2,300	24,000	110	0.13	ND	0.097	0.15	ND	0.1	ND	ND	0.081	ND	ND	ND	ND	ND	0.077	ND	ND	0.15	ND	ND	0.13
Indeno[1,2,3-cd]pyrene	0.6	2	5	0.4	ND	0.55	0.41	ND	0.37	ND	0.15	0.35	0.12	0.32	0.29	0.09	0.084	0.21	0.31	0.16	0.52	ND	0.39	0.56
2-Methylnaphthalene	230	2,400	5 16	0.12	ND																			
Naphthalene Phenanthrene	6 NA	17 300,000	16 NA	ND 1.3	ND 0.11	0.094 1.3	0.15 1.5	ND 0.14	0.088 1.2	ND 0.13	ND 0.29	0.091 1.1	ND 0.24	ND 0.54	ND 0.59	ND 0.15	ND 0.16	ND 0.83	ND 0.47	ND 0.25	ND 1.2	ND ND	ND 0.77	0.083 1.8
Pyrene	1,700	18,000	550	1.9	0.11	2.4	1.9	0.14	1.4	0.13	0.29	1.1	0.24	1.1	0.9	0.15	0.16	1.2	1.1	0.25	2.8	ND	1.7	2.7
Semi-Volatile TICs	NS	NS	NS	210 J	220 J	260 J	250 J	230 J	240 J	260 J	270 J	160 J	130 J	230 J	250 J	240 J	220 J	220 J	230 J	240 J	240 J	260 J	250 J	230 J
Metals Antimony	24	450	6	ND	ND	ND	420	ND																
Anumony Arsenic	31 19	450 19	19	3.5	4.2	4.6	<b>130</b> 4.4	ND	3.1	2.9	6	2.4	3.3	3.8	5.2	7.8	7.1	2.7	3.7	ND 2.7	ND 5	5.5	10	5.2
Barium	16000	59,000	1300	120	100	96	880	85	160	220	110	170	65	120	180	130	130	120	100	44	110	160	310	150
Beryllium	16	140	0.5	ND	0.76	ND	ND	ND	ND	ND	ND	1	ND	ND	ND	0.71	ND							
Cadmium	78	78	1	ND	ND	ND	22	ND	1.4	ND	ND	ND												
Chromium, Hexavalent	240	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Total <sup>a</sup>				19	23	16	15	25	20	17	37	21	14	14	26	28	20	9.7	13	10	21	36	20	18
Copper	3,100 400	45,000 800	7300 59	160	42 28	27 230	30 2000	24 20	27 130	24	93 53	23 55	23 49	37 180	59 110	100 52	95 66	25 94	26 84	14	34 100	79 7.8	67 <b>210</b>	53 120
Lead Mercury	23	65	0.1	<b>110</b> 0.097	20 ND	0.39	0.15	20 ND	0.12	93 0.15	0.1	ND	49 ND	0.34	0.46	52 ND	ND	94 0.11	0.32	25 ND	0.19	7.8 ND	0.61	0.23
Nickel	1,600	23.000	31	22	21	12	15	18	19	16	51	23	14	19	170	30	22	9.7	16	10	18	55	26	22
Selenium	390	5,700	7	ND																				
Silver	390	5,700	1	ND																				
Thallium	5	79	3	ND																				
Zinc	23000	110,000	600	120	80	110	3300	58	120	110	98	110	55	180	130	140	130	110	85	36	140	310	210	130
PCBs												ł												<b>├────</b> ┨
Aroclor-1242				ND	ND	ND	ND	0.53	0.33	ND														
Aroclor-1254				ND																				
Total PCBs	0.2	1	0.2	ND	ND	ND	ND	0.53	0.33	ND														
												ļ							ļ					
Pesticides						10	115	0.075	0.01-						115		115							
Aldrin beta-BHC	0.04 0.4	0.2 2	0.1 0.002	ND ND	ND ND	ND ND	ND ND	0.078 ND	0.015 ND	ND ND	ND ND	ND 0.0061 d	ND ND											
Chlordane	0.4	1	0.002	0.13	0.055	0.11	0.052	ND	0.023	ND ND	0.026	0.0061 a 0.18	ND 0.024	0.017	0.019	0.034	0.014	ND ND	0.031	0.019	0.077	ND ND	0.023	0.069
Dieldrin	0.2	0.2	0.003	ND	ND	0.0017 d	ND	0.017	0.023	ND	0.020 ND	ND	0.024 ND	ND	ND	0.034	0.014 0.0024 d	ND	0.0083 d	ND	ND	ND	0.023 ND	ND
Heptachlor	0.1	0.7	0.3	ND																				
p,p'-DDD	3	13	3	0.04	ND	ND	0.016	ND	0.012	ND	0.0044 d	0.0057	ND	0.0089 d	ND	ND	0.0049							
p,p'-DDE	2	9	12	0.018	ND	0.0088	0.0088	ND	0.010	ND	ND	0.0036	ND	ND	ND	ND	ND	0.0070	ND	ND	0.017	ND	0.0042	0.0048
p,p'-DDT	2	8	7	0.033	ND	0.014 d	0.028	ND	0.015	0.0030 d	0.0035 d	ND	ND	0.0067 d	0.0052	0.0032 d	0.011	0.0036 d	0.0048 d	0.011	0.029 d	ND	0.027	0.0033 d

Notes: J - Estimated concentration d - Pesticide % Diff > 50% between columns due to coelution. Lower concentration used. In accordance with NJDEP's letter dated July 14, 2009; 25% of the Chromium that exceed 20 ppm were analyzed for Hexavalent Chromium. ND - Not Detected NS - No Standards

ppm - Parts per million

## Table 1 (continued) Millington Quarry, Basking Ridge, NJ Area A - JMS' Soil Sample Analytical Results Summary

Sample Name	2008 NJ Soil	2008 NJ Soil	2008 Impact to	MA-21A	MA-21B	MA-21C	MA-21D	MA-21E	MA-21F	MA-21G	MA-21H	MA-21I	MA-21J	MA-21K	MA-21L	MA-21M	MA-24A	MA-24B	MA-24C	MA-25A	MA-25B	MA-25C	MA-25D	MA-25E	MA-27A	MA-27B
Laboratory Id	Remediation	Remediation	Groundwater	AC48504-001	AC48504-002		AC48504-004	AC48504-005	AC48504-006	AC48504-007	AC48504-008	AC48578-001	AC48578-002	AC48578-003	AC48578-004	AC48628-001	AC47934-001	AC47930-001	AC47930-002	AC47865-006	AC47865-007	AC47904-011	AC47904-012	AC47934-002	AC48727-001	AC48727-002
Sample Date	Standards Residential	Standards Non - Residential	Initial Screening Level	11/19/2009 20-20.5	11/19/2009 40-40.5	11/19/2009 50.5-51	11/20/2009 80-80.5	11/20/2009 100.5-101	11/20/2009 110.5-111	11/20/2009 120.5-121	11/20/2009 140.5-141	11/24/2009 160.5-161	11/24/2009 180.5-181	11/24/2009 190-191.5	11/24/2009 200.5-201	11/30/2009 210.5-211	10/22/2009 11.5-12.0	10/23/2009 31.5-32.0	10/23/2009 41.5-42.0	10/22/2009 16.5-17	10/22/2009 41.5-42	10/22/2009 61.5-62	10/22/2009 81.5-82	10/22/2009 101.5-102	12/4/2009 1.5-2	12/4/2009 10.5-11
Sample Depth (in feet) Units	ppm																		41.5-42.0 ppm							
Units Semi-Volatile Compounds Acenaphthene Acenaphthylene Anthracene Benzo[a]anthracene Benzo[b]fluoranthene Benzo[b]fluoranthene Benzo[b]fluoranthene Benzo[b]fluoranthene Bis(2-Ethylhexyl)phthalate Butylbenzylphthalate Carbazole Chrysene Dibenzo[a,h]anthracene Dibenzo[a,h]anthracene Dibenzo[furan Fluorene Indeno[1,2,3-cd]pyrene 2-Methylnaphthalene Naphthalene Phenanthrene Pyrene		ppm 37,000 300,000 2 0.2 2 30,000 23 140 14,000 96 230 0.2 NS 24,000 24,000 2 2,400 17 300,000 18,000	ррт 74 NA 1500 0.5 0.2 2 NA 16 790 150 NA 52 0.5 NS 840 110 5 5 16 NA 550	Ppm ND ND 0.22 0.29 0.2 0.29 0.2 0.29 0.2 0.29 0.2 0.12 ND ND ND 0.26 ND ND 0.45 ND 0.16 ND 0.16 ND 0.25 0.5	Ppm ND ND ND 0.08 0.092 ND ND ND ND ND ND ND ND ND ND ND ND ND	Ppm ND 0.16 0.42 0.39 0.52 0.28 0.16 0.15 ND 0.078 0.46 0.087 ND 0.99 0.089 0.25 ND ND 0.25 ND ND 0.7 0.9	Ppm ND ND 0.14 0.33 0.29 0.34 0.22 0.14 0.14 0.14 ND ND 0.32 ND ND ND 0.65 0.089 0.19 ND ND 0.46 0.71	ppm 0.14 0.13 0.39 1.1 0.87 1.1 0.58 0.4 0.095 ND 0.087 1 0.18 0.083 2.1 0.18 0.083 2.1 0.5 ND ND ND ND ND ND 1.6 2.3	Ppm ND ND 0.13 0.14 0.16 0.13 ND ND ND ND ND ND ND ND 0.22 ND 0.095 ND ND 0.095 ND ND 0.08 0.25	Ppm ND ND 0.24 0.22 0.3 0.14 0.097 ND ND ND ND ND ND ND 0.25 ND ND 0.48 ND 0.12 ND 0.12 ND 0.12 ND 0.12 ND	ppm 0.13 ND 0.27 0.55 0.72 0.33 0.22 ND ND ND ND ND ND 0.59 0.096 0.091 1.3 0.16 0.27 ND ND 0.27 ND 1.4	ppm ND ND ND ND ND ND ND ND ND ND ND ND ND	ppm ND ND ND ND ND ND ND ND ND ND ND ND ND	ppm ND ND ND ND ND ND ND ND ND ND ND ND ND	Ppm ND ND ND ND ND ND ND ND ND ND ND ND ND	PPM ND ND ND ND ND ND ND ND ND ND ND ND ND	PPM ND ND ND ND ND ND 0.13 ND ND ND ND ND ND ND ND ND ND ND ND ND	PPM ND ND ND ND ND ND 0.18 DN ND ND ND ND ND ND ND ND ND ND ND ND	PPM ND ND ND ND ND ND ND ND ND ND ND ND ND	Ppm ND 0.12 0.63 0.86 0.39 0.27 0.17 ND 0.094 0.79 0.12 0.083 1.2 0.083 1.2 0.35 ND 0.15 1.3 1.8	ppm 0.14 ND 0.26 0.67 0.54 0.73 0.32 0.21 0.52 ND 0.12 0.71 0.097 0.11 0.99 0.14 0.28 0.089 0.14 1.3 1.5	ppm 0.29 ND 0.62 <b>1.2</b> <b>0.8</b> <b>1</b> 0.47 0.26 ND ND 0.16 1.3 0.14 0.23 2.3 0.14 0.23 2.3 0.41 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 3.4	Ppm ND ND ND ND ND ND ND ND ND ND ND ND ND	Ppm ND 0.19 0.50 0.64 0.34 0.24 ND ND ND ND ND 1.2 0.083 0.27 ND ND 0.65 1.1	ppm 0.31 ND 0.38 0.99 0.72 1.1 0.47 0.31 0.12 ND 0.24 0.88 0.15 0.12 2.1 0.21 0.43 ND 0.085 1.6 1.7	Ppm ND 0.14 0.41 0.36 0.47 0.25 0.19 ND ND 0.081 0.41 0.08 ND 0.97 0.91 0.22 ND 0.22 ND ND 0.91 0.22 ND 0.91 0.22
Phenols Semi-Volatile TICs	NS	NS	NS	ND 360 J	ND 240 J	ND 220 J	ND 400 J	ND 330 J	ND 250 J	ND 160 J	ND 270 J	ND 180 J	ND 220 J	ND 240 J	ND 170 J	ND 300 J	ND 240J	ND 240J	ND 110J	ND 260 J	ND 330 J	ND 240 J	ND 190 J	ND 230J	0.15 320 J	ND 310 J
Metals Antimony Arsenic Baryllium Cadmium Chromium, Hexavalent Chromium, Total <sup>®</sup> Copper Lead Mercury Nickel Selenium Silver Thallium Zinc	31 19 16000 16 78 240  3,100 400 23 1,600 390 390 390 5 5 23000	450 19 59,000 140 78 20  45,000 800 65 23,000 5,700 5,700 5,700 79 110,000	6 19 1300 0.5 1 NA  7300 59 0.1 31 7 1 3 600	ND 3.8 360 ND ND 50 52 59 ND 51 ND ND ND ND 160	ND 4.4 120 <b>1</b> ND ND 75 12 22 ND 42 ND ND ND ND 67	ND 4.1 68 ND NA <b>24</b> 33 50 <b>0.2</b> 17 ND ND ND 66	ND 4.2 76 ND ND 31 40 ND 17 ND ND ND ND ND 66	ND 3.5 120 ND ND 24 29 <b>73</b> 0.099 19 ND ND ND ND ND 97	ND 3.1 140 ND ND 23 31 120 ND 18 ND ND ND ND 110	ND 3.4 53 ND NA 15 38 27 <b>0.37</b> 14 ND ND ND 48	ND 3.4 78 ND ND 36 <b>64</b> ND 19 ND ND ND 68	ND ND 110 ND 0.9 ND 27 180 ND ND ND ND ND ND ND ND 90	ND 2.7 75 ND NA 28 29 10 ND 21 ND ND ND 55	ND 3.5 98 ND ND 27 31 23 ND 23 ND 23 ND ND 51	ND 2.6 140 ND ND 61 43 18 ND 31 ND ND ND 62	ND 6 180 1.3 ND NA 40 47 17 ND 39 ND ND ND 84	ND 5.5 100 <b>0.92</b> ND NA <b>30</b> 250 9.5 ND <b>37</b> ND ND ND ND ND 100	ND 4.9 58 ND 0.8 ND 96 9.2 ND 24 ND ND 64	ND 7.6 140 ND ND <b>XA</b> <b>27</b> 210 13 ND <b>34</b> 2.1 ND ND 150	ND 4.9 450 ND NA 20 79 <b>380</b> <b>0.57</b> 19 ND ND ND ND 340	ND 9 74 ND NA 16 46 <b>520</b> 0.17 19 ND ND ND ND 100	ND 3.7 140 ND ND NA 22 41 130 0.17 26 ND ND ND ND 120	ND 6.3 75 ND ND 45 <b>73</b> <b>0.12</b> 15 ND ND ND ND 82	ND 5 110 0.95 ND NA 26 60 91 0.19 22 ND ND ND ND 96	ND 4.2 160 ND ND 37 <b>70</b> <b>0.16</b> 19 ND ND ND ND ND 120	ND 2.9 280 ND ND 29 31 38 <b>0.12</b> 20 ND ND ND ND 74
PCBs Aroclor-1242 Aroclor-1254 Total PCBs	  0.2	  1	  0.2	ND ND ND	ND ND ND	ND ND ND	ND ND ND	ND ND ND	ND ND ND	ND ND ND	ND ND ND	ND ND ND	ND ND ND	ND ND ND	ND ND ND	ND ND ND	ND ND ND	ND ND ND	ND ND ND	ND ND ND	ND ND ND	ND ND ND	ND 0.29 <b>0.29</b>	ND ND ND	ND ND ND	ND ND ND
Pesticides Aldrin beta-BHC Chlordane Dieldrin Heptachlor p,p'-DDD p,p'-DDE p,p'-DDT	0.04 0.4 0.2 0.04 0.1 3 2 2	0.2 2 1 0.2 0.7 13 9 8	0.1 0.002 0.03 0.003 0.3 3 12 7	ND ND 0.043 0.0057 d ND 0.017 0.0095 0.021	ND ND 0.027 0.0029 d ND 0.012 0.0072 0.0076	ND ND ND 0.0063 d 0.0047 0.0055	ND ND 0.5 ND 0.0071 0.0096 0.0033 d	ND ND 0.18 ND 0.0049 d 0.013 0.011	ND ND 0.023 0.0025 d ND 0.012 0.011 0.025	ND ND 0.041 ND 0.037 0.029 0.011	ND ND ND ND 0.0099 0.0033 d 0.0094	ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND	ND ND 0.092 0.0014 d ND ND ND ND	ND ND ND ND ND ND ND	ND ND ND ND ND ND ND	ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND	ND ND ND ND ND 0.0044 0.0029 d	ND ND ND ND ND ND ND	0.22 ND ND ND 0.0059 0.006 ND	0.097 ND ND ND 0.011 0.031 0.011 d	ND ND ND 0.022 ND 0.0089 d ND	ND ND 0.026 ND ND 0.0048 0.018	ND ND 0.025 ND ND 0.0031 d 0.0035

Notes: J - Estimated concentration d - Pesticide % Diff > 50% between columns due to coelution. Lower concentration used. In accordance with NJDEP's letter dated July 14, 2009; 25% of the Chromium that exceed 20 ppm were analyzed for Hexavalent Chromium. ND - Not Detected NS - No Standards ppm - Parts per million

#### Table 1 (continued) Millington Quarry, Basking Ridge, NJ Area B - JMS' Soil Sample Analytical Results Summary

	2008 NJ Soil	2008 NJ Soil	0000 lmm a at ta								
Sample Name	Remediation	Remediation	2008 Impact to	MB-1A	MB-1B	MB-2A	MB-2B	MB-3A	MB-3B	MB-4A	MB-4B
Laboratory Id			Groundwater	AC47934-003	AC47934-004	AC47865-002	AC47865-003	AC47865-004	AC47865-005	AC47934-005	AC47934-006
Sample Date	Standards	Standards	Initial Screening	10/22/2009	10/22/2009	10/20/2009	10/20/2009	10/20/2009	10/20/2009	10/22/2009	10/22/2009
Sample Depth (in feet)	Residential	Non - Residential		0.0-0.5	4.0-4.5	9.5-10	15-15.5	4-4.5	11.5-12	5.5-6.0	9.5-10.0
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Semi-Volatile Compounds											
Acenaphthene	3,400	37,000	74	ND	ND	0.14	0.41	ND	ND	ND	ND
Anthracene	17,000	30,000	1500	ND	ND	0.34	0.87	ND	ND	ND	ND
Benzo[a]anthracene	0.6	2	0.5	ND	ND	0.64	1.2	ND	ND	ND	ND
Benzo[a]pyrene	0.2	0.2	0.2	ND	ND	0.54	0.85	ND	ND	ND	ND
Benzo[b]fluoranthene	0.6	2	2	ND	ND	0.74	1.1	ND	ND	ND	ND
Benzo[g,h,i]perylene	380,000	30,000	NA	ND	ND	0.34	0.44	ND	ND	ND	ND
Benzo[k]fluoranthene	6	23	16	ND	ND	0.24	0.33	ND	ND	ND	ND
Bis(2-Ethylhexyl)phthalate	35	140	790	ND	ND	0.11	ND	ND	ND	ND	ND
Butylbenzylphthalate	1,200	14,000	150	ND							
Carbazole	24	96	NA	ND	ND	0.18	0.1	ND	ND	ND	ND
Chrysene	62	230	52	ND	ND	0.61	0.99	ND	ND	ND	ND
Dibenzo[a,h]anthracene	0.2	0.2	0.5	ND	ND	0.09	0.14	ND	ND	ND	ND
Dibenzofuran	NS	NS	NS	ND	ND	ND	0.34	ND	ND	ND	ND
Fluoranthene	2,300	24,000	840	ND	ND	1.8	2.1	ND	ND	ND	ND
Fluorene	2,300	24,000	110	ND	ND	0.14	0.45	ND	ND	ND	ND
Indeno[1,2,3-cd]pyrene	0.6	24,000	5	ND	ND	0.14	0.43	ND	ND	ND	ND
2-Methylnaphthalene	230	2,400	5	ND							
Naphthalene	6	2,400	16	ND							
Phenanthrene	NA 1 700	300,000	NA	ND	ND	1.3	1.9	ND	ND	ND	ND
Pyrene	1,700	18,000	550	ND	ND	1.4	2.8	ND	ND	ND	ND
Semi-Volatile TICs	NS	NS	NS	93 J	140 J	260 J	250 J	120 J	120 J	250 J	120 J
Metals											
Antimony	31	450	6	ND							
Arsenic	19	19	19	6.1	4.5	3.9	6.1	7.6	5.3	7.3	5.2
Barium	16000	59,000	1300	120	98	88	65	75	95	130	100
Beryllium	16	140	0.5	1.2	1.3	ND	ND	0.86	0.69	1.1	1.2
Cadmium	78	78	1	ND							
Chromium, Hexavalent	240	20	NA	ND	NA	ND	NA	NA	NA	NA	NA
Chromium, Total <sup>a</sup>				38	36	44	33	21	24	42	34
Copper	3,100	45,000	7300	99	260	41	33	47	66	150	74
Lead	400	800	59	22	14	29	31	12	14	16	14
Mercury	23	65	0.1	ND	ND	0.56	0.17	ND	ND	ND	ND
Nickel	1,600	23,000	31	37	44	24	17	24	26	43	35
Selenium	390	5,700	7	ND							
Silver	390	5,700	1	ND							
Thallium	5	79	3	ND							
Zinc	23000	110,000	600	110	92	67	49	73	85	170	110
ZINC	23000	110,000	000	110	52	07	45	75	00	170	110
PCBs											
Aroclor-1242				ND							
Aroclor-1242 Aroclor-1254				ND							
Total PCBs	0.2	1	0.2	ND							
TOTAL PODS	0.2	I	0.2	UN	UN	ND	UN	UN	UN	ND	ND
Pesticides											
Aldrin	0.04	0.2	0.1	ND							
beta-BHC	0.4	2	0.002	ND	ND	0.0027 d	ND	ND	ND	ND	ND
Chlordane	0.2	1	0.03	ND	ND	0.03	ND	ND	ND	ND	ND
Dieldrin	0.04	0.2	0.003	ND							
Heptachlor	0.1	0.7	0.3	ND							
p,p'-DDD	3	13	3	ND							
p,p'-DDE	2	9	12	ND	ND	0.0042	ND	ND	ND	ND	ND
p,p'-DDT	2	8	7	ND							
- pip 501	-	<b>y</b>									

Not∈0

J - Estimated concentration

d - Pesticide % Diff > 50% between columns due to coelution. Lower concentration used.

In accordance with NJDEP's letter dated July 14, 2009; 25% of the Chromium that exceed 20 ppm were analyzed for Hexavalent Chromium.

ND - Not Detected

NS - No Standards

ppm - Parts per million

#### Table 1 (continued) Millington Quarry, Basking Ridge, NJ Area C- JMS' Soil Sample Analytical Results Summary

October Name	2008 NJ Soil	2008 NJ Soil	2008 Impact to	140.44	NO 15	140.04	MO OD	140.04		N/0.00			MORE	140.00		N40 44
Sample Name	Remediation	Remediation	Groundwater	MC-1A	MC-1B	MC-2A	MC-2B	MC-3A	MC-3B	MC-3C	MC-3D	MC-3E	MC-3F	MC-3G	MC-3H	MC-4A
Laboratory Id				AC47963-003	AC47963-004	AC47963-001	AC47963-002	AC48021-001	AC48021-002 10/28/2009	AC48021-004 10/28/2009	AC48021-003	AC48083-001 10/29/2009	AC48083-002 10/29/2009	AC48083-003 10/30/2009	AC48083-004 10/30/2009	AC48687-001
Sample Date	Standards	Standards	Initial Screening		10/26/2009	10/26/2009	10/26/2009	10/28/2009			10/28/2009					12/2/2009
Sample Depth (in feet)	Residential	Non - Residential	Level	13.0-13.5	8.5-9.0	7.0-7.5	21.0-21.5	1.5-2	11.5-12	21.5-22	31.5-32	41.5-42	81.5-82	91.5-92	101.5-102	30.5-31
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Semi-Volatile Compounds																
Acenaphthene	3,400	37,000	74	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	17,000	30,000	1500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[a]anthracene	0.6	2	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[a]pyrene	0.2	0.2	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	0.6	2	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[g,h,i]perylene	380,000	30,000	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[k]fluoranthene	6	23	16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-Ethylhexyl)phthalate	35	140	790	ND	ND	ND	ND	0.12	0.13	ND	ND	ND	0.21	ND	ND	ND
Butylbenzylphthalate	1,200	14,000	150	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	24	96	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	62	230	52	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo[a,h]anthracene	0.2	0.2	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	2,300	24,000	840	ND	0.077	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	2,300	24,000	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno[1,2,3-cd]pyrene	0.6	2	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	230	2,400	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	6	17	16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	NA	300,000	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	1,700	18,000	550	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semi-Volatile TICs	NS	NS	NS	120 J	180 J	130 J	120 J	300J	310J	290J	350J	250 J	250 J	390 J	410 J	210 J
Metals																
Antimony	31	450	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	19	450 19	0 19	3.2	3.9	4.3	4.4	2.8	6.5	2.7	4.3	ND	3.1	3.6	3.2	3.8
Barium	16000	59,000	1300	3.2 160	200	200	4.4 150	2.8 96	120	110	150	150	62	90	67	120
Beryllium	16	140	0.5	1.2	0.95	1.2	1.1	ND	ND	ND	ND	1.7	0.98	1.1	1.1	0.82
Cadmium	78	78	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Hexavalent	240	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	ND
Chromium, Total <sup>a</sup>				36	34	36	39	33	28	34	47	47	25	42	26	35
Copper	3,100	45.000	7300	20	39	30	34	150	140	21	150	71	90	150	160	35
Lead	400	800	59	18	17	18	16	9.1	8.9	15	20	16	13	11	13	16
Mercury	23	65	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	1,600	23,000	31	36	35	42	34	39	35	27	48	35	26	40	35	34
Selenium	390	5,700	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	390	5,700	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	5	79	3	ND	ND	ND	ND	ND	1.7	ND	ND	ND	ND	ND	ND	ND
Zinc	23000	110,000	600	73	73	69	69	81	85	59	120	73	82	100	97	67
PCBs																
Aroclor-1242				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1254				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total PCBs	0.2	1	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pesticides																
Aldrin	0.04	0.2	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
beta-BHC	0.4	2	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane	0.2	1	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	0.04	0.2	0.003	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	0.1	0.7	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p,p'-DDD	3	13	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p,p'-DDE	2	9	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p,p'-DDT	2	8	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

J - Estimated concentration

d - Pesticide % Diff > 50% between columns due to coelution. Lower concentration used.
 In accordance with NJDEP's letter dated July 14, 2009; 25% of the Chromium that exceed 20 ppm were analyzed for Hexavalent Chromium.

ND - Not Detected NS - No Standards

ppm - Parts per million

## Table 2 Summary of Groundwater Analytical Results Millington Quarry Bernards Township , NJ

	Sample ID: Lab ID: Sample Date: Consultant:	Groundwater Quality Criteria	MW-1 AC49247-001 1/7/2010 JMS	MW-1 AC50887-001 4/8/2010 JMS	MW-1 AC52877-001 7/8/2010 JMS	MW-1 AC54947-001 10/8/2010 JMS	MW-1 AC56926-001 1/20/2011 JMS	MW-2 JMS AC49247-002 1/7/2010	MW-2 AC50887-002 4/8/2010 JMS	MW-2 AC52877-002 7/8/2010 JMS	MW-2 AC54947-002 10/8/2010 JMS	MW-2 AC56926-002 1/20/2011 JMS	MW-3R AC50887-003 4/8/2010 JMS	MW-3R AC52877-003 7/8/2010 JMS	MW-3R AC54947-003 10/8/2010 JMS	MW-3R AC56926-003 1/20/2011 JMS
	Units: DTW:	(ppb)	(ppb) 127.4	(ppb) 120.05	(ppb) 134.19	(ppb) 134.11	(ppb) 135.21	(ppb) 6.26	(ppb) 6.02	(ppb) 7.78	(ppb) 7.83	(ppb) 6.81	(ppb) 167.17	(ppb) 169.06	(ppb) 168.99	(ppb) 169.68
Semi-Volatile Compounds	5111.			0.00				V.2V	0.02			0.01				
2-Methylnapthalene		30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene		400	ND	ND	ND	ND	2.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetophenone		700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene		2,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene Benzo(a)pyrene		0.1 0.1	0.46 0.29	<b>0.15</b> 0.10	2.4 2.4	3.1 2.7	4.1 4.2	0.07 0.03	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
Benzo(b)fluoranthene		0.2	0.33	0.10	2.4	3.6	5.2	0.03	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene		0.5	0.12	0.040	1.0	2.0	1.2	0.02	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene		NA	ND	ND	ND	ND	2.7	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate Caprolactam		3 5000	ND ND	ND ND	2.9 ND	<b>4.9</b> 12	4.1 ND	ND ND	ND ND	ND ND	ND 8.6	ND ND	ND ND	ND ND	ND 160	3 ND
Chrysene		5	ND	ND	2.2	2.9	4.3	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h,)anthracene		0.3	0.04	ND	0.21	0.4	0.49	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene		300	ND	ND	5.5	6.5	8.6	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene		300	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND ND	ND	ND
Hexachlorobenzene Hexachlorobutadiene		0.02 1	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
Hexachloroethane		7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene		0.2	0.14	0.050	0.79	1.5	2.3	0.02	ND	ND	ND	ND	ND	ND	ND	ND
Napthalene		300 0.3	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND 0.25	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
Pentachlorophenol Phenanthrene		NS	ND	ND	ND	2.3	2.6	ND	ND	0.25 ND	ND	ND	ND	ND	ND	ND
Pyrene		200	ND	ND	4.8	6	8.9	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tentatively Identified Compour PP Metals 200.7/8	nds	100/500	6 J	ND	15 J	120 J	11 J	ND	ND	ND	5.1 J	ND	ND	9.3 J	200 J	ND
PP Metals 200.7/8																
Antimony		6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic		3	3.9	4.7	3.3	5.3	4.6	3.2	2.4	2.9	5.3	ND	1.1	ND	ND	ND
Barium		6,000	160	120	170	180	170	86	63	43	61	64	220	ND	310	180
Beryllium Cadmium		1 4	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
Chromium		70	ND	ND	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper		1,300	ND	ND	ND	28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead		5	29	ND	16	27	18	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mercury Nickel		2 100	ND 13	ND 14	ND 22	ND 18	ND 16	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
Selenium		40	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver		40	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium		2	ND	ND	ND	ND 30	ND 28	ND	ND	ND	ND	ND	ND	ND	ND ND	ND
Zinc Organochlorine Pesticides 6	608	2,000	36	ND	28	30	28	ND	ND	ND	ND	ND	ND	ND	ND	ND
organoomorme r esticides e																
Aldrin		0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alpha-BHC beta-BHC		0.02	ND ND	ND ND	ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND	ND ND
Chlordane		0.04 0.5	ND 0.21	ND	ND ND	0.52	0.21	0.13	ND ND	ND	ND	ND ND	ND ND	ND ND	ND	ND
Dieldrin		0.03	0.018	ND	ND	0.023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan I		40	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan II Endosulfan Sulfate		40 40	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
Endosulari Sullate		40 2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
gamma-BHC		0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor		0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor Epoxide p, p'-DDD		0.2 0.1	ND 0.018	ND ND	ND ND	ND 0.028	ND 0.012 d	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
p,p'-DDE		0.1	0.018	ND	ND	0.028	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p,p'-DDT		0.1	0.010d	ND	ND	0.045 d	0.13	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene		2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 608																
Aroclor (Total)		0.5	ND	ND	ND	0.39	0.48	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1016		0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1221		0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1232 Aroclor-1242		0.5 0.5	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
Aroclor-1242 Aroclor-1248		0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1254		0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1260		0.5	ND	ND	ND	0.39	0.48	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1262 Aroclor-1268		0.5 0.5	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
Notes:		0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
J = Estimated Value																

## **APPENDIX A**



#### SITE HEALTH AND SAFETY PLAN

#### SECTION 1: GENERAL INFORMATION & ACKNOWLEDGMENTS

CLIENT NAME:	Millington Quarry, Inc. / Tilcon New York, Inc.	PROJECT NAME:	Millington Quarry
PROJECT DIRECTOR:	Joseph Sorge	JOB NUMBER:	
PROJECT MANAGER:	Rhea Grundman		
PREPARED BY: REVISION:	Rhea Grundman	DATE:	March 1, 2011
SHORT FORM APPROV		Initials	Date

Corporate Health & Safety:	Todd Huffman	- AH	3/1/11
On-Site H&S Officer:	Nick Huzsar	<i>n</i> 4	3/1/11
JMS Project Manager:	Rhea Grundman	R14	811/11
JMS Crew Leader:	Nick Huzsar	724	3/1/11

#### SECTION 2: PROJECT INFORMATION

JM Sorge, Inc. environmental consultants

(1) WILL POTENTIAL HAZARDS TO ON-SITE PERSONNEL EXIST? (YES/NO)

Physical:	Yes	(If yes, complete	e Section 3)		
Chemical:	Yes	(If yes, complete	e Section 4)		
Confined sp	pace	(If yes, complete	e Section 6)		
entry:	No		2		
(2) SITE INFOR	MATION				
Site Name:	Millington Quarr	V	Site Contact:	Tom Carton	
Address:	135 Stonehouse		Telephone:	38	
	Bernards Townsh County NJ 07920				
	County NJ 07920				
(3) SITE CLASS	IFICATION: (chec Hazardous (RCI		Hazardous (CERCL	.A)	ISRA
	Construction		UST/LUST	X	Active
			Manufacturing		 Inactive
X	Other – Spill Nu		- 0		
(4) PURPOSE A	AND DATE(S) OF 1	FIELD VISIT(S):	Boring Installation; So	oil Sampling an	d Groundwater
			Sampling		
(5) TASKS: In	stallation of soil bo	orings and monite	oring wells to collect	soil and grour	ndwater samples
to	confirm site condi	tions.			

#### (6) ON-SITE ORGANIZATION

JMS Personnel	<u>Responsibilities</u>
Nick Huzsar	On-Site Health & Safety Officer; Site Inspection; Soil and Groundwater Sampling
Rhea Grundman	Site Inspection; Soil and Groundwater Sampling
Art Untamo	Installation of Soil Borings
Susan Downer	Soil and Groundwater Sampling
<u>Other Personnel</u>	Affiliation & Responsibilities
SGS Drilling	Installation of Soil Borings and Monitoring Wells
Hampton-Clarke/Veritech (HC-V)	Laboratory Analysis of Soil and Groundwater Samples

NOTE: This site safety plan has been prepared for use by J M Sorge, Inc. (JMS) employees. JMS claims no responsibility for its use by others. The plan is written for the specific site conditions, purposes, dates and personnel specified and must be amended if these conditions change.

Contractors and subcontractors whose work will be performed on-site, or who otherwise could be exposed to health and safety hazards, will be advised of known hazards through distribution of site information obtained by JMS from others, and this Health and Safety Plan (HASP). They shall be solely responsible for the health and safety of their employees and shall comply with all applicable laws and regulations.

All contractors and subcontractors are responsible for: (1) providing their own personal protective equipment; (2) training their employees in accordance with applicable Federal, State and local laws; (3) providing medical surveillance and obtaining medical approvals for their employees; (4) insuring their employees are advised of and meet the minimum requirements of their HASP and any other additional measures required by their site activities; and (5) designating their own site safety officer.

(7) BACKGROUND SITE INFORMATION (attach existing description and map, if available.) The portion of the site were the work will be performed was formerly a quarry. Fill material was

brought on site and is being investigated because one soil sample of fill material contained a soil concentration for benzo(a)pyrene of 0.21 ppm, which exceeds the 2008 Soil Remediation Standard for Residential Soils.

#### SECTION 3: PHYSICAL HAZARDS INFORMATION

(1) IDENTIFY POTENTIAL PHYSICAL HAZARDS TO WORKERS:

Confined space

space  $\chi$  Steep/uneven terrain

 $\chi$  Heavy equipment

- Heat stress\*
- $\frac{\chi}{\text{Drum handling}}$



	Х	Moving parts	X	Extreme cold	>	κ	Noise
	Describe	other unsafe environments:					
	work in h nitoring.	ot weather implement OSHA	Hot	Work procedu	res and use Sect	ion	V.E.2-4 for worker
(2)	PROTEC	TIVE EQUIPMENT REQUIRE	D?	Yes X	No		
	If yes, co	mplete Section 8.			_		
(3)	SAFETY I	EQUIPMENT REQUIRED:					
(-)	-	Harnesses		Stretcher			Lights
		Explosimeter		Eye wash			Lights - emergency
	Blower		Shower			χ	Safety cones
	Lifeline		X	Barrier tape		X	Communications (on-site)
		Ladder		Fire extinguish	ner		Communications (off-site)
	Х	First Aid Kit		Emergency Ai	r Horn		<u> </u>
	Describe	other <u>Communications vi</u>	a ce	ll phone			
SEC	CTION 4:	CHEMICAL HAZARDS INF	OR	MATION			
(1)	IDENTIFI	ED CONTAMINANTS					
	Media	Substances Involved	C	Characteristics	Maximum Kno Concentrations		Hazard
	SL	Benzo(a)pyrene		ТО	3.5 ppm		IH, DC, IG
	SL	Benzo(a)anthracene		ТО	4.5 ppm		IH,DC,IG
	SL	Benzo(a)pyrene		ТО	3.5 ppm		IH,DC,IG
	SL	Dibenzo(a,h)anthracene		ТО	0.53 ppr		IH.DC.IG

SLIndeno(1,2,3-cd)pyreneTO1.9 ppmIH,DC,IGSLTotal PCB'sTO0.34 ppmIH,DC,IGSLChlordaneTO6.2 ppmIH,DC,IG

Media types: GW (groundwater), SW (surface water), WW (wastewater), AI (air) SL (soil), SD (sediment), LE (leachate), WA (waste), OT (other)

WL (waste liquid), WS (waste solid), WD (waste sludge), WG (waste gas) Characteristics CA (corrosive, acid), CC (corrosive, caustic), IG (ignitable), RA (radioactive)

VO (volatile), TO (toxic), RE (reactive), UN (unknown), OT (other, describe) Hazard: IH (inhalation), DC (dermal contact), IG (Ingestion)

(\*) - Based on concentrations from soil sampling completed by JM Sorge Inc. dated October, 2009.
(5) SITE MONITORING REQUIRED? Yes x No

If yes, identify monitoring equipment below:

XPID meter (OVM)FID analyzer (OVA)Geiger counterExplosimeterRespirable dust monitorOther\*



\* Describe other:

Monitoring equipment is to be calibrated according to manufacturer's instructions.	Record
measured levels on calibration log chart.	

(6) PROTECTIVE CLOTHING REQUIR	ED?	Yes	X		No
If yes, complete protective equipment	nt form (See	ction 8)			
(7) RESPIRATORS REQUIRED?	Yes			No	<u> </u>

If yes, complete Section 8 and attached respirator log.

#### SECTION 5: HAZARD COMMUNICATION PROGRAM

For each chemical introduced to the site (e.g. decontamination liquids), Material Safety Data Sheets (MSDSs) are attached to this HASP for review by all field personnel. These chemicals include the following:

#### SECTION 6: CONFINED SPACE ENTRY

(1)	WILL CONFINED SPACE ENTRY TAKE PLACE?	
-----	---------------------------------------	--

If the confined space is a permitted confined space, complete all necessary checklists and permits and include a copy of JMS Confined Space Entry Permit.

#### SECTION 7: EMERGENCY INFORMATION

(1) LOCAL RESOURCES

Ambulance (name):	Local First Aid/Rescue Squad	Phone:	911
Hospital (name):	Morristown Memorial Hospital	Phone	973-971-5000
Police (local/state):	Bernards Township Police Department	Phone:	911
Fire Dept. (name):	Bernards Township Fire Department	Phone:	911or 856-757-7520
Other:	Poison Control Center	Phone:	1-800-222-1222
Nearest Phone:	On-site cell phones	Phone:	908-420-6369
	On-site ten priories		732-425-8228

#### (2) DIRECTIONS TO NEAREST HOSPITAL

100 Madison Avenue, Morristown, NJ 07962

Yes No X



See attached map	<ul> <li>Turn Right onto Stonehouse Rd</li> <li>Slight Right onto S Finley Ave/CR-613 (0.1 miles)</li> <li>Turn Right onto E Oak/CR 624</li> <li>(1.7 miles)</li> <li>Turn Left on N Maple Ave (1.6 miles)</li> <li>Merge onto I-287 N (5.7 miles)</li> <li>Take South St/Madison Ave; exit 35 towards NJ-124 (0.1</li> </ul>
Bernardsville	exit 35 towards NJ-124 (0.1
2023 Barting Robin Lord String Park	miles) - Left onto South Ave/CR 601 (0.1
us Rd un Rd Um Ber	miles) - Take the I-287 N Ramp (0.2
Bernards 2 String Glietter	miles) - Right onto NJ-124/Madison Ave
Contrary (9	- 100 Madison Ave on Left

## (3) WHOM TO NOTIFY IN CASE OF ACCIDENT:

Also notify: T

_	Catherine Sorge (908) 218-0066, ext. 102
y:	Todd Huffman (908) 218-0066, ext. 117
_	Priority Medical Care - (908) 231-0777

#### SECTION 8: PROTECTIVE EQUIPMENT LIST

Level	Tas	k	Respirators & Cartridge *		g Gloves	Boots	Other
	Exc	ersight of avation and lling					
D	Act	ivities			N	S	L, H, E
D	San	npling			N	S	L, H, E
D	Site	Inspection				S	Н
<u>Respir</u>	ators	<u>Cartri</u>	<u>dges</u>	<u>Clothing</u>	Gloves	<u>Boots</u>	Other
B = SCB	BA	O = Organic vap	or	T = Tyvek	B = Butyl	F = Firemans	F = Face shield
C = Res	p.	G = Organic vap	or & acid gas	P = PE Tyvek	L = Latex	L = Latex	G = Goggles
D = N/L	А	A = Asbestos (H	EPA)	S = Saranex	N = Nitrile	S = Safety	L = Glasses
E = Esca	ape	P = Particulate		C = Coveralls	V = Viton		H = Hardhat
		C = Combinatior & particulate	ı organic vapor		W = Leather Work Glove		E = Hearing
* • •	1.	1. 6 1. / 1.	DAG	1 .	. 1	D"	

\* Action levels for upgrade/downgrade JMS personnel required to wear level "D" protection when performing Sampling activities. If PID readings reaches 25 ppm over background - Cease work and wait for site conditions to return to 0 to 10 ppm.

Contact HSO and Project manager immediately.



#### SECTION 9: SAFE WORK PRACTICES

The following work practices must be followed by personnel on-site:

- 1. Smoking, eating or drinking are forbidden.
- 2. Ignition of flammable liquids within or through improvised heating devices (e.g., barrels) is forbidden.
- 3. Contact with samples, excavated materials, or other contaminated materials must be minimized. Use of contact lenses is prohibited.
- 4. Do not kneel on the ground when collecting samples.
- 5. If drilling equipment is involved, know where the "kill switch" is.
- 6. All electrical equipment must be plugged into ground fault interrupter (GFI) protected outlets.
- 7. All remedial activities are to be completed by the upwind side of the work area.

#### SECTION 10: ACKNOWLEDGMENTS:

I acknowledge that I have received the information on this Site Health and Safety Plan and the attached Material Safety Data Sheets (MSDSs). I understand the site hazards as described and agree to comply with the contents of this plan.

Name (print)	Signature	Date
Rhea Grundman		
Nicholas Huszar		
Arthur Untamo		
Susan Downer		



## **HEALTH & SAFETY PLAN**

## **ATTACHMENTS**

## **Drill Rig Safety**

As with all heavy equipment, drill rigs can pose serious physical hazards. The following guidelines should be followed by all personnel working in the vicinity of the drill rig to prevent serious injury.

- 1. All personnel working in the drilling area should stay alert and pay close attention to the operation.
- 2. All JMS personnel working in the drill area are required to wear Level "D" PPE as stated in Section 8 of this HASP.
- 3. Personnel should stay clear of moving parts. At no time should personnel handle or come in contact with spinning augers. Loose fitting clothing should be removed or secured when working around moving parts.
- 4. Personnel should use be aware of drill derrick spatial requirements and use caution when guiding rig into position. All operations within 1.5 times the distance of the drill derrick are within the hot zone and require the use of all required PPE by all personnel. Particular care should be observed when overhead hazards such as power lines exist.
- 5. All personnel will be required to know the location of and operation of emergency "kill" switches.

## **Excavation Safety Guidance**

This procedure identifies the basic requirements for the protection of personnel working in and around excavations and trenches. Trenching and excavation work will be done in conformance with this procedure, with 29 CFR, Subpart P (Excavations) and any state local and client requirements. The definition of a competent person based on OSHA is one who is capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Hazard Assessment – Prior to any excavation activity the Site Health and Safety Officer (SHSO) and the Competent Person must evaluate the site for known and potential hazards. Hazards to be evaluated include:

- Excess water from rainfall or snowmelt,
- Location of personnel and equipment,
- Location of above ground loads soil piles, structures, pavement,
- Vibration of equipment, traffic or other causes,
- Undermining of structures.

Any excavation close to public traffic must have fencing or barricades for the protection of the public. If the excavation will not expose the public to injury but strictly workers, caution tape or warning barriers at least 4 feet tall should be placed no closer than six feet from and surrounding the excavation. No employee shall enter an excavation greater than 3 feet in depth. Employees shall not work in excavations in which there is accumulated water, or in excavations in which water is accumulating.

To enter an excavation 4 feet or greater in depth the following procedures must be put into effect:

- A stairway, ladder, ramp or other safe means of egress shall be located in trench excavations that are 4 feet or more in depth so as to require no more than 25 feet of lateral travel for employees.
- Where oxygen deficiency (atmospheres containing less than 19.5 percent oxygen) or a hazardous atmosphere exists or could reasonably be expected to exist, such as in excavations in landfill areas or excavations in areas where hazardous substances are stored nearby, the atmospheres in the excavation shall be tested before employees enter excavations greater than 4 feet in depth.

There are many other guidelines which must be followed to enter into an excavation greater than 3 feet. If you expect that you will need to enter excavations greater than 4 feet at your site, inform the Corporate Health and Safety Officer immediately.

When excavation operations approach the estimated location of underground installations, the exact location of the installations shall be determined by safe and acceptable means.

Employees shall be protected from excavated or other materials or equipment that could pose a hazard by falling or rolling into excavations. Protection shall be provided by placing and keeping such materials or equipment at least 2 feet (.61 m) from the edge of excavations, or by the use of retaining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary.

## PHYSICAL HAZARD INFORMATION

## Rain, Wet Weather, and High Humidity

Rain and wet conditions increase slipping and tripping hazards, braking distances of vehicles, and the potential for slippage or handling difficulties for devices such as augers and drills. Rain fills holes, obscures trip and fall hazards, and increases risk of electrical shock when working with electrical equipment. Changes in soil conditions caused by rain can impact trenching and excavating activities, creating the potential for quicksand formation, wall collapse, and cave-in. Vehicles become stuck in mud, and tools and personnel can slip on wet surfaces.

Rain and wet conditions may decrease visibility (especially for personnel wearing respiratory protection) and limit the effectiveness of certain direct-reading instruments (e.g. photoionization detectors).



## **APPENDIX B**



# Appendix B Millington Quarry, Basking Ridge, NJ Icon's Area A Soil Results Summary

Sample Name Laboratory Id Sample Date Sample Depth (in feet)	2008 NJ Soil Remediation Standards Residential ppm	2008 NJ Soil Remediation Standards Non - Residential ppm	2008 Impact to Groundwater Initial Screening Level ppm	MA-1A-SS 10866-015 10/22/2009 3.5-4.0 ppm	MA-1B-SS 10866-016 10/22/2009 10.5-11.0 ppm	MA-2A-SS 10866-017 10/22/2009 1.5-2.0 ppm	MA-2B-SS 10866-018 10/22/2009 9.0-9.5 ppm	MA-3A-SS 10866-019 10/22/2009 5.0-5.5 ppm	MA-3B-SS 10866-020 10/22/2009 11.0-11.5 ppm	MA-4A-SS 10866-021 10/22/2009 6.0-6.5 ppm	MA-4B-SS 10866-022 10/22/2009 14-14.5 ppm	MA-5A-SS 10866-023 10/22/2009 9.0-9.5 ppm	MA-5B-SS 10866-024 10/22/2009 12.0-12.5 ppm	MA-6A-SS 10940-005 10/26/2009 24.5-25.0 ppm	MA-6B-SS 10940-006 10/26/2009 38.0-38.5 ppm	MA-7A-SS 10866-013 10/22/2009 8.0-8.5 ppm	MA-7B-SS 10866-014 10/22/2009 14.0-14.5 ppm	MA-8A-SS 10866-011 10/22/2009 7.5-8.0 ppm	MA-8B-SS 10866-012 10/22/2009 13.5-14.0 ppm	MA-9A-SS 10789-017 10/21/2009 7.5-8.0 ppm	MA-9B-SS 10789-018 10/21/2009 14.0-14.5 ppm	MA-10A-SS 10789-019 10/21/2009 2.0-2.5 ppm	MA-10B-SS 10789-020 10/21/2009 11-11.5 ppm	MA-11A-SS 10789-021 10/21/2009 6.0-6.5 ppm	MA-11B-SS 10789-022 10/21/2009 13.0-13.5 ppm
Semi-Volatile Compounds Acenaphthene Acenaphthylene Anthracene Benzo[a]anthracene Benzo[a]pyrene Benzo[j,h,i]perylene Benzo[k]fluoranthene Bis(2-Ethylhexyl)phthalate Carbazole Chrysene Dibenzo[a,h]anthracene Dibenzofuran Fluoranthene Fluoranthene Fluorene Indeno[1,2,3-cd]pyrene 2-Methylnaphthalene Naphthalene Phenanthrene Pyrene	3,400 NA 17,000 0.6 0.2 0.6 380,000 6 35 24 62 0.2 NS 2,300 2,300 0.6 2,300 0.6 2,300 6 NA 1,700	37,000 300,000 2 0.2 2 30,000 23 140 96 230 0.2 NS 24,000 24,000 24,000 2 2,400 17 300,000 18,000	74 NA 1500 0.5 0.2 2 NA 16 790 NA 52 0.5 NS 840 110 5 5 16 NA 550	ND ND ND ND ND ND ND ND ND ND ND ND ND N	19.5 ND 35.2 44.9 37.4 30.6 16.5 36.6 ND 11 51.5 8.5 11.9 117 19.7 15.3 12.3 14.1 149 117	0.065 J 0.292 0.253 <b>1.62</b> <b>2.88</b> <b>2.27</b> 1.77 2.02 0.055 J 0.09 1.87 <b>0.547</b> ND 2.63 0.061 J <b>1.78</b> ND 0.058 J 0.67 3.64	ND ND ND ND ND ND ND ND ND ND ND ND ND N	ND ND ND 0.074 J 0.069 J 0.055 J ND 0.067 J ND 0.067 J ND 0.061 J ND 0.127 ND ND ND ND ND ND 0.127 ND ND 0.127	0.045 J ND 0.161 0.466 <b>0.431</b> 0.359 0.251 0.325 ND ND 0.475 0.119 ND 0.938 ND 0.257 ND 0.257 ND ND 0.257 ND 0.623 0.829	1.95 0.173 3.72 4.92 4.43 3.07 2.8 2.61 ND 0.201 5.48 0.825 1.03 10.9 3.86 2.34 1.7 0.203 17.5 12.5	ND ND ND ND ND ND ND ND ND ND ND ND ND N	ND ND 0.085 0.19 0.126 0.126 0.126 0.126 0.118 0.17 ND 0.126 0.118 ND 0.184 ND 0.426 0.052 J 0.106 ND ND 0.298 0.397	ND ND 0.097 0.086 0.067 J 0.071 J 0.065 J ND 0.1 ND 0.1 ND 0.175 ND 0.175 ND 0.058 J ND 0.058 J ND 0.093 0.169	ND ND ND ND ND ND ND ND ND ND ND ND ND N	ND ND ND ND ND ND ND ND ND ND ND ND ND N	ND ND 0.061 J 0.172 0.159 0.124 0.11 0.125 0.997 ND 0.177 ND ND 0.325 ND 0.107 ND 0.107 ND 0.194 0.3	0.314 0.091 0.874 <b>1.89</b> <b>1.68</b> <b>1.33</b> 1.07 1.13 0.061 J 0.209 1.88 <b>0.295</b> 0.249 4.32 0.641 <b>0.948</b> 0.071 J 0.186 3.91 3.71	0.187 0.075 J 0.458 <b>1.59</b> <b>1.47</b> 1.11 1.05 ND 0.277 1.58 <b>0.359</b> 0.149 3.17 0.218 <b>1.04</b> 0.055 J 0.093 2.25 2.67	ND ND 0.095 0.288 <b>0.276</b> 0.219 0.197 0.21 ND 0.289 0.054 J ND 0.555 ND 0.159 ND 0.159 ND 0.294 0.56	ND ND 0.125 0.428 <b>0.356</b> 0.334 0.126 0.378 ND 0.056 J 0.445 ND ND 0.873 ND 0.145 ND 0.145 ND 0.529 0.72	ND ND 0.054 J 0.183 0.14 0.146 ND 0.175 ND 0.175 ND 0.184 ND 0.327 ND 0.054 J ND 0.054 J ND 0.182 0.29	1.28 0.101 2.4 4.43 3.21 3.08 0.83 3.34 ND 0.943 4.22 0.513 0.832 8.81 1.28 1.06 0.397 0.686 8.79 6.82	0.064 J ND 0.146 0.497 0.392 0.394 0.158 0.472 0.072 J 0.064 J 0.475 0.055 J ND 0.981 0.055 J 0.189 ND ND 0.552 0.754	0.109 0.244 <b>0.641</b> <b>0.628</b> 0.452 0.454 0.57 0.236 0.085 0.664 0.172 0.063 J 1.21 0.102 0.398 0.111 0.053 J 0.959 1.32	ND ND 0.060 J ND ND ND ND ND 0.058 J ND 0.058 J ND 0.129 ND ND 0.129 ND ND ND ND ND ND 0.1114 0.105
Semi-Volatile TICs Metals Antimony Arsenic Beryllium Cadmium Hexavalent Chromium Chromium Copper Lead Mercury Nickel Selenium Silver Thallium Zinc	31 19 16 78 240  3,100 400 23 1,600 390 390 5 23000	450 19 140 78 20  45,000 800 65 23,000 5,700 5,700 5,700 79 110,000	6 19 0.5 1 NA  7300 59 0.1 31 7 1 3 600	ND 1.33 ND ND NA 12.9 14.3 46.2 0.071 10.2 ND ND ND ND ND ND 0.66.8	307 ND 3.64 ND 0.385 NA 17.9 28.3 <b>267</b> <b>1.26</b> 17.3 2.61 0.762 ND 212	4.27 ND 4.55 0.585 ND NA 24.8 55.5 121 0.266 26.7 ND ND ND ND 120	ND 3.77 1.21 ND NA 86.1 42.5 11.1 0.025 41.9 4.73 ND ND 56	ND ND 4.24 1.02 ND NA 42.3 161 24.7 0.065 <b>43.8</b> 4.57 ND ND ND ND 121	1.56 ND 4.43 0.647 ND NA 20.1 30.3 103 0.277 19.8 ND ND ND ND 129	51.9 ND 5.06 0.744 0.333 NA 27.8 45.8 34.3 0.055 26.6 2.89 ND ND ND 75.4	ND 2.76 0.915 ND NA 24.5 24.9 15.8 0.037 14.3 3.81 ND ND 51.4	ND 4.6 <b>1.23</b> ND NA 32 33.7 13.6 0.021 29.1 4.93 ND ND 64.5	ND 3.9 0.862 ND NA 23.7 22 19.5 0.024 17.7 4.3 ND ND ND 63.7	ND 3.35 0.658 ND NA 46.2 94.5 12.5 0.062 35.3 4.6 ND ND ND 70.7	ND 4.3 0.847 ND NA 129 84.1 13.8 0.054 53.3 3.71 ND ND 74.8	ND 2.69 ND NA 21.6 66.7 <b>125</b> 0.145 17.6 ND ND ND 465	5.79 ND 3.87 ND NA 23.8 26.9 <b>68.5</b> <b>0.251</b> 17.5 ND ND ND ND 83.2	2.61 ND 3.3 ND NA 24.9 62.4 62.4 118 0.55 24.4 ND ND ND ND ND 405	ND 2.91 ND 0.324 NA 15.2 28.8 <b>120</b> 0.329 18.1 ND ND ND 164	ND 3.63 ND ND NA 27.4 36.7 <b>163</b> <b>0.479</b> <b>71.2</b> ND ND ND 128	ND 3.72 0.762 ND NA 44.2 37.7 112 0.23 39.8 2.67 ND ND 144	8.87 ND 5.04 0.653 ND NA 32.2 108 <b>174</b> 0.56 30.9 3.13 ND ND 195	ND 7.47 ND ND NA 24.2 50.2 108 0.462 20.7 ND ND ND 152	1.49 ND 2.81 ND NA 20.5 28.6 <b>129</b> <b>0.131</b> 21 2.62 ND ND 97.5	2.05 ND 3.45 <b>1.07</b> ND NA 29.9 52.5 21.9 0.046 <b>31.6</b> 3.55 ND ND 93.1
PCBs Aroclor-1248 Aroclor-1254 Aroclor-1260 Total PCBs		  1	  0.2	0.028 ND 0.00568 0.03368	ND ND ND ND	ND 0.048 0.014 0.062	ND ND ND ND	ND 0.013 0.011 0.024	ND ND ND ND	ND ND ND ND	ND ND ND ND	ND ND ND ND	ND 0.00638 ND 0.00638	ND ND ND ND	ND 0.00281 0.00209 0.0049	ND ND 0.00415 0.00415	ND ND 0.00919 0.00919	0.039 ND 0.018 0.057	ND ND ND ND	ND ND ND ND	ND ND 0.011 0.011	ND ND 0.00862 0.00862	ND ND 0.00701 0.00701	ND ND ND ND	ND ND ND ND
Pesticides Aldrin Chlordane Dieldrin p,p'-DDD p,p'-DDE p,p'-DDT	0.04 0.2 0.04 3 2 2	0.2 1 0.2 13 9 8	0.1 0.03 0.003 3 12 7	ND 0.034 0.00378 0.00565 0.00688 0.037	ND ND ND ND ND ND	ND 0.045 ND 0.00256 0.00224 0.028	ND ND ND ND ND	ND 0.015 ND 0.000997 0.000749 0.0027	ND 6.54 ND ND ND ND	ND 0.034 ND 0.0015 0.00245	ND ND 0.000274 ND ND	ND ND ND ND 0.000534	ND 0.00182 ND ND 0.000344	ND 0.00176 ND 0.000235 0.000329 0.000445	ND ND 0.000248 0.000355 ND	ND 0.034 ND 0.00119 0.0023 0.00269	0.000333 <b>0.049</b> ND 0.00484 0.0059 0.00466	ND ND 0.00443 0.00293 0.024	0.00619 0.022 <b>0.00939</b> 0.00173 0.000645 0.00215	ND 0.965 ND ND ND ND	0.00164 <b>0.062</b> 0.00298 0.00322 0.0028 0.01	0.000509 <b>0.047</b> <b>0.00405</b> 0.00914 0.00605 0.031	ND 0.037 0.00191 0.00465 0.00636 0.015	ND 0.0026 0.019 0.014 0.049	ND 0.00417 ND ND 0.00052
Radiological Study Gross Alpha (pCi/g) Gross Beta (pCi/g) Radium-226 (pCi/g) Radium-228 (pCi/g)	NS NS 10 NS	NS NS 3 NS	NS NS 5 NS	2.73 7.84 0.272 0.787	8.92 18.9 0.618 0.777	8.54 16.7 0.665 0.903	8.68 13.1 0.913 0.858	9.27 15.6 0.707 0.749	9.33 12.4 0.895 1.04	10.1 10.2 0.895 0.956	10.4 12.4 0.831 0.876	6.42 16 0.862 0.934	9.5 10.3 0.873 1.05	9.19 8.51 0.729 0.746	8.34 8.75 0.882 0.872	10.9 20.6 0.644 0.855	15.5 46 0.752 0.922	10.5 20.7 0.989 1.15	13.5 19.7 0.81 0.959	7.35 11 0.74 0.897	9.9 13.2 0.802 1.11	6.78 7.15 0.525 0.678	9.08 9.32 0.987 0.617	11.2 11.2 0.617 0.856	9.79 17.1 1.19 1.36

Notes:

Notes: J - Estimated concentration NA - Not Analyzed ND - Not Detected NS - No Standards ppm - Parts per million pCi/g - Average Picocuries Per Gram

# Appendix B (continued) Millington Quarry, Basking Ridge, NJ Icon's Area A Soil Results Summary

Sample Name Laboratory Id Sample Date Sample Depth (in feet)	2008 NJ Soil Remediation Standards Residential ppm	2008 NJ Soil Remediation Standards Non - Residential ppm	2008 Impact to Groundwater Initial Screening Level ppm	MA-12A-SS 10789-009 10/21/2009 3.0-3.5 ppm	MA-12B-SS 10789-010 10/21/2009 9.5-10.0 ppm	MA-13A-SS 10789-005 10/21/2009 6.0-6.5 ppm	MA-13B-S 10789-006 10/21/2009 8.0-8.5 ppm	MA-14A-SS 10683-001 10/19/2009 3.0-3.5 ppm	MA-14B-SS 10683-002 10/19/2009 7.5-8.0 ppm	MA-14A-SS 10789-003 10/21/2009 3.5-4.0 ppm	MA-14B-SS 10789-004 10/21/2009 7.5-8.0 ppm	MA-15A-SS 10683-003 10/19/2009 0.5-1.0 ppm	MA-15B-SS 10732-001 10/20/2009 37.0-37.5 ppm	MA-16A-SS 10789-007 10/21/2009 0.0-0.5 ppm	MA-16B-SS 10789-008 10/21/2009 12.5-13.0 ppm	MA-17A-SS 10789-011 10/21/2009 1.0-1.5 ppm	MA-17B-SS 10789-012 10/21/2009 7.5-8.0 ppm	MA-18A-SS 10789-013 10/21/2009 0.0-0.5 ppm	MA-18B-SS 10789-014 10/21/2009 5.5-6.0 ppm	MA-19A-SS 10789-015 10/21/2009 5.5-6.0 ppm	MA-19B-SS 10789-016 10/21/2009 11-11.5 ppm	MA-20A-SS 10866-004 10/21/2009 2.0-2.5 ppm	MA-20B-SS 10866-005 10/21/2009 9.0-9.5 ppm	MA-20C-SS 10866-006 10/21/2009 14.0-14.5 ppm
Semi-Volatile Compounds Acenaphthene Acenaphthylene Anthracene Benzo[a]anthracene Benzo[a]pyrene Benzo[b]fluoranthene Benzo[k]fluoranthene Bis(2-Ethylhexyl)phthalate Butylbenzylphthalate Carbazole Chrysene Dibenzo[a,h]anthracene Dibenzofuran Di-methyl phthalate Fluoranthene Fluorene Indeno[1,2,3-cd]pyrene 2-Methylnaphthalene Naphthalene Phenanthrene Pyrene	3,400 NA 17,000 0.6 0.2 0.6 380,000 6 35 1,200 24 62 0.2 NS NS 2,300 2,300 2,300 0.6 230 6 NA 1,700	37,000 300,000 2 0.2 2 30,000 23 140 14,000 96 230 0.2 NS NS 24,000 24,000 24,000 2 2,400 17 300,000 18,000	74 NA 1500 0.5 0.2 2 NA 16 790 150 NA 52 0.5 NS 840 110 5 5 16 NA 550	0.107 ND 0.239 <b>0.504</b> 0.366 0.113 0.38 0.050 J ND 0.085 0.476 0.054 J 0.064 J ND 1.1 0.064 J ND 1.1 0.108 0.131 ND 0.075 J 0.86 0.88	0.050 J ND 0.154 0.485 <b>0.381</b> 0.372 0.134 0.443 0.055 J ND 0.056 J 0.056 J 0.047 J ND ND 0.934 0.046 J 0.157 ND 0.051 J 0.563 0.781	D D D D D D D D D D D D D D D D D D D	ND ND ND 0.232 0.219 0.297 ND ND ND ND ND ND ND ND ND ND ND ND ND	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1.96 0.179 3.94 <b>6.87</b> <b>5.43</b> <b>4.31</b> 2.0 5.81 2.82 ND 1.56 6.31 <b>0.942</b> 1.27 0.357 15.1 2.01 <b>2.21</b> 0.755 1.76 13.8 12	ND ND 0.157 0.124 0.119 ND 0.129 ND ND ND 0.137 ND ND 0.271 ND 0.054 J 0.059 J ND 0.13 0.246	ND ND 0.061 J 0.051 J ND ND ND ND ND ND ND ND 0.060 J ND ND ND ND 0.111 ND ND ND ND 0.058 J 0.096	0.742 0.632 2.96 <b>13.2</b> <b>12.8</b> <b>14.4</b> 6.62 <b>11</b> ND ND 1.18 15.7 <b>2.24</b> 0.825 ND 32.1 1.23 <b>6.58</b> ND ND 19.7 26	ND ND 0.075 J 0.186 0.147 0.127 0.139 0.060 J ND ND 0.196 ND ND ND 0.362 ND 0.115 ND 0.115 ND 0.281 0.305	ND N	ND ND ND 0.492 0.131 0.522 ND ND ND ND ND ND ND ND ND ND ND ND ND	ND ND 0.114 0.088 0.093 ND 0.119 ND ND 0.122 ND ND 0.261 ND ND ND ND ND 0.261 ND ND 0.13 0.193	ND ND 0.066 J ND 0.049 J ND 0.054 J ND ND ND ND ND ND ND ND ND ND ND ND ND	ND ND 0.128 0.395 0.137 0.369 0.113 ND 0.047 J 0.047 J 0.048 J ND ND 0.928 ND 0.15 ND 0.15 ND 0.46 0.716	ND ND 0.261 0.193 0.193 0.088 0.268 0.153 0.12 0.051 J 0.285 ND ND 0.599 ND 0.086 ND ND 0.086 ND ND 0.408 0.468	ND ND 0.131 0.364 <b>0.341</b> 0.344 0.25 0.28 ND ND 0.061 J 0.377 0.076 J ND ND 0.825 ND 0.23 ND 0.23 ND 0.588 0.658	ND ND 0.116 0.413 <b>0.33</b> 0.317 0.112 0.381 0.281 ND 0.053 J 0.408 ND ND ND ND 0.842 ND 0.129 ND 0.129 ND 0.486 0.627	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	ND ND 0.307 1.08 1.12 0.823 0.855 0.895 ND ND 0.111 1.15 ND ND 1.15 ND ND 1.88 0.089 0.725 ND ND 1.23 2.03	ND ND 0.631 <b>1.51</b> <b>1.38</b> <b>0.842</b> 0.943 0.836 0.082 ND 0.091 1.61 <b>0.265</b> ND ND 2.04 0.729 <b>0.665</b> ND ND 3.34 3.08
Semi-Volatile TICs Metals Antimony Arsenic Beryllium Cadmium Cadmium Chromium Copper Lead Mercury Nickel Selenium Silver Thallium Zinc	31 19 16 78 240  3,100 400 23 1,600 390 390 5 23000	450 19 140 78 20  45,000 800 65 23,000 5,700 5,700 79 110,000	6 19 0.5 1 NA  7300 59 0.1 31 7 1 3 600	ND ND 5.97 ND NA 23.5 36.9 <b>156</b> <b>0.259</b> 20.5 ND ND ND ND 125	ND 3.17 ND ND NA 21.9 30.3 <b>201</b> 0.018 18.1 ND ND ND ND 147	3.03 ND 2.01 ND NA 26.4 20.7 30.7 <b>0.174</b> 18.8 3.01 ND ND ND 62.3	ND 2.5 ND NA 24 24.9 <b>86.8</b> <b>0.152</b> 19.4 ND ND ND ND 133	ND 4.61 <b>1.56</b> ND NA 42.7 136 9.24 <b>0.147</b> <b>49.4</b> 6.92 ND ND 69.9	11.7 ND 5.87 ND NA 19.7 21.4 <b>148</b> <b>0.334</b> 13.1 ND ND ND ND 130	3.27 ND 2.85 ND NA 22.6 25 <b>103</b> <b>0.242</b> 19.4 2.64 ND ND 120	0.382 ND 5.75 ND NA 23.7 30 <b>100</b> 0.109 20.6 3.22 ND ND 70	31.9 ND ND NA 20 17.5 24.3 0.045 23.1 3.98 ND 0.36 83.7	ND 3.85 1.05 ND NA 22.4 48.7 <b>72.8</b> 0.077 <b>35.1</b> ND ND ND ND 187	ND 1.86 <b>0.96</b> ND NA 17 20.5 48.7 <b>0.121</b> 21.5 3.46 ND ND 78.5	0.325 ND 3.67 ND 0.302 NA 24.6 32.3 <b>169</b> <b>1</b> <b>87.9</b> ND ND ND ND 136	ND 5.53 0.718 ND NA 27 86.5 37.6 0.073 30.1 2.72 ND ND 116	ND 5.97 0.671 ND NA 24.2 84.8 18.9 0.047 26.8 2.93 ND ND ND 113	ND 4.04 ND ND 21.9 37 <b>94.4</b> 0.383 24.2 2.56 ND ND 115	ND 4.02 ND NA 15.1 26 <b>144</b> <b>0.115</b> 14.3 4.36 ND ND 124	ND 7.02 ND NA 10.4 14.7 43 0.067 11.2 ND ND ND 48.7	ND 3.9 ND NA 23.2 40.2 <b>101</b> 0.213 33.9 ND ND ND ND 125	ND 7.46 <b>0.873</b> ND NA 36.6 126 7.09 ND <b>55.7</b> 4.16 ND ND 217	1.34 ND 19 <b>0.85</b> 0.485 NA 30.1 111 <b>263</b> <b>0.986</b> <b>41.3</b> 3.92 ND ND 352	20.1 ND 8.48 <b>0.648</b> ND NA 22.3 88.6 <b>717</b> <b>0.4</b> 23.3 3.06 ND ND ND 147
PCBs Aroclor-1242 Aroclor-1248 Aroclor-1254 Aroclor-1260 Total PCBs	   0.2	  1	   0.2	ND ND ND 0.022 0.022	ND ND 0.013 0.013	0.023 ND ND ND 0.023	0.092 ND ND 0.00875 0.10075	ND ND ND ND ND	ND ND 0.04 ND 0.04	ND ND ND 0.0034 0.0034	ND ND ND 0.00401 0.00401	ND ND ND ND ND	ND ND ND 0.00241 0.00241	ND ND ND 0.00258 0.00258	ND 0.066 ND 0.00792 0.07392	ND ND ND 0.00257 0.00257	ND ND 0.00214 0.00214	ND ND 0.016 0.016	ND 0.031 ND 0.011 0.042	ND ND ND 0.00365 0.00365	ND ND ND 0.00865 0.00865	ND ND ND ND ND	ND ND ND 0.00559 0.00559	ND ND 0.013 0.013
Pesticides Aldrin Chlordane Dieldrin p,p'-DDD p,p'-DDE p,p'-DDT	0.04 0.2 0.04 3 2 2	0.2 1 0.2 13 9 8	0.1 0.03 0.003 3 12 7	ND 0.104 ND 0.00428 0.00803 0.016	ND 0.051 0.00265 0.00989 0.00742 0.032	0.067 ND 0.012 0.000645 0.00055 0.00143	0.16 0.047 0.014 0.014 0.012 0.029	ND ND ND ND ND ND	ND ND ND ND ND	ND 0.00807 ND 0.00433 0.00428 0.013	ND 0.02 0.000729 0.00452 0.0024 0.00973	ND 0.533 ND ND ND ND	ND 0.022 0.00064 0.00203 0.00218 0.00459	ND 0.011 0.000539 0.000716 0.000748 0.00531	ND 0.049 0.00332 0.00842 0.00836 0.032	0.00376 0.017 <b>0.016</b> 0.000651 0.000725 0.00685	ND 0.00652 0.00138 0.000963 0.00109 0.00478	0.000997 0.063 0.00862 0.00991 0.00196 0.023	ND 0.027 ND 0.00242 0.00245 0.016	ND 0.025 0.00188 0.013 0.025 0.014	ND 0.068 ND 0.00712 0.00624 0.025	ND ND ND ND ND 0.000287	ND 0.019 0.00231 ND 0.00242 0.036	ND 0.077 ND ND ND ND
Radiological Study Gross Alpha (pCi/g) Gross Beta (pCi/g) Radium-226 (pCi/g) Radium-228 (pCi/g)	NS NS 10 NS	NS NS 3 NS	NS NS 5 NS	17.7 17.3 0.706 1.15	4.41 12.4 0.664 0.598	6.12 11.1 0.536 1.02	5.57 11.3 0.799 0.78	NA NA NA NA	NA NA NA	13.3 20 0.72 1.49	11.1 21.2 0.9 0.951	NA NA NA	NA NA NA	10.8 14.5 0.831 0.982	13.3 8.76 0.925 0.679	11.1 7.73 0.606 0.813	11.2 8.65 0.777 0.962	10.7 10.2 0.724 0.88	7.95 15.4 0.505 0.92	8 11.9 0.66 0.726	8.75 8.68 0.87 1.22	-1.491 1.6 0.438 0.162	7.74 14.6 0.546 0.837	9.37 11.3 0.779 0.928

Notes: J - Estimated concentration NA - Not Analyzed ND - Not Detected NS - No Standards ppm - Parts per million pCi/g - Average Picocuries Per Gram

## Appendix B (continued) Millington Quarry, Basking Ridge, NJ Area A- Icon's Soil Analytical Results Summary

Sample Name Laboratory Id Sample Date Sample Depth (in feet)	2008 NJ Soil Remediation Standards Residential ppm	2008 NJ Soil Remediation Standards Non - Residential ppm	2008 Impact to Groundwater Initial Screening Level ppm	MA-21A-SS 11926-001 11/19/2009 20-20.5 ppm	MA-21B-SS 11926-002 11/19/2009 40-40.5 ppm	MA-21C-SS 11926-003 11/19/2009 50.5-51 ppm	MA 21D-SS 11983-001 11/20/2009 80-80.5 ppm	MA-21E-SS 11983-002 11/20/2009 100.5-101 ppm	MA-21F-SS 11983-003 11/20/2009 110.5-111 ppm	MA-21G-SS 11983-004 11/20/2009 120.5-121 ppm	MA-21H-SS 11983-005 11/20/2009 140.5-141 ppm	MA-21I-SS 12056-001 11/24/2009 159-161 ppm	MA-21J-SS 12056-002 11/24/2009 179-181 ppm	MA-21K-SS 12056-003 11/24/2009 189-191 ppm	MA-21L-SS 12056-004 11/24/2009 199-201 ppm	MA-21M-SS 12173-001 11/30/2009 219-221 ppm	MA-24A 10893-001 10/22/2009 11.5-12 ppm	MA-24B 10893-002 10/23/2009 31.5-32 ppm	MA-24C 10940-007 10/23/2009 41.5-42 ppm	MA-25A-SS 10789-001 10/20/2009 16.5-17 ppm	MA-25B-SS 10789-002 10/20/2009 40-40.5 ppm	MA-25C-SS 10866-001 10/21/2009 61.5-62 ppm	MA-25D-SS 10866-002 10/21/2009 81.5-82 ppm	MA-25E-SS 10866-003 10/22/2009 101.5-102 ppm	MA-27A 12214-001 12/4/2009 0-2 ppm	MA-27B 12214-002 12/4/2009 11.5-12.0 ppm
Semi-Volatile Compounds Acenaphthene Acenaphthylene Anthracene Benzo[a]anthracene Benzo[a]pyrene Benzo[b]fluoranthene Benzo[k]fluoranthene Benzo[k]fluoranthene Benzo[k]fluoranthene Bis(2-Ethylhexyl)phthalate Carbazole Chrysene Dibenzo[a,h]anthracene Dibenzofuran Di-n-octylphthalate Fluorene Indeno[1,2,3-cd]pyrene 2-Methylnaphthalene Naphthalene Phenanthrene Pyrene	3,400 NA 17,000 0.6 0.2 0.6 380,000 6 35 24 62 0.2 NS 2,400 2,300 2,300 2,300 0.6 230 6 NA 1,700	37,000 300,000 2 0.2 2 30,000 23 140 96 230 0.2 NS 27,000 24,000 24,000 2 2,400 17 300,000 18,000	74 NA 1500 0.5 2 2 NA 16 790 NA 52 0.5 NS 3300 840 110 5 5 16 NA 550	ND 0.048 J 0.069 J 0.209 0.200 0.147 0.178 0.195 0.252 ND 0.252 ND 0.202 <b>0.265</b> ND 0.233 0.425 ND 0.097 ND 0.097 ND 0.188 0.308	ND ND 0.224 0.235 0.176 ND 0.207 0.087 ND 0.237 ND 0.237 ND 0.367 ND ND ND ND 0.367 ND ND ND ND 0.368 J 0.195 0.32	0.198 0.055 J 0.476 <b>1.1</b> <b>0.874</b> <b>0.922</b> ND 0.78 1.9 0.189 0.999 ND 0.151 0.151 0.151 0.151 0.151 0.151 0.73 4 0.218 ND 0.07 J 0.083 1.56 1.62	0.126 0.073 J 0.231 0.89 0.749 0.512 0.315 0.665 0.079 J ND 1.14 0.126 0.064 J ND 1.24 0.13 0.288 0.048 J ND 0.462 1.45	0.186 0.158 0.503 <b>1.04</b> <b>0.992</b> <b>0.871</b> 0.15 0.905 0.05 J 0.143 1.25 0.108 0.104 ND 2.39 0.231 0.34 0.086 0.111 1.46 1.88	ND ND 0.109 0.224 0.199 0.176 0.09 0.18 ND ND 0.247 ND ND 0.247 ND ND 0.462 ND 0.077 J ND ND 0.253 0.34	0.055 J 0.082 0.289 0.752 0.076 0.814 0.054 J ND 0.913 0.075 J ND 1.75 0.081 0.282 ND ND 1.75 0.081 0.282 ND ND 1.75 0.081 0.282 ND ND	0.076 J ND 0.171 0.323 0.258 0.264 ND 0.251 ND ND 0.349 ND 0.067 J ND 0.658 0.098 0.074 J ND ND 0.422 0.533 ND	ND N	ND ND ND ND ND ND ND ND ND ND ND ND ND N	ND ND 0.064 J 0.114 0.079 0.099 ND 0.059 J ND 0.117 ND ND ND ND ND ND ND ND ND ND ND ND ND	ND ND 0.053 J ND ND ND ND ND ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND ND ND ND ND ND N	ND ND ND ND ND ND ND ND ND ND ND ND ND N	ND ND ND ND ND ND ND ND ND ND ND ND ND N	ND N	0.094 0.104 0.224 <b>0.658</b> 0.596 0.582 0.21 0.747 0.088 0.128 0.767 0.078 0.085 ND 1.71 0.126 0.247 0.054 J 0.13 1.26 1.22 ND	0.077 J ND 0.152 0.276 0.181 0.182 ND 0.228 0.071 J 0.273 ND 0.058 J ND 0.058 J ND 0.055 J ND 0.055 J ND 0.055 J ND 0.0583 0.491	0.076 J ND 0.181 0.57 0.546 0.46 0.381 0.42 0.72 J 0.068 J 0.627 0.1 0.047 J ND 1.16 0.077 J 0.339 ND 0.801 1.25 0.69	1.85 ND 3.93 4.24 2.63 1.32 2.65 ND 1.68 4.29 0.369 1.18 ND 11.8 1.87 1.4 0.529 1.61 11.2 9.36	0.062 J ND 0.191 0.531 0.502 0.452 0.347 0.382 0.186 0.096 0.544 0.086 ND ND 1.11 0.311 ND ND 0.87 1.05	ND ND 0.093 0.378 0.343 0.276 0.308 0.105 ND 0.387 0.08 ND ND 0.387 0.08 ND ND 0.239 ND 0.239 ND ND 0.358 0.612 ND	0.062 J ND 0.143 0.429 <b>0.427</b> 0.318 0.292 0.4 0.063 J 0.078 J 0.078 J 0.078 J 0.086 0.050 J ND 0.078 J 0.078 J 0.0262 ND
Semi-Volatile TICs Metals Antimony Arsenic Beryllium Cadmium Hexavalent Chromium Chromium Chromium Chromium Copper Lead Mercury Nickel Selenium Silver Thallium Zinc	31 19 16 78 240  3,100 400 23 1,600 390 390 390 5 23000	450 19 140 78 20  45,000 800 65 23,000 5,700 5,700 79 110,000	6 19 0.5 1 NA  7300 59 0.1 31 7 1 3 600	ND ND 1.86 ND NA 46.3 64 28.5 0.101 53.7 3.82 ND 0.462 137	ND 3.59 <b>1.16</b> ND NA 30 15.2 30.2 0.058 23.7 3.47 ND ND 82	ND 3.83 0.666 3.24 NA 27.5 31.8 67.4 0.111 20.6 2.95 ND ND 89.8	1.95 ND 2.59 ND NA 23.2 29.4 32.5 0.07 19.3 ND ND ND ND 65.9	ND 2.51 0.801 ND NA 27.3 31.1 102 0.205 25.1 2.5.4 ND ND 116	ND 3.09 ND ND NA 26.1 40.6 <b>76.8</b> 0.083 19.9 ND ND ND ND ND 80.5	0.409 ND 3.89 ND NA 32.7 40.6 35.4 <b>0.239</b> 23.3 ND ND ND 61.6	ND 3.08 0.721 ND NA 23.9 46.1 91.6 0.15 25.1 2.5.1 2.55 ND ND 93.9	ND 2.9 ND NA 24.4 171 3.76 ND 42.9 3.28 ND ND 77.8	ND 2.75 1.13 ND NA 27.1 60.5 7.98 ND 24.1 5.68 ND 24.1 5.68 ND ND 67.4	ND 3.54 1.25 ND NA 32.7 21.1 21.4 0.026 31.4 4.41 ND ND 72.5	ND 3.34 0.887 ND NA 52.4 34.4 12.8 0.026 <b>32.7</b> 4.4 ND ND 62.3	ND 4.71 1.34 ND NA 38.8 66.9 15.7 0.02 35.4 6.28 ND ND 78.4	ND 4.69 0.738 ND NA 29.8 208 7.27 ND 44 4.25 ND 0.333 100	ND 3.38 ND ND 31.8 147 10.7 ND 41.6 5.42 ND ND 94.4	ND 4.41 0.763 ND NA 26.9 131 9.31 ND 36.4 3.91 ND ND 74.1	ND 5.82 ND 0.647 NA 23.3 52.9 <b>339</b> <b>0.551</b> 22 2.65 ND ND 358	ND 2.46 ND NA 16 20.8 <b>45.3</b> <b>0.12</b> 14.1 ND ND ND 51.9	0.69 ND 3.32 ND NA 21.2 35.9 <b>135</b> 0.245 22 ND ND ND 155	ND 5.03 ND NA 36.3 31.4 <b>85.7</b> 0.13 20.6 3.38 ND ND 104	ND 3.78 0.754 ND NA 23.6 47.4 98.3 0.291 22.9 2.73 ND ND 105	ND 3.24 ND NA 14.9 34.8 38.9 0.076 17.4 ND ND ND 98.6	ND 3.27 0.829 ND NA 29.1 34.8 32.3 0.423 28.2 ND ND ND ND 77.3
PCBs Aroclor-1254 Aroclor-1260 Total PCBs	  0.2	  1	  0.2	ND ND ND	ND ND ND	ND ND ND	0.038 0.00848 0.04648	ND ND ND	ND ND ND	0.019 0.00532 0.02432	0.021 0.00629 0.02729	ND ND ND	0.015 ND 0.015	ND ND ND	ND ND ND	ND ND ND	ND ND ND	ND ND ND	ND ND ND	ND 0.00453 0.00453	ND 0.01 0.01	ND 0.00996 0.00996	ND 0.00598 0.00598	ND 0.026 0.026	ND 0.00891 0.00891	ND ND ND
Pesticides Chlordane Dieldrin Endrin p.p'-DDD p.p'-DDE p.p'-DDT	0.2 0.04 23 3 2 2	1 0.2 340 13 9 8	0.03 0.003 0.6 3 12 7	0.012 0.00156 ND 0.00281 0.00195 0.00705	0.00576 0.000597 ND 0.0023 0.00262 0.00195	ND ND 0.00493 0.00169 0.00797	0.277 ND ND ND ND ND	0.065 ND ND 0.00335 0.00389 0.0051	0.013 ND ND 0.00175 0.00211 0.00748	0.013 ND ND 0.00603 0.0065 0.00294	0.024 ND ND 0.0025 ND 0.00243	ND ND ND ND ND	ND ND ND 0.000367 0.00142	0.08 ND ND 0.0019 0.0019	0.00202 ND ND 0.000422 0.000459	0.000926 ND ND ND ND ND	0.00244 ND ND 0.000261 ND 0.000845	0.00181 ND ND ND ND 0.000414	0.00286 ND 0.000414 0.000251 ND 0.000621	0.052 ND ND 0.0052 0.00691 0.014	0.021 ND 0.00166 0.00217 0.00565	0.253 ND ND 0.00778 0.0058 0.012	0.044 0.00231 ND 0.00853 0.02 0.013	0.085 ND ND 0.00323 0.00319 0.0062	0.00636 0.000456 ND 0.00187 0.00209 0.00656	0.014 ND 0.00113 0.00105 0.0015
Radiological Study Gross Alpha (pCi/g) Gross Beta (pCi/g) Radium-226 (pCi/g) Radium-228 (pCi/g)	NS NS 10 NS	NS NS 3 NS	NS NS 5 NS	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	4.65 4.01 0.638 0.789	7.28 8.12 0.425 0.648	9.26 14.9 0.76 0.877	NA NA NA NA	3.52 5.74 0.237 0.3	6.36 7.74 0.542 0.894	8.64 11.2 0.702 0.682	10.8 10.4 0.709 0.659	NA NA NA NA	NA NA NA NA

Notes: J - Estimated concentration NA - Not Analyzed ND - Not Detected NS - No Standards ppm - Parts per million pCi/g - Average Picocuries Per Gram

# Appendix B (continued) Millington Quarry, Basking Ridge, NJ Icon's Area B Soil Results Summary

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Sample Name	2008 NJ Soil	2008 NJ Soil	2008 Impact to	MB-1A-SS	MB-1B-SS	MB-2A-SS	MB-2B-SS	MB-3A-SS	MB-3B-SS	MB-4A-SS	MB-4B-SS
Laboratory Id	Remediation	Remediation	Groundwater	10866-007	10866-008	10732-002	10732-003	10732-004	10732-005	10866-009	10866-010
Sample Date	Standards	Standards	Initial Screening	10/22/2009	10/22/2009	10/20/2009	10/20/2009	10/20/2009	10/20/2009	10/22/2009	10/22/2009
Sample Depth (in feet)	Residential	Non - Residential	Level	0.0-0.5	4.0-4.5	9.5-10	15-15.5	4-4.5	11.5-12	5.5-6.0	9.5-10.0
	ppm	ppm	ppm								
Semi-Volatile Compounds				ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	3,400	37,000	74	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[a]anthracene	0.6	2	0.5	ND	0.049 J	0.108	0.057 J	ND	ND	ND	ND
Benzo[a]pyrene	0.2	0.2	0.2	ND	ND	0.109	0.069 J	ND	ND	ND	ND
Benzo[b]fluoranthene	0.6	2	2	ND	ND	0.101	0.051 J	ND	ND	ND	ND
Benzo[g,h,i]perylene	380,000	30,000	NA	ND	ND	0.074 J	0.049 J	ND	ND	ND	ND
Benzo[k]fluoranthene	6	23	16	ND	ND	0.079 J	0.063 J	ND	ND	ND	ND
Carbazole	24	96	NA	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	62	230	52	ND	0.046 J	0.105	0.064 J	ND	ND	ND	ND
Dibenzo[a,h]anthracene	0.2	0.2	0.5	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	2,300	24,000	840	ND	0.08	0.17	0.075 J	ND	0.064 J	ND	ND
	2,300	24,000	5	ND	ND	0.17 0.071 J	0.075 J 0.049 J	ND	0.064 J ND	ND	ND
Indeno[1,2,3-cd]pyrene											
Phenanthrene	NA	300,000	NA	ND	0.074 J	0.073 J	ND	ND	ND	ND	ND
Pyrene	1,700	18,000	550	ND	0.086	0.156	0.075 J	ND	0.056 J	ND	ND
Semi-Volatile TICs				ND	ND	2.6	ND	ND	ND	ND	ND
Matala											
Metals		450									
Antimony	31	450	6	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	19	19	19	5.17	5.22	3.04	6.53	4.25	3.52	3.8	4.15
Beryllium	16	140	0.5	1.73	1.2	0.957	ND	1.32	0.983	1.18	1.21
Cadmium	78	78	1	ND	ND	ND	0.381	ND	ND	ND	ND
Hexavalent Chromium	240	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium				44.8	34.3	44.4	22.2	33.7	29.5	39.2	36.3
Copper	3,100	45,000	7300	101	330	33.1	87.5	115	134	126	106
Lead	400	800	59	21.3	18.1	39.2	50.3	17.2	14.5	14.2	14.1
Mercury	23	65	0.1	ND	0.016	0.04	0.337	ND	ND	ND	ND
Nickel	1,600	23,000	31	44.5	38.5	31.9	17.1	38.8	29.6	45.2	43.8
Selenium	390	5,700	7	4.93	3.74	2.92	ND	4.7	2.95	5.9	4.42
Silver	390	5,700	1	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	5	79	3	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	23000	110,000	600	112	108	80.7	72.2	82.9	89.5	111	131
2.110	20000	110,000		112	100	00.7	12.2	02.0	00.0		101
PCBs											
Aroclor-1248				ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1254				ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1260				ND	ND	0.00502	0.00731	ND	ND	ND	ND
Total PCBs	0.2	1	0.2	ND	ND	0.00502	0.00731	ND	ND	ND	ND
Destisides											
Pesticides		0.5	0.000	NE	NE	NE	NE	ND	NE	NE	ND
Alpha-BHC	0.1	0.5	0.002	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane	0.2	1	0.03	ND	0.0018	0.041	ND	ND	ND	ND	ND
Dieldrin	0.04	0.2	0.003	ND	ND	ND	ND	ND	ND	ND	ND
p,p'-DDD	3	13	3	ND	ND	0.00299	0.00123	ND	ND	ND	ND
p,p'-DDE	2	9	12	ND	ND	0.0043	0.00195	ND	ND	ND	ND
p,p'-DDT	2	8	7	ND	0.000337	0.00614	0.00301	ND	ND	ND	ND
Radiological Study											
Gross Alpha (pCi/g)	NS	NS	NS	10.7	8.02	NA	NA	NA	NA	3.83	16.1
Gross Beta (pCi/g)	NS	NS	NS	24.5	21.6	NA	NA	NA	NA	3.83 12.9	19.5
Radium-226 (pCi/g)				24.5 0.86	0.862		NA				
(i ),	10 NS	3	5			NA		NA	NA	0.8	0.708
Radium-228 (pCi/g)	NS	NS	NS	1.57	1.41	NA	NA	NA	NA	1.16	0.906

Notes:

J - Estimated concentration NA - Not Analyzed ND - Not Detected NS - No Standards ppm - Parts per million pCi/g - Average Picocuries Per Gram

## Appendix B (continued) Millington Quarry, Basking Ridge, NJ Icon's Area C Soil Results Summary

Sample Name Laboratory Id Sample Date	2008 NJ Soil Remediation Standards	2008 NJ Soil Remediation Standards	2008 Impact to Groundwater Initial Screening	MC-1A-SS 10940-001 10/26/2009	MC-1B-SS 10940-002 10/26/2009	MC-2A-SS 10940-003 10/26/2009	MC-2B-SS 10940-004 10/26/2009	MC-3A-SS 11019-001 10/28/2009	MC-3B-SS 11019-002 10/28/2009	MC-3C-SS 11019-003 10/28/2009	MC-3D-SS 11019-004 10/28/2009	MC-3E 11075-001 10/29/2009	MC-3F 11075-002 10/29/2009	MC-3G-SS 11185-001 10/30/2009	MC-3H-SS 11185-002 10/30/2009	MC-4A 12262-001 12/2/2009
Sample Depth (in feet)	Residential	Non - Residential	Level	8.5-9.0	13.0-13.5	7.0-7.5	21.0-21.5	1.5-2	11.5-12	21.5-22	31.5-32	41.5-42	81.5-82	91.5-92	101.5-102	29-31
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	<b></b>
Semi-Volatile Compounds Anthracene Benzo[a]anthracene Benzo[a]pyrene Benzo[b]fluoranthene Benzo[k]fluoranthene Chrysene Fluoranthene Phenanthrene Pyrene Semi-Volatile TICs	17,000 0.6 0.2 0.6 6 62 2,300 NA 1,700	30,000 2 0.2 2 23 230 24,000 300,000 18,000	1500 0.5 0.2 2 16 52 840 NA 550	0.056 J 0.273 <b>0.356</b> 0.234 0.301 0.297 0.562 0.128 0.572 ND	D D D D D D D D D D D D D D D D D D D	ND ND ND ND ND ND ND ND ND 0.355	ND ND ND ND ND ND ND	ND ND ND ND ND ND ND	ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND
Metals Antimony Arsenic Beryllium Cadmium Hexavalent Chromium Chromium Copper Lead Mercury Nickel Selenium Silver Thallium Zinc	31 19 16 78 240  3,100 400 23 1,600 390 390 5 23000	450 19 140 78 20  45,000 800 65 23,000 5,700 5,700 79 110,000	6 19 0.5 1 NA  7300 59 0.1 31 7 1 3 600	ND 2.75 <b>0.99</b> ND NA 33.8 61.4 13.2 0.017 <b>37.5</b> 5.07 ND ND ND 75	ND 3.71 <b>1.64</b> ND NA 40.9 24.3 17.2 ND 4.32 <b>7.17</b> ND ND 77.6	ND 4.22 <b>1.46</b> ND NA 40.5 37 16.7 ND <b>46.3</b> <b>7.22</b> ND ND 86.6	ND 3.25 <b>1.43</b> ND NA 42.2 37.3 14.7 ND <b>43</b> 5.81 ND ND 77.9	ND 3.06 <b>0.818</b> ND NA 43.9 177 9.1 0.035 <b>56</b> 6.54 ND ND 89.2	ND 3.23 <b>0.899</b> ND NA 35.6 113 9.57 ND <b>42.2</b> 3.87 ND ND 82.7	ND 3.72 <b>1.52</b> ND NA 40.7 38.3 18.2 ND <b>41.7</b> 5.89 ND ND 80.8	ND 2.79 <b>0.986</b> ND NA 37.6 103 9.05 ND <b>46.9</b> 5.72 ND ND 79.7	ND 2.83 <b>1.47</b> ND ND 36.2 44.6 15.6 ND <b>47.6</b> 6.29 ND ND 76.7	ND 4.31 ND ND 30.2 124 16.4 0.02 <b>37.8</b> 4.02 ND ND 69.5	ND 3.41 <b>0.797</b> ND NA 37.8 136 12.2 0.037 <b>45.1</b> 4.31 ND ND 87.9	ND 2.6 0.756 ND ND 31 102 13.3 0.035 32.4 2.93 ND ND 73.3	ND 3.57 1.53 ND NA 34.9 28.9 16.2 ND 38 6.31 ND ND 70.6
PCBs Aroclor-1248 Aroclor-1254 Aroclor-1260 Total PCBs	  0.2	   1	  0.2	ND ND ND ND	ND ND ND ND	ND ND ND ND	ND ND ND ND	ND ND ND ND	ND ND ND ND	ND ND ND ND	ND ND ND ND	ND ND ND ND	ND ND ND ND	ND ND ND ND	ND ND ND ND	ND ND ND ND
Pesticides Alpha-BHC Chlordane Dieldrin p,p'-DDD p,p'-DDE p,p'-DDT	0.1 0.2 0.04 3 2 2	0.5 1 0.2 13 9 8	0.002 0.03 0.003 3 12 7	ND ND ND ND ND	ND ND ND ND ND	ND ND ND ND ND	ND ND ND ND ND ND	ND 0.00151 ND ND ND 0.00026	ND ND ND ND ND ND	ND ND ND ND ND ND	ND ND ND ND 0.000255	ND ND ND ND ND ND	ND ND ND ND ND ND	ND ND ND ND ND ND	ND ND ND ND ND	ND ND ND ND ND ND
Radiological Study Gross Alpha (pCi/g) Gross Beta (pCi/g) Radium-226 (pCi/g) Radium-228 (pCi/g)	NS NS 10 NS	NS NS 3 NS	NS NS 5 NS	15.1 15.8 0.991 1.44	18.1 24.9 1.06 1.66	10.1 21.2 1.24 1.56	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA

Notes:

J - Estimated concentration

NA - Not Analyzed ND - Not Detected

NS - No Standards

ppm - Parts per million pCi/g - Average Picocuries Per Gram