## FINAL PHOSTER SYSTEM SOIL SAMPLING REPORT (March 2007 Sampling Event)

Multi Site G Operation, Maintenance & Monitoring

SMS Instruments Site Deer Park, Suffolk County, NY Site 1-52-026

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### **1.0 INTRODUCTION**

The SMS Instruments site was evaluated in 2003 as part of the Pump and Treat Optimization initiative from US Environmental Protection Agency (USEPA) headquarters which provided recommendations to enhance remedial and cost effectiveness. In July 2003, GeoTrans, Inc. (GeoTrans), on behalf of the USEPA, conducted a site visit to perform the optimization evaluation of the active Groundwater Pump and Treat system. The results of the evaluation were included in a Remediation System Evaluation (RSE) report (GeoTrans, December, 2003). The RSE report recommended developing an exit strategy and provided three potential approaches for consideration.

Site activities from 2004 to 2005 have been performed based on the recommendations provided by the RSE report. In 2005, the Site was transferred from USEPA to the New York State Department of Environmental Conservation (NYSDEC). This semiannual sampling report summarizes the SMS Instruments Site remediation activities that occurred since the transfer.

#### 1.1 BACKGROUND INFORMATION AND SITE CHRONOLOGY

The SMS Instruments Superfund site is located at 120 Marcus Boulevard in Deer Park, Suffolk County, New York (Figure 1). The site was listed on the National Priority List (NPL) in 1986. The Site consists of a 34,000 square foot building located on a 1.5-acre lot that is surrounded by other light industrial facilities. A recharge basin is located adjacent to the Site to the east. Facility operations occurred between 1967 and 1990 and primarily involved overhauling of military aircraft components. These activities consisted of cleaning, painting, degreasing, refurbishing, metal machining, and testing components. Other historic uses, under different ownership, included the manufacturing of wooden kitchen utensils. The building is currently unoccupied. Site contamination was first discovered in 1980 when the Suffolk County Department of Health Services sampled a leaching pool on the south side of the facility. USEPA completed a remedial investigation/feasibility study (RI/FS) in 1989, and investigative and remedial activities have included pumping out the leaching pond and backfilling it, removal of an underground storage tank (which was used to store jet fuel), and operation of a soil vapor extraction system (SVE). The SVE system was operated from 1992 to 1994, near the former leaching pool and the former UST areas to remediate soils. Wastewater was historically discharged into a leaching pool at the site, which, subsequently contaminated soils and groundwater beneath the site. In addition, the leaking UST also contaminated soils and groundwater beneath the site. A Groundwater Pump and Treat (GW P&T) system, which includes an air stripper to treat contaminated groundwater, was constructed and began operation in 1994.

Soil sampling conducted after the operation of the SVE system reflected that the soil remedy reduced contamination and was effective in reducing potential exposure to contaminated soil vapor. The groundwater contamination has decreased substantially since activation of the GW P&T system. However, after several years of operation, the influent concentrations had decreased substantially, the contaminant removal cost per pound had increased dramatically, and the system was no longer seen as accelerating site cleanup. Furthermore, the system was failing to achieve the ultimate groundwater cleanup goals (e.g., the maximum contaminant levels [MCLs]). Therefore, In July 2003, GeoTrans, on behalf of the USEPA, conducted a site visit to perform an evaluation of the active Groundwater Pump and Treat system. The results of the evaluation were included in a Remediation System Evaluation (RSE) (GeoTrans, 2003). The RSE report recommended developing an exit strategy, and provided three potential approaches for consideration. One of the three recommended approaches, the most aggressive approach, was to conduct a pilot study on an alternative technology and determine if that alternative technology, or another approach, should replace the P&T system. The RSE report indicated various

alternative technologies are available for reducing mass of volatile organic compounds (VOCs), including air sparging, bioaugmentation, and chemical oxidation. The USEPA considered this approach the most viable of the three recommended approaches in the RSE report. The intent of aggressively addressing the remaining soil contamination was to reduce contaminant concentrations in the soil and reduce the potential for future contamination of the groundwater, thereby reducing both the cost and time required to remediate the site.

Following USEPA's selection of this recommendation from the RSE report, in May of 2004, the USEPA Remedial Action Branch sent a request for field support at the SMS Instruments Site. The request involved two phases: additional field characterization of a former UST area through use of a Geoprobe down to the water table, and a second phase to assess and implement additional remedial technologies to address remaining source areas, such as air sparging with SVE and/or bioremedial-enhancing injections. In an effort to field characterize the former UST area and obtain data needed for the selection of a pilot alternative approach, 25 soil borings were advanced and installation of SVE and air sparge wells were performed in August 2004 by ERT and the Response Engineering and Analytical Contract (REAC) contractor (Lockheed Martin Technology Services [Lockheed Martin]).

Based on an evaluation of the data generated by ERT/REAC, the USEPA Remedial Project Manager (RPM) and the USEPA Removal On-Scene Coordinator (OSC) concluded the installation of a PHOSter<sup>TM</sup> bioremediation system would be the most appropriate and cost effective technology for the time frame of operation. In April of 2005, under the Emergency and Rapid Response Services (ERRS) contract, Earth Tech Northeast, Inc. (Earth Tech) procured a PHOSter<sup>TM</sup> system and the system was later installed and activated on site in May 2005. Further details of the PHOSter<sup>TM</sup> system are included in Section 2.1 of this report.

The USEPA operated the groundwater pump and treat system at the Site until July 15, 2005 when the Site was turned over to NYSDEC. Based on sampling conducted by CDM for the USEPA in June 2005 and effluent samples collected by Earth Tech in August 2005, Earth Tech determined that the GW P&T system was no longer removing significant quantities of contaminants, and VOC concentrations in the influent were below detection limits (at 5 ppb). In a letter to NYSDEC dated October 6, 2005, Earth Tech recommended that the groundwater treatment system be de-activated. NYSDEC concurred with this recommendation in a letter dated October 21, 2005.

# 1.1.1 USEPA/REAC Soil Boring Advancement and SVE/Air Sparge Well Installation Activities (August 2004)

In July 2004, EPA-ERT/REAC provided the necessary field support to characterize the remaining source area and preliminary cost projections to implement sparging/bioremediation operations. A Geoprobe was used to advance 25 soil borings to collect 46 subsurface soil samples which were analyzed with a field GC for benzene, toluene, ethylbenzene, and xylenes (BTEX); and three samples were also analyzed for VOCs. The highest BTEX/VOC concentrations were detected in samples collected in the vicinity of the drywell and groundwater extraction well EXW-3. These soil samples were collected within the smear zone [between 24 and 28 feet below ground surface (ft bgs)]. The highest concentrations of BTEX were found in the drywell sample collected at 24 ft bgs with a total concentration of 170,580 micrograms per kilogram ( $\mu$ g/kg). The highest VOC results were obtained from the drywell location at 24 feet bgs with a total VOC concentration of 408,100  $\mu$ g/kg. Vadose zone and in the groundwater table sample data indicated the contamination was contained within the smear zone. Complete details of the soil boring

event are included in the Site Investigation Report (Technical Memorandum, REAC / Lockheed Martin, August, 2005).

Following a review of these results, it was determined that bioremedial enhancement required further evaluation beyond the USEPA's Remedial Action Branch's required timeframe for transfer of the site to the NYSDEC. Therefore, in November 2004, USEPA's Removal Action Branch along with ERT/REAC were able to provide continual field support to install the necessary piping for the bioremediation system. However, it was determined that purchasing or rental of the bioremediation system was beyond the scope of their existing contract. Therefore, in May 2005, Earth Tech, EPA Region II ERRS contractor, procured and installed a PHOSter<sup>TM</sup> bioremediation system at the Site. Further details of the bioremediation system are included in Section 2.3 of this report.

The system performance was evaluated in June 2006 with a soil sampling program designed to collect subsurface soil samples for chemical testing and methanotrophs. The results of this evaluation were presented in the Final PHOSter<sup>TM</sup> System Soil Sampling Report (June 2006 Sampling Event) (Earth Tech, October 2006). The report concluded that the system was removing VOCs from the soil column; however, pockets of contamination still remained. The report recommended that the system continue to operate for another six months at which time the performance would again be evaluated.

#### 1.1.2 USEPA/Earth Tech Groundwater Pump And Treat System Evaluation Sampling (August 31, 2005)

In an effort to evaluate the current status of the GW P&T system, on August 31, 2005, three groundwater samples (including one field duplicate) were shipped to Mitkem Corporation for VOC analysis by USEPA Method 624, along with three air samples (also including one field duplicate), which were shipped to Con-Test Analytical Laboratory for total organic analysis.

The groundwater samples were collected after a minimum of five gallons was purged from the sample ports located within the treatment system. Samples were collected from the influent (INFLUENT) and effluent (EFFLUENT, as well as duplicate sample EFFLUENT-A) of the treatment system for volatile organics analysis.

The air samples were collected using Summa canisters for a period of two minutes per sample. Samples were collected from post air stripper (POST AIR STRIPPER, along with a field duplicate POST AIR STRIPPER-A) and post carbon (POST CARBON) of the treatment system for total organics analysis. Further details of the August 31, 2005 sampling activities are detailed in a Sampling Trip report dated August 31, 2005.

Results of the GW P&T system evaluation sampling performed on August 31, 2005 indicated no contamination was being treated by the Groundwater Pump and Treat system, and contaminants were not detected (at a detection limit of 5 ppb) in the influent. Therefore, on October 6, 2005 Earth Tech recommended the shut-down of the SMS groundwater pump and treatment plant and in a letter dated October 21, 2005 the NYSDEC approved the temporary shutdown of the groundwater treatment plant. The NYSDEC letter also indicated that groundwater sampling will continue to determine if any significant rebound occurs. If no rebound is observed after a reasonable period of time, the treatment system will be permanently shut down and dismantled.

### 2.0 PHOSter<sup>TM</sup> SYSTEM

### 2.1 TECHNOLOGY DESCRIPTION

The Enhanced In-Situ Bioremediation Process is a biostimulation technology developed by the US Department of Energy (DOE) at the Westinghouse Savannah River Plant site in Aiken, S.C. DOE refers to their phosphate injection technology as PHOSter<sup>TM</sup> and has licensed the process to Earth Tech. Earth Tech is utilizing the process to deliver a gaseous phase mixture of air, nutrients, and methane to contaminated soils at the SMS site. These enhancements are delivered to groundwater via injection wells to stimulate and accelerate the growth of existing microbial populations, especially methanotrophs. This type of aerobic bacteria has the ability to metabolize methane and produce enzymes capable of degrading chlorinated solvents and their degradation products to non-hazardous constituents. The primary components of Earth Tech's treatment system consist of injection wells, air injection equipment, groundwater monitoring wells, and soil vapor monitoring points. Figure 2 shows a plan view of the treatment area, the injection wells, and monitoring points. The injection wells are designed to deliver air, gaseous-phase nutrients, and methane to groundwater and the vadose zone in the underlying soils.

The SMS system consists of two compressors that are capable of delivering 10 to 20 pounds per square inch (psi) and approximately 10 to 200 standard cubic feet per hour (scfh) to a pressure rated steel tank. Air from the main line is diverted to the injection wells. The monitoring wells and soil vapor monitoring points were installed as part of a proposed air sparging and vacuum extraction system that was never completed instead PHOSter<sup>TM</sup> injection was selected for implementation. The soil vapor monitoring points can be designed to release or capture vapors that may build up in the overburden.

The SMS injection system consists of air, nutrient, and methane injection equipment (all housed in a mobile trailer). A compressor serves as the air source, and includes a condensate tank ("trap") with a drain, an air line, coalescing filters and pressure regulators and valves. Methane and nitrous oxide provide the source of carbon and nitrogen, respectively. Both are provided in standard gas cylinders and are piped into the main air line using regulators and flow meters. Triethyl phosphate (TEP), the phosphorus source, is stored as a liquid in a pressure-rated steel tank. Air from the main line is diverted through the tank to volatilize the TEP for subsurface delivery. The air, nitrous oxide, and TEP are injected continuously while the methane is injected on a pulsed schedule. The methane is closely monitored just prior to injecting into subsurface wells to ensure that the injection concentration does not exceed 4% by volume, thus avoiding the methane lower explosive limit (LEL) of 5%.

## 2.2 TECHNOLOGY SELECTION RATIONALE

The PHOSter<sup>TM</sup> technology was chosen for this site for a number of reasons. Contaminant concentrations in the groundwater are at very low asymptotic levels and it was felt that the pump and treat system was no longer capable of removing a sufficient mass of contamination to justify operation. A system of groundwater and vadose zone wells were already in place that would be suitable for economically installing this technology. Soil and groundwater sampling results indicated existing biological activity was slowly degrading the contaminants. The site geology and hydrogeology was also ideal for this technology. The PHOSter<sup>TM</sup> technology has demonstrated ability to stimulate bacterial activity, promote the destruction of contaminants and act as a polishing technology for removal low levels of contamination often encountered in the final stages of site remediation.

## 2.3 EVALUATION OF PHOSter<sup>TM</sup> SAMPLING RESULTS

Air samples are tested from on-site monitoring wells two times per month by Earth Tech staff scientists. The air is monitored for methane and CO2 in percent with a CES-LANDTEC GEMTM 500 portable gas analyzer. A MultiRAE meter is used to analyze for CO,  $O_2$ , and  $H_2S$ . A MultiRAE PID is used to monitor for VOCs.

The data indicate that organic vapors in the monitoring wells have in general been decreasing steadily since the installation of the PHOSter<sup>TM</sup> system. Methane concentrations have been somewhat variable but that is attributed to the fact that methane is being added in pulse doses to stimulate biological activity in the soil. The presence of methane in variable concentrations depending upon the timing of sampling events was expected and is desirable as an indication of the proper function of the system. Other parameters, such as  $O_2$  and  $CO_2$ , indicate that biological activity has increased. The  $O_2$  levels have decreased, indicating increased aerobic biological activity that requires oxygen, and the  $CO_2$  levels have increased, also indicating biological activity has been stimulated.

### 2.4 PHOSter<sup>TM</sup> SYSTEM EFFECTIVENESS EVALUATION

On June 28 and 29, 2006, Earth Tech advanced six soil borings and collected subsurface soil samples for analysis of VOCs, semivolatile organic compounds (SVOCs), pospholipid fatty acids (PLFA) and methanotrophs. The results were presented in the Final PHOSter<sup>™</sup> System Soil Sampling Report dated October 2006. The results indicated that contaminant concentrations were decreasing; however, soil samples collected near the former dry well had contaminant concentrations exceeding applicable cleanup criteria. Based on the analytical results, Earth Tech recommended that the system continue to operate for an additional six months, at which time another round of soil samples would be collected and evaluated.

Amendment 14.1 for this work assignment was issued by NYSDEC in February 2007.

## 3.0 FIELD ACTIVITIES

As a follow up to the June 2006 sampling effort, three boring locations were chosen to focus this round of sampling on those areas exhibiting persistent VOCs in order to evaluate the current conditions regarding the residual VOCs. Boring locations DW, SB-12 and SB-16 were chosen based on the June 2006 sampling results. Two borings were offset from each of these three locations. Targeted sampling intervals were similar to those from the June 2006 samples from varying depths for laboratory analyses. On the first day (March 22, 2007), samples from four soil borings (SB-12, SB-12B, BS-16 and SB-16B), were shipped to Mitkem Corporation and Microbial Insights, Inc. for analysis of VOCs, phospholipid fatty acid (PLFA) and Methanotrophs, respectively. Extra volume was taken from SB-16 (22.3 to 23.5 ft) for matrix spike/matrix spike duplicate (MS/MSD) analysis and one field duplicate sample SB-16B (22.5 to 23.5 ft bgs). The soil samples were collected from depths ranging from sixteen to thirty-one feet.

On the second day (March 23, 2007), samples from two borings (DW and DWB), were shipped to Mitkem Corporation and Microbial Insights, Inc. for analysis of VOCs, PLFA and Methanotrophs. Boring logs are in Appendix A.

### 3.1 SAMPLE NUMBERS AND COLLECTION POINTS

Figure 2 is a site map of SMS Instruments which shows the locations of the PHOSter<sup>TM</sup> system soil sampling locations. Table 1 shows the VOCs results of the soil samples collected during the March 2007 sampling effort. The Form 1s from the Mitkem Laboratory data package are included in Appendix B. Table 2 lists the results of the methanotrophs population samples. The Microbial Insights laboratory data package is included in Appendix C. Every effort was made to collect soil samples from the same intervals as were collected during the June 2006 sampling effort. Samples were usually collected at the capillary fringe/ water table (16 feet below ground surface [ft bgs]), the targeted zone containing elevated residual VOCs (20-24 ft bgs), and at the bottom of the soil core boring (30 ft bgs) below the targeted treatment zone.

#### 3.2 DATA INTERPRETATION AND EVALUATION

At the SMS site, gaseous phase bioremediation amendments are being injected in site groundwater to biodegrade the remaining VOCs in the saturated zone following the application of multiple remediation technologies including years of pump and treat system operation. The pump and treat system operation was suspended in 2005 based on a number reasons including the lack of VOC concentrations in the extracted groundwater and fouling/treatment issues detailed in previous correspondence. The VOC concentrations in groundwater, following pump and treat suspension, continues to indicate that VOC concentrations have not rebounded and remain below action levels. The groundwater seepage velocity was estimated to be on the order of 0.27 feet per day in the Remediation System Evaluation Report dated December 2003. The groundwater data, coupled with the soil data discussed in the following paragraphs, are consistent with the continued suspension of the pump and treat operation and decommissioning of the existing ineffective pump and treat system.

#### 3.2.1 Bioremediation Process Description

The gaseous phase bioremediation amendments will stimulate bacterial populations capable of direct aerobic and aerobic cometabolic bioremediation. The advantage of the aerobic cometabolic

bioremediation is that at low VOC concentrations (as at this site) there may not be an adequate carbon source available to support bacterial growth for direct aerobic biodegradation. With the addition of an alternative carbon source (methane), the microbial population (methanotrophs) can multiply and produce an enzyme (soluble methane mono-oxygenase [sMMO]) that fortuitously degrades a number of VOCs to non-toxic end products. Furthermore, these methanotrophs typically adhere to soil grain surfaces and would be ideally located for the degradation of the remaining residual adsorbed contaminants.

Biosparging is very similar to air sparging, with the primary difference being that biosparging includes the addition of gaseous phase nutrients and cosubstrates to stimulate bioremediation. Air sparging can be an efficient groundwater cleanup technology for the removal of elevated dissolved phase contamination through volatilization during the initial phases of groundwater cleanup. For this site, the transfer of the adsorbed contaminants to the dissolved phase appears to be a slow process based on the low VOC concentrations in groundwater. Therefore, the most effective cleanup technology at this stage in the site cleanup would be bioremediation. Several types of data are used to evaluate biodegradation with the two primary data results being the microbial population and contaminant concentration which are discussed in the following sections.

## 3.2.2 Microbial Data Results

Six soil samples were collected from varying depths and locations within the water-bearing zone and analyzed for the abundance of methanotrophs. Methanotrophs are a group of bacteria that are considered ubiquitous in the environment (Hanson and Hanson, 1996), but are often a minor group within the natural subsurface bacterial populations. Table 1 presents the methanotrophs data for the soil samples: total methanotrophs; Type I methanotrophs; and Type II methanotrophs. The type I methanotrophs appear to be best adapted to grow at low methane concentrations. The growth of some type II methanotrophs is favored when methane levels are high, when combined nitrogen and oxygen levels are low, and when copper is substantially depleted in the growth media. The conditions in groundwater appear to favor the growth of the type II methanotrophs and the synthesis of sMMO that is essential for the rapid degradation of trichloroethene (TCE) and some other low molecular-weight halogenated hydrocarbons." (Hanson and Hanson, 1996) However, type I methanotrophs can also produce sMMO. The expression of the sMMO enzyme is the important mechanism of methanotrophs. The enzyme fortuitously breaks down a number of VOCs including the targeted compounds at this site.

As expected, methanotrophs were detected in all six soil samples. An abundant methanotroph population (10<sup>10</sup> cells per gram) was reported for soil samples collected at the targeted shallower depths (18-25 ft bgs). This methanotroph population size is consistent with a successfully stimulated subsurface in the range that is conducive for VOC degradation. This coincides with the targeted amendment injection that was implemented after the June 2006 results were evaluated. After the June 2006 results were evaluated, Earth Tech turned off several injection points and directed the injection to focus on the three remaining hot spots, DW, SB-12 and SB-16. These microbial results indicate the successful stimulation of the methanotrophs in these targeted areas as indicated on Table 2 which shows both the June 2006 and March 2007 methanotrophs data. Due to buoyancy of the gaseous phase amendments, the amendments flow up through the saturated zone from the deeper injection locations into the targeted capillary and shallow groundwater zones.

## 3.2.3 VOC Data Results

The laboratory results from the September 2006 groundwater sampling event (Earth Tech, December 2006) had indicated that the low VOC concentrations detected in groundwater above the cleanup goals

prior to initiation of the enhanced bioremediation system had subsequently been reduced to below detection in many cases and at others below the cleanup goals. Therefore soil sampling and analyses was performed to ascertain the current status of VOCs adsorbed to soil in the saturated zone.

Eighteen soil samples were collected and analyzed for VOCs from locations and depths at which elevated concentrations of benzene, toluene, ethylbenzene and total xylenes (BTEX) concentrations had been reported during the June 2006 soil sampling.

Table 3 presents a summary of the detected VOCs results for the March 2007 soil sampling event along with the NYSDEC Recommended Soil Cleanup Objectives RSCOs). These results are also summarized on Figure 3. The majority of the VOCs that were detected were reported to be below the NYSDEC RSCOs. The total xylene and total VOC concentrations exceed their NYSDEC RSCO of 1,200  $\mu$ g/kg and 10,000  $\mu$ g/kg, respectively, in two of the soil samples. Concentrations of total xylenes for these two soil samples were 1,200  $\mu$ g/kg in sample B12B (23.5-24.5 ft bgs) and 23,000  $\mu$ g/kg in DWB (24-25 ft bgs). Total VOCs concentrations for these two samples were 114,360  $\mu$ g/kg and 179,340  $\mu$ g/kg, respectively. Both of these samples were collected from the soil borings in the area of the former drywell (Figure 3) and were collected from depths ranging between 23-25 ft bgs (smear zone). Figure 4 shows an isopleth map of the total VOCs concentrations of the March 2007 samples from the 23.5 to 24.5 depth interval.

Table 4 presents a comparison of the VOCs results for the June 2006 soil samples and the soil samples collected in March 2007. These data suggest a significant reduction in the targeted VOCs concentrations in the soil at these three locations: DW, SB-12 and SB-16. The data also indicate that residual soil contamination is in very small, isolated pockets as shown at boring location DW. For example, the original DW location from June 2006 indicated a total VOC concentration of 140,241  $\mu$ g/kg in the 19-20 ft bgs sample interval. The two off-set borings (DW and DWB) drilled a few feet away in March 2007 had total VOC concentrations of 18  $\mu$ g/kg and zero in the same depth interval. At boring location DW in the 24-25 ft bgs interval, the total VOC concentration in the June 2006 sample was 94,300  $\mu$ g/kg while the total VOC concentration in the two March 2007 off-set borings (DW and DWB) had total VOC concentrations of zero and 179,340  $\mu$ g/kg in the same depth interval.

## 3.3 COMPARISON OF THE JUNE 2006 AND MARCH 2007 DATA

Table 4 presents a summary of the VOCs data from the June 2006 soil data. The data are also summarized on Figure 5. An isopleth map of the Total VOCs concentrations is shown on Figure 6. When the 2006 data is compared with the 2007 data as shown on Figures 4 (2007) and 6 (2006), it is evident that the total VOCs concentrations are decreasing over time. The area of high VOCs concentration around boring SMS-12 has decreased significantly as the concentrations at SMS-12 are now below the RSCO of 10,000  $\mu$ g/kg and the area of contamination is now centered at SMS-12B. Similarly, the area of exceedance noted in 2006 at SMS-16 has now decreased to below the RSCO. The extent of the contamination at the drywell, boring DW has also decreased from 2006 to 2007. The total VOC concentration at boring DW is now below the RSCO.

### 4.0 **RECOMMENDATIONS**

Based on the soil and groundwater results discussed above, Earth Tech recommends that gaseous phase bioremediation amendment injection be continued with system modifications to focus on the limited areas (former dry well and soil boring SMS-SB-12 locations) that were reported above the cleanup objectives for soil. The new bioremediation amendment injection configuration would be operated for an additional six month period followed by resampling and analysis of the soil in these final remaining areas.

The next semi-annual groundwater monitoring and sampling event is scheduled for August 2007.

#### TABLE 1 MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026) PHOSTER SYSTEM SOIL SAMPLING, MARCH 2007 SUMMARY OF METHANOTROPHS DATA

Boring Location	SB-12	SB-12B	SB-16	SB-16B	DW	DWB
Sample ID	SMS12235245	SMS12B235245	SMSSB16225235	SMSSB16B225235	SMSDW2425	SMSDWB2425
Sample Date	3/22/07	3/22/07	3/22/07	3/22/07	3/23/07	3/23/07
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Sample Depth (ft bgs)	23.5 - 24.5	23.5 - 24.5	22.5 - 23.5	18-19	24 - 25	24 - 25
Units	cells/gram	cells/gram	cells/gram	cells/gram	cells/gram	cells/gram
Methanotrophs (total)	2.65E + 10	1.56E + 10	4.67E + 10	9.16E + 10	7.57E + 10	3.41E + 10
Type I MOB	7.55E + 08	8.91E + 08	1.17E + 10	6.20E + 09	5.95E + 09	3.31E + 09
Type II MOB	2.58E + 10	1.47E + 10	4.55E + 10	5.84E + 10	6.94E + 10	3.08E + 10

#### TABLE 2 MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026) PHOSTER SYSTEM SOIL SAMPLING SUMMARY OF METHANOTROPHS DATA (2006 and 2007)

Boring Location	SMS-SB12	SMS-SB12	SMS-SB16	SMS-DW	SMS-DW	SMS-SB10	SMS-SB15	SMS-SB21
Sample ID	SMS-SB12-16-17	SMS-SB12-29-30	SMS-SB16-19-20	SMS-DW-19-20	SMS-DW-30-31	SMS-SB10-18-19	SMS-SB15-27-28	SMS-SB21-22-23
Sample Depth	16 - 17	29 - 30	19 - 20	19 - 20	30 - 31	18 - 19	27 - 28	22 - 23
Sample Date	6/28/06	6/28/06	6/29/06	6/28/06	June 2006	6/28/06	6/29/06	6/28/06
Methanotrophs (total)	3.2 E + 07	7.37 E + 06	5.07 E + 06	2.9 E + 08	8.49 E + 05	3.77 E + 08	7.27 E + 04	2.31 E + 08
Type I MOB	1.56 E + 07	7.45 E + 05	1.46 E + 05	7.28 E + 07	2.52 E + 05	2.07 E + 08	1.27 E + 04	1.26 E + 08
Type II MOB	1.65 E + 07	6.62 E + 06	4.92 E + 06	2.17 E + 08	5.97 E + 05	1.7 E + 08	6 E + 04	1.05 E + 08

Boring Location	SB-12	SB-12B	SB-16	SB-16B	DW	DWB
Sample ID	SMS12235245	SMS12B235245	SMSSB16225235	SMSSB16B225235	SMSDW2425	SMSDWB2425
Sample Depth	23.5 - 24.5	23.5 - 24.5	22.5 - 23.5	18 - 19	24 - 25	24 - 25
Sample Date	3/22/07	3/22/07	3/22/07	3/22/07	3/23/07	3/23/07
Methanotrophs (total)	2.65E + 10	1.56E + 10	4.67E + 10	9.16E + 10	7.57E + 10	3.41E + 10
Type I MOB	7.55E + 08	8.91E + 08	1.17E + 10	6.20E + 09	5.95E + 09	3.31E + 09
Type II MOB	2.58E + 10	1.47E + 10	4.55E + 10	5.84E + 10	6.97E + 10	3.08E + 10

#### MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026) PHOSTER SYSTEM SOIL SAMPLING, MARCH 2007 SUMMARY OF VOLATILE ORGANIC COMPOUNDS IN SOIL, DETECTIONS ONLY

Sample Location		B12	B12	B12	B12B	B12B
Sample ID		B121920	B12235245	B122930	B12B1920	B12B235245
Laboratory ID	NYSDEC	F0378-01A	F0378-02A	F0378-03A	F0378-04A	F0378-05A
Sample Date	RSCO	3/22/07	3/22/07	3/22/07	3/22/07	3/22/07
Matrix		Soil	Soil	Soil	Soil	Soil
Sample Depth (ft bgs)		19-20	23.5-24.5	29-30	19-20	23.5-24.5
Units	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Acetone	200	ND	ND	ND	ND	ND
Ethylbenzene	5,500	ND	ND	ND	ND	ND
Xylenes (total)	1,200	ND	ND	ND	ND	1,200
Isopropylbenzene	*	ND	ND	ND	ND	2,300 D
n-Propylbenzene	*	ND	ND	ND	ND	4,600 D
1,3,5-Trimethylbenzene	*	ND	260	ND	ND	32,000 D
1,2,4-Trimethylbenzene	*	ND	ND	ND	ND	51,000 D
sec-Butylbenzene	*	ND	ND	ND	ND	3,400 D
4-Isopropyltoluene	*	ND	84	ND	ND	4,700 D
1,4-Dichlorobenzene	8,500	ND	ND	ND	ND	ND
n-Butylbenzene	*	ND	ND	ND	ND	15,000 D
Naphthalene	*	ND	ND	ND	ND	160
Total VOCs	<10,000	0	344	0	0	114,360
Total VOC TICs		28,400	11,180	ND	ND	37,700

Notes:

\* No official NYSDEC Recommended Soil Cleanup Objective (RSCO)

1 - SB16C is a duplicate of SB16B225235

BOLD - exceeds the Recommended Soil Cleanup Objective (RSCO)

- E Result exceeds the calibration range, estimated value
- D Diluted sample
- Data validation has NOT been performed on this data

#### MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026) PHOSTER SYSTEM SOIL SAMPLING, MARCH 2007 SUMMARY OF VOLATILE ORGANIC COMPOUNDS IN SOIL, DETECTIONS ONLY

			*	-		
Sample Location		B12B	B16	B16	B16	B16B
Sample ID		B12B2930	B161920	B16235245	B162930	B16B1920
Laboratory ID	NYSDEC	F0378-06A	F0378-11A	F0378-12A	F0378-13A	F0378-07A
Sample Date	RSCO	3/22/07	3/22/07	3/22/07	3/22/07	3/22/07
Matrix		Soil	Soil	Soil	Soil	Soil
Sample Depth (ft bgs)		29-30	19-20	23.5-24.5	29-30	19-20
Units	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Acetone	200	ND	ND	47	ND	ND
Ethylbenzene	5,500	ND	ND	ND	ND	ND
Xylenes (total)	1,200	ND	ND	ND	ND	ND
Isopropylbenzene	*	ND	ND	ND	ND	ND
n-Propylbenzene	*	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	*	ND	70	120	ND	ND
1,2,4-Trimethylbenzene	*	ND	51 J	55	ND	ND
sec-Butylbenzene	*	ND	ND	ND	ND	ND
4-Isopropyltoluene	*	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	8,500	ND	ND	ND	ND	ND
n-Butylbenzene	*	ND	ND	ND	ND	ND
Naphthalene	*	ND	ND	ND	ND	ND
Total VOCs	<10,000	0	121	222	0	0
Total VOC TICs		ND	42,000	33,300	ND	8,120

#### Notes:

\* No official NYSDEC Recommended Soil Cleanup Objective (RSCO)

1 - SB16C is a duplicate of SB16B225235

BOLD - exceeds the Recommended Soil Cleanup Objective (RSCO)

- E Result exceeds the calibration range, estimated value
- D Diluted sample
- Data validation has NOT been performed on this data

#### MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026) PHOSTER SYSTEM SOIL SAMPLING, MARCH 2007 SUMMARY OF VOLATILE ORGANIC COMPOUNDS IN SOIL, DETECTIONS ONLY

Sample Location		B16B	B16C	B16CRE	B16B	DW
Sample ID		B16B225235	B16C <sup>1</sup>	B16CRE	B16B2930	DW-1920
Laboratory ID	NYSDEC	F0378-08A	F0378-10A	F0378-10ARE	F0378-09A	F0378-15A
Sample Date	RSCO	3/22/07	3/22/07	3/22/07	3/22/07	3/23/07
Matrix		Soil	Soil	Soil	Soil	Soil
Sample Depth (ft bgs)		22.5-23.5			29-30	19-20
Units	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Acetone	200	ND	38	ND	ND	ND
Ethylbenzene	5,500	ND	ND	ND	ND	ND
Xylenes (total)	1,200	50 J	ND	ND	ND	ND
Isopropylbenzene	*	ND	ND	ND	ND	ND
n-Propylbenzene	*	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	*	480	150	100	ND	ND
1,2,4-Trimethylbenzene	*	300	ND	ND	ND	ND
sec-Butylbenzene	*	ND	ND	ND	ND	ND
4-Isopropyltoluene	*	120	ND	ND	ND	ND
1,4-Dichlorobenzene	8,500	ND	ND	ND	ND	ND
n-Butylbenzene	*	ND	ND	ND	ND	ND
Naphthalene	*	ND	ND	ND	ND	18 J
Total VOCs	<10,000	950	188	100	0	18
Total VOC TICs		104,500	21,400	52,900	ND	2,270

Notes:

\* No official NYSDEC Recommended Soil Cleanup Objective (RSCO)

1 - SB16C is a duplicate of SB16B225235

BOLD - exceeds the Recommended Soil Cleanup Objective (RSCO)

- E Result exceeds the calibration range, estimated value
- D Diluted sample
- Data validation has NOT been performed on this data

#### MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026) PHOSTER SYSTEM SOIL SAMPLING, MARCH 2007 SUMMARY OF VOLATILE ORGANIC COMPOUNDS IN SOIL, DETECTIONS ONLY

Sample Location		DW	DW	DWB	DWB	DWB
Sample ID		DW-2425	DW-2930	DWB-1920	DWB-2425	DWB-2930
Laboratory ID	NYSDEC	F0378-16A	F0378-17A	F0378-18A	F0378-19A	F0378-20A
Sample Date	RSCO	3/23/07	3/23/07	3/23/07	3/23/07	3/23/07
Matrix		Soil	Soil	Soil	Soil	Soil
Sample Depth (ft bgs)		24-25	29-30	19-20	24-25	29-30
Units	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Acetone	200	ND	ND	ND	ND	ND
Ethylbenzene	5,500	ND	ND	ND	3,100 D	ND
Xylenes (total)	1,200	ND	ND	ND	<b>23,000</b> D	ND
Isopropylbenzene	*	ND	ND	ND	5,200 D	ND
n-Propylbenzene	*	ND	ND	ND	10,000 D	ND
1,3,5-Trimethylbenzene	*	ND	ND	ND	41,000 D	ND
1,2,4-Trimethylbenzene	*	ND	2 J	ND	73,000 D	ND
sec-Butylbenzene	*	ND	ND	ND	ND	ND
4-Isopropyltoluene	*	ND	ND	ND	4,700 D	ND
1,4-Dichlorobenzene	8,500	ND	ND	ND	1,400	ND
n-Butylbenzene	*	ND	ND	ND	17,000 D	ND
Naphthalene	*	ND	ND	ND	940	ND
Total VOCs	<10,000	0	2	0	179,340	0
Total VOC TICs		474	159	1,179	9,660	51

#### Notes:

\* No official NYSDEC Recommended Soil Cleanup Objective (RSCO)

1 - SB16C is a duplicate of SB16B225235

BOLD - exceeds the Recommended Soil Cleanup Objective (RSCO)

- E Result exceeds the calibration range, estimated value
- D Diluted sample
- Data validation has NOT been performed on this data

#### MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026) PHOSTER SYSTEM SOIL SAMPLING COMPARISON OF JUNE 2006 AND MARCH 2007 VOCs DATA, DETECTIONS ONLY

Sample Location		B12	B12B	SB-12	B12	B12B	SB-12	B12	B12B
Sample ID		B121920	B12B1920	SMS-SB-12-23.5-24.	B12235245	B12B235245	SMS-SB-12-29-30	B122930	B12B2930
Laboratory ID	NYSDEC	F0378-01A	F0378-04A		F0378-02A	F0378-05A		F0378-03A	F0378-06A
Sample Date	RSCO	3/22/07	3/22/07	6/28/06	3/22/07	3/22/07	6/28/06	3/22/07	3/22/07
Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Depth (ft bgs)		19-20	19-20	23.5-24.5	23.5-24.5	23.5-24.5	29-30	29-30	29-30
Units	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Acetone	200	ND	ND	3,500 E	ND	ND	ND	ND	ND
Chloroform		ND	ND	ND	ND	ND	3 J	ND	ND
Chlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5,500	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	1,200	ND	ND	3,800 D	ND	1,200	ND	ND	ND
Isopropylbenzene	*	ND	ND	ND	ND	2,300 D	ND	ND	ND
n-Propylbenzene	*	ND	ND	7,000 D	ND	4,600 D	3 J	ND	ND
1,3,5-Trimethylbenzene	*	ND	ND	50,000 D	260	32,000 D	44	ND	ND
tert-Butylbenzene		ND	ND	1,800 DJ	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	*	ND	ND	55,000 D	ND	51,000 D	72	ND	ND
sec-Butylbenzene	*	ND	ND	4,400 D	ND	3,400 D	ND	ND	ND
4-Isopropyltoluene	*	ND	ND	360 E	84	4,700 D	40	ND	ND
1,3-Dichlorobenzene		ND	ND	210	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	8,500	ND	ND	320 E	ND	ND	ND	ND	ND
n-Butylbenzene	*	ND	ND	18,000 D	ND	15,000 D	240	ND	ND
1,2 Dichlorobenzene		ND	ND	98	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene		ND	ND	2 J	ND	ND	ND	ND	ND
Naphthalene	*	ND	ND	3 J	ND	160	4 J	ND	ND
1,2,3-Trichlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND
Total VOCs	<10,000	0	0	144,493	344	114,360	406	0	0
Total VOC TICs		28,400	ND		11,180	37,700		ND	ND

Notes:

\* No official NYSDEC Recommended Soil Cleanup Objective (RSCO)

**BOLD** - exceeds the Recommended Soil Cleanup Objective (RSCO)

J - Estimated value

E - Result exceeds the calibration range, estimated value

D - Diluted sample

Data validation has NOT been performed on this data

#### MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026) PHOSTER SYSTEM SOIL SAMPLING COMPARISON OF JUNE 2006 AND MARCH 2007 VOCs DATA, DETECTIONS ONLY

Sample Location		SB-16	B16	B16B	SB-16	B16	B16B	SB-16	B16	B16B
Sample ID		SMS-SB-16-19-20	B161920	B16B1920	SMS-SB-16-22.5-23.	B16235245	B16B225235	SMS-SB-16-29-30	B162930	B16B2930
Laboratory ID	NYSDEC		F0378-11A	F0378-07A		F0378-12A	F0378-08A		F0378-13A	F0378-09A
Sample Date	RSCO	6/29/06	3/22/07	3/22/07	6/29/06	3/22/07	3/22/07	6/29/06	3/22/07	3/22/07
Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Depth (ft bgs)		19-20	19-20	19-20	22.5-23.5	23.5-24.5	22.5-23.5	29-30	29-30	29-30
Units	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Acetone	200	ND	ND	ND	960	47	ND	ND	ND	ND
Chloroform		ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5,500	ND	ND	ND	2,100 E	ND	ND	ND	ND	ND
Xylenes (total)	1,200	ND	ND	ND	13,000 D	ND	50 J	ND	ND	ND
Isopropylbenzene	*	ND	ND	ND	1,400 DJ		ND	ND	ND	ND
n-Propylbenzene	*	ND	ND	ND	1,200 E	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	*	ND	70	ND	24,000 D	120	480	ND	ND	ND
tert-Butylbenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	*	ND	51 J	ND	32,000 D	55	300	ND	ND	ND
sec-Butylbenzene	*	ND	ND	ND	1,000	ND	ND	ND	ND	ND
4-Isopropyltoluene	*	ND	ND	ND	ND	ND	120	ND	ND	ND
1,3-Dichlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	8,500	ND	ND	ND	1,800 E	ND	ND	ND	ND	ND
n-Butylbenzene	*	ND	ND	ND	1,700 E	ND	ND	ND	ND	ND
1,2 Dichlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	*	ND	ND	ND	130	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND
Total VOCs	<10,000	0	121	0	79,290	222	950	0	0	0
Total VOC TICs			42,000	8,120		33,300	104,500		ND	ND

Notes:

\* No official NYSDEC Recommended Soil Cleanup Objective (RSCO)

BOLD - exceeds the Recommended Soil Cleanup Objective (RSCO)

J - Estimated value

E - Result exceeds the calibration range, estimated value

D - Diluted sample

Data validation has NOT been performed on this data

#### MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026) PHOSTER SYSTEM SOIL SAMPLING COMPARISON OF JUNE 2006 AND MARCH 2007 VOCs DATA, DETECTIONS ONLY

Sample Location		DW	DW	DWB	DW	DW	DWB	DW	DW	DWB
Sample ID		SMS-DW-9-20	DW-1920	DWB-1920	SMS-DW-24-25	DW-2425	DWB-2425	SMS-DW-30-31	DW-2930	DWB-2930
Laboratory ID	NYSDEC		F0378-15A	F0378-18A		F0378-16A	F0378-19A		F0378-17A	F0378-20A
Sample Date	RSCO	6/28/06	3/23/07	3/23/07	6/28/06	3/23/07	3/23/07	6/28/06	3/23/07	3/23/07
Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Depth (ft bgs)		19-20	19-20	19-20	24-25	24-25	24-25	30-31	29-30	29-30
Units	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Acetone	200	66	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform		18 J	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene		37	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5,500	400	ND	ND	3,700	ND	3,100 D	ND	ND	ND
Xylenes (total)	1,200	20,000 D	ND	ND	33,000	ND	23,000 D	ND	ND	ND
Isopropylbenzene	*	210	ND	ND	1,900	ND	5,200 D	ND	ND	ND
n-Propylbenzene	*	280	ND	ND	2,400	ND	10,000 D	ND	ND	ND
1,3,5-Trimethylbenzene	*	34,000 D	ND	ND	17,000	ND	41,000 D	ND	ND	ND
tert-Butylbenzene		ND	ND	ND	600 J	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	*	22,000 D	ND	ND	30,000	ND	73,000 D	ND	2 J	ND
sec-Butylbenzene	*	300	ND	ND	ND	ND	ND	ND	ND	ND
4-Isopropyltoluene	*	1,000	ND	ND	ND	ND	4,700 D	ND	ND	ND
1,3-Dichlorobenzene		8,700 D	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	8,500	41,000 D	ND	ND	3,900	ND	1,400	ND	ND	ND
n-Butylbenzene	*	ND	ND	ND	ND	ND	17,000 D	ND	ND	ND
1,2 Dichlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene		10,000 D	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	*	1,900 D	18 J	ND	1,800	ND	940	ND	ND	ND
1,2,3-Trichlorobenzene		330	ND	ND	ND	ND	ND	ND	ND	ND
Total VOCs	<10,000	140,241	18	0	94,300	0	179,340	0	2	0
Total VOC TICs			2,270	1,179		474	9,660		159	51

Notes:

\* No official NYSDEC Recommended Soil Cleanup Objective (RSCO)

**BOLD** - exceeds the Recommended Soil Cleanup Objective (RSCO)

J - Estimated value

E - Result exceeds the calibration range, estimated value

D - Diluted sample

Data validation has NOT been performed on this data

#### MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026) PHOSTER SYSTEM SOIL SAMPLING, JUNE 2006 SUMMARY OF VOLATILE ORGANIC COMPOUNDS IN SOIL, DETECTIONS ONLY

Volatile Organic	NYSDEC	Sample	ID:	Sample	ID:	Sample	ID:	Sample I	D:	Sample ID:	
Compound Analytes:	RSCO	SMS-DW		DRYWELL1		SMS-DW		SMS-DW		SMS-DW	
	(ppb)	19-20				21.5-22	2.5	24-25		30-31	
Acetone	200	66		64		70		ND		ND	
Chloroform	300	18	J	ND		ND		ND		ND	
Trichloroethene	700	ND		ND		2	J	ND		ND	
Toluene	1500	ND		ND		8		ND		ND	
Chlorobenzene	1700	37		200		ND		ND		ND	
Ethylbenzene	5500	400		ND		130		3,700		ND	
Xylenes (total)	1200	20,000	D	4,500	D	3,400	D	33,000		ND	
Isopropylbenzene	*	210		ND		130		1900		ND	
n-Propylbenzene	*	280		1200		93		2400		ND	
2-Chlorotoluene	*	ND		ND		72		ND		ND	
1,3,5-Trimethylbenzene	*	34,000	D	16,000	D	9,700	D	17,000		ND	
tert-Butylbenzene	*	ND		ND		ND		600	J	ND	
1,2,4-Trimethylbenzene	*	22,000	D	9,600	D	7,800	D	30,000		ND	
sec-Butylbenzene	*	300		780		100		ND		ND	
4-Isopropyltoluene	*	1,000		1,000		170		ND		ND	
1,3-Dichlorobenzene	1600	8,700	D	1,200		140		ND		ND	
1,4-Dichlorobenzene	8500	41,000	D	11,000	D	4,600	D	3,900		ND	
n-Butylbenzene	*	ND		ND		ND		ND		ND	
1,2 Dichlorobenzene	7900	ND		ND		ND		ND		ND	
1,2,4-Trichlorobenzene	3400	10,000	D	210		ND		ND		ND	
Naphthalene	*	1,900	D	810		69		1,800		ND	
1,2,3-Trichlorobenzene	*	330		50		ND		ND		ND	
Total VOCs	<10000	140,241		46,614		26,484		94,300		0	
BTEX		20,400		4,500		3,538		36,700		0	

\* No official NYSDEC Recommended Soil Cleanup Objective (RSCO)

<sup>1</sup> DRYWELL is a duplicate sample of SMS-DW-19-20

#### Notes:

All results reported in micrograms per kilograms ug/kg)

Bold indicates the result was above the NYSDEC RSCO

J: Analyte detected but less than the method detection limit, value is estimated

E: Result exceeds the calibration range

D: Dilution run

For samples containing 'DW': This sample was taken from the Dry Well and the numbers represent the depth, in feet, at which the sample was collected. Data validation has NOT been performed on this data.

#### MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026) PHOSTER SYSTEM SOIL SAMPLING, JUNE 2006 SUMMARY OF VOLATILE ORGANIC COMPOUNDS IN SOIL, DETECTIONS ONLY

Volatile Organic	NYSDEC	Sample	ID:	Sample	ID:	Sample	D:	Sample ID:	Sample	ID:	Sample	ID:
Compound Analytes:	RSCO SMS-SB-10 SMS-SB-		8-10	SMS-SB-10		SMS-SB-12	SMS-SB-12		SMS-SB-12			
	(ppb)	18-19	)	24-25	5	28.5-29	9.5	16-17	23.5-24	.5	29-30	
Acetone	200	320	$E^1$	230		ND		ND	3500	$E^1$	ND	
Chloroform	300	ND		ND		2	J	ND	ND		3	J
Trichloroethene	700	4	J	ND		ND		ND	ND		ND	
Toluene	1500	ND		ND		ND		ND	ND		ND	
Chlorobenzene	1700	ND		ND		ND		ND	ND		ND	
Ethylbenzene	5500	ND		4	J	ND		ND	ND		ND	
Xylenes (total)	1200	ND		150		ND		ND	3,800	D	ND	
Isopropylbenzene	*	ND		ND		ND		ND	ND		ND	
n-Propylbenzene	*	ND		ND		ND		ND	7,000	D	3	J
2-Chlorotoluene	*	ND		ND		ND		ND	ND		ND	
1,3,5-Trimethylbenzene	*	2,500	D	750	D	4	J	ND	50,000	D	44	
tert-Butylbenzene	*	180		72		ND		ND	1,800	DJ	ND	
1,2,4-Trimethylbenzene	*	51		420	D	3	J	ND	55,000	D	72	
sec-Butylbenzene	*	72		ND		ND		ND	4,400	D	ND	
4-Isopropyltoluene	*	93		450	Е	ND		ND	360	$E^1$	40	
1,3-Dichlorobenzene	1600	270	E <sup>1</sup>	ND		ND		ND	210		ND	
1,4-Dichlorobenzene	8500	330	DJ	ND		ND		ND	320	$E^1$	ND	
n-Butylbenzene	*	140		620	D	ND		ND	18,000	D	240	
1,2 Dichlorobenzene	7900	ND		ND		ND		ND	98		ND	
1,2,4-Trichlorobenzene	3400	ND		ND		ND		ND	2	J	ND	
Naphthalene	*	ND		4	J	ND		ND	3	J	4	J
1,2,3-Trichlorobenzene	*	ND		ND		ND		ND	ND		ND	
Total VOCs	<10000	3,960		2,700		9		0	144,493		406	
BTEX		0		154		0		0	3,800		0	

\* No official NYSDEC Recommended Soil Cleanup Objective (RSCO)

<sup>1</sup> This result exceeded the detection limit. A diluted sample was analyzed and reported as not-detected

Notes:

All results reported in micrograms per kilograms ug/kg)

Bold indicates the result was above the NYSDEC RSCO

J: Analyte detected but less than the method detection limit, value is estimated

E: Result exceeds the calibration range

D: Dilution run

For samples containing 'SB': The first number represents the particular soil boring while the second and third numbers represent the depth, in feet, at which the the sample was collected.

Data validation has NOT been performed on this data.

#### MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026) PHOSTER SYSTEM SOIL SAMPLING, JUNE 2006 SUMMARY OF VOLATILE ORGANIC COMPOUNDS IN SOIL, DETECTIONS ONLY

Volatile Organic	NYSDEC	Sample ID:	Sample ID:				
Compound Analytes:	RSCO	SMS-SB-15	SMS-SB-15	SMS-SB-15	SMS-SB-16	SMS-SB-16	SMS-SB-16
	(ppb)	16.5-17.5	22-23	27-28	16.5-17.5	22.5-23.5	29-30
Acetone	200	ND	ND	ND	ND	960	ND
Chloroform	300	ND	ND	ND	2 J	ND	ND
Trichloroethene	700	ND	ND	ND	ND	ND	ND
Toluene	1500	ND	ND	ND	ND	ND	ND
Chlorobenzene	1700	ND	ND	ND	ND	ND	ND
Ethylbenzene	5500	ND	ND	ND	ND	2,100 E <sup>1</sup>	ND
Xylenes (total)	1200	ND	ND	ND	ND	13,000 D	ND
Isopropylbenzene	*	ND	ND	ND	ND	1,400 DJ	ND
n-Propylbenzene	*	ND	ND	ND	ND	1,200 E <sup>1</sup>	ND
2-Chlorotoluene	*	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	*	ND	ND	ND	4 J	24,000 D	ND
tert-Butylbenzene	*	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	*	ND	ND	ND	6	32,000 D	ND
sec-Butylbenzene	*	ND	ND	ND	ND	1,000	ND
4-Isopropyltoluene	*	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1600	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	8500	ND	ND	ND	ND	1,800 E <sup>1</sup>	ND
n-Butylbenzene	*	ND	ND	ND	7	1,700 E <sup>1</sup>	ND
1,2 Dichlorobenzene	7900	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	3400	ND	ND	ND	ND	ND	ND
Naphthalene	*	4 J	3 J	ND	ND	130	ND
1,2,3-Trichlorobenzene	*	ND	ND	ND	ND	ND	ND
Total VOCs	<10000	4	3	0	19	79,290	0
BTEX		0	0	0	0	15,100	0

\* No official NYSDEC Recommended Soil Cleanup Objective (RSCO)

<sup>1</sup> This result exceeded the detection limit. A diluted sample was analyzed and reported as not-detected

Notes:

All results reported in micrograms per kilograms ug/kg)

Bold indicates the result was above the NYSDEC RSCO

J: Analyte detected but the result is less than the method detection limit; value is estimated

E: Result exceeds detection limit

D: Dilution run

For samples containing "SB": The first number represents the particular soil boring while the second and third numbers represent the depth, in feet, at

which the sample was collected

Data validation has NOT been performed on this data.

#### MULTI SITE G - SMS INSTRUMENTS (SITE # 1-52-026) PHOSTER SYSTEM SOIL SAMPLING, JUNE 2006 SUMMARY OF VOLATILE ORGANIC COMPOUNDS IN SOIL, DETECTIONS ONLY

Volatile Organic	NYSDEC	Sample ID:		Sample	ID:	Sample	e ID:	Sample ID:
Compound Analytes:	RSCO	SMS-SE	3-21		SMS-SB-21		3-22 <sup>A</sup>	SMS-SB-21
	(ppb)	19-2	0	22-23	3			29-30
Acetone	200	ND		110		30		ND
Chloroform	300	2	J	ND		ND		ND
Trichloroethene	700	ND		ND		ND		ND
Toluene	1500	ND		6		ND		ND
Chlorobenzene	1700	ND		ND		4	J	ND
Ethylbenzene	5500	ND		ND		ND		ND
Xylenes (total)	1200	3	J	ND		ND		ND
Isopropylbenzene	*	ND		ND		ND		ND
n-Propylbenzene	*	ND		140		ND		ND
2-Chlorotoluene	*	ND		ND		ND		ND
1,3,5-Trimethylbenzene	*	ND		300	DJ	180		ND
tert-Butylbenzene	*	ND		ND		ND		ND
1,2,4-Trimethylbenzene	*	ND		170	DJ	230		ND
sec-Butylbenzene	*	ND		190		ND		ND
4-Isopropyltoluene	*	ND		360	E <sup>1</sup>	61		ND
1,3-Dichlorobenzene	1600	ND		ND		ND		ND
1,4-Dichlorobenzene	8500	3	J	ND		ND		ND
n-Butylbenzene	*	ND		490	D	ND		ND
1,2 Dichlorobenzene	7900	ND		ND		ND		ND
1,2,4-Trichlorobenzene	3400	ND		ND		ND		ND
Naphthalene	*	ND		ND		ND		ND
1,2,3-Trichlorobenzene	*	ND		ND		ND		ND
Total VOCs	<10000	8		1,766		505		0
BTEX		3		6		0		0

\* No official NYSDEC Recommended Soil Cleanup Objective (RSCO)

<sup>A</sup> SMS-SB-22 is a duplicate sample of SMS-SB-21-22-23

<sup>1</sup> This result exceeded the detection limit. A diluted sample was analyzed and reported as not-detected

#### Notes:

All results reported in micrograms per kilograms ug/kg)

Bold indicates the result was above the NYSDEC RSCO

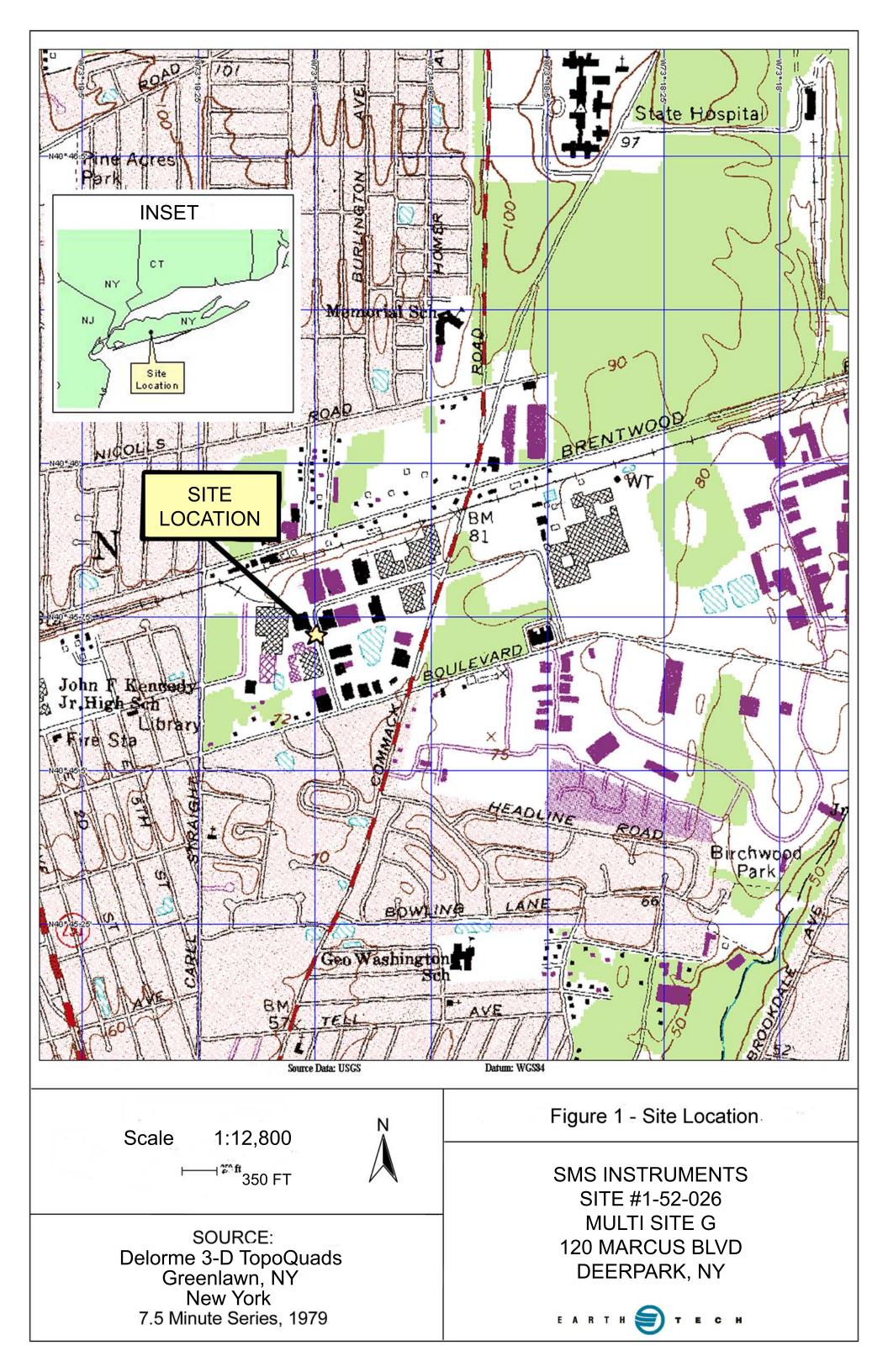
J: Analyte detected but less than the method detection limit, value is estimated

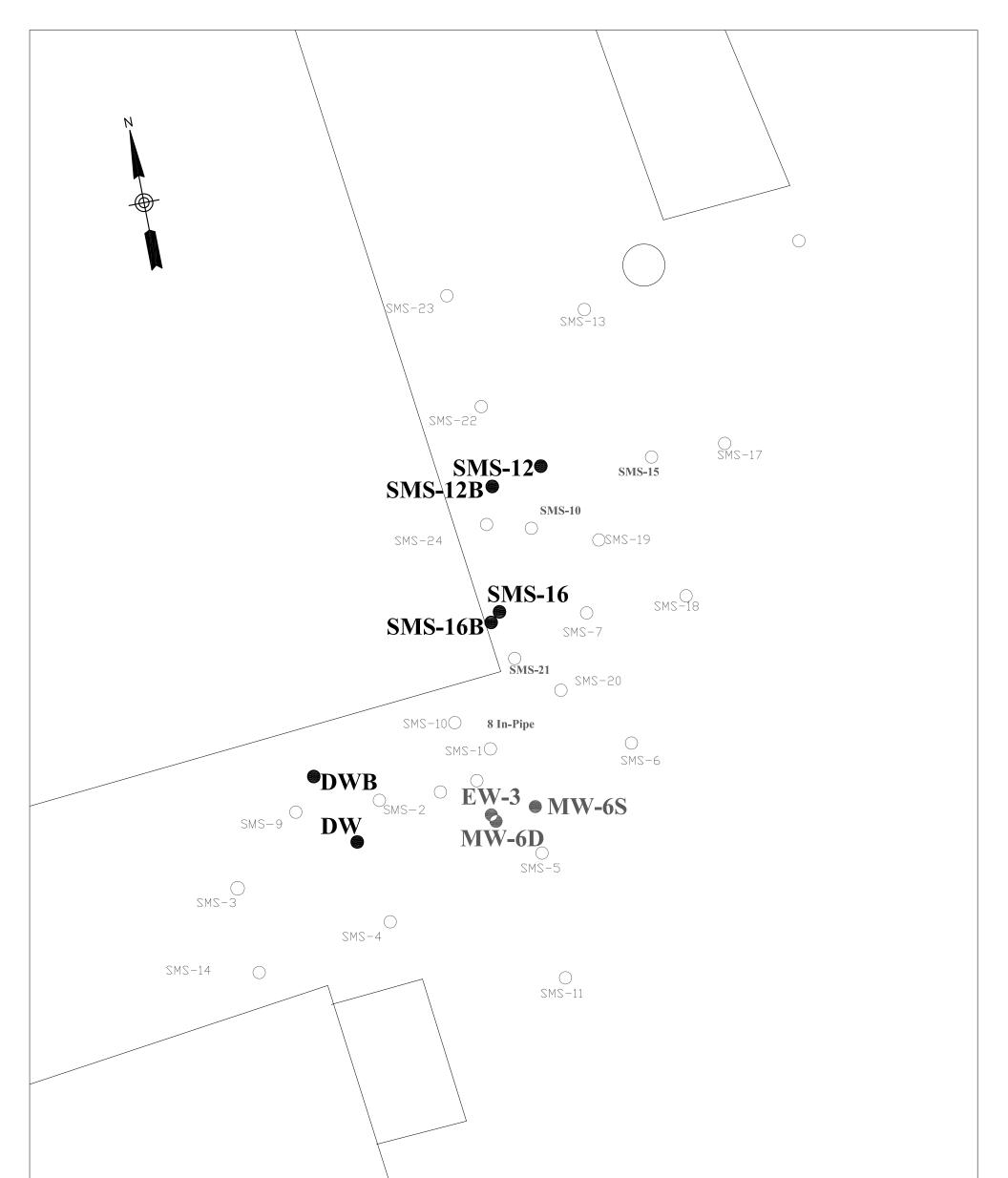
E: Result exceeds the calibration range

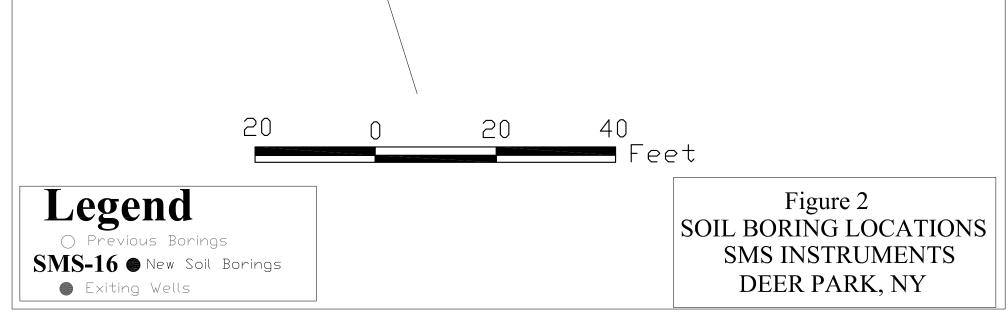
D: Dilution run

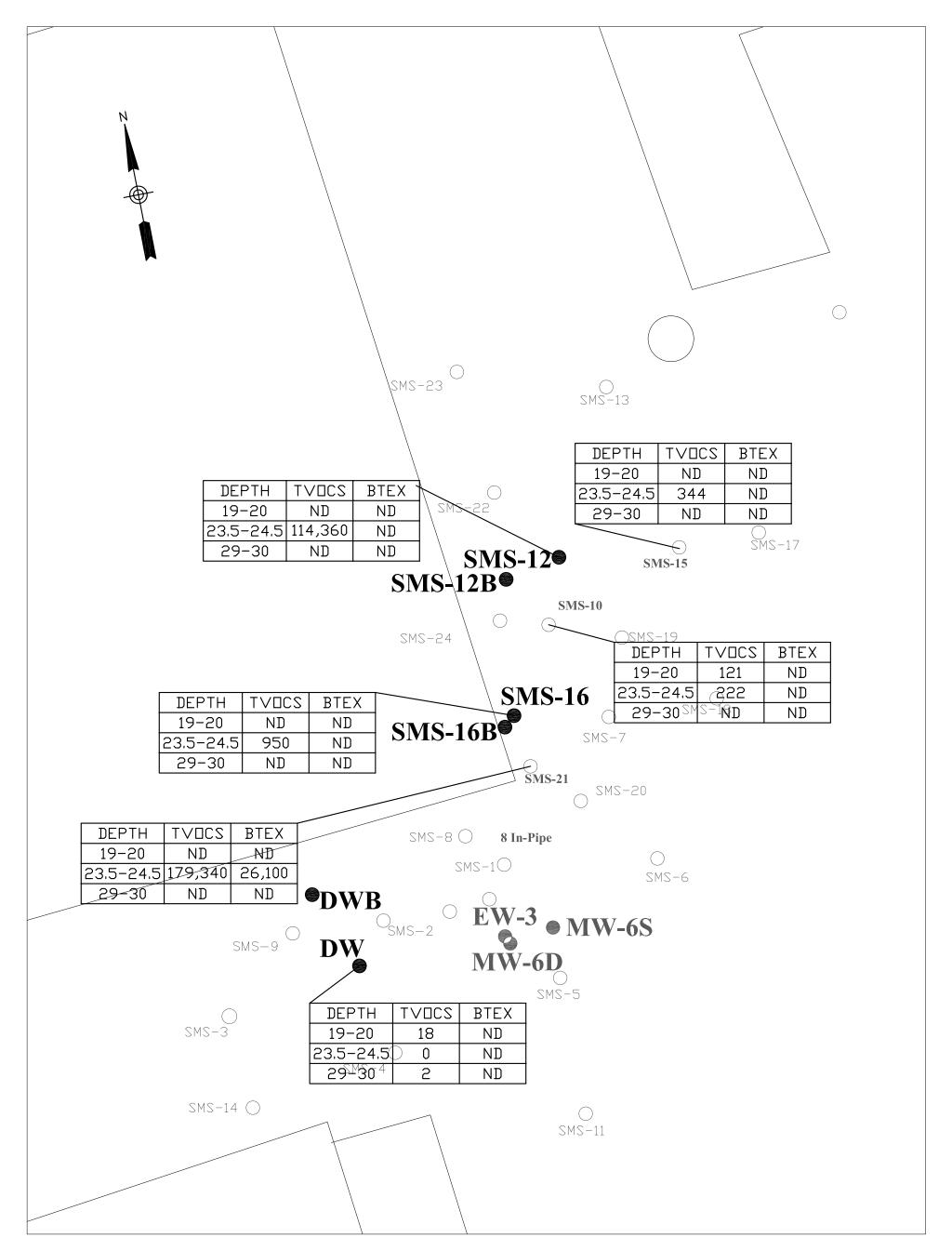
For samples containing "SB": The first number represents the particular soil boring while the second and third numbers represent the depth, in feet, at which the sample was collected

Data validation has NOT been performed on this data.









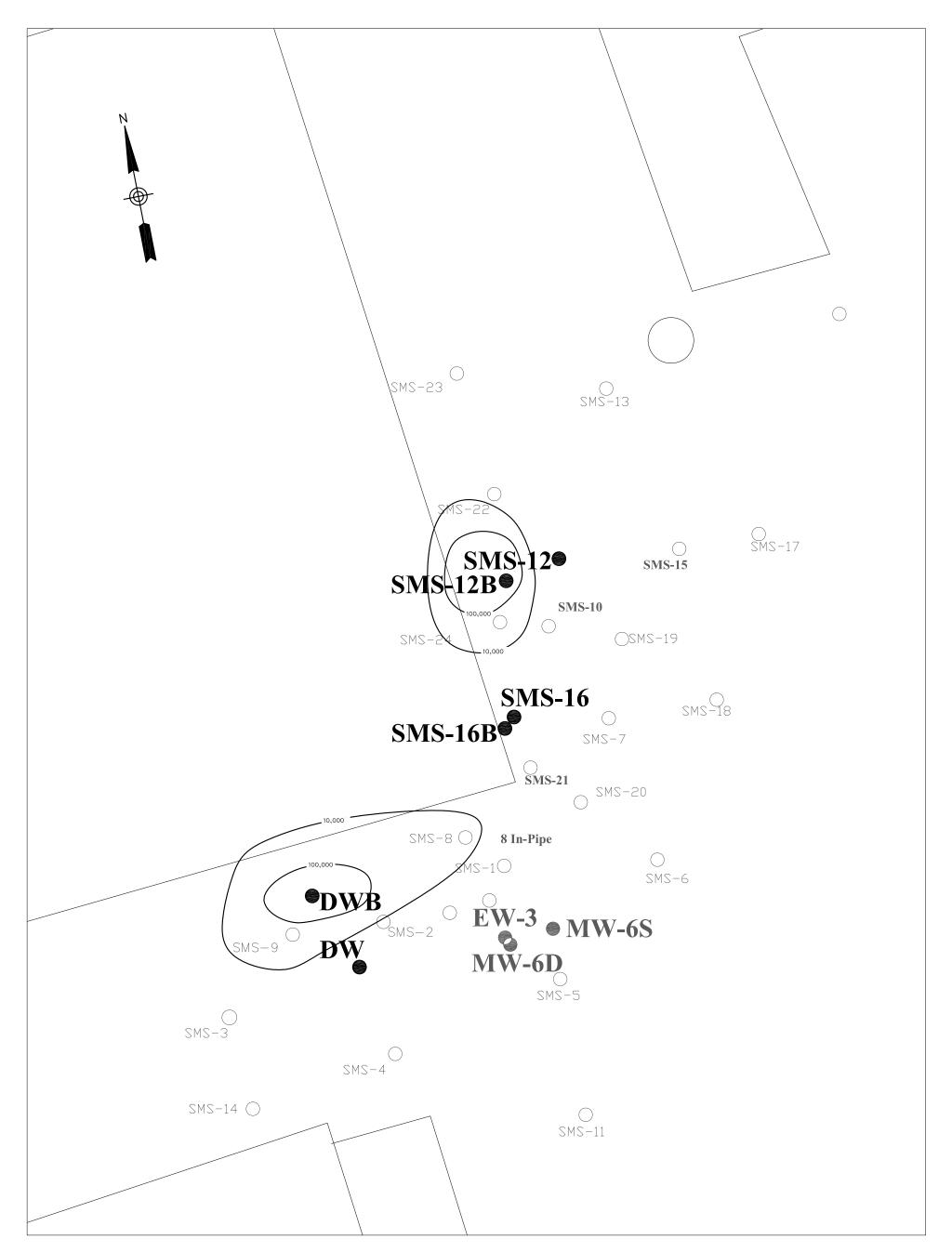




## FIGURE 3

SUMMARY OF TOTAL VOCs AND TOTAL BTEX IN SOIL

MARCH 2007 SMS INSTRUMENTS DEER PARK, NY







## FIGURE 4

TOTAL VOCs ISOPLETH MAP 23.5-24.5 FT INTERVAL

MARCH 2007 SMS INSTRUMENTS DEER PARK, NY

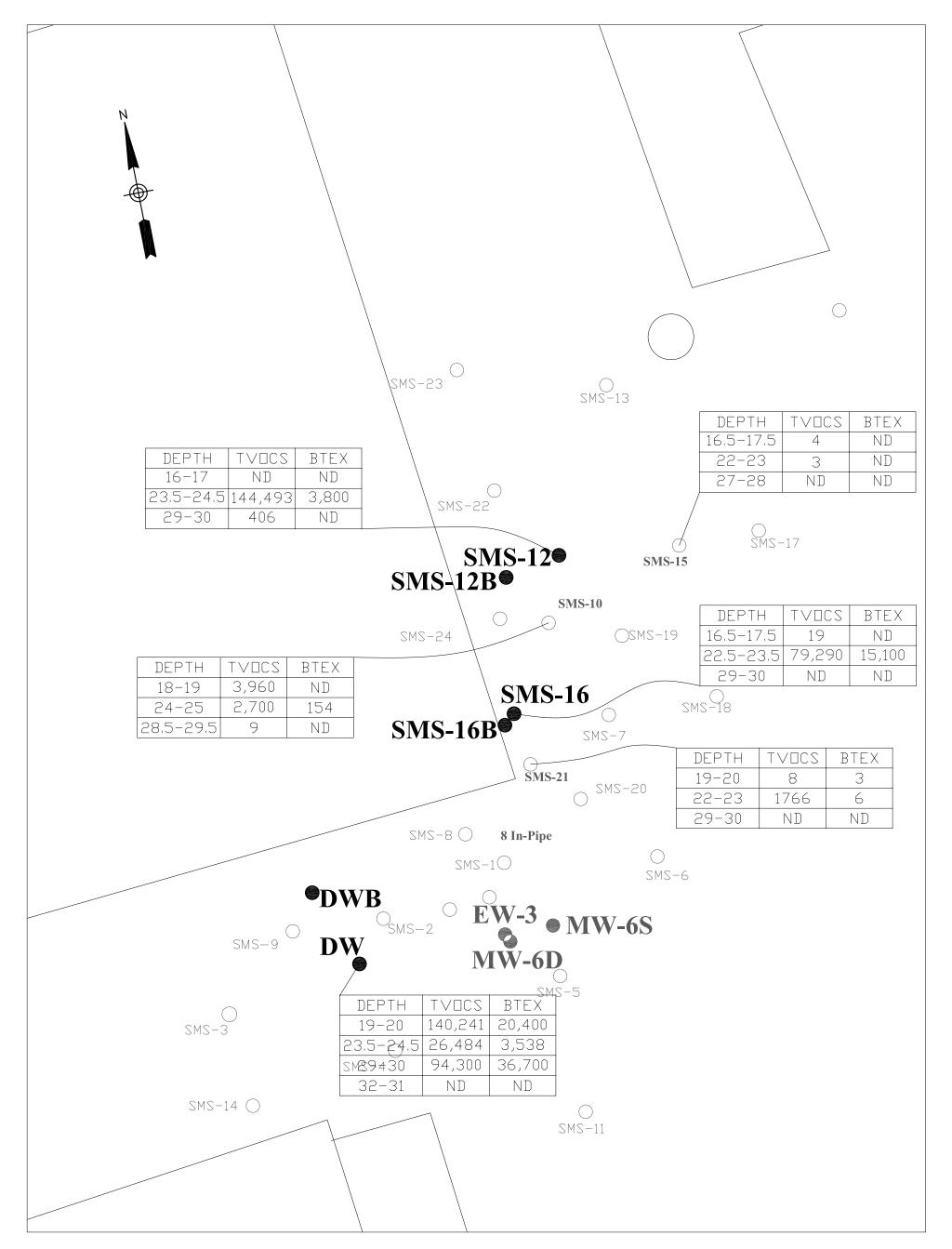






FIGURE 5 SUMMARY TOTAL VOC AND TOTAL BTEX IN SOIL, JUNE 2006 SMS INSTRUMENTS DEER PARK, NY

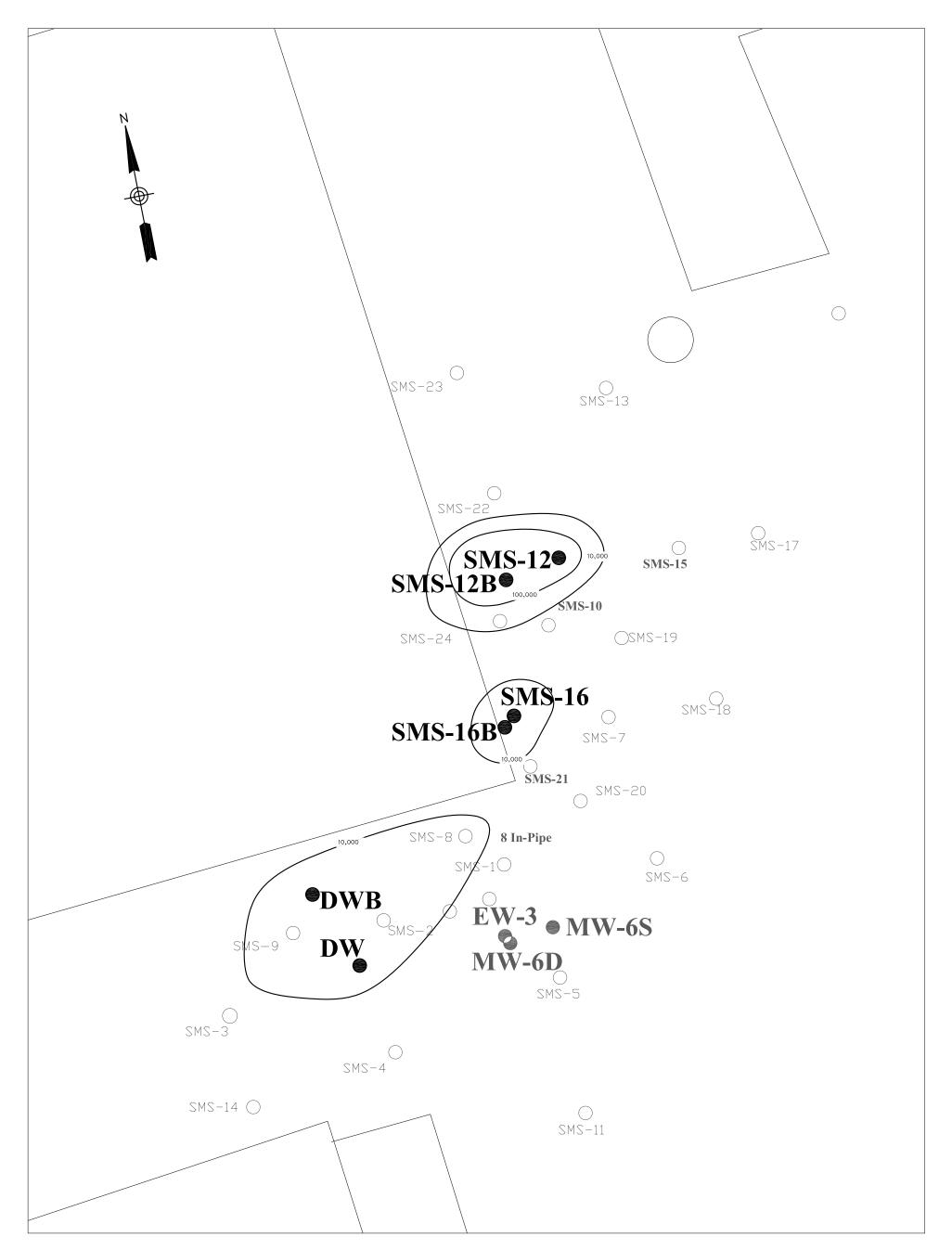






FIGURE 6 TOTAL VOCs ISOPLETH MAP 22-25 FT INTERVAL

> JUNE 2007 SMS INSTRUMENTS DEER PARK, NY

## Appendix A

## Soil Boring Logs March 2007 Soil Boring Event



**DIRECT PUSH BORING LOG** 

Boring No.:

DW

A *tuco* International Ltd. Company PAGE 1 OF PROJECT: SMS Instruments 3 3/23/2007 PROJECT No.: 95900 CONTRACTOR: Land, Air, Water Env Ser Inc DATE: DRILLERS NAME: Eric Bedell ET REP .: KDS LOCATION: Deer Park, NY Geoprobe 7720 DT WATER LEVELS DESIGNATION OF DRILL RIG: SIZE AND TYPE OF EQUIPMENT: DATE TIME DEPTH DEPTH OF BOREHOLE: **REFERENCE ELEVATION:** THICKNESS OF OVERBURDEN: **DISPOSITION OF BOREHOLE:** LABORATORY ANALYSES: Sample PID Depth Number Rec. Readings SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES (ft) & Time (feet) (ppm) Hand augered to 5 ft 1 0 Asphalt, coarse gravel with coarse brown sand 2 0 З 0 4 0 5 0 6 0 7 8 9 0 Coarse light tan sand with angular gravel 0 10 11 0 12 13 Medium and coarse sand with black mottles and some rounded gravel Moist at 14.7 ft 0 14 . 0



A *tuco* International Ltd. Company

## DIRECT PUSH BORING LOG

Boring No.:

DW

PROJECT: SMS Instruments PAGE 2 OF 3 PROJECT No.: 95900 PID Sample SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES Readings Depth Number Rec. & Time (feet) (ft) (ppm) 14 15 0 16 5 Coarse light tan sand 17 · 18 Large rounded gravel with light tan sand 2 DW 1 19 19-20 2 Dark grey coarse sand 1145 365 20 Dark grey coarse sand with some rounded gravel 0 394 408 21 498 397 22 Light grey coarse sand with some rounded gravel 538 23 520 Fine rounded gravel with light tan coarse sand DW 517 24 24-25 96 94 1155 25 Coarse tan sand with some rounded gravel 5 26 8 27 2 28



A **tyco** International Ltd. Company

## DIRECT PUSH BORING LOG

Boring No.:

DW

PROJECT: SMS Instruments PAGE 3 OF 3 PROJECT No.: 95900 PID Sample SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES Readings Depth Number Rec. & Time (feet) (ppm) (ft) 28 DW 29 29-30 2 Coarse reddish brown gravel with coarse sand 1206 30 31 42 33 34 35 36 37 38 39 40 41 42



**DIRECT PUSH BORING LOG** 

Boring No.: DW B

A *tuco* International Ltd. Company PAGE 1 OF 3 PROJECT: SMS Instruments Land, Air, Water Env Ser Inc DATE: 3/23/2007 CONTRACTOR: PROJECT No.: 95900 ET REP .: KDS LOCATION: Deer Park, NY DRILLERS NAME: Eric Bedell Geoprobe 7720 DT WATER LEVELS DESIGNATION OF DRILL RIG: TIME DEPTH SIZE AND TYPE OF EQUIPMENT: DATE DEPTH OF BOREHOLE: REFERENCE ELEVATION: THICKNESS OF OVERBURDEN: **DISPOSITION OF BOREHOLE:** LABORATORY ANALYSES: PID Sample SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES Number Rec. Readings Depth & Time (ppm) (ft) (feet) 0 Hand augered to 5 ft. Asphalt with angular gravel 33 1 Dark brown coarse sand 19 33 1 inch clay layer at 15 inches 2 Light brown medium sand with rounded gravel 7 0 З Light tan coarse sand with rounded gravel 0 4 0 5 6 0 7 Coarse pale tan sand with rounded gravel 0 8 0 0 9 Grey coarse sand with reddish rounded gravel 0 0 10 0 11 Coarse tan sand with angular gravel 0 12 Light rounded gravel with some coarse sand 0 0 13 Coarse tan sand with rounded gravel 0 0 14 0



A **tyco** International Ltd. Company

## DIRECT PUSH BORING LOG

Boring No.: DW B

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PROJEC	T: SMS Insl	truments		
PROJEC	T No.: 9590	0		PAGE 2 OF 3
Depth (ft)	Sample Number & Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
14 —				
15 —				
- 16 -		0		
- 17 -			0	Light tan coarse sand with rounded gravel
- 18			0	
19 —	DWB		19 37	- Light grey moist coarse sand with rounded gravel Saturated rounded gravel with coarse sand
-	19-20 1010		56	-
20		0	50	- Saturated dark grey coarse sand with gravel
22 -	-		444 325	- Gravel with coarse sand grey
23 -	-		494	Light grey coarse sand with gravel
24 -	DWB 24-25		124	Light groy course outre with graves
25 -	1017		0	Light grey coarse sand with rounded gravel
26 -			0	_
27 -			1	Coarse tan sand with rounded gravel
28 -			Ο	_



## DIRECT PUSH BORING LOG

Boring No.: DW B

PROJEC	T: SMS Inst	truments		
PROJEC	T No.: 9590	0		PAGE 3 OF 3
Depth (ft)	Sample Number & Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
28 —				
29 —	DWB 29-30			Coarse tan sand with large rounded gravel
30 —	1036			
- 31 —				_
- 42 —				
33 —				
- 34 -				_
35 —				_
- 36 —				-
37 -	-			_
- 38 -				-
39 –	-			-
40 -	4			-
41 -				-
42 -	_			-
1				



DIRECT PUSH BORING LOG

Boring No.: SB-12

				DIRECT PUSH B	ORING LOG	Boring No.:	SB-12
-	C Internal		ompany			PAGE 1 OF	3
	T: SMS Ins			CONTRACTOR.	Land Air Mator Env Sor		03/22/07
	T No.: 9590			CONTRACTOR:	Land, Air, Water Env Ser	ET REP.:	KDS
	N: Deer Pa		IDE010115	DRILLERS NAME:	Eric Bedell		ND0
	ATER LEV		1	ION OF DRILL RIG:	Geoprobe 7720 DT		
DATE	TIME	DEPTH		TYPE OF EQUIPMENT:			
				CE ELEVATION:	DEPTH OF BOREHOLE:		
			THICKNES	S OF OVERBURDEN:	DISPOSITION OF BORE		
LABORA	TORY ANA	LYSES:					
	Sample		PID				-0
Depth	Number	Rec.	Readings	SAMPLE DE	ESCRIPTION, REMARKS, AND	J STRATUM CHANG	ES
(ft)	& Time	(feet)	(ppm)				
				Asphalt angular large	e gravel, coarse medium	brown sand	
_			0	Asphalt anyular large	e graver, obaroe mediam	brown oand	
1					I whether the second		
			0	Angular gravel and c	lark brown coarse sand		
2 —	1	1					-
			0	Medium and coarse	tan sand		
-	1						
3 —	4						
-			0	Medium and coarse	brown sand		
-			Ĭ				
л							
4 —	1			Madium brown cond	and rounded gravel		
	4		0	Imedium brown sand	and rounded graver		
5 —	1						
		0	1				
-	1						
6 —	4			4			
			0	Medium, coarse tan	sand with rounded grave	el	
-	-			,			
7							
/ -							
-	-						
8 -	1						
	4						
9 —	-{	1		-			
	1		0				
	1		_				
10 -	4	ļ	0				
	-						
11 -		0					
	]						
	4						
12 -	1		-1		16	a altimation in a second a second	
			1	Pale tan/white medi	um and fine sand with m	ealum rounded gi	avei
13 -	_						
			0				
	-		-				
14 -							
14 -		1					
l	1						



## DIRECT PUSH BORING LOG

Boring No.: SB-12

PROJEC	T: SMS Inst	truments		
	T No.: 9590			PAGE 2 OF 3
FROJEC	Sample		PID	
Depth	Number	Rec.	Readings	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
(ft)	& Time	(feet)	(ppm)	
14 —			, ,	-
_			0	
15 —				
-		0		
16 —				
			_	
17 -			0	Pale tan coarse sand with rounded gravel with reddish mottles
_				
18			1	
10 -			0	
-	1			
19 -	00.40		10	Saturated grey coarse sand with mixed gravel
-	SB-12		13	Saturated grey coarse sand with mixed graver
20 -	19-20	<u> </u>	38	
		0	54	
21 -				
				Sheen on water with strong odor
22 -	-		-	
	4		133	Medium coarse grey sand with gravel, saturated
23 -	4			
	SB-12			
24 -	23.5 -		155	Large grey gravel with coarse sand
24 -	24.5			
	1			
25 -			+	O have to describe and with large group light top
	4		12	Saturated mixed sand with large gravel, light tan
26 -	_			
27 -	1			
	1			
28 -	-			
	<u> </u>			



## DIRECT PUSH BORING LOG

Boring No.: SB-12

PROJEC	T: SMS Ins	truments		
PROJEC	T No.: 9590	00		PAGE 3 OF 3
Depth (ft)	Sample Number & Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
28 —			7	-
29 —	SB-12 29-30			-
30 —	1048			End of boring
31 —				-
- 42 —				-
- 33 —				-
- 34 —				-
- 35 —				-
36 —				-
37 –				-
38 –				-
39 -	-			
40 -				
41 -	-			
42 -	-			



DIRECT PUSH BORING LOG

Boring No.: SB-12 B

· +		tional Itd. Cr		DIRECT PUSH BO		Boring No.	: SB-12 B
-	C Interna		лирану			PAGE 1 OF	3
	T: SMS Ins				Land, Air, Water Env Ser Inc		3/22/2007
	T No.: 9590			CONTRACTOR:	Eric Bedell	ET REP.:	KDS
	N: Deer Pa			DRILLERS NAME:	Geoprobe 7720 DT		
	ATER LEV			ON OF DRILL RIG:	Geoprobe 7720 D1		
DATE	TIME	DEPTH		YPE OF EQUIPMENT:			
				E ELEVATION:	DEPTH OF BOREHOLE:	1 5.	
		L	THICKNESS	S OF OVERBURDEN:	DISPOSITION OF BOREHO	LE.	
LABORA	TORY ANA	ALYSES:					
	Sample	_	PID		DIDTION DEMADICO AND C		rec
Depth	Number	Rec.	Readings	SAMPLE DESC	CRIPTION, REMARKS, AND S	I HA I UM CHANG	25
(ft)	& Time	(feet)	(ppm)		۰.		
				Hand augered to 5 Fee	et		
-							-
4							
		EO		Acchalt large gravel w	ith coarse dark brown sar	hd	
		5.0	0	Asphait, large graver w	III COarse Gark Drown Sar		•
2 —	1						
_							
3 —	4						
	1						
4 —							
	1						
5 —		<u> </u>					
Ĭ			0	Medium and coarse ta	n sand with large rounded	d gravel	
-	-		Ĭ			5	
6 -							
	]						
	4						
-							
7 –	1		7				
-	4			1			
8 -	1						
.			6				
9 -	-	1					_
.	1		3				
10 -		+					
			0	Mottled coarse sand w	ith light tan and grey grav	vel	
1	1		0				
11 -	4						-
	1						
· ·	1						
12 -	4		0				
			0	Light tan coarse sand	with rounded gravel		
· ·	-				5		
13 -							
1 13 -			0				
	4						
			5				_
14 -	1	1					-



### DIRECT PUSH BORING LOG

Boring No.: SB-12 B

### PROJECT: SMS Instruments PAGE 2 OF 3 PROJECT No.: 95900 PID Sample SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES Depth Number Rec. Readings & Time (feet) (ppm) (ft) Coarse pale tan sand with rounded gravel and reddish/mottling 5 14 15 16 0 17 Coarse tan gravel with coarse sand 18 19 Gravel with coarse tan sand, saturated SB-12B 19-20 20 0 21 366 Coarse grey clay with rounded gravel, high odor 22 354 23 SB-12B 365 23.5 -24 24.5 1226 25 Saturated coarse tan sand with gravel 0 26 27 28



## DIRECT PUSH BORING LOG

Boring No.: SB-12 B

PROJEC	T: SMS Inst	ruments		
PROJEC	T No.: 9590	0		PAGE 3 OF 3
Depth (ft)	Sample Number & Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
28 —				
- 29 —	SB-12B 29-30			
30 —	1229			End of boring
- 31 —				
-				-
42 —				-
33 —				-
34 —				-
35 —				· _
-				
36 -				
37 -				-
38 -	-			-
39 -	-			-
40 -				_
	-			
41 -	-			-
42 -				-



**DIRECT PUSH BORING LOG** 

Boring No.: SB-16

A *tuco* International Ltd. Company PAGE 1 OF 3 PROJECT: SMS Instruments Land, Air, Water Env Ser Inc DATE: 3/22/2007 CONTRACTOR: PROJECT No.: 95900 KDS ET REP .: Eric Bedell LOCATION: Deer Park, NY DRILLERS NAME: Geoprobe 7720 DT WATER LEVELS **DESIGNATION OF DRILL RIG:** TIME DEPTH SIZE AND TYPE OF EQUIPMENT: DATE DEPTH OF BOREHOLE: 30 **REFERENCE ELEVATION: DISPOSITION OF BOREHOLE:** THICKNESS OF OVERBURDEN: LABORATORY ANALYSES: PID Sample SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES Readings Depth Number Rec. (ft) & Time (feet) (ppm) Hand augered to 5 ft 1 Asphalt, gravel and dark brown coarse sand 0 2 . 3 4 5 Coarse tan sand with angular gravel 0 0 6 7 7 Reddish brown coarse sand with large angular gravel 8 6 9 3 Pale grey coarse sand with angular gravel 10 11 Coarse pale tan sand with large rounded gravel 9 12 0 0 13 0 0 14



### **DIRECT PUSH BORING LOG**

Boring No.: SB-16

#### **PROJECT: SMS Instruments** PAGE 2 OF 3 PROJECT No.: 95900 PID Sample SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES Depth Number Rec. Readings & Time (feet) (ppm) (ft) 0 14 0 0 15 0 Coarse tan sand, mottled layers of red coarse sand 16 17 . 18 Coarse pale grey sand with large rounded gravel SB-16 19 19-20 1536 20 Saturated grey coarse sand with rounded gravel 240 255 21 250 260 22 SB-16 22.5 -23 23.5 276 MS/MSD 1555 24 260 270 25 Coarse tan sand with small angular gravel 0 11.0 7 26 11 6 27 6 2 28



## DIRECT PUSH BORING LOG

Boring No.: SB-16

### PROJECT: SMS Instruments

PROLECT No.: 95900     PAGE 3 OF 3       Depth     Number (II)     Rec. a Time (Iee)     PID (ppm)       28		1. 3143 1115			
Depth     Number     Rec.     Readings     SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES       28	PROJEC		0	DID	PAGE 3 OF 3
28       Image: selection of the s		Number		Readings	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
$\begin{array}{c} 29 \\ - \\ 29 - 30 \\ - \\ 1600 \\ - \\ 31 \\ - \\ 42 \\ - \\ 33 \\ - \\ - \\ 33 \\ - \\ - \\ 33 \\ - \\ -$					Large rounded gravel with some coarse tan sand
$30 \frac{1600}{31 - 1}$ $42 - 1$ $33 - 1$ $34 - 1$ $35 - 1$ $36 - 1$ $37 - 1$ $38 - 1$ $39 - 1$ $39 - 1$	- 29 —	1			-
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	- 30 —	1			-
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	- 31 —				-
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	- 42 -	-			-
$ \begin{array}{c}             35 - \\             35 - \\             36 - \\             37 - \\             38 - \\             39 - \\             39 - \\             4         $	- 33 -	4			-
	34 -	4			-
$ \begin{array}{c} - \\ 37 - \\ - \\ 38 - \\ 39 - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\$	35 -	-			-
	36 -				
- 39 -	37 -	-			-
	38 -	-			-
	39 -	-			-
		-			-
41 —		-			-
42		-			-



DIRECT PUSH BORING LOG

Boring No.: SB-16 B

. +	<b>nen</b> Internal	Hanalita C.		DIRECT PUSH BO	RING LOG	Boring No.:	SB-16 B
-	CO Interna		ompany			PAGE 1 OF	3
	T: SMS Ins			CONTRACTOR:	Land, Air, Water Env Ser Inc		3/22/2007
	T No.: 9590			DRILLERS NAME:	Eric Bedell	ET REP.:	KDS
	N: Deer Pa			ON OF DRILL RIG:	Geoprobe 7720 DT		
	ATER LEV	DEPTH		YPE OF EQUIPMENT:			
DATE		DEFIN		E ELEVATION:	DEPTH OF BOREHOLE:	30	
				S OF OVERBURDEN:	DISPOSITION OF BOREHO		
40004			THICKNESS	S OF OVERBORDEN.	Disi Comon di Donene	· hos han 4	····
	TORY ANA	LISES:	PID	r			
Durit	Sample	Dee	Readings		CRIPTION, REMARKS, AND S	TRATUM CHANG	FS
Depth	Number	Rec. (feet)					
(ft)	& Time	(leet)	(ppm)				
				Hand augered to 5 ft			
_	1						
1	4						•
			0	Asphalt, angular gravel	with dark brown medium	and coarse s	and
-	1						
2 —							
£							
	4						
3 —							
5							
-	4						
4 —	1						
-	4						
_							
5 —	1						
-		0	0	Coarse reddish tan sai	nd with some rounded gra	avei	
			0				
6 —	-		Ŭ				
_							
-			0				
7 —	4						
-	1						
8 —	4		0				
-	1				a a va a da a a a a a		
9 -	4		0	Rounded gravel with c	oarse tan sano		
Ŭ			0				
	1						
10 -		1	0				
10		1					
	-1						
11 -		0					
	+	+					
10			0	Angular coarse gravel	with coarse tan sand		
12 -	1						
	4		0				
			0				
13 -	-						
	_		0				
			0	Bands of red with tan	coarse sand and gravel		
	1	I			source and graver		
14 -	-1		l.				



## DIRECT PUSH BORING LOG

Boring No.: SB-16 B

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PROJECT	T: SMS Instr	ruments		
	T No.: 95900			PAGE 2 OF 3
Depth (ft)	Sample Number & Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
14 —			0 0	
			0	
15 —		0		
-	1			
16 —			12	Coarse tan sand with angular gravel
-	1		12	_
17	]		7	
10			14	Mottled reddish and tan coarse sand and gravel
18 -			22	
19 -	SB-16B		26	Greyish tan sand with large gravel, saturated
'3 -	19-20		298	-
20 -	1409			
		0		
21 -	-			
	-		600	Coarse black sand, saturated
22 -		<b></b>	550	
	SB-16C	;	575	Coarse dark grey sand to 25 ft
23 -	1425		523	-
-		4	450	
24 -	4		385	
	4		375	SB-16 C is duplicate of SB-16 B, 22.5 - 23.5 ft
25 -	_		-	
	4		25	Coarse rounded gravel tan with some coarse tan gravel
26 -	4			-
	-		8	
27 -	4			-
	4		17	Coarse tan gravel to 28 ft
28 -	-			-
1			7	



## DIRECT PUSH BORING LOG

Boring No.: SB-16 B

## PROJECT: SMS Instruments PAGE 3 OF 3 PROJECT No.: 95900 PID Sample SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES Readings Rec. Depth Number (ppm) & Time (feet) (ft) 28 Coarse tan saturated sand with some rounded gravel 14 SB-16B 29 10 29-30 1440 30 31 42 33 · 34 35 36 37 38 39 40 41 42 .

# Appendix B

# Laboratory Data Package (Form 1s) March 2007 Sampling Event



"Environmental Testing For The New Millennium"

April 18, 2007

Earth Tech Northeast, Inc. 300 Broadacres Drive Bloomfield, NJ 07003 Attn: Mr. Allen Burton

RE: Client Project: SMS Instruments Lab Work Order #: F0378

Dear Mr. Burton:

Enclosed please find the data report of the required analyses for the samples associated with the above referenced project. If you have any questions regarding this report, please call me.

We appreciate your business.

Sincerely,

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Agnes R. Ng CLP Project Manager



# \* Data Summary Pack \*

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# **Mitkem Corporation**

### New York State Department of Environmental Conservation Sample Identification and Analytical Requirements Summary

# Project Name : SMS Instruments. 152026

**SDG :** <u>F0378</u>

	~		Anal	ytical Requirements		
Customer Sample ID	Laboratory Sample ID	MSVOA Method #	MSSEMI Method #	GC* Method #	ME	Other
B121920	F0378-01	SW8260B_LOW_S				
B12235245	F0378-02	SW8260B_LOW_S	· · · · · · · · · · · · · · · · · · ·			
B122930	F0378-03	SW8260B_LOW_S			· · · · · · · · · · · · · · · · · · ·	
B12B1920	F0378-04	SW8260B_LOW_S				
B12B235245	F0378-05	SW8260B_LOW_S		1		
B12B235245	F0378-05	SW8260B_MED_S				•
B12B2930	F0378-06	SW8260B_LOW_S				
B16B1920	F0378-07	SW8260B_LOW_S				
B16B225235	F0378-08	SW8260B_LOW_S				
B16B2930	F0378-09	SW8260B_LOW_S			<u>.</u>	
B16C	F0378-10	SW8260B_LOW_S	· ··· ·			
B161920	F0378-11	SW8260B_LOW_S				
B16235245	F0378-12	SW8260B_LOW_S			•	
B162930	F0378-13	SW8260B_LOW_S				
FB	F0378-14	SW8260B_W	····			
DW-1920	F0378-15	SW8260B_LOW_S				
DW-2425	F0378-16	SW8260B_LOW_S		1		
DW-2930	F0378-17	SW8260B_LOW_S	······································		· · ·	
DWB-1920	F0378-18	SW8260B_LOW_S				
DWB-2425	F0378-19	SW8260B_LOW_S	· · · · · · · · · · · · · · · · · · ·			
DWB-2425	F0378-19	SW8260B_MED_S				
DWB-2930	F0378-20	SW8260B_LOW_S			··· ·	
ТВ	F0378-21	SW8260B_W				
		1		1		

# **Mitkem Corporation**

### New York State Department of Environmental Conservation Sample Preparation and Analysis Summary MSVOA

# Project Name : SMS Instruments, 152026

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SDG: <u>F0378</u>

Laboratory		Date	Date Received	Date	Date
Sample ID	Matrix	Collected	By Lab	Extracted	Analyzed
SW8260B_LOW_S		1	- <u> </u>		
F0378-01A	SL	3/22/2007	3/24/2007	NA	4/5/2007
F0378-02A	SL	3/22/2007	3/24/2007	NA	4/5/2007
F0378-03A	SL	3/22/2007	3/24/2007	NA	4/5/2007
F0378-04A	SL	3/22/2007	3/24/2007	NA	4/5/2007
F0378-05A	SL	3/22/2007	3/24/2007	NA	4/5/2007
F0378-06A	SL	3/22/2007	3/24/2007	NA	4/5/2007
F0378-07A	SL	3/22/2007	3/24/2007	NA	4/5/2007
F0378-08A	SL	3/22/2007	3/24/2007	NA	4/6/2007
F0378-08AMS	SL	3/22/2007	3/24/2007	NA	4/5/2007
F0378-08AMSD	SL	3/22/2007	3/24/2007	NA	4/5/2007
F0378-09A	SL	3/22/2007	3/24/2007	NA	4/5/2007
F0378-10A	SL	3/22/2007	3/24/2007	NA	4/5/2007
F0378-10ARE	SL	3/22/2007	3/24/2007	NA +	4/6/2007
F0378-11A	SL.	3/22/2007	3/24/2007	NA	4/5/2007
F0378-12A	SL.	3/22/2007	3/24/2007	NA	4/5/2007
F0378-13A	SL	3/22/2007	3/24/2007	NA	4/5/2007
F0378-15A	SL	3/23/2007	3/24/2007	NA	4/6/2007
F0378-16A	SL	3/23/2007	3/24/2007	NA	4/6/2007
F0378-17A	SL .	3/23/2007	3/24/2007	NA	4/6/2007
F0378-18A	SL	3/23/2007	3/24/2007	NA	4/6/2007
F0378-19A	SL	3/23/2007	3/24/2007	NA	4/6/2007
F0378-20A	SL	3/23/2007	3/24/2007	NA	4/6/2007
SW8260B_MED_S					
F0378-05A	SL	3/22/2007	3/24/2007	4/6/2007	4/6/2007
F0378-19A	.SL	3/23/2007	3/24/2007	4/10/2007	4/11/2007
SW8260B_W					
F0378-14A	AQ	3/22/2007	3/24/2007	NA	4/2/2007
F0378-21A	AQ	3/23/2007	3/24/2007	NA	4/5/2007

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# **Mitkem Corporation**

## New York State Department of Environmental Conservation Sample Preparation and Analysis Summary MSVOA

## Project Name : SMS Instruments, 152026

.

**SDG:** <u>F0378</u>

Laboratory		Analytica	Extraction	Low/Medium	Dil/Conc
Sample ID	Matrix	Protocol	Method	Level	Factor
SW8260B_LOW_S					
F0378-01A	SL	SW8260B_LOW_S	NA .	LOW	5
F0378-02A	SL	SW8260B_LOW_S	NA	LOW	5
F0378-03A	SL	SW8260B_LOW_S	NA	LOW	1
F0378-04A	SL	SW8260B_LOW_S	NA	LOW	1
F0378-05A	SL	SW8260B_LOW_S	NA	LOW	5
F0378-06A	SL	SW8260B_LOW_S	NA	LOW	1
F0378-07A	SL	SW8260B_LOW_S	NA	LOW	10
F0378-08A	SL	SW8260B_LOW_S	NA	LOW	10
F0378-08AMS	SL	SW8260B_LOW_S	NA	LOW	1
F0378-08AMSD	SL	SW8260B_LOW_S	NA	LOW	1
F0378-09A	SL	SW8260B_LOW_S	NA	LOW	1
F0378-10A	SL	SW8260B_LOW_S	NA	LOW	2
F0378-10ARE	SL	SW8260B_LOW_S	NA	LOW	5
F0378-11A	SL	SW8260B_LOW_S	NA	LOW	10
F0378-12A	SL	SW8260B_LOW_S	NA	LOW	5
F0378-13A	SL	SW8260B_LOW_S	NA	LOW	1
F0378-15A	SL	SW8260B_LOW_S	NA	LOW	5
F0378-16A	SL	SW8260B_LOW_S	NA	LOW	2
F0378-17A	SL	SW8260B_LOW_S	NA	LOW	1
F0378-18A	SL	SW8260B_LOW_S	NA	LOW	1
F0378-19A	SL	SW8260B_LOW_S	NA	LOW	10
F0378-20A	SL	SW8260B_LOW_S	NA	LOW	1
SW8260B_MED_S					
F0378-05A	SL	SW8260B_MED_S	Methanol	MED	4
F0378-19A	SL	SW8260B_MED_S	Methanol	MED	10
SW8260B_W	<u> </u>			A	
F0378-14A	AQ	SW8260B_W	NA	LOW	1
F0378-21A	AQ	SW8260B_W	NA	LOW	1

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Analytical Data Package for Earth Tech Northeast, Inc.

Client Project: SMS Instruments

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SDG# MF0378

Mitkem Work Order ID: F0378

April 18, 2007

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Prepared For: Earth Tech Northeast, Inc. 300 Broadacres Drive Bloomfield, NJ 07003 Attn: Mr. Allen Burton

Prepared By: Mitkem Corporation 175 Metro Center Boulevard Warwick, RI 02886 (401) 732-3400

### **SDG** Narrative

Mitkem Corporation submits the enclosed data package in response to Earth Tech Northeast, Inc.'s SMS Instruments project. Under this deliverable, analysis results are presented for two aqueous and nineteen soil samples that were received on March 24, 2007. Analyses were performed per specifications in the project's contract and the chain of custody forms, following discussions with the client. Following the narrative is the Mitkem Work Order for cross-referencing sample client ID with laboratory sample ID.

The analyses were performed according to NYSDEC ASP protocols (2000 update) and reported per NYSDEC ASP requirement for Category B deliverable.

The following observation and/or deviations are observed for the following analyses:

### 1. Overall Observation:

Where needed, manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required. Manual integrations are coded to provide the data reviewer justification for such action. The codes are labeled on the ion chromatogram signal (GC/MS signal) and chromatogram for GC based analysis as follows:

- M1 peak tailing or fronting.
- M2 peak co-elution.
- M3 rising or falling baseline.
- M4 retention time shift.
- M5 miscellaneous under this category, the justification is explained.
- M6 software did not integrate peak
- M7 partial peak integration

The enclosed report includes the originals of all data with the exception of logbook pages and certain initial calibrations. Photocopies of logbook pages are included, with the originals maintained on file at the laboratory. The originals of initial calibrations that are shared among several cases are maintained on file at the laboratory, with photocopies included in the data package.

### 2. Volatile Analysis:

Surrogate recovery: recoveries were within the QC limits with the exception of high recovery of toluene-d8 and/or bromofluorobenzene in the following samples: B121920, B12235245, B12B235245, B16C, B16235245, B161920, DWB-2425 and B16B225235 and its associated matrix spike and matrix spike duplicate. Matrix interference confirmed on surrogate recovery for sample B16C as the sample was re-analyzed with similar findings. Matrix interference confirmed surrogate recovery for sample B16B225235 as the sample and its associated matrix spike and matrix spike duplicate have similar findings. Samples B12B235245 and DWB-2425 were re-analyzed at dilution with surrogate recoveries within the QC limits.

Lab control sample: spike recoveries were within the QC limits with the exception of high recovery of trichlorofluoromethane and 2,2-dichloropropane in V6DLCS, high recovery of 4-methyl-2-pentanone in V1ELCS, high recovery of trichlorofluoromethane in V5ZLCS and high recovery of trichlorofluoromethane and hexachlorobutadiene in V5BLCS.

Matrix spike/matrix spike duplicate: duplicate matrix spikes were performed on sample B16B225235. Spike recoveries were within the QC limits with the exception of several analytes in both the matrix spike and matrix spike duplicate. Replicate RPDs were within the QC limits. Please note that the high recoveries are due to matrix interferences.

Sample analysis: internal standard area counts were within QC criteria with the exception of samples B16B225235MS and B16B225235MSD. Due to the high concentration of target analytes, the following samples were analyzed using a smaller sample size than the normal 5g of sample: B121920 (1.1g), B12235245 (1.0g), B12B235245 (1.0g), B161920 (0.6g), B16235245 (1.1g), B16B1920 (0.5g), B16B225235 (0.5g), B16C (2.7g), B16CRE (1.0g), DW-1920 (1.0g) and DW-2425 (2.5g) and DWB-2425 (0.6g). This is equivalent to 5x dilution for those samples in which about 1g of sample was used and 10x dilution for those samples were about 0.5g of sample was used. Sample DWB-2425 was analyzed using 0.6g of sample due to the high concentration of non-target hydrocarbons. This is equivalent to 2x dilution. To ensure that all target analytes were detemined within the instrument calibration range, the following samples were re-analyzed by the mediumlevel approach: B12B225235 and DWB-2425. In addition to the medium-level analysis, sample B12B225235 was further analyzed at 4x dilution and sample DWB-2425 was further analyzed at 10x dilution. Sample B16B225235 was analyzed one day outside of hold time. The initial analysis was performed within hold time, but the sample was not spiked with surrogates or internal standards. No other unusual observation was made for the analysis.

All pages in this report have been numbered consecutively, starting with the title page and ending with a page saying only "Last Page of Data Report".

I certify that this data package is in compliance, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

agus R/g

Agnes Ng CLP Project Manager 04/18/07

# Mitkem and Client Sample ID Summary Report\*

Mitkem Workorder: F0378

Client Name: Earth Tech Northeast, I

Mitkem Sample ID	<b>Reported Client Sample ID</b>	Full Client Sample ID
F0378-01A	B121920	SB-12 19-20
F0378-02A	B12235245	SB-12 23.5-24.5
F0378-03A	B122930	្្ SB-12 29-30
F0378-04A	B12B1920	SB-12B 19-20
F0378-05A	B12B235245	SB-12B 23.5-24.5
F0378-06A	B12B2930	SB-12B 29-30
F0378-07A	B16B1920	SB-16B 19-20
F0378-08A	B16B225235	SB-16B 22.5-23.5
F0378-09A	B16B2930	SB-16B 29-30
F0378-10A	B16C	SB-16C
F0378-11A	B161920	SB-16 19-20
F0378-12A	B16235245	SB-16 23.5-24.5
F0378-13A	B162930	SB-16 29-30
F0378-14A	FB	FIELD BLANK
F0378-15A	DW-1920	DW-19-20
F0378-16A	DW-2425	DW-24-25
F0378-17A	DW-2930	DW-29-30
F0378-18A	DWB-1920	DWB-19-20
F0378-19A	DWB-2425	DWB-24-25
F0378-20A	DWB-2930	DWB-29-30
F0378-21A	ТВ	TRIP BLANK

<sup>\*</sup> If client sample ID has not been truncated, the full client sample ID is listed in the column labeled "Reported Client Sample ID"

Mitkem	Mitkem Corporation		29/Mar	29/Mar/07 11:25	WorkOrder: F0378
Client ID: EAR Project: SMS Location: Comments: N/A	Client ID: EARTH_NJ Project: SMS Instruments, 152026 Location: omments: N/A		Case: SDG: PO:	ase: DG: PO: D003821-41	Report Levei: ASP-B EDD: CLF HC Due: 04/16/07 Fax Due: 04/09/07
Sample ID	HS Client Sample ID	Collection Date Date Recv'd	d Matrix	Test Code Lab 7	Lab Test Comments Hold MS SEL Storage
F0378-01A	B121920	03/22/2007 10:05 03/24/2007	Soil	PMoist	P D D P
				SW8260B_LOW_S	VOV C C.
F0378-02A	B12235245	03/22/2007 10:38 03/24/2007	Soil	PMoist	
				SW8260B_LOW_S	AOA
F0378-03A	B122930	03/22/2007 10:48 03/24/2007	Soil	PMoist	AOA
				SW8260B_LOW_S	Vov 🗆 🗆
F0378-04A	B12B1920	03/22/2007 11:55 03/24/2007	Soil	PMoist	
				SW8260B_LOW_S	VOV
F0378-05A	B12B235245	03/22/2007 12:26 03/24/2007	Soil	PMoist	NOA
				SW8260B_LOW_S	VOA
F0378-06A	B12B2930	03/22/2007 12:29 03/24/2007	Soil	PMoist	VOV
				SW8260B_LOW_S	VOA
F0378-07A	B16B1920	03/22/2007 14:09 03/24/2007	Soil	PMoist	
Client Rep: Agnes R Ng	Agnes R Ng				Page 1 of 4

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Mitkem	<b>Mitkem Corporation</b>		29/Mar	29/Mar/07 11:25	Work	WorkOrder: F0378
Client ID: Project: Location: Comments:	Client ID: EARTH_NJ Project: SMS Instruments, 152026 Location: Comments: N/A		Case: SDG: PO:	ase: DG: PO: D003821-41	Rep	Report Level: ASP-B EDD: CLF HC Due: 04/16/07 Fax Due: 04/09/07
Sample ID	HS Client Sample ID	Collection Date Date Recv'd	v'd Matrix	Test Code	Lab Test Comments	Hold MS SEL Storage
F0378-07A	B16B1920	03/22/2007 14:09 03/24/2007	17 Soil	SW8260B_LOW_S		□ □ □ voA
F0378-08A	B16B225235	03/22/2007 14:25 03/24/2007	17 Soil	PMoist		NOA
				SW8260B_LOW_S		VOV D VOV
F0378-09A	B16B2930	03/22/2007 14:40 03/24/2007	7 Soil	PMoist		□ □ <b>v</b> oA
				SW8260B_LOW_S		AOV C C
F0378-10A	B16C	03/22/2007 0:00 03/24/2007	7 Soil	PMoist surescent row s		
F0378-11A	B161920	700046020 35-31 7000/C0/E0	Soil	owozouch dwozouch dwo dwozouch dwo dwozouch dwo		
				SW8260B_LOW_S		
F0378-12A	B16235245	03/22/2007 15:55 03/24/2007	17 Soil	PMoist .		D D VOA
				SW8260B_LOW_S		NOA
F0378-13A	B162930	03/22/2007 16:00 03/24/2007	7 Soil	PMoist		D D VOA
				SW8260B_LOW_S		NoA 🗆 🗆
Client Rep:	Client Rep: Agnes R Ng				Page	9 2 of 4

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Mitkem	Mitkem Corporation	29	/Mar/07	29/Mar/07 11:25	WorkOrder: F0378
Client ID: Project: Location: Comments:	Client ID: EARTH NJ Project: SMS Instruments, 152026 Location: Comments: N/A		Case: SDG: PO: D	ase: DG: PO: D003821-41	Report Level: ASP-B EDD: CLF HC Due: 04/16/07 Fax Due: 04/09/07
Sample ID	HS Client Sample ID	Collection Date Date Recv'd	Matrix T	Test Code Lab Test Comments	ts Hold MS SEL Storage
F0378-14A	FB	03/22/2007 11:20 03/24/2007	Aqueous SV	SW8260B_W	AOA
F0378-15A	DW-1920	03/23/2007 11:45 03/24/2007	Soil PA	PMoist SW8260B LOW S	
F0378-16A	DW-2425	03/23/2007 11:53 03/24/2007	Soil Pr	PMoist SW8260B_LOW_S	
F0378-17A	DW-2930	03/23/2007 12:06 03/24/2007	Soil PN	PMoist SW8260B_LOW_S	AON C VOA
F0378-18A	DWB-1920	03/23/2007 10:10 03/24/2007	Soil PA	PMoist SW8260B_LOW_S	AOV
F0378-19A	DWB-2425	03/23/2007 10:17 03/24/2007	Soil PA SV	PMoist SW8260B_LOW_S	VOV C C
F0378-20A Client Rep:	F0378-20A DWB-2930 Client Rep: Agnes R Ng	03/23/2007 10:36 03/24/2007	Soil PA	PMoist	Page 3 of 4

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Mitken	Mitkem Corporation		. 29	)/Mar/l	29/Mar/07 11:25	Wor	WorkOrder: F0378	
Client ID: Project: Location: Comments:	Client ID: EARTH_NJ Project: SMS Instruments, 152026 Location: Comments: N/A			Case: SDG: PO:	ase: DG: PO: D003821-41	Re	Report Level: ASP-B EDD: CLF HC Due: 04/16/07 Fax Due: 04/09/07	
Sample ID	HS Client Sample ID	Collection Date Dat	Date Recv'd	Matrix	Test Code	Lab Test Comments	Hold MS SEL Storage	age
F0378-20A	DWB-2930	03/23/2007 10:36 03/	03/24/2007	Soil	SW8260B_LOW_S		VOV [] [] []	
F0378-21A	TB	03/23/2007 11:20 03/24/2007		Aqueous	SW8260B_W			
Client Rep.	Client Rep. Agnes R No							
						añau	6 4 01 4	

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VOLATILE ORGANICS ANALYSIS DATA SHEETLab Name: MITKEM CORPORATIONContract:Lab Code: MITKEM Case No.:SAS No.:SDG No.: MF0378Matrix: (soil/water) SOILLab Sample ID: F0378-01ASample wt/vol:1.1 (g/mL) GLevel: (low/med)LOWDate Received: 03/24/07% Moisture: not dec. 14Date Analyzed: 04/05/07GC Column: DB-624ID: 0.25 (mm)Soil Extract Volume:(mL)Soil Aliquot Volume:	
Lab Name: MITKEM CORPORATIONContract:Lab Code: MITKEMCase No.:SAS No.:Matrix: (soil/water)SOILSAS No.:Matrix: (soil/water)SOILLab Sample ID: F0378-01ASample wt/vol:1.1 (g/mL) GLab File ID: V5H6491Level: (low/med)LOWDate Received: 03/24/07% Moisture: not dec. 14Date Analyzed: 04/05/07GC Column: DB-624ID: 0.25 (mm)Dilution Factor: 1.0	
Matrix: (soil/water) SOILLab Sample ID: F0378-01ASample wt/vol:1.1 (g/mL) GLab File ID: V5H6491Level: (low/med)LOWDate Received: 03/24/07% Moisture: not dec. 14Date Analyzed: 04/05/07GC Column: DB-624ID: 0.25 (mm)Dilution Factor: 1.0	
Sample wt/vol:1.1 (g/mL) GLab File ID:V5H6491Level:(low/med)LOWDate Received:03/24/07% Moisture:not dec.14Date Analyzed:04/05/07GC Column:DB-624ID:0.25 (mm)Dilution Factor:1.0	
Level:(low/med)LOWDate Received:03/24/07% Moisture:not dec.14Date Analyzed:04/05/07GC Column:DB-624ID:0.25 (mm)Dilution Factor:1.0	
% Moisture: not dec. 14Date Analyzed: 04/05/07GC Column: DB-624ID: 0.25 (mm)Dilution Factor: 1.0	_
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0	_
	_
Soil Extract Volume:(mL) Soil Aliquot Volume:	_
	(uL)
CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Q	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
100 01-02-6trans-1,3-Dichloropropene       26 U         79-00-51,1,2-Trichloroethane       26 U	

OLM03.0

#### 1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET B121920 Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM Case No.: SAS No.: SDG No.: MF0378 Matrix: (soil/water) SOIL Lab Sample ID: F0378-01A Sample wt/vol: 1.1 (g/mL) GLab File ID: V5H6491 Level: (low/med) LOW Date Received: 03/24/07 % Moisture: not dec. 14 Date Analyzed: 04/05/07 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0 Soil Extract Volume: (mL) Soil Aliquot Volume: \_\_\_\_\_ (uL) CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

142-28-9-----1, 3-Dichloropropane 26 U 127-18-4-----Tetrachloroethene 26 U 591-78-6----2-Hexanone 26 U 124-48-1-----Dibromochloromethane 26 U 106-93-4-----1,2-Dibromoethane 26 U 108-90-7-----Chlorobenzene 26 U 630-20-6-----1,1,1,2-Tetrachloroethane 26 U 100-41-4----Ethylbenzene 26 U -----m,p-Xylene\_ 26 U 95-47-6----o-Xylene 26 U 1330-20-7-----Xylene (Total) 26 U 100-42-5-----Styrene 26 U 75-25-2----Bromoform 26 U 98-82-8-----Isopropylbenzene 26 U 79-34-5-----1,1,2,2-Tetrachloroethane 26 U 108-86-1----Bromobenzene 26 U 96-18-4-----1,2,3-Trichloropropane 103-65-1----n-Propylbenzene 26 U 26 U 95-49-8-----2-Chlorotoluene 26 U 108-67-8-----1,3,5-Trimethylbenzene 26 U 106-43-4-----4-Chlorotoluene 26 U 98-06-6-----tert-Butylbenzene 26 U 95-63-6-----1,2,4-Trimethylbenzene 26 U 135-98-8-----sec-Butylbenzene 26 U 99-87-6-----4-Isopropyltoluene 26 U 541-73-1-----1,3-Dichlorobenzene 26 U 106-46-7-----1, 4-Dichlorobenzene 26 U 104-51-8----n-Butylbenzene 95-50-1-----1,2-Dichlorobenzene 26 U 26 U 96-12-8-----1,2-Dibromo-3-chloropropane\_ 120-82-1-----1,2,4-Trichlorobenzene 26 U ·26 U 87-68-3-----Hexachlorobutadiene 26 U 91-20-3-----Naphthalene 26 U 87-61-6-----1,2,3-Trichlorobenzene 26 U

#### FORM I VOA

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1E VOLATILE ORGANICS ANALYSIS		
TENTATIVELY IDENTIFIED	COMPOUNDS B121920	
Lab Name: MITKEM CORPORATION C	ontract:	
Lab Code: MITKEM Case No.:	SAS No.: SDG No.: MF0378	
Matrix: (soil/water) SOIL	Lab Sample ID: F0378-01A	
Sample wt/vol: 1.1 (g/mL) G	Lab File ID: V5H6491	
Level: (low/med) LOW	Date Received: 03/24/07	
% Moisture: not dec. 14	Date Analyzed: 04/05/07	
GC Column: DB-624 ID: 0.25 (mm)	Dilution Factor: 1.0	
Soil Extract Volume:(mL)	Soil Aliquot Volume:(u	<b>பட</b> )

Number TICs found: 10

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	1~
$\begin{array}{c} \hline 1.\\ 2.\\ 3.\\ 4. 81983-71-3\\ 5.\\ 6.\\ 7.\\ 8. 2958-75-0\\ 9.\\ 10. 17301-23-4\\ 11.\\ 12.\\ 13.\\ 14.\\ 15.\\ 13.\\ 14.\\ 15.\\ 16.\\ 17.\\ 18.\\ 19.\\ 20.\\ 21.\\ 22.\\ 23.\\ 24.\\ 25.\\ 26.\\ 27.\\ \end{array}$	COMPOUND NAME	10.52 11.05 11.44 12.07 12.56 12.74 13.10	2400 1800 3400	 J J J J NJ J J J NJ J J
28 29 30		· · · · · · · · · · · · · · · · · · ·		

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### 1A

EPA SAMPLE NO.

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VOLATILE ORGANICS ANALYSIS :	DATA SHEFT
Lab Name: MITKEM CORPORATION Con	ntract: B12235245
Lab Code: MITKEM Case No.:	
Matrix: (soil/water) SOIL	
Sample wt/vol: 1.0 (g/mL) G	Lab Sample ID: F0378-02A
	Lab File ID: V5H6492
Level: (low/med) LOW	Date Received: 03/24/07
% Moisture: not dec. 16	Date Analyzed: 04/05/07
GC Column: DB-624 ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(mL)	Soil Aliquot Volume:(uL
CAS NO. COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Q
75-71-8Dichlorodifluorome74-87-3Chloromethane75-01-4Vinyl Chloride74-83-9Bromomethane75-00-3Bromomethane75-69-4Chloroethane75-35-4Trichlorofluoromet75-35-4Acetone74-88-4Acetone74-88-4Carbon Disulfide75-09-2Methylene Chloride156-60-5Trans-1, 2-Dichloro1634-04-4Methyl tert-butyl75-34-31, 1-Dichloroethane108-05-4Vinyl acetate78-93-32-Butanone	30       U         30       U
156-59-2cis-1,2-Dichloroet.         590-20-72,2-Dichloropropan.         74-97-5Bromochloromethane         67-66-3Chloroform         71-55-61,1,1-Trichloroethane         563-58-61,1-Dichloropropene         56-23-5Carbon Tetrachloric         107-06-21,2-Dichloroethane         71-43-2Benzene         79-01-6Trichloroethene         78-87-5Dibromomethane         74-95-3Bromodichloropropane         74-95-3	hene       30       U         e       30       U         30       U       30         ane       30       U

FORM I VOA

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EPA SAMPLE NO.

VOLATIL	E ORGANICS ANALYS	IS DATA SHEET		
Lab Name: MITKEM CO			B1223524	5
Las Maile: MLINEM CO	RPORATION	Contract:	I	
Lab Code: MITKEM	Case No.:	SAS No.:	SDG No.: MF037	/8
Matrix: (soil/water)	SOIL	Lab Sample I	D: F0378-02A	
Sample wt/vol:	1.0 (g/mL) G	Lab File ID:	V5H6492	
Level: (low/med)	LOW	Date Receive	d: 03/24/07	
% Moisture: not dec.	16	Date Analyze	d: 04/05/07	
GC Column: DB-624	ID: 0.25 (mm)	Dilution Fac	tor: 1.0	
Soil Extract Volume:	(mL)	Soil Aliquot	Volume:	(uL)
CAS NO.	COMPOUND	CONCENTRATION UNIT (ug/L or ug/Kg) UG		
$\begin{array}{c} 127-18-4\\ 591-78-6\\ 124-48-1\\ 106-93-4\\ 108-90-7\\ 630-20-6\\ 130-20-6\\ 1330-20-7\\ 100-42-5\\ 1330-20-7\\ 100-42-5\\ 95-47-6\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 100-42-5\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-88-8\\ 98-88-8\\ 98-88-8\\ 98-88-8$	Xylene (Total) Styrene Bromoform Isopropylbenzen 1,1,2,2-Tetrach Bromobenzene 1,2,3-Trichlord 	ene	30       U         30 <td< td=""><td></td></td<>	

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EPA SAMPLE NO.

		VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS	
Lab	Name:	MITKEM CORPORATION Contract:	

Lab Code: MITKEM Case No.:

Matrix: (soil/water) SOIL

Sample wt/vol: 1.0 (g/mL) G

Level: (low/med) LOW

% Moisture: not dec. 16

Number TICs found: 10

GC Column: DB-624 ID: 0.25 (mm)

Soil Extract Volume: \_\_\_\_\_(mL)

Soil Aliquot Volume: \_\_\_\_\_(uL) CONCENTRATION UNITS:

Lab File ID:

SAS No.:

(ug/L or ug/Kg) ug/Kg

1. 2051-30-1       OCTANE, 2,6-DIMETHYL-       10.03       2600       NJ         2.       UNIKNOWN       10.19       2400       J         3.       UNIKNOWN       10.38       2700       J         4. 4291-79-6       CYCLOHEXANE, 1-METHYL-2-PROP       10.98       340       NJ         5.       UNKNOWN       12.72       390       J         7.       UNKNOWN       13.08       450       NJ         8.       UNKNOWN       13.24       730       J         9. 6044-71-9       DODECANE, 6-METHYL-       14.01       780       NJ         11.       DODECANE, 2-BUTYL-1,1,3-T       14.50       350       NJ         12.       I       III       IIII       IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII

FORM I VOA-TIC

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B12235245

SDG No.: MF0378

V5H6492

Lab Sample ID: F0378-02A

Date Received: 03/24/07

Date Analyzed: 04/05/07

Dilution Factor: 1.0

#### 1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET B122930 Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM Case No.: SAS No.: SDG No.: MF0378 Matrix: (soil/water) SOIL Lab Sample ID: F0378-03A Sample wt/vol: 5.1 (g/mL) G Lab File ID: V1I3752 Level: (low/med) LOW Date Received: 03/24/07 % Moisture: not dec. 16 Date Analyzed: 04/05/07 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0 Soil Extract Volume: (mL) Soil Aliquot Volume: (uL) CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q - 1

75-71-8	Dichlorodifluoromethane	6	ן סן
74-87-3	Chloromethane		υ
75-01-4	Vinyl Chloride		υ
74-83-9	Bromomethane		<b>U</b>
75-00-3	Chloroethane		σ
75-69-4	Trichlorofluoromethane	6	
75-35-4	1,1-Dichloroethene	6	
67-64-1	Acetone	6	-
74-88-4	Iodomethane	6	
75-15-0	Carbon Disulfide	6	
75-09-2	Methylene Chloride	6	
156-60-5	trans-1,2-Dichloroethene	6	
1634-04-4	Methyl tert-butyl ether	6	
75-34-3	1,1-Dichloroethane	6	
108-05-4	Vinyl acetate	6	σ
78-93-3	2-Butanone	6	0
156-59-2	cis-1,2-Dichloroethene	6	Ū
590-20-7	2,2-Dichloropropane	6	υ
74-97-5	Bromochloromethane	6	
67-66-3	Chloroform	6	σ
71-55-6	1,1,1-Trichloroethane	6	υ
563-58-6	1,1-Dichloropropene	6	U
56-23-5	Carbon Tetrachloride	. 6	σ
107-06-2	1,2-Dichloroethane	6	υ
71-43-2	Benzene	6	υ
79-01-6	Trichloroethene	6	υ υ
78-87-5	1,2-Dichloropropane	6	υ
74-95-3	Dibromomethane	6	Ū
75-27-4	Bromodichloromethane	6	σ
10061-01-5	cis-1.3-Dichloropropene	6	υ
108-10-1	4-Methyl-2-pentanone	6	υ.
108-88-3	Toluene	6	σ
10061-02-6	trans-1,3-Dichloropropene	6	Ū
79-00-5	1,1,2-Trichloroethane	6	σ
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### FORM I VOA

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#### 1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET B122930 Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM Case No.: SAS No.: SDG No.: MF0378 Matrix: (soil/water) SOIL Lab Sample ID: F0378-03A Sample wt/vol: 5.1 (g/mL) G Lab File ID: V1I3752 Level: (low/med) LOW Date Received: 03/24/07 % Moisture: not dec. 16 Date Analyzed: 04/05/07 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0 Soil Extract Volume: (mL) Soil Aliquot Volume: \_\_\_\_\_(uL) CONCENTRATION UNITS: CAS NO. COMPOUND (uq/L or uq/Kq) UG/KG 0 142-28-9-----1,3-Dichloropropane 6 U 127-18-4----Tetrachloroethene 6 U 591-78-6----2-Hexanone 6 U 124-48-1-----Dibromochloromethane 6 U 106-93-4-----1,2-Dibromoethane U б 108-90-7-----Chlorobenzene 6 U 630-20-6-----1,1,1,2-Tetrachloroethane 6 ΰ 100-41-4----Ethylbenzene 6 U ----m, p-Xylene 6 U 95-47-6----o-Xylene 6 σ 1330-20-7-----Xylene (Total) 6 U 100-42-5-----Styrene 6 U 75-25-2-----Bromoform 6 U 98-82-8-----Isopropylbenzene 79-34-5----1,1,2,2-Tetrachloroethane 6 U 6 Ū 108-86-1----Bromobenzene 6 U 96-18-4-----1,2,3-Trichloropropane 6 U 103-65-1----n-Propylbenzene 6 U 95-49-8----2-Chlorotoluene 6 U 108-67-8-----1,3,5-Trimethylbenzene 6 U 106-43-4----4-Chlorotoluene 6 U 98-06-6-----tert-Butylbenzene 6 U 95-63-6-----1,2,4-Trimethylbenzene 6 ប 135-98-8-----sec-Butylbenzene 6 Ū 99-87-6-----4-Isopropyltoluene 6 U

FORM I VOA

541-73-1----1,3-Dichlorobenzene

106-46-7-----1,4-Dichlorobenzene

95-50-1-----1,2-Dichlorobenzene

87-68-3-----Hexachlorobutadiene

120-82-1-----1,2,4-Trichlorobenzene

87-61-6-----1,2,3-Trichlorobenzene

96-12-8-----1,2-Dibromo-3-chloropropane

104-51-8----n-Butylbenzene

91-20-3-----Naphthalene

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6 U

6 U

6 U

6 U

6 U

6 U

6 U

6 U

6 U

VOLATILE ORGANICS ANALYSIS	
TENTATIVELY IDENTIFIED	B122930
	ontract:
Lab Code: MITKEM Case No.:	SAS No.: SDG No.: MF0378
Matrix: (soil/water) SOIL	Lab Sample ID: F0378-03A
Sample wt/vol: 5.1 (g/mL) G	Lab File ID: V1I3752
Level: (low/med) LOW	Date Received: 03/24/07
% Moisture: not dec. 16	Date Analyzed: 04/05/07
GC Column: DB-624 ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(mL)	Soil Aliquot Volume:(uL)
Number TICs found: 0	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

(ug/L or ug/Kg) ug/Kg

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CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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FORM I VOA-TIC

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EPA SAMPLE NO.

B12B1920 Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM Case No.: SAS No.: SDG No.: MF0378 Matrix: (soil/water) SOIL Lab Sample ID: F0378-04A Sample wt/vol: 5.3 (g/mL) G Lab File ID: V1I3754 Level: (low/med)LOW Date Received: 03/24/07 % Moisture: not dec. 10 Date Analyzed: 04/05/07 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0 Soil Extract Volume: (mL) Soil Aliquot Volume: (uL) CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG 0 75-71-8-----Dichlorodifluoromethane 5 U 74-87-3-----Chloromethane 5 U 75-01-4-----Vinyl Chloride 5 U 74-83-9----Bromomethane 5555 U 75-00-3-----Chloroethane U 75-69-4-----Trichlorofluoromethane U 75-35-4-----1,1-Dichloroethene υ 67-64-1----Acetone 5 U 5 U 5 U 5 U 5 U 74-88-4-----Iodomethane 75-15-0-----Carbon Disulfide 75-09-2-----Methylene Chloride 156-60-5-----trans-1,2-Dichloroethene 5 U 1634-04-4-----Methyl tert-butyl ether 5 U | 75-34-3-----1,1-Dichloroethane 555 U 108-05-4-----Vinyl acetate υ 78-93-3----2-Butanone ប 156-59-2----cis-1,2-Dichloroethene 5 U 590-20-7-----2,2-Dichloropropane 5 U 74-97-5-----Bromochloromethane 5 5 5 5 U 67-66-3-----Chloroform U 71-55-6-----1,1,1-Trichloroethane U 563-58-6-----1,1-Dichloropropene\_ 5 U 56-23-5-----Carbon Tetrachloride 5 U 107-06-2-----1,2-Dichloroethane\_ 5 U 71-43-2----Benzene 5 U 79-01-6-----Trichloroethene 5 U 78-87-5-----1,2-Dichloropropane 5 U 74-95-3-----Dibromomethane 5 U 75-27-4-----Bromodichloromethane 5 ע | 10061-01-5----cis-1,3-Dichloropropene 5 U 108-10-1-----4-Methyl-2-pentanone 5 U 108-88-3----Toluene 5 U 10061-02-6----trans-1,3-Dichloropropene 5 U 79-00-5-----1,1,2-Trichloroethane 5 U

FORM I VOA

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET B12B1920 Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM Case No.: SAS No.: SDG No.: MF0378 Matrix: (soil/water) SOIL Lab Sample ID: F0378-04A Sample wt/vol: 5.3 (g/mL) G Lab File ID: V1I3754 Level: (low/med)LOW Date Received: 03/24/07 % Moisture: not dec. 10 Date Analyzed: 04/05/07 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0 Soil Extract Volume: \_\_\_\_(mL) Soil Aliquot Volume: (uL) CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG 0 142-28-9-----1,3-Dichloropropane 5 U 127-18-4-----Tetrachloroethene 5 U 591-78-6----2-Hexanone 5 5 5 U 124-48-1-----Dibromochloromethane U 106-93-4-----1,2-Dibromoethane U 108-90-7-----Chlorobenzene 5 U 630-20-6-----1,1,1,2-Tetrachloroethane 5 U 55 100-41-4----Ethylbenzene U -----m,p-Xylene U 95-47-6----o-Xylene 5 U 1330-20-7-----Xylene (Total) 5 U 100-42-5-----Styrene 5 U 75-25-2-----Bromoform 5 U 98-82-8-----Isopropylbenzene 5 U 79-34-5-----1,1,2,2-Tetrachloroethane 5 U 108-86-1----Bromobenzene 5 U 96-18-4-----1,2,3-Trichloropropane 5 U 103-65-1----n-Propylbenzene 5 υ 95-49-8-----2-Chlorotoluene 5 U 108-67-8-----1,3,5-Trimethylbenzene 5 U 106-43-4-----4-Chlorotoluene 5 U 98-06-6----tert-Butylbenzene 5 U 95-63-6-----1,2,4-Trimethylbenzene 5 U 135-98-8----sec-Butylbenzene 5 U 99-87-6-----4-Isopropyltoluene 5 υ 541-73-1----1, 3-Dichlorobenzene 5 υ 106-46-7-----1,4-Dichlorobenzene 5 U 104-51-8----n-Butylbenzene 5 U 95-50-1-----1,2-Dichlorobenzene 5 U 96-12-8-----1,2-Dibromo-3-chloropropane 5 U 120-82-1-----1,2,4-Trichlorobenzene 5 U 87-68-3-----Hexachlorobutadiene 5 U 91-20-3-----Naphthalene 5 Ū 87-61-6-----1,2,3-Trichlorobenzene 5 Ū

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EPA SAMPLE NO.

B12B1920

SDG No.: MF0378

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VOLATILE	ORGANIC	CS	ANALYSIS	DATA	SHEET
TENTZ	<b>TIVELA</b>	TI	DENTIFIED	COMPO	DUNDS

Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM Case No.:

Matrix: (soil/water) SOIL

5.3 (g/mL) G Sample wt/vol:

Level: (low/med) LOW

% Moisture: not dec. 10

Number TICs found: 0

GC Column: DB-624 ID: 0.25 (mm)

Soil Extract Volume:\_\_\_\_\_(mL)

Lab File ID: V1I3754 Date Received: 03/24/07 Date Analyzed: 04/05/07 Dilution Factor: 1.0

Lab Sample ID: F0378-04A

Soil Aliquot Volume: \_\_\_\_\_(uL)

CONCENTRATION UNITS:

SAS No.:

(ug/L or ug/Kg) ug/Kg

CAS NUMBER COMPOUND NAME  $\mathbf{RT}$ EST. CONC. 0 \_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_ 1. 2. 3. 4. 5. 6. 7. 8. 9.\_ 10.\_\_ 11.\_\_ 12. 13. 14. 15. 16. 17. 18. 19.\_\_ 20.\_ 21. 22. 23. 24. 25. 26. 27. 28. 29. 30.

FORM I VOA-TIC

EPA SAMPLE NO.

VOLATILI	E ORGANICS ANALYS	SIS DATA SHEET		A DAMETIC INC.
b Name: MITKEM COP	RPORATION	Contract:	B1	.2B235245
b Code: MITKEM			SDG No.	. MF0378
trix: (soil/water)			ple ID: F03	
mple wt/vol:	1.0 (g/mL) G	Lab Fil	e ID: V5H	6493
vel: (low/med)	LOW	Date Re	ceived: 03/	24/07
Moisture: not dec.	17	Date An	alyzed: 04/	05/07
Column: DB-624			n Factor: 1	.0
11 Extract Volume:	(mī.)	Soil Al	iquot Volume	e:(1
CAS NO.	COMPOUND	CONCENTRATION (ug/L or ug/Ka		Q
74-87-375-01-475-00-375-00-375-09-475-35-475-35-475-09-275-09-275-09-275-09-275-09-275-09-275-09-275-09-275-09-275-09-275-09-275-09-275-09-275-09-275-09-275-09-275-275-275-275-275-275-275-275-275-275-275-275-275-275-275-275-275-2	Iodomethane Carbon Disulfi Methylene Chlo trans-1,2-Dich Methyl tert-bu 1,1-Dichloroet Vinyl acetate 2-Butanone cis-1,2-Dichloropr Bromochloromet Chloroform 1,1,1-Trichloro 1,2-Dichloropr Benzene Trichloroethene Trichloroethene Dibromomethane Bromodichloromethane Bromodichloromethane Cis-1,3-Dichloromethane Cis-1,3-Dichloromethane Cis-1,3-Dichloromethane Cis-1,3-Dichloromethane Cis-1,3-Dichloromethane Cis-1,3-Dichloromethane Cis-1,3-Dichloromethane	comethane chene de oride loroethene tyl ether hane roethene opane hane loride hane e opene loride hane e opane tanone	3( 3( 3( 30) 30) 30) 30) 30) 30) 30) 30) 30) 30)	

FORM I VOA

EPA SAMPLE NO.

LA VOLATILE ORGANICS ANALYSIS DATA SHEET	EPA SAMPLE NO.
Lab Name: MITKEM CORPORATION Contract:	B12B235245
Lab Code: MITKEM Case No.: SAS No.:	SDG No.: MF0378
Matrix: (soil/water) SOIL Lab	Sample ID: F0378-05A
Sample wt/vol: 1.0 (g/mL) G Lab	File ID: V5H6493
0. secilitate en an	e Received: 03/24/07
% Moisture: not dec. 17 Date	Analyzed: 04/05/07
GC Column: DB-624 ID: 0.25 (mm) Dilu	tion Factor: 1.0
Soil Extract Volume: (mL) Soil	Aliquot Volume: (uL)
CONCENTRAT CAS NO. COMPOUND (ug/L or u	g/Kg) UG/KG Q
142-28-91,3-Dichloropropane	30 U
127-18-4Tetrachloroethene 591-78-62-Hexanone	_  30 U
104 40 1 Dilum 17	_  30 U
124-48-1Dibromochloromethane	_  30 U
106-93-41,2-Dibromoethane	30 U
108-90-7Chlorobenzene	- 30 U
630-20-61,1,1,2-Tetrachloroethane	
100-41-4Ethvlbenzene	30 0
m,p-Xylene	
95-47-6O-Xvlene	- 30 <del>U</del>
1330-20-7Xylene (Total)	
100-42-5Styrene	
75-25-2Bromoform	30 0
98-82-8Isopropylbenzene	30 U
	1600 E
79-34-51,1,2,2-Tetrachloroethane	30  U
108-86-1Bromobenzene	30 U
96-18-41,2,3-Trichloropropane	30 U
103-65-1n-Propylbenzene	2000 E
95-49-82-Chlorotoluene	30 U
108-67-81,3,5-Trimethylbenzene	20000 区
106-43-44-Chlorotoluene	30 U
98-06-6tert-Butylbenzene	30 0
95-63-61,2,4-Trimethylbenzene	15000 E
135-98-8sec-Butvlbenzene	1400 E
99-87-64-Isopropyltoluene	3400 E
541-73-11,3-Dichlorobenzene	30 0
106-46-71,4-Dichlorobenzene	30 0
104-51-8n-Butylbenzene	3400 E
95-50-11,2-Dichlorobenzene	30 U
96-12-81,2-Dibromo-3-chloropropane	30 0
120-82-11,2,4-Trichlorobenzene	
87-68-3Hexachlorobutadiene	30 U
91-20-3Naphthalene	30 U
87-61-61,2,3-Trichlorobenzene	
c, or	30 <del>U</del>
	III

FORM I VOA

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OLM03.0

1E VOLATILE ORGANICS ANALYSIS TENTATIVELY IDENTIFIED	COMPOUNDS
Lab Name: MITKEM CORPORATION C	Contract:
Lab Code: MITKEM Case No.:	SAS No.: SDG No.: MF0378
Matrix: (soil/water) SOIL	Lab Sample ID: F0378-05A
Sample wt/vol: 1.0 (g/mL) G	Lab File ID: V5H6493
Level: (low/med) LOW	Date Received: 03/24/07
% Moisture: not dec. 17	Date Analyzed: 04/05/07
GC Column: DB-624 ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(mL)	Soil Aliquot Volume:(uL)

Number TICs found: 10

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CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
$\begin{array}{c} \hline 1. 592-27-8 \\ 2. \\ 3. \\ 4. 19489-10-2 \\ 5. \\ 6. \\ 7. \\ 8. \\ 9. \\ 10. 620-14-4 \\ 11. \\ 12. \\ 13. \\ 14. \\ 15. \\ 16. \\ 17. \\ 18. \\ 19. \\ 20. \\ 21. \\ 22. \\ 23. \\ 24. \\ 25. \\ 26. \\ \end{array}$	COMPOUND NAME HEPTANE, 2-METHYL- UNKNOWN UNKNOWN CIS-1-ETHYL-3-METHYL-CYCLOHE UNKNOWN UNKNOWN UNKNOWN UNKNOWN BENZENE, 1-ETHYL-3-METHYL-	7.16 8.92 9.05	2400 2600 3100 6400 4700 2400 4800	 NJ J J NJ J J J J J J J J J
26 27 28 29 30		· · · · · · · · · · · · · · · · · · ·		

EPA SAMPLE NO.

Lab Name: MITKEN CORPORATION       Contract:       B12B235245DL         Lab Code: MITKEN CARE NO.:       SAS NO.:       SIG NO.: MF0378         Matrix: (soil/water) SOIL       Lab Sample ID: F0378-05ADL         Sample wt/vol:       5.0 (g/mL) G       Lab File ID: V6F1611         Level: (low/med) MED       Date Received: 03/24/07         % Moisture: not dec. 17       Date Analyzed: 04/06/07         GC Column: DB-624       DD: 0.25 (mm)       Dilution Factor: 4.0         Soil Extract Volume:       5(mL)       Soil Aliquot Volume:       100.0 (uL)         CAS NO.       COMPOIND       CONCENTRATION UNTITS:       Q         75-71-8Chloromethane       1400 U       74-88-4Chloromethane       1400 U         75-73-6	VOLAT	ILE ORGANICS ANALYSIS	DATA SHEET	LPA SAMPLE NO.
Matrix:       (soil/water) SOIL       Lab Sample ID: F0378-05ADL         Sample wt/vol:       5.0 (g/mL) G       Lab File ID: V6F1611         Level:       (low/med) MED       Date Received: 03/24/07         % Moisture: not dec. 17       Date Analyzed: 04/06/07         GC Column: DB-624       ID: 0.25 (mm)       Dilution Factor: 4.0         Soil Extract Volume:       5 (mL)       Soil Aliquot Volume:       100.0 (mL)         CAS NO.       COMPOUND       CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG       Q         75-71-8       Dichlorodifluoromethane       1400 U       T         75-01-4       Procethane       1400 U       T         75-01-4       Dichlorodifluoromethane       1400 U       T         75-69-4       Trichlorothane       1400	Lab Name: MITKEM (	CORPORATION CO	ontract:	B12B235245DL
Sample wt/vol:       5.0 (g/mL) G       Lab File ID: V6F1611         Level:       (low/med) MED       Date Received: 03/24/07         * Moisture: not dec. 17       Date Analyzed: 04/06/07         GC Column: DB-624       DD: 0.25 (mm)       Dilution Factor: 4.0         Soil Extract Volume:       5 (mL)       Soil Aliquot Volume:       100.0 (uL)         CAS NO.       COMPOUND       CONCENTRATION UNITS:       Q         CAS NO.       COMPOUND       (ug/L or ug/Kg) UG/KG       Q         75-71-8	Lab Code: MITKEM	Case No.:	SAS No.: SD	G No.: MF0378
Level:       (low/med)       MED       Date Received: 03/24/07         % Moisture:       not dec. 17       Date Analyzed: 04/06/07         GC Column:       DB-624       ID: 0.25 (nm)       Dilution Factor: 4.0         Soil Extract Volume:       5 (ml)       Soil Aliquot Volume:       100.0 (uL)         Soil Extract Volume:       5 (ml)       Soil Aliquot Volume:       100.0 (uL)         CAS NO.       COMPOUND       CONCENTRATION UNITS:       Q         75-71-8Chloromethane       1400 U       1400 U         74-87-3Chloromethane       1400 U       1400 U         75-69-4Vinpl Chloride       1400 U       1400 U         75-69-4	Matrix: (soil/wate	er) SOIL	Lab Sample ID	: F0378-05ADL
<pre>% Moisture: not dec. 17 Date Analyzed: 04/06/07 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 4.0 Soil Extract Volume: 5(mL) Soil Aliquot Volume: 100.0 (uL) Soil Extract Volume: 5(mL) Soil Aliquot Volume: 100.0 (uL) CONCENTRATION UNITS: CAS NO. COMPOUND CONCENTRATION UNITS: CAS NO. COMPOUND <math>(ug/kg) Ug/kg) Q</math> 75-71-8Dichlorodifluoromethane 1400 U74-83-9Chloromethane 1400 U75-69-4Vinyl Chloride 1400 U75-69-4Trichlorofluoromethane 1400 U75-69-4Trichlorofluoromethane 1400 U75-69-4</pre>	Sample wt/vol:	5.0 (g/mL) G	Lab File ID:	V6F1611
GC Column: DB-624       ID: 0.25 (mm)       Dilution Factor: 4.0         Soil Extract Volume:       5(mL)       Soil Aliquot Volume: $100.0(uL)$ CONCENTRATION UNITS:       CONCENTRATION UNITS:       Q         75-71-8Dichlorodifluoromethane       1400 U       Q         75-71-8Chloromethane       1400 U       Q         75-71-8Chloromethane       1400 U       Q         75-71-8Chloromethane       1400 U       Q         75-71-8	Level: (low/med)	MED	Date Received	: 03/24/07
Soil Extract Volume: $5 (m)$ Soil Aliquot Volume: $100.0 (m)$ CAS NO.COMPOUNDCONCENTRATION UNITS: $(ug/L or ug/Kg) UG/KGQ75-71-8Chloromethane1400 U1400 U74-87-3Chloromethane1400 U74-87-3Chloromethane1400 U74-87-3$			-	: 04/06/07
$\begin{array}{c c} CONCENTRATION UNITS: \\ (ug/L or ug/Kg) UG/Kg \\ Q \\ \hline \\ \hline$			Dilution Facto	or: 4.0
CAS NO.       COMPOUND       (ug/L or ug/Kg) UG/KG       Q $75-71-8Dichlorodifluoromethane       1400 U       U         74-87-3Chloromethane       1400 U       U         75-01-4Chloromethane       1400 U       U         75-01-4$	Soil Extract Volum	e: 5(mL)	Soil Aliquot	Volume: 100.0(uL)
74-87-3Chloromethane       1400       U $75-01-4Vinyl$ Chloride       1400       U $74-83-9Bromomethane$ 1400       U $75-00-3Chloroethane$ 1400       U $75-69-4Trichloroethane$ 1400       U $75-69-4Chloroethane$ 1400       U $75-69-4Chloroethane$ 1400       U $75-69-4$	CAS NO.	COMPOUND	· · · · · · · · · · · · · · · · · · ·	
10061-02-6trans-1.3-Dichloropropene 1400 II	74-87-3 75-01-4 74-83-9 75-00-3 75-69-4 75-35-4 67-64-1 74-88-4 75-15-0 75-09-2 156-60-5 1634-04-4 75-34-3 108-05-4 78-93-3 108-05-4 74-97-5 590-20-7 74-97-5 563-58-6 56-23-5 107-06-2 71-43-2 79-01-6 78-87-5 74-95-3 75-27-4 108-10-1	Chloromethane Vinyl Chloride Bromomethane Chloroethane Trichlorofluorom I,1-Dichloroethane Carbon Disulfide Carbon Disulfide Carbon Disulfide Carbon Disulfide Carbon Disulfide Carbon Disulfide 	de   ne   de   roethene   1   ethene   1   ethene   ane   ne   thane ene ride ne ane ane nane oropene	1400       U         1400       U <td< td=""></td<>
	79-00-5	trans-1,3-Dichlor 1,1,2-Trichloroet	.hane	

FORM I VOA

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET B12B235245DL Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM Case No.: SAS No.: SDG No.: MF0378 Matrix: (soil/water) SOIL Lab Sample ID: F0378-05ADL Sample wt/vol: 5.0 (g/mL) G Lab File ID: V6F1611 Level: (low/med) MED Date Received: 03/24/07 % Moisture: not dec. 17 Date Analyzed: 04/06/07 GC Column: DB-624 ID: 0.25 (mm)Dilution Factor: 4.0 Soil Extract Volume: 5 (mL) Soil Aliquot Volume: 100.0(uL) CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q 142-28-9-----1,3-Dichloropropane 1400 U 127-18-4-----Tetrachloroethene 1400 U 591-78-6----2-Hexanone 1400 U 124-48-1-----Dibromochloromethane 1400 U 106-93-4-----1,2-Dibromoethane 108-90-7-----Chlorobenzene 1400 U 1400 U 630-20-6-----1,1,1,2-Tetrachloroethane 1400 U 100-41-4-----Ethylbenzene 1400 U -----m,p-Xylene 910 DJ 95-47-6----o-Xylene 1400 U 1330-20-7-----Xylene (Total) 910 DJ 100-42-5-----Styrene 1400 U 75-25-2-----Bromoform 1400 U 98-82-8-----Isopropylbenzene 2300 D 79-34-5-----1,1,2,2-Tetrachloroethane 1400 U 108-86-1----Bromobenzene 1400 U 96-18-4-----1,2,3-Trichloropropane 1400 U 103-65-1----n-Propylbenzene 4600 D 95-49-8-----2-Chlorotoluene 1400 U 108-67-8-----1,3,5-Trimethylbenzene 32000 D 106-43-4-----4-Chlorotoluene 1400 U 98-06-6-----tert-Butylbenzene 1200 DJ 95-63-6-----1,2,4-Trimethylbenzene 51000 D 135-98-8----sec-Butylbenzene 3400 D 99-87-6-----4-Isopropyltoluene 4700 D 541-73-1----1,3-Dichlorobenzene 1400 U 106-46-7-----1,4-Dichlorobenzene 1400 U 104-51-8----n-Butylbenzene 15000 D 95-50-1-----1,2-Dichlorobenzene 1400 U 96-12-8-----1,2-Dibromo-3-chloropropane 1400 U 120-82-1-----1,2,4-Trichlorobenzene 1400 υ 87-68-3-----Hexachlorobutadiene 1400 U 91-20-3-----Naphthalene 2500 D 87-61-6-----1,2,3-Trichlorobenzene 1400 U

FORM I VOA

EPA SAMPLE NO.

VOLATILE ORGANI(	S ANALYSIS	DATA	SHEET
TENTATIVELY	IDENTIFIED	COMPO	DUNDS

Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM Case No.: Matrix: (soil/water) SOIL Sample wt/vol: 5.0 (g/mL) G Level: (1ow/med)MED

% Moisture: not dec. 17

GC Column: DB-624 ID: 0.25 (mm)

Soil Extract Volume: 5 (mL) B12B235245DL

SAS No.: SDG No.: MF0378 Lab Sample ID: F0378-05ADL Lab File ID: V6F1611 Date Received: 03/24/07 Date Analyzed: 04/06/07 Dilution Factor: 4.0 Soil Aliquot Volume: 100 (uL)

Number TICs found: 10

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CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	1 ~ 1
1. 1678-91-7 2. 3. 4. 6236-88-0 5. 6236-88-0 6. 2051-30-1 7. 696-29-7 8. 9. 535-77-3		9.64 10.02 10.19 10.70 11.09 11.34 11.48 11.70	29000 56000 35000 36000	NJD JD JD NJD NJD NJD NJD NJD NJD JD NJD
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EPA SAMPLE NO.

B12B2930 Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM Case No.: SAS No.: SDG No.: MF0378 Matrix: (soil/water) SOIL Lab Sample ID: F0378-06A Sample wt/vol: Lab File ID: 5.4 (g/mL) G V1I3755 Level: (low/med) LOW Date Received: 03/24/07 % Moisture: not dec. 14 Date Analyzed: 04/05/07 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0 Soil Extract Volume: (mL) Soil Aliquot Volume: \_\_\_\_\_(uL) CONCENTRATION UNITS: CAS NO. (ug/L or ug/Kg) UG/KG COMPOUND Q - 1

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	75-71-8Dichlorodifluoromethane	5	ទាប	ł
	74-87-3Chloromethane			1
	75-01-4Vinyl Chloride	- 5 - 5 5	5 0	
	74-83-9Bromomethane	5	σ	
	75-00-3Chloroethane	5	υ	
	75-69-4Trichlorofluoromethane	5		
	75-35-41,1-Dichloroethene	·  5		
	67-64-1Acetone	5		1
	74-88-4Iodomethane	5		}
	75-15-0Carbon Disulfide	5		
	75-09-2Methylene Chloride	5		
	156-60-5trans-1,2-Dichloroethene	5		
	1634-04-4Methyl tert-butyl ether	5	υ	
1	75-34-31,1-Dichloroethane	5		
	108-05-4Vinyl acetate	5	υ	
	78-93-32-Butanone	5		
	156-59-2cis-1,2-Dichloroethene	5		
	590-20-72,2-Dichloropropane	. 5		
	74-97-5Bromochloromethane	5	υ	i i
·	67-66-3Chloroform	. 5	บ บ	
	71-55-61,1,1-Trichloroethane	.5	υ	
ł	563-58-61,1-Dichloropropene	5	σ	ĺ
ļ	56-23-5Carbon Tetrachloride	5	υ	
	107-06-21,2-Dichloroethane	5	υ	ļ
l	71-43-2Benzene	5 5	υ	I
	79-01-6Trichloroethene	5	υ	I
	78-87-51,2-Dichloropropane	5	υ	
	74-95-3Dibromomethane	5	υ	
	75-27-4Bromodichloromethane	5	υ	
	10061-01-5cis-1,3-Dichloropropene	5	υ	
	108-10-14-Methyl-2-pentanone	5	ש	
	108-88-3Toluene	5	U	
	10061-02-6trans-1,3-Dichloropropene	5	υ	
ł	79-00-51,1,2-Trichloroethane	- 5	υ	
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FORM I VOA

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VOLATIL	1A 5 ORGANICS ANALYS	IS DATA SHEET		EPA SAMPLE	S NO.
				B12B2930	)
Lab Name: MITKEM COF	RPORATION	Contract:	1.		I
Lab Code: MITKEM	Case No.:	SAS No.:	SDG	No.: MF037	'8
Matrix: (soil/water)	SOIL	Lab S	ample ID:	F0378-06A	
Sample wt/vol:	5.4 (g/mL) G	Lab F	'ile D:	V1I3755	
Level: (low/med)	LOW	Date	Received:	03/24/07	
% Moisture: not dec.	14	Date	Analyzed:	04/05/07	
GC Column: DB-624	ID: 0.25 (mm)	Dilut	ion Facto	r: 1.0	
Soil Extract Volume:	(mL)	Soil.	Aliquot Vo	olume:	(uL)
CAS NO.	COMPOUND	CONCENTRATIOn (ug/L or ug		Ξ Q	
$\begin{array}{c} 127-18-4\\ 591-78-6\\ 124-48-1\\ 106-93-4\\ 108-90-7\\ 630-20-6\\ 130-20-6\\ 1330-20-7\\ 100-42-5\\ 95-47-6\\ 75-25-2\\ 98-82-8\\ 75-25-2\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 100-42-5\\ 98-82-8$	Dibromochlorom 1,2-Dibromoeth Chlorobenzene 	ene		555555555555555555555555555555555555555	

# FORM I VOA

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1E VOLATILE ORGANICS ANALYSIS	EPA SAMPLE NO.	
TENTATIVELY IDENTIFIED Lab Name: MITKEM CORPORATION C		B12B2930
	ontract:	
Lab Code: MITKEM Case No.:	SAS No.: SDG	No.: MF0378
Matrix: (soil/water) SOIL	Lab Sample ID:	F0378-06A
Sample wt/vol: 5.4 (g/mL) G	Lab File ID:	V1I3755
Level: (low/med) LOW	Date Received:	03/24/07
% Moisture: not dec. 14	Date Analyzed:	04/05/07
GC Column: DB-624 ID: 0.25 (mm)	Dilution Factor	r: 1.0
Soil Extract Volume:(mL)	Soil Aliquot Vo	olume:(uL)
Number TICs found: 0	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	<b>J</b>

CAS NUMBER COMPOUND NAME  $\mathbf{RT}$ EST. CONC. Q \_\_\_\_\_\_ ======= \_\_\_\_\_ ===== 3.\_ 4. . 5. 6. 7. ... 8. 9. 10.\_ <u>1</u>1.] 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30.

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EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET B161920 Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM Case No.: SAS No.: SDG No.: MF0378 Matrix: (soil/water) SOIL Lab Sample ID: F0378-11A Sample wt/vol: 0.6 (q/mL) GLab File ID: V5H6504 Level: (low/med)LOW Date Received: 03/24/07 % Moisture: not dec. 19 Date Analyzed: 04/05/07 GC Column: DB-624 ID: 0.25 (mm)Dilution Factor: 1.0 Soil Extract Volume: (mL) Soil Aliquot Volume: (uL) CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG 0 75-71-8-----Dichlorodifluoromethane 51 U 74-87-3-----Chloromethane 51 U 75-01-4-----Vinyl Chloride 51 U 74-83-9-----Bromomethane 51 U 75-00-3-----Chloroethane 51 U 75-69-4----Trichlorofluoromethane 51 U 75-35-4-----1,1-Dichloroethene 51 U 67-64-1-----Acetone 51 U 74-88-4-----Iodomethane 51 U 75-15-0-----Carbon Disulfide 51 U 75-09-2-----Methylene Chloride 51 U 156-60-5-----trans-1,2-Dichloroethene 51 U 1634-04-4-----Methyl tert-butyl ether 51 U 75-34-3-----1, 1-Dichloroethane 51 U 108-05-4-----Vinyl acetate 51 U 78-93-3-----2-Butanone 51 U 156-59-2----cis-1,2-Dichloroethene 51 U 590-20-7-----2,2-Dichloropropane 51 U 74-97-5-----Bromochloromethane 51 U 67-66-3-----Chloroform 51 U 71-55-6-----1,1,1-Trichloroethane 26 J 563-58-6-----1,1-Dichloropropene 51 U 56-23-5-----Carbon Tetrachloride 51 U 107-06-2----1,2-Dichloroethane 51 U 71-43-2----Benzene ·51 U 79-01-6----Trichloroethene 51 U 78-87-5-----1,2-Dichloropropane 51 U 74-95-3----Dibromomethane 51 U 75-27-4-----Bromodichloromethane 51 U 10061-01-5----cis-1, 3-Dichloropropene 51 U 108-10-1-----4-Methyl-2-pentanone 51 U 108-88-3----Toluene 51 U 10061-02-6----trans-1, 3-Dichloropropene 51 U 79-00-5-----1,1,2-Trichloroethane 51 U

FORM I VOA

EPA SAMPLE NO.

FORM I VOA

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	1E ANICS ANALYSIS D	DATA SHEET	EPA SAMPLE NO.
TENTATIV Lab Name: MITKEM CORPORA		COMPOUNDS	B161920
Lab Code: MITKEM Case	No.: S	AS No.:	SDG No.: MF0378
Matrix: (soil/water) SOI	Б.	Lab Sample	ID: F0378-11A
Sample wt/vol: 0	.6 (g/mL) G	Lab File ID	: V5H6504
Level: (low/med) LOW		Date Receiv	ed: 03/24/07
% Moisture: not dec. 19		Date Analyz	ed: 04/05/07
GC Column: DB-624 ID:	0.25 (mm)	Dilution Fa	ctor: 1.0
Soil Extract Volume:	(mL)	Soil Aliquo	t Volume:(uL
		CONCENTRATION UNT	TS:

Number TICs found: 10

(ug/L or ug/Kg) ug/Kg

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CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	10.19	3100	=====  J
2.	UNKNOWN	10.38	3300	
3.	UNKNOWN	11.66	2600	
4.	UNKNOWN	12.54	3400	J
5.	UNKNOWN	12.73	4600	J
6.	UNKNOWN	12.89	2800	J
7. 89-82-7	PULEGONE	13.09	5000	
8.	UNKNOWN	13.46	3,900	
9.	UNKNOWN	13.85	4000	
10. 17301-23-4	UNDECANE, 2,6-DIMETHYL-	14.01	9300	NJ
11. 12 13.				. <u></u>
12.			· · · · · · · · · · · · · · · · · · ·	
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EPA SAMPLE NO.

VOLATILE	CORGANICS ANALYSI	S DATA SHEET	
Lab Name: MITKEM COR	PORATION	Contract:	B16235245
Lab Code: MITKEM	Case No.:	SAS No.: SI	G No.: MF0378
Matrix: (soil/water)	SOIL	Lab Sample II	): F0378-12A
Sample wt/vol:	1.1 (g/mL) G	Lab File ID:	V5H6496
Level: (low/med)	LOW	Date Received	: 03/24/07
% Moisture: not dec.	17	Date Analyzed	: 04/05/07
GC Column: DB-624	ID: 0.25 (mm)	Dilution Fact	or: 1.0
Soil Extract Volume:	(mL)	Soil Aliquot	Volume:(uL)
CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/	
$\begin{array}{c} 74-87-3\\ 75-01-4\\ 74-83-9\\ 75-00-3\\ 75-69-4\\ 75-35-4\\ 75-35-4\\ 75-09-2\\ 75-09-2\\ 156-60-5\\ 1634-04-4\\ 75-34-3\\ 108-05-4\\ 78-93-3\\ 78-93-3\\ 590-20-7\\ 78-97-5\\ 590-20-7\\ 74-97-5\\ 563-58-6\\ 563-58-6\\ 563-58-6\\ 563-58-6\\ 71-43-2\\ 79-01-6\\ 78-87-5\\ 74-95-3\\ 74-95-3\\ 74-95-3\\ 108-10-1\\ 108-88-3\\ 108-88-3\\ 10061-02-6\end{array}$	Iodomethane Carbon Disulfid Methylene Chlor trans-1,2-Dichl Methyl tert-but 	e ide oroethene yl ether ane oethene pane ane ethane pene oride ane coane thane propropene anone	27       U         27 <td< td=""></td<>

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#### 1A EPA SAMPLE NO. VOLATILE ORGANICS ANALYSIS DATA SHEET B16235245 Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM Case No.: SAS No.: SDG No.: MF0378 Matrix: (soil/water) SOIL Lab Sample ID: F0378-12A Sample wt/vol: 1.1 (g/mL) G Lab File ID: V5H6496 Level: (low/med) LOW Date Received: 03/24/07 % Moisture: not dec. 17 Date Analyzed: 04/05/07 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0 Soil Extract Volume: (mL) Soil Aliquot Volume: \_\_\_\_\_(uL) CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q 142-28-9-----1,3-Dichloropropane\_ 127-18-4-----Tetrachloroethene 27 U 27 11

	127-18-4Tetrachloroethene	27	jυ
	591-78-62-Hexanone	27	ע י
- È	124-48-1Dibromochloromethane	27	υ
	106-93-41,2-Dibromoethane	27	U
•	108-90-7Chlorobenzene	27	ប
	630-20-61,1,1,2-Tetrachloroethane	27	σ
	100-41-4Ethylbenzene	27	σ
	m,p-Xylene	27	U
	95-47-6o-Xylene	27	σ
	1330-20-7Xylene (Total)	27	ប
	100-42-5Styrene	27	σ
	75-25-2Bromoform	27	
	98-82-8Isopropylbenzene	27	
	79-34-51,1,2,2-Tetrachloroethane	27	υ
	108-86-1Bromobenzene	27	σ
	96-18-41,2,3-Trichloropropane	27	υ
	103-65-1n-Propylbenzene	27	υ
	95-49-82-Chlorotoluene	27	ប
	108-67-81,3,5-Trimethylbenzene	120	
	106-43-44-Chlorotoluene	27	Ū
ł	98-06-6tert-Butylbenzene	27	υ
	95-63-61,2,4-Trimethylbenzene	55	
	135-98-8sec-Butvlbenzene	27	Ū
	99-87-64-Isopropyltoluene	27	σ
	541-73-11,3-Dichlorobenzene	27	υ
	106-46-71,4-Dichlorobenzene	27	υ
1	104-51-8n-Butylbenzene	27	υ
	95-50-11,2-Dichlorobenzene	27	υ
	96-12-81,2-Dibromo-3-chloropropane	27	υ.
1	120-82-11,2,4-Trichlorobenzene	27	σ
	87-68-3Hexachlorobutadiene	27	σ
	91-20-3Naphthalene	27	U
1	87-61-61,2,3-Trichlorobenzene	27	υ
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FORM I VOA

1E VOLATILE ORGANICS ANALYSIS DATA SHEET			EPA SAMPLE NO.
	IVELY IDENTIFIED C	OMPOUNDS	B16235245
Lab Name: MITKEM CORPOR	RATION Con	tract:	
Lab Code: MITKEM Cas	se No.: S	AS No.: SD	G No.: MF0378
Matrix: (soil/water) SC	DIT.	Lab Sample ID	: F0378-12A
Sample wt/vol:	1.1 (g/mL) G	Lab File ID:	V5H6496
Level: (low/med) LO	W	Date Received	: 03/24/07
% Moisture: not dec. 17	,	Date Analyzed	: 04/05/07
GC Column: DB-624 ID	): 0.25 (mm)	Dilution Facto	or: 1.0
Soil Extract Volume:	(mL)	Soil Aliquot	Volume:(uL)
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Number TICs found: 10

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CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

OLM03.0

EPA SAMPLE NO.

						,
Lab Name: MITKEM CORF	ORATION C	Contract:		E	3162930	
Lab Code: MITKEM C	ase No.:	SAS No.:	SDG	No.:	: MF0378	
Matrix: (soil/water)	SOIL	Lab Samp	le ID:	F037	78-13A	
Sample wt/vol:	5.5 (g/mL) G	Lab File	D:	V1,I3	3756	
level: (low/med)	LOW	Date Rece	eived:	03/2	24/07	
Moisture: not dec.	15	Date Ana	lyzed:	04/0	5/07	
C Column: DB-624	ID: 0.25 (mm)	Dilution	Factor	r: 1.	0	
oil Extract Volume:_	(mL)	Soil Alio	quot Vo	olume		(uL)
CAS NO.	COMPOUND	CONCENTRATION ( (ug/L or ug/Kg)		7	Q	
$\begin{array}{c} 74-87-3\\ 75-01-4\\ 75-03-4\\ 75-69-4\\ 75-35-4\\ 75-35-4\\ 75-35-4\\ 75-09-2\\ 75-09-2\\ 156-60-5\\ 1634-04-4\\ 75-34-3\\ 108-05-4\\ 78-93-3\\ 78-93-3\\ 78-93-3\\ 78-93-3\\ 78-93-3\\ 78-93-3\\ 78-93-3\\ 78-93-3\\ 78-93-3\\ 563-58-6\\ 563-58-6\\ 563-58-6\\ 563-58-6\\ 71-43-2\\ 71-43-2\\ 78-87-5\\ 74-95-3\\ 74-95-3\\ 74-95-3\\ 74-95-3\\ 108-10-1\\ 108-88-3\\ 108-88-3\\ 10061-02-6\\ \end{array}$	Chloroethane Trichlorofluoron -Acetone -Iodomethane -Carbon Disulfide -Methylene Chlor: -trans-1,2-Dichlor -Methyl tert-buty -1,1-Dichloroetha -Vinyl acetate -2-Butanone -cis-1,2-Dichloroprop -Bromochlorometha -Chloroform -1,1,1-Trichloroe -1,2-Dichloroprop -Carbon Tetrachlo -1,2-Dichloroprop -Carbon Tetrachlo -1,2-Dichloroprop -Carbon Tetrachlo -1,2-Dichloroprop -Carbon Tetrachlo -1,2-Dichloroprop -Carbon Tetrachlo -1,2-Dichloroprop -Carbon Tetrachlo -1,2-Dichloroprop -Carbon Tetrachlo -1,2-Dichloroprop -Dibromomethane -Bromodichloromet -cis-1,3-Dichlorof -4-Methyl-2-penta	methane ene ide proethene y1 ether ane bethene pane ane chane poride ane bane chane propene mone chane		ש מ מ מ מ מ מ מ מ מ מ מ מ מ מ מ מ מ מ מ	ש ש ש ש	

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#### VOLATILE ORGANICS ANALYSIS DATA SHEET B162930 Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM Case No.: SAS No.: SDG No.: MF0378 Matrix: (soil/water) SOIL Lab Sample ID: F0378-13A Sample wt/vol: 5.5 (g/mL) G Lab File ID: V1I3756 Level: (low/med) LOW Date Received: 03/24/07 % Moisture: not dec. 15 Date Analyzed: 04/05/07

1A

COMPOUND

GC Column: DB-624 ID: 0.25 (mm)

Soil Extract Volume: \_\_\_\_(mL)

CAS NO.

Soil Aliquot Volume: \_\_\_\_\_(uL) CONCENTRATION UNITS:

Dilution Factor: 1.0

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

Q

EPA SAMPLE NO.

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142-28-91,3-Dichloropropane	5 U	
127-18-4Tetrachloroethene	5 U	
591-78-62-Hexanone	5 U	
124-48-1Dibromochloromethane	5 U 5 U 5 U 5 U 5 U 5 U 5 U 5 U	
106-93-41,2-Dibromoethane	50	
108-90-7Chlorobenzene	5 U	•
630-20-61,1,1,2-Tetrachloroethane	50	
100-41-4Ethylbenzene	5 0	
m,p-Xylene	5 U	
95-47-6o-Xylene	5 0	
1330-20-7Xylene (Total)	5 U 5 U	l
100-42-5Styrene	5 0	
75-25-2Bromoform	l 510	
98-82-8Isopropylbenzene	5 U 5 U 5 U	
79-34-51,1,2,2-Tetrachloroethane	5 0	
108-86-1Bromobenzene	5 U	
96-18-41,2,3-Trichloropropane	5 Ū	•
103-65-1n-Propylbenzene	5 0	
95-49-82-Chlorotoluene	5 0	
108-67-81,3,5-Trimethylbenzene	5 0	
106-43-44-Chlorotoluene	5 0	
98-06-6tert-Butylbenzene	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	
95-63-61,2,4-Trimethylbenzene	5 0	
135-98-8sec-Butylbenzene	5 0	
99-87-64-Isopropyltoluene	5 0	
541-73-11,3-Dichlorobenzene	5 0	
106-46-71,4-Dichlorobenzene	5 0	
104-51-8n-Butylbenzene	. 5 U	
95-50-11,2-Dichlorobenzene	5 U 5 U	
96-12-81,2-Dibromo-3-chloropropane	5 0	Í
120-82-11,2,4-Trichlorobenzene	5 U 5 U 5 U 5 U 5 U	
87-68-3Hexachlorobutadiene	5 U	-
91-20-3Naphthalene	5 0	
87-61-61,2,3-Trichlorobenzene	5 U	.

# FORM I VOA

1E VOLATILE ORGANICS ANALYSIS DA	EPA SAMPLE NO.	
TENTATIVELY IDENTIFIED CC	DMPOUNDS B162930	
Lab Name: MITKEM CORPORATION Cont	ract:	
Lab Code: MITKEM Case No.: SA	AS No.: SDG No.: MF0378	
Matrix: (soil/water) SOIL	Lab Sample ID: F0378-13A	
Sample wt/vol: 5.5 (g/mL) G	Lab File ID: V113756	
Level: (low/med) LOW	Date Received: 03/24/07	
% Moisture: not dec. 15	Date Analyzed: 04/05/07	
GC Column: DB-624 ID: 0.25 (mm)	Dilution Factor: 1.0	
Soil Extract Volume:(mL)	Soil Aliquot Volume:(u	L)
	ONCENTRATION UNITS: ug/L or ug/Kg) ug/Kg	

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CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	
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FORM I VOA-TIC

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VOLATILE ORGANICS ANALYSIS DATA SHEET B16B1920 Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM Case No.: SAS No.: SDG No.: MF0378 Matrix: (soil/water) SOIL Lab Sample ID: F0378-07A Sample wt/vol: 0.5 (g/mL) G Lab File ID: V5H6503 Level: (low/med)LOW Date Received: 03/24/07 % Moisture: not dec. 13 Date Analyzed: 04/05/07 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0 Soil Extract Volume: (mL) Soil Aliquot Volume: (uL) CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q 75-71-8-----Dichlorodifluoromethane 57 U 74-87-3-----Chloromethane 57 U 75-01-4-----Vinyl Chloride 57 U 74-83-9----Bromomethane 57 U 75-00-3-----Chloroethane 57 U 75-69-4-----Trichlorofluoromethane 57 U 75-35-4-----1,1-Dichloroethene 57 U 67-64-1-----Acetone 57 U 74-88-4----Iodomethane 57 U 75-15-0-----Carbon Disulfide 57 U 75-09-2-----Methylene Chloride 57 U 156-60-5-----trans-1,2-Dichloroethene 57 U 1634 04 4 Matina

	1634-04-4Methyl tert-butyl ether	57 U	L
	75-34-31,1-Dichloroethane	57 U	Í
1	108-05-4Vinyl acetate	ן 57 ע	
	78-93-32-Butanone	57 U	
1	156-59-2cis-1,2-Dichloroethene	57 ע	
1	590-20-72,2-Dichloropropane	57 U	l
I	74-97-5Bromochloromethane	57 U	
	67-66-3Chloroform	57 U	
I	71-55-61,1,1-Trichloroethane	57 0	
ĺ	563-58-61.1-Dichloropropene	57 U	
ł	56-23-5Carbon Tetrachloride	57 0	
ļ	107-06-21,2-Dichloroethane	57 U	ĺ
l	71-43-2Benzene	57 0	
İ	79-01-6Trichloroethene	57 0	
l	78-87-51,2-Dichloropropane	57 U	
	74-95-3Dibromomethane	57 0	
Į	75-27-4Bromodichloromethane	57 U	
	10061-01-5cis-1,3-Dichloropropene	57 0	
	108-10-14-Methyl-2-pentanone	57 U	
	108-88-3Toluene	57 U	
	10061-02-6trans-1,3-Dichloropropene	57 U	
	79-00-51,1,2-Trichloroethane	57 U	

#### FORM I VOA

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET B16B1920 Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM Case No.: SAS No.: SDG No.: MF0378 Matrix: (soil/water) SOIL Lab Sample ID: F0378-07A Sample wt/vol: 0.5 (q/mL) G Lab File ID: V5H6503 Level: (low/med) LOW Date Received: 03/24/07 % Moisture: not dec. 13 Date Analyzed: 04/05/07 GC Column: DB-624 ID: 0.25 Dilution Factor: 1.0 (mm)Soil Extract Volume: \_\_\_\_(mL) Soil Aliquot Volume: \_\_\_\_\_(uL) CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG 0 142-28-9-----1, 3-Dichloropropane 57 U 127-18-4-----Tetrachloroethene 57 U 591-78-6----2-Hexanone 57 U 124-48-1-----Dibromochloromethane 57 U 106-93-4-----1,2-Dibromoethane 57 U 108-90-7-----Chlorobenzene 57 U 630-20-6-----1,1,1,2-Tetrachloroethane 57 U 100-41-4----Ethylbenzene 57 U -----m,p-Xylene 57 U 95-47-6----o-Xylene 57 U 1330-20-7-----Xylene (Total) 57 U 100-42-5----Styrene 57 U 75-25-2----Bromoform 57 U 98-82-8-----Isopropylbenzene 57 U 79-34-5-----1,1,2,2-Tetrachloroethane 57 U 108-86-1----Bromobenzene 57 U 96-18-4-----1,2,3-Trichloropropane 57 U. 103-65-1----n-Propylbenzene 57 U 95-49-8----2-Chlorotoluene 57 U 108-67-8-----1,3,5-Trimethylbenzene 57 U 106-43-4-----4-Chlorotoluene 57 U 98-06-6-----tert-Butylbenzene 57 υ 95-63-6-----1,2,4-Trimethylbenzene 57 U 135-98-8-----sec-Butylbenzene 57 U 99-87-6-----4-Isopropyltoluene 57 U 541-73-1-----1,3-Dichlorobenzene 57 U 106-46-7-----1,4-Dichlorobenzene 57 U 104-51-8----n-Butylbenzene 57 U 95-50-1-----1,2-Dichlorobenzene 57 U 96-12-8-----1, 2-Dibromo-3-chloropropane 57 U 120-82-1-----1,2,4-Trichlorobenzene\_ 57 U 87-68-3-----Hexachlorobutadiene 57 U 91-20-3-----Naphthalene 57 U 87-61-6-----1,2,3-Trichlorobenzene 57 U

FORM I VOA

VOLATILE ORGANICS ANALYSIS	• •
TENTATIVELY IDENTIFIED	B16B1920
Lab Name: MITKEM CORPORATION Co	ontract:
Lab Code: MITKEM Case No.:	SAS No.: SDG No.: MF0378
Matrix: (soil/water) SOIL	Lab Sample ID: F0378-07A
Sample wt/vol: 0.5 (g/mL) G	Lab File ID: V5H6503
Level: (low/med) LOW	Date Received: 03/24/07
% Moisture: not dec. 13	Date Analyzed: 04/05/07
GC Column: DB-624 ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(mL)	Soil Aliquot Volume:(uL

1E

Number TICs found: 10

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT		0
		RT	EST. CONC.	
1. 2958-76-1	NAPHTHALENE, DECAHYDRO-2-MET	13.08		NT
2.	UNKNOWN	13.24	970	
	UNKNOWN	13.24	510	
3. 4.	UNKNOWN	13.44	630	
5. 17301-23-4	UNDECANE, 2,6-DIMETHYL-	14.00	1000	
6.	UNKNOWN	14.50	770	
7.	UNKNOWN	14.56	560	
8.	UNKNOWN	14.75	1400	
9.	UNKNOWN	15.30	600	
10. 3891-98-3	DODECANE, 2,6,10-TRIMETHYL-		1000	
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EPA SAMPLE NO.

EPA SAMPLE NO.

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DRATION Con	tract:	B16B225235
ase No.: S	AS No.: SE	G No.: MF0378
SOIL	Lab Sample ID	: F0378-08A
0.5 (g/mL) G	Lab File ID:	V5H6539
WO	Date Received	l: 03/24/07
L6	Date Analyzed	
	_	
-Chloromethane -Vinyl Chloride -Bromomethane -Trichlorofluoromet -Trichlorofluoromet -Trichlorofluoromet -Acetone -Iodomethane -Carbon Disulfide -Methylene Chloride -trans-1,2-Dichlorof -Methyl tert-butyl -1,1-Dichloroethane -Vinyl acetate -2-Butanone -Cis-1,2-Dichloroethane -Chloroform -1,1,1-Trichloroethane -Chloroform -1,1,2-Dichloropropar -Chloroform -1,2-Dichloropropar -Trichloroethane -Benzene -Trichloroethane -Bromodichloromethane -Bromodichloromethane -Bromodichloromethane -Cis-1,3-Dichloropropar -Toluene -trans-1,3-Dichloromethane	thane         e         e         bethene         ether         e         thene         e         ne         ide         e         ne         ide         e         ne         opene         propene         opropene	
	DRATION Con ase No.: S SOIL 0.5 (g/mL) G OW 6 D: 0.25 (mm) (mL) COMPOUND -Dichlorodifluorom -Chloromethane -Vinyl Chloride -Bromomethane -Chloroethane -Chloroethane -Chloroethane -Chloroethane -Chloroethane -Chloroethane -Chloroethane -Chloroethane -Chloroethane -Chloroethane -Carbon Disulfide -Methylene Chloride -trans-1,2-Dichloroethane -Cis-1,2-Dichloroethane -Cis-1,2-Dichloroethane -Chloroform -1,1,1-Trichloroethane -Chloroform -1,1,1-Trichloroethane -Chloroform -1,2-Dichloropropar -Benzene -Trichloroethane -Benzene -Trichloroethane -Benzene -Trichloroethane -Benzene -Trichloroethane -Benzene -Trichloroethane -Benzene -Trichloroethane -Benzene -Trichloroethane -Benzene -Trichloroethane -Benzene -Trichloroethane -Benzene -Trichloroethane -Benzene -Trichloroethane -Benzene -Trichloroethane -Benzene -Trichloroethane -Toluene -Troluene -trans-1,3-Dichloroethane	Ase No.: SAS No.: SI SOIL Lab Sample II 0.5 (g/mL) G Lab File ID: LOW Date Received LOW Date Received LOW Date Received LO Date Analyzed D: 0.25 (mm) Dilution Fact (mL) Soil Aliquot CONCENTRATION UNITS COMPOUND (ug/L or ug/Kg) UG/ -Dichlorodifluoromethane -Chloromethane -Chloromethane -Trichlorofluoromethane -Trichlorofluoromethane -Trichlorofluoromethane -Trichloroethene -Acetone -Iodomethane -Chloroethane -Trichloroethene -Acetone -Iodomethane -Carbon Disulfide -Methylene Chloride -Trichloroethene -Vinyl acetate -2-Butanone -Cis-1,2-Dichloroethene -2,2-Dichloropropane -Trichloromethane -Trichloroethene -1,1-Dichloroethene -1,1-Dichloroethene -1,2-Dichloroethene -1,2-Dichloroethene -1,2-Dichloroethene -1,2-Dichloroethene -1,2-Dichloroethene -1,2-Dichloroethene -1,2-Dichloroethene -1,2-Dichloropropane -Trichloroethene -1,2-Dichloropropane -Trichloroethene -1,2-Dichloropropane -Trichloroethene -1,2-Dichloropropane -Trichloroethene -1,2-Dichloropropane -Trichloroethene -1,2-Dichloropropane -Trichloroethene -1,2-Dichloropropane -Trichloroethene -1,2-Dichloropropane -Trichloroethene -Trichloro

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EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET B16B225235 Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM SAS No.: SDG No.: MF0378 Case No.: Matrix: (soil/water) SOIL Lab Sample ID: F0378-08A Sample wt/vol: 0.5 (g/mL) G Lab File ID: V5H6539 Level: (low/med)LOW Date Received: 03/24/07 % Moisture: not dec. 16 Date Analyzed: 04/06/07 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0 Soil Extract Volume: (mL) Soil Aliquot Volume: (uL) CONCENTRATION UNITS: CAS NO. (ug/L or ug/Kg) UG/KG 0 COMPOUND 142-28-9-----1, 3-Dichloropropane 60 U 127-18-4-----Tetrachloroethene 60 U 591-78-6----2-Hexanone 60 U 124-48-1-----Dibromochloromethane 60 U 106-93-4-----1,2-Dibromoethane 60 U 108-90-7-----Chlorobenzene 60 U 630-20-6-----1,1,1,2-Tetrachloroethane 60 U 100-41-4----Ethylbenzene 60 U 50 J -----m,p-Xylene 95-47-6----o-Xylene 60 U 1330-20-7-----Xylene (Total) 50 J 100-42-5----Styrene 60 U 75-25-2----Bromoform 60 U 98-82-8-----Isopropylbenzene 60 U 79-34-5-----1,1,2,2-Tetrachloroethane 60 U 108-86-1----Bromobenzene 60 U 96-18-4-----1,2,3-Trichloropropane 60 U 103-65-1----n-Propylbenzene 60 U 95-49-8-----2-Chlorotoluene 60 U 108-67-8-----1,3,5-Trimethylbenzene 480 106-43-4-----4-Chlorotoluene 60 U 98-06-6-----tert-Butylbenzene 60 U 95-63-6-----1,2,4-Trimethylbenzene 300 60 U 135-98-8----sec-Butylbenzene 99-87-6-----4-Isopropyltoluene 120 60 U 541-73-1-----1, 3-Dichlorobenzene 106-46-7-----1,4-Dichlorobenzene 60 U 104-51-8----n-Butylbenzene 60 U 95-50-1-----1,2-Dichlorobenzene 60 U 96-12-8-----1,2-Dibromo-3-chloropropane 60 U 120-82-1-----1,2,4-Trichlorobenzene 60 U 87-68-3-----Hexachlorobutadiene 60 U 91-20-3----Naphthalene 60 U 87-61-6-----1,2,3-Trichlorobenzene 60 U

# FORM I VOA

12	EPA SAMPLE NO.
VOLATILE ORGANICS ANALYSIS	DATA SHEET
TENTATIVELY IDENTIFIED	COMPOUNDS B16B225235
Lab Code: MITKEM Case No.:	SAS No.: SDG No.: MF0378
Matrix: (soil/water) SOIL	Lab Sample ID: F0378-08A
Sample wt/vol: 0.5 (g/mL) G	Lab File ID: V5H6539
Level: (low/med) LOW	Date Received: 03/24/07
% Moisture: not dec. 16	Date Analyzed: 04/06/07
GC Column: DB-624 ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(mL)	Soil Aliquot Volume:(uL)
Number TICs found: 11	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	· ~ ·
1.         2.       2051-30-1         3.         4.         5.         6.         7.       13151-34-3         8.         9.         10.       2958-76-1         11.         12.         13.         14.         15.         16.         17.         18.         19.         20.         21.         22.         23.         24.         25.         26.	UNKNOWN OCTANE, 2,6-DIMETHYL- UNKNOWN UNKNOWN UNKNOWN DECANE, 3-METHYL- UNKNOWN UNKNOWN NAPHTHALENE, DECAHYDRO-2-MET UNKNOWN	8.87 10.03 10.21 10.39 11.05 11.27 12.09 12.55 12.74	9200 9200 12000	
27 28 29 30				·

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EPA SAMPLE NO.

	The restrict particular ,	·
Lab Name: MITKEM CORPORATION	Contract:	B16B225235MS
Lab Code: MITKEM Case No.:	SAS No.: SDG	No.: MF0378
Matrix: (soil/water) SOIL	Lab Sample ID:	F0378-08AMS
Sample wt/vol: 1.0 (g/mL) G	Lab File ID:	V5H6499
Level: (low/med) LOW	Date Received:	03/24/07
% Moisture: not dec. 16	Date Analyzed:	04/05/07
GC Column: DB-624 ID: 0.25 (mm)	Dilution Facto	r: 1.0
Soil Extract Volume:(mL)	Soil Aliquot V	olume:(uL)
CAS NO. COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/K	G Q

75-71-8Dichlorodifluoromethane	250
74-87-3Chloromethane	
75-01-4Vinyl Chloride	220
74-83-9Bromomethane	260
75-00-3Chloroethane	230
75-69-4Trichlorofluoromethane	- 260
75-35-41,1-Dichloroethene	290
67-64-1Acetone	- 240
74-88-4Iodomethane	280
75-15-0Carbon Disulfide	230
75-09-2Methylene Chloride	- 270
156-60-5trans-1,2-Dichloroethene	290
1634-04-4Methyl tert-butyl ether	150
75-34-31,1-Dichloroethane	310
108-05-4Vinyl acetate	160
78-93-32-Butanone	280
156-59-2cis-1,2-Dichloroethene	320
590-20-72,2-Dichloropropane	180
74-97-5Bromochloromethane	370
67-66-3Chloroform	360
71-55-61,1,1-Trichloroethane	230
563-58-61,1-Dichloropropene	280
56-23-5Carbon Tetrachloride	230
107-06-21,2-Dichloroethane	420
71-43-2Benzene	310
79-01-6Trichloroethene	320
78-87-51,2-Dichloropropane	410
74-95-3Dibromomethane	340
75-27-4Bromodichloromethane	630
10061-01-5cis-1,3-Dichloropropene	290
108-10-14-Methyl-2-pentanone	55000 E
108-88-3Toluene	310
10061-02-6trans-1,3-Dichloropropene	340
79-00-51,1,2-Trichloroethane	23000 E

# FORM I VOA

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET B16B225235MS Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM SDG No.: MF0378 Case No.: SAS No.: Matrix: (soil/water) SOIL Lab Sample ID: F0378-08AMS Sample wt/vol: 1.0 (g/mL) GLab File ID: V5H6499 Level: (low/med) LOW Date Received: 03/24/07 % Moisture: not dec. 16 Date Analyzed: 04/05/07 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0 Soil Extract Volume: (mL) Soil Aliquot Volume: \_\_\_\_\_(uL) CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG 0 142-28-9-----1,3-Dichloropropane 330 127-18-4-----Tetrachloroethene 310 591-78-6----2-Hexanone 38000 E 124-48-1----Dibromochloromethane 410 106-93-4----1,2-Dibromoethane 310 108-90-7-----Chlorobenzene 300 630-20-6-----1,1,1,2-Tetrachloroethane 310 100-41-4----Ethylbenzene 300 -----m,p-Xylene 690 95-47-6----o-Xylene 240 1330-20-7-----Xylene (Total) 940 100-42-5----Styrene 240 75-25-2----Bromoform 290 98-82-8-----Isopropylbenzene 270 79-34-5-----1,1,2,2-Tetrachloroethane 290 108-86-1----Bromobenzene 200 96-18-4-----1,2,3-Trichloropropane 160 103-65-1----n-Propylbenzene 160 95-49-8-----2-Chlorotoluene 130 108-67-8-----1,3,5-Trimethylbenzene .730 106-43-4----4-Chlorotoluene 360 98-06-6-----tert-Butylbenzene 240 95-63-6-----1,2,4-Trimethylbenzene 310 135-98-8----sec-Butylbenzene 170 99-87-6-----4-Isopropyltoluene 330 541-73-1-----1,3-Dichlorobenzene 340 106-46-7-----1,4-Dichlorobenzene 320 104-51-8----n-Butylbenzene 770 95-50-1-----1,2-Dichlorobenzene 130 96-12-8-----1, 2-Dibromo-3-chloropropane 210 120-82-1-----1,2,4-Trichlorobenzene 95 87-68-3-----Hexachlorobutadiene 33 91-20-3-----Naphthalene 100 87-61-6-----1,2,3-Trichlorobenzene 64

# FORM I VOA

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EPA SAMPLE NO.

					B16B225235MSD	
Lab Na	ame: MITKEM COR	PORATION	Contract	:	· · · · · · · · · · · · · · · · · · ·	
Lab Co	ode: MITKEM	Case No.:	SAS No	.: SDO	G No.: MF0378	
Matriz	x: (soil/water)	SOIL		Lab Sample ID	: F0378-08AMSD	
Sample	e wt/vol:	1.0 (g/mL) G		Lab File ID:	V5H6500	
Level	(low/med)	LOW	1	Date Received	: 03/24/07	
% Mois	sture: not dec.	16		Date Analyzed	04/05/07	
GC Col	umn: DB-624	ID: 0.25 (mm)		Dilution Facto	or: 1.0	
Soil E	xtract Volume:	(mL)		Soil Aliquot V	/olume:(u	սե)
	CAS NO.	COMPOUND		VIRATION UNITS: or ug/Kg) UG/K		
•	75-71-8	Dichlorodifluo	romethane	<u>.</u>	260	

75-71-8Dichloro	difluoromethane	260	
74-87-3Chlorome	thane	200	
75-01-4Vinyl Cl	loride	. 220	·
74-83-9Bromomet	hane	260	
75-00-3Chloroet	hane	240	
75-69-4Trichlon	ofluoromethane	280	
75-35-41,1-Dich	loroethene	290	
67-64-1Acetone		360	
74-88-4Iodometh	ane	290	·
75-15-0Carbon I	isulfide	230	
75-09-2Methyler	e Chloride	280	
156-60-5trans-1,	2-Dichloroethene	300	
1634-04-4Methyl t	ert-butvl ether	230	·
75-34-31.1-Dich	loroethane	330	
108-05-4Vinvl ac	etate	170	
78-93-32-Butanc	ne	320	
156-59-2cis-1,2-	Dichloroethene	330	
590-20-72,2-Dich	loropropane	210	
74-97-5Bromoch1	oromethane	370	
67-66-3Chlorofo	rm	370	·
71-55-61,1,1-Tr	ichloroethane	260	
563-58-61,1-Dich	loropropene	300	
56-23-5Carbon T	etrachloride	260	1
107-06-21,2-Dich	loroethane	450	·
71-43-2Benzene		330	
79-01-6Trichlor	pethene	340	·
78-87-51,2-Dich	loropropane	420	
74-95-3Dibromom	ethane	360	
75-27-4Bromodic	loromethane	570	
10061-01-5cis-1,3-	Dichloropropene	300	
108-10-14-Methyl	-2-pentanone	50000	E
108-88-3Toluene		330	
10061-02-6trans-1,	B-Dichloropropene	370	
79-00-51,1,2-Tr:	.chloroethane	21000	E

FORM I VOA

EPA SAMPLE NO.

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Lab Name: MITKEM CORI	PORATION	Contract:	B16B225235M	SD
Lab Code: MITKEM (	Case No.:	SAS No.:	SDG No.: MF0378	
Matrix: (soil/water)	SOIL	Lab Sample 1	D: F0378-08AMS	D
Sample wt/vol:	1.0 (g/mL) G	Lab File ID:	V5H6500	
Level: (low/med)	LOW	Date Receive	ed: 03/24/07	
% Moisture: not dec.	16	Date Analyze	ed: 04/05/07	
GC Column: DB-624	ID: 0.25 (mm)	Dilution Fac	tor: 1.0	
Soil Extract Volume:_	(mL)	Soil Aliquot	Volume:	(uL)
CAS NO.	COMPOUND	CONCENTRATION UNIT (ug/L or ug/Kg) UG		

142-28-91,3-Dichloropropane	330	
127-18-4Tetrachloroethene	310	
591-78-62-Hexanone	78000	Ē
124-48-1Dibromochloromethane	400	
106-93-41,2-Dibromoethane	310	·
108-90-7Chlorobenzene	300	
630-20-61,1,1,2-Tetrachloroethane	320	·
100-41-4Ethylbenzene	300	
m,p-Xylene	670	
95-47-6o-Xylene	230	
1330-20-7Xylene (Total)	900	
100-42-5Styrene	250	·
75-25-2Bromoform	290	
98-82-8Isopropylbenzene	290	· ·
79-34-51,1,2,2-Tetrachloroethane	190	·
108-86-1Bromobenzene	190	
96-18-41,2,3-Trichloropropane	160	
103-65-1n-Propylbenzene	160	
95-49-82-Chlorotoluene	130	I .
108-67-81,3,5-Trimethylbenzene	670	
106-43-44-Chlorotoluene	330	
98-06-6tert-Butylbenzene	220	
95-63-61,2,4-Trimethylbenzene	350	
135-98-8sec-Butylbenzene	150	
99-87-64-Isopropyltoluene	310	
541-73-11,3-Dichlorobenzene	350	
106-46-71,4-Dichlorobenzene	330	·
104-51-8n-Butylbenzene	660	
95-50-11,2-Dichlorobenzene	130	
96-12-81,2-Dibromo-3-chloropropane	210	
120-82-11,2,4-Trichlorobenzene	91	· ·
87-68-3Hexachlorobutadiene	27	J
91-20-3Naphthalene	83	
87-61-61,2,3-Trichlorobenzene	57	
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• FORM I VOA

# 1A ·

EPA SAMPLE NO.

VOLATI	E ORGANICS ANALYSI	S DATA SHEET		
			B16B2930	-
Lab Name: MITKEM COF	RPORATION	Contract:		_
Lab Code: MITKEM	Case No.:	SAS No.:	SDG No.: MF0378	
Matrix: (soil/water)	SOIL	Lab Sample	e ID: F0378-09A	
Sample wt/vol:	5.2 (g/mL) G	Lab File I	D: V113757	
Level: (low/med)	LOW	Date Recei	ved: 03/24/07	
% Moisture: not dec.	17	Date Analy	vzed: 04/05/07	
GC Column: DB-624	ID: 0.25 (mm)	Dilution H	factor: 1.0	
Soil Extract Volume:	(mL)	Soil Aliqu	ot Volume:	_(uI
CAS NO.	COMPOUND	CONCENTRATION UN (ug/L or ug/Kg)		
$\begin{array}{c} 74-87-3\\ 75-01-4\\ 75-00-3\\ 75-69-4\\ 75-35-4\\ 75-35-4\\ 75-35-4\\ 75-09-2\\ 156-60-5\\ 1634-04-4\\ 75-34-3\\ 1634-04-4\\ 75-34-3\\ 108-05-4\\ 78-93-3\\ 108-05-4\\ 74-97-5\\ 590-20-7\\ 74-97-5\\ 590-20-7\\ 74-97-5\\ 563-58-6\\ 563-58-6\\ 563-58-6\\ 563-58-6\\ 71-43-2\\ 79-01-6\\ 78-87-5\\ 74-95-3\\ 74-95-3\\ 74-95-3\\ 108-88-3\\ 108-88-3\\ 10061-02-6\end{array}$	Iodomethane Carbon Disulfid Methylene Chlor trans-1,2-Dichl Methyl tert-but Nethyl tert-but Vinyl acetate 2-Butanone 2-Butanone 2,2-Dichloropro Bromochlorometh Chloroform 1,1,1-Trichloro 1,1-Dichloropro Carbon Tetrachl 1,2-Dichloroeth Benzene Trichloroethene 1,2-Dichloropro Dibromomethane Bromodichloromethane 	methane methane ide oroethene y1 ether ane oethene pane ane ethane pene oride ane pane thane pane pane ane pone oride ane pone oride ane	G       G	

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EPA SAMPLE NO.

B16B2930 Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM Case No.: SAS No.: SDG No.: MF0378 Matrix: (soil/water) SOIL Lab Sample ID: F0378-09A Sample wt/vol: 5.2 (g/mL) G Lab File ID: V1I3757 (low/med)Level: LOW Date Received: 03/24/07 % Moisture: not dec. 17 Date Analyzed: 04/05/07 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0 Soil Aliquot Volume: (uL) Soil Extract Volume: (mL) CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q 142-28-9-----1,3-Dichloropropane 6 U 127-18-4-----Tetrachloroethene 6 U 6 591-78-6-----2-Hexanone U 124-48-1----Dibromochloromethane U 6 106-93-4----1,2-Dibromoethane U 6 108-90-7-----Chlorobenzene U 6 630-20-6-----1,1,1,2-Tetrachloroethane U 6 100-41-4----Ethylbenzene 6 U U -----m,p-Xylene 6 95-47-6----o-Xylene 6 U 1330-20-7-----Xylene (Total) 6 Ū 100-42-5-----Styrene 6 U 75-25-2----Bromoform 6 U U 98-82-8-----Isopropylbenzene 6 79-34-5-----1,1,2,2-Tetrachloroethane 6 U 108-86-1----Bromobenzene 6 υ 96-18-4-----1,2,3-Trichloropropane 6 Ū 103-65-1----n-Propylbenzene 6 Ū 95-49-8-----2-Chlorotoluene 6 U 108-67-8-----1,3,5-Trimethylbenzene 6 U 6 106-43-4-----4-Chlorotoluene υ 98-06-6-----tert-Butylbenzene 6 U 6 95-63-6-----1,2,4-Trimethylbenzene U 135-98-8-----sec-Butylbenzene 6 U 99-87-6-----4-Isopropyltoluene 6 U 541-73-1-----1, 3-Dichlorobenzene 6 U 106-46-7-----1,4-Dichlorobenzene 6 U 104-51-8----n-Butylbenzene 6 U 95-50-1-----1,2-Dichlorobenzene 6 U 96-12-8-----1,2-Dibromo-3-chloropropane 6 U 120-82-1-----1,2,4-Trichlorobenzene б U 87-68-3-----Hexachlorobutadiene 6 U 91-20-3-----Naphthalene 6 U 87-61-6-----1,2,3-Trichlorobenzene 6 IJ

FORM I VOA

	1E CILE ORGANICS ANALYS			EPA SAME	PLE NO.	
Lab Name: MITKEM	ENTATIVELY IDENTIFIE CORPORATION	ED COMPOUNDS	3	B16B29	30	
Lab Code: MITKEM		SAS No.:		SDG No.: MF0	378	-1
Matrix: (soil/wat	er) SOIL	La	b Sample	ID: F0378-09	A	
Sample wt/vol:	5.2 (g/mL) G	La	b File II	): V1I3757		
Level: (low/med	) LOW	Da	te Receiv.	red: 03/24/07		
% Moisture: not d	ec. 17	Da	te Analyz	ed: 04/05/07	<i>:</i>	
GC Column: DB-624	ID: 0.25 (mm)	Di	lution Fa	ctor: 1.0		
Soil Extract Volu	me:(mL)	So	il Aliquo	t Volume:		(uL)
Number TICs found	d: 0		ATION UNI ug/Kg) u		×	
CAS NUMBER	COMPOUND NA	ME	RT	EST. CONC.	Q	

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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EPA SAMPLE NO.

VOLATILE	ORGANICS ANALYSIS	DATA SHEET	t	
				B16C
Lab Name: MITKEM COR	PORATION	ontract:		
Lab Code: MITKEM	Case No.:	SAS No.:	SDG No.	: MF0378
Matrix: (soil/water)	SOIL	Lab Sa	ample ID: F03	78-10A
Sample wt/vol:	2.7 (g/mL) G	Lab F	ile ID: V5H	6495
Level: (low/med)	LOW	Date I	Received: 03/2	24/07
% Moisture: not dec.	15	Date A	Analyzed: 04/0	05/07
GC Column: DB-624	ID: 0.25 (mm)	Diluti	ion Factor: 1	.0
Soil Extract Volume:	(mL)	Soil A	Aliquot Volume	e: (u
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CAS NO.	COMPOUND	CONCENTRATIC (ug/L or ug/		Q
	Dichlorodifluoro	methane		
	Vinyl Chloride			- U - U
74-83-9	Bromomethane			
75-00-3	Chloroethane			U U
75-69-4	Trichlorofluorom	ethane		UUUUU
75-35-4	1,1-Dichloroethe			υ
67-64-1	Acetone		38	
74-88-4				. <del>.</del>
	Carbon Disulfide			
75-09-2	Methylene Chlori	<u>do</u>		U
156-60-5	trans-1,2-Dichlo	recthere		σ
	Methyl tert-buty			U
	1,1-Dichloroetha			σ
	Vinyl acetate			U
78-93-3	2 Butanana	·····		U
	2-Buldhone			σ
	cis-1,2-Dichloro	ecnene		U
	2,2-Dichloroprop	ane		U
67-66-3	BLOHOCHLOPOHecha			<u></u>
71_55_6		- lange		U
FC2_E2_C	1,1,1-Trichloroe			U I
503-58-0	Carbon Tetrachlo			
	1,2-Dichloroetha		. 11	-
71-43-2	Ponzono	ue	11	
	Trichloroethene		11	
. 79-01-0			11	
7/-05.2	1,2-Dichloropropa Dibromomethane	9116	11	
	Dibromomethane Bromodichlorometh		11	
			11	
	cis-1,3-Dichloro	propene	11	
	4-Methyl-2-pentai	none	11	
		· · · · · · · · · · · · · · · · · · ·	11	
	trans-1,3-Dichlor	ropropene	11	
[ /9-00-5	1,1,2-Trichloroet		11	σ
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FORM I VOA

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1A VOLATILE ORGANICS ANALYSIS DAT	EPA SAMPLE NO. TA SHEET
	B16C
Lab Name: MITKEM CORPORATION Conti	ract:
Lab Code: MITKEM Case No.: SAS	S No.: SDG No.: MF0378
Matrix: (soil/water) SOIL	Lab Sample ID: F0378-10A
Sample wt/vol: 2.7 (g/mL) G	Lab File ID: V5H6495
Level: (low/med) LOW	Date Received: 03/24/07
% Moisture: not dec. 15	Date Analyzed: 04/05/07
GC Column: DB-624 ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(mL)	Soil Aliquot Volume:(uL)
	DNCENTRATION UNITS: 1g/L or ug/Kg) UG/KG Q
$\begin{array}{c} 142-28-91, 3-\text{Dichloropropane}\\ 127-18-4Tetrachloroethene\\ 591-78-62-Hexanone\\ 124-48-1Dibromochloromethane\\ 106-93-41, 2-Dibromoethane\\ 108-90-7Chlorobenzene\\ 630-20-61, 1, 1, 2-Tetrachloroethane\\ 100-41-4Ethylbenzene\\$	11       U         11 <td< td=""></td<>

FORM I VOA

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1E	EPA SAMPLE NO.
VOLATILE ORGANICS ANALYSIS	
TENTATIVELY IDENTIFIED	COMPOUNDS B16C
Lab Name: MITKEM CORPORATION Co	ontract:
Lab Code: MITKEM Case No.:	SAS No.: SDG No.: MF0378
Matrix: (soil/water) SOIL	Lab Sample ID: F0378-10A
Sample wt/vol: 2.7 (g/mL) G	Lab File ID: V5H6495
Level: (low/med) LOW	Date Received: 03/24/07
% Moisture: not dec. 15	Date Analyzed: 04/05/07
GC Column: DB-624 ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(mL)	Soil Aliquot Volume:(uL)

1E

Number TICs found: 10

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	~
$\begin{array}{c} 1.\\ 2.\\ 3. & 2051-30-1\\ 4.\\ 5.\\ 6.\\ 7.\\ 8.\\ 9. & 13151-34-3\\ 10.\\ 11.\\ 12.\\ 13.\\ 14.\\ 15.\\ 16.\\ 17.\\ 18.\\ 19.\\ 20.\\ 21.\\ 22.\\ 23.\\ 24.\\ 25.\\ 26.\\ 27.\\ \end{array}$	UNKNOWN UNKNOWN OCTANE, 2,6-DIMETHYL- UNKNOWN UNKNOWN UNKNOWN DECANE, 3-METHYL- UNKNOWN	RT 9.03 9.89 10.05 10.20 10.52 11.42 11.76 11.96 12.11 12.74		си с с с с с с с с с с с с с с с с с с
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#### 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B16CRE Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM Case No.: SAS No.: SDG No.: MF0378 Matrix: (soil/water) SOIL Lab Sample ID: F0378-10ARE 1.0 (q/mL) GSample wt/vol: Lab File ID: V5H6538 Level: (low/med) Date Received: 03/24/07 LOW % Moisture: not dec. 15 Date Analyzed: 04/06/07 GC Column: DB-624 Dilution Factor: 1.0 ID: 0.25 (mm) Soil Extract Volume: (mL) Soil Aliquot Volume: (uL) CONCENTRATION UNITS: CAS NO. (ug/L or ug/Kg) UG/KG COMPOUND Q 29 U 75-71-8-----Dichlorodifluoromethane 74-87-3----Chloromethane 29 U 75-01-4-----Vinyl Chloride 29 U 29 U 74-83-9----Bromomethane 75-00-3-----Chloroethane 29 U 75-69-4-----Trichlorofluoromethane 29 U 75-35-4-----1,1-Dichloroethene 29 U 67-64-1----Acetone 29 U 74-88-4----Iodomethane 29 U 75-15-0-----Carbon Disulfide 29 U 75-09-2-----Methylene Chloride 29 U 156-60-5-----trans-1,2-Dichloroethene 29 U 1634-04-4-----Methyl tert-butyl ether 29 U 75-34-3-----1,1-Dichloroethane 29 U 108-05-4----Vinyl acetate 29 U 78-93-3----2-Butanone 29 U 156-59-2----cis-1,2-Dichloroethene 29 U 590-20-7-----2,2-Dichloropropane 29 U 74-97-5-----Bromochloromethane 29 U 67-66-3-----Chloroform 29 U 71-55-6-----1,1,1-Trichloroethane 29 U 563-58-6-----1, 1-Dichloropropene 29 U 56-23-5-----Carbon Tetrachloride 29 U 107-06-2-----1,2-Dichloroethane 29 U 71-43-2----Benzene 29 U 79-01-6-----Trichloroethene 29 U 78-87-5-----1,2-Dichloropropane 29 U 74-95-3-----Dibromomethane 29 U 75-27-4-----Bromodichloromethane 29 U 10061-01-5----cis-1,3-Dichloropropene 29 U 108-10-1-----4-Methyl-2-pentanone 29 U 108-88-3----Toluene 29 U 10061-02-6----trans-1,3-Dichloropropene 29 U 79-00-5-----1,1,2-Trichloroethane 29 U

## FORM I VOA

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET B16CRE Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM Case No.: SAS No.: SDG No.: MF0378 Matrix: (soil/water) SOIL Lab Sample ID: F0378-10ARE Sample wt/vol: 1.0 (q/mL) GLab File ID: V5H6538 Level: (low/med) LOW Date Received: 03/24/07 % Moisture: not dec. 15 Date Analyzed: 04/06/07 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0 Soil Extract Volume: \_\_\_\_(mL) Soil Aliquot Volume: (uL) CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q 142-28-9-----1, 3-Dichloropropane 29 U 127-18-4-----Tetrachloroethene 29 U 591-78-6----2-Hexanone 29 U 124-48-1-----Dibromochloromethane 29 U 106-93-4-----1,2-Dibromoethane 29 U 108-90-7-----Chlorobenzene 29 U 630-20-6-----1,1,1,2-Tetrachloroethane 29 U 100-41-4----Ethylbenzene 29 U -----m,p-Xylene 29 U 95-47-6----o-Xylene 29 U 1330-20-7-----Xylene (Total) 29 U 100-42-5-----Styrene 29 U 75-25-2-----Bromoform 29 U 98-82-8-----Isopropylbenzene 29 U 79-34-5-----1,1,2,2-Tetrachloroethane 29 U 108-86-1----Bromobenzene 29 Ŭ 96-18-4-----1,2,3-Trichloropropane 29 U 103-65-1----n-Propylbenzene 29 Ū 95-49-8-----2-Chlorotoluene 29 U 108-67-8-----1,3,5-Trimethylbenzene 100 106-43-4-----4-Chlorotoluene 29 U 98-06-6-----tert-Butylbenzene 29 U 95-63-6-----1,2,4-Trimethylbenzene 29 U 135-98-8-----sec-Butylbenzene 29 U 99-87-6-----4-Isopropyltoluene 29 U 541-73-1-----1,3-Dichlorobenzene 29 U 106-46-7-----1,4-Dichlorobenzene 29 U 104-51-8----n-Butylbenzene 29 U 95-50-1-----1,2-Dichlorobenzene 29 Ū 96-12-8-----1,2-Dibromo-3-chloropropane 29 U 120-82-1-----1,2,4-Trichlorobenzene 29 U 87-68-3-----Hexachlorobutadiene 29 U 91-20-3-----Naphthalene 29 U 87-61-6-----1,2,3-Trichlorobenzene 29 U

FORM I VOA

1E	EPA SAMPLE NO.	
VOLATILE ORGANICS ANALYSIS TENTATIVELY IDENTIFIED	•	
Lab Name: MITKEM CORPORATION CO	ontract:	
Lab Code: MITKEM Case No.:	SAS No.: SDG No.: MF0378	
Matrix: (soil/water) SOIL	Lab Sample ID: F0378-10ARE	
Sample wt/vol: 1.0 (g/mL) G	Lab File ID: V5H6538	
Level: (low/med) LOW	Date Received: 03/24/07	
% Moisture: not dec. 15	Date Analyzed: 04/06/07	
GC Column: DB-624 ID: 0.25 (mm)	Dilution Factor: 1.0	
Soil Extract Volume:(mL)	Soil Aliquot Volume:(u	<b>ட</b> ்)
Number TICs found: 10	CONCENTRATION UNITS: (ug/L or ug/Kq) ug/Kq	

(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	· ~
1. 2. 13151-34-3 3. 4. 5. 17312-54-8 6. 2958-76-1 7. 8. 1002-43-3 9. 10. 17301-23-4	UNKNOWN DECANE, 3-METHYL- UNKNOWN UNKNOWN DECANE, 3,7-DIMETHYL- NAPHTHALENE, DECAHYDRO-2-MET UNKNOWN UNDECANE, 3-METHYL- UNKNOWN	$10.51 \\ 12.09 \\ 12.68 \\ 12.74 \\ 12.89 \\ 13.10 \\ 13.35 \\ 13.46 \\ 13.85 $	3800 4000 6900 4000 5000 5200 4900 5800	J NJ J J NJ J NJ J J
10. 17301-23-4 $11.$ $12.$ $13.$ $14.$ $15.$ $16.$ $17.$ $18.$ $19.$ $20.$ $21.$ $22.$ $23.$ $24.$ $25.$ $26.$ $27.$ $28.$			9300	
28. 29. 30.		· · · · · · · · · · · · · · · · · · ·		

FORM I VOA-TIC

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#### 1A VOLATTLE OPCANTOS ANALVETE DATA CLEEP

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EPA SAMPLE NO.

	ORGANICS ANALISI	S DAIA SHEET	. –		·
Lab Name: MITKEM COF	PORATION	Contract:		DW-192	0
Lab Code: MITKEM	Case No.:	SAS No.:	SDG	No.: MF03	78
Matrix: (soil/water)	SOIL	Lab S	ample ID:	F0378-15A	
Sample wt/vol:	1.0 (g/mL) G	Lab F	Tile ID:	<b>V</b> 5H6534	
Level: (low/med)	LOW	Date	Received:	03/24/07	
* Moisture: not dec.		Date .	Analyzed:	04/06/07	
GC Column: DB-624			ion Factor		
Soil Extract Volume:	(mL)		Aliquot Vo	lume:	(uL)
CAS NO.	COMPOUND	CONCENTRATIO		Q	
$\begin{array}{c} 74-87-3\\ 75-01-4\\ 75-01-4\\ 75-00-3\\ 75-09-4\\ 75-35-4\\ 75-35-4\\ 75-09-2\\ 75-09-2\\ 75-09-2\\ 75-09-2\\ 75-09-2\\ 75-34-3\\ 75-34-3\\ 75-34-3\\ 78-93-3\\ 78-93-3\\ 78-93-3\\ 78-93-3\\ 78-93-3\\ 74-97-5\\ 74-97-5\\ 74-97-5\\ 74-97-5\\ 74-97-5\\ 74-97-5\\ 74-97-5\\ 74-97-5\\ 74-97-5\\ 74-97-5\\ 74-97-5\\ 74-97-5\\ 74-95-3\\ 74-95-3\\ 74-95-3\\ 75-27-4\\ 108-88-3\\ 108-88-3\\ 10061-02-6\end{array}$	Iodomethane Carbon Disulfid Methylene Chlor trans-1,2-Dichl Methyl tert-but Nethyl tert-but Vinyl acetate 2-Butanone 	methane   ide   ide   oroethene   yl ether   ane   oethene   pane   ane   oethene   pane   ane   opene   oride   ane   opene   opide   ane   opene   opide   ane   opide   ane <tr< td=""><td></td><td>30       U         30       <td< td=""><td></td></td<></td></tr<>		30       U         30 <td< td=""><td></td></td<>	

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Lab Name:         MITKEM CORPORATION         Contract:           Lab Code:         MITKEM         Case No.:         SAS No.:         SIG No.:         MF0378           Matrix:         (soil/water)         SOIL         Lab Sample ID:         F0378-15A           Sample wt/vol:         1.0 (g/mL) G         Lab File ID:         V5H6534           Level:         (low/med)         LOW         Date Received:         03/24/07           % Moisture:         not dec.         18         Date Analyzed:         04/06/07           GC Column:         DB-624         DD:         0.25 (mm)         Dilution Factor:         1.0           Soil Extract Volume:        (mL)         Soil Aliquot Volume:        (uL)           CAS NO.         COMPOUND         (ug/L or ug/Kg) UG/KG         Q           142-28-9	v	1A OLATILE ORGANICS ANALY	YSIS DATA SHEET	EPA	SAMPLE NO.
Lab Code: MITKEM Case No.:       SAS No.:       SDG No.: MF0378         Matrix: (soil/water) SOIL       Lab Sample ID; F0378-15A         Sample wt/vol:       1.0 (g/mL) G       Lab File ID; V5H6534         Level: (low/med) LOW       Date Received: 03/24/07         % Moisture: not dec. 18       Date Analyzed: 04/06/07         GC Column: DB-624       D: 0.25 (mm)       Dilution Factor: 1.0         Soil Extract Volume:			- · ·	I	W-1920
Matrix:       (soil/water) SOIL       Lab Sample ID: F0378-15A         Sample wt/vol:       1.0 (g/mL) G       Lab File ID: V5H6534         Level:       (low/med) LOW       Date Received: 03/24/07         % Moisture: not dec. 18       Date Analyzed: 04/06/07         GC Column: DB-624       ID: 0.25 (mm)       Dilution Factor: 1.0         Soil Extract Volume:      (mL)       Soil Aliquot Volume:      (uL)         Soil Extract Volume:      (mL)       Soil Aliquot Volume:      (uL)         CAS NO.       COMPOUND       CONCENTRATION UNITS:       Q         CAS NO.       COMPOUND       CONCENTRATION UNITS:       Q         127-18-4	Lab Name: MLT	KEM CORPORATION	Contract:		
Sample wt/vol:       1.0 (g/mL) 6       Lab File ID:       V5H6534         Level:       (low/med) LOW       Date Received:       03/24/07         % Moisture:       not dec.       18       Date Analyzed:       04/06/07         GC Column:       DB-624       ID:       0.25 (mm)       Dilution Factor:       1.0         Soil Extract Volume:      (mL)       Soil Aliquot Volume:      (uL)         Soil Extract Volume:      (mL)       Soil Aliquot Volume:      (uL)         CAS NO.       COMPOUND       (ug/L or ug/Kg) UE/Kg       Q         142-28-9	Lab Code: MIT	KEM Case No.:	SAS No.:	SDG No.:	MF0378
Level:       (low/med)       LOW       Date Received: 03/24/07         % Moisture:       not dec. 18       Date Analyzed: 04/06/07         GC Column:       DB-624       ID: 0.25 (mm)       Dilution Factor: 1.0         Soil Extract Volume:      (mL)       Soil Aliquot Volume:      (uL)         Soil Extract Volume:      (mL)       Soil Aliquot Volume:      (uL)         CONCENTRATION UNITS:       CONCENTRATION UNITS:       Q         Table	Matrix: (soil	/water) SOIL	Lab Sam	mple ID: F037	/8-15A
<pre>% Moisture: not dec. 18 Date Analyzed: 04/06/07 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0 Soil Extract Volume:(mL) Soil Aliquot Volume:(uL) Soil Extract Volume:(mL) CONCENTRATION UNITS: CAS NO. COMPOUND CONFORME 30 U 127-18-4</pre>	Sample wt/vol	: 1.0 (g/mL) (	lab Fil	le ID: V5H6	534
GC Column: DB-624       ID: 0.25 (mm)       Dilution Factor: 1.0         Soil Extract Volume:(mL)       Soil Aliquot Volume:(uL)         CONCENTRATION UNITS:       CONCENTRATION UNITS:         CAS NO.       COMPOUND       (ug/L or ug/Kg) UG/KG       Q         142-28-9	Level: (low,	/med) LOW	Date Re	eceived: 03/2	24/07
Soil Extract Volume:       (mL)       Soil Aliquot Volume:       (uL)         CAS NO.       COMPOUND       CONCENTRATION UNITS:       Q         142-28-91, 3-Dichloropropane       30 U       30 U         137-18-4Tetrachloroethene       30 U       30 U         137-18-4	% Moisture: no	ot dec. 18	Date An	alyzed: 04/0	6/07
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	GC Column: DB-	-624 ID: 0.25 (mm)	Dilutio	n Factor: 1.	0
CAS NO.       COMPOUND       (ug/L or ug/Kg) UG/KG       Q $142-28-9-\dots-1, 3-Dichloropropane       30 U       127-18-4       30 U         127-18-4-\dots-7etrachloroethene       30 U       0U         591-78-6-\dots-2-Hexanone       30 U       0U         124-48-1-\dots-Dibromochloromethane       30 U       0U         106-93-4-\dots-2-Hexanone       30 U       0U         108-90-7-\dots-Chlorobenzene       30 U       0U         630-20-6-\dots-1, 1, 1, 2-Dibromoethane       30 U       0U         630-20-6-\dots-1, 2, Dibromoethane       30 U       0U         100-41-4-\dots-Ethylbenzene       30 U       0U         95-47-6-\dots-0-Xylene       30 U       0U         1330-20-7-\dots-Xylene       30 U       0U         1330-20-7-\dots-Xylene       30 U       0U         75-25-2-\dots-Styrene       30 U       0U         79-34-5-\dots-1, 1, 2, 2-Tetrachloroethane       30 U       0U         96-18-4-\dots-1, 2, 3-Trichloropropane       30 U       0U         108-66-1-\dots-1, 2-Chlorotoluene       30 U       0U         95-63-6-\dots-1, 2, 4-Trimethylbenzene       30 U       0U         95-63-6-\dots-1, 2, 4-Trimethylbenzene       30 U       0U         95-63-6-\dots-1, 2, 4-Trimethylbenzene       $	Soil Extract V	/olume:(mL)	Soil Al	iquot Volume	::(uL)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	CAS NO.	COMPOUND			Q
	$\begin{array}{c} 127-18-\\ 591-78-\\ 124-48-\\ 106-93-\\ 108-90-\\ 630-20-\\ 100-41-\\\\ 95-47-6\\ 1330-20\\ 100-42-\\ 75-25-2\\ 98-82-8\\ 79-34-5\\ 108-86-\\ 96-18-4\\ 103-65-\\ 95-49-8\\ 108-67-\\ 106-43-\\ 98-06-6\\ 95-63-6\\ 135-98-\\ 99-87-6\\ 541-73-\\ 106-46-\\ 104-51-\\ 95-50-1\\ 96-12-8\\ 120-82-\\ 87-68-3\end{array}$	4Tetrachloroe 62-Hexanone 1Dibromochlor 4Chlorobenzen 6Chlorobenzen 6Reprosent 4Reprosent 	thene   omethane   thane   e   achloroethane   achloroethane   1)   zene   achloroethane   l)   zene   achloroethane   oropropane   achloroethane   oropropane   ene   hylbenzene   ene   hylbenzene   openzene   openzene   benzene   achloropropane   openzene   benzene   achloropropane	30 30 30 30 30 30 30 30 30 30 30 30 30 3	
	87-61-6	1,2,3-Trichlo	probenzene		

FORM I VOA

OLM03.0

	1E RGANICS ANALYSIS :		EPA SAMPLE NO.
TENTATI Lab Name: MITKEM CORPOR	VELY IDENTIFIED RATION CO	COMPOUNDS	DW-1920
Lab Code: MITKEM Cas	e No.:	SAS No.:	SDG No.: MF0378
Matrix: (soil/water) SO	DII	Lab Sample :	ID: F0378-15A
Sample wt/vol:	1.0 (g/mL) G	Lab File ID	<b>v</b> 5H6534
Level: (low/med) LO	W	Date Receive	ed: 03/24/07
% Moisture: not dec. 18		Date Analyze	ed: 04/06/07
GC Column: DB-624 ID	: 0.25 (mm)	Dilution Fac	ctor: 1.0
Soil Extract Volume:	(mL)	Soil Aliquot	Volume:(uL)

Number TICs found: 10

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 2958-76-1 2. 3. 4. 5.	NAPHTHALENE, DECAHYDRO-2-MET UNKNOWN UNKNOWN UNKNOWN UNKNOWN	$   \begin{array}{r} 13.09 \\     13.24 \\     13.34 \\     13.46 \\     14.00 \\   \end{array} $	180 170 170 170 270	UN J J J J J J
7. 8. 9.	CYCLOHEXANE, 2-BUTYL-1,1,3-T UNKNOWN UNKNOWN UNKNOWN NONANE, 3,7-DIMETHYL-	14.49 14.75 14.98 15.66 15.98	180 400 260 250 220	Մ Մ Մ
11.         12.         13.         14.         15.         16.         17.         18.         19.         20.				
21.         22.         23.         24.         25.         26.				
27 28 29 30				

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EPA SAMPLE NO.

VOLATI	LE ORGANICS ANALYS	IS DATA SHEET		
		Construct out		DW-2425
	DRPORATION	Contract:		
Lab Code: MITKEM	Case No.:	SAS No.:	SDG No.	: MF0378
Matrix: (soil/water	C) SOIL	Lab Sa	mple ID: F03	378-16A
Sample_wt/vol:	2.5 (g/mL) G	Lab Fi	le ID: V5H	16535
level: (low/med)	LOW	Date R	eceived: 03/	/24/07
Moisture: not dec	. 17	Date A	nalyzed: 04/	′06 <b>/</b> 07
C Column: DB-624	ID: 0.25 (mm)	Dilutio	on Factor: 1	0
oil Extract Volume	:(mL)	Soil A	liquot Volum	e: (u
				······································
CAS NO.	COMPOUND	CONCENTRATION (ug/L or ug/1		Q
75-71-8	Dichlorodifluo	and the set		
74-87-3	Chloromethane	romethane		2 U 2 U
75-01-4	Vinyl Chloride			2 U
74-83-9	Bromomethane ~	······································		2 0
75-00-3	Chloroethane			2 0
75-69-4	Trichlorofluoro	methane		2 U
75-35-4	1,1-Dichloroeth	nene		2 0
67-64-1	Acetone			2 0
74-88-4	Iodomethane	· · · · · ·	12	2 0
75-15-0	Carbon Disulfic	le	12	2 0
75-09-2	Methylene Chlor	ide		2 0
156-60-5	trans-1,2-Dichl	oroethene		2 0
	Methyl tert-but	yl ether		2 U
	1,1-Dichloroeth	lane	12	2 U
	Vinyl acetate			2 0
	2-Butanone			2 0
	cis-1,2-Dichlor	oethene		2 0
	2,2-Dichloropro	pane		2 0
67-66-3	Chloroform			
71-55-6	1,1,1-Trichloro	othano		
563-58-6	1,1-Dichloropro	nene		
56-23-5	Carbon Tetrachl	oride		υ
107-06-2	1,2-Dichloroeth	ane		υ
71-43-2	Benzene			υ
79-01-6	Trichloroethene			σ
78-87-5	1,2-Dichloropro	pane		υ
74-95-3	Dibromomethane	· · · · · · · · · · · · · · · · · · ·		υ
75-27-4	Bromodichlorome	thane		Ŭ
10061-01-5	cis-1,3-Dichlor	opropene		σ
108-10-1	4-Methyl-2-penta	anone		υ
108-88-3	Toluene	·		υ
10061-02-6	trans-1,3-Dichle	propropene		U
79-00-5	1,1,2-Trichloro	ethane	12	υ
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FORM I VOA

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LA VOLATILE ORGANICS ANALYSIS DATA	EPA SAMPLE NO. SHEET
	DW-2425
Lab Name: MITKEM CORPORATION Contrac	
Lab Code: MITKEM Case No.: SAS No.	O.: SDG NO.: MF0378
Matrix: (soil/water) SOIL	Lab Sample ID: F0378-16A
Sample wt/vol: 2.5 (g/mL) G	Lab File ID: V5H6535
Level: (low/med) LOW	Date Received: 03/24/07
% Moisture: not dec. 17	Date Analyzed: 04/06/07
GC Column: DB-624 ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume: (mL)	Soil Aliquot Volume: (uL)
CONC	ENTRATION UNITS:
	L or ug/Kg) UG/KG Q
142-28-91,3-Dichloropropane         127-18-4Tetrachloroethene         591-78-6Tetrachloroethene         124-48-1Dibromochloromethane         106-93-4Dibromochloromethane         108-90-7Chlorobenzene         630-20-6Chlorobenzene         630-20-6Chlorobenzene         95-47-6	12       U         12 <td< td=""></td<>
135-98-8sec-Butylbenzene         99-87-64-Isopropyltoluene         541-73-11,3-Dichlorobenzene         106-46-71,4-Dichlorobenzene         104-51-8	12 U 12 U 12 U 12 U

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OLM03.0

1E VOLATILE ORGANICS ANALYSIS	EPA SAMPLE NO.	
TENTATIVELY IDENTIFIED		DW-2425
Lab Name: MITKEM CORPORATION Co	ontract:	
Lab Code: MITKEM Case No.:	SAS No.: SDG	No.: MF0378
Matrix: (soil/water) SOIL	Lab Sample ID:	F0378-16A
Sample wt/vol: 2.5 (g/mL) G	Lab File ID:	V5H6535
Level: (low/med) LOW	Date Received:	03/24/07
% Moisture: not dec. 17	Date Analyzed:	04/06/07
GC Column: DB-624 ID: 0.25 (mm)	Dilution Factor	r: 1.0
Soil Extract Volume:(mL)	Soil Aliquot Vo	olume:(uL)

Number TICs found: 10

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CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

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CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 2. 589-53-7 3. 2213-23-2 4. 5. 6. 7. 2216-33-3 8. 9.	UNKNOWN HEPTANE, 4-METHYL- HEPTANE, 2,4-DIMETHYL- UNKNOWN UNKNOWN OCTANE, 3-METHYL- UNKNOWN UNKNOWN	7.15 7.18 8.17 8.40 8.78 8.88 9.00 10.19 14.00	23 27 33 86 31 140 54 24 27	- 
10.         11.         12.         13.         14.         15.         16.         17.         18.         19.         20.         21		14.74 	29 	
21.         22.         23.         24.         25.         26.         27.         28.         29.         30.				

OLM03.0

EPA SAMPLE NO.

VOLATILI	E ORGANICS ANALY	SIS DATA SHEET		
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Lab Name: MITKEM COF	PORATION	Contract:		DW-2930
Lab Code: MITKEM	Case No.:	SAS No.:	SDG No.	: MF0378
Matrix: (soil/water)	SOIL	Lab Sample	ID: F03	78-1 <b>7A</b>
Sample wt/vol:	5.2 (g/mL) G	Lab File I	D: V1I	3782
Level: (low/med)	LOW	Date Receiv	ved: 03/	24/07
% Moisture: not dec.	18	Date Analyz	zed: 04/	06/07
GC Column: DB-624	ID: 0.25 (mm)	Dilution Fa	actor: 1	.0
Soil Extract Volume:	(mL)	Soil Alique	ot Volume	e:(
CAS NO.	COMPOUND	CONCENTRATION UNI (ug/L or ug/Kg) (		Q
$\begin{array}{c} 74-87-3\\ 75-01-4\\ 74-83-9\\ 75-00-3\\ 75-09-4\\ 75-35-4\\ 75-35-4\\ 75-09-2\\ 75-09-2\\ 1634-04-4\\ 75-34-3\\ 1634-04-4\\ 75-34-3\\ 108-05-4\\ 78-93-3\\ 590-20-7\\ 78-93-3\\ 590-20-7\\ 74-97-5\\ 590-20-7\\ 74-97-5\\ 563-58-6\\ 563-58-6\\ 563-58-6\\ 563-58-6\\ 71-43-2\\ 71-43-2\\ 71-43-2\\ 71-43-2\\ 71-43-2\\ 71-43-2\\ 71-43-2\\ 71-43-2\\ 71-43-2\\ 71-43-2\\ 71-43-2\\ 71-43-2\\ 71-43-2\\ 71-43-2\\ 71-43-2\\ 71-43-2\\ 71-43-2\\ 108-88-3\\ 108-88-3\\ 108-88-3\\ 10061-02-6\\ \end{array}$	Iodomethane Carbon Disulf Rethylene Chl trans-1,2-Dic Methyl tert-b 1,1-Dichloroe Vinyl acetate 2-Butanone cis-1,2-Dichlorop Bromochlorome Chloroform 1,1,1-Trichlor 1,2-Dichlorop Benzene Trichloroether 1,2-Dichlorop Benzene Trichloroether 1,2-Dichlorop Dibromomethane -Bromodichloror cis-1,3-Dichlorop	ide oride hloroethene utyl ether thane oroethene ropane thane noethane ropene hloride thane ne ropane hloride thane ne nethane ne ntanone hloropropene	ର ଜ ଜ ଜ ଜ ଜ ଜ ଜ ଜ ଜ ଜ ଜ ଜ ଜ ଜ ଜ ଜ ଜ ଜ ଜ	

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EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET DW-2930 Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM Case No.: SAS No.: SDG No.: MF0378 Matrix: (soil/water) SOIL Lab Sample ID: F0378-17A Sample wt/vol: 5.2 (g/mL) G Lab File ID: V1I3782 Level: (low/med)LOW Date Received: 03/24/07 % Moisture: not dec. 18 Date Analyzed: 04/06/07 GC Column: DB-624 ID: 0.25 (mm)Dilution Factor: 1.0 Soil Extract Volume: (mL) Soil Aliquot Volume: \_\_\_\_\_(uL) CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG 0 142-28-9-----1,3-Dichloropropane 6 U 127-18-4-----Tetrachloroethene 6 U 591-78-6----2-Hexanone 6 U 124-48-1----Dibromochloromethane 6 U 106-93-4-----1,2-Dibromoethane 6 U 108-90-7-----Chlorobenzene 6 Ū 630-20-6-----1,1,1,2-Tetrachloroethane 6 U 100-41-4----Ethylbenzene 6 U -----m,p-Xylene 6 U 95-47-6----o-Xylene 6 U 1330-20-7-----Xylene (Total) 6 U 100-42-5-----Styrene 6 U 75-25-2----Bromoform υ 6 98-82-8-----Isopropylbenzene Ū 6 79-34-5-----1,1,2,2-Tetrachloroethane 6 U 108-86-1----Bromobenzene 6 U 96-18-4-----1,2,3-Trichloropropane U 6 103-65-1----n-Propylbenzene U 6 95-49-8-----2-Chlorotoluene 6 U 108-67-8-----1,3,5-Trimethylbenzene 6 U 106-43-4-----4-Chlorotoluene 6 U 98-06-6-----tert-Butylbenzene 6 U 95-63-6-----1,2,4-Trimethylbenzene 2 J 135-98-8-----sec-Butylbenzene 6 U 99-87-6-----4-Isopropyltoluene 6 U 541-73-1-----1, 3-Dichlorobenzene 6 U 106-46-7-----1, 4-Dichlorobenzene 6 U 104-51-8----n-Butylbenzene 6 U 95-50-1-----1,2-Dichlorobenzene 6 U 96-12-8-----1,2-Dibromo-3-chloropropane б U 120-82-1-----1,2,4-Trichlorobenzene 6 U 87-68-3-----Hexachlorobutadiene 6 U 91-20-3----Naphthalene

FORM I VOA

87-61-6-----1,2,3-Trichlorobenzene

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6 U

6 U

1E VOLATILE ORGANICS ANALYSIS TENTATIVELY IDENTIFIED	
	DW-2930
Lab Code: MITKEM Case No.:	SAS No.: SDG No.: MF0378
Matrix: (soil/water) SOIL	Lab Sample ID: F0378-17A
Sample wt/vol: 5.2 (g/mL) G	Lab File ID: V1I3782
Level: (low/med) LOW	Date Received: 03/24/07
% Moisture: not dec. 18	Date Analyzed: 04/06/07
GC Column: DB-624 ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(mL)	Soil Aliquot Volume:(uL)

Number TICs found: 9

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	1 ~
1. 124-18-5	DECANE	12.50		===== NJ
2. 1120-21-4	UNDECANE	13.87		NJ
3. 112-95-8	EICOSANE	16.12		NJ
4.	UNKNOWN	16.90	13	
5. 629-59-4	TETRADECANE	17.11		IJ
6.	UNKNOWN	17.62		
7. 544-76-3	HEXADECANE	17.79		NJ
8.	UNKNOWN	17.89	7	J
9. 629-62-9	PENTADECANE	18.20	29	
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1A VOLATILE ORGANICS ANALYSIS DATA	EPA SAMPLE NO.	•
ab Name: MITKEM CORPORATION Contrac	DWB-1920	
	O.: SDG No.: MF0378	ł
latrix: (soil/water) SOIL	Lab Sample ID: F0378-18A	
Sample wt/vol: 5.3 (g/mL) G		
evel: (low/med) LOW	Date Received: 03/24/07	
Moisture: not dec. 17	Date Analyzed: 04/06/07	
C Column: DB-624 ID: 0.25 (mm)	Dilution Factor: 1.0	
oil Extract Volume:(mL)	Soil Aliquot Volume:	_(ı
	ENTRATION UNITS: L or ug/Kg) UG/KG Q	
75-71-8Dichlorodifluorometham		
74-87-3Chloromethane	6 U	
75-01-4Vinyl Chloride 74-83-9Bromomethane	6 U	
75-00-3Chloroethane	6_U 6_U	
75-69-4Trichlorofluoromethane		
75-35-41,1-Dichloroethene	6 U	
67-64-1Acetone	6 U	
74-88-4Iodomethane	6 Ū	
75-15-0Carbon Disulfide	6 U	
75-09-2Methylene Chloride	6 U	
156-60-5trans-1,2-Dichloroethe	ene 6 U	
1634-04-4Methyl tert-butyl ethe		
75-34-31,1-Dichloroethane 108-05-4Vinyl acetate	6 U	
78-93-32-Butanone	6 U	
156-59-2cis-1,2-Dichloroethene		
590-20-72,2-Dichloropropane	6 U	
74-97-5Bromochloromethane	6 Ū	
67-66-3Chloroform	6 Ū	
71-55-61,1,1-Trichloroethane	6 U	
563-58-61,1-Dichloropropene	6 U	
56-23-5Carbon Tetrachloride	6 U	
107-06-21,2-Dichloroethane 71-43-2Benzene	6 U	
71-43-2Benzene 79-01-6Trichloroethene	6 U	
78-87-51,2-Dichloropropane	6 Ŭ 6 Ŭ	
74-95-3Dibromomethane	6 U	
75-27-4Bromodichloromethane	6 U	
10061-01-5cis-1,3-Dichloropropen	e 6 U	
108-10-14-Methyl-2-pentanone	6 U	
108-88-3Toluene	6U	
10061-02-6trans-1,3-Dichloroprop 79-00-51,1,2-Trichloroethane	ene 6 U 6 U	

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#### 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DWB-1920 Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM Case No.: SAS No.: SDG No.: MF0378 Matrix: (soil/water) SOIL Lab Sample ID: F0378-18A Sample wt/vol: 5.3 (q/mL) G Lab File ID: V1I3783 Level: (low/med) LOW Date Received: 03/24/07 % Moisture: not dec. 17 Date Analyzed: 04/06/07 GC Column: DB-624 ID: 0.25 Dilution Factor: 1.0 (mm) Soil Extract Volume: (mL) Soil Aliquot Volume: (uL) CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q 142-28-9-----1,3-Dichloropropane 6 U 127-18-4-----Tetrachloroethene 6 U 591-78-6----2-Hexanone 6 υ 124-48-1-----Dibromochloromethane 6 U 106-93-4-----1,2-Dibromoethane 6 U 108-90-7-----Chlorobenzene 6 U 630-20-6-----1,1,1,2-Tetrachloroethane 6 U 100-41-4----Ethylbenzene 6 U -----m,p-Xylene 6 U 95-47-6----o-Xylene 6 υ 1330-20-7-----Xylene (Total) 6 U 100-42-5-----Styrene 6 U 75-25-2-----Bromoform 6 U 98-82-8-----Isopropylbenzene 6 U 79-34-5-----1,1,2,2-Tetrachloroethane 6 U 108-86-1----Bromobenzene 6 U 96-18-4----1,2,3-Trichloropropane 6 U 103-65-1----n-Propylbenzene 6 ប 95-49-8-----2-Chlorotoluene 6 U 108-67-8-----1,3,5-Trimethylbenzene 6 U 106-43-4-----4-Chlorotoluene 6 Ū 98-06-6----tert-Butylbenzene 6 U 95-63-6-----1,2,4-Trimethylbenzene 6 Ū 135-98-8-----sec-Butylbenzene 6 U 99-87-6-----4-Isopropyltoluene 6 U 541-73-1-----1,3-Dichlorobenzene 6 U 106-46-7-----1,4-Dichlorobenzene 6 U 104-51-8----n-Butylbenzene Ū 6 95-50-1-----1,2-Dichlorobenzene 6 U 96-12-8-----1,2-Dibromo-3-chloropropane U 6 120-82-1-----1,2,4-Trichlorobenzene 6 U 87-68-3-----Hexachlorobutadiene 6 U 91-20-3-----Naphthalene 6 U 87-61-6-----1,2,3-Trichlorobenzene 6 U

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Contract:

SAS No.:

EPA SAMPLE NO.

DWB-1920

SDG No.: MF0378

·	VOLATILE	ORGANIC	'S A	NALYSIS	DAŤA	SHEET
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Lab Name: MITKEM CORPORATION Lab Code: MITKEM Case No.:

Matrix: (soil/water) SOIL

Sample wt/vol: 5.3 (g/mL) G

Level: (low/med) LOW

% Moisture: not dec. 17

Number TICs found: 10

GC Column: DB-624 ID: 0.25 (mm)

Soil Extract Volume: \_\_\_\_(mL)

Lab Sample ID: F0378-18A Lab File ID: V113783 Date Received: 03/24/07

Date Analyzed: 04/06/07

Dilution Factor: 1.0

Soil Aliquot Volume: \_\_\_\_\_(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NUMBER COMPOUND NAME  $\mathbf{RT}$ EST. CONC. 0 1. 2216-33-3 OCTANE, 3-METHYL-9.65 130 NJ CYCLOHEXANE, 1,3,5-TRIMETHYL CYCLOHEXANE, 1,1,3-TRIMETHYL 2. 1839-63-0 9.72 9.89 120 NJ 3. 3073-66-3 110 NJ 4. UNKNOWN 10.18 250 J OCTANE, 3-METHYL-OCTANE, 2,6-DIMETHYL-5. 2216-33-3 110 NJ 10.36 6. 2051-30-1 11.48 87 NJ 7. UNKNOWN 11.65 140 J 8. UNKNOWN 14.09 60 J TRIDECANE, 7-METHYL-9. 26730-14-3 15.86 110 NJ 10. 3891-98-3 DODECANE, 2,6,10-TRIMETHYL-16.90 62 NJ 11.\_ 12. 13. 14. 15. 16. 17.\_ 18.\_\_\_ 19. 20. 21. 22. 23. 24. 25. 26.\_ 27.\_ 28. 29. 30.

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EPA SAMPLE NO.

VOLATILE ORG	ANICS ANALYSIS DATA S	SHEET .		
Lab Name: MITKEM CORPORA	FION Contract	::	DWB-2425	
Lab Code: MITKEM Case	No.: SAS No	SDG	No.: MF037	8
Matrix: (soil/water) SOII	1	Lab Sample ID:	F0378-19A	
Sample wt/vol: 0.	6 (g/mL) G	Lab File ID:	V5H6536	
Level: (low/med) LOW		Date Received:	03/24/07	
% Moisture: not dec. 10		Date Analyzed:	04/06/07	
GC Column: DB-624 ID:		Dilution Factor		
Soil Extract Volume:	(mL)	Soil Aliquot Vo	olume:	(uL)
CAS NO. CO		NTRATION UNITS: or ug/Kg) UG/KG	ΞΩ.	
$\begin{array}{c} 74-87-3$	nyl Chloride momethane loroethane ichlorofluoromethane L-Dichloroethene tomethane lomethane con Disulfide Lylene Chloride ins-1,2-Dichloroethene lyl tert-butyl ether -Dichloroethane yl acetate Butanone s-1,2-Dichloroethene -Dichloropropane mochloromethane -Dichloropropene bon Tetrachloride -Dichloropropene bon Tetrachloride -Dichloropropene chloroethene zene chloroethene -Dichloropropane romomethane modichloromethane -1,3-Dichloropropene ethyl-2-pentanone uene ms-1,3-Dichloropropene		46 46 46 46 46 46 46 46 46 46 46 46 46 4	

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EPA SAMPLE NO.

ab Name: MITKEM CORPORATION       Contract:         ab Code: MITKEM CASE NO.:       SAS NO.:       SDG NO.: MF0378         atrix: (soil/water) SOIL       Lab Sample ID: F0378-19A         ample wt/vol:       0.6 (g/mL) G       Lab File ID: V5H6536         evel: (low/med) LOW       Date Received: 03/24/07         Moisture: not dec. 10       Date Analyzed: 04/06/07         Column: DB-624       ID: 0.25 (mn)       Dilution Factor: 1.0         column: DB-624       ID: 0.25 (mn)       Dilution Factor: 1.0         column: DB-624       CONCENTRATION UNITS:       Q         CAS NO.       COMPOUND       CONCENTRATION UNITS:         CAS NO.       COMPOUND       (ug/L or ug/Kg) UG/Kg       Q         142-28-9	VOLATILE ORGANICS ANALYSIS DATA SHEET	EPA	SAMPLE N	0.
Ab Code: MITKEM       Case No.:       SAS No.:       SDG No.: MF0378         htrix:       (soil/water)       SOIL       Lab Sample ID: F0378-19A         mmple wt/vol:       0.6 (g/mL) G       Lab File ID: V5H6536         svel:       (low/med)       LOW       Date Received: 03/24/07         Moisture:       not dec.       10       Date Analyzed: 04/06/07         Column: DB-624       ID: 0.25 (mm)       Dilution Factor: 1.0         il Extract Volume:      (mL)       Soil Aliquot Volume:          CAS NO.       COMPOUND       (ug/L or ug/Kg) UG/KG Q       Q         142-28-9	o Name: MITKEM CORPORATION Contract.	D	WB-2425	
ttrix: (soil/water) SOIL       Lab Sample ID: F0378-19A         mple wt/vol:       0.6 (g/mL) G       Lab File ID: V5H6536         vel: (low/med) LOW       Date Received: 03/24/07         Moisture: not dec. 10       Date Analyzed: 04/06/07         Column: DB-624       ID: 0.25 (mm)       Dilution Factor: 1.0         il Extract Volume:      (mL)       Soil Aliquot Volume:      (mL)         CAS NO.       COMPOUND       CONCENTRATION UNITS:       Q         142-28-9		No	- MF0270	
mple wt/vol:       0.6 (g/mL) G       Lab File ID:       V5H6536         wel:       (low/med)       LOW       Date Received:       03/24/07         Moisture:       not dec.       10       Date Received:       03/24/07         Moisture:       not dec.       10       Date Analyzed:       04/06/07         Column: DB-624       ID:       0.25 (mm)       Dilution Factor:       1.0         il Extract Volume:      (mL)       Soil Aliquot Volume:          CAS NO.       COMPOUND       (ug/L or ug/Kg) UG/KG       Q         142-28-9				
vvl:       (low/med)       LOW       Date Received: $03/24/07$ Moisture:       not dec.       10       Date Analyzed: $04/06/07$ Column:       DB-624       D:       0.25 (mm)       Dilution Factor:       1.0         il Extract Volume:      (nL)       Soil Aliquot Volume:          CAS NO.       COMPOUND       CONCENTRATION UNITS:       Q         Id27-18-4		F031	78-19A	
Moisture: not dec. 10       Date Analyzed: $04/06/07$ Column: DB-624       ID: $0.25$ (mm)       Dilution Factor: $1.0$ il Extract Volume:(mL)       Soil Aliquot Volume:         CAS NO.       COMPOUND       CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG       Q         142-28-9	ple wt/vol: 0.6 (g/mL) G Lab File ID:	V5H6	5536	
Column: DB-624       ID: 0.25 (mm)       Dilution Factor: 1.0         il Extract Volume:(mL)       Soil Aliquot Volume:         CAS NO.       COMPOUND       (ug/L or ug/Kg) UG/KG       Q         142-28-9	rel: (low/med) LOW Date Received:	03/2	24/07	
il Extract Volume:       (mL)       Soil Aliquot Volume:	Date Analyzed:	04/0	06/07	
CAS NO.       COMPOUND       CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG       Q $142-28-91, 3-Dichloropropane       46 U       0         127-18-4Tetrachloroethene       46 U       0         591-78-62-Hexanone       46 U       0         124-48-1Dibromochloromethane       46 U       0         124-48-1Dibromochloromethane       46 U       0         106-93-41, 2-Dibromoethane       46 U       0         106-93-4Chlorobenzene       46 U       0         630-20-61, 1, 1, 2-Tetrachloroethane       46 U       0         100-41-4Chlorobenzene       46 U       0         130-20-7$	Column: DB-624 ID: 0.25 (mm) Dilution Factor	r: 1.	0	
CAS NO.       COMPOUND       CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG       Q $142-28-91, 3-Dichloropropane       46 U       0         127-18-4Tetrachloroethene       46 U       0         591-78-62-Hexanone       46 U       0         124-48-1Dibromochloromethane       46 U       0         124-48-1Dibromochloromethane       46 U       0         106-93-41, 2-Dibromochlaroethane       46 U       0         108-90-7Chlorobenzene       46 U       0         630-20-61, 1, 1, 2, 2-Tetrachloroethane       46 U       0         100-41-4Chlorobenzene       46 U       0       0         95-47-6$	1 Extract Volume: (mL) Soil Aliquot Vo	olume	•:	(
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	CONCENTRATION UNITS:			`
96-12-81,2-Dibromo-3-chloropropane       46 U         120-82-11,2,4-Trichlorobenzene       46 U         87-68-3Hexachlorobutadiene       46 U	$\begin{array}{c} 127-18-4Tetrachloroethene \\ 591-78-62-Hexanone \\ 124-48-1Dibromochloromethane \\ 106-93-4Dibromochloromethane \\ 108-90-7Chlorobenzene \\ 630-20-6$	$\begin{array}{c} 46\\ 46\\ 46\\ 46\\ 2000\\ 3000\\ 3000\\ 46\\ 46\\ 3900\\ 46\\ 46\\ 46\\ 46\\ 6000\\ 46\\ 600\\ 46\\ 600\\ 46\\ 60\\ 46\\ 60\\ 60\\ 60\\ 60\\ 60\\ 60\\ 60\\ 60\\ 60\\ 6$	ひひひひひと そうそう そうひょう しょう しょう しょう しょう しょう しょう しょう しょう しょう し	

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1E VOLATILE ORGANICS ANALYSIS TENTATIVELY IDENTIFIED		EPA SAMPLE NO.
	ontract:	DWB-2425
Lab Code: MITKEM Case No.:	SAS No.: SDG	No.: MF0378
Matrix: (soil/water) SOIL	Lab Sample ID:	F0378-19A
Sample wt/vol: 0.6 (g/mL) G	Lab File ID:	V5H6536
Level: (low/med) LOW	Date Received:	03/24/07
% Moisture: not dec. 10	Date Analyzed:	04/06/07
GC Column: DB-624 ID: 0.25 (mm)	Dilution Facto	r: 1.0
Soil Extract Volume:(mL)	Soil Aliquot V	olume:(uL)

Number TICs found: 10

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CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

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CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 592-27-8	HEPTANE, 2-METHYL-	7.17		
2. 111-65-9	OCTANE	7.80		
3.	UNKNOWN	9.05	1100	
4.	UNKNOWN	9.48	980	
5.	UNKNOWN	9.90	990	
6.	UNKNOWN	10.20	650	-
7.	UNKNOWN	10.52	880	
8. 620-14-4	BENZENE, 1-ETHYL-3-METHYL-	10.93	970	
9.	UNKNOWN	11.78	540	
10.	UNKNOWN	12.70		
11.		12.10	220	2
12.			**** <u>*********************************</u>	
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## 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

	DE ORGANICS ANALIS		t
ab Name: MITKEM C	ORPORATION	Contract:	DWB-2425DL
ab Code: MITKEM	Case No.:	SAS No.:	SDG No.: MF0378
atrix: (soil/wate	r) SOIL	Lab Samp	ole ID: F0378-19ADL
ample wt/vol:	5.1 (g/mL) G	Lab File	e ID: V6F1731
evel: (low/med)	MED	Date Rec	eived: 03/24/07
Moisture: not de		Date Ana	lyzed: 04/11/07
Column: DB-624			Factor: 10.0
il Extract Volume	≥: 5(mL)		quot Volume: 100.0(
CAS NO.	COMPOUND	CONCENTRATION (ug/L or ug/Kg	
$\begin{array}{c} 74-87-3\\ 75-01-4\\ 74-83-9\\ 75-00-3\\ 75-69-4\\ 75-35-4\\ 75-35-4\\ 75-35-4\\ 75-09-2\\ 156-60-5\\ 1634-04-4\\ 75-34-3\\ 108-05-4\\ 78-93-3\\ 108-05-4\\ 78-93-3\\ 590-20-7\\ 74-97-5\\ 590-20-7\\ 74-97-5\\ 563-58-6\\ 563-58-6\\ 563-58-6\\ 71-55-6\\ 563-58-6\\ 71-43-2\\ 79-01-6\\ 78-87-5\\ 74-95-3\\ 75-27-4\\ 10061-01-5\\ 108-10-1\\ \end{array}$	Iodomethane Carbon Disulfit Methylene Chlor Methyl tert-bu Nethyl tert-bu Vinyl acetate Vinyl acetate Vinyl acetate 	omethane   hene      de  ride  loroethene  tyl ether  hane  pone  loride  pone  loride  pane  e	3000 U 3000 U
108-88-3	Toluene trans-1,3-Dichl	oropropene	3000 U 3000 U

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EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET DWB-2425DL Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM Case No.: SAS No.: SDG No.: MF0378 Matrix: (soil/water) SOIL Lab Sample ID: F0378-19ADL Sample wt/vol: 5.1 (q/mL) G Lab File ID: V6F1731 Level: (low/med) MED Date Received: 03/24/07 % Moisture: not dec. 10 Date Analyzed: 04/11/07 GC Column: DB-624 ID: 0.25 Dilution Factor: 10.0 (mm)Soil Extract Volume: 5 (mL) Soil Aliquot Volume: 100.0(uL) CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG 0 142-28-9-----1, 3-Dichloropropane 3000 U 127-18-4-----Tetrachloroethene 3000 U 591-78-6----2-Hexanone 3000 U 124-48-1-----Dibromochloromethane 3000 U 106-93-4-----1, 2-Dibromoethane 3000 U 108-90-7----Chlorobenzene 3000 U 630-20-6-----1,1,1,2-Tetrachloroethane 3000 U 100-41-4----Ethylbenzene 3100 D ----m, p-Xylene 23000 D 95-47-6-----o-Xylene 1330-20-7-----Xylene (Total)\_\_ 3000 U 23000 D 100-42-5-----Styrene 3000 U 75-25-2-----Bromoform 3000 U 98-82-8-----Isopropylbenzene 5200 D 79-34-5-----1,1,2,2-Tetrachloroethane 3000 U 108-86-1----Bromobenzene 3000 U 96-18-4-----1,2,3-Trichloropropane 3000 U 103-65-1----n-Propylbenzene 10000 D 95-49-8-----2-Chlorotoluene 3000 U 108-67-8-----1,3,5-Trimethylbenzene 41000 D 106-43-4----4-Chlorotoluene 3000 U 98-06-6-----tert-Butylbenzene 1400 DJ 95-63-6-----1,2,4-Trimethylbenzene 73000 D 135-98-8----sec-Butylbenzene 3000 U 99-87-6-----4-Isopropyltoluene 4700 D 541-73-1-----1,3-Dichlorobenzene 3000 U 106-46-7-----1,4-Dichlorobenzene 2600 DJ 104-51-8----n-Butylbenzene 17000 D 95-50-1-----1, 2-Dichlorobenzene 3000 U 96-12-8-----1,2-Dibromo-3-chloropropane 3000 U 120-82-1-----1,2,4-Trichlorobenzene 3000 U 87-68-3-----Hexachlorobutadiene 3000 U 91-20-3-----Naphthalene 3300 D 87-61-6-----1,2,3-Trichlorobenzene 3000 U

FORM I VOA

	1百		EPA SAMPLE	NO.
	E ORGANICS ANALYSIS			
TENI	CATIVELY IDENTIFIED	COMPOUNDS	· · · · · · · · · · · · · · · · · · ·	
Lab Name: MITKEM COF	RPORATION C	ontract:	DWB-2425D	L
Lab Code: MITKEM	Case No.:	SAS No.: SDG	No.: MF037	8
Matrix: (soil/water)	SOIL	Lab Sample ID:	F0378-19AD	L
Sample wt/vol:	5.1 (g/mL) G	Lab File ID:	V6F1731	·
Level: (low/med)	MED	Date Received:	03/24/07	
% Moisture: not dec.	10	Date Analyzed:	,04/11/07	
GC Column: DB-624	ID: 0.25 (mm)	Dilution Facto	r: 10.0	
Soil Extract Volume:	5 (mī <sub>-</sub> )	Soil Aliquot V	olume:	100 (uL)

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Number TICs found: 10

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

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CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	~
$\begin{array}{c} 1.\\ 2. 589-81-1\\ 3. 111-65-9\\ 4. 1072-05-5\\ 5. 1678-91-7\\ 6. 3074-71-3\\ 7. 2216-33-3\\ 8.\\ 9. 696-29-7\\ 10. 934-74-7\\ 11.\\ 12.\\ 13.\\ 14.\\ 15.\\ 16.\\ 17.\\ 18.\\ 19.\\ 20.\\ 21.\\ 20.\\ 21.\\ 22.\\ 23.\\ 24.\\ 25.\\ \end{array}$	COMPOUND NAME	7.99 8.18 8.71 9.31 9.64 9.92 10.19 10.69	54000 72000 160000	JD NJD NJD NJD NJD NJD NJD NJD NJD NJD
26.         27.         28.         29.         30.				

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EPA SAMPLE NO.

VOLATILE	ORGANICS ANALYSI	S DATA SHEET		
			ורד	WB-2930
Lab Name: MITKEM COR	PORATION	Contract:		
Lab Code: MITKEM	Case No.:	SAS No.:	SDG No.	: MF0378
Matrix: (soil/water)	SOIL	Lab Samp	le ID: F03'	78-20A
Sample wt/vol:	5.3 (q/mL) G		ID: VII	
Level: (low/med)				
			eived: 03/2	·
% Moisture: not dec.	15	Date Anal	lyzed: 04/0	06/07
GC Column: DB-624	ID: 0.25 (mm)	Dilution	Factor: 1.	.0
Soil Extract Volume:	(mL)	Soil Alic	uot Volume	e:(uI
		CONCENTRATION U	NITS:	•
CAS NO.	COMPOUND	(ug/L or ug/Kg)		Q
75 71 0				1
	Dichlorodifluo: Chloromethane	romethane		<u>u</u>
	Vinyl Chloride			
74-83-9	Bromomethane			
75-00-3	Chloroethane			U
75-69-4	Trichlorofluoro			ש
75-25-4				σ
	1,1-Dichloroeth	iene		υ
67-64-1	Acetone		6	
74-88-4	Iodomethane			ט
75-15-0	Carbon Disulfid	le	6	U
75-09-2	Methylene Chlor	ride	6	υ
156-60-5	trans-1,2-Dichl	oroethene		υ
1634-04-4	Methyl tert-but	vl ether		υ
75-34-3	1,1-Dichloroeth		6	
108-05-4	Vinyl acetate		6	
78-93-3	2-Butanone			
156-59-2	cis-1,2-Dichlor		6	
590-20-7	-2.2 Dichlorence		6	
	2,2-Dichloropro	pane		υ
	Bromochlorometh	ane		σ
67-66-3	Chloroform			υ
71-55-6	1,1,1-Trichloro	ethane	. 6	υ
563-58-6	1,1-Dichloropro	pene	6	υ
56-23-5	Carbon Tetrachl	oride	6	υ
107-06-2	1,2-Dichloroeth	ane		Ū
71-43-2	Benzene			υ
79-01-6	Trichloroethene		6	-
78-87-5	1,2-Dichloropro	pane		
74-95-3	Dibromomethane		6	
	Bromodichloromet	thana	6	σ
			6	U
	cis-1,3-Dichlor	opropene	6	υ
	4-Methyl-2-penta	anone	6	υ
108-88-3	Toluene		6	υ
10061-02-6	trans-1,3-Dichlo	propropene	6	υ
79-00-5	1,1,2-Trichloroe	ethane	6	υ
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FORM I VOA

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VOLATILE	1A ORGANICS ANALYSIS	5 DATA SHEET	EPA SAMPLE NO.
Tob Mana Merimene		<b>.</b>	DWB-2930
Lab Name: MITKEM COR	PORATION (	Contract:	
Lab Code: MITKEM	Case No.:	SAS No.:	SDG No.: MF0378
Matrix: (soil/water)	SOIL	Lab Sampl	e ID: F0378-20A
Sample wt/vol:	5.3 (g/mL) G	Lab File	ID: V113784
Level: (low/med)	LOW	Date Rece	eived: 03/24/07
% Moisture: not dec.	15		yzed: 04/06/07
GC Column: DB-624			Factor: 1.0
Soil Extract Volume:	(mL)	Soil Aliq	uot Volume:(1
CAS NO.	COMPOUND	CONCENTRATION U (ug/L or ug/Kg)	
$\begin{array}{c} 127-18-4\\ 591-78-6\\ 124-48-1\\ 106-93-4\\ 106-93-4\\ 100-41-4\\ 30-20-6\\ 1330-20-7\\ 100-42-5\\ 95-47-6\\ 75-25-2\\ 98-82-8\\ 75-25-2\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-86-1$	Dibromochloromet 1,2-Dibromoethau Chlorobenzene I,1,1,2-Tetrach Ethylbenzene m,p-Xylene wylene (Total) Styrene Styrene Isopropylbenzene 1,1,2,2-Tetrachl -Bromobenzene 1,2,3-Trichlorop n-Propylbenzene 2-Chlorotoluene 1,3,5-Trimethylk 4-Chlorotoluene 1,2,4-Trimethylk -sec-Butylbenzene 1,3-Dichlorobenz 1,4-Dichlorobenz 1,2-Dibromo-3-ch -1,2,4-Trichlorob Hexachlorobutadi Naphthalene	ne	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6

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FORM I VOA

1E VOLATILE ORGANICS ANALYSIS	EPA SAMPLE NO.	
TENTATIVELY IDENTIFIED	COMPOUNDS	DWB-2930
Lab Name: MITKEM CORPORATION Co	ontract:	
Lab Code: MITKEM Case No.:	SAS No.: SDG	No.: MF0378
Matrix: (soil/water) SOIL	Lab Sample ID:	F0378-20A
Sample wt/vol: 5.3 (g/mL) G	Lab File ID:	V1I3784
Level: (low/med) LOW	Date Received:	03/24/07
% Moisture: not dec. 15	Date Analyzed:	04/06/07
GC Column: DB-624 ID: 0.25 (mm)	Dilution Facto	r: 1.0
Soil Extract Volume:(mL)	Soil Aliquot V	olume:(uL)
Number TICs found: 2	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/K	9
CAS NUMBER COMPOUND NAME	RT ES	I. CONC. Q

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		========		=====
1.	UNKNOWN	17.62	7	J
		17.02		
2.	UNKNOWN	17.79	44	J
.3.				
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5.	· · · · · · · · · · · · · · · · · · ·	·		
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VOLATILE	ORGANICS ANALYSIS D	ATA SHEET	EPA SAMPLE NU.
Lab Name: MITKEM COR	PORATION Con	tract:	FB
Lab Code: MITKEM	Case No.: S	AS No.: SDG	No.: MF0378
Matrix: (soil/water)	WATER	Lab Sample ID:	F0378-14A
Sample wt/vol:	5.000 (g/mL) ML	Lab File ID:	V6F1411
Level: (low/med)	LOW	Date Received:	03/24/07
% Moisture: not dec.	,	Date Analyzed:	04/02/07
GC Column: DB-624	ID: 0.25 (mm)	Dilution Facto	r: 1.0
Soil Extract Volume:_	(uL)	Soil Aliquot V	olume:(uL)
CAS NO.		CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
$\begin{array}{c} 74-87-3\\ 75-01-4\\ 74-83-9\\ 75-00-3\\ 75-09-3\\ 75-35-4\\ 75-35-4\\ 74-88-4\\ 75-15-0\\ 75-09-2\\ 156-60-5\\ 1634-04-4\\ 75-34-3\\ 1634-04-4\\ 75-34-3\\ 1634-04-4\\ 75-34-3\\ 75-34-3\\ 75-34-3\\ 75-34-3\\ 75-34-3\\ 78-93-3\\ 78-93-3\\ 78-93-3\\ 563-58-6\\ 563-58-6\\ 563-58-6\\ 563-58-6\\ 563-58-6\\ 71-43-2\\ 71-43-2\\ 79-01-6\\ 78-87-5\\ 74-95-3\\ 75-27-4\\ 108-10-1\\ 108-88-3\\ 10061-02-6\\ \end{array}$	Iodomethane Carbon Disulfide Methylene Chloride Methyl tert-butyl 1,1-Dichloroethane Vinyl acetate 2-Butanone cis-1,2-Dichloroethane Cis-1,2-Dichloropropane -Bromochloromethane Chloroform 1,1,1-Trichloroethane Carbon Tetrachlorid -1,2-Dichloropropane -Benzene Trichloroethene 1,2-Dichloropropane -Bromodichloromethane Dibromomethane Bromodichloromethane Cis-1,3-Dichloropro- -4-Methyl-2-pentanor	hane         ethene         ether         hene         e         ane         e         de         ane         e         de         de	5       5

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EPA SAMPLE NO.

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VOLATILE	GORGANICS ANALYSIS	DATA SHEET	•
			FB
Lab Name: MITKEM COR	PORATION C	ontract:	
Lab Code: MITKEM	Case No.:	SAS No.: SD	G No.: MF0378
Matrix: (soil/water)	WATER	Lab Sample ID	F0378-14A
Sample wt/vol:	5.000 (g/mL) ML	Lab File ID:	V6F1411
Level: (low/med)	LOW	Date Received	: 03/24/07
% Moisture: not dec.		Date Analyzed:	04/02/07
GC Column: DB-624	ID: 0.25 (mm)	Dilution Facto	pr: 1.0
Soil Extract Volume:	(uL)	Soil Aliquot V	Volume: (u
		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/I	
			· · · · · · · · · · · · · · · · · · ·
	1,3-Dichloroprop	pane	5 U
591-78-6	Teurachioroether		5 U 5 U 5 U
124-48-1	Dibromochloromet	hano	
106-93-4	1,2-Dibromoethan		
108-90-7	Chlorobenzene		
630-20-6	1,1,1,2-Tetrachl	oroethane	
100-41-4	Ethylbenzene		
	m,p-Xylene		5 0 5 0 5 0 5 0 5 0 5 0 5 0 5 0 5 0 5 0
95-47-6			
	Xylene (Total)		5 0
100-42-5		,,	5 0
75-25-2	Bromoform		50
09_02_0			50
70 24	Isopropylbenzene		5 0
	1,1,2,2-Tetrachl	oroethane	5 U
	Bromobenzene		5 U
	1,2,3-Trichlorop	ropane	5 U .
	n-Propylbenzene		5 U
95-49-8	2-Chlorotoluene		5 U
108-67-8	1,3,5-Trimethylb	enzene	5 U
106-43-4	4-Chlorotoluene		5 U (
98-06-6	tert-Butylbenzen	e	5 U 5 U 5 U
95-63-6	1,2,4-Trimethylbe	enzene	5 0
135-98-8	sec-Butylbenzene		5 U
99-87-6	4-Isopropyltoluei	ne	5 U
541-73-1	1,3-Dichlorobenze	ene	5 Ū
106-46-7	1,4-Dichlorobenze	ene	5 0
104-51-8	n-Butylbenzene		5 0
95-50-1	1,2-Dichlorobenze	ene	5 0
96-12-8	1,2-Dibromo-3-ch	loropropane	5 0
120-82-1	1,2,4-Trichlorobe	enzene	5 U
87-68-3	Hexachlorobutadie	ene	5 U
91-20-3	Naphthalene		5 0
87-61-6	1,2,3-Trichlorobe	enzene	5 0
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	1E			EPA SAMPLE NØ	•
	NICS ANALYSIS		1-	/	<b>→</b> 1 <sup>′</sup>
IENIALIVE	LY IDENTIFIED	COMPOUNDS		FB	
Lab Name: MITKEM CORPORAT	TON Co	ntract:			
Lab Code: MITKEM Case	No.:	SAS No.:	SDG	No.: MF0378	
Matrix: (soil/water) WATE	R	Lab Sa	ample ID:	F0378-14A	
Sample wt/vol: 5.00	0 (g/mL) ML	Lab F	ile ID:	V6F1411	
Level: (low/med) LOW		Date I	Received:	03/24/07	
% Moisture: not dec.		Date A	halyzed:	04/02/07	
GC Column: DB-624 ID:	0.25 (mm)	Diluti	lon Factor	: 1.0	
Soil Extract Volume:	(uL)	Soil A	liquot Vo	olume:	_(uL)
Number TICs found: 0		CONCENTRATIC (ug/L or ug/			
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CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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2.			······	
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j 5.				· · · · · · · · · · · · · · · · · · ·
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		<u>-</u>  .	<u> </u>	<u> </u>

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#### - 1A EPA SAMPLE NO. VOLATILE ORGANICS ANALYSIS DATA SHEET TBLab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM Case No.: SAS No.: SDG No.: MF0378 Matrix: (soil/water) WATER Lab Sample ID: F0378-21A Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V6F1557 Level: (low/med) LOW Date Received: 03/24/07 % Moisture: not dec. Date Analyzed: 04/05/07 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0 Soil Extract Volume: (uL) Soil Aliquot Volume: \_\_\_\_\_(uL) CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

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75-71-8Dichlorodifluoromethane	5 U
74-87-3Chloromethane	<u> </u>
75-01-4Vinyl Chloride	-  5  <del>0</del>
74-83-9Bromomethane	5 U 5 U
75-00-3Chloroethane	- <u>5</u> U
75-69-4Trichlorofluoromethane	5_U
75-35-41,1-Dichloroethene	5_Ū
67-64-1Acetone	
74-88-4Iodomethane	5 U 5 U 5 U
75-15-0Carbon Disulfide	- 50
75-09-2Methylene Chloride	-  1J
156-60-5trans-1,2-Dichloroethene	1 J 5 U
1634-04-4Methyl tert-butyl ether	5_Ŭ
75-34-31,1-Dichloroethane	-  5 Ŭ
108-05-4Vinvl acetate	- 5 U
78-93-32-Butanone	- 5 U
156-59-2cis-1,2-Dichloroethene	- 5 U
590-20-72,2-Dichloropropane	- 5 U 5 U
74-97-5Bromochloromethane	- 5 <del>0</del>
67-66-3Chloroform	5 0
71-55-61,1,1-Trichloroethane	-  5 Ŭ
563-58-61,1-Dichloropropene	- 5 Ū
56-23-5Carbon Tetrachloride	- 5 Ū
107-06-21,2-Dichloroethane	- 50
71-43-2Benzene	- 50
79-01-6Trichloroethene	- 50
78-87-51,2-Dichloropropane	- 5 U
74-95-3Dibromomethane	-  · 5 U
75-27-4Bromodichloromethane	5 0
10061-01-5cis-1.3-Dichloropropene	
108-10-14-Methyl-2-pentanone	5 U 5 U
108-88-3Toluene	- 5 U
10061-02-6trans-1,3-Dichloropropene	- <u>5</u> ד
79-00-51,1,2-Trichloroethane	-  5 Ŭ
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EPA SAMPLE NO.

VOLATILI	E ORGANICS ANALYSI	S DATA SHEET	,	
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Lab Name: MITKEM COP	RPORATION	Contract:		
Lab Code: MITKEM	Case No.:	SAS No.: SD	G No.: MF0378	
Matrix: (soil/water)	WATER	Lab Sample ID	: F0378-21A	
Sample wt/vol:	5.000 (g/mL) ML	Lab File ID:	V6F1557	
Level: (low/med)	LOW	Date Received	03/24/07	
% Moisture: not dec.		Date Analyzed	04/05/07	
GC Column: DB-624	ID: 0.25 (mm)	Dilution Facto	pr: 1.0	
Soil Extract Volume:	(uL)	Soil Aliquot V	/olume:(	uL)
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/I		
$\begin{array}{c} 127-18-4\\ 591-78-6\\ 124-48-1\\ 106-93-4\\ 108-90-7\\ 630-20-6\\ 130-20-6\\ 1330-20-7\\ 1330-20-7\\ 100-42-5\\ 95-47-6\\ 75-25-2\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-86-1\\ 98-86-1\\ 98-86-1\\ 98-86-1\\ 98-86-1\\ 98-86-1\\ 98-86-1\\ 98-88\\ 98-88\\ 98-88\\ 98-88\\ 98-88\\ 98-88$	o-Xylene Xylene (Total) Styrene Styrene Isopropylbenzene 1,1,2,2-Tetrach Bromobenzene 1,2,3-Trichlorop 	ne	555555555555555555555555555555555555555	

FORM I VOA

1E VOLATILE ORGANICS ANALYSI	EPA SAMPLE NO. 5 DATA SHEET
TENTATIVELY IDENTIFIE	
Lab Name: MITKEM CORPORATION	Contract:
Lab Code: MITKEM Case No.:	SAS No.: SDG No.: MF0378
Matrix: (soil/water) WATER	Lab Sample ID: F0378-21A
Sample wt/vol: 5.000 (g/mL) ML	Lab File ID: V6F1557
Level: (low/med) LOW	Date Received: 03/24/07
% Moisture: not dec.	Date Analyzed: 04/05/07
GC Column: DB-624 ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(uL)	Soil Aliquot Volume:(uL)
Number TICs found: 0	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

(ug/L or ug/Kg) ug/L

1	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	
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12.         13.         14.         15.         16.         17.         18.         19.         20.         21.         22.         23.         24.         25.         26.         27.         28.         29.         30.	1 TO. 1			······································	
14.         15.         16.         17.         18.         19.         20.         21.         22.         23.         24.         25.         26.         27.         28.         29.         30.					·
15.         16.         17.         18.         19.         20.         21.         22.         23.         24.         25.         26.         27.         28.         29.         30.					
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VOLATII,	1A E ORGANICS ANALYSI	S DATA SHEET	EPA SAMPLE NO.
Lab Name: MITKEM CO	RPORATION	Contract:	VIDLCS
Lab Code: MITKEM	Case No.:	SAS No.:	SDG No.: MF0378
Matrix: (soil/water)	SOIL	Lab Sam	ole ID: LCS-29227
Sample wt/vol:	5.0 (g/mL) G	Lab File	e ID: V113743
Level: (low/med)	LOW	Date Rec	eived:
% Moisture: not dec.	,,	Date Ana	lyzed: 04/05/07
GC Column: DB-624	ID: 0.25 (mm)	Dilution	Factor: 1.0
Soil Extract Volume:	(mL <sub>i</sub> )	Soil Ali	quot Volume:(uL)
CAS NO.	COMPOUND	CONCENTRATION (ug/L or ug/Kg	
$\begin{array}{c} 74-87-3\\ 75-01-4\\ 74-83-9\\ 75-00-3\\ 75-69-4\\ 75-35-4\\ 75-35-4\\ 75-15-0\\ 75-09-2\\ 156-60-5\\ 1634-04-4\\ 75-34-3\\ 1634-04-4\\ 75-34-3\\ 108-05-4\\ 78-93-3\\ 108-05-4\\ 74-97-5\\ 590-20-7\\ 74-97-5\\ 563-58-6\\ 563-58-6\\ 563-58-6\\ 563-58-6\\ 563-58-6\\ 71-43-2\\ 107-06-2\\ 71-43-2\\ 79-01-6\\ 78-87-5\\ 74-95-3\\ 74-95-3\\ 75-27-4\\ 108-10-1\\ 108-88-3\\ 10061-02-6\end{array}$	Iodomethane Carbon Disulfid Methylene Chlor Methyl tert-but Nethyl tert-but Nethyl tert-but Vinyl acetate 2-Butanone Cis-1,2-Dichloropro Bromochlorometh Chloroform 1,1,1-Trichloropro Carbon Tetrachlo 1,2-Dichloropro Benzene Trichloroethene 1,2-Dichloropro Dibromomethane 	methane   hene   hene   hene   hene   hene   oroethene   y1 ether   ane   oethene   pane   ane   oride   ane   pene   oride   ane   pane   oride   ane   pane   pane	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

# FORM I VOA

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EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSI	IS DATA SHEET
Lab Name: MITKEM CORPORATION	Contract:
Lab Code: MITKEM Case No.:	SAS No.: SDG No.: MF0378
Matrix: (soil/water) SOIL	Lab Sample ID: LCS-29227
Sample wt/vol: 5.0 (g/mL) G	Lab File ID: V1I3743
Level: (low/med) LOW	Date Received:
% Moisture: not dec.	Date Analyzed: 04/05/07
GC Column: DB-624 ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(mL)	Soil Aliquot Volume:(uL)
CAS NO. COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Q
142-28-91,3-Dichloropro 127-18-4Tetrachloroethe 591-78-62-Hexanone 124-48-1Dibromochlorome 106-93-41,2-Dibromoethe 108-90-7Chlorobenzene	ene       40         65

	32	
108-90-7Chlorobenzene	45	
630-20-61,1,1,2-Tetrachloroethane	46	
100-41-4Ethylbenzene	43	
m,p-Xylene	90	
95-47-6o-Xylene	46	
1330-20-7Xylene (Total)	140	
100-42-5Styrene	48	
75-25-2Bromoform	. 54	·
98-82-8Isopropylbenzene	43	
79-34-51,1,2,2-Tetrachloroethane	53	
108-86-1Bromobenzene	44	·····
96-18-41,2,3-Trichloropropane	62	
103-65-1n-Propylbenzene	40	
95-49-82-Chlorotoluene	42	
108-67-81,3,5-Trimethylbenzene	42	
106-43-44-Chlorotoluene	42	••
98-06-6tert-Butylbenzene	42	
95-63-61,2,4-Trimethylbenzene	41	
135-98-8sec-Butylbenzene	40	
99-87-64-Isopropyltoluene	40	·
541-73-11,3-Dichlorobenzene	42	
106-46-71,4-Dichlorobenzene	42	••
104-51-8n-Butylbenzene	40	
95-50-11,2-Dichlorobenzene	44	
96-12-81,2-Dibromo-3-chloropropane	60	
120-82-11,2,4-Trichlorobenzene	44	
87-68-3Hexachlorobutadiene	41	
91-20-3Naphthalene	52	
87-61-61,2,3-Trichlorobenzene	44	· · ·
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FORM I VOA

#### 1A EPA SAMPLE NO. VOLATILE ORGANICS ANALYSIS DATA SHEET VIELCS Lab Name: MITKEM CORPORATION Contract: Lab Code: MITKEM Case No.: SAS No.: SDG No.: MF0378 Matrix: (soil/water) SOIL Lab Sample ID: LCS-29252 Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1I3773 Level: (low/med) LOW Date Received:

GC Column: DB-624 ID: 0.25 (mm)

Soil Extract Volume: \_\_\_\_\_(mL)

% Moisture: not dec.

CAS NO. C

COMPOUND

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

Date Analyzed: 04/06/07

Dilution Factor: 1.0

Soil Aliquot Volume: \_\_\_\_\_(uL)

Q

75-71-8Dichlorodifluoromethane 74-87-3Chloromethane 75-01-4Vinyl Chloride 74-83-9Bromomethane 75-00-3Chloroethane 75-69-4Trichlorofluoromethane	32 42 50 43
74-87-3Chloromethane 75-01-4Vinyl Chloride 74-83-9Bromomethane 75-00-3Chloroethane 75-69-4Trichlorofluoromethane	42 50
75-01-4Vinyl Chloride 74-83-9Bromomethane 75-00-3Chloroethane 75-69-4Trichlorofluoromethane	50
74-83-9Bromomethane 75-00-3Chloroethane 75-69-4Trichlorofluoromethane	
75-00-3Chloroethane 75-69-4Trichlorofluoromethane	
75-69-4Trichlorofluoromethane	46
	45
75-35-41,1-Dichloroethene	48
67-64-1Acetone	65
74-88-4Iodomethane	50
75-15-0Carbon Disulfide	48
75-09-2Methylene Chloride	48
156-60-5trans-1.2-Dichloroethene	47
1634-04-4Methyl tert-butyl ether	58
75-34-31,1-Dichloroethane	51
108-05-4Vinvl acetate	59
78-93-32-Butanone	60
156-59-2cis-1,2-Dichloroethene	47
590-20-72.2-Dichloropropane	51
74-97-5Bromochloromethane	50
67-66-3	47
71-55-61,1,1-Trichloroethane	48
563-58-61,1-Dichloropropene	49
56-23-5Carbon Tetrachloride	47
107-06-21,2-Dichloroethane	50
71-43-2Benzene	50
79-01-6Trichloroethene	48
78-87-51,2-Dichloropropane	54
74-95-3Dibromomethane	51
75-27-4Bromodichloromethane	49
10061-01-5cis-1,3-Dichloropropene	53
108-10-14-Methyl-2-pentanone	71
108-88-3Toluene	48
10061-02-6trans-1,3-Dichloropropene	55
	52

FORM I VOA

1A VOLATILE ORGANICS ANALYSIS DATA	EPA SAMPLE NO. SHEET
Lab Name: MITKEM CORPORATION Contrac	VIELCS
	/l .
Lab Code: MITKEM Case No.: SAS N	Io.:SDG No.:MF0378
Matrix: (soil/water) SOIL	Lab Sample ID: LCS-29252
Sample wt/vol: 5.0 (g/mL) G	Lab File ID: V1I3773
Level: (low/med) LOW	Date Received:
% Moisture: not dec.	Date Analyzed: 04/06/07
GC Column: DB-624 ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(mL)	Soil Aliquot Volume: (uL
CONCL	ENTRATION UNITS: Lorug/Kg) UG/KG Q
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	47         96         48         140         48         55         49         49         49         49         49         49         49         49         49         48         48         47         47         48         47         48         47         48         47         48         47         48         47         48         47         48         49         50         49         50         49
87-61-61,2,3-Trichlorobenzene	51

## FORM I VOA

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1A VOLATILE ORGANICS ANALYSIS	DATA SHEET
Lab Name: MITKEM CORPORATION Co	ontract:
Lab Code: MITKEM Case No.:	SAS No.: SDG No.: MF0378
Matrix: (soil/water) SOIL	Lab Sample ID: LCS-29222
Sample wt/vol: 5.0 (g/mL) G	Lab File ID: V5H6483
Level: (low/med) LOW	Date Received:
% Moisture: not dec.	Date Analyzed: 04/05/07
GC Column: DB-624 ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(mL)	Soil Aliquot Volume: (uL)
CAS NO. COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Q
75-71-8Dichlorodifluoro 74-87-3Chloromethane 75-01-4Vinyl Chloride 74-83-9Bromomethane 75-00-3Chloroethane 75-69-4Trichlorofluorom 75-35-41,1-Dichloroether 67-64-1Acetone 74-88-4Iodomethane	51 53 58 57 ethane 66

67-64-1Acetone	
74-88-4Iodomethane	45
	57
75-15-0Carbon Disulfide	55
75-09-2Methylene Chloride	50
156-60-5trans-1,2-Dichloroethene	50 -
1634-04-4Methyl tert-butyl ether	50
75-34-31,1-Dichloroethane	51
108-05-4Vinyl acetate	49
78-93-32-Butanone	44
156-59-2cis-1,2-Dichloroethene	50
590-20-72,2-Dichloropropane	57
74-97-5Bromochloromethane	49
67-66-3Chloroform	55
71-55-61,1,1-Trichloroethane	57
563-58-61,1-Dichloropropene	51
56-23-5Carbon Tetrachloride	57
107-06-21,2-Dichloroethane	56
71-43-2Benzene	50
79-01-6Trichloroethene	51
78-87-51,2-Dichloropropane	50
74-95-3Dibromomethane	49
75-27-4Bromodichloromethane	54
10061-01-5cis-1,3-Dichloropropene	49
108-10-14-Methyl-2-pentanone	44
108-88-3Toluene	51
10061-02-6trans-1,3-Dichloropropene	52
79-00-51,1,2-Trichloroethane	49
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· 1A	EPA SAMPLE NO.
VOLATILE ORGANICS ANALYSI	S DATA SHEET
Lab Name: MITKEM CORPORATION	Contract:
Lab Code: MITKEM Case No.:	SAS No.: SDG No.: MF0378
Matrix: (soil/water) SOIL	Lab Sample ID: LCS-29222
Sample wt/vol: 5.0 (g/mL) G	Lab File ID: V5H6483
Level: (low/med) LOW	Date Received:
% Moisture: not dec.	Date Analyzed: 04/05/07
GC Column: DB-624 ID: 0.25 (mm)	Dilution Factor: 1.0
Soil Extract Volume:(mL)	Soil Aliquot Volume:(uL)
CAS NO. COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Q
142-28-91,3-Dichloropro 127-18-4Tetrachloroethe 591-78-62-Hexanone 124-48-1Dibromochlorome 106-93-41,2-Dibromoetha 108-90-7Chlorobenzene	ine     54       ine     50       50     50

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591-78-62-Hexanone	44	
124-48-1Dibromochloromethane	50	·
106-93-41,2-Dibromoethane	48	
108-90-7Chlorobenzene	50	
630-20-61,1,1,2-Tetrachloroethane	50	
100-41-4Ethylbenzene	51	
m,p-Xvlene	100	·
95-47-6o-Xylene	50	
1330-20-7Xylene (Total)	150	
100-42-5Styrene	50	
75-25-2Bromoform	50	
98-82-8Isopropylbenzene	52	·
79-34-51,1,2,2-Tetrachloroethane	45	
108-86-1Bromobenzene	52	
96-18-41,2,3-Trichloropropane	47	
103-65-1n-Propylbenzene	53	
95-49-82-Chlorotoluene	50	
108-67-81,3,5-Trimethylbenzene	53	
106-43-44-Chlorotoluene	51	
98-06-6tert-Butylbenzene	56	
95-63-61,2,4-Trimethylbenzene	52	
135-98-8sec-Butylbenzene	52	
99-87-64-Isopropyltoluene	53	
541-73-11,3-Dichlorobenzene	49	
106-46-71,4-Dichlorobenzene	49	
104-51-8n-Butylbenzene	52	
95-50-11,2-Dichlorobenzene	49	
96-12-81,2-Dibromo-3-chloropropane	44	
120-82-11,2,4-Trichlorobenzene	49	
87-68-3Hexachlorobutadiene	52	
91-20-3Naphthalene	40	
87-61-61,2,3-Trichlorobenzene	46	
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# FORM I VOA

VOLATILE	1A E ORGANICS ANALYSIS	5 DATA SHEET	EPA SAMPLE NO.
Lab Name: MITKEM COF	PORATION (	Contract:	V5BLCS
Lab Code: MITKEM	Case No.:	SAS No.:	SDG No.: MF0378
Matrix: (soil/water)	SOIL	Lab Sample	ID: LCS-29256
Sample wt/vol:	5.0 (g/mL) G	Lab File I	D: V5H6533
Level: (low/med)	LOW	Date Recei	ved:
% Moisture: not dec.		Date Analy	zed: 04/06/07
GC Column: DB-624	ID: 0.25 (mm)	Dilution F	actor: 1.0
Soil Extract Volume:	(mL)	Soil Aliqu	ot Volume:(uL)
CAS NO.	COMPOUND	CONCENTRATION UN (ug/L or ug/Kg) 1	
$\begin{array}{c} 74-87-3\\ 75-01-4\\ 74-83-9\\ 75-00-3\\ 75-35-4\\ 75-35-4\\ 74-88-4\\ 74-88-4\\ 75-15-0\\ 75-09-2\\ 156-60-5\\ 1634-04-4\\ 75-34-3\end{array}$	Dichlorodifluon Chloromethane Vinyl Chloride Bromomethane Chloroethane Chloroethane Trichlorofluoror 1,1-Dichloroetha Carbon Disulfide Methylene Chlor: trans-1,2-Dichlor trans-1,2-Dichloroetha Nethyl tert-buty	methane ene e ide proethene yl ether	55         48         52         54         53         64         56         41         56         52         50         52         50         52         50         52         50         52

	156-60-5trans-1,2-Dichloroethene	52		
	1634-04-4Methyl tert-butyl ether	50		
	75-34-31,1-Dichloroethane	52	· · ·	
	108-05-4Vinyl acetate	50		
	78-93-32-Butanone	49		
	156-59-2cis-1,2-Dichloroethene	50		
	590-20-72,2-Dichloropropane	55	·	
	74-97-5Bromochloromethane	50		
	67-66-3Chloroform	55	i	
	71-55-61,1,1-Trichloroethane	58		
	563-58-61,1-Dichloropropene	54		
	56-23-5Carbon Tetrachloride	59		
	107-06-21,2-Dichloroethane	58 -		
	71-43-2Benzene	50		
	79-01-6Trichloroethene	55 -		
	78-87-51,2-Dichloropropane	50 -		
	74-95-3Dibromomethane	53		
	75-27-4Bromodichloromethane	55	· · ·	
	10061-01-5cis-1,3-Dichloropropene	50		
1	108-10-14-Methyl-2-pentanone	53		
	108-88-3Toluene	52		
	10061-02-6trans-1,3-Dichloropropene	54		
	79-00-51,1,2-Trichloroethane	52		

#### FORM I VOA

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EPA SAMPLE NO.

VOLATILI	CORGANICS ANALYS	SIS DATA SH	EET			
Lab Name: MITKEM COF	RPORATION	Contract:			V5BLCS	
Lab Code: MITKEM	Case No.:	SAS No.	: SE	G No.	: MF0378	
Matrix: (soil/water)	SOIL		Lab Sample II	LCS	-29256	
Sample wt/vol:	5.0 (g/mL) G	:	Lab File ID:	V5He	6533	
Level: (low/med)	LOW	:	Date Received	8 #	<u>.</u>	
% Moisture: not dec.	,	1	Date Analyzed	: 04/0	06/07	
GC Column: DB-624	ID: 0.25 (mm)	1	Dilution Fact	or: 1.	. 0	
Soil Extract Volume:	(mL)	8	Soil Aliquot	Volume		(uL)
CAS NO.	COMPOUND		IRATION UNITS or ug/Kg) UG/		Q	
$\begin{array}{c} 127-18-4\\ 591-78-6\\ 124-48-1\\ 106-93-4\\ 108-90-7\\ 630-20-6\\ 100-41-4\\ 95-47-6\\ 1330-20-7\\ 100-42-5\\ 75-25-2\\ 98-82-8\\ 75-25-2\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 96-18-4\\ 95-63-6\\ 95-63-6\\ 95-63-6\\ 95-63-6\\ 95-63-6\\ 95-63-6\\ 95-63-6\\ 95-63-6\\ 95-63-6\\ 95-63-6\\ 95-63-6\\ 95-63-6\\ 95-63-6\\ 95-63-6\\ 95-63-6\\ 95-50-1\\ 96-12-8\\ 96-12-8\\ 87-68-3\\ 91-20-3\\ \end{array}$	Dibromochloror 1,2-Dibromoeth Chlorobenzene 	nene nethane nane chloroethan chloroethan chloroethan ropropane ne le lbenzene nzene nzene nzene nzene chloroprop obenzene diene	e	$\begin{array}{c} 486\\ 502\\ 519\\ 1\\ 500\\ 1\\ 500\\ 1\\ 500\\ 1\\ 500\\ 1\\ 500\\ 1\\ 500\\ 1\\ 500\\ 1\\ 500\\ 1\\ 500\\ 1\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\$		

#### FORM I VOA

EPA SAMPLE NO.

	VOLATIT	ORGANICS ANALYSI	S DATA SHEET			
Lab Nan	ne: MITKEM COR	PORATION	Contract:		VEDLCS	
		Case No.:		SĎG	No.: MF037	I 8
	(soil/water)				LCS-29156	
Sample	wt/vol:	5.000 (g/mL) ML	Lab F	ile ID:	V6F1393	
Level:	(low/med)	LOW	Date 1	Received:	·,	
% Moist	ure: not dec.		Date	Analyzed:	04/02/07	
		ID: 0.25 (mm)	Dilut:	ion Factor	c: 1.0	
Soil Ex	tract Volume:_	(uL)	Soil 2	Aliquot Vo	olume:	(uL)
(	CAS NO.	COMPOUND	CONCENTRATIO		Q	
7777117171576755177771101010	74-87-37 75-01-47 75-00-37 75-09-47 75-35-47 75-35-47 75-35-47 75-35-47 75-09-27 75-09-27 75-09-27 75-09-27 634-04-47 75-34-37 7-66-37 7-7-6-7 7-7-77 7-7-7-7 7-7-7-7-7 7-7-7-7-7-7 7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-	Iodomethane Carbon Disulfid Methylene Chlor: trans-1,2-Dichlor Methyl tert-buty 1,1-Dichloroetha Vinyl acetate 2-Butanone cis-1,2-Dichloroprop -Bromochlorometha Chloroform 1,1,1-Trichloroe 1,1-Dichloroprop -Carbon Tetrachlo -1,2-Dichloroprop Carbon Tetrachlo 1,2-Dichloroprop Dibromomethane Trichloroethene 1,2-Dichloroprop Dibromomethane Cis-1,3-Dichloroethene Cis-1,3-Di	methane ene ide oroethene yl ether ane oethene pane ane ethane pene oride ane oane one one one one one one one one one o		39         42         46         54         48         70         50         45         54         48         50         45         54         48         50         52         50         53         49         44         52         70         55         58         56         50         57         60         57         54         42         52	
10	0061-02-6	-trans-1,3-Dichlo -1,1,2-Trichloroe	ropropene thane		52 52 53 	
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EPA SAMPLE NO.

VOLATIL	E ORGANICS ANALYSIS	5 DATA SHEET			110.
ab Name: MITKEM CO	RPORATION (	Contract:		V6DLCS	
ab Code: MITKEM		SAS No.:	SDG No	D.: MF0378	1 B
atrix: (soil/water)		Lab Sample			
ample wt/vol:	5.000 (g/mL) ML				
evel: (low/med)		Date Receiv			
Moisture: not dec.	•	Date Analy:	. —		
C Column: DB-624		Dilution Fa			
oil Extract Volume:	(uL)	Soil Alique	ot Volu	me:	(uL)
CAS NO.	COMPOUND	CONCENTRATION UNI (ug/L or ug/Kg) (		Q	
$\begin{array}{c} 127-18-4\\ 591-78-6\\ 124-48-1\\ 106-93-4\\ 108-90-7\\ 630-20-6\\ 100-41-4\\ 95-47-6\\ 95-47-6\\ 95-47-6\\ 95-25-2\\ 75-25-2\\ 75-25-2\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-82-8\\ 98-88\\ 98-88\\ 98-88\\ 98-88\\ 98-88\\ 98-88\\ 98-88\\ 98-88\\ 98-88\\ 98-88\\ 98-88\\ 98-88\\ 98-88\\ 98-88\\ 98-88\\ 99-87-6\\ 99-87-6\\ 104-51-8\\ 98-12-8\\ 87-68-3\\ 91-20-3\\ \end{array}$	Xylene (Total) Styrene Bromoform Isopropylbenzene 1,1,2,2-Tetrachl Bromobenzene 1,2,3-Trichlorop 	he		52	

#### FORM I VOA

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EPA SAMPLE NO.

VOLATILI	E ORGANICS ANALYSIS	DATA SHEET	
Lab Name: MITKEM COP	RPORATION C	ontract:	VELLCS
Lab Code: MITKEM	Case No.:	SAS No.: S	SDG No.: MF0378
Matrix: (soil/water)	WATER	Lab Sample I	D: LCS-29237
Sample wt/vol:	5.000 (g/mL) ML	Lab File ID:	V6F1544
Level: (low/med)	LOW	Date Receive	ed:
* Moisture: not dec.		Date Analyze	d: 04/05/07
GC Column: DB-624			
Soil Extract Volume:	(uL) .		Volume:(uL)
CAS NO.	COMPOUND	CONCENTRATION UNIT; (ug/L or ug/Kg) UG,	
$\begin{array}{c} 74-87-3\\ 75-01-4\\ 74-83-9\\ 75-00-3\\ 75-35-4\\ 75-35-4\\ 75-35-4\\ 74-88-4\\ 75-15-0\\ 75-09-2\\ 156-60-5\\ 1634-04-4\\ 75-34-3\\ 108-05-4\\ 78-93-3\\ 156-59-2\\ 590-20-7\end{array}$	Iodomethane Carbon Disulfide Methylene Chlori trans-1,2-Dichlo Methyl tert-buty 1,1-Dichloroethan Vinyl acetate	ethene	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
$\begin{array}{c} 67-66-3\\71-55-6\\563-58-6\\56-23-5\\107-06-2\\71-43-2\\79-01-6\\78-87-5\\74-95-3\\74-95-3\\75-27-4\\10061-01-5\\108-88-3\\108-88-3\\10061-02-6\end{array}$	Chloroform 1,1,1-Trichloroet 1,1-Dichloroprope Carbon Tetrachlon 1,2-Dichloroethan Benzene Trichloroethene 1,2-Dichloroprope Dibromomethane Bromodichlorometh cis-1,3-Dichlorop -4-Methyl-2-pentar	thane ene ride ne ane ane propene none	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

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1A VOLATILE ORGANICS ANALYSIS DATA SH	IEET	EPA SAMPL	E NO.
		VELLCS	
Lab Name: MITKEM CORPORATION Contract:	1.		1
Lab Code: MITKEM Case No.: SAS No.	: SDG	No.: MF03	78
Matrix: (soil/water) WATER	Lab Sample ID:	LCS-29237	
Sample wt/vol: 5.000 (g/mL) ML	Lab File ID:	V6F1544	
Level: (low/med) LOW	Date Received:		
% Moisture: not dec.	Date Analyzed:	04/05/07	
GC Column: DB-624 ID: 0.25 (mm)	Dilution Factor	r: 1.0	
Soil Extract Volume:(uL)	Soil Aliquot Vo	olume:	(uL)
	IRATION UNITS: or ug/Kg) UG/L	Q	
$\begin{array}{c} 142-28-91, 3-\text{Dichloropropane}\\ 127-18-4Tetrachloroethene\\ 591-78-62-Hexanone\\ 124-48-1Dibromochloromethane\\ 106-93-4Dibromochloromethane\\ 108-90-7Chlorobenzene\\ 630-20-6$		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
106-43-44-Chlorotoluene         98-06-6tert-Butylbenzene         95-63-6tert-Butylbenzene         135-98-8sec-Butylbenzene         99-87-64-Isopropyltoluene         541-73-11,3-Dichlorobenzene         106-46-71,4-Dichlorobenzene         104-51-81,2-Dichlorobenzene         95-50-11,2-Dichlorobenzene         96-12-81,2-Dibromo-3-chloropropi         120-82-11,2,4-Trichlorobenzene         87-68-3Hexachlorobutadiene	ane	52         52         53         53         50         50         50         51         53         53         54         53         49	

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#### 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

74-83-9----Bromomethane

75-00-3-----Chloroethane

74-88-4-----Iodomethane

108-05-4----Vinyl acetate

78-93-3----2-Butanone

67-66-3-----Chloroform

71-43-2----Benzene

108-88-3-----Toluene

67-64-1----Acetone

75-69-4-----Trichlorofluoromethane

156-60-5-----trans-1,2-Dichloroethene

1634-04-4-----Methyl tert-butyl ether

156-59-2----cis-1,2-Dichloroethene

71-55-6-----1,1,1-Trichloroethane

563-58-6-----1,1-Dichloropropene

107-06-2----1,2-Dichloroethane

78-87-5-----1,2-Dichloropropane

75-27-4----Bromodichloromethane

108-10-1-----4-Methyl-2-pentanone

79-00-5-----1,1,2-Trichloroethane

10061-01-5----cis-1,3-Dichloropropene

10061-02-6----trans-1,3-Dichloropropene

79-01-6----Trichloroethene

74-95-3-----Dibromomethane

56-23-5-----Carbon Tetrachloride

75-35-4-----1,1-Dichloroethene

75-15-0-----Carbon Disulfide

75-09-2-----Methylene Chloride

75-34-3-----1, 1-Dichloroethane

590-20-7-----2,2-Dichloropropane

74-97-5-----Bromochloromethane

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Lab Name: MITKEM CORPORATION	Contract:
Lab Code: MITKEM Case No.:	SAS No.: SDG No.: MF0378
Matrix: (soil/water) SOIL	Lab Sample ID: LCS-29260
Sample wt/vol: 5.0 (g/mL)	G Lab File ID: V6F1609
Level: (low/med) MED	Date Received:
% Moisture: not dec.	Date Analyzed: 04/06/07
GC Column: DB-624 ID: 0.25 (mm	) Dilution Factor: 1.0
Soil Extract Volume: 5(mL)	Soil Aliquot Volume: 100.0(uL)
CAS NO. COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Q
75-71-8Dichlorodif 74-87-3Chloromethau 75-01-4Vinyl Chlor	ne 2200

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EPA SAMPLE NO.

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Inh Mamor Matury		Combran at-		V6NLCS	
Lab Name: MITKEM Co	JRPORATION	Contract:	I		I
Lab Code: MITKEM	Case No.:	SAS No.:	SDG No	.: MF037	78
Matrix: (soil/water	r) SOIL	Lab Sa	ample ID: LC	S-29260	•
Sample wt/vol:	5.0 (g/mL) G	Lab Fi	le ID: V6	F1609	
Level: (low/med)	MED		Received:		
% Moisture: not dec			·		
		Dale A	nalyzed: 04	/06/07	
GC Column: DB-624	ID: 0.25 (mm)	Diluti	on Factor:	1.0	
Soil Extract Volume	≥: 5(mL)	Soil A	liquot Volu	me: 1	.00 <b>.</b> 0(1
		CONCENTRATIO	N UNITS:		
CAS NO.	COMPOUND	(ug/L or ug/		. Q	
	<u> </u>			<u> </u>	.1
142-28-9	1,3-Dichloropro	opane	260		
	Tetrachloroethe	ene	260		
	2-Hexanorie		24(		· ·
	Dibromochlorome	ethane	260		
	1,2-Dibromoetha	ane	260		
	Chlorobenzene		260		
630-20-6	1,1,1,2-Tetrack	loroethane	260		
100-41-4	Ethylbenzene	· · · · · · · · · · · · · · · · · · ·	270		
	m,p-Xylene		540		
95-47-6	o-Xylene		270		
	Xylene (Total)		810		
100-42-5	Styrene		270		
	Bromoform		270		
98-82-8	Isopropylbenzer	1e	280		
79-34-5	1,1,2,2-Tetrach	loroethane	270		
108-86-1	Bromobenzene		260		
96-18-4	1,2,3-Trichlord	propane	320		
103-65-1	n-Propylbenzene	2	260		
95-49-8	2-Chlorotoluene		260		
108-67-8	1,3,5-Trimethyl	benzene	280		
106-43-4	4-Chlorotoluene		260	0	
98-06-6	tert-Butylbenze	ne .	. 260	0	
95-63-6	1,2,4-Trimethy1	benzene	280	0	
135-98-8	sec-Butylbenzen	le	280	0	
	4-Isopropyltolu		270	0	
	1,3-Dichloroben		260	0	
106-46-7	1,4-Dichloroben	zene	260	0	
104-51-8	n-Butylbenzene		280	0	
95-50-1	1,2-Dichloroben	zene	270		
96-12-8	1,2-Dibromo-3-c	hloropropane	260		
120-82-1	1,2,4-Trichloro	benzene	260		
87-68-3	Hexachlorobutad	iene	240		
91-20-3	Naphthalene		290		
	1,2,3-Trichloro	benzene	270		
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EPA SAMPLE NO.

VOLATILE	ORGANICS ANALYSIS	DATA SHEET			MELLA NO.
Lab Name: MITKEM COR	PORATION C	ontract:		V6T	LCS
Lab Code: MITKEM			SDG	No.: M	
Matrix: (soil/water)					
Sample wt/vol:			ile ID:		
Level: (low/med)			Received:		
% Moisture: not dec.			Analyzed:		
GC Column: DB-624			ion Factor		
Soil Extract Volume:					100.0(uL)
CAS NO.	COMPOUND	CONCENTRATION (ug/L or ug,	ON UNITS:		Q .
$\begin{array}{c} 74-87-3\\ 75-01-4\\ 74-83-9\\ 75-00-3\\ 75-09-3\\ 75-35-4\\ 75-35-4\\ 75-15-0\\ 75-09-2\\ 156-60-5\\ 1634-04-4\\ 75-34-3\\ 108-05-4\\ 75-34-3\\ 108-05-4\\ 78-93-3\\ 108-05-4\\ 78-93-3\\ 590-20-7\\ 74-97-5\\ 590-20-7\\ 74-97-5\\ 563-58-6\\ 563-58-6\\ 563-58-6\\ 71-43-2\\ 79-01-6\\ 78-87-5\\ 74-95-3\\ 75-27-4\\ 10061-01-5\end{array}$	Iodomethane Carbon Disulfide Methylene Chlori trans-1,2-Dichlo Methyl tert-buty 1,1-Dichloroetha Vinyl acetate 2-Butanone Cis-1,2-Dichloroe 2,2-Dichloropropa -Bromochloromethan Chloroform 1,1,1-Trichloroethan Chloroform 1,2-Dichloropropa Carbon Tetrachlon 1,2-Dichloropropa Dichloroethene 1,2-Dichloropropa Dibromomethane Bromodichlorometh cis-1,3-Dichlorop -4-Methyl-2-pentar	de   ne      de   roethene   1 ether   ne      ethene   ane   ne    thane  thane  ane  ane  ane  ane  ane ane		1800	
10061-02-6	-trans-1,3-Dichlor -1,1,2-Trichloroet	opropene hane	2	800 400 800	
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#### 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

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Lab Name: MITKEN CORPORATION	Contract:
Lab Code: MITKEM Case No.:	SAS No.: SDG No.: MF0378
Matrix: (soil/water) SOIL	Lab Sample ID: LCS-29303
Sample wt/vol: 5.0 (g/mL)	G Lab File ID: V6F1729
Level: (low/med) MED	Date Received:
% Moisture: not dec.	Date Analyzed: 04/11/07
GC Column: DB-624 ID: 0.25 (mm)	) Dilution Factor: 1.0
Soil Extract Volume: 5(mL)	Soil Aliquot Volume: 100.0(uL)
CAS NO. COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Q

		•
142-28-91,3-Dichloropropane	2800	
127-18-4Tetrachloroethene	2700	
591-78-62-Hexanone	2200	
124-48-1Dibromochloromethane	2500	·
106-93-41,2-Dibromoethane	2500	·
108-90-7Chlorobenzene	2800	
630-20-61,1,1,1,2-Tetrachloroethane	2600	
100-41-4Ethylbenzene	2700	·
m,p-Xylene	5500	·
95-47-6o-Xylene	2800	,
1330-20-7Xylene (Total)	8300	<u></u>
100-42-5Styrene	2800	·
75-25-2Bromoform	2600	·
98-82-8Isopropylbenzene	2800	
79-34-51,1,2,2-Tetrachloroethane	2700	
108-86-1Bromobenzene	2700	
96-18-41,2,3-Trichloropropane	3300	
103-65-1n-Propylbenzene	2800	
95-49-82-Chlorotoluene	2800	
108-67-81,3,5-Trimethylbenzene	2700	
106-43-44-Chlorotoluene	2800	
98-06-6tert-Butylbenzene	2600	
95-63-61,2,4-Trimethylbenzene	2800	[
135-98-8sec-Butylbenzene	2800	
99-87-64-Isopropyltoluene	2800	·
541-73-11, 3-Dichlorobenzene	2700	]
106-46-71,4-Dichlorobenzene	2600	
104-51-8n-Butylbenzene	2700	
95-50-11,2-Dichlorobenzene	2700	
96-12-81, 2-Dibromo-3-chloropropane	2300	
120-82-11,2,4-Trichlorobenzene	2300	· · ·
87-68-3Hexachlorobutadiene	2200	
91-20-3Naphthalene	2300	·
87-61-61,2,3-Trichlorobenzene	2300	
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### Appendix C

Microbial Insights Data Package March 2007 Sampling Event



## Phospholipid Fatty Acid Analysis

#### **Interpretation Guidelines**

Phospholipids fatty acids (PLFA) are a main component of the membrane (essentially the "skin") of microbes and provide a powerful tool for assessing microbial responses to changes in their environment. This type of analysis provides direct information for assessing and monitoring sites where bioremediation processes, including natural attenuation, are of interest. Analysis of the types and amount of PLFA provides a broad based understanding of the entire microbial community with information obtained in three key areas viable biomass, community structure and metabolic activity.

#### What is the detection limit for PLFA?

Our limit of detection for PLFA analysis is ~50 picomoles of total PLFA and our limit of quantification is ~150 picomoles of total PLFA. Samples which contain PLFA amounts at or below 50 pmol cannot be used to determine biomass, likewise samples with PLFA content below ~150 pmol are generally considered to contain too few fatty acids to discuss community composition.

#### How should I interpret the PLFA results?

Interpreting the results obtained from PLFA analysis can be somewhat difficult, so this document was designed to provide a technical guideline. For convenience, this guideline has been divided into the three key areas.

#### Viable Biomass

PLFA analysis is one of the most reliable and accurate methods available for the determination of viable microbial biomass. Phospholipids break down rapidly upon cell death (21, 23), so biomass calculations based on PLFA content do not contain 'fossil' lipids of dead cells.

#### How is biomass measured?

Viable biomass is determined from the total amount of PLFA detected in a given sample. Since, phospholipids are an essential part of intact cell membranes they provide an accurate measure of viable cells.

#### How is biomass calculated?

Biomass levels are reported as cells per gram, mL or bead, and are calculated using a conversion factor of 20,000 cells/pmole of PLFA. This conversation factor is based upon cells grown in laboratory media, and varies somewhat with the type of organism and environmental conditions.

#### What does the concentration of biomass mean?

The overall abundance of microbes within a given sample is often used as an indicator of the potential for bioremediation to occur, but understanding the levels of biomass within each sample can be cumbersome. The following are benchmarks that can be used to understand whether the biomass levels are low, moderate or high.

Low	Moderate	High
10 <sup>3</sup> to 10 <sup>4</sup> cells	10 <sup>5</sup> to 10 <sup>6</sup> cells	10 <sup>7</sup> to 10 <sup>8</sup> cells

#### How do I know if a change in biomass is significant?

One of the primary functions of using PLFA analysis at contaminated sites is to evaluate how a community responds following a given treatment, but how does one know if the changes observed between two events are significant? As a general rule, biomass levels which increase or decrease by at least an order of magnitude are considered to be significant. However, changes in biomass levels of less than an order of magnitude may still show a trend. It is important to remember that many factors can affect microbial growth, so factors other than the treatment could be influencing the changes observed between sampling events. Some of the factors to consider are: temperature, moisture, pH, etc. The following illustration depicts three types of changes that occurred over time and the conclusions that could be drawn.

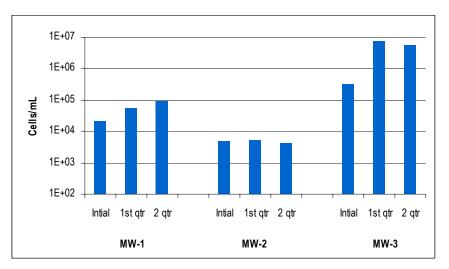


Figure 1. Biomass content is presented as a cell equivalent based on the total amount of phospholipid fatty acids (PLFA) extracted from a given sample. Total biomass is calculated based upon PLFA attributed to bacterial and eukaryotic biomass (associated with higher organisms).

#### Conclusions from graph above:

- MW-1 showed a trend of biomass levels increasing steadily over time, although cell concentrations were ~10<sup>4</sup> cells/mL at each sampling event.
- MW-2 showed no notable trends or significant changes in biomass concentrations.
- MW-3 showed a significant increase in biomass levels between the initial and 1<sup>st</sup> quarter sampling events (from ~10<sup>5</sup> to ~10<sup>6</sup> cells/mL).

#### **Community Structure:**

The PLFA in a sample can be separated into particular types, and the resulting PLFA "profile" reflects the proportions of the categories of organisms present in the sample. Because groups of bacteria differ in their metabolic capabilities, determining which bacterial groups are present and their relative distributions within the community can provide information on what metabolic processes are occurring at that location. This in turn can also provide information on the subsurface conditions (i.e oxidation/reduction status, etc.). Table 1 describes the six major structural groups used and their potential relevance to site specific projects.

Table 1. Description of PLFA structural groups	Table 1.	Descriptio	n of PLFA	structural	groups.
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PLFA Structural Group	General classification	Potential Relevance to Bioremediation Studies
Monoenoic (Monos)	Abundant in Proteobacteria (Gram negative bacteria), typically fast growing, utilize many carbon sources, and adapt quickly to a variety of environments.	Proteobacteria is one of the largest groups of bacteria and represents a wide variety of both aerobes and anaerobes. The majority of Hydrocarbon utilizing bacteria fall within the Proteobacteria
Terminally Branched Saturated (TerBrSats)	Characteristic of Firmicutes (Low G+C Gram-positive bacteria), and also found in Bacteriodes, and some Gram-negative bacteria (especially anaerobes).	Firmicutes are indicative of presence of anaerobic fermenting bacteria (mainly <i>Clostridia/Bacteriodes</i> -like), which produce the $H_2$ necessary for reductive dechlorination
Branched Monoenoic (BrMonos)	Found in the cell membranes of micro-aerophiles and anaerobes, such as sulfate- or iron-reducing bacteria	In contaminated environments high proportions are often associated with anaerobic sulfate and iron reducing bacteria
Mid-Chain Branched Saturated (MidBrSats)	Common in sulfate reducing bacteria and also Actinobacteria (High G+C Gram-positive bacteria).	In contaminated environments high proportions are often associated with anaerobic sulfate and iron reducing bacteria
Normal Saturated (Nsats)	Found in all organisms.	High proportions often indicate less diverse populations.
Polyenoic	Found in eukaryotes such as fungi, protozoa, algae, higher plants, and animals.	Eukaryotic scavengers will often rise up and prey on contaminant utilizing bacteria

Following are answers to some of the common questions about community composition and some detailed descriptions of some typical shifts which can be observed between sampling events.

#### How is the community structure data presented?

Community structure data is presented as percentage (%) of the total amount of PLFA. In order to relate the complex mixture of PLFA to the organisms present, the ratio of a specifc PLFA group is determined (detailed in Table 1 above), and this corresponds to the proportion of the related bacterial classification within the overall community structure. Because normal saturated PLFA are found in both prokaryotes (bacteria) and eukaryotes (fungi, protozoa, diatoms etc), their distribution provides little insight into the types of microbes that are present at a sampling location. However, high proportions of normal saturates are often associated with less diverse microbial populations.

#### How can community structure data be used to manage my site?

It is important to understand that microbial communities are often a mixture of different types of bacteria (e.g. aerobes, sulfate reducers, methanogens, etc) with the abundance of each group behaving like a seesaw, i.e. as the population of one group increases, another is likely decreasing, mostly due to competition for available resources. The PLFA profile of a sample provides a "fingerprint" of the microbial community, showing relative proportions of the specific bacterial types at the time of sampling. This is a great tool for detecting shifts within the community over time and also to evaluate similarities/differences between sampling locations. It is important to note that PLFA analysis of community structure is analyzing the microbes directly, not just secondary breakdown products. So this provides evidence of how the entire microbial community is responding to the treatment.

#### How do I recognize community shifts and what they mean?

Shifts in the community structure are indications of changing conditions and their effect on the microbial community, and, by extension on the metabolic processes occurring at the sampling location. Some of the more commonly seen shifts within the community are illustrated and discussed below:

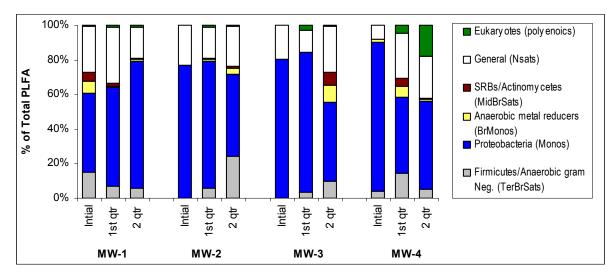


Figure 2. Relative percentages of total PLFA structural groups in the samples analyzed. Structural groups are assigned according to PLFA chemical structure, which is related to fatty acid biosynthesis. See Table 1 for detailed descriptions of structural groups.

#### Increased Proteobacteria

Proportions of Proteobacteria are of interest because it is one of the largest groups of bacteria and represents a wide variety of both aerobe and anaerobes. The majority of hydrocarbons (including benzene and naphthalene) are metabolized by some member of Proteobacteria, mainly due to their ability to grow opportunistically, quickly taking advantage of available food (i.e. hydrocarbons), and adapting quickly to changes in the environment. The detection of increased proportions of Proteobacteria coupled with increased biomass suggests that the Proteobacteria are consuming something. In situations where it is important to determine the extent to which the Proteobacteria are utilizing anaerobic or aerobic pathways, it is possible to measure relative proportions of specific biomarkers that are associated with anaerobic or aerobic pathways thus separating the Proteobacteria into different groups, based on pathways used. Sample MW-1 from Figure 2 depicts a shift in community structure where the proportion of Proteobacteria has increased over time.

#### Increased Firmicutes/Anaerobic Gram negative bacteria

Increased proportions of Firmicutes/Anaerobic Gram negative bacteria generally indicate that conditions are becoming more reductive (i.e. more anaerobic). Proportions of Firmicutes are of particular interest in sites contaminated with chlorinated hydrocarbons because Firmicutes include anaerobic fermenting bacteria (mainly *Clostridia/Bacteriodes*-like), which produce the H<sub>2</sub> necessary for reductive dechlorination.

Enhanced bioremediation of chlorinated solvents often employs the injection of fermentable substrates which, when utilized by fermenting bacteria, results in the release of  $H_2$ . Engineered shifts in the microbial community can be shown by observing increased proportions Firmicutes following an injection of fermentable substrate. Through long-term monitoring of the community structure it is possible to know when re-injection may be necessary or desirable. Sample MW-2 from Figure 2 depicts a shift in community structure where the proportion of Firmicutes has increased over time.

#### • Increased anaerobic metal reducing bacteria (BrMonos) and SRB/Actinomycetes (MidBrSats)

An increase in the proportions of metal and sulfate reducing bacterial groups, especially when combined with shifts in the other bacterial groups, can provide information helpful to monitoring bioremediation. Generally, an increase in metal and sulfate reducers points to more reduced (anaerobic) conditions at the sampled location. This is especially true if there is an increase in Firmicutes at the same time. Large increases in either metal and sulfate reducers, particularly if accompanied by a decrease in Firmicutes, may suggest that conditions are becoming increasingly reduced. In this situation the metal and sulfate reducers may be out-competing dechlorinators for available H<sub>2</sub>, thereby limiting the potential for reductive dechlorination at that location. Sample MW-3 from Figure 2 depicts a shift in community structure where the proportion of metal reducing bacteria has increased over time.

#### • Increased Eukaryotes

Eukaryotes include organisms such as fungi, protozoa, and diatoms. At a contaminated location, an increase in eukaryotes, particularly if seen with a decrease in the contaminant utilizing bacteria, suggests that eukaryotic scavengers are preying upon what had been an abundance of bacteria which were consuming the contaminant. Sample MW-4 from Figure 2 depicts a shift in community structure where the proportion of eukaryotes has increased over time.

#### **Physiological status of Proteobacteria**

The membrane of a microbe adapts to the changing conditions of its environment, and these changes are reflected in the PLFA. Toxic compounds or environmental conditions may disrupt the membrane and some bacteria respond by making *trans* fatty acids instead of the usual *cis* fatty acids (7) in order to strengthen the cell membrane, making it less permeable. Many Proteobacteria respond to lack of available substrate or to highly toxic conditions by making cyclopropyl (7) or mid-chain branched fatty acids (20) which point to less energy expenditure and a slowed growth rate. The physiological status ratios for Decreased Permeability (trans/cis ratio) and for Slowed Growth (cy/cis ratio) are based on dividing the amount of the fatty acid induced by environmental conditions by the amount of its biosynthetic precursor.

#### What does slowed growth or decreased permeability mean?

Ratios for slowed growth and for decreased permeability of the cell membrane provide information on the "health" of the Gram negative community, that is, how this population is responding to the conditions present in the environment. It should be noted that one must be cautious when interpreting these measures from only one sampling event. The most effective way to use the physiological status indicators is in long term monitoring and comparing how these ratios increase/decrease over time.

A marked increase in either of these ratios suggests a change in environment which is less favorable to the Gram negative Proteobacteria population. The ratio for slowed growth is a relative measure, and does not directly correspond to log or stationary phases of growth, but is useful as a comparison of growth rates among sampling locations and also over time. An increase in this ratio (i.e. slower growth rate) suggests a change in conditions which is not as supportive of rapid, "healthy" growth of the Gram negative population, often due to reduced available substrate (food). A larger ratio for decreased permeability suggests that the environment has become more toxic to the Gram negative population, requiring energy expenditure to produce *trans* fatty acids in order to make the membrane more rigid.

#### References

- 1. Amann, R. I., W. Ludwig, and K.-H. Schleifer. 1995. Phylogenetic identification and in situ detection of individual microbial cells without cultivation. Microbiological Reviews 59:143-169.
- 2. Cottrell, MT and David L. Kirchman. Appl Environ Microbiol. 2000 April; 66 (4): 16921697.
- Gillis, M., V. Tran Van, R. Bardin, M. Goor, P. Hebbar, A. Willems, P. Segers, K. Kerstens, T. Heulin, and M. P. Fernadez. 1995. Polyphasic taxonomy in the genus Burkholderia leading to an amended description of the genus and proposition of Burkholderia vietnamiensis sp. nov. for N2-fixing isolates from rice in Vietnam. Int. J. Syst. Bacteriol. 45:274-289.
- Dowling, N. J. E., F. Widdel, and D. C. White. 1986. Phospholipid ester-linked fatty acid biomarkers of acetate-oxidizing sulfate reducers and other sulfide forming bacteria. Journal of General Microbiology 132:1815-1825.
- Edlund, A., P. D. Nichols, R. Roffey, and D. C. White. 1985. Extractable and lipopolysaccharide fatty acid and hydroxy acid profiles from Desulfovibrio species. Journal of Lipid Research 26:982-988.
- Guckert, J. B., C. P. Antworth, P. D. Nichols, and D. C. White. 1985. Phospholipid ester-linked fatty acid profiles as reproducible assays for changes in prokaryotic community structure of estuarine sediments. FEMS Microbiol. Ecol. 31:147-158.
- 7. Guckert, J. B., M. A. Hood, and D. C. White. 1986. Phospholipid ester-linked fatty acid profile changes during nutrient deprivation of Vibrio cholerae: increases in the trans/cis ratio and proportions of cyclopropyl fatty acids. Appl. Environ. Microbiol. 52:794–801.
- Hedrick, D.B., A Peacock, J.R. Stephen, S.J. Macnaughton, Julia Brüggemann, and David C. White. 2000. Measuring soil microbial community diversity using polar lipid fatty acid and denatured gradient gel electrophoresis data. J. Microbiol. Methods, 41, 235-248.
- ITRC Internet Training on Natural Attenuation of Chlorinated Solvents in Groundwater: Principles and Practices, Apr 00.
- Löffler, F. E., Q. Sun, et al. (2000). "16S rRNA gene-based detection of tetrachloroethene-dechlorinating Desulfuromonas and Dehalococcoides species." Appl Environ Microbiol 66(4): 1369-1374.
- 11. Maymo-Gatell X, Chien Y, Gossett JM, Zinder SH. 1997. Isolation of a bacterium that reductively dechlorinates tetrachloroethene to ethene. Science 276(5318):1568-71.
- 12. Muyzer, G., E. C. De Waal, and A. G. Uitterlinden. 1993. Profiling of complex microbial populations by denaturing gradient gel electrophoresis analysis of polymerase chain reaction-amplified genes coding for 16S rRNA. Applied and Environmental Microbiology 59:695-700.
- 13. Ribosomal Database Project (http://rdp.cme.msu.edu. National Center for Biotechnology Information. (http://www.ncbi.nlm.nih.gov/)
- 14. Overman, J., "Family Chlorobiaceae," in M. Dworkin et al., eds., The Prokaryotes: An Evolving Electronic Resource for the Microbiological Community, 3rd edition, release 3.7, November 2, 2001, Springer-Verlag, New York, www.prokaryotes.com.
- 15. Ringelberg, D. B., G. T. Townsend, K. A. DeWeerd, J. M. Sulita, and D. C. White. 1994. Detection of the anaerobic dechlorinating microorganism Desulfomonile tiedjei in environmental matrices by its signature lipopolysaccharide branch-long-chain hydroxy fatty acids. FEMS Microbiol. Ecol. 14:9-18.
- Schlötelburg, C. 2001. Mikrobielle Diversität und Dynamik einer 1,2-Dichlorpropan dechlorierenden Mischkultur (Microbial Diversity and Dynamics in a 1,2-Dichloropropane Dechlorinating Mixed Culture). Dissertation, Humbolt University, Berlin, Germany. In German: http://edoc.huberlin.de/dissertationen/schloetelburg-cord-2001-12-07/PDF/Schloetelburg.pdf
- 17. Sharp, R., D. Cossar, and R. Williams. 1995. Physiology and metabolism of Thermus. Biotechnol. Handb. 9:67-91.
- Stephen, J. R., Y.-J. Chang, Y. D. Gan, A. Peacock, S. Pfiffner, M. Barcelona, D. C. White, and S. J. Macnaughton. 1999. Microbial characterization of a JP-4 fuel-contaminated site using a combined lipid biomarker/polymerase chain reaction-denaturing gradient gel electrophoresis (PCR-DGGE) based approach. Environmental Microbiology 1:231-241.
- Tighe, S.W., de Lajudie, P., Dipietro, K., Lindström, K., Nick, G. & Jarvis, B.D.W. (2000). Analysis of cellular fatty acids and phenotypic relationships of Agrobacterium, Bradyrhizobium, Mesorhizobium, Rhizobium and Sinorhizobium species using the Sherlock Microbial Identification System. Int J Syst Evol Microbiol 50, 787-801.
- 20. Tsitko, I.V. Gennadi M. Zaitsev, Anatoli G. Lobanok, and Mirja S. Salkinoja-Salonen. 1999. Applied and Environmental Microbiology 65(2) 853-855.
- 21. White, D. C., W. M. Davis, J. S. Nickels, J. D. King, and R. J. Bobbie. 1979. Determination of the sedimentary microbial biomass by extractable lipid phosphate. Oecologia 40:51-62.
- White, D. C., H. C. Pinkart, and D. B. Ringelberg. 1997. Biomass measurements: Biochemical approaches, p. 91-101. In C. J. Hurst, G. R. Knudsen, M. J. McInerney, L. D. Stetzenbach, and M. V. Walter (ed.), Manual of Environmental Microbiology. ASM Press, Washington.
- 23. White, D. C., and D. B. Ringelberg. 1995. Utility of signature lipid biomarker analysis in determining in situ viable biomass, community structure, and nutritional / physiological status of the deep subsurface microbiota. In P. S. Amy and D. L. Halderman (ed.), The microbiology of the terrestrial subsurface. CRC Press, Boca Raton.
- White, D. C., J. O. Stair, and D. B. Ringelberg. 1996. Quantitative comparisons of in situ microbial biodiversity by signature biomarker analysis. Journal of Industrial Microbiology 17:185-196.
- 25. Vandamme P, Pot B, Gillis M, de Vos P, Kersters K, Swings J. Polyphasic taxonomy, a consensus approach to bacterial systematics. Microbiol Rev 1996 Jun;60(2):407-38.



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## **DNA Analysis Report**

Client:	Kevin Seise Earth Tech, Inc. 300 Broadacres I	Drive	Phone:	(973) 338-6680
	Bloomfield, NJ 07	7003	Fax:	(973) 338-1052
MI Identifie	er: 047EC	Date Rec: 03/26/2007	Repo	ort Date: 04/23/2007
Client Proj	ect #: 95900	Client Proje	ect Name: SM	IS
Purchase (	Order #:			
Analysis R	equested:	CENSUS, PLFA		
Comments				
Control Act (4	0 CFR part 790). All s	were analyzed under U.S. EPA Good L amples were processed according to st assurance requirements established b	andard operating	procedures. Test results submitted

**Reported By:** 

anita Biernacki

**Reviewed By:** 

Dora M Cylis

NOTICE: This report is intended only for the addressee shown above and may contain confidential or privileged information. If the recipient of this material is not the intended recipient or if you have received this in error, please notify Microbial Insights, Inc. immediately. The data and other information in this report represent only the sample(s) analyzed and are rendered upon condition that it is not to be reproduced without approval from Microbial Insights, Inc. Thank you for your cooperation.

### Q Potential (DNA)

Client: Project:	Earth Tech, Inc. SMS				MI Project Number: Date Received:	<b>047EC</b> 03/26/2007	
mple Inform	nation						
Client Sam	nple ID:		SB1223.5.24.5	SB12B23.5.24.5	SB1622.5.23. 5	SB16B22.5.23. 5	DW 24-25
Sample Da	ate:		03/22/2007	03/22/2007	03/22/2007	03/22/2007	03/23/2007
Units:			cells/g	cells/g	cells/g	cells/g	cells/g
inctional Ge	nes						
Caluble Me	ethane Monooxygenase	sMMO	1.58E+08	2.35E+07	1.16E+08	8.29E+08	2.93E+08

#### Legend:

NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited < = Result not detected

#### Notes:

1 Bio-Dechlor Census technology was developed by Dr. Loeffler and colleagues at Georgia Institute of Technology and was licensed for use through Regenesis.

#### **MICROBIAL INSIGHTS, INC.**

2340 Stock Creek Blvd. Rockford, TN 37853-3044 Tel: (865) 573-8188; Fax: (865) 573-8133

Client: Project:	Earth Tech, Inc. SMS			MI Project Number: Date Received:	<b>047EC</b> 03/26/2007
nple Infor	mation				
Client Sa	mple ID:		DWB 24-25		
Sample [	Date:		03/23/2007		
Units:			cells/g		
nctional G	enes				
	lethane Monooxygenase	sMMO	8.07E+07		

**Q** Potential (DNA)

NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited < = Result not detected

#### Notes:

1 Bio-Dechlor Census technology was developed by Dr. Loeffler and colleagues at Georgia Institute of Technology and was licensed for use through Regenesis.

Client: Project:	Earth Tech, Inc. SMS			MI Project Number: Date Received:	<b>047EC</b> 03/26/2007	
Sample Infor	mation					
Sample Name:		SB1223.5.24.5	SB12B23.5.24.5	SB1622.5.23. 5	SB16B22.5.23. 5	DW 24-25
Sample Date:		03/22/2007	03/22/2007	03/22/2007	03/22/2007	03/23/2007
Sample Matrix:		Soil	Soil	Soil	Soil	Soil
Biomass						
Total Bioma	ss (cells/g)	9.92E+07	4.05E+07	1.26E+08	1.35E+08	1.12E+08
Firmicutes (	Structure (% total PLFA) TerBrSats)	13.30	12.99	13.94	11.97	8.90
Proteobacte	ria (Monos)	57.83	55.70	58.90	60.27	69.43
Anaerobic m	netal reducers (BrMonos)	1.41	0.90	1.44	1.22	1.32
SRB/Actinor	mycetes (MidBrSats)	2.64	4.27	2.48	2.48	1.63
General (Ns	ats)	23.90	25.44	22.58	23.51	17.89
Eukaryotes	(polyenoics)	0.92	0.71	0.65	0.56	0.86
Physiologica	al Status (Proteobacteria on	ly)				
Slowed Grov	wth	0.90	0.63	0.90	0.67	0.52
Decreased I	Permeability	0.21	0.28	0.17	0.09	0.13

<u>Legend:</u> NA = Not Analyzed

NS = Not Sampled

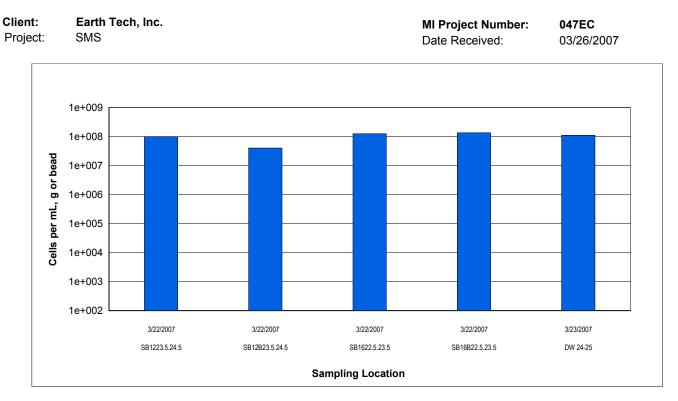


Figure 1. Biomass content is presented as a cell equivalent based on the total amount of phospholipid fatty acids (PLFA) extracted from a given sample. Total biomass is calculated based upon PLFA attributed to bacterial and eukaryotic biomass (associated with higher organisms).

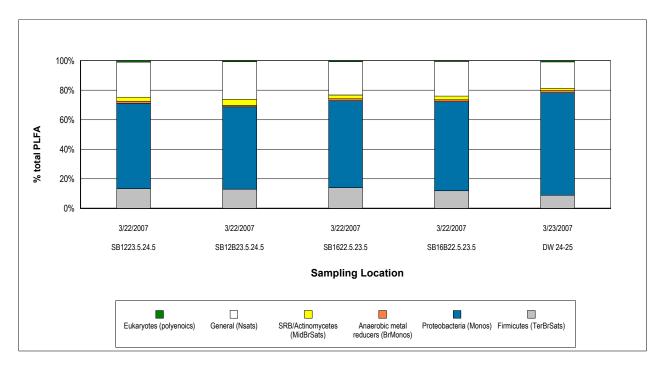
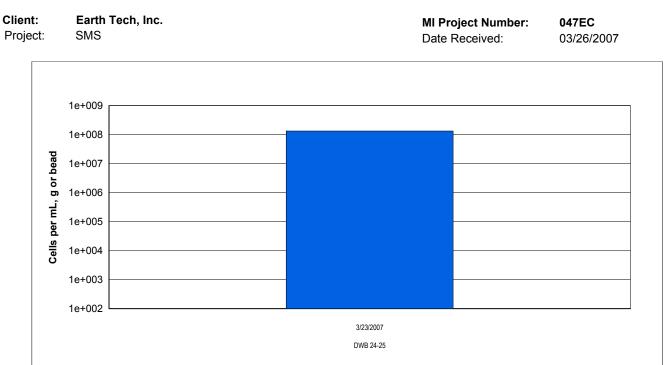


Figure 2. Relative percentages of total PLFA structural groups in the samples analyzed. Structural groups are assigned according to PLFA chemical structure, which is related to fatty acid biosynthesis.

Client: Project:	Earth Tech, Inc. SMS		MI Project Number: Date Received:	<b>047EC</b> 03/26/2007
Sample Infor	mation			
Sample Name:		DWB 24-25		
Sample Date: Sample Matrix:		03/23/2007 Soil		
Biomass				
Total Bioma	iss (cells/g)	1.33E+08		
Community	Structure (% total PLFA)			
Firmicutes (	TerBrSats)	15.10		
Proteobacte	eria (Monos)	59.17		
Anaerobic n	netal reducers (BrMonos)	1.14		
SRB/Actino	mycetes (MidBrSats)	2.92		
General (Ns	sats)	20.87		
Eukaryotes	(polyenoics)	0.79		
	al Status (Proteobacteria or	nly)		
Physiologica	a Status (Proteobacteria or	27		
Physiologica Slowed Gro		0.58		

<u>Legend:</u> NA = Not Analyzed

NS = Not Sampled



Sampling Location

Figure 1. Biomass content is presented as a cell equivalent based on the total amount of phospholipid fatty acids (PLFA) extracted from a given sample. Total biomass is calculated based upon PLFA attributed to bacterial and eukaryotic biomass (associated with higher organisms).

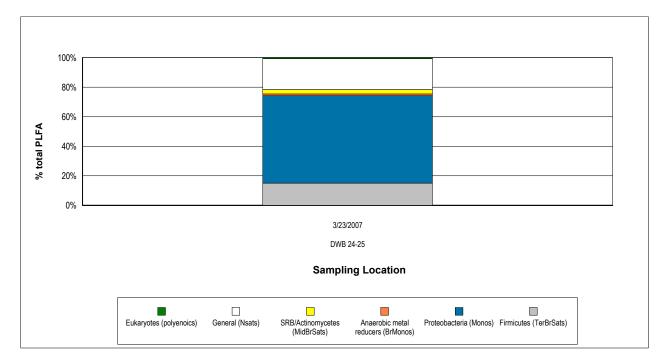


Figure 2. Relative percentages of total PLFA structural groups in the samples analyzed. Structural groups are assigned according to PLFA chemical structure, which is related to fatty acid biosynthesis.

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+			111		
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COC sent: (Y) N		1038 SERLY	3/22/07 10	581223.5.24.5	1 Jatho
Sample(s) Received	VEA AKEE (931-15 DF(F+95 <b>G-Potential (DMA)</b> <b>G-Expression (RNA)<sup>®</sup></b> <b>qPHC (Dehalococcoldes)</b> <b>qPHC (Dehalococcoldes)</b> <b>qPHC (Dehalococcoldes)</b> <b>qPHC (Dehalococcoldes)</b> <b>qPHC (Dehalococcoldes)</b> <b>qPHC (Dehalococcoldes)</b> <b>qPHC (Dehalococcoldes)</b> <b>qPHC (Dehalococcoldes)</b> <b>qDER (Dehalococcoccoldes)</b> <b>qDER (Dehalococcoccoldes)</b> <b>qDER (Dehalococcocco</b>	Matrix PLFA	Date Sampled	Sample Name	MID Statementy Line Chief
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	Name:			KEUTN SERSE	Name
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