BEDROCK NAPL DELINEATION REPORT

NEW YORK POWER AUTHORITY CONDUIT
RIGHT-OF-WAY IN THE VICINITY OF ROYAL AVENUE
CITY OF NIAGARA FALLS
NIAGARA COUNTY, NEW YORK

Prepared for:

New York Power Authority
123 Main Street
White Plains, New York 10601

Prepared by:

TVGA CONSULTANTS

1000 Maple Road
Elma, New York

(716) 655-8842
(fax) (716) 655-0937

2004.0193.00

February 2005

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1.0 INTRODUCTION

The New York Power Authority (NYPA) retained TVGA Consultants (TVGA) to determine the lateral extent of non-aqueous phase liquids (NAPL) that were previously observed in the upper bedrock within the NYPA conduit right-of-way (ROW) in the vicinity of Royal Avenue. The project site is located on the east side of the conduit ROW south of Royal Avenue in the City of Niagara Falls, Niagara County, New York (Figure 1). TVGA conducted an Initial Investigation in June and July 2004, and the findings of this investigation indicated that additional investigatory activities were warranted. This report presents the findings of TVGA's November and December 2004 Supplemental Bedrock Investigation and includes:

- Site background and brief description of the results of the Initial Investigation;
- Investigative methods employed to characterize the site;
- Description of the physical characteristics of the site;
- Findings of the Bedrock Investigation;
- Discussion of potential sources of the NAPL; and
- Discussion of regulatory implications.

2.0 BACKGROUND

During an assessment of the effects of the NYPA conduits on regional groundwater flow that was completed as part of the relicensing studies for the Niagara Power Project, NAPL was encountered in June 2003 in a boring within the NYPA ROW at approximately 20 feet below grade. At the time, the on-site geologist indicated that the material was located at the interface of the overburden and bedrock. Analysis of a sample of this material indicated the presence of fuel oil, motor oil, and mineral spirits as well as other constituents including volatile organic compounds (VOCs), pesticides, and polychlorinated biphenyls (PCBs). This boring is referred to herein as the Initial Discovery Boring.

Following the detection of NAPL in the Initial Discovery Boring, the New York State Department of Environmental Conservation (NYSDEC) requested a work plan for delineating the extent of NAPL contamination within the NYPA ROW. The resulting work plan (*Work Plan for the Investigation of Spill No. 0302316 in the vicinity of Royal Avenue and NYPA Conduits*) described the methods to determine the extent of NAPL at the bedrock-overburden interface and was submitted in September 2003 and approved by the NYSDEC. TVGA performed an Initial Investigation in accordance with the Work Plan in June and July 2004, and the results of the Initial Investigation were reported in the September 2004 report entitled *Site Investigation Of The Extent Of NAPL Within The New York Power Authority Conduit Right-Of-Way In The Vicinity Of Royal Avenue*.

The September 2004 report described the project background, physical setting, and regional geology and hydrogeology. The report also presented TVGA's analysis of existing environmental characterization data for the project site as well as adjacent sites with environmental concerns. The conclusions drawn from TVGA's analysis included the identification of a possible source of NAPL at the project site: Niagara Mohawk's Harper Substation. No potential on-site sources were identified.

The September 2004 report also described the approach and results of the overburden drilling program. As detailed in the report, seven borings were advanced to the top of bedrock during the Initial Investigation, and NAPL was not encountered in any of the borings. The hollow-stem augers precluded the penetration of the borings into the bedrock, which was encountered at approximately 14 feet below grade in each boring. However, NAPL was reportedly encountered at 20 feet below grade at the bedrock–overburden interface in the Initial Discovery Boring in June 2003. Based on the Initial Investigation results, the NYSDEC requested the implementation of a bedrock boring program to determine the extent of NAPL within the bedrock in a letter dated October 29, 2004. This report details the approach and findings of TVGA's Supplemental Bedrock Investigation, which was performed to characterize the shallow bedrock and delineate NAPL, if any, at the project site.

3.0 SCOPE OF WORK

With the exception of the drilling method, the work associated with this Supplemental Investigation was completed in general accordance with the NYSDEC-approved work plan dated September 2003 as well as the Field Sampling and Quality Assurance/Quality Control Plans prepared by TVGA Consultants. To penetrate the bedrock, air rotary drilling techniques were employed instead of the hollow-stem auger techniques prescribed in the work plan. TVGA conducted this Supplemental Investigation on November 29 through December 3, 2004. The scope of work associated with this Supplemental Investigation included:

- Review of additional reports;
- Drilling of seven test borings using air rotary techniques to confirm or deny the existence of NAPL in the bedrock underlying NYPA's property;
- Collection of samples from investigation-derived waste for characterization analysis; and
- Preparation of this investigation report.

TVGA retained the services of SLC Environmental Services of Lockport, New York to complete the test borings advanced during this investigation. The seven bedrock test borings were completed at the project site using a truck-mounted CME-75 drilling rig. The test borings were advanced using 4-1/4-inch I.D. hollow-stem augers to the top of bedrock. Following auger refusal, the test borings were advanced into bedrock using a 3-⅞-inch roller bit and air rotary techniques. The test borings were advanced into the bedrock until NAPL was encountered or to a minimum depth of 24 feet below grade. This depth was selected as a sufficient depth that would indicate that NAPL was not present at that location because NAPL was encountered in the Initial Discovery Boring at 20 feet below grade.

The sequence to determine the locations of the test borings was similar to that used in the Initial Investigation. Five of the borings drilled during this Supplemental Investigation were located immediately adjacent to borings drilled during the Initial Investigation. Because these new borings can be considered extensions of the previous Initial Investigation borings, the same identifier (i.e., TB-2N) was used for the borings advanced at the same locations. Additionally, TB-1 was advanced into the bedrock immediately adjacent to the Initial Discovery Boring in an attempt to verify the findings of the Initial Discovery Boring.

The down-hole drilling equipment was steam cleaned before use at each test boring location. Decontamination fluids generated during the investigation were collected in 55-gallon drums. All clean overburden cuttings (determined with a photoionization detector and visual and olfactory observations) were placed back into the borehole and/or spread on the ground surface in vicinity of the test boring after filling the test boring with bentonite chips to a depth of four feet below grade. All rock cuttings and overburden soils with high photoionization detector (PID) measurements from each test boring were placed into 55-gallon drums. All drums containing investigation-derived waste were staged in the secure, fenced-in area surrounding the NYPA pump house. Mitkem Corporation of Warwick, Rhode Island, was retained by TVGA to perform the chemical analysis of the waste characterization samples.

Four drums of investigation-derived waste (IDW) were generated during the Supplemental Investigation. One drum contained soil and rock cuttings, one drum contained soil and rock cuttings as well as plastic from the decontamination pad and temporary monitoring wells, and two drums contained decontamination water. To determine the appropriate disposal method and location, one waste characterization sample was collected from the soil and rock cuttings, and one composite waste characterization sample was collected from the decontamination water. The soil sample was analyzed for:

- Corrosivity
- Flashpoint
- Reactivity
- Toxicity
- Polychlorinated biphenyls (PCBs)

The water sample was analyzed for:

- VOCs
- SVOCs
- Pesticides
- PCBs
- The following metals:
    - Cadmium
    - Chromium
    - Copper
    - Lead
    - Mercury
    - Nickel
    - Zinc

After the boring program was completed, TVGA surveyed the new borehole locations using a hand-held Global Positioning System unit with an accuracy of one meter. The other borings were not surveyed because they were located immediately adjacent to previously surveyed borings. Figure 2 shows the boring locations.

4.0 FINDINGS

4.1 Subsurface Conditions

4.1.1 Overburden

Test borings that were drilled immediately adjacent to borings drilled during the Initial Investigation showed similar subsurface conditions in the overburden material. These conditions included six distinct soil layers that are described in the Initial Investigation report. Subsurface conditions encountered at the new locations, TB-4N and TB-5N, were similar to those encountered at the Initial Investigation boring TB-1N. The overburden material at these two locations consisted of a thin layer of topsoil underlain by brown gravelly silt, tan clayey silt, red-brown sand and silt, and gray silt.

Relatively low total organic vapor (TOV) readings (0.1 to 4.5 ppm) were recorded in the overburden material encountered in the test borings, with the exception of TB-4N. Staining and a moderate chemical odor were observed in the 1.5 feet of overburden material immediately above the bedrock in TB-4N. TOV measurements in this material ranged up to 290 ppm. This material was placed in a 55-gallon drum for off-site disposal. Test boring logs presenting the drilling methodology, soil and bedrock descriptions, and field observations and screening results are included in Appendix A. The boring locations are shown on Figure 2.

4.1.2 Bedrock

The top of bedrock was encountered at depths ranging from 13.5 to 15 feet below grade, and the borings were advanced into the bedrock 6.5 to 16.5 feet below the top of bedrock. The rock cuttings encountered at each of the test boring locations were similar and consisted of gray-to-dark gray dolostone. A thin layer (less than one inch thick) of black shale was encountered at TB-4N, TB-1S, TB-2S and TB-3S at depths of 30, 18, 24, and 21 feet below grade, respectively.

The TOV measurements within the work zone ranged from 0 to 0.5 ppm and TOV measurements within the collection tub ranged from 0.1 to 148 ppm. Additionally, visual (sheen) and/or olfactory (odor) evidence of petroleum and/or solvents were observed in the bedrock and groundwater in each of the test borings.

Bedrock drilling was initiated approximately 50 feet north of the Initial Discovery Boring immediately adjacent to boring TB-2N. A black oily substance consistent with the NAPL encountered in the Initial Discovery Boring was discovered in TB-2N at a depth of approximately 20 feet. To delineate the NAPL, a second boring (TB-4N) was drilled 50 feet north of TB-2N. However, NAPL was not encountered in boring TB-4N, which was drilled to 30 feet below grade. Therefore, a third boring (TB-5N) was drilled between TB-2N and TB-4N, at a distance approximately 25 feet from each boring. NAPL was not encountered in this 29-foot deep boring. Because NAPL was encountered in TB-2N but not in TB-5N, the northern edge of the NAPL was determined to be between these borings and is

approximately 50 to 75 feet north of the Initial Discovery Boring (Figure 3).

Drilling was also conducted to the south of the Initial Discovery Boring to delineate the southern extent of the NAPL. The first bedrock boring was drilled 100 feet south of the Initial Discovery Boring, immediately adjacent to TB-1S. NAPL was not encountered in this boring, which was drilled to a depth of 24 feet below grade. Therefore, a second boring was advanced 50 feet south of the Initial Discovery Boring, immediately adjacent to TB-2S. Since NAPL was not encountered in this 30-foot deep boring, a third boring was drilled 25 feet closer to the Initial Discovery Boring, immediately adjacent to TB-3S. NAPL was encountered in TB-3S at 21 feet below grade. Therefore, the southern extent of NAPL was determined to be between TB-3S and TB-2S and is approximately 25 to 50 feet south of the Initial Discovery Boring (Figure 3).

NAPL was encountered in the boring advanced adjacent to the Initial Discovery Boring, TB-1, at a depth of 20.5 feet below grade. The NAPL encountered in this boring was approximately three inches thick, while the NAPL encountered in TB-2N and TB-3S was less than one inch thick.

4.2 Waste Characterization and Disposal

As described in Section 3.0, four drums of investigation-derived waste (IDW) were generated during this bedrock investigation, and two waste characterization samples were collected from these drums. The waste characterization results are included in Appendix B. The analytical results for the soil sample indicated that low levels of trichloroethene (TCE); 2,4-D; 2,4,5-TP; barium; cadmium; chromium; lead; mercury; and selenium were detected during the chemical analysis of the leachate resulting from the application of the toxicity characteristic leaching procedure on the soil samples. These concentrations were below the Maximum Concentrations of Contaminants for the Toxicity Characteristic, and the drummed soil was therefore considered non-hazardous. Additionally, low levels of PCBs were detected in the soil sample.

Seven semivolatile compounds, two pesticides, and 19 metals were detected the aqueous waste characterization sample. The detected concentrations were below applicable regulatory values and the water was therefore deemed non-hazardous.

The four drums were removed from the project site on January 25, 2005 and were transported to and disposed of at the CWM Chemical Services, LLC in Model City, New York by Waste Technology Services, Inc (WTS).

5.0 DISCUSSION AND CONCLUSIONS

Although NAPL was encountered in the Initial Discovery Boring advanced by URS at 20 feet below grade at what was identified as the overburden-bedrock interface, NAPL was not encountered during TVGA's Initial Investigation. The drilling method utilized during the Initial Investigation, hollow-stem auger techniques, precluded advancement of the test borings past the top of the bedrock, which was

encountered at 14 to 15 feet below grade. Therefore, TVGA performed a Supplemental Investigation using air rotary drilling techniques that facilitated the penetration of the bedrock.

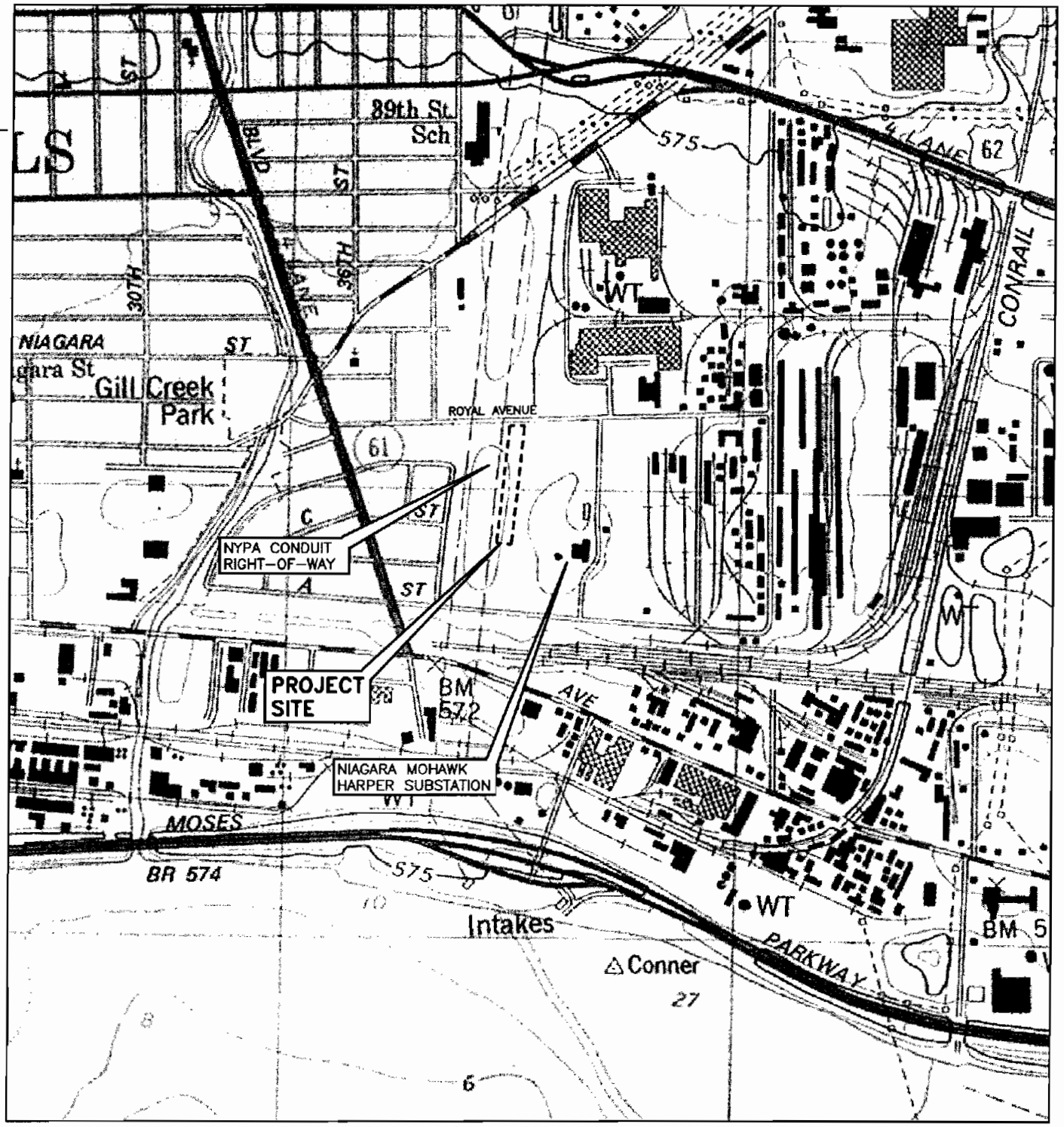
During the Supplemental Investigation, NAPL was encountered in the upper bedrock at depths of approximately 20 feet below grade in three of seven test borings. The most significant indications of NAPL were encountered at a depth of 20.5 feet below grade in TB-1, which was advanced immediately adjacent to the Initial Discovery Boring. The NAPL appeared to be centered on the Initial Discovery Boring in an area up to 125 feet wide in a north-south direction. The east-west extent of NAPL could not be determined due to the close proximity of the power conduits and other underground utilities to the west and the Niagara Mohawk Harper Substation property located immediately to the east.

No on-site sources of NAPL were identified during the Initial or Supplemental Investigations. As detailed in the September 2004 report, NAPL was previously encountered at the Harper Substation approximately 250 feet southeast of the Initial Discovery Boring and groundwater generally flows from the Harper Substation to the project site. Therefore, the Harper Substation is a potential source of NAPL on the NYPA ROW.

Regulatory implications with respect to NYSDEC requirements for further investigation and/or remedial action at the project site are not known; however, a number of factors currently minimize potential threats to human health and the environment associated with the detected contaminants on-site, and would likely be considered during NYSDEC's evaluation. These factors include:

- The depth of NAPL and the presence of more than 14 feet of overburden limit human exposure pathways.
- The drainage system that surrounds the conduits as well as the Southside Interceptor Trench and the Falls Street Tunnel likely limit the horizontal migration of NAPL within the bedrock.
- The lack of local reliance on groundwater and the existence of a public potable water supply system.

FIGURES



USGS – NIAGARA FALLS QUADRANGLE

SITE LOCATION MAP

TVGA CONSULTANTS
1000 MAPLE ROAD
ELMA, NEW YORK 14059-9530
P. 716.655.8842
F. 716.655.0937
www.tvga.com

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NYPA RIGHT-OF-WAY NEAR ROYAL AVENUE
CITY OF NIAGARA FALLS, NEW YORK

PROJECT NO. 2004.0193.00	SCALE: 1" = 100'	DATE: FEBRUARY 2005	FIGURE NO. 1

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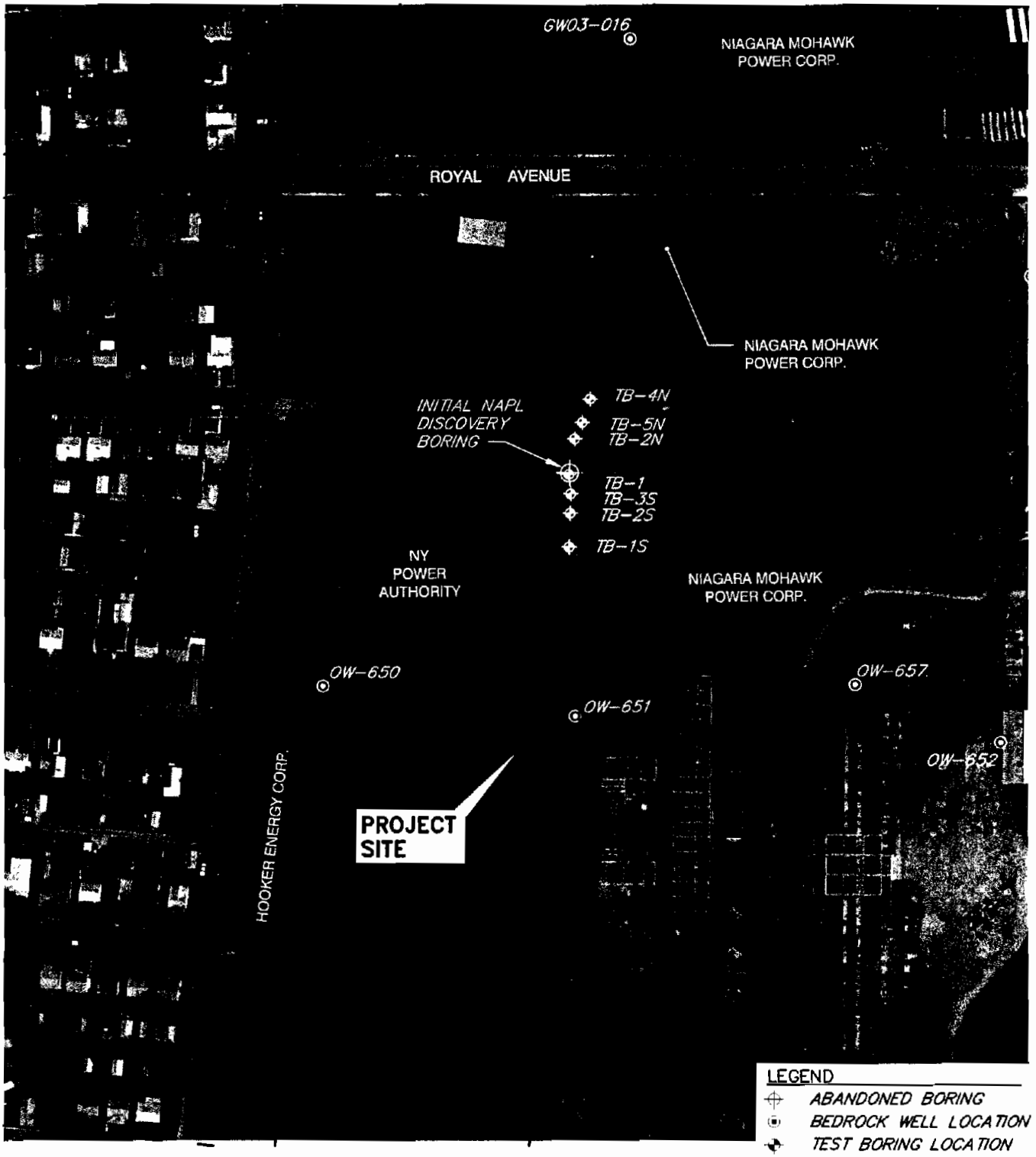

TEST BORING LOCATION MAP

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ELMA, NEW YORK 14059-9530
P. 716.655.8842
F. 716.655.0937
www.tvga.com

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CITY OF NIAGARA FALLS, NEW YORK

PROJECT NO. 2004.0193.00	SCALE: 1" = 200'	DATE: FEBRUARY 2005	FIGURE NO. 2

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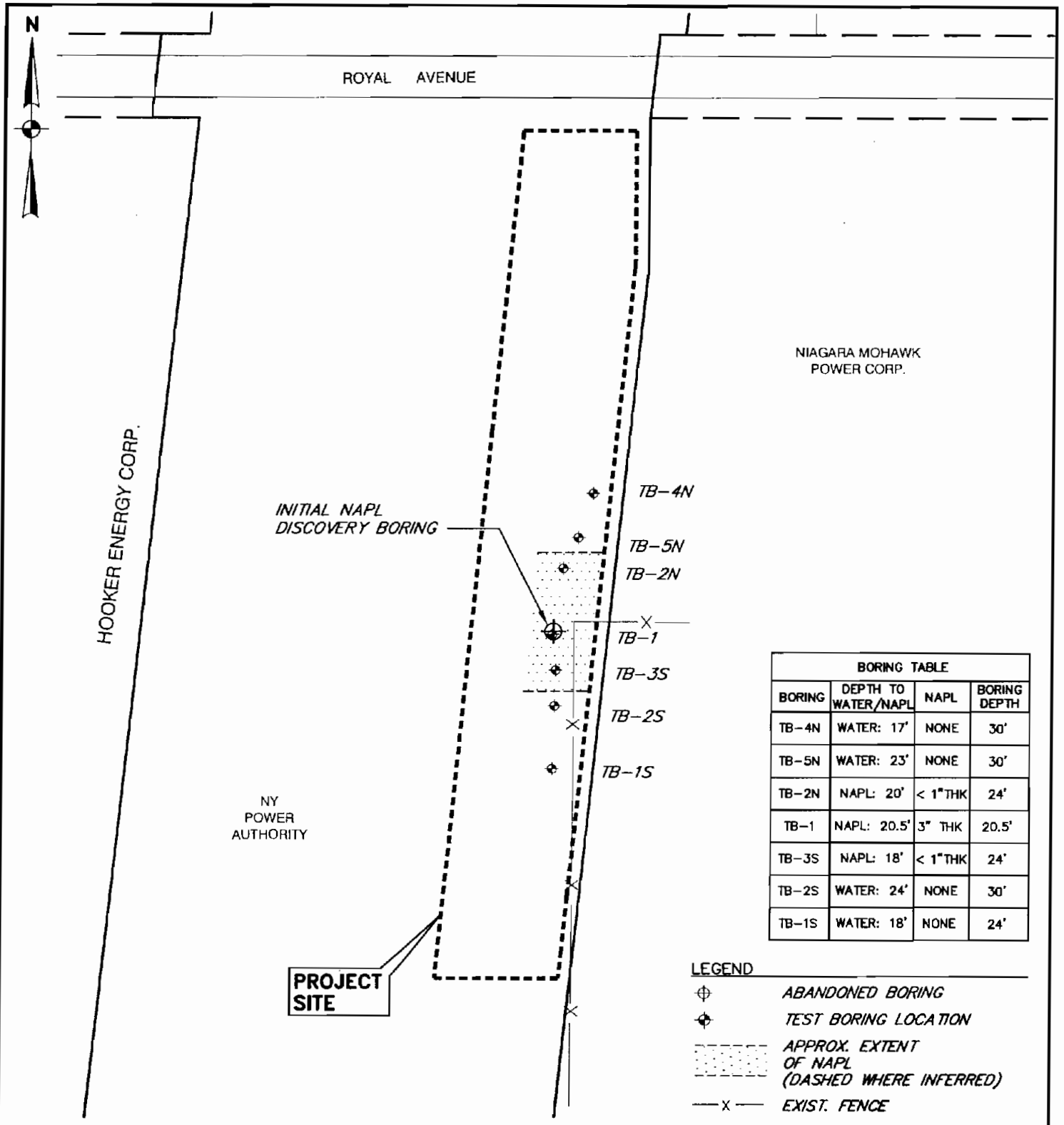

BORING TABLE			
BORING	DEPTH TO WATER/NAPL	NAPL	BORING DEPTH
TB-4N	WATER: 17'	NONE	30'
TB-5N	WATER: 23'	NONE	30'
TB-2N	NAPL: 20'	< 1"THK	24'
TB-1	NAPL: 20.5'	3" THK	20.5'
TB-3S	NAPL: 18'	< 1"THK	24'
TB-2S	WATER: 24'	NONE	30'
TB-1S	WATER: 18'	NONE	24'

LEGEND

- ABANDONED BORING
- TEST BORING LOCATION
- APPROX. EXTENT OF NAPL (DASHED WHERE INFERRED)
- EXIST. FENCE

APPROXIMATE EXTENT OF NON-AQUEOUS PHASE LIQUIDS

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1000 MAPLE ROAD
ELMA, NEW YORK 14059-9530
P. 716.655.8842
F. 716.655.0937
www.tvga.com

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NYPA RIGHT-OF-WAY NEAR ROYAL AVENUE
CITY OF NIAGARA FALLS, NEW YORK

PROJECT NO. 2004.0193.00	SCALE: 1" = 100'	DATE: FEBRUARY 2005	FIGURE NO. 3

N:\2004.0193.00-NYPA Royal Avenue NAPL Inv\Engineering\CADD\fig-3AA.dwg 2/25/2005 2:44:04 PM EST

APPENDIX A

TEST BORING LOGS

TVGA CONSULTANTS

TEST BORING LOG

BORING NO. TB-2N

Project: Site Investigation of the Extent of NAPL within the NYPA Conduit ROW
Client: New York Power Authority (NYPA)
Contractor: SLC Environmental Services

Project No. 2004.193.00
GS Elev
WS Ref Elev
N-S Coord
E-W Coord
Start Date 11/29/2004
Finish Date 11/29/2004
Driller R. Brown
Geologist J. Manzella

Groundwater Data (feet)				Equipment Data			
Date	Time	Depth	Elev		Casing	Sampler	Core
11/29/2004		20'		Type	HSA	SS	Roller Bit
				Diameter	4.25"	2.0"	3.875"
				Weight		140 #	
				Fall		30"	

Well Construction	Depth (feet)	Sample No.	Blows per 6"	Recovery (in.)	Log	Unified	Field Description	Remarks PID Reading (ppm) Direct Screen	Head Space
	5						Overburden Information for TB-2N, 0' - 13.5' is included on the June 30, 2004 Boring Log.		
	10						Auger Refusal at 13.5' bgs.		
	15						Air rotary was initiated at 13.5' bgs: Dark gray to gray dolostone rock cuttings that ranged in size from a fine silt to pea gravel. PID readings within the collection tub ranged from 0.5 - 84 ppm and ranged from 0.1 - 0.5 ppm in the breathing zone. Water was encountered at 20' bgs. NAPL was visible on the drill rods during removal. NAPL was less than 1 inch thick in a temporary well installed in the boring. The NAPL was black and oily and had a strong petroleum odor.	84	-
	20								
	25						Concluded drilling at 24' bgs.		
	30								

TVGA CONSULTANTS

TEST BORING LOG

BORING NO. TB-4N

Project: Site Investigation of the Extent of NAPL within the NYPA Conduit ROW
Client: New York Power Authority (NYPA)
Contractor: SLC Environmental Services

Project No. 2004.193.00
GS Elev
WS Ref Elev
N-S Coord
E-W Coord
Start Date 11/30/2004
Finish Date 11/30/2004
Driller R. Brown
Geologist J. Manzella

Groundwater Data (feet)				Equipment Data			
Date	Time	Depth	Elev		Casing	Sampler	Core
11/30/2004		17'		Type	HSA	SS	Roller Bit
				Diameter	4.25"	2.0"	3.875"
				Weight		140 #	
				Fall		30"	

Well Construction	Depth (feet)	Sample No.	Blows per 6"	Recovery (in.)	Log	Unified	Field Description	Remarks PID Reading (ppm) Direct Screen	Remarks PID Reading (ppm) Head Space
							Brown, topsoil, damp.		
							Brown, silt, some gravel, damp.	0	0
	5						Tan, clayey-silt, some sand, w/ orange and gray mottling, damp.	0	0
	10						Red-Brown, fine-course sand and silt, trace fine gravel, damp.	0	0
							Gray, silt, damp w/ petroleum/solvent odor.	16.8	290
	15						Auger Refusal at 13.5' bgs. Air rotary was initiated at 13.5' bgs: Dark gray to gray dolostone rock cuttings that ranged in size from a fine silt to pea gravel. A thin layer of black shale was encountered at 30' bgs. PID readings within the collection tub ranged from 0.1 - 148 ppm and ranged from 0.1 - 0.3 ppm in the breathing zone. Water was encountered at 17' bgs and it had a mild solvent odor. There were no indications of NAPL at this location.	148	-
	20								
	25								
	30						Concluded drilling at 30' bgs.		

TVGA CONSULTANTS

TEST BORING LOG

BORING NO. TB-5N

Project: Site Investigation of the Extent of NAPL within the NYPA Conduit ROW
Client: New York Power Authority (NYPA)
Contractor: SLC Environmental Services

Project No. 2004.193.00
GS Elev
WS Ref Elev
N-S Coord
E-W Coord
Start Date 11/30/2004
Finish Date 11/30/2004
Driller R. Brown
Geologist J. Manzella

Groundwater Data (feet)				Equipment Data			
Date	Time	Depth	Elev		Casing	Sampler	Core
11/30/2004		23'		Type	HSA	SS	Roller Bit
				Diameter	4.25"	2.0"	3.875"
				Weight		140 #	
				Fall		30"	

Well Construction	Depth (feet)	Sample No.	Blows per 6"	Recovery (in.)	Log	Unified	Field Description	Remarks PID Reading (ppm) Direct Screen	Remarks PID Reading (ppm) Head Space
							Brown, topsoil, damp.		
							Dark Brown, silt, some brick fragments, trace sand, damp.	0	0
	5						Tan, clayey-silt, trace sand, moist.	0	0
							Red-Brown, fine-course sand and silt, trace fine gravel, moist.	0	0
	10								
	15						Auger Refusal at 13.5' bgs. Air rotary was initiated at 13.5' bgs: Dark gray to gray dolostone rock cuttings that ranged in size from a fine silt to pea gravel. PID readings within the collection tub ranged from 0.1 - 5 ppm and ranged from 0.0 - 0.1 ppm in the breathing zone. Water was encountered at 23' bgs and it had a mild petroleum and solvent odor. There were no indications of NAPL at this location.	5	-
	20								
	25								
	30						Concluded drilling at 29' bgs.		

TVGA CONSULTANTS

TEST BORING LOG

BORING NO. TB-1S

Project: Site Investigation of the Extent of NAPL within the NYPA Conduit ROW
Client: New York Power Authority (NYPA)
Contractor: SLC Environmental Services

Project No. 2004.193.00
GS Elev
WS Ref Elev
N-S Coord
E-W Coord
Start Date 12/1/2004
Finish Date 12/1/2004
Driller R. Brown
Geologist J. Manzella

Groundwater Data (feet)			
Date	Time	Depth	Elev
12/1/2004		18'	

Equipment Data			
	Casing	Sampler	Core
Type	HSA	SS	Roller Bit
Diameter	4.25"	2.0"	3.875"
Weight		140 #	
Fall		30"	

Well Construction	Depth (feet)	Sample No.	Blows per 6"	Recovery (in.)	Log	Unified	Field Description	Remarks PID Reading (ppm) Direct Screen	Remarks PID Reading (ppm) Head Space
	5						Overburden Information for TB-1S, 0' - 15' is included on the June 29, 2004 Boring Log.		
	10								
	15						Auger Refusal at 15' bgs.		
	20						Air rotary was initiated at 15' bgs: Dark gray to gray dolostone rock cuttings that ranged in size from a fine silt to pea gravel. A thin layer of black shale was encountered at 18' bgs. Due to high wind, PID readings were not possible. Water was encountered at 18' bgs and a mild sheen and strong petroleum odor was noted on the water. There were no indications of NAPL at this location.	-	-
	25						Concluded drilling at 24' bgs.		
	30								

TVGA CONSULTANTS

TEST BORING LOG

BORING NO. TB-2S

Project: Site Investigation of the Extent of NAPL within the NYPA Conduit ROW
Client: New York Power Authority (NYPA)
Contractor: SLC Environmental Services

Project No. 2004.193.00
GS Elev
WS Ref Elev
N-S Coord
E-W Coord
Start Date 12/1/2004
Finish Date 12/1/2004
Driller R. Brown
Geologist J. Manzella

Groundwater Data (feet)			
Date	Time	Depth	Elev
12/1/2004		24'	

Equipment Data			
	Casing	Sampler	Core
Type	HSA	SS	Roller Bit
Diameter	4.25"	2.0"	3.875"
Weight		140 #	
Fall		30"	

Well Construction	Depth (feet)	Sample No.	Blows per 6"	Recovery (in.)	Log	Unified	Field Description	Remarks PID Reading (ppm) Direct Screen	Remarks PID Reading (ppm) Head Space
	5						Overburden Information for TB-2S, 0' - 14.5' is included on the June 29, 2004 Boring Log.		
	10								
	15						Auger Refusal at 14.5' bgs.		
	20						Air rotary was initiated at 14.5' bgs: Dark gray to gray dolostone rock cuttings that ranged in size from a fine silt to pea gravel. A thin layer of black shale was encountered at 24' bgs. PID readings within the collection tub ranged from 0.1 - 78 ppm and ranged from 0.1 - 0.4 ppm in the breathing zone. Water was encountered at 24' bgs and a mild sheen and petroleum odor was noted on the water. Also, there was a foamy consistancy to the water. There were no indications of NAPL at this location.	78	-
	25								
	30						Concluded drilling at 30' bgs.		

TVGA CONSULTANTS

TEST BORING LOG

BORING NO. TB-3S

Project: Site Investigation of the Extent of NAPL within the NYPA Conduit ROW
Client: New York Power Authority (NYPA)
Contractor: SLC Environmental Services

Project No. 2004.193.00
GS Elev
WS Ref Elev
N-S Coord
E-W Coord
Start Date 12/2/2004
Finish Date 12/2/2004
Driller R. Brown
Geologist J. Manzella

Groundwater Data (feet)			
Date	Time	Depth	Elev
12/2/2004		18'	

Equipment Data			
	Casing	Sampler	Core
Type	HSA	SS	Roller Bit
Diameter	4.25"	2.0"	3.875"
Weight		140 #	
Fall		30"	

Well Construction	Depth (feet)	Sample No.	Blows per 6"	Recovery (in.)	Log	Unified	Field Description	Remarks PID Reading (ppm) Direct Screen	Remarks PID Reading (ppm) Head Space
	5						Overburden Information for TB-3S, 0' - 14' is included on the June 30, 2004 Boring Log.		
	10								
	15						Auger Refusal at 14' bgs.		
	20						Air rotary was initiated at 14' bgs: Dark gray to gray dolostone rock cuttings that ranged in size from a fine silt to pea gravel. PID readings within the collection tub ranged from 0.5 - 53 ppm and ranged from 0.1 - 0.5 ppm in the breathing zone. Water was encountered at 18' bgs. A thin layer of black shale was encountered at 21' bgs. NAPL was visible on the drill rods during removal. NAPL was approximately 1 inch thick in a temporary well installed in the boring. The NAPL was black and oily and had a strong petroleum odor.	53	-
	25						Concluded drilling at 24' bgs.		
	30								

TVGA CONSULTANTS

TEST BORING LOG

BORING NO. TB-1

Project: Site Investigation of the Extent of NAPL within the NYPA Conduit ROW
Client: New York Power Authority (NYPA)
Contractor: SLC Environmental Services

Project No. 2004.193.00
GS Elev
WS Ref Elev
N-S Coord
E-W Coord
Start Date 12/3/2004
Finish Date 12/3/2004
Driller R. Brown
Geologist J. Manzella

Groundwater Data (feet)			
Date	Time	Depth	Elev
12/3/2004		20.5'	

Equipment Data			
	Casing	Sampler	Core
Type	HSA	SS	Roller Bit
Diameter	4.25"	2.0"	3.875"
Weight		140 #	
Fall		30"	

Well Construction	Depth (feet)	Sample No.	Blows per 6"	Recovery (in.)	Log	Unified	Field Description	Remarks PID Reading (ppm) Direct Screen	Remarks PID Reading (ppm) Head Space
	5						Overburden Information for TB-1, 0' - **14'** is included on the July 1, 2004 Boring Log.		
	10								
	15						Auger Refusal at 14' bgs. Air rotary was initiated at 14' bgs: Dark gray to gray dolostone rock cuttings that ranged in size from a fine silt to pea gravel. Due to high wind, PID readings were not possible. Water was encountered at 20.5' bgs. NAPL was visible on the drill rods during removal. NAPL was approximately 3 inches thick in a temporary well installed in the boring. The NAPL was black and oily and had a strong petroleum odor.	-	-
	20								
	25						Concluded drilling at 20.5' bgs.		
	30								

APPENDIX B

INVESTIGATION-DERIVED WASTE ANALYTICAL RESULTS

MITKEM CORPORATION

"Environmental Testing For The New Millennium"

January 10, 2005

TVGA Consultants
1000 Maple Road
Elma, NY 14509
Attn: Mr. James Manzella

RE: Client Project: NYPA NAPL Investigation
Lab Project #: C1506

Dear Mr. Manzella:

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,

Agnes R. Ng
CLP Project Manager

175 Metro Center Boulevard • Warwick, Rhode Island 02886-1755
(401) 732-3400 • Fax (401) 732-3499 • www.mitkem.com

* Data Summary Pack *

Mitkem Corporation

New York State Department of Environmental Conservation

Sample Identification and Analytical Requirements Summary

Project Name: **NYPA** SDG: **C1506**

Customer Sample ID	Laboratory Sample ID	Analytical Requirements				
		VOA GC/MS Method #	SVOA GC/MS Method #	Pest/PCB Method #	Metals	Other
DS01-S/R-0	C1506-01	8260	8270	8081/8082/8151	6010/7470	SEE DATA
DF02-WW-0	C1506-02	8260	8270	8081/8082	6010/7471	
TRIP Blank	C1506-03	8260				

NYASP 10/95

Mitkem Corporation

New York State Department of Environmental Conservation

Sample Preparation and Analyses Summary
Volatile (VOA) Analyses

Project Name: **NYPA** SDG: **C1506**

Laboratory Sample ID	Matrix	Date Collected	Date Received by Lab	Date Extracted	Date Analyzed
C1506-01B	SL	12/03/2004	12/04/2004	NA	12/09/2004
C1506-02A	AQ	12/03/2004	12/04/2004	NA	12/17/2004
C1506-03A	AQ	12/03/2004	12/04/2004	NA	12/17/2004

NYASP 10/95

Mitkem Corporation

New York State Department of Environmental Conservation

Sample Preparation and Analyses Summary
Semivolatile (SVOA) Analyses

Project Name: **NYPA** SDG: **C1506**

Laboratory Sample ID	Matrix	Date Collected	Date Received by Lab	Date Extracted	Date Analyzed
C1506-01B	SL	12/03/2004	12/04/2004	12/12/2004	12/15/2004
C1506-02B	AQ	12/03/2004	12/04/2004	12/08/2004	01/06/2005

NYASP 10/95

Mitkem Corporation

New York State Department of Environmental Conservation

Sample Preparation and Analyses Summary
Pesticides/PCB Analyses

Project Name: **NYPA** SDG: **C1506**

Laboratory Sample ID	Matrix	Date Collected	Date Received by Lab	Date Extracted	Date Analyzed
C1506-01B	SL	12/03/2004	12/04/2004	12/12/2004	12/14/2004
C1506-02B	AQ	12/03/2004	12/04/2004	12/08/2004	12/16/2004

NYASP 10/95

Mitkem Corporation

New York State Department of Environmental Conservation

Sample Preparation and Analyses Summary
Pesticides/PCB Analyses

Project Name: **NYPA** SDG: **C1506**

Laboratory Sample ID	Matrix	Date Collected	Date Received by Lab	Date Extracted	Date Analyzed
C1506-01B	SL	12/03/2004	12/04/2004	12/18/2004	12/20/2004

NYASP 10/95

Mitkem Corporation

New York State Department of Environmental Conservation

Sample Preparation and Analyses Summary
Pesticides/PCB Analyses

Project Name: **NYPA** SDG: **C1506**

Laboratory Sample ID	Matrix	Date Collected	Date Received by Lab	Date Extracted	Date Analyzed
C1506-01B	SL	8082	12/04/2004	12/17/2004	12/21/2004
C1506-02C	AQ	8082	12/04/2004	12/08/2004	12/09/2004

NYASP 10/95

Mitkem Corporation

New York State Department of Environmental Conservation

Sample Preparation and Analyses Summary
Volatile (VOA) Analyses

Project Name: **NYPA** SDG: **C1506**

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Low/Medium Level	Dil/Conc Factor
C1506-01B	SL	8260	NA	Low	1
C1506-02A	AQ	8260	NA	Low	1
C1506-03A	AQ	8260	NA	Low	1

NYASP 10/95

Mitkem Corporation

New York State Department of Environmental Conservation

Sample Preparation and Analyses Summary
Semivolatile (SVOA) Analyses

Project Name: **NYPA** SDG: **C1506**

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
C1506-01B	SL	8270	3510C	NA	1
C1506-02B	AQ	8270	3520C	NA	1

NYASP 10/95

Mitkem Corporation

New York State Department of Environmental Conservation

Sample Preparation and Analyses Summary
Pesticides/PCB Analyses

Project Name: **NYPA** SDG: **C1506**

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
C1506-01B	SL	8081	3510C	Copper	1
C1506-02C	AQ	8081	3510C	Copper	1

NYASP 10/95

Mitkem Corporation

New York State Department of Environmental Conservation

Sample Preparation and Analyses Summary
Pesticides/PCB Analyses

Project Name: **NYPA** SDG: **C1506**

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
C1506-01B	SL	8151	8151	NA	10

NYASP 10/95

Mitkem Corporation

New York State Department of Environmental Conservation

Sample Preparation and Analyses Summary
Pesticides/PCB Analyses

Project Name: **NYPA** SDG: **C1506**

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
C1506-01B	SL	8082	3550B	Acid/Copper	1
C1506-02C	AQ	8082	3510C	Acid/Copper	1

NYASP 10/95

Mitkem Corporation

New York State Department of Environmental Conservation

Sample Preparation and Analyses Summary
Inorganic Analyses

Project Name: **NYPA** SDG: **C1506**

Laboratory Sample ID	Matrix	Metals Requested	Date Received by Lab	Date Analyzed
C1506-01B	SL	ASP	12/04/2004	12/9/04 - 12/10/04
C1506-02B	AQ	ASP	12/04/2004	12/9/04 - 12/10/04

NYASP 10/95

Mitkem Corporation

New York State Department of Environmental Conservation

Sample Preparation and Analyses Summary
Toxicity Characteristic Leaching Procedure

Project Name: **NYPA** SDG: **C1506**

Laboratory Sample ID	Matrix	Analytical Protocol	Date Collected	Date Received by Laboratory	Date Extracted
C1506-01B	SL	1311	12/03/2004	12/04/2004	12/8/04, 12/9/04

NYASP 10/95

Analytical Data Package for TVGA Consultants

Client Project: NYPA NAPL Investigation Conduit Row

SDG# C1506

Mitkem Work Order ID: C1506

January 10, 2005

Prepared For:

TVGA Consultants
1000 Maple Road
Elma, NY 14509
Attn: Mr. James Manzella

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 TVGA Consultants' NYPA NAPL Investigation project. Under this deliverable, analysis results are presented for two aqueous and one soil samples that were received on December 4, 2004. Analyses were performed per specifications in the project's contract and the chain of custody forms. Sample identifications were shortened where necessary due to limitations in the software used to generate CLP-type report forms. A table of sample identifications showing full client ID, shortened client ID and laboratory ID follows this narrative, along with the Mitkem Work Order.

The analyses were performed according to NYSDEC ASP protocols (October 1995 update) and reported per NYSDEC ASP requirement for Category B deliverable with the exception of pH, flashpoint, reactive cyanide and reactive sulfide. The analysis results for pH, flashpoint, reactive cyanide and reactive sulfide are presented in the standard Mitkem format with supporting raw data.

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.

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.

Lab control sample: spike recoveries were within the QC limits.

Sample analysis: no unusual observation was made for the analyses.

3. TCLP Volatile Analyss:

Surrogate recovery: recoveries were within the QC limits.

Lab control sample: spike recoveries were within the QC limits.

Sample analysis: no unusual observation was made for the analyses.

4. Semivolatile Analysis:

Surrogate recovery: recoveries were within the QC limits with the exception of high recovery of nitrobenzene-d5 in the lab control sample duplicate.

Lab control sample/lab control sample duplicate: spike recoveries were within the QC limits with the exception of high recovery of chrysene in the lab control sample and N-nitrosodiphenylamine and chrysene in the lab controls sample duplicate. Replicate RPDs were within the QC limits.

Sample analysis: no other unusual observation was made for the analyses.

5. TCLP Semivolatile Analysis:

Results for the regulated TCLP semivolatile organic compound Total Cresols are reported on the data sheets as 2-methylphenol and 4-methylphenol. The sum of these two results on the data report sheet equals Total Cresols. The analytical result reported for 4-methylphenol also includes the concentration for the 3-methylphenol isomer; these two isomers cannot be separated using this method. Total Cresol is the combination of the 2-, 3-, and 4-methylphenol isomers.

Surrogate recovery: recoveries were within the QC limits with the exception of high recovery of 2,4,6-tribromophenol in method blank SBLK2D.

Lab control sample/lab control sample duplicate: spike recoveries an replicate RPDs were within the QC limits.

Sample analysis: no other unusual observation was made for the analyses.

6. Pesticides Analysis:

Surrogate recovery: recoveries were within the QC limits with the exception of low recovery of decachlorobiphenyl in both columns for sample NYPADF02.

Lab control sample/lab control sample duplicate: spike recoveries were within the QC limits with the exception of low recovery of delta-BHC in both the lab control sample and its duplicate. Replicate RPDs were within the QC limits.

Sample analysis: no other unusual observation was made for the analyses.

7. TCLP Pesticides Analysis:

Surrogate recovery: recoveries were within the QC limits.

Lab control sample/lab control sample duplicate: spike recoveries and replicate RPDs were within the QC limits.

Sample analysis: no unusual observation was made for the analyses.

8. PCB Analysis:

Surrogate recovery: recoveries were within the QC limits with the exception of low recovery of decachlorobiphenyl in both columns for sample DF02-WW-0.

Lab control sample/lab control sample duplicate: spike recoveries and replicate RPDs were within the QC limits.

Sample analysis: no other unusual observation was made for the analyses.

9. TCLP Herbicides Analysis:

Surrogate recovery: recoveries were within the QC limits.

Lab control sample/lab control sample duplicate: spike recoveries and replicate RPDs were within the QC limits.

Sample analysis: due to high concentration of target analytes, sample DS01-S/R-0 was analyzed at 10x dilution. No other unusual observation was made for the analyses.

10. Metals Analysis (Total and TCLP):

Lab control sample: spike recoveries were within the QC limits.

Sample analysis: serial dilution was performed on sample DS01-S/R-0 for arsenic and sample DF02-WW-0 for potassium and sodium with spike recoveries within the QC limits. No other unusual observation was made for the analysis.

11. Wet Chemistry Analyses:

The analyses results for pH, flashpoint, reactive cyanide and reactive sulfide can be found following the blue section divider after the metals data package.

Lab control sample: spike recovery was within the QC limits for reactive sulfide. The lab control sample for reactive cyanide typically results in a percent recovery of approximately 10%. This indicates the analysis is only measuring the correct type of cyanide. The LCS is performed with a "total" cyanide spike, only a small portion of which is "reactive". Recovery of significantly greater than this level in the analysis of the LCS indicates the test is over estimating the concentration of reactive cyanide.

Matrix spike: matrix spike was performed on sample DS01-S/R-0 for reactive sulfide. Spike recovery was within the QC limits.

Matrix duplicate: matrix duplicate was performed on sample DS01-S/R-0 for reactive sulfide. Replicate RPD was within the QC limits.

Sample analysis: Flashpoint analyses were terminated when vapors from the sample extinguished the test flame. For those samples that did not flash, the result of "No flash up to __ " on the analysis report sheet indicates the highest temperature measured before the test flame was extinguished. For samples where the test flame was extinguished below 140 degrees, the sample temperature was elevated to at least 140 degrees, and re-exposed to the test flame. No other unusual observation was made for the analyses.

The pages in this report have been numbered consecutively, starting from 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.

Agnes Ng
CLP Project Manager
01/10/05

*Mitkem and Client Sample ID Summary Report**

Mitkem Workorder: C1506

Client Name: TVGA Consultants

Mitkem Sample ID	*Reported Client Sample ID*	*Full Client Sample ID*
1506-01A	DS01-S/R-0	NYPA-DS01-S/R-0
1506-01B	DS01-S/R-0	NYPA-DS01-S/R-0
C1506-02A	DF02-WW-0	NYPA-DF02-WW-0
1506-02B	DF02-WW-0	NYPA-DF02-WW-0
C1506-02C	DF02-WW-0	NYPA-DF02-WW-0
C1506-03A	TRIP BLANK	

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

Mitkem Corporation — *08/Dec/04 14:44* — WorkOrder: C1506

Client ID:	TVGA	**Case:**		**Report Level:**	ASP-B
Project:	NYPA	**SDG:**		**EDD:**	
Location:		**PO:**		**HC Due:**	12/20/04
Comments:	N/A			**Fax Due:**	

Sample ID	Client Sample ID	Collection Date	Date Received	Matrix	Test Code	Lab Test Comments	Iold	MS	SEL	Storage
C1506-01A	DS01-S/R-0	12/03/04 11:45	12/04/04	Soil	PMoist		☐	☐	☐	C3
					SW1010_S		☐	☐	☐	C3
					SW7.3.3.2_S	REACTIVITY	☐	☐	☐	C3
					SW7.3.4.2_S	REACTIVITY	☐	☐	☐	C3
					SW8082_S		☐	☐	☐	C3
					SW9045C_S		☐	☐	☐	C3
C1506-01B	DS01-S/R-0	12/03/04 11:45	12/04/04	Soil	SW6010B_W	TCLP	☐	☐	☑	C3
					SW7470A	TCLP	☐	☐	☐	C3
					SW8081A_W	TCLP	☐	☐	☑	C3
					SW8151A_W	TCLP	☐	☐	☑	C3
					SW8260B_W	TCLP	☐	☐	☑	C3
					SW8270C_W	TCLP	☐	☐	☑	C3
C1506-02A	DF02-WW-0	12/03/04 12:00	12/04/04	Aqueous	SW8260B_W	Special List	☐	☐	☑	VOA
C1506-02B	DF02-WW-0	12/03/04 12:00	12/04/04	Aqueous	SW6010B_S	TAL	☐	☐	☑	M1
					SW7471A	TAL	☐	☐	☐	M1

Client Rep: Agnes R Ng

Client ID:	TVGA	**Case:**		**Report Level:**	ASP-B
Project:	NYPA	**SDG:**		**EDD:**	
Location:		**PO:**		**HC Due:**	12/20/04
Comments:	N/A			**Fax Due:**	

Sample ID	Client Sample ID	Collection Date	Date Received	Matrix	Test Code	Lab Test Comments	Iold	MS	SEL	Storage
C1506-02C	DF02-WW-0	12/03/04 12:00	12/04/04	Aqueous	SW8081A_W	Special list, plus Mirex	☐	☐	☑	C3
					SW8082_W		☐	☐	☐	C3
					SW8270C_W	Special List	☐	☐	☑	C3
C1506-03A	TRIP BLANK	12/03/04 13:00	12/04/04	Aqueous	SW8260B_W	Special List	☐	☐	☑	VOA

Client Rep: Agnes R Ng

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NYPA-DF02-WW-O

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix: (soil/water) WATER Lab Sample ID: C1506-02A

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V5F7277

Level: (low/med) LOW Date Received: 12/04/04

% Moisture: not dec. _____ Date Analyzed: 12/17/04

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	5	U
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
75-27-4	Bromodichloromethane	5	U
108-88-3	Toluene	2	J
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
----------	Monochlorobenzotrifluoride	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix: (soil/water) WATER Lab Sample ID: C1506-03A

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V5F7276

Level: (low/med) LOW Date Received: 12/04/04

% Moisture: not dec. _____ Date Analyzed: 12/17/04

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	5	U
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
75-27-4	Bromodichloromethane	5	U
108-88-3	Toluene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
----------	Monochlorobenzotrifluoride	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

V5CLCS

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix: (soil/water) WATER Lab Sample ID: LCS-16156

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V5F7273

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 12/17/04

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	53	
75-35-4	1,1-Dichloroethene	53	
75-09-2	Methylene Chloride	55	
156-60-5	trans-1,2-Dichloroethene	53	
156-59-2	cis-1,2-Dichloroethene	53	
67-66-3	Chloroform	52	
71-55-6	1,1,1-Trichloroethane	52	
56-23-5	Carbon Tetrachloride	52	
71-43-2	Benzene	54	
79-01-6	Trichloroethene	53	
75-27-4	Bromodichloromethane	54	
108-88-3	Toluene	52	
79-00-5	1,1,2-Trichloroethane	56	
127-18-4	Tetrachloroethene	52	
124-48-1	Dibromochloromethane	57	
108-90-7	Chlorobenzene	51	
100-41-4	Ethylbenzene	53	
75-25-2	Bromoform	59	
79-34-5	1,1,2,2-Tetrachloroethane	56	
----------	Monochlorobenzotrifluoride	52	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DS01-S/R-0

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix: (soil/water) WATER Lab Sample ID: C1506-01B

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V1G4733

Level: (low/med) LOW Date Received: 12/04/04

% Moisture: not dec. _____ Date Analyzed: 12/09/04

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	5	U
75-35-4	1,1-Dichloroethene	5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	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	2	JB
127-18-4	Tetrachloroethene	5	U
108-90-7	Chlorobenzene	2	J

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

V1RLCS

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix: (soil/water) WATER Lab Sample ID: LCS-16002

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V1G4723

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 12/09/04

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	50	
75-35-4	1,1-Dichloroethene	48	
78-93-3	2-Butanone	50	
67-66-3	Chloroform	52	
56-23-5	Carbon Tetrachloride	50	
107-06-2	1,2-Dichloroethane	53	
71-43-2	Benzene	52	
79-01-6	Trichloroethene	51	
127-18-4	Tetrachloroethene	52	
108-90-7	Chlorobenzene	52	

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DF02-WW-0

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix: (soil/water) WATER Lab Sample ID: C1506-02C

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1E2586

Level: (low/med) LOW Date Received: 12/04/04

% Moisture: _____ decanted: (Y/N)___ Date Extracted:12/08/04

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/06/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	1	J
106-46-7	1,4-Dichlorobenzene	2	J
95-50-1	1,2-Dichlorobenzene	0.4	J
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	13	
91-20-3	Naphthalene	6	J
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	20	U
131-11-3	Dimethylphthalate	10	U
83-32-9	Acenaphthene	10	U
84-66-2	Diethylphthalate	10	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	2	J
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-octylphthalate	10	U
----------	Monochlorotoluene	10	U
----------	Dichlorobenzotrifluoride	10	U
----------	Dichlorotoluene	10	U
----------	Tetrachlorobenzene	4	J
----------	Trichlorotoluene	10	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S1DLCS

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix: (soil/water) WATER Lab Sample ID: LCS-15997

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1E2584

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:12/08/04

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/06/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-57-8	2-Chlorophenol	38	
541-73-1	1,3-Dichlorobenzene	32	
106-46-7	1,4-Dichlorobenzene	25	
95-50-1	1,2-Dichlorobenzene	34	
120-83-2	2,4-Dichlorophenol	47	
120-82-1	1,2,4-Trichlorobenzene	40	
91-20-3	Naphthalene	43	
87-68-3	Hexachlorobutadiene	35	
59-50-7	4-Chloro-3-Methylphenol	49	
77-47-4	Hexachlorocyclopentadiene	32	
88-06-2	2,4,6-Trichlorophenol	55	
95-95-4	2,4,5-Trichlorophenol	46	
131-11-3	Dimethylphthalate	48	
83-32-9	Acenaphthene	48	
84-66-2	Diethylphthalate	50	
86-30-6	N-Nitrosodiphenylamine (1)	56	
118-74-1	Hexachlorobenzene	46	
87-86-5	Pentachlorophenol	35	
85-01-8	Phenanthrene	46	
84-74-2	Di-n-butylphthalate	50	
206-44-0	Fluoranthene	48	
129-00-0	Pyrene	52	
85-68-7	Butylbenzylphthalate	59	
56-55-3	Benzo(a)anthracene	51	
218-01-9	Chrysene	66	
117-84-0	Di-n-octylphthalate	50	
----------	Monochlorotoluene	10	U
----------	Dichlorobenzotrifluoride	10	U
----------	Dichlorotoluene	10	U
----------	Tetrachlorobenzene	10	U
----------	Trichlorotoluene	10	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S1DLCSD

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix: (soil/water) WATER Lab Sample ID: LCSD-15997

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1E2585

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:12/08/04

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/06/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-57-8	2-Chlorophenol	44	
541-73-1	1,3-Dichlorobenzene	36	
106-46-7	1,4-Dichlorobenzene	37	
95-50-1	1,2-Dichlorobenzene	40	
120-83-2	2,4-Dichlorophenol	50	
120-82-1	1,2,4-Trichlorobenzene	45	
91-20-3	Naphthalene	54	
87-68-3	Hexachlorobutadiene	36	
59-50-7	4-Chloro-3-Methylphenol	56	
77-47-4	Hexachlorocyclopentadiene	37	
88-06-2	2,4,6-Trichlorophenol	63	
95-95-4	2,4,5-Trichlorophenol	52	
131-11-3	Dimethylphthalate	55	
83-32-9	Acenaphthene	53	
84-66-2	Diethylphthalate	57	
86-30-6	N-Nitrosodiphenylamine (1)	70	
118-74-1	Hexachlorobenzene	54	
87-86-5	Pentachlorophenol	43	
85-01-8	Phenanthrene	53	
84-74-2	Di-n-butylphthalate	65	B
206-44-0	Fluoranthene	56	
129-00-0	Pyrene	59	
85-68-7	Butylbenzylphthalate	60	
56-55-3	Benzo(a)anthracene	57	
218-01-9	Chrysene	68	
117-84-0	Di-n-octylphthalate	60	
----------	Monochlorotoluene	10	U
----------	Dichlorobenzotrifluoride	10	U
----------	Dichlorotoluene	10	U
----------	Tetrachlorobenzene	10	U
----------	Trichlorotoluene	10	U

(1) - Cannot be separated from Diphenylamine

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DS01-S/R-0

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix: (soil/water) WATER Lab Sample ID: C1506-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2E2880

Level: (low/med) LOW Date Received: 12/04/04

% Moisture: _____ decanted: (Y/N)___ Date Extracted:12/12/04

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/15/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
106-46-7	1,4-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	20	U
121-14-2	2,4-Dinitrotoluene	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	20	U
110-86-1	Pyridine	10	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S2DLCS

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix: (soil/water) WATER Lab Sample ID: LCS-16064

Sample wt/vol: 300.0 (g/mL) ML Lab File ID: S2E2878

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:12/12/04

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/15/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
106-46-7	1,4-Dichlorobenzene	140	
95-48-7	2-Methylphenol	140	
106-44-5	4-Methylphenol	140	
67-72-1	Hexachloroethane	140	
98-95-3	Nitrobenzene	150	
87-68-3	Hexachlorobutadiene	150	
88-06-2	2,4,6-Trichlorophenol	160	
95-95-4	2,4,5-Trichlorophenol	150	
121-14-2	2,4-Dinitrotoluene	170	
118-74-1	Hexachlorobenzene	170	
87-86-5	Pentachlorophenol	140	
110-86-1	Pyridine	100	

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S2DLCSD

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix: (soil/water) WATER Lab Sample ID: LCSD-16064

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2E2879

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:12/12/04

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/15/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
106-46-7	1,4-Dichlorobenzene	44	
95-48-7	2-Methylphenol	47	
106-44-5	4-Methylphenol	48	
67-72-1	Hexachloroethane	46	
98-95-3	Nitrobenzene	49	
87-68-3	Hexachlorobutadiene	48	
88-06-2	2,4,6-Trichlorophenol	52	
95-95-4	2,4,5-Trichlorophenol	49	
121-14-2	2,4-Dinitrotoluene	55	
118-74-1	Hexachlorobenzene	54	
87-86-5	Pentachlorophenol	42	
110-86-1	Pyridine	40	

FORM 1
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DF02-WW-0

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C1506

Matrix: (soil/water) WATER Lab Sample ID: C1506-02C

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E5C0217F

% Moisture: _____ decanted: (Y/N)___ Date Received: 12/04/04

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/08/04

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/16/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.25	
319-85-7	beta-BHC	0.13	
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
2385-85-5	Mirex	0.50	U

FORM 1
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

P5ALCS

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C1506

Matrix: (soil/water) WATER Lab Sample ID: LCS-15993

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E5C0215F

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/08/04

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/16/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.18	
319-85-7	beta-BHC	0.20	
319-86-8	delta-BHC	0.092	P
58-89-9	gamma-BHC (Lindane)	0.20	
76-44-8	Heptachlor	0.26	
309-00-2	Aldrin	0.22	
1024-57-3	Heptachlor epoxide	0.22	
959-98-8	Endosulfan I	0.21	
60-57-1	Dieldrin	0.44	
72-55-9	4,4'-DDE	0.45	
72-20-8	Endrin	0.47	
33213-65-9	Endosulfan II	0.46	
72-54-8	4,4'-DDD	0.40	
1031-07-8	Endosulfan sulfate	0.35	
50-29-3	4,4'-DDT	0.37	
72-43-5	Methoxychlor	1.9	
53494-70-5	Endrin ketone	0.42	
7421-93-4	Endrin aldehyde	0.43	
5103-71-9	alpha-Chlordane	0.23	
5103-74-2	gamma-Chlordane	0.22	
8001-35-2	Toxaphene	5.0	U
2385-85-5	Mirex	0.50	U

FORM 1
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

P5ALCSD

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C1506

Matrix: (soil/water) WATER Lab Sample ID: LCSD-15993

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E5C0216F

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/08/04

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/16/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.18	
319-85-7	beta-BHC	0.20	
319-86-8	delta-BHC	0.079	P
58-89-9	gamma-BHC (Lindane)	0.19	
76-44-8	Heptachlor	0.25	
309-00-2	Aldrin	0.21	
1024-57-3	Heptachlor epoxide	0.21	
959-98-8	Endosulfan I	0.20	
60-57-1	Dieldrin	0.42	
72-55-9	4,4'-DDE	0.42	
72-20-8	Endrin	0.44	
33213-65-9	Endosulfan II	0.42	
72-54-8	4,4'-DDD	0.37	
1031-07-8	Endosulfan sulfate	0.31	
50-29-3	4,4'-DDT	0.34	
72-43-5	Methoxychlor	1.7	
53494-70-5	Endrin ketone	0.37	
7421-93-4	Endrin aldehyde	0.37	
5103-71-9	alpha-Chlordane	0.22	
5103-74-2	gamma-Chlordane	0.20	
8001-35-2	Toxaphene	5.0	U
2385-85-5	Mirex	0.50	U

FORM 1
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DS01-S/R-0

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C1506

Matrix: (soil/water) WATER Lab Sample ID: C1506-01B

Sample wt/vol: 300.0 (g/mL) ML Lab File ID: E5C0148F

% Moisture: _____ decanted: (Y/N)___ Date Received: 12/04/04

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/12/04

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/14/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
58-89-9	gamma-BHC (Lindane)	0.17	U
76-44-8	Heptachlor	0.17	U
1024-57-3	Heptachlor epoxide	0.17	U
72-20-8	Endrin	0.33	U
72-43-5	Methoxychlor	1.7	U
8001-35-2	Toxaphene	17	U
12789-03-6	Chlordane (technical)	8.3	U

FORM 1
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

P4ALCS

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C1506

Matrix: (soil/water) WATER Lab Sample ID: LCS-16062

Sample wt/vol: 300.0 (g/mL) ML Lab File ID: E5C0146F

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/12/04

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/14/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
58-89-9	gamma-BHC (Lindane)	0.64	
76-44-8	Heptachlor	0.84	
1024-57-3	Heptachlor epoxide	0.72	
72-20-8	Endrin	1.6	
72-43-5	Methoxychlor	6.7	
8001-35-2	Toxaphene	17	U
12789-03-6	Chlordane (technical)	8.3	U

FORM 1
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

P4ALCSD

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C1506

Matrix: (soil/water) WATER Lab Sample ID: LCSD-16062

Sample wt/vol: 300.0 (g/mL) ML Lab File ID: E5C0147F

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/12/04

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/14/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
58-89-9	gamma-BHC (Lindane)	0.68	
76-44-8	Heptachlor	0.88	
1024-57-3	Heptachlor epoxide	0.77	
72-20-8	Endrin	1.7	
72-43-5	Methoxychlor	7.3	
8001-35-2	Toxaphene	17	U
12789-03-6	Chlordane (technical)	8.3	U

FORM 1
PCB ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DF02-WW-0

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix: (soil/water) WATER Lab Sample ID: C1506-02C

Sample wt/vol: 1000 (g/ml) ML Lab File ID: E2E2711F

% Moisture: _____ decanted: (Y/N)___ Date Received: 12/04/04

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/08/04

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/09/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM 1
PCB ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DS01-S/R-0

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix: (soil/water) SOIL Lab Sample ID: C1506-01A

Sample wt/vol: 30.1 (g/mL) G Lab File ID: E2E2825F

% Moisture: 11 decanted: (Y/N) N Date Received: 12/04/04

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:12/17/04

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/21/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	37	U
11104-28-2	Aroclor-1221	37	U
11141-16-5	Aroclor-1232	37	U
53469-21-9	Aroclor-1242	37	U
12672-29-6	Aroclor-1248	37	U
11097-69-1	Aroclor-1254	76	
11096-82-5	Aroclor-1260	37	U

FORM 1
PCB ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

P2ALCS

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix: (soil/water) WATER Lab Sample ID: LCS-15994

Sample wt/vol: 1000 (g/ml) ML Lab File ID: E2E2709F

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/08/04

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/09/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	8.9	
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	9.2	

FORM 1
PCB ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

P2ALCSD

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix: (soil/water) WATER Lab Sample ID: LCSD-15994

Sample wt/vol: 1000 (g/ml) ML Lab File ID: E2E2710F

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/08/04

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/09/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	8.5	
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	8.6	

FORM 1
PCB ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

P2BLCS

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix: (soil/water) SOIL Lab Sample ID: LCS-16150

Sample wt/vol: 30.0 (g/mL) G Lab File ID: E2E2824F

% Moisture: 0 decanted: (Y/N) N Date Received: _____

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:12/17/04

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/21/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	290	
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	320	

FORM 1
HERB ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DS01-S/R-0

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C1506

Matrix: (soil/water) WATER Lab Sample ID: C1506-01B

Sample wt/vol: 300.0 (g/mL) ML Lab File ID: E4C5246F

% Moisture: _____ decanted: (Y/N)___ Date Received: 12/04/04

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/12/04

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/20/04

Injection Volume: 1.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	170	
93-72-1	2,4,5-TP (Silvex)	2.2	J

FORM I HERB

CLIENT: TVGA Consultants
Work Order: C1506
Project: NYPA

ANALYTICAL QC SUMMARY REPORT

TestCode: SW7.3.3.2_S

Sample ID	MB-16016	SampType:	MBLK	TestCode:	SW7.3.3.2_S			Prep Date:	12/9/04		Run ID:	LACHAT1_041215C	
Client ID:	MB-16016	Batch ID:	16016	Units:	mg/Kg			Analysis Date:	12/15/04		SeqNo:	310451	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Reactive Cyanide	ND	1.0											

Sample ID	LCS-16016	SampType:	LCS	TestCode:	SW7.3.3.2_S			Prep Date:	12/9/04		Run ID:	LACHAT1_041215C	
Client ID:	LCS-16016	Batch ID:	16016	Units:	mg/Kg			Analysis Date:	12/15/04		SeqNo:	310452	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Reactive Cyanide	ND	1.0	5	0	5.9	0	12.4	0	0				

Sample ID	LCSD-16016	SampType:	LCSD	TestCode:	SW7.3.3.2_S			Prep Date:	12/9/04		Run ID:	LACHAT1_041215C	
Client ID:	LCSD-16016	Batch ID:	16016	Units:	mg/Kg			Analysis Date:	12/15/04		SeqNo:	310453	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Reactive Cyanide	ND	1.0	5	0	5.8	0	12.4	0.295	0	50			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: TVGA Consultants
Work Order: C1506
Project: NYPA

ANALYTICAL QC SUMMARY REPORT

TestCode: SW7.3.4.2_S

Sample ID	MB-16015	SampType:	MBLK	TestCode:	SW7.3.4.2_S			Prep Date:	12/8/04		Run ID:	SPEC2_041208A	
Client ID:	MB-16015	Batch ID:	16015	Units:	mg/Kg			Analysis Date:	12/8/04		SeqNo:	307081	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Reactive Sulfide	ND	1.0											

Sample ID	LCS-16015	SampType:	LCS	TestCode:	SW7.3.4.2_S			Prep Date:	12/8/04		Run ID:	SPEC2_041208A	
Client ID:	LCS-16015	Batch ID:	16015	Units:	mg/Kg			Analysis Date:	12/8/04		SeqNo:	307082	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Reactive Sulfide	52.75	10	85	0	62.1	22.6	114	0	0				

Sample ID	LCSD-16015	SampType:	LCSD	TestCode:	SW7.3.4.2_S			Prep Date:	12/8/04		Run ID:	SPEC2_041208A	
Client ID:	LCSD-16015	Batch ID:	16015	Units:	mg/Kg			Analysis Date:	12/8/04		SeqNo:	307086	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Reactive Sulfide	57.75	10	85	0	67.9	22.6	114	52.75	9.05	20			

Sample ID	C1506-01AMS	SampType:	MS	TestCode:	SW7.3.4.2_S			Prep Date:	12/8/04		Run ID:	SPEC2_041208A	
Client ID:	DS01-S/R-0	Batch ID:	16015	Units:	mg/Kg			Analysis Date:	12/8/04		SeqNo:	307085	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Reactive Sulfide	4.185	1.1	3.282	1.067	95	75	125	0	0				

Sample ID	C1506-01ADUP	SampType:	DUP	TestCode:	SW7.3.4.2_S			Prep Date:	12/8/04		Run ID:	SPEC2_041208A	
Client ID:	DS01-S/R-0	Batch ID:	16015	Units:	mg/Kg			Analysis Date:	12/8/04		SeqNo:	307084	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Reactive Sulfide	ND	1.1	0	0	0	0	0	1.067	0	20			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

APPENDIX C

LIMITATIONS

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Lab File ID (Standard): S2E2871 Date Analyzed: 12/15/04

Instrument ID: S2 Time Analyzed: 1612

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	12 HOUR STD	519760		14.51		452230		17.81		352326		20.02	
	UPPER LIMIT	1039520		15.01		904460		18.31		704652		20.52	
	LOWER LIMIT	259880		14.01		226115		17.31		176163		19.52	
	EPA SAMPLE NO.												
01	SBLK2D	495663		14.52		449744		17.80		399496		20.01	
02	S2DLCS	598847		14.51		526266		17.81		477827		20.02	
03	S2DLCSD	539739		14.51		492762		17.81		446733		20.02	
04	DS01-S/R-0	522666		14.51		467163		17.80		427288		20.01	
05													
06													
07													
08													
09													
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16													
17													
18													
19													
20													
21													
22													

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

Mitkem Corporation

Date: *28-Dec-04*

Client: TVGA Consultants
Client Sample ID: DS01-S/R-0
Lab ID: C1506-01

Project: NYPA
Collection Date: 12/03/04 11:45

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
FLASHPOINT BY PENSKY-MARTENS CLOSED-CUP METHOD				**SW1010_S**			
Ignitability	No flash at 140		200	°F	1	12/09/2004 12:00	R9327
REACTIVE CYANIDE RELEASED FROM WASTES				**SW7.3.3.2_S**			
Reactive Cyanide	ND		1.1	mg/Kg	1	12/15/2004 11:40	16016
REACTIVE SULFIDE RELEASED FROM WASTES				**SW7.3.4.2_S**			
Reactive Sulfide	ND		1.1	mg/Kg	1	12/08/2004 12:44	16015
SOIL AND WASTE PH				**SW9045C_S**			
pH	7.8		1.0	S.U.	1	12/07/2004 14:00	R9329

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

LIMITATIONS

The conclusions presented in this report are based upon information gathered in accordance with the Scope of Services contracted by the Client using generally accepted professional consulting principles and practices. Information provided by outside sources (e.g., agencies, laboratories, etc.), as cited herein, was used in the assessment of the site. The accuracy of the conclusions drawn from this investigation is, therefore, dependent upon the accuracy of information provided by these sources. Furthermore, TVGA is not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to the performance of services.

FORM 1
HERB ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

H4ALCS

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C1506

Matrix: (soil/water) WATER Lab Sample ID: LCS-16060

Sample wt/vol: 300.0 (g/mL) ML Lab File ID: E4C5215F

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/12/04

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/18/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	33	
93-72-1	2,4,5-TP (Silvex)	3.7	

FORM 1
HERB ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

H4ALCSD

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C1506

Matrix: (soil/water) WATER Lab Sample ID: LCSD-16060

Sample wt/vol: 300.0 (g/mL) ML Lab File ID: E4C5216F

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/12/04

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/18/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	24	
93-72-1	2,4,5-TP (Silvex)	2.7	J

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

DS01-S/R-0

Lab Name: Mitkem Corporation Contract: 2004-0193

Lab Code: MITKEM Case No. SAS No.: SDG No.: MC1506

Matrix (soil/water): SOIL Lab Sample ID: C1506-01

Level (low/med): MED Date Received: 12/04/04

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	1.6	U		P
7440-39-3	Barium	199	B		P
7440-43-9	Cadmium	5.1			P
7440-47-3	Chromium	15.4	B		P
7439-92-1	Lead	86.2			P
7782-49-2	Selenium	3.2	B		P
7440-22-4	Silver	0.91	U		P
7439-97-6	Mercury	0.16	B		CV

Comments:

TCLP Metals

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

DF02-WW-0

Lab Name: Mitkem Corporation Contract: 2004-0193

Lab Code: MITKEM Case No. SAS No.: SDG No.: MC1506

Matrix (soil/water): WATER Lab Sample ID: C1506-02

Level (low/med): MED Date Received: 12/04/04

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	195000			P
7440-36-0	Antimony	69.0			P
7440-38-2	Arsenic	1.6	U		P
7440-39-3	Barium	4420			P
7440-41-7	Beryllium	10.2			P
7440-43-9	Cadmium	80.9			P
7440-70-2	Calcium	3230000			P
7440-47-3	Chromium	353			P
7440-48-4	Cobalt	186			P
7440-50-8	Copper	525			P
7439-89-6	Iron	362000			P
7439-92-1	Lead	771			P
7439-95-4	Magnesium	1350000			P
7439-96-5	Manganese	14300			P
7440-02-0	Nickel	447			P
7440-09-7	Potassium	30000			P
7782-49-2	Selenium	0.98	U		P
7440-22-4	Silver	0.91	U		P
7440-23-5	Sodium	15200			P
7440-28-0	Thallium	1.2	U		P
7440-62-2	Vanadium	358			P
7440-66-6	Zinc	5160			P
7439-97-6	Mercury	1.3			CV

Comments:

U.S. EPA - CLP

7
LABORATORY CONTROL SAMPLE

Lab Name: Mitkem Corporation Contract: 2004-0193.00

Lab Code: MITKEM Case No. SAS No.: SDG No.: MC1506

Solid LCS Source:

Aqueous LCS Source:

LCS-16017

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Mercury	4.6	5.23	113.7						

U.S. EPA - CLP

7
LABORATORY CONTROL SAMPLE

Lab Name: Mitkem Corporation Contract: 2004-0193.00

Lab Code: MITKEM Case No. SAS No.: SDG No.: MC1506

Solid LCS Source:

Aqueous LCS Source:

LCS-16021

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum	9100.0	9257.35	101.7						
Antimony	455.0	484.96	106.6						
Arsenic	455.0	467.98	102.9						
Barium	9100.0	9058.69	99.5						
Beryllium	227.0	235.60	103.8						
Cadmium	227.0	232.94	102.6						
Calcium	22700.0	22682.24	99.9						
Chromium	910.0	922.86	101.4						
Cobalt	2270.0	2317.32	102.1						
Copper	1130.0	1139.03	100.8						
Iron	4550.0	4654.63	102.3						
Lead	455.0	469.72	103.2						
Magnesium	22700.0	23432.39	103.2						
Manganese	2270.0	2362.52	104.1						
Nickel	2270.0	2350.37	103.5						
Potassium	22700.0	23471.26	103.4						
Selenium	455.0	455.61	100.1						
Silver	1130.0	1148.46	101.6						
Sodium	22700.0	23619.55	104.1						
Thallium	455.0	448.49	98.6						
Vanadium	2270.0	2311.26	101.8						
Zinc	2270.0	2397.81	105.6						

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

	EPA SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	VBLK5C	98	95	103	96	0
02	V5CLCS	104	111	102	103	0
03	TRIP BLANK	104	118	115	105	0
04	NYPA-DF02-WW	94	101	106	97	0
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

		QC LIMITS
SMC1	= Dibromofluoromethane	(78-117)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(62-124)
SMC3 (TOL)	= Toluene-d8	(81-116)
OTHER (BFB)	= Bromofluorobenzene	(74-126)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

	EPA SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	V1RLCS	103	108	103	93	0
02	VBLK1S	98	98	99	87	0
03	DS01-S/R-0	96	93	97	87	0
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

		QC LIMITS
SMC1	= Dibromofluoromethane	(89-117)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(62-124)
SMC3 (TOL)	= Toluene-d8	(12-116)
OTHER(BFB)	= Bromofluorobenzene	(74-126)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 #	S8 #	TOT OUT
01	SBLK1D	96	90	115	77	34	66			0
02	S1DLCS	91	104	116	77	44	100			0
03	S1DLCSD	115*	110	115	88	55	114			1
04	DF02-WW-0	99	56	22	78	27	88			0
05										
06										
07										
08										
09										
10										
11										
12										
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22										
23										
24										
25										
26										
27										
28										
29										
30										

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(48-106)
S2 (FBP) = 2-Fluorobiphenyl	(38-120)
S3 (TPH) = Terphenyl-d14	(0-147)
S4 (PHL) = Phenol-d5	(0-120)
S5 (2FP) = 2-Fluorophenol	(1-103)
S6 (TBP) = 2,4,6-Tribromophenol	(37-122)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 #	S8 #	TOT OUT
01	SBLK2D	104	107	109	73	86	122*			1
02	S2DLCS	93	99	95	62	74	111			0
03	S2DLCSD	100	108	98	71	79	117			0
04	DS01-S/R-0	102	101	100	84	89	115			0
05										
06										
07										
08										
09										
10										
11										
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28										
29										
30										

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(48-106)
S2 (FBP)	= 2-Fluorobiphenyl	(38-120)
S3 (TPH)	= Terphenyl-d14	(0-147)
S4 (PHL)	= Phenol-d5	(0-120)
S5 (2FP)	= 2-Fluorophenol	(1-103)
S6 (TBP)	= 2,4,6-Tribromophenol	(37-122)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM 2
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C1506

GC Column(1): CLPPEST ID: 0.53 (mm) GC Column(2): CLPPESTII ID: 0.53 (mm)

	CLIENT SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK5A	101	98	116	107			0
02	P5ALCS	104	103	118	109			0
03	P5ALCSD	102	98	102	94			0
04	DF02-WW-0	93	58	30*	22*			2
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ADVISORY
QC LIMITS

S1 (TCX) = Tetrachloro-m-xylene (52-129)
S2 (DCB) = Decachlorobiphenyl (54-130)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

FORM 2
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C1506

GC Column(1): CLPPEST ID: 0.53 (mm) GC Column(2): CLPPESTII ID: 0.53 (mm)

	CLIENT SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK4A	104	99	123	118			0
02	P4ALCS	100	95	121	114			0
03	P4ALCSD	99	95	122	117			0
04	DS01-S/R-0	99	94	111	105			0
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29								
30								

ADVISORY
QC LIMITS

S1 (TCX) = Tetrachloro-m-xylene (29-158)
S2 (DCB) = Decachlorobiphenyl (30-164)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

FORM 2
WATER PCB SURROGATE RECOVERY

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

GC Column(1): RTXCLPPEST ID: 0.53 (mm) GC Column(2): RTXCLPPEST 2 ID: 0.53 (mm)

	CLIENT SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK2A	85	86	88	78			0
02	P2ALCS	91	86	89	78			0
03	P2ALCSD	86	81	84	75			0
04	DF02-WW-0	49	57	21*	20*			2
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29								
30								

ADVISORY
QC LIMITS

S1 (TCX) = Tetrachloro-m-xylene (29-158)
S2 (DCB) = Decachlorobiphenyl (30-164)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

FORM 2
SOIL PCB SURROGATE RECOVERY

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

GC Column(1): RTXCLPPEST ID: 0.53 (mm) GC Column(2): RTXCLPPEST 2 ID: 0.53 (mm)

	CLIENT SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK2B	94	82	75	67			0
02	P2BLCS	102	87	73	65			0
03	DS01-S/R-0	73	68	53	50			0
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29								
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ADVISORY
QC LIMITS

S1 (TCX) = Tetrachloro-m-xylene (42-147)
S2 (DCB) = Decachlorobiphenyl (29-155)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

FORM 2
WATER HERB SURROGATE RECOVERY

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C1506

GC Column(1): RTX-CLPPEST ID: 0.53 (mm) GC Column(2): RTX-CLPPESTII ID: 0.53 (mm

	CLIENT SAMPLE NO.	S1 1 %REC #	S1 2 %REC #	S2 1 %REC #	S2 2 %REC #	S3 1 %REC #	S3 2 %REC #	TOT OUT
01	HBLK4A	74	72					0
02	H4ALCS	104	103					0
03	H4ALCSD	69	70					0
04	DS01-S/R-0	140	143					0
05								
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ADVISORY
QC LIMITS

S1 = DCAA (15-150)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

FORM 3
WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix Spike - Sample No.: V5CLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Vinyl Chloride	50		53	106	65-113
1,1-Dichloroethene	50		53	106	67-121
Methylene Chloride	50		55	110	59-132
trans-1,2-Dichloroethen	50		53	106	71-124
cis-1,2-Dichloroethene	50		53	106	83-120
Chloroform	50		52	104	89-118
1,1,1-Trichloroethane	50		52	104	81-122
Carbon Tetrachloride	50		52	104	79-125
Benzene	50		54	108	81-120
Trichloroethene	50		53	106	77-121
Bromodichloromethane	50		54	108	90-114
Toluene	50		52	104	81-121
1,1,2-Trichloroethane	50		56	112	44-159
Tetrachloroethene	50		52	104	73-121
Dibromochloromethane	50		57	114	80-124
Chlorobenzene	50		51	102	82-118
Ethylbenzene	50		53	106	80-122
Bromoform	50		59	118	77-130
1,1,2,2-Tetrachloroetha	50		56	112	76-125
Monochlorobenzotrifluor	50		52	104	70-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 20 outside limits

COMMENTS: _____

FORM 3
WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix Spike - Sample No.: V1RLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Vinyl Chloride	50		50	100	65-113
1,1-Dichloroethene	50		48	96	67-121
2-Butanone	50		50	100	64-139
Chloroform	50		52	104	89-118
Carbon Tetrachloride	50		50	100	79-125
1,2-Dichloroethane	50		53	106	83-123
Benzene	50		52	104	81-120
Trichloroethene	50		51	102	77-121
Tetrachloroethene	50		52	104	73-121
Chlorobenzene	50		52	104	82-118

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix Spike - Sample No.: S1DLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
2-Chlorophenol	50		38	76	22-117
1,3-Dichlorobenzene	50		33	66	28-103
1,4-Dichlorobenzene	50		32	64	28-104
1,2-Dichlorobenzene	50		34	68	29-107
2,4-Dichlorophenol	50		47	94	31-122
1,2,4-Trichlorobenzene	50		40	80	33-108
Naphthalene	50		43	86	38-117
Hexachlorobutadiene	50		35	70	28-109
4-Chloro-3-Methylphenol	50		49	98	48-117
Hexachlorocyclopentadie	50		32	64	34-103
2,4,6-Trichlorophenol	50		55	110	34-127
2,4,5-Trichlorophenol	50		46	92	32-131
Dimethylphthalate	50		48	96	53-124
Acenaphthene	50		48	96	50-121
Diethylphthalate	50		50	100	53-126
N-Nitrosodiphenylamine	50		56	112	48-121
Hexachlorobenzene	50		46	92	52-124
Pentachlorophenol	50		35	70	5-125
Phenanthrene	50		46	92	52-128
Di-n-butylphthalate	50		50	100	56-132
Fluoranthene	50		48	96	53-130
Pyrene	50		52	104	53-131
Butylbenzylphthalate	50		59	118	54-128
Benzo(a)anthracene	50		51	102	56-124
Chrysene	50		66	132*	53-123
Di-n-octylphthalate	50		50	100	59-138

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix Spike - Sample No.: S1DLCS

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2-Chlorophenol	50	44	88	15	40	22-117
1,3-Dichlorobenzene	50	36	72	9	40	28-103
1,4-Dichlorobenzene	50	37	74	14	40	28-104
1,2-Dichlorobenzene	50	40	80	16	40	29-107
2,4-Dichlorophenol	50	50	100	6	40	31-122
1,2,4-Trichlorobenzene	50	45	90	12	40	33-108
Naphthalene	50	54	108	23	40	38-117
Hexachlorobutadiene	50	36	72	3	40	28-109
4-Chloro-3-Methylphenol	50	56	112	13	40	48-117
Hexachlorocyclopentadie	50	37	74	14	40	34-103
2,4,6-Trichlorophenol	50	63	126	14	40	34-127
2,4,5-Trichlorophenol	50	52	104	12	40	32-131
Dimethylphthalate	50	55	110	14	40	53-124
Acenaphthene	50	53	106	10	40	50-121
Diethylphthalate	50	57	114	13	40	53-126
N-Nitrosodiphenylamine	50	70	140*	22	40	48-121
Hexachlorobenzene	50	54	108	16	40	52-124
Pentachlorophenol	50	43	86	20	40	5-125
Phenanthrene	50	53	106	14	40	52-128
Di-n-butylphthalate	50	65	130	26	40	56-132
Fluoranthene	50	56	112	15	40	53-130
Pyrene	50	59	118	13	40	53-131
Butylbenzylphthalate	50	60	120	2	40	54-128
Benzo(a)anthracene	50	57	114	11	40	56-124
Chrysene	50	68	136*	3	40	53-123
Di-n-octylphthalate	50	60	120	18	40	59-138

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 26 outside limits
Spike Recovery: 3 out of 52 outside limits

COMMENTS: _____

FORM 3
WATER SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix Spike - Sample No.: S2DLCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
1,4-Dichlorobenzene	170		140	82	28-104
2-Methylphenol	170		140	82	40-104
4-Methylphenol	170		140	82	35-106
Hexachloroethane	170		140	82	24-104
Nitrobenzene	170		150	88	47-112
Hexachlorobutadiene	170		150	88	28-109
2,4,6-Trichlorophenol	170		160	94	34-127
2,4,5-Trichlorophenol	170		150	88	32-131
2,4-Dinitrotoluene	170		170	100	52-126
Hexachlorobenzene	170		170	100	52-124
Pentachlorophenol	170		140	82	5-125
Pyridine	170		100	59	45-135

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,4-Dichlorobenzene	50	44	88	7	40	28-104
2-Methylphenol	50	47	94	14	40	40-104
4-Methylphenol	50	48	96	16	40	35-106
Hexachloroethane	50	46	92	11	40	24-104
Nitrobenzene	50	49	98	11	40	47-112
Hexachlorobutadiene	50	48	96	9	40	28-109
2,4,6-Trichlorophenol	50	52	104	10	40	34-127
2,4,5-Trichlorophenol	50	49	98	11	40	32-131
2,4-Dinitrotoluene	50	55	110	10	40	52-126
Hexachlorobenzene	50	54	108	8	40	52-124
Pentachlorophenol	50	42	84	2	40	5-125
Pyridine	50	40	80	30	40	45-135

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 12 outside limits
Spike Recovery: 0 out of 24 outside limits

COMMENTS: _____

FORM 3
WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C1506

Matrix Spike - Sample No.: P5ALCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
alpha-BHC	0.20		0.18	90	52-134
beta-BHC	0.20		0.20	100	42-160
delta-BHC	0.20		0.092	46*	50-137
gamma-BHC (Lindane)	0.20		0.20	100	61-126
Heptachlor	0.20		0.26	130	55-132
Aldrin	0.20		0.22	110	47-132
Heptachlor epoxide	0.20		0.22	110	65-125
Endosulfan I	0.20		0.21	105	0-136
Dieldrin	0.40		0.44	110	67-130
4,4'-DDE	0.40		0.45	112	52-144
Endrin	0.40		0.47	118	73-144
Endosulfan II	0.40		0.46	115	6-166
4,4'-DDD	0.40		0.40	100	42-126
Endosulfan sulfate	0.40		0.35	88	54-153
4,4'-DDT	0.40		0.37	92	47-149
Methoxychlor	2.0		1.9	95	54-142
Endrin ketone	0.40		0.42	105	70-135
Endrin aldehyde	0.40		0.43	108	54-146
alpha-Chlordane	0.20		0.23	115	64-122
gamma-Chlordane	0.20		0.22	110	60-127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 3
WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C1506

Matrix Spike - Sample No.: P5ALCS

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
alpha-BHC	0.20	0.18	90	0	40	52-134
beta-BHC	0.20	0.20	100	0	40	42-160
delta-BHC	0.20	0.079	40*	14	40	50-137
gamma-BHC (Lindane)	0.20	0.19	95	5	40	61-126
Heptachlor	0.20	0.25	125	4	40	55-132
Aldrin	0.20	0.21	105	5	40	47-132
Heptachlor epoxide	0.20	0.21	105	5	40	65-125
Endosulfan I	0.20	0.20	100	5	40	0-136
Dieldrin	0.40	0.42	105	5	40	67-130
4,4'-DDE	0.40	0.42	105	6	40	52-144
Endrin	0.40	0.44	110	7	40	73-144
Endosulfan II	0.40	0.42	105	9	40	6-166
4,4'-DDD	0.40	0.37	92	8	40	42-126
Endosulfan sulfate	0.40	0.31	78	12	40	54-153
4,4'-DDT	0.40	0.34	85	8	40	47-149
Methoxychlor	2.0	1.7	85	11	40	54-142
Endrin ketone	0.40	0.37	92	13	40	70-135
Endrin aldehyde	0.40	0.37	92	16	40	54-146
alpha-Chlordane	0.20	0.22	110	4	40	64-122
gamma-Chlordane	0.20	0.20	100	10	40	60-127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 20 outside limits
Spike Recovery: 2 out of 40 outside limits

COMMENTS: _____

FORM 3
WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C1506

Matrix Spike - Sample No.: P4ALCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
gamma-BHC (Lindane)	0.67		0.64	96	61-126
Heptachlor	0.67		0.84	125	55-132
Heptachlor epoxide	0.67		0.72	107	65-125
Endrin	1.3		1.6	123	73-144
Methoxychlor	6.7		6.7	100	54-142

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	0.67	0.68	101	5	40	61-126
Heptachlor	0.67	0.88	131	5	40	55-132
Heptachlor epoxide	0.67	0.77	115	7	40	65-125
Endrin	1.3	1.7	131	6	40	73-144
Methoxychlor	6.7	7.3	109	9	40	54-142

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

FORM 3
WATER PCB LAB CONTROL SAMPLE

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix Spike - Sample No.: P2ALCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Aroclor-1016	10		8.9	89	45-162
Aroclor-1260	10		9.2	92	54-159

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	10	8.5	85	4	40	45-162
Aroclor-1260	10	8.6	86	7	40	54-159

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 2 outside limits
Spike Recovery: 0 out of 4 outside limits

COMMENTS: _____

FORM III PCB

FORM 3
SOIL PCB LAB CONTROL SAMPLE

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix Spike - Sample No.: P2BLCS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Aroclor-1016	330		290	88	62-155
Aroclor-1260	330		320	97	56-173

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS: _____

FORM 3
WATER HERB LAB CONTROL SAMPLE

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C1506

Matrix Spike - Sample No.: H4ALCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
2,4-D	33		33	100	15-150
2,4,5-TP (Silvex)	3.3		3.7	112	15-150

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2,4-D	33	24	73	31	40	15-150
2,4,5-TP (Silvex)	3.3	2.7	82	31	40	15-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 2 outside limits
Spike Recovery: 0 out of 4 outside limits

COMMENTS: _____

_____

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK5C

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Lab File ID: V5F7272 Lab Sample ID: MB-16156

Date Analyzed: 12/17/04 Time Analyzed: 1143

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: V5

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	V5CLCS	LCS-16156	V5F7273	1220
02	TRIP BLANK	C1506-03A	V5F7276	1421
03	NYPA-DF02-WW	C1506-02A	V5F7277	1457
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
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COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK5C

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix: (soil/water) WATER Lab Sample ID: MB-16156

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V5F7272

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 12/17/04

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	5	U
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
75-27-4	Bromodichloromethane	5	U
108-88-3	Toluene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
----------	Monochlorobenzotrifluoride	5	U

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK1S

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Lab File ID: V1G4732 Lab Sample ID: MB-15991

Date Analyzed: 12/09/04 Time Analyzed: 1520

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: V1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	DS01-S/R-0	C1506-01B	V1G4733	1547
02				
03				
04				
05				
06				
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COMMENTS:

FORM IV VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1S

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix: (soil/water) WATER Lab Sample ID: MB-15991

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V1G4732

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 12/09/04

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	5	U
75-35-4	1,1-Dichloroethene	5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	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	3	J
127-18-4	Tetrachloroethene	5	U
108-90-7	Chlorobenzene	5	U

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK1D

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Lab File ID: S1E2583 Lab Sample ID: MB-15997

Instrument ID: S1 Date Extracted: 12/08/04

Matrix: (soil/water) WATER Date Analyzed: 01/06/05

Level: (low/med) LOW Time Analyzed: 1331

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	S1DLCS	LCS-15997	S1E2584	01/06/05
02	S1DLCSD	LCSD-15997	S1E2585	01/06/05
03	DF02-WW-0	C1506-02C	S1E2586	01/06/05
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COMMENTS:

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1D

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix: (soil/water) WATER Lab Sample ID: MB-15997

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1E2583

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:12/08/04

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/06/05

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	20	U
131-11-3	Dimethylphthalate	10	U
83-32-9	Acenaphthene	10	U
84-66-2	Diethylphthalate	10	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	10	U
84-74-2	Di-n-butylphthalate	1	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-octylphthalate	10	U
----------	Monochlorotoluene	10	U
----------	Dichlorobenzotrifluoride	10	U
----------	Dichlorotoluene	10	U
----------	Tetrachlorobenzene	10	U
----------	Trichlorotoluene	10	U

(1) - Cannot be separated from Diphenylamine

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK2D

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Lab File ID: S2E2877 Lab Sample ID: MB-16024

Instrument ID: S2 Date Extracted: 12/12/04

Matrix: (soil/water) WATER Date Analyzed: 12/15/04

Level: (low/med) LOW Time Analyzed: 1949

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	S2DLCS	LCS-16064	S2E2878	12/15/04
02	S2DLCSD	LCSD-16064	S2E2879	12/15/04
03	DS01-S/R-0	C1506-01B	S2E2880	12/15/04
04				
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COMMENTS:

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLK2D

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix: (soil/water) WATER Lab Sample ID: MB-16024

Sample wt/vol: 300.0 (g/mL) ML Lab File ID: S2E2877

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:12/12/04

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/15/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
106-46-7	1,4-Dichlorobenzene	33	U
95-48-7	2-Methylphenol	33	U
106-44-5	4-Methylphenol	33	U
67-72-1	Hexachloroethane	33	U
98-95-3	Nitrobenzene	33	U
87-68-3	Hexachlorobutadiene	33	U
88-06-2	2,4,6-Trichlorophenol	33	U
95-95-4	2,4,5-Trichlorophenol	67	U
121-14-2	2,4-Dinitrotoluene	33	U
118-74-1	Hexachlorobenzene	33	U
87-86-5	Pentachlorophenol	67	U
110-86-1	Pyridine	33	U

FORM 4
PESTICIDE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

PBLK5A

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C1506

Lab Sample ID: MB-15993 Lab File ID: E5C0214F

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SEPF

Sulfur Cleanup (Y/N) Y Date Extracted: 12/08/04

Date Analyzed (1): 12/16/04 Date Analyzed (2): 12/16/04

Time Analyzed (1): 1522 Time Analyzed (2): 1522

Instrument ID (1): E5 Instrument ID (2): E5

GC Column (1): CLPPEST ID: 0.53(mm) GC Column (2): CLPPESTII ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	P5ALCS	LCS-15993	12/16/04	12/16/04
02	P5ALCSD	LCSD-15993	12/16/04	12/16/04
03	DF02-WW-0	C1506-02C	12/16/04	12/16/04
04				
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COMMENTS: _____

FORM 1
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PBLK5A

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C1506

Matrix: (soil/water) WATER Lab Sample ID: MB-15993

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E5C0214F

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/08/04

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/16/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
2385-85-5	Mirex	0.50	U

FORM 4
PESTICIDE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

PBLK4A

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C1506

Lab Sample ID: MB-16024 Lab File ID: E5C0142F

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SEPF

Sulfur Cleanup (Y/N) Y Date Extracted: 12/12/04

Date Analyzed (1): 12/14/04 Date Analyzed (2): 12/14/04

Time Analyzed (1): 1157 Time Analyzed (2): 1157

Instrument ID (1): E5 Instrument ID (2): E5

GC Column (1): CLPPEST ID: 0.53(mm) GC Column (2): CLPPESTII ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	P4ALCS	LCS-16062	12/14/04	12/14/04
02	P4ALCSD	LCSD-16062	12/14/04	12/14/04
03	DS01-S/R-0	C1506-01B	12/14/04	12/14/04
04				
05				
06				
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COMMENTS: _____

FORM 1
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PBLK4A

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C1506

Matrix: (soil/water) WATER Lab Sample ID: MB-16024

Sample wt/vol: 300.0 (g/mL) ML Lab File ID: E5C0142F

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/12/04

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/14/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
58-89-9	gamma-BHC (Lindane)	0.17	U
76-44-8	Heptachlor	0.17	U
1024-57-3	Heptachlor epoxide	0.17	U
72-20-8	Endrin	0.33	U
72-43-5	Methoxychlor	1.7	U
8001-35-2	Toxaphene	17	U
12789-03-6	Chlordane (technical)	8.3	U

FORM 4
PCB METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

PBLK2A

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Lab Sample ID: MB-15993 Lab File ID: E2E2708F

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SEPF

Sulfur Cleanup (Y/N) Y Date Extracted: 12/08/04

Date Analyzed (1): 12/09/04 Date Analyzed (2): 12/09/04

Time Analyzed (1): 1835 Time Analyzed (2): 1835

Instrument ID (1): E2 Instrument ID (2): E2

GC Column (1): RTXCLPPEST ID: 0.53(mm) GC Column (2): RTXCLPPEST 2 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	P2ALCS	LCS-15994	12/09/04	12/09/04
02	P2ALCSD	LCSD-15994	12/09/04	12/09/04
03	DF02-WW-0	C1506-02C	12/09/04	12/09/04
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COMMENTS: _____

FORM 1
PCB ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PBLK2A

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix: (soil/water) WATER Lab Sample ID: MB-15993

Sample wt/vol: 1000 (g/ml) ML Lab File ID: E2E2708F

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/08/04

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/09/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM 4
PCB METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

PBLK2B

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Lab Sample ID: MB-16149 Lab File ID: E2E2823F

Matrix (soil/water) SOIL Extraction:(SepF/Cont/Sonc) SONC

Sulfur Cleanup (Y/N) Y Date Extracted: 12/17/04

Date Analyzed (1): 12/21/04 Date Analyzed (2): 12/21/04

Time Analyzed (1): 1845 Time Analyzed (2): 1845

Instrument ID (1): E2 Instrument ID (2): E2

GC Column (1): RTXCLPPEST ID: 0.53(mm) GC Column (2): RTXCLPPEST 2 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	P2BLCS	LCS-16150	12/21/04	12/21/04
02	DS01-S/R-0	C1506-01A	12/21/04	12/21/04
03				
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COMMENTS: _____

FORM 1
PCB ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PBLK2B

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Matrix: (soil/water) SOIL Lab Sample ID: MB-16149

Sample wt/vol: 30.0 (g/mL) G Lab File ID: E2E2823F

% Moisture: 0 decanted: (Y/N) N Date Received: _____

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:12/17/04

Concentrated Extract Volume: 5000(uL) Date Analyzed: 12/21/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

FORM 4
HERB METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

HBLK4A

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C1506

Lab Sample ID: MB-16024 Lab File ID: E4C5214F

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SEPF

Sulfur Cleanup (Y/N) Y Date Extracted: 12/12/04

Date Analyzed (1): 12/18/04 Date Analyzed (2): 12/18/04

Time Analyzed (1): 0103 Time Analyzed (2): 0103

Instrument ID (1): E4 Instrument ID (2): E4

GC Column (1): RTX-CLPPEST ID: 0.53(mm) GC Column (2): RTX-CLPPESTII ID: 0.53(mm

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	H4ALCS	LCS-16060	12/18/04	12/18/04
02	H4ALCSD	LCSD-16060	12/18/04	12/18/04
03	DS01-S/R-0	C1506-01B	12/20/04	12/20/04
04				
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COMMENTS: _____

FORM 1
HERB ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

HBLK4A

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C1506

Matrix: (soil/water) WATER Lab Sample ID: MB-16024

Sample wt/vol: 300.0 (g/mL) ML Lab File ID: E4C5214F

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/12/04

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/18/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	3.3	U
93-72-1	2,4,5-TP (Silvex)	3.3	U

U.S. EPA - CLP

3
BLANKS

Lab Name: Mitkem Corporation Contract: 2004-0193.00

Lab Code: MITKEM Case No. SAS No.: SDG No.: MC1506

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Mercury	0.0	U	0.0	U					0.047	U	CV

U.S. EPA - CLP

3
BLANKS

Lab Name: Mitkem Corporation Contract: 2004-0193.00

Lab Code: MITKEM Case No. SAS No.: SDG No.: MC1506

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Mercury									0.065	U	CV

3
BLANKS

Lab Name: Mitkem Corporation Contract: 2004-0193.00

Lab Code: MITKEM Case No. SAS No.: SDG No.: MC1506

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	14.0	U	22.0	B	35.1	B			14.000	U	P
Antimony	5.4	B	-2.1	B	1.2	U			2.777	B	P
Arsenic	1.8	B	1.6	U	2.2	B			1.600	U	P
Barium	2.1	U	2.1	U	2.1	U			3.254	B	P
Beryllium	0.2	U	0.1	U	0.1	U			0.150	U	P
Cadmium	0.1	U	0.1	U	0.1	U			0.100	U	P
Calcium	33.0	U	173.1	B	122.1	B			49.705	B	P
Chromium	0.4	U	0.4	U	0.4	U			0.595	B	P
Cobalt	0.4	B	0.7	B	0.8	B			0.917	B	P
Copper	6.3	U	6.5	B	6.3	U			13.923	B	P
Iron	19.0	U	19.0	U	21.0	B			19.000	U	P
Lead	-2.9	U	-1.3	B	-0.8	B			1.238	B	P
Magnesium	20.0	U	25.0	B	206.2	B			20.000	U	P
Manganese	1.8	U	1.8	U	1.8	U			1.800	U	P
Nickel	0.9	B	1.1	B	1.1	B			1.225	B	P
Selenium	1.0	U	1.0	U	1.4	B			2.204	B	P
Silver	11.5	B	0.9	B	0.9	U			0.910	U	P
Thallium	10.6	B	6.0	B	1.2	U			7.747	B	P
Vanadium	0.7	B	0.5	U	0.5	U			0.470	U	P
Zinc	11.2	B	12.0	B	11.5	B			26.624	B	P

U.S. EPA - CLP

3
BLANKS

Lab Name: Mitkem Corporation Contract: 2004-0193.00

Lab Code: MITKEM Case No. SAS No.: SDG No.: MC1506

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Barium									40.141	B	P
Cadmium									0.519	B	P
Chromium									1.392	B	P
Lead									-4.444	B	P
Selenium									10.092	B	P
Silver									0.910	U	P

U.S. EPA - CLP

3
BLANKS

Lab Name: Mitkem Corporation Contract: 2004-0193.00

Lab Code: MITKEM Case No. SAS No.: SDG No.: MC1506

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Arsenic	1.6	U	1.7	B	1.6	U			-11.416	B	P
Calcium	66.3	B	78.3	B	65.4	B					P
Iron	19.0	U	19.0	U	22.7	B					P
Magnesium	22.7	B	91.2	B	190.4	B					P

3
BLANKS

Lab Name: Mitkem Corporation Contract: 2004-0193.00

Lab Code: MITKEM Case No. SAS No.: SDG No.: MC1506

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Potassium	160.0	U	160.0	U					160.000	U	P

U.S. EPA - CLP

3
BLANKS

Lab Name: Mitkem Corporation Contract: 2004-0193.00

Lab Code: MITKEM Case No. SAS No.: SDG No.: MC1506

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Sodium	130.0	U	130.0	U					130.000	U	P

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Lab File ID (Standard): V5F7271 Date Analyzed: 12/17/04

Instrument ID: V5 Time Analyzed: 1054

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

		IS1 AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DCB) AREA #	RT #
	12 HOUR STD	851260	6.04	584882	9.24	282749	11.98
	UPPER LIMIT	1702520	6.54	1169764	9.74	565498	12.48
	LOWER LIMIT	425630	5.54	292441	8.74	141375	11.48
	EPA SAMPLE NO.						
01	VBLK5C	869307	6.04	578864	9.25	254638	11.97
02	V5CLCS	768720	6.04	532837	9.24	260674	11.97
03	TRIP BLANK	653793	6.05	455733	9.24	217005	11.98
04	NYPA-DF02-WW	712760	6.04	487779	9.25	228498	11.97
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IS1 = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Lab File ID (Standard): V1G4721 Date Analyzed: 12/09/04

Instrument ID: V1 Time Analyzed: 0926

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

		IS1 AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DCB) AREA #	RT #
	12 HOUR STD	1237227	6.84	863786	10.56	338605	13.37
	UPPER LIMIT	2474454	7.34	1727572	11.06	677210	13.87
	LOWER LIMIT	618614	6.34	431893	10.06	169303	12.87
	EPA SAMPLE NO.						
01	V1RLCS	1191134	6.84	824836	10.56	334236	13.37
02	VBLK1S	1061652	6.85	731271	10.56	300189	13.37
03	DS01-S/R-0	1063304	6.84	742173	10.56	321551	13.37
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IS1 = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Lab File ID (Standard): S1E2581 Date Analyzed: 01/06/05

Instrument ID: S1 Time Analyzed: 1225

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	217888	8.37	771362	9.98	352024	12.18
	UPPER LIMIT	435776	8.87	1542724	10.48	704048	12.68
	LOWER LIMIT	108944	7.87	385681	9.48	176012	11.68
	EPA SAMPLE NO.						
01	SBLK1D	231546	8.36	927987	9.98	507778	12.18
02	S1DLCS	212209	8.36	810184	9.98	405550	12.19
03	S1DLCSD	205017	8.37	763768	9.99	383845	12.18
04	DF02-WW-0	206523	8.36	840628	9.99	410367	12.18
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Lab File ID (Standard): S1E2581 Date Analyzed: 01/06/05

Instrument ID: S1 Time Analyzed: 1225

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	625894	14.05	539732	17.35	356512	19.61
	UPPER LIMIT	1251788	14.55	1079464	17.85	713024	20.11
	LOWER LIMIT	312947	13.55	269866	16.85	178256	19.11
	EPA SAMPLE NO.						
01	SBLK1D	843875	14.05	644703	17.35	442684	19.61
02	S1DLCS	662934	14.05	495553	17.35	336928	19.61
03	S1DLCSD	614942	14.05	503702	17.36	312610	19.61
04	DF02-WW-0	714648	14.05	421422	17.35	196205	19.61
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IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: MC1506

Lab File ID (Standard): S2E2871 Date Analyzed: 12/15/04

Instrument ID: S2 Time Analyzed: 1612

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	136943	7.27	528118	9.26	304929	12.10
	UPPER LIMIT	273886	7.77	1056236	9.76	609858	12.60
	LOWER LIMIT	68472	6.77	264059	8.76	152465	11.60
	EPA SAMPLE NO.						
01	SBLK2D	132767	7.27	500093	9.25	288212	12.09
02	S2DLCS	158698	7.27	606648	9.25	351169	12.10
03	S2DLCSD	142330	7.27	549937	9.25	313770	12.10
04	DS01-S/R-0	138538	7.27	516734	9.25	303076	12.09
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.