US EPA RECORDS CENTER REGION 5
406479

Acid Tank Spill Site Investigation and Characterization At the IWTP, AF Plant 85, Columbus, Ohio Contract No. DACA27-93-D-0032

Submitted to:
U.S. Army Corps of Engineers
600 Dr. Martin Luther King Jr. Place
Room 821
Louisville, Kentucky 40202-2230
Attention of: CEORL-CT-C
(W22W9K-5059-6061)DURRETT

Submitted by:
IT Corporation
11499 Chester Road
Cincinnati, OH 45246
(513) 782-4700

September 22, 1995

INTERNATIONAL TECHNOLOGY CORPORATION

October 4, 1995

Department of the Army
U.S. Army Engineer District, Louisville
Corps of Engineers
Attn: Mr. Martin Wahking
600 Martin Luther King Jr. Place
Louisville, Kentucky 40202-2230

Dear Mr. Wahking:

In accordance with Contract Number DACA27-93-D-0032, IT Corporation (IT) has completed the Acid Tank Spill Site Investigation and Characterization at the Industrial Waste Treatment Plant (IWTP), Air Force Plant 85 (AFP 85), Columbus, Ohio. This letter presents IT's conclusions and recommendations based upon data obtained during this investigation.

CONCLUSIONS

In Section 3.4 of the Acid Tank Spill Site Investigation and Characterization final report, analytical results for soil and groundwater samples collected were compared against accepted analytical screening values for inorganic compounds at military installations. Screening values used were taken from the United States Environmental Protection Agency (U.S. EPA), Region 9, September 1995, Preliminary Remediation Goals (PRGs) for industrial soils and tap water and the U.S. EPA Drinking Water Regulation Maximum Contaminate Levels (MCLs). Based upon this comparison no soil samples equaled or exceeded the PRGs for industrial soil. However, four groundwater samples collected (from monitoring wells MW-1, MW-3, and MW-5) did meet or exceed the PRGs and/or MCLs for Nitrate, Chromium III, and Chromium VI (see attached Table 1).

During the field portion of the above mentioned investigation, twelve soil borings were advanced at the IWTP. Ten soil borings were advanced to ten feet below ground surface (bgs), one soil boring was advanced to fifteen feet bgs, and one encountered auger refusal at three feet bgs. Each of the twelve soil borings encountered asphalt and gravel subbase beginning at the ground surface and ranging from one-half to three feet thick. Below the gravel subbase all soil borings advanced encountered clayey silt and silty clay to final depth. No saturated zones or groundwater was encountered in the soil borings. Based on this information, review of the monitoring well boring and construction logs for the existing monitoring wells, and visual inspection of the ground/surface conditions at the IWTP, it is suspected that the existing monitoring wells are being hydraulically

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11499 Chester Road • Cincinnati, Ohio 45246-4012 • 513-782-4700 • FAX. 513-782-4807

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influenced by surface runoff (i.e., precipitation). It is also suspected that the side walls of the clarifloculator may be leaking water into the foundation surrounding the structure. The fact that no saturated zones or groundwater was encountered during advancement of the twelve soil borings suggest that the existing wells monitor zones of perched water. All the monitoring wells are flush mounted with respect to the existing asphalt and it is suspected that surface runoff is entering through cracks in the asphalt, or in the case of the clarifloculator, through cracks in it's side walls. The close proximity of the flush-mounted monitoring wells to the excavation beneath the failed acid storage tank and to the foundations of the existing above ground tanks and clarifloculator suggest that the wells may be in contact with coarse granular foundation and backfill material. It is suspected that surface runoff enters through the aforementioned cracks and then travels through the granular material to the annulus of the monitoring wells. Based on this scenario the presence of the subject analytes in monitoring wells MW-1, MW-3, and MW-5 may be due in part to surface runoff "washing" through the granular material in the vicinity of the failed acid storage tank.

RECOMMENDATIONS

Since the acid tank spill site at the IWTP is listed in the Management Action Plan (MAP) for AFP 85 as an Area of Concern, and that it is not currently under any regulatory guidance, IT recommends that the Air Force petition the appropriate regulatory agency for "No Further Action". Data obtained during the acid tank spill site investigation and characterization and historical data collected indicate that levels of contamination have decreased significantly since the failure of the acid storage tank and it is anticipated that levels will continue to drop due to natural attenuation.

Should you have any further clarification on the above comments, please contact Mr. Paul McCarren or me at (513) 782-4700.

Respectfully,

IT CORPORATION

William S. Pier
Program Director

Table 1
Summary of Comparison of Analytical Results
IWTP, AFB 85, Columbus, Ohio

Sample Location	Sample ID	Analytical Results (mg/L)[1]/Parameter	Comparison Value (mg/L)/Source
MW-1	GMW011	67.0/Nitrate	58.0*/PRG[2]
MW-3	GMW031	0.10/Chromium III	0.10/MCL[3]
MW-5	GMW051	1.1/Chromium VI	0.18/PRG
MW-5	GMW05D	0.95/Chromium VI	0.18/PRG

NOTE: [1] mg/L - milligrams per liter.
[2] PRG - Preliminary Remediation Goals for Tapwater, U.S. EPA Region IX, September 1995
[3] MCL - Maximum Contaminant Level, U.S. EPA Drinking Water Regulations, May 1995
*Groundwater MCL for Nitrate is 10 mg/L.

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1.0 Background and Purpose

1.1 Facility Description

Air Force Plant (AFP) 85 is located in Columbus, Ohio, adjacent to and immediately south of the Port Columbus International Airport (See Figure 1). The Industrial Waste Treatment Plant (IWTP) is located northwest of Building 3, on the east side of the AFP 85 property (See Figure 2). The IWTP is an asphalt paved fenced area.

The IWTP consists of several above-ground storage tanks (ASTs) of various capacities and uses. The following ASTs, with capacities, are located at the IWTP: Chrome Tank-12,000 gallon, Alkali Tank-30,000 gallon, two Rinse Tanks-216,000 gallons each, and a Clarifloculator. A 15,000 gallon acid AST has been dismantled and removed. The IWTP is currently inactive, except for the clarifloculator which is still receiving liquids from a 50,000 gallon coal pile leachate AST (located east of the IWTP).

1.2 Facility History

In September, 1990, the bottom of the 15,000 gallon acid storage tank AST at the IWTP failed releasing a portion of the contents of the AST into the soil underneath the tank. The AST contained a mixture of nitric acid (10% of the total volume), chromic acid (5% of the total volume), and hydrofluoric acid (1% of the total volume). Immediate action was taken by AFP 85 personnel to remove the soil adjacent to and east of the AST. Between July, 1991 and January, 1992, an investigation of soils beneath and adjacent to the failed AST was conducted by CTL Engineering (CTL). Eighteen soil borings were advanced adjacent to and beneath the failed AST and two soil borings were advanced approximately 300 to 400 feet north northeast of the failed AST. Laboratory results from the soil samples collected indicated a maximum concentration of total chromium of 4,262.4 milligrams per kilograms (mg/kg). This was from one soil sample composited from soils collected immediately beneath the concrete base of the failed AST. The maximum concentration of total chromium detected in soil grab samples collected adjacent to the failed AST was 689.8 mg/kg. Table 1 presents a summary of soil sample results for total chromium analyses from this investigation. Figure 3 shows the location of the soil borings advanced adjacent to and beneath the failed AST.

In September, 1993, the failed AST was dismantled and removed. Approximately 100 cubic yards of soil from beneath the AST were removed and disposed of. During removal soil samples were collected from the side walls of the excavation and analyzed for TCLP 8 metals. Also during the removal, a Phase II Subsurface Investigation was conducted by TCA Environmental (TCA). Five groundwater monitoring wells were installed and three were sampled. Figure 4 shows the approximate location of five soil samples (numbered 1, 2, 3, 4, and 5) and monitoring wells MW-1, MW-2, MW-3, MW-4, and MW-5. Groundwater samples collected from the monitoring well located to the southwest of the AST indicated elevated levels of TCLP chromium. The highest concentrations of chromium were detected in the TCLP extract from the soil sample collected immediately below the failed AST (0.71 milligrams per liter (mg/l)) and in one groundwater sample collected (162 mg/l). It is not known from what monitoring well this sample was collected. Table 2 presents a summary of analytical results from this investigation.

In June, 1994, RMT Laboratories (RMT) collected groundwater samples from three of the five existing monitoring wells and grab water samples from three locations around the clarifloculator and analyzed for total chromium. The highest concentration of total chromium was detected in the groundwater sample collected from monitoring well MW-3 at 7300 micrograms per liter (μg/l). Table 3 presents a summary of analytical results.

1.3 Purpose

IT Corporation (IT) was contracted by the U.S. Army Corps of Engineers (USACE) Louisville, Kentucky, District Office to conduct an investigation at AFP 85 at the IWTP. The purpose of this investigation was to perform soil and groundwater sampling and laboratory analyses for additional characterization of the Acid Tank Spill Site. The field activities portion of this investigation were conducted July 10 through July 14, 1995. Details of the field activities were recorded on Field Activity Daily Logs and are included in Appendix A.

2.0 Summary of Field Activities

2.1 Drilling Activities

Twelve soil borings, designated B-1, B-2, B-3, B-4, B-5, BM-6, BM-8, BM-9, BM-10, BG-1, BG-2, and BG-3, were drilled during the investigation at the IWTP (Figure 5). Soil borings BG-1, BG-2, and BG-3 were designated as background locations. Soil boring logs are presented in Appendix A. Originally thirteen soil borings were proposed however only twelve were completed. The thirteenth soil boring, BM-7 designated to be a monitoring well, was not advanced due to subsurface conditions (i.e., lack of encountered saturated zones or groundwater). The additional footage assigned to BM-7 was used to advance soil boring BM-6 to a greater target depth. Prior to commencement of drilling activities, all underground utility clearances were made. The soil borings were advanced with a truck-mounted drill rig using 4 1/4-inch inside diameter (ID) Hollow Stem Augers (HSA). The soil borings were continuously sampled using a 4-inch by 5 foot continuous split-spoon sampler driven in advance of the HSAs. Drilling and sampling equipment was decontaminated prior to drilling each soil boring in accordance with the approved Work Plan (WP) prepared by IT.

During drilling each soil boring was advanced in five foot intervals to the target depth of ten feet below ground surface (bgs). After advancement of the HSAs and spoon sampler, the spoon sampler was withdrawn from the borehole and opened. The lithology of the soil was then described and sampling of the recovered soil was conducted. Air monitoring of the recovered material was conducted using a photoionization detector. Results of the air monitoring are presented on the soil boring logs (see Appendix A).

In accordance with the Work Plan, five soil borings, B-1, B-2, B-3, B-4, and B-5, were advanced to ten feet bgs. No fill material, saturated zones or groundwater were encountered in these soil borings. Following completion of soil sampling the soil borings were abandoned by grouting to the surface using a cement/bentonite slurry.

The remaining seven soil borings, BM-6, BM-8, BM-9, BM-10, BG-1, BG-2, and BG-3, were originally designated to be completed as monitoring wells, however no saturated zones or groundwater was encountered during drilling. Borings BM-8, BM-9, BG-1, BG-2, and BG-3 were advanced to ten feet bgs. Boring BM-6 was advanced (with USACE approval) to fifteen feet

bgs to further characterize subsurface conditions. Boring BM-10 was abandoned due to auger refusal at three feet bgs after encountering concrete encased wire. Following completion of soil sampling the remaining soil borings were abandoned in accordance with the Work Plan.

Following completion of field activities the twelve soil borings were surveyed by a licensed surveyor. All locations were tied to the previously established United States Geological Society (USGS) survey grid at AFP 85.

2.1.1 Soil Sampling

Two composite soil samples per soil boring were collected during advancement of eleven of the twelve borings. No samples were collected from soil boring BM-10 due to auger refusal. Due to the lack of, or minimal amount of apparent fill material encountered, composite soil sampling was conducted based on observed changes in lithology or five foot sampling intervals. Composite samples were collected based on changes in lithology from soil borings B-2, B-3, BM-6, BM-9, BG-1, BG-2, and BG-3. Composite samples were collected from five foot sampling intervals from soil borings B-1, B-4, B-5, and BM-8. Composite soil samples were collected using the following technique:

- Following lithologic description of the soil a representative portion of the recovered soil was placed in a pre-cleaned aluminum pan and thoroughly mixed and composited with a stainless steel spoon.

- Following compositing, the soil was then placed in clean glass sample jars with Teflon lined lids. The jars were labeled as to time and date collected and analyses requested, sealed with electrical tape and immediately placed on ice.

- Clean latex gloves were worn while collecting each sample.

All soil samples collected were analyzed for chromium III, chromium VI, fluoride, and nitrate (Table 4). A total of 26 soil samples, including 22 original samples, three duplicate samples, and one matrix spike/matrix spike duplicate (MS/MSD) were collected. Table 5 presents a summary of sample handling. Soil sample collection logs are presented in Appendix A. Field quality control (QC) samples, duplicates, MS/MSD, and rinsate samples were collected during soil sampling based on criteria presented in the WP. Table 6 presents a summary of analytical results from field QC sampling.

Three equipment rinsate samples (one per day of soil sample collection) were collected from decontaminated continuous split-spoon samplers to evaluate the effectiveness of the decontamination procedures. The rinsate samples were collected by the following method:

- Deionized water was allowed to pour down the entire length of the split-spoon sampler.
- The rinsate water was then collected in clean sample bottles and labeled as to time and date collected and analyses requested, capped and immediately placed on ice.

2.2 Groundwater Sampling

Five existing groundwater monitoring wells, MW-1, MW-2, MW-3, MW-4, and MW-5 were sampled during field activities. Prior to sample collection the static groundwater level and total well depth were measured and recorded for each monitoring well. See Appendix A for the Groundwater Elevation Log.

2.2.1 Purging

Purging of the monitoring wells was accomplished through the use of a disposable Teflon bailer. During purging the bailer was slowly lowered to minimize agitation in the wells and allowed to fill. The bailer was then withdrawn and the bailer was emptied into a graduated five gallon plastic bucket. Physical parameters, pH, conductivity, and temperature of the purge water were monitored during purging. All purge water was collected and contained. Purge logs are presented in Appendix A.

One monitoring well, MW-1, was purged until approximately three well volumes were removed and stabilization of the field parameters occurred. The remaining four wells, MW-2, MW-3, MW-4, and MW-5 were purged dry and were allowed to recover for approximately 24 hours before sample collection.

2.2.2 Groundwater Sample Collection

Each groundwater monitoring well was purged and sampled using pre-cleaned, disposable equipment. Groundwater samples were collected using the following sampling technique:

- A disposable Teflon bailer was used at each monitoring well. The bailer was lowered and withdrawn slowly from the monitoring well to minimize agitation of

the groundwater. The recovered groundwater was then transferred from the bailer to a clean sample bottle. The sample bottle was the labeled as to time and date collected, analyses requested, capped and immediately placed in an ice bath.

- Clean latex gloves were worn while sampling at each monitoring well.

All groundwater samples collected were analyzed for chromium III, chromium VI, fluoride, and nitrate (Table 4). A total of eight groundwater samples, including five original samples, one duplicate sample, one MS/MSD, and one independent laboratory QC sample were collected. Table 5 presents a summary of sample handling. Groundwater sample collection logs are presented in Appendix A. Field QC samples, duplicates and MS/MSD samples were collected during groundwater sampling based on criteria presented in the WP. Table 6 presents a summary of analytical results from field QC sampling.

2.3 Waste Handling

All soils removed from the soil borings not used as samples were placed in eight Department of Transportation (DOT) approved open-top 55-gallon steel drums. All purge water and decontamination fluids were collected and placed into three DOT approved closed-top 55-gallon steel drums. All drums were sealed, labeled as to origin and date, and staged at the IWTP adjacent to the clarifloculator pending disposal. Composite samples of the soil and fluids were collected for waste profile analysis.

Laboratory certificates of analyses for waste profiling are included in Appendix B.

2.4 Data Collection

Appropriate Installation Restoration Program Information Management System (IRPIMS) data logs were maintained during field activities (Appendix A). As indicated in the IRPIMS Data Loading Handbook Version 2.3, May 194, this data as well as analytical data supplied by the laboratories was used to create the following IRPIMS data tables:

- Table 1; Contract Information
- Table 2; Location Definition
- Table 3; Site and Location Information
- Table 5; Groundwater Level Data
- Table 6; Environmental Sampling Data

- Table 8; Lithologic Description Information
- Table 9; Sample Preparation Information
- Table 10; Analytical Results

These data records will be inserted into the Air Force Center for Environmental Excellence's IRPIMS data base.

3.0 Analytical Results

3.1 Results of Soil Sampling

Table 7 presents a summary of the 22 composite soil sample results. All soil samples were submitted to Quanterra for analyses. Quanterra Laboratory Certificates of Analyses are presented in Appendix B. Chromium III was detected in all samples in quantities ranging from 6.4 mg/kg in background soil boring BG-2 from 4.0-10.0 feet bgs to 408 mg/kg in soil boring BM-8 from 0.0-5.0 feet bgs. Chromium VI was detected in six samples collected from soil borings B-1, B-4, BM-6, BM-9, BG-2, and BG-3 in quantities ranging from 0.1 mg/kg in soil boring B-4 from 2.0-5.0 feet bgs to 2.7 mg/kg in soil boring B-1 from 0.5-5.0 feet bgs. Fluoride was detect in all samples analyzed in quantities ranging from 0.56 mg/kg in background soil boring BG-1 from 0.5-5.0 feet bgs to 10.4 mg/kg in soil boring B-4 from 2.0-5.0 feet bgs. Nitrate was detected in two samples analyzed, 3.5 mg/kg in soil boring BM-6 from 10.0-15.0 feet bgs and 13.1 mg/kg in soil boring BM-8 from 0.0-5.0 feet bgs.

3.2 Results of Groundwater Sampling

Table 8 presents a summary of groundwater sampling results. Groundwater samples were submitted to Quanterra for analyses. One split sample was submitted to Weston for analyses. Quanterra and Weston Laboratory Certificates of Analyses are presented in Appendix B. Chromium III was detected in samples collected from monitoring wells MW-2, MW-3, and MW-4 in quantities ranging from 0.069 mg/l in the sample collected from MW-2 to 0.1 mg/l in the sample collected from MW-3. Chromium VI was only detected in the samples collected from MW-5 at 1.1 mg/l in the original sample GMW051 to 0.94 mg/l in the independent laboratory QC sample GMW05D. Fluoride was detected in all samples collected ranging from 0.13 mg/l in the sample collected from MW-3 to 0.59 mg/l in the sample collected from MW-2. Nitrate was detected in all samples collected ranging from 0.29 mg/l in the sample collected from MW-2 to 5.51 mg/l in the independent laboratory QC sample collected from MW-5.

3.3 Data Validation

Following laboratory analyses of all samples, CLP-like data packages were sent to an independent chemist at Quality Specialists and Environmental Analysts, Inc. (QSea) for CLP data validation implementing CLP National Functional Guidelines for Data Validation. Seven data packages including a comparison of the laboratory QC sample to the original sample collected from MW-5

were validated. The QSea Data Validation Report is presented in Attachment 1. Following is a summary of the Data Validation Report:

- Split sample - Acceptable under USACE and project criteria
- Data package 043295 - qualified due to holding times
- Data package 043324 - qualified due to holding times and poor precision
- Data package 043352 - qualified due to holding times
- Data package 043390 - not qualified
- Data package 043417 - qualified due to poor precision
- Data package 9507G036 - qualified due to holding times

3.4 Comparison of Analytical Results

Table 9 presents a summary of the United States Environmental Protection Agency's (U.S. EPA) Region 9, Preliminary Remediation Goals (PRGs) for industrial soil and tap water and U.S. EPA Drinking Water Regulations Maximum Contaminant Levels (MCLs) for the subject analytes (Chromium III & VI, Fluoride, and Nitrate). U.S. EPA Region 9 PRGs are commonly used as screening criteria at military installations nationwide. Industrial soil PRGs were used as comparison values given the current use of the IWTP and IT's assumed future use (i.e., industrial/commercial). Values for total chromium are given for comparison against Chromium III.

Based on the values given in Table 9 no soil samples or field samples exceed the PRGs given for industrial soil and tap water or the MCLs for drinking water. One groundwater sample, GMW011, collected from monitoring well MW-1 slightly exceeded the tap water PRG for nitrate (67 mg/L compared to 58 mg/L) and exceeded the MCL for nitrate (67 mg/L compared to 10 mg/L). Two samples, GMW051 and GMW051D, both collected from MW-5, exceeded the tap water PRG for Chromium VI (1.1 mg/L and 0.95 mg/L, respectively compared to 0.18 mg/L).

Table 1.
Summary of Previous Soil Sample Results
IWTP, AFP 85, Columbus, Ohio

Sample ID	Date Collected	Matrix	Depth feet bgs[1]	Sample Type	Parameter[2] Total Chromium (mg/kg)[3]	Sample Location
B-4,B-5, B-6	07-02-91	Soil	1.3-2.8	Composite	4,262.4	Below failed AST
B-1	07-02-91	Soil	2.0-4.0	Composite	53.3	Immediately adjacent to failed AST
B-2	07-02-91	Soil	2.0-4.0	Composite	40.2	Immediately adjacent to failed AST
B-3	07-02-91	Soil	2.0-4.0	Composite	7.2	Immediately adjacent to failed AST
B-3,S-1	08-26-91	Soil	3.0-3.3	Grab	301.5	Immediately adjacent to failed AST
B-3,S-2	08-26-91	Soil	4.5-5.0	Grab	206.7	Immediately adjacent to failed AST
B-3,S-3	08-26-91	Soil	6.0-6.5	Grab	123.7	Immediately adjacent to failed AST
B-4,S-4	08-26-91	Soil	3.5-4.0	Grab	689.8	Immediately adjacent to failed AST
B-4,S-5	08-26-91	Soil	4.5-5.0	Grab	287.7	Immediately adjacent to failed AST
B-4,S-6	08-26-91	Soil	6.0-6.5	Grab	59.2	Immediately adjacent to failed AST
B-5,S-7	08-26-91	Soil	3.2-3.5	Grab	22.3	Immediately adjacent to failed AST
B-5,S-8	08-26-91	Soil	4.5-5.0	Grab	339.0	Immediately adjacent to failed AST
B-5,S-9	08-26-91	Soil	6.0-6.5	Grab	134.2	Immediately adjacent to failed AST
B-2,S-10	08-26-91	Soil	3.5-4.0	Grab	108.2	Immediately adjacent to failed AST
B-2,S-11	08-26-91	Soil	4.5-5.0	Grab	558.1	Immediately adjacent to failed AST
B-2,S-12	08-26-91	Soil	6.0-6.5	Grab	91.7	Immediately adjacent to failed AST

Sample ID	Date Collected	Matrix	Depth feet bgs(1)	Sample Type	Parameter(2) Total Chromium (mg/kg)(3)	Sample Location
B-2,S-13	08-26-91	Soil	3.5-4.0	Grab	101.6	Immediately adjacent to failed AST
B-1,S-14	08-26-91	Soil	4.5-5.0	Grab	11.1	Immediately adjacent to failed AST
B-1,S-15	08-26-91	Soil	6.0-6.5	Grab	4.4	Immediately adjacent to failed AST
B-6,S-16	08-26-91	Soil	1.5-2.0	Grab	12.2	400 ft north of failed AST
B-7,S-17	08-26-91	Soil	1.5-2.0	Grab	11.8	300 ft northeast of failed AST
B-6,S-1	01-02-92	Soil	3.0	Grab	17.74	Adjacent to failed AST
B-6,S-2	01-02-92	Soil	6.0	Grab	17.01	Adjacent to failed AST
B-6,S-3	01-02-92	Soil	10.0	Grab	9.29	Adjacent to failed AST
B-7,S-1	01-02-92	Soil	3.0	Grab	14.36	Adjacent to failed AST
B-7,S-2	01-02-92	Soil	6.0	Grab	9.94	Adjacent to failed AST
B-7,S-3	01-02-92	Soil	10.0	Grab	16.27	Adjacent to failed AST
B-8,S-1	01-02-92	Soil	3.0	Grab	31.17	Adjacent to failed AST
B-8,S-2	01-02-92	Soil	6.0	Grab	4.29	Adjacent to failed AST
B-8,S-3	01-02-92	Soil	10.0	Grab	4.85	Adjacent to failed AST
B-9,S-1	01-02-92	Soil	3.0	Grab	82.82	Adjacent to failed AST
B-9,S-2	01-02-92	Soil	6.0	Grab	17.58	Adjacent to failed AST
B-9,S-3	01-02-92	Soil	10.0	Grab	7.77	Adjacent to failed AST
B-10,S-1	01-02-92	Soil	3.0	Grab	37.60	Adjacent to failed AST
B-10,S-2	01-02-92	Soil	6.0	Grab	7.86	Adjacent to failed AST
B-10,S-3	01-02-92	Soil	10.0	Grab	6.19	Adjacent to failed AST

NOTE (1) bgs = below ground surface
(2) Analytical Method SW-846, 7190
(3) mg/kg = milligram per kilogram

SOURCE CTL Engineering, 1991-92

Table 2.
Summary of Previous Soil and Groundwater Sampling Results
IWTP, AFP 85, Columbus, Ohio

Sample ID	Date Collected	Matrix	Sample Type	Parameter[1] Chromium (mg/L)[2]
1	10-13-93	Soil	Grab	0.71
2	10-13-93	Soil	Grab	<0.50
3	10-13-93	Soil	Grab	<0.50
4	10-13-93	Soil	Grab	<0.50
5	10-13-93	Soil	Grab	<0.50
1	9-28-93	Groundwater	Grab	0.40
2	9-28-93	Groundwater	Grab	162
3	9-28-93	Groundwater	Grab	0.08

NOTE (1) Analytical Method TCLP Metal Analysis
(2) mg/L = milligram per liter

SOURCE TCA Environmental, 1993

Table 3.
Summary of Previous Groundwater Sampling Results
IWTP, AFP 85, Columbus, Ohio

Sample Location	Date Collected	Parameter Total Chromium (μg/L)[1]
MW-2	05-12-94	130
MW-3	05-12-94	7300
MW-4	05-13-94	17
FV-1	05-12-94	170
FV-2	05-12-94	78
FV-3	05-12-94	1300

NOTE (1) μg/L = microgram per liter

SOURCE RMT, 1994

Table 4.
Summary of Sample Analysis AFP 85, IWTP

Matrix	Parameter	Analytical Method
Soil	Nitrate	EPA 300.0
	Chromium III	SW 846 6010 minus Cr^{+6}
	Chromium VI	SW 7196A
	Fluoride	EPA 340.2
Water	Nitrate	300.0
	Chromium III	SW 846 6010 minus Cr^{+6}
	Chromium VI	SW 7196A
	Fluoride	EPA 340.2
Rinsate	Nitrate	300.0
	Chromium III	SW 846 6010 minus Cr^{+6}
	Chromium VI	SW 7196A
	Fluoride	EPA 340.2

Table 5.
Summary of Sample Handling AFP 85, IWTP

Matrix	Parameter	Method of Analysis	Container/ Volume	Preservation	Holding Times
Soil	Nitrate	EPA 300.0	8 oz glass jar x 1	4°C	48 hours
	Chromium III	SW 846 6010 minus Cr^{+6}		4°C	180 days
	Chromium VI	SW 7196A		4°C	24 hours(1)
	Fluoride	EPA 340.2		4°C	28 days
Water	Nitrate	EPA 300.0	1 L poly bottle x 1	4°C	48 hours
	Chromium III	SW 846 6010 minus Cr^{+6}		4°C	180 days
	Fluoride	EPA 340.2		4°C	28 days
	Chromium VI	SW 7196A	500 ml poly bottle x 1	4°C, HNO_3	24 hours

NOTE: (1) = Holding time requirement after extraction

Table 6.
Summary of Field Quality Control Samples
IWTP, AFP 85, Columbus, Ohio

Sample ID	Location	Type	Depth feet bgs[1]	Matrix	Date Collected	Parameter Chromium III	Chromium IV	Fluoride	Nitrate
RIWTP1	NA[2]	Rinsate	NA	Water	07-10-95	ND[3]	ND	ND	ND
RIWTP2	NA	Rinsate	NA	Water	07-11-95	ND	ND	ND	ND
RIWTP3	NA	Rinsate	NA	Water	07-12-95	ND	ND	ND	ND
SDUPL1	B-1	Duplicate	5.0-10.0	Soil	07-11-95	7.9 mg/kg	ND	1.6 mg/kg	ND
SDUPL2	BM-9	Duplicate	0.5-6.0	Soil	07-11-95	11.4 mg/kg	ND	3.4 mg/kg	ND
SDUPL3	BG-2	Duplicate	4.0-10.0	Soil	07-12-95	7.8 mg/kg	ND	2.9 mg/kg	ND
GDUPL01	MW-2	Duplicate	NA	Groundwater	07-14-95	0.056 mg/L	ND	0.61 mg/L	0.35(mg/L)
SGB041	B-4	MS/MSD[4]	2.0-5.0	Soil	07-11-95	27.6 mg/kg	0.1 mg/kg	10.4 mg/kg	ND
GMW041	MW-4	MS/MSD	NA	Groundwater	07-14-95	0.017 mg/L	ND	0.38 mg/L	1.9 mg/L

NOTE (1) bgs = below ground surface
(2) NA = not applicable
(3) ND = not detected
(4) MS/MSD = Matrix Spike/Matrix Spike Duplicate

Table 7.
Summary of Composite Soil Sampling Results
IWTP, AFP 85, Columbus, Ohio

Sample ID	Location	Depth feet bgs[1]	Date Collected	Parameter Chromium III (mg/kg)	Chromium VI (mg/kg)	Fluoride (mg/kg)	Nitrate (mg/kg)
SBG021	B-2	0.5-4.0	07-10-95	24	ND[2]	3.1	ND
SBG022	B-2	4.0-10.0	07-10-95	7.9	ND	1.9	ND
SBG031	B-3	0.5-8.0	07-10-95	19.3	ND	2.4	ND
SBG032	B-3	8.0-10.0	07-10-95	8.3	ND	1.9	ND
SBG051	B-5	0.5-5.0	07-10-95	7.6	ND	2.3	ND
SBG052	B-5	5.0-10.0	07-10-95	8.5	ND	2.1	ND
SBG011	B-1	0.5-5.0	7-11-95	11.9	2.7	1.6	ND
SBG012	B-1	5.0-10.0	7-11-95	10.7	ND	2.2	ND
SBG041	B-4	2.0-5.0	7-11-95	27.6	0.1	10.4	ND
SBG042	B-4	5.0-10.0	7-11-95	8.9	ND	1.5	ND
SBM061	BM-6	0.5-5.0	7-11-95	25.2	0.29	1.9	ND
SBM062	BM-6	10.0-15.0	7-11-95	7.6	ND	0.76	3.5
SBM081	BM-8	0.0-5.0	7-11-95	408	ND	5.5	13.1
SBM082	BM-8	5.0-10.0	7-11-95	9.2	ND	1.5	ND
SBM091	BM-9	0.5-6.0	7-11-95	11.5	0.71	1.2	ND

Sample ID	Location	Depth feet bgs[1]	Date Collected	Parameter Chromium III (mg/kg)	Chromium VI (mg/kg)	Fluoride (mg/kg)	Nitrate (mg/kg)
SBM092	BM-9	6.0-10.0	7-11-95	7.9	ND	4.0	ND
SBKG11	*BG-1	0.5-5.0	07-12-95	11.6	ND	0.56	ND
SBKG12	*BG-1	5.0-10.0	07-12-95	9.8	ND	1.7	ND
SBKG21	*BG-2	0.5-4.0	07-12-95	12.3	0.42	2.7	ND
SBKG22	*BG-2	4.0-10.0	07-12-95	6.4	ND	3.3	ND
SBKG31	*BG-3	0.5-7.0	07-12-95	13.8	ND	0.84	ND
SBKG32	*BG-3	7.0-10.0	07-12-95	8.8	0.36	1.6	ND

NOTE (1) bgs = below ground surface
(2) ND = not detected

* Background boring

Table 8.
Summary of Groundwater Sampling Results
IWTP, AFP 85, Columbus, Ohio

Sample ID	Location	Date Collected	Parameter Chromium III (mg/L)	Chromium VI (mg/L)	Fluoride (mg/L)	Nitrate (mg/L)
GMW011	MW-1	07-13-95	ND[1]	ND	0.17	67.0
GMW021	MW-2	07-14-95	0.069	ND	0.59	0.29
GMW031	MW-3	07-14-95	0.10	ND	0.13	4.9
GMW041	MW-4	07-14-95	0.017	ND	0.38	1.9
GMW051	MW-5	07-14-95	ND	1.1	0.31	5.5
GMW05D	MW-5	07-14-95	ND	0.94	0.36	5.51

NOTE (1) ND = not detected

Table 9
Summary of Industrial Soil PRGs[1], Tap Water PRGs, and Groundwater MCLs[2]
IWTP, AFP 85, Columbus, Ohio

Parameter	Industrial Soil PRG (mg/Kg)[3]	Tap Water PRG (mg/L)	Groundwater MCL (mg/L)[4]
Chromium III[5]	450	NA[6]	0.1
Chromium VI	64	.18	NA
Fluoride	41,000	2.2	4
Nitrate	100,000	58	10

NOTES:
(1) PRGs - Preliminary Remediation Goals, U.S. EPA Region IX, September 1995
(2) MCLs - Maximum Contaminant Levels, U.S. EPA Drinking Water Regulations, May 1995
(3) mg/Kg - Milligram per Kilogram
(4) mg/L - Millagram per Liter
(5) Values for total chromium are presented for this parameter
(6) NA - Not applicable

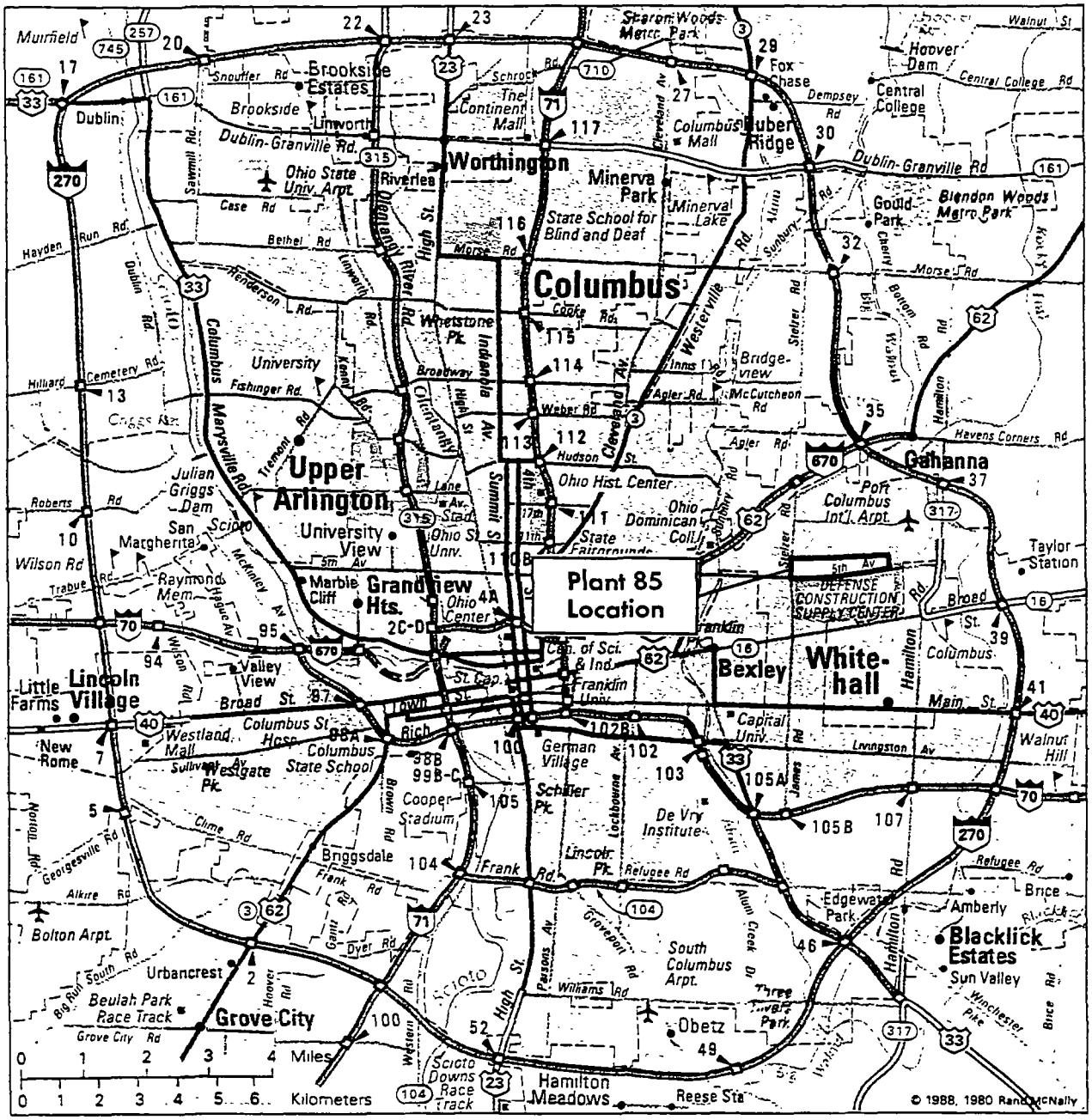


Figure 1.
Location of Air Force Plant 85.

INTERNATIONAL TECHNOLOGY CORPORATION

DRAWING NO.	M-816256-1-6/95-D
	09-22-95
CHECKED BY	
APPROVED BY	
DRAWING BY	JEM 6/23/95

Air Force Plant 85
Columbus, Ohio

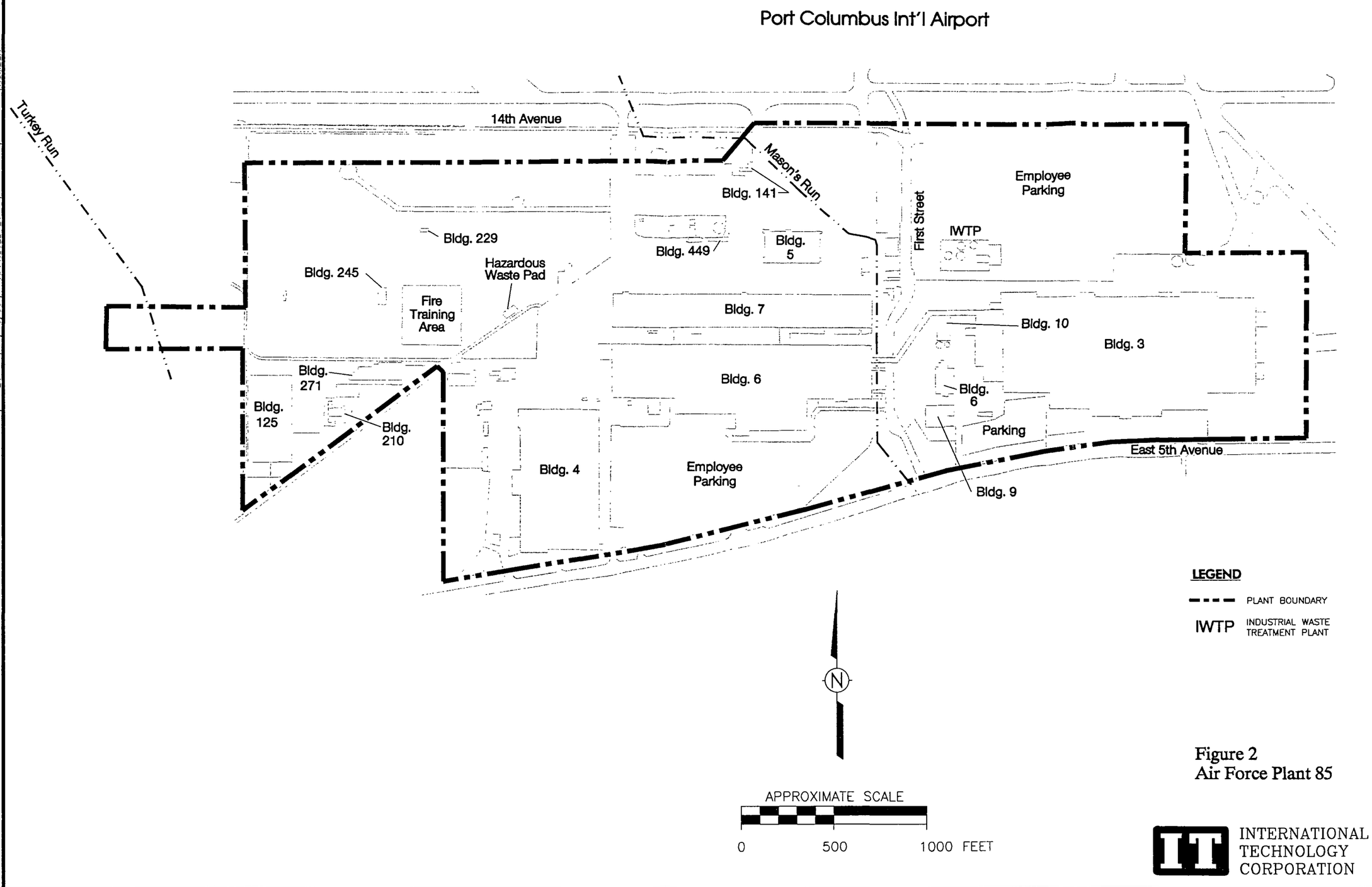
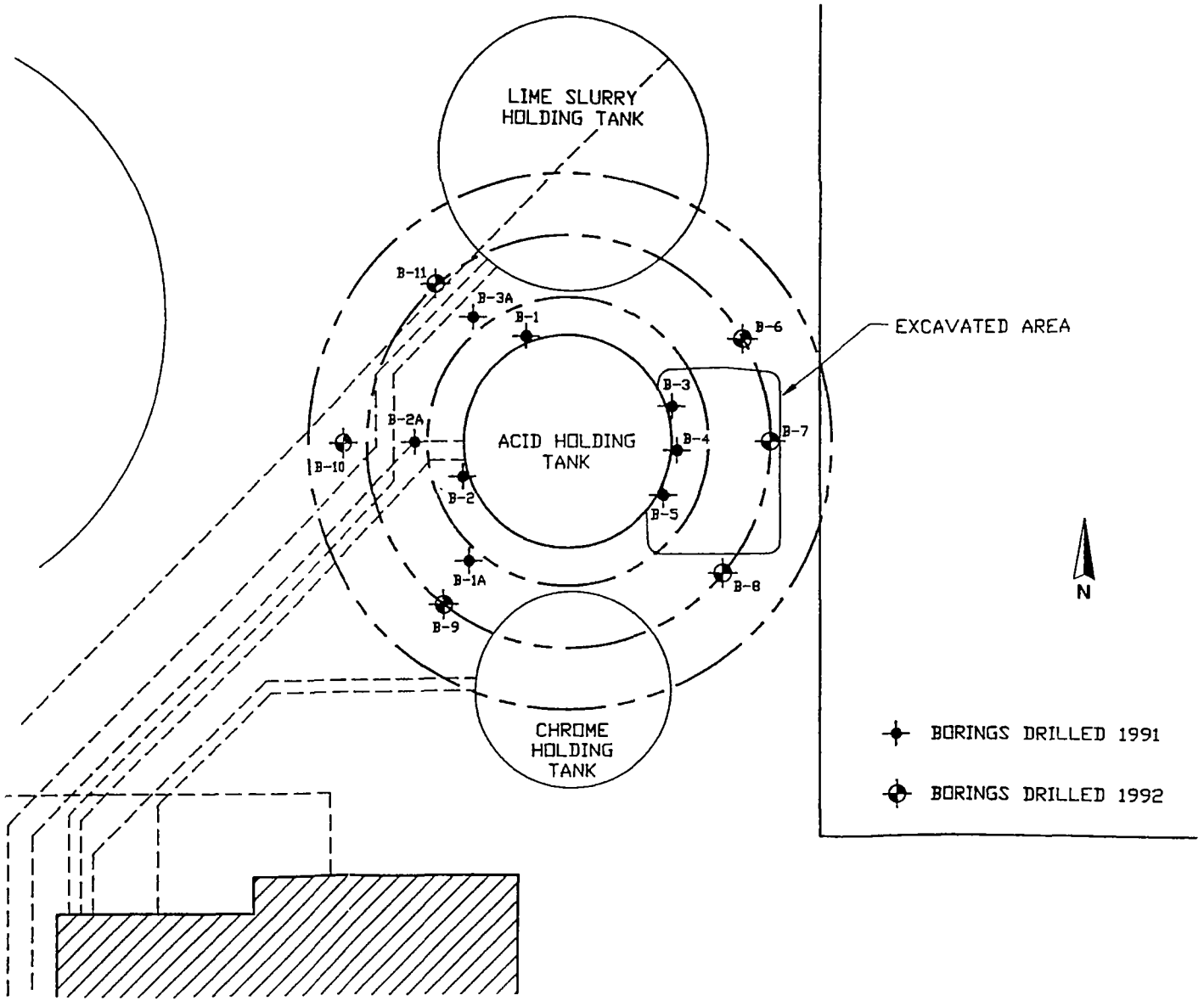


Figure 2
Air Force Plant 85

INTERNATIONAL TECHNOLOGY CORPORATION

DRAWN BY | MSN 09/06/95 | CHECKED BY | APPROVED BY | PM | 09/06/95 | DRAWING NUMBER 9522F2-0.DWG

FILE C:\9522\9522F2-0.DWG CLOSED: 9/6/95 AT 4:40 PM



INTERNATIONAL TECHNOLOGY CORPORATION

Figure 3.
Soil Boring Locations – IWTP, AFP 85, Columbus, OH.

Source CTL Engineering 1991

DRAWING BY	JIS, III	CHECKED BY	Dan	09-22-95	DRAWING NO.
	9/8/95	APPROVED BY			S-762297-4/95-1

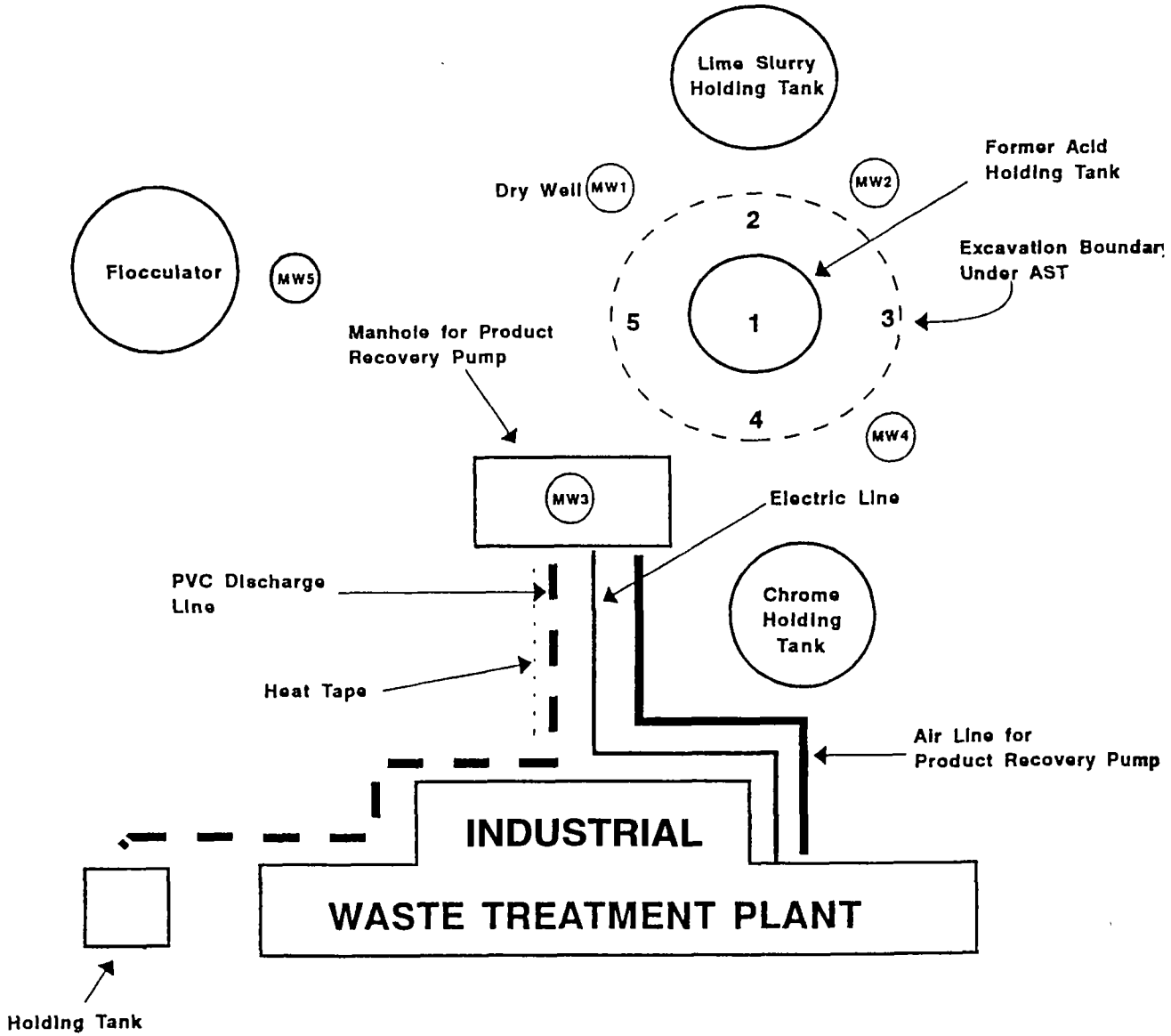


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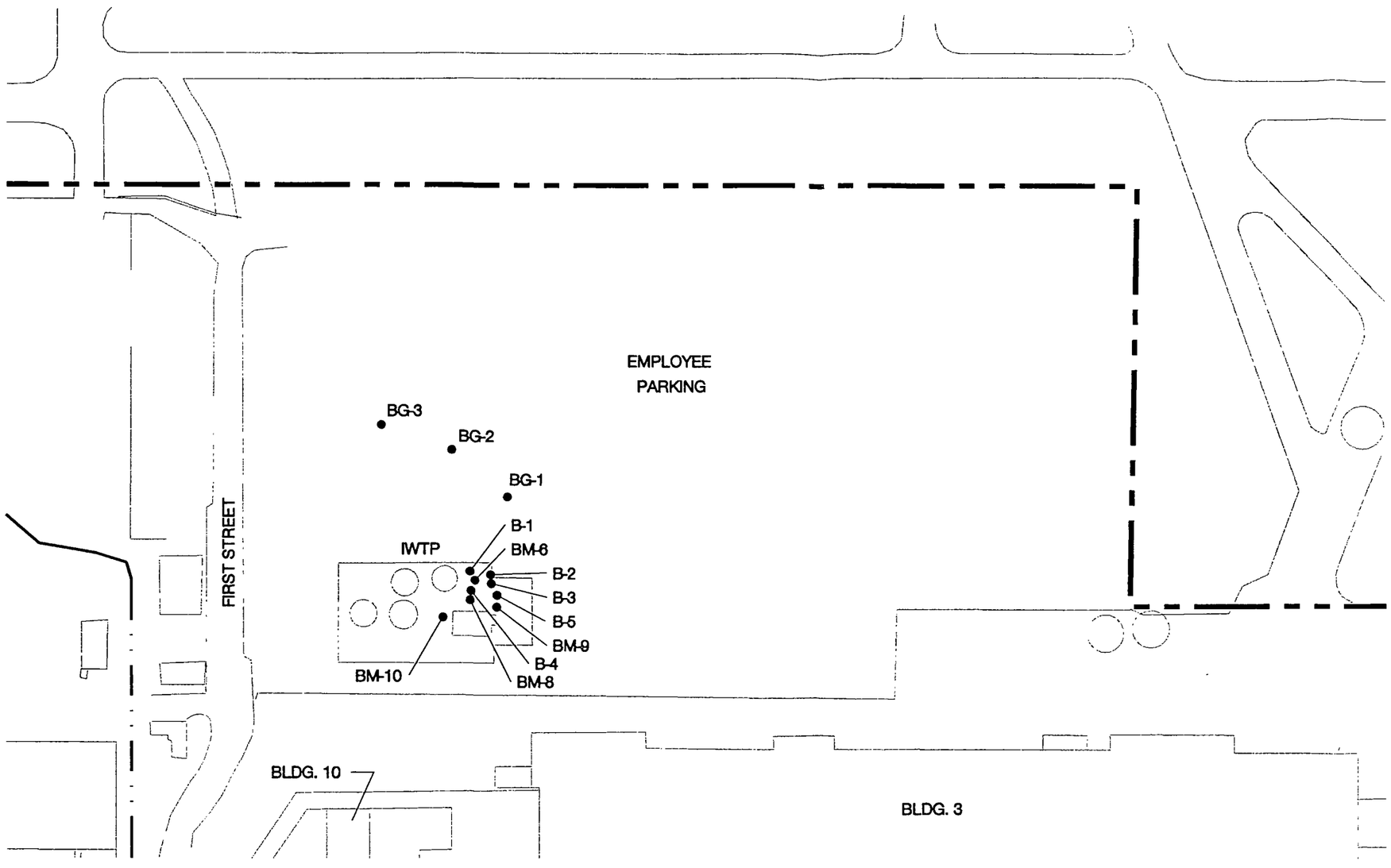
Figure 4.
Soil Boring and Monitoring Well Locations – IWTP, AFP 85, Columbus, OH.

Source TCA Environmental 1993

DRAWING BY	JIS, III	CHECKED BY		09-22-95	DRAWING NO.
	9/8/95	APPROVED BY			S-762297-4/95-1

Air Force Plant 85
Columbus, Ohio



N

APPROXIMATE SCALE

0 50 100 150 200 400 FT

LEGEND

- PLANT BOUNDARY
- SOIL BORING
- IWTP INDUSTRIAL WASTE TREATMENT PLANT

Figure 5
Soil Boring Locations
Air Force Plant 85

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DRAWN BY	MSN 09/06/95	CHECKED BY APPROVED BY	PM	09/08/95	DRAWING NUMBER 9522F3-0.DWG

FILE C:\9522\9522F3-0.DWG CLOSED: 9/8/95 AT 10:56 AM

Appendix A
Field Forms

Field Activity Daily Logs

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG			
DATE	07	10	95
NO.			
SHEET	1	OF	1

PROJECT NAME AFP 85, IWTP

PROJECT NO. 816265

FIELD ACTIVITY SUBJECT: SITE CHARACTERIZATION & INVESTIGATION

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0600 P. McCARREN LEAVES RESIDENCE FOR AFP 85, COLUMBUS OHIO

0650 STOP FOR ICE FOR sample PRESERVATION & PACKAGING

0710 ARRIVE AT AFP 85 - GO TO GUARD POST - SIGN IN - inform SECURITY of ACTIVITIES - P. McCARREN TO IWTP

0720 D. RUPPERT, GSA, ARRIVES AT IWTP - UNLOCKS GATES - discuss ACTIVITIES & WORK SCHEDULES - INFORMS THAT THE "CONCORDE" will be FLYING IN PORT-COLUMBUS AIRPORT on THURSDAY 07-20-95 - THE GENERAL PUBLIC will HAVE ACCESS TO THE parking AREA AROUND THE IWTP

0735 B. FITZGERALD, FACILITY ELECTRICIAN ARRIVES AT IWTP - DISCUSS LOCK-OUT/TAG-OUT - PER B. FITZGERALD MAIN SHUT off FOR POWER IS ON A POLE 20' ABOVE GROUND - HE IS GOING TO HAVE A BUCKET TRUCK COME OUT @ 0830 TO LIFT HIM TO SHUT IT off. POWER FOR THE BUILDING WILL BE ON AN EMERGENCY LINE (110V) THAT WILL BE LOCKED OUT/TAGGED OUT AT GROUND LEVEL by IT - THIS will be TURNED off EACH MORNING AND TURNED ON AGAIN EACH EVENING - HE will come BACK TO GET P McCARREN WHEN HE IS READY TO SHUT off MAINS

~~0810~~ 0730 DRILLERS ARRIVE AT SITE - SIGN IN AT GUARD POST - GO TO IWTP
BRIEF THEM ON ACTIVITIES HAVE THEM REVIEW HSP - STEVE [illegible] AT [illegible]

0810 CONDUCT TAILGATE SAFETY MEETING - SEE SHEET - DRILLERS BEGIN SETTING UP @ 0820 - P. McCARREN UNLOADING EQUIPMENT & SUPPLIES

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
DAVE RUPPERT - GSA BOB FITZGERALD - ELECTRICIAN APRIL LEWIS - USAF, EM AL KAHN - USAF, EM	
WEATHER CONDITIONS	**IMPORTANT TELEPHONE CALLS:**
AM - P. Cloudy ~72°F PM - P Cloudy ~90°F	SEE TELEPHONE logs

IT PERSONNEL ON SITE: PAUL McCARREN

SIGNATURE Paul C McCarren

DATE: 07-10-95

327A-7-86

INTERNATIONAL TECHNOLOGY CORPORATION

Field Activity Daily Log Continuation Sheet

Project Name: AFP85, IWTP		No.
Project No.: 816265	Date: 07-10-95	Sheet 2 of 84

Field Activity Subject: SEE PG 1

Description on Daily Activities and Events:

0900 D. McCarren calibrates PID - see calibration log for details

0915 D. Ruppert at site - Go over Points-of-Contacts - Informs that electrician is bringing bucket truck

Chief of Security: Lt Willy Miller 693-5111 (Emergency Contact)

Facility Contact: Gray M. Bailey 693-5074

POC for electrician & drilling into lines or piping

Dave Ruppert: 296-1195 (mobile) Mon & Wed in school

0930 April Lewis, USAF/EM, arrives on site - Informs that OCAA will be on site

Read A. Lewis & D Ruppert onto TGSM - off site at 0940

0945 Have drillers set up on first boring - B5

1000 Drillers have finished setting up rig - using a CME 75 truck mount turning 4¼" HSAs - will drive a 4"x5' continuous spoon (CME continuous sampler)

1045 Al Kahn, USAF/EM, on site - read onto TGSM

1100 B. Fitzgerald & Helper arrives on site - has shut off 420V main - Goes into IWTP to test incoming/outgoing electric lines for charge

1110 One line is still "Hot" - A Kahn off site - Sends drillers to lunch - Electrician tracing wires

1130 B Fitzgerald has disconnected remaining lines - P McCarren goes with electrician to visually confirm lock out/tagouts

1145 Have visually confirmed lock out/tagouts - Emergency power locked out/tagged out using single keyed lock, tag and 100lb wire tie

1155 D. McCarren back at IWTP - drillers back on site

1200 Begin drilling soil boring B5 - see lithologic log & sample collection logs for details

A Kahn on site

1215 Collect soil sample SBG051 - 00-5.0' - see sample collection log for details

CoC: 378280 FEDEX: 3538918773 - 0.0ppm

1225 Collect soil sample SBG052 - 5.0-10.0' - see sample collection log for details

CoC: 378280 FEDEX: 3538918773 - 0.0ppm

Supervisor: [signature] Date: 07-10-95

Original, Central Files — File E
CC: Project Manager

M-FADLCS-6/92

INTERNATIONAL TECHNOLOGY CORPORATION

Field Activity Daily Log Continuation Sheet

Project Name: AFP 85, IWTP		No.
Project No.: 816265	Date: 07-10-95	Sheet 3 of 4

Field Activity Subject:

Description on Daily Activities and Events:

1225 Did not encounter groundwater 0.0-10.0 - leave augers in place - cap top flighting with AL foil - move rig to B-3

1230 Begin drilling B3

1240 Collect soil sample SBG031 - 0.0-8.0' - see sample collection log

COC: 378280 FedEx: 3538918773 - 0.0ppm

1250 A Lewis on site - off site @ 1300

1305 Collect soil sample SBG032 - 8.0-10.0 - see sample collection log

COC: 378280 FedEx: 3538918773 - leave augers in place & cap with AL foil - 0.0ppm

1330 P. McCarren off site to call USACE

1400 Made phone calls to IT & USACE - unable to contact M Wahling, left message

1415 P McCarren back on site - D Tjoelker, OEPA, on site - read into tailgate safety mtg

1430 Move rig to B2, set up - begin drilling - A. Kahn on site

1440 Collect soil sample SBG021 - see sample collection log

COC: 378280 FedEx: 3538918773

1500 Collect soil sample SBG022 - see sample collection log

COC: 378280 FedEx: 3538918773

1505 A Kahn & D Tjoelker off site

1515 P McCarren off site to call IT (B Pier)

1540 P McCarren back on-site - Per B. Pier will pull augers and grout borings B2, B3 & B5

Drillers begin pulling augers

1615 Drillers have finished grouting borings - steam clean augers

1620 A Kahn on site - off site @ 1625

1630 P. McCarren collects rinsate sample RIWTP1 from decon'd continous sampler by allowing DI water (lot #N299) to flow thru sampler to sample bottle - rinsate associated with days samples SBG021 & 2, SBG031 & 2 and SBG051 & 2.

See sample collection logs for details

COC: 378280 FedEx: 3538918773

Supervisor: [signature] Date: 07-10-95

Original, Central Files — File E
CC: Project Manager

M-FADLCS-6/92

INTERNATIONAL TECHNOLOGY CORPORATION

Field Activity Daily Log Continuation Sheet

Project Name: AFP 85, IWTP		No.
Project No.: 816265	Date: 07-10-95	Sheet 4 of 4

Field Activity Subject:

Description on Daily Activities and Events:

1650 P McCarren packages days samples

1700 Review drilling report with driller (Steve Snider)

1710 Drillers off site

1730 P. McCarren relinquishes days samples - Go to Bldg 3 to unlock emergency power

1745 Have unlocked power - P. McCarren off site - Go to Fedex, drop off pkg.

1800 Have dropped off days - depart for residence

Supervisor: Paul C McCarren

Date: 07-10-95

Original, Central Files — File E
CC: Project Manager

RH-F3-R0

M-FADLCS-6/92

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG				
	DATE	07	11	95
	NO.			
	SHEET	1	OF	3

PROJECT NAME AFP85 | PROJECT NO. 816265

FIELD ACTIVITY SUBJECT: SITE CHARACTERIZATION

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0545 P. McCarren leaves residence for AFP85 - stop to pick up ice for sample shipment

0710 Arrive at ~~EWT~~ AFP85 - P. McCarren signs out key ring for IWTP
Go to Bldg 3 to lockout - tagout emergency power to IWTP

0730 Have locked out power - drillers arrive on site - Go to IWTP to setup

0745 Conduct tailgate safety meeting

0755 P McCarren calibrates PID - Drillers setup on B-1 - span on PID @ 9.80

0800 Begin drilling B-1 - see boring/lithologic log for details

0810 Collect soil sample SB6011 - see sample collection log for details
CoC: 378281 FEDEX: 3538918736

0830 Collect soil sample SB6012 - see sample collection log for details
CoC: 378281 FEDEX: 3538918736
Collect duplicate soil sample SDUPL1 - see sample collection log

0840 Drillers move rig to B-4 - setup

0845 Chet White & Tom Fullerton arrive at site (Philip Eng) - Read over tailgate safety meeting
Begin boring B-4

0855 Collect soil sample SB6041 & SB6041 MS/MSD - see sample collection log
CoC: 378281 FEDEX: 3538918736

0915 Collect soil sample SB6042 - see sample collection log
CoC: 378281 FEDEX: 3538918736

0925 Move rig to borehole/well BM6 - setup

0935 Begin boring

0950 Collect soil sample SBM061 - see sample collection log
CoC: 378281 FEDEX: 3538918736
Have drillers break for fluids

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
C Whitsie - Philip Eng T Fullerton D Tsuchiya - USEPA M. Raffaan R Leonard - USACE	—
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
Am Hazy, Hot, Humid - 85 pm Hazy, Hot Humid - 95°F	

IT PERSONNEL ON SITE Paul C McCarren

SIGNATURE Paul C McCarren DATE: 07-11-95

327A-7-86

INTERNATIONAL TECHNOLOGY CORPORATION

Field Activity Daily Log Continuation Sheet

Project Name: AFA85, IWTP		No.
Project No.: 816265	Date: 07-11-95	Sheet 2 of 3

Field Activity Subject: SEE pg 1

Description on Daily Activities and Events:

1010 D. TJOELKER (OEPA), MIKE SAFFRAN (USACE), RENATO LEONARDI (USACE) ONSITE - READ ONTO TGSM - DISCUSS CURRENT SITUATION WITH NOT ENCOUNTERING GW WITHIN 10' - M. SAFFRAN GIVES VERBAL CLEARANCE TO TAKE BM6 TO 15'

1030 COLLECT SOIL SAMPLE SBM062 - 10'-15' - SEE SAMPLE COLLECTION LOG

COC: 378281 FEDEX: 3538918736

HAVE DRILLERS GROUT HOLES B1, B4 & BM6 - D TJOELKER, M. SAFFRAN & R LEONARDI OFF-SITE AT 1025 : SAID THAT M. SAFFRAN WOULD SPEAK WITH A. LEWIS & M. WALKING CONCERNING REMAINDER OF SOIL BORINGS

1045 P. MCCARREN CHECKS WATERLEVELS IN EXISTING MONITORING WELLS - SEE WATERLEVEL LOG

1100 WAS UNABLE TO REMOVE COVERS FROM MW1 & MW4 - DRILLERS HAVE FINISHED GROUTING AND ARE STEAM CLEANING AUGERS AND MOVE RIGS

1130 DRILLERS HAVE FINISHED - BREAK FOR LUNCH - P. MCCARREN OFF SITE FOR PHONE CALLS

1145 P. MCCARREN PHONE CALL TO B PIER (IT PROJ MGR) - DISCUSSED CURRENT SITUATION POINT-OF-CONTACT AT USACE WILL BE CHRIS CARSON (FOR M. WALKING) - ATTEMPTED CALL TO C CARSON, NOT IN - WILL CALL BACK IN ~ 1 HR

1215 P. MCCARREN BACK TO SITE - DRILLERS SET UP ON BM8

1220 BEGIN DRILLING

1250 COLLECT SOIL SAMPLE SBM081 - - SEE SAMPLE COLLECTION LOG

COC: 378281 FEDEX: 3538918736

1315 COLLECT SOIL SAMPLE SBM082 - - SEE SAMPLE COLLECTION LOG

COC: 378281 FEDEX: 3538918736

1325 DRILLERS STEAM CLEAN AUGERS & DECON SAMPLERS - P. MCCARREN OFF SITE TO MAKE PHONE CALLS

1415 P. MCCARREN BACK ONSITE - PER C. CARSON, WILL TREAT REMAINING BORINGS AS SOIL BORINGS ONLY - WILL GO TO A TOTAL DEPTH OF 10' (UNLESS GROUNDWATER ENCOUNTERED) IF FILL MATERIAL ENCOUNTERED WILL SET A WELL AT INTERFACE OF FILL & GLACIAL TILL (REGARDLESS OF WHETHER GW ENCOUNTERED)

P. MCCARREN TO FEDEX TO PICK UP SAMPLE COOLERS

1430 P. MCCARREN ON-SITE - HAVE DRILLERS MOVE TO BM7

Supervisor: Paul C McCarren Date: 07-11-95

Original, Central Files — File E
CC: Project Manager

M-FADLCS-6-92

INTERNATIONAL TECHNOLOGY CORPORATION

Field Activity Daily Log Continuation Sheet

Project Name: AFP 85, IWTP		No.
Project No.: 816265	Date: 07-11-95	Sheet 3 of 3

Field Activity Subject:

Description on Daily Activities and Events:

1445 Will not attempt BM7 - Have rig set up on BM10

1455 Set up on BM10

1510 Begin boring

1515 Have encountered concrete at ~3 feet below groundsurface ~ auger refusal - small pieces of copper wire in the cuttings - upon removal of augers all teeth were broken

Go to Bldg 6 to call Chris Bailey - ~~will not log BM10~~

1530 Back at IWTP - left message for C. Bailey - Rig set up on BM9

1535 Begin drilling

1545 Collect soil sample SBM091 - 05-60 - see sample collection log

COC: 378281 FEDEX: 3538918736

Collect duplicate soil sample SDUPL2 - see sample collection log

COC: 378281 FEDEX: 3538918736

1555 Collect soil sample SBM092 - - see sample collection log

COC: 378281 FEDEX: 3538918736

Drillers grout borings

1630 P. McCarren collects rinsate sample RIWTP2 from decon'd continous sampler by allowing DI water (lot # N299) to flow thru sampler to sample bottle - Rinsate associated with days samples SBG01 & 2, SBG041 & 2 / MS/MSD, SBM061 & 2, SBM081 & 2 SBM091 & 2, SDUPL1, SDUPL2 - see sample collection log

COC: 378281 FEDEX: 3538918736

1645 P. McCarren packages samples for shipment - drillers leave site

1730 P McCarren unlocks emergency power - P McCarren off site to FEDEX

Relinquishes days samples @ 1700

1745 Deliver sample coolers for FEDEX shipment - depart for residence

Supervisor: [signature] Date: 07-11-95

Original, Central Files — File E
CC: Project Manager

RH-F3-R0

M-FADLCS-6/92

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG			
DATE	07	12	95
NO.			
SHEET	1	OF	2

PROJECT NAME AFP 85 - IWTP | PROJECT NO. 816265

FIELD ACTIVITY SUBJECT: SITE CHARACTERIZATION & INVESTIGATION

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0545 P. McCARREN DEPARTS RESIDENCE FOR AFP85 - STOP FOR ICE FOR SAMPLE SHIPMENT

0715 ARRIVE AT AFP85 - P. McCARREN SIGNS OUT KEY RING FOR IWTP - GO TO BLDG 3 TO CHECK POWER

0730 DRILLERS ARRIVE ONSITE - GO TO IWTP TO SETUP FOR DAYS ACTIVITIES

0745 CONDUCT TAILGATE SAFETY MEETING

0755 P McCARREN CALIBRATES PID - DRILLERS STEAM CLEAN AUGERS

0800 B. FITZGERALD & CHRIS BAILEY (DFAS-LIAISON) - REVIEW BORING LOCATION BM10 WHERE WIRE WAS ENCOUNTERED 02-11-95 - BRIEFED THEM - PER C. BAILEY THE BORING CAN BE GRANTED - THEY LEAVE SITE @ 08

0815 D. McCARREN off SITE TO MAKE PHONE CALL TO T. FULTHROP REQUESTING ADDITIONAL DRUMS FOR FLUIDS

0830 P. McCARREN BACK ON SITE - MOVE RIG TO BACKGROUND LOCATION BG1

0845 BEGIN BORING

0850 COLLECT SOIL SAMPLE SBKG11 - 0-5 - SEE SAMPLE COLLECTION LOG FOR DETAILS
COC: 378282 FEDEX: 3538918751

0900 COLLECT SOIL SAMPLE SBKG12 - 5-10 - SEE SAMPLE COLLECTION LOG FOR DETAILS
COC: 378282 FEDEX: 3538918751
MOVE RIG TO BG-2

0915 SET UP ON BG-2 - DRUMS ARRIVE - DRILLERS UNLOAD

0950 BEGIN BORING - OEPA ARRIVES ON SITE D. TJOELKER & C. KEANSE

1000 COLLECT SOIL SAMPLE SBKG21 - 5 - SEE SAMPLE COLLECTION LOG FOR DETAILS
COC: 378282 FEDEX: 3538918751

1010 COLLECT SOIL SAMPLE SBKG22 & SBKG23
COC: 378282 FEDEX: 3538918751
MOVE RIG TO BG-3

VISITORS ON SITE:
B. Fitzgerald
C. Bailey
D. TJOELKER
C. KEANSE

CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.

WEATHER CONDITIONS:
am Hazy, Hot, Humid ~85°F
pm Hazy, Hot, Humid ~93°F

IMPORTANT TELEPHONE CALLS:

IT PERSONNEL ON SITE: PAUL C. McCARREN

SIGNATURE Paul C. McCarren DATE. 07-12-95

327A-7-86

INTERNATIONAL TECHNOLOGY CORPORATION

Field Activity Daily Log Continuation Sheet

Project Name: AFP 85, IWTP		No.
Project No.: 816265	Date: 07-12-95	Sheet 2 of 2

Field Activity Subject: SEE PG 1

Description on Daily Activities and Events:

1020 OEPA offsite

1030 SET UP ON BLG 3

1040 Begin drilling

1045 Collect soil sample SBKG31 - 0.5 - 7.00 - SEE sample collection log

COC: 378282 FEDEX: 3538918751

1055 Collect soil sample SBKG32 - 7.00 - 10.00 - SEE sample collection log

COC: 378282 FEDEX: 3538918751

Have finished drilling - drillers grout boreholes

1130 Drillers topping off grout in borings in IWTP

1145 Offsite to make phone calls

1220 P McCarren back onsite - made phone calls to C. Cazon USACE, E. Riviere Quanterra, IT

Drillers breaking down site - P McCarren prepares to collect rinsate sample

1230 Collect rinsate sample RIWTP3 - Rinsate associated with days samples collected

SBKG11 & 2, SBKG21 & 2, SBKG31 & 2 and SDUP13 - Rinsate collected from decon's

samples with DI water Lot #U295

1310 Drillers break for lunch - P McCarren packages days samples for shipment

1345 P McCarren relinquishes days samples - Go to Blg 3 to unlock emergency power

1400 Drillers back onsite - review activities w/driller - Drillers do final cleanup of area

1445 Drillers leave site - D Ruppert onsite - review work completed

1515 D Ruppert offsite - P McCarren locks up IWTP - offsite to FEDEX

1545 Have delivered days samples to FEDEX - P McCarren departs

Supervisor: [signature] Date 07-12-95

Original, Central Files — File E
CC: Project Manager

RH-F3-R0

M-FADLCS-6-92

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG			
DATE	07	13	95
NO.			
SHEET 1	OF 2		

PROJECT NAME AFP 85 - IWTP | PROJECT NO 816265

FIELD ACTIVITY SUBJECT: SITE CHARACTERIZATION & INVESTIGATION

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0600 P McCarren departs for AFP 85 - pick up ICE for sample packing
0730 Arrive at AFP 85 - calibrate PID
0740 Conduct tailgate safety meeting - prepare GW sampling equipment
0805 P. McCarren offsite to make phone calls
0920 Phone calls to IT, Thomas Eng (surveyors), C. Caron (USACE)
0935 Onsite at IWTP - prepare to purge existing wells
1015 P. McCarren calibrates PID, conductivity meter and pH/temp meter - see cal log
1050 Have finished calibration go to MW1 to begin purge
1105 Begin purge - see purge log
1215 Have finished purge - prepare to collect GW sample
1225 Collect water sample GMW011
COC: 378283 FEDEX: 3538918740
Begin purging MW2 - see purge log
1320 Have purged MW2 dry - will allow to recharge
1330 Off site to make call to B Pace onsite @ 1345
1355 Begin purging MW3 - see purge log
1435 B. Watts, Thomas Eng arrives at IWTP - show him soil boring locations
1450 B Watts offsite
1500 Have purged MW3 dry - will allow to recharge, go to MW4
1510 Begin purge of MW4 - see purge log
1535 Have purged MW4 dry - go to MW5
1540 Begin purge of MW5 - see purge log
1605 Have purged MW5 dry - take round of water levels - see log
1630 Package days samples

VISITORS ON SITE.

CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.

WEATHER CONDITIONS:
Am Hazy, Hot, Humid ~88°F
Pm Hazy, Hot, Humid ~103°F
(HEAT INDEX ~137°F)

IMPORTANT TELEPHONE CALLS:

IT PERSONNEL ON SITE Paul C McCarren

SIGNATURE Paul C McCarren DATE: 07-13-95

327A-7-86

INTERNATIONAL TECHNOLOGY CORPORATION

Field Activity Daily Log Continuation Sheet

Project Name: AFP 85, IWTP		No.
Project No.: 816265	Date: 07-13-95	Sheet 2 of 2

Field Activity Subject: SEEP 1

Description on Daily Activities and Events:

1645 RELINQUISH days samples

1700 P McCARREN off site - GO TO FEDEX

1715 Have delivered days samples TO FEDEX. DEPART

Supervisor: Paul C McCarren

Date: 07-13-95

Original, Central Files — File E
CC. Project Manager

RH-F3-R0

M-FADLCS-6-92

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG			
DATE	07	14	95
NO.			
SHEET	1	OF	2

PROJECT NAME AFP 85, IWTP | PROJECT NO. 816265

FIELD ACTIVITY SUBJECT: Groundwater Sampling

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0700 P. McCarren departs for AFP 85 - pick up ice for sample packing

0815 Arrive at IWTP - Security personnel inform that the area experienced heavy rain and T-storms during the previous evening

0835 Conduct tailgate safety meeting - forecasted high for today 100°F+ w/ heat index of 130°F - 140°F

0845 Prepare & calibrate GW sampling instruments & equipment

0905 Take water levels - see log

0920 Have finished taking water levels - prepare bottle kits

will be collecting groundwater samples from MW2, MW3, MW4 & MW5 as well as duplicate, MS/MSD, and waste profile samples of soil & water

0950 off site to to make phone calls

1045 Back onsite - make phone calls to IT, Quanterra & Weston - resume preparing bottle kits

1120 Prepare to collect samples - will collect samples using disposable bailers

1180 Collect sample GMW021 and GDUPW01 - see sample collection log

COC: 378284 FEDEX: 3538918762

1150 Collect sample GMW031 - see sample collection log

COC: 378284 FEDEX: 3538918762

1200 Collect sample GMW041 & GMW041 MS/MSD - see sample collection log

COC: 378284 FEDEX: 3538918762

1225 Collect sample GMW051 - see sample collection log

COC: 378284 FEDEX: 3538918762

Also collected duplicate sample for independent lab. analysis at Weston GMW051D - see collection log

COC: 378285 FEDEX: 3538918725

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
WEATHER CONDITIONS: Am Hazy, Hot, Humid ~85°F Pm Hazy, Hot, Humid ~105°F	IMPORTANT TELEPHONE CALLS:

IT PERSONNEL ON SITE: Paul C McCarren

SIGNATURE Paul C McCarren DATE 07-14-95

327A-7-86

INTERNATIONAL TECHNOLOGY CORPORATION

Field Activity Daily Log Continuation Sheet

Project Name: AFP 85, IWTP		No.
Project No.: 816265	Date: 07-14-95	Sheet 2 of 2

Field Activity Subject: see pg 1

Description on Daily Activities and Events:

1240 Have finished sampling - off site to call labs - placed collected samples in ice bath

1315 Back on site - prepare to collect samples for waste profiling
Soil sample for waste profiling will be collected by removing a representive amount of soil from each soil drum - the soil will then be composited
water sample for waste profiling will be collected with a disposable bailer

1330 Collect water sample GWP1 - see sample collection log
COC: 378284 FEDEX: 3538918762

1345 collect soil sample SWP1 - see sample collection log
COC: 378284 FEDEX: 3538918762

1400 Have finished sample collection - top of soil borings with concrete
All samples placed in ice bath

1500 Begin packaging samples

1530 Relinquish days samples - load equipment into field vehicle - demob

1615 Final check of IWTP - all drums labeled & staged - 8 open top 55gal steel drums with soil cuttings - 3 closed top 55gal steel drums with purge/decon fluids

1630 P. McCarren locks down IWTP - off site to deliver days samples to FEDEX

1645 Have delivered days samples to FEDEX - go to Phila Env shop to return unused 55gal closed top drum. - Also returned unused sample coolers to Quantesca

Supervisor: Paul C McCarren Date: 07-14-95

Original, Central Files — File E
CC: Project Manager

RH-F3-R0

M-FADLCS-6/92

Soil Boring Logs

INTERNATIONAL TECHNOLOGY CORPORATION

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER 816265	PROJECT NAME: AFP 85, IWTP	
BORING NUMBER: B-1	COORDINATES:	DATE: 07/11/95
ELEVATION: 806.01	NORTHING 725439.88	DATE STARTED: 07/11/95
GEOLOGIST: P. McCARREN	EASTING 1859248.71	DATE COMPLETED. 07/11/95
DRILLING METHODS Hollow STEM AUGER - 4 1/4 IN. AUGERS - 4in x 5ft CONTINUOUS SPOON SAMPLER		PAGE 1 OF 1

DEPTH (FEET)	SAMPLE TYPE & NO	RECOVERY (IN/60")		DESCRIPTION	USCS SYMBOL	PID READING (PPM)		REMARKS
0				0.0 - 0.5 Asphalt and gravel subbase, dry				
	SB6011 SDUP01			0.5 - 10.0 2.5Y 3/2 very dark greyish brown silty clay, trace medium gravels, trace shale fragments, mottled, medium plasticity, damp	CL			
2								
4		36/60				0.0		
5	SB6012							
6								
8		49/60				0.0		
10				Bottom of Boring 10.0'				

NOTES:

Drilling Company: PHLIP ENVIRONMENTAL

Drilling Company: CENTRAL MINE EQUIPMENT (CME) 75 TRUCK MOUNTED RIG

Driller: STEVE SNIDER

HELPER: PATRICK SHREVE

INTERNATIONAL TECHNOLOGY CORPORATION

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER 816265	PROJECT NAME: AFP 85, IWTP	
BORING NUMBER: B-2	COORDINATES	DATE: 07/10/95
ELEVATION: 805.31	NORTHING 725431.61	DATE STARTED. 07/10/95
GEOLOGIST: P. McCARREN	EASTING 1859282.23	DATE COMPLETED. 07/10/95
DRILLING METHODS: HOLLOW STEM AUGER - 4 1/4 IN. AUGERS - 4in x 5ft CONTINUOUS SPOON SAMPLE		PAGE 1 OF 1

DEPTH (FEET)	SAMPLE TYPE & NO	RECOVERY (IN./60")		DESCRIPTION	USCS SYMBOL	PID READING (ppm)		REMARKS
0				0.0 - 0.5 ASPHALT and GRAVEL SUBBASE, dry				
	SB6021			0.5 - 4.0 10YR 5/4 YELLOWISH BROWN COARSE SAND and MEDIUM GRAVEL, loose damp (FILL)	GM			
2								
4						0.0		
	SB6022	12/60		4.0 - 10.0 10YR 4/4 dark YELLOWISH BROWN silty clay, mottled, some LARGE GRAVEL and COARSE SAND, medium plasticity, damp	CL			
5								
6								
8								
		40/60				0.0		
10				BOTTOM of BORING 10.0'				

NOTES

DRILLING COMPANY: PHILIP ENVIRONMENTAL

DRILLING COMPANY: CENTRAL MINE EQUIPMENT (CME) 75 TRUCK MOUNTED RIG

DRILLER: STEVE SNIDER

HELPER: PATRICK SHREVE

INTERNATIONAL TECHNOLOGY CORPORATION

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER 816265	PROJECT NAME: AFP 85, IWTP	
BORING NUMBER: B-3	COORDINATES:	DATE: 07/10/95
ELEVATION: 805.35	NORTHING 72546.62	DATE STARTED. 07/10/95
GEOLOGIST: P. McCARREN	EASTING 1859282.21	DATE COMPLETED: 07/10/95
DRILLING METHODS: Hollow STEM AUGER - 4 1/4 IN. AUGERS - 4 in x 5 ft CONTINUOUS SPOON SAMPLE		PAGE 1 OF 1

DEPTH (FEET)	SAMPLE TYPE & NO	RECOVERY (IN./60")		DESCRIPTION	USCS SYMBOL	PID READING (ppm)		REMARKS
0				0.0-0.5 ASPHALT AND GRAVEL SUBBASE DRY				
	SB6031			0.5-8.0 10YR 4/4 DARK YELLOWISH BROWN SILTY CLAY, MOTTLED, SOME LARGE COARSE GRAVEL, medium plasticity DAMP	CL			
2								
4								
		20/60						
5						0.0		
6								
8	SB6032			8.0-10.0 10YR 3/2 VERY DARK GREYISH BROWN SILTY CLAY, TRACE medium GRAVELS medium plasticity, DAMP				
		55/60				0.0		
10				BOTTOM of BORING 10.0				

NOTES

Drilling Company: PHLIP ENVIRONMENTAL

Drilling Company: CENTRAL MINE EQUIPMENT (CME) 75 TRUCK MOUNTED RIG

Driller: STEVE SNIDER

Helper: PATRICK SHREVE

INTERNATIONAL TECHNOLOGY CORPORATION

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER 816265	PROJECT NAME: AFP 85, IWTP	
BORING NUMBER. B-4	COORDINATES:	DATE 07/11/95
ELEVATION: 805.59	NORTHING 725407.82	DATE STARTED: 07/11/95
GEOLOGIST. P. McCARREN	EASTING 1859247.74	DATE COMPLETED: 07/11/95
DRILLING METHODS: HOLLOW STEM AUGER - 4 1/4 IN. AUGERS - 4in x 5ft CONTINUOUS SPOON SAMPLER		PAGE 1 OF 1

DEPTH (FEET)	SAMPLE TYPE & NO.	RECOVERY (IN/60")		DESCRIPTION	USCS SYMBOL	PID READING (ppm)		REMARKS
0				0.0 - 2.0 Asphalt and gravel subbase, dry				
2	SB6041			2.0 - 10.0 2.5Y 3/2 very dark greyish brown silty clay, trace medium gravels, medium plasticity damp	CL			
4		24/60				0.0		
5	SB6042							
6								
8								
10		56/60				0.0		
				Bottom of Boring 10.0				

NOTES

Drilling Company: Philip Environmental

Drilling Company: Central Mine Equipment (CME) 75 Truck Mounted Rig

Driller: Steve Snider

Helper: Patrick Shreve

INTERNATIONAL TECHNOLOGY CORPORATION

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER 816265	PROJECT NAME AFP 85, IWTP	
BORING NUMBER. B-5	COORDINATES.	DATE: 07/10/95
ELEVATION: 805 44	NORTHING 725396.56	DATE STARTED. 07/10/95
GEOLOGIST. P. McCARREN	EASTING 1859290.08	DATE COMPLETED. 07/10/95
DRILLING METHODS HOLLOW STEM AUGER - 4 1/4 IN. AUGERS - 4in x 5ft CONTINUOUS SPOON SAMPLER		PAGE 1 OF 1

DEPTH (FEET)	SAMPLE TYPE & NO.	RECOVERY (IN/60")		DESCRIPTION	USCS SYMBOL	PID READING (ppm)		REMARKS
0				0.0-0.5 ASPHALT AND GRAVEL SUBBASE, dry				
	SB0031			0.5-10.0 10yr 4/4 dark yellowish brown silty clay, mottled, trace large gravels, trace shale fragments medium plasticity, damp	CL			
2								
4								
		42/60				0.0		
5	SB0032							
6								
8								
		55/60				0.0		
10				BOTTOM of BORING 10.0				

NOTES

DRILLING COMPANY: PHILIP ENVIRONMENTAL

DRILLING COMPANY: CENTRAL MINE EQUIPMENT (CME) 75 TRUCK MOUNTED RIG

DRILLER: STEVE SNIDER

HELPER: PATRICK SHREVE

INTERNATIONAL TECHNOLOGY CORPORATION

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER 816265	PROJECT NAME: AFP 85, IWTP	
BORING NUMBER BM-6	COORDINATES:	DATE: 07/11/95
ELEVATION: 805.53	NORTHING 725424.64	DATE STARTED: 07/11/95
GEOLOGIST: P. McCARREN	EASTING 1859255.72	DATE COMPLETED. 07/11/95
DRILLING METHODS Hollow STEM AUGER - 4 1/4 IN. AUGERS - 4in x 5ft CONTINUOUS SPOON SAMPLE		PAGE 1 OF 1

DEPTH (FEET)	SAMPLE TYPE & NO.	RECOVERY (IN/60")		DESCRIPTION	USCS SYMBOL	PID READING (PPM)		REMARKS
0				0.0-0.5 ASPHALT and GRAVEL SUBBASE, dry				
	SBM061			0.5-10.0 10YR4/6 dark yellowish brown silty clay, TRACE medium gravel, medium plasticity, damp	CL			
		48/60				0.0		
5								
		56/60				0.0		
10	SBM062			10.0-15.0 10YR 7/1 very dark grey clayey silt, TRACE COBBLES, friable, damp	ML			
		57/60				0.0		
15				BOTTOM of BORING 15.0				

NOTES

DRILLING COMPANY: PHILIP ENVIRONMENTAL

DRILLING COMPANY: CENTRAL MINE EQUIPMENT (CME) 75 TRUCK MOUNTED RIG

DRILLER: STEVE SNIDER

HELPER: PATRICK SHREVE

INTERNATIONAL TECHNOLOGY CORPORATION

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER 816265	PROJECT NAME: AFP 85, IWTP	
BORING NUMBER: BM-8	COORDINATES:	DATE: 07/11/95
ELEVATION: 805.78	NORTHING 725392.46	DATE STARTED: 07/11/95
GEOLOGIST. P. McCARREN	EASTING 1859245.06	DATE COMPLETED: 07/11/95
DRILLING METHODS Hollow STEM AUGER - 4 1/4 IN. AUGERS - 4in x 5ft CONTINUOUS SPOON SAMPLER		PAGE 1 OF 1

DEPTH (FEET)	SAMPLE TYPE & NO.	RECOVERY (IN/60")		DESCRIPTION	USCS SYMBOL	PID READING (ppm)		REMARKS
0				0.0 - 0.5 ASPHALT AND GRAVEL SUBBASE DRY				
	28A081			0.5-10.0 10YR 5/4 DARK YELLOWISH BROWN CLAYEY SILT, TRACES PEBBLES, DAMP	ML			
2								
4								
		50/60						
5						0.0		
	SE-MOE2							
6								
7				(AT 7.0 SMALL (<1") FINE SAND STRINGER MOIST)				
8								
		60/60				0.0		
10				BOTTOM of BORING 10.0				

NOTES.

DRILLING COMPANY: PHILIP ENVIRONMENTAL

DRILLING COMPANY: CENTRAL MINE EQUIPMENT (CME) 75 TRUCK MOUNTED RIG

DRILLER: STEVE SNIDER

HELPER: PATRICK SHREVE

INTERNATIONAL TECHNOLOGY CORPORATION

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER 816265	PROJECT NAME AFP 85, IWTP	
BORING NUMBER BM-9	COORDINATES:	DATE: 07/11/95
ELEVATION: 805.68	NORTHING 725377.01	DATE STARTED: 07/11/95
GEOLOGIST: P. McCARREN	EASTING 1859287.82	DATE COMPLETED: 07/11/95
DRILLING METHODS Hollow STEM AUGER - 4 1/4 IN. AUGERS - 4in x 5ft CONTINUOUS SPOON SAMPLER		PAGE 1 OF 1

DEPTH (FEET)	SAMPLE TYPE & NO	RECOVERY (IN./60")		DESCRIPTION	USCS SYMBOL	PID READING (PPM)		REMARKS
0				0.0-0.5 ASPHALT AND GRAVEL SUBBASE DRY				
	SBM09 1 SBUPL2			0.5-6.0 10YR 4/4 dark yellowish brown silty clay, mottled, trace gravel medium plasticity, damp	CL			
2								
4								
5		42/60				0.0		
6	SBM09 2			6.0-10.0 10YR 7/1 dark grey clayey silt, trace cobbles, friable, damp	ML			
8								
10		54/60				0.0		
				Bottom of Boring 10.0				

NOTES

Drilling Company: Philip Environmental

Drilling Company: Central Mine Equipment (CME) 75 Truck Mounted Rig

Driller: Steve Snider

Helper: Patrick Shreve

INTERNATIONAL TECHNOLOGY CORPORATION

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER 816265	PROJECT NAME: AFP 85, IWTP	
BORING NUMBER BM-10	COORDINATES:	DATE: 07/11/95
ELEVATION: 805.59	NORTHING 725367.92	DATE STARTED: 07/11/95
GEOLOGIST: P. McCARREN	EASTING 1859197.13	DATE COMPLETED: 07/11/95
DRILLING METHODS: HOLLOW STEM AUGER - 4 1/4 IN. AUGERS - 4in x 5ft CONTINUOUS SPOON SAMPLER		PAGE 1 OF 1

DEPTH (FEET)	SAMPLE TYPE & NO.	RECOVERY (IN./60")		DESCRIPTION	USCS SYMBOL	PID READING (ppm)		REMARKS
0				0.0-3.0 ASPHALT, GRAVEL SUBBASE AND CONCRETE - COPPER WIRE ENCOUNTERED				
2								
3				BOTTOM OF BORING 3.0				NO SAMPLES COLLECTED

NOTES

DRILLING COMPANY: PHILIP ENVIRONMENTAL

DRILLING COMPANY: CENTRAL MINE EQUIPMENT (CME) 75 TRUCK MOUNTED RIG

DRILLER: STEVE SNIDER

HELPER: PATRICK SHREVE

INTERNATIONAL TECHNOLOGY CORPORATION

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER. 816265	PROJECT NAME AFP 85, IWTP	
BORING NUMBER BG-1	COORDINATES:	DATE: 07/12/95
ELEVATION: 806.00	NORTHING 725557.89	DATE STARTED. 07/12/95
GEOLOGIST: P. McCARREN	EASTING 1859321.07	DATE COMPLETED. 07/12/95
DRILLING METHODS Hollow STEM AUGER - 4 1/4 IN. AUGERS - 4in x 5ft CONTINUOUS SPOON SAMPLER		PAGE 1 OF 1

DEPTH (FEET)	SAMPLE TYPE & NO	RECOVERY (IN./60")		DESCRIPTION	USCS SYMBOL	PID READING (ppm)		REMARKS
0				0.0 - 0.5 ASPHALT AND GRAVEL SUBBASE, dry				
	SBLG11			0.5 - 5.0 10YR 4/4 dark yellowish brown silty clay, mottled, trace gravels medium plasticity, damp	CL			
2								
4		40/60						
5	SBLG12			5.0 - 10.0 10YR 3/1 very dark grey clayey silt, trace cobbles, damp	ML	0.0		
6								
8		55/60						
10						0.0		
				BOTTOM of BORING 10.0				

NOTES

Drilling Company: PHILIP ENVIRONMENTAL

Drilling Company: CENTRAL MINE EQUIPMENT (CME) 75 TRUCK MOUNTED RIG

Driller: STEVE SNIDER

HELPER: PATRICK SHREVE

INTERNATIONAL TECHNOLOGY CORPORATION

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: 816265	PROJECT NAME: AFP 85, IWTP	
BORING NUMBER: B6-2	COORDINATES:	DATE: 07/12/95
ELEVATION: 806.05	NORTHING 725643.70	DATE STARTED: 07/12/95
GEOLOGIST: P. McCARREN	EASTING 1859234.50	DATE COMPLETED: 07/12/95
DRILLING METHODS: HOLLOW STEM AUGER - 4 1/4 IN. AUGERS - 4 in x 5 ft CONTINUOUS SPOON SAMPLER		PAGE 1 OF 1

DEPTH (FEET)	SAMPLE TYPE & NO	RECOVERY (IN./60")		DESCRIPTION	USCS SYMBOL	PID READING (PPM)		REMARKS
0				0.0 - 0.5 ASPHALT AND GRAVEL SUBBASE, DRY				
	SB6621			0.5 - 4.0 10YR 4/4 dark yellowish brown silty clay, mottled, TRACE gravels medium plasticity, damp	CL			
2								
4	SB6622 SPOON 3	44/60		4.0 - 10.0 10YR 3/1 very dark grey clayey silt, TRACE cobbles, damp	ML	0.0		
5								
6								
8								
10		26/60				0.0		
				BOTTOM of BORING 10.0				

NOTES.

DRILLING COMPANY: PHILIP ENVIRONMENTAL

DRILLING COMPANY: CENTRAL MINE EQUIPMENT (CME) 75 TRUCK MOUNTED RIG

DRILLER: STEVE SNIDER

HELPER: PATRICK SHREVE

INTERNATIONAL TECHNOLOGY CORPORATION

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: 816265	PROJECT NAME: AFP 85, IWTP	
BORING NUMBER: BG-3	COORDINATES:	DATE 07/12/95
ELEVATION: 806.26	NORTHING 725694.72	DATE STARTED: 07/12/95
GEOLOGIST: P. McCARREN	EASTING 1859120.57	DATE COMPLETED: 07/12/95
DRILLING METHODS Hollow STEM AUGER - 4 1/4 IN. AUGERS - 4in x 5ft CONTINUOUS SPOON SAMPLER		PAGE 1 OF 1

DEPTH (FEET)	SAMPLE TYPE & NO.	RECOVERY (IN/60")		DESCRIPTION	USCS SYMBOL	PID READING (PPM)		REMARKS
0				0.0-0.5 Asphalt and Gravel subbase, dry				
	SBG431			0.5-7.0 10YR 4/4 dark yellowish brown silty clay, mottled, trace gravels, medium plasticity, damp	CL			
2								
4								
5		50/60				0.0		
6								
7	SBG432			7.0-10.0 10YR 3/1 very dark grey clayey silt, trace cobbles, damp	ML			
8		34/60						
10						0.0		
				Bottom of Boring 10.0				

NOTES

Drilling Company: PHLIP ENVIRONMENTAL

Drilling Company: CENTRAL MINE EQUIPMENT (CME) 75 TRUCK MOUNTED RIG

Driller: STEVE SNIDER

Helper: PATRICK SHREVE

Soil Sample Collection Logs

INTERNATIONAL TECHNOLOGY CORPORATION

Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): B-1 (Well or Boring Number) SAMPLE #: SB4011

LOG DATE (LOGDATE): 07/11/95 (MM-DD-YY)

LOG TIME (LOGTIME): 0810 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 0 5 (xx.xx) SAMPLE ENDING DEPTH (SED): 5 00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8 oz	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS: _____

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N01
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: _____ QTRIP: _____ QEQUIP: RIWTP2

LOT CONTROL # (LOTCTLNUM): 01 0A (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: P. McCARREN PREPARED BY: Paul C McCarren

SAMPLER: _____ CHAIN-OF-CUSTODY # 378281

PURPOSE: _____ FEDEX Waybill # 3538918736

g:\wpdata\CORPS\soilsamp.srm\July 7, 1995 9:29am

INTERNATIONAL TECHNOLOGY CORPORATION

Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): B-1 (Well or Boring Number) SAMPLE #: SBG012

LOG DATE (LOGDATE): 07/11/95 (MM-DD-YY)

LOG TIME (LOGTIME): 0830 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 5.00 (xx.xx) SAMPLE ENDING DEPTH (SED): 10.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8 oz	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE):

SAMPLE /QC TYPE (SACODE): N02
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: QTRIP: QEQUIP: RIWTP2

LOT CONTROL # (LOTCTLNUM): 01A (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: P. McQueen PREPARED BY: Paul C McQueen

SAMPLER: CHAIN-OF-CUSTODY # 378281

PURPOSE: FEDEX Waybill # 3538918736

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INTERNATIONAL TECHNOLOGY CORPORATION

Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): 8-1 (Well or Boring Number) SAMPLE #: SBUPC1

LOG DATE (LOGDATE): 07/11/95 (MM-DD-YY)

LOG TIME (LOGTIME): 0830 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 5.00 (xx.xx) SAMPLE ENDING DEPTH (SED): 10.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8 oz	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE):

SAMPLE /QC TYPE (SACODE): FD1
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: QTRIP: QEQUIP: RIWPT2

LOT CONTROL # (LOTCTLNUM): 01 0A (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: D. McCarren PREPARED BY: [signature]

SAMPLER: CHAIN-OF-CUSTODY # 378281

PURPOSE: FEDEX Waybill # 3538918736

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INTERNATIONAL TECHNOLOGY CORPORATION

Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): B-2 (Well or Boring Number) SAMPLE #: SB6021

LOG DATE (LOGDATE): 07/10/95 (MM-DD-YY)

LOG TIME (LOGTIME): 1440 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 0.5 (xx.xx) SAMPLE ENDING DEPTH (SED): 4.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	ITL	GLASS /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): ITL LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N0X 1
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: QTRIP: QEQUIP: RIWTP1

LOT CONTROL # (LOTCTLNUM): 01 0A (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: P. McCARREN PREPARED BY: Paul C McCarren

SAMPLER: CHAIN-OF-CUSTODY # 378280

PURPOSE: FEDEX Waybill # 3538918773

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INTERNATIONAL TECHNOLOGY CORPORATION

Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): B-2 (Well or Boring Number) SAMPLE #: SB6022

LOG DATE (LOGDATE): 07/10/95 (MM-DD-YY)

LOG TIME (LOGTIME): 1500 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 4.00 (xx.xx) SAMPLE ENDING DEPTH (SED): 10.0 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	ITC	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N 0 ~~0~~ 2
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: QTRIP: QEQUIP: RIWTP1

LOT CONTROL # (LOTCTLNUM): 01 0A (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: P. McCallen PREPARED BY: Paul C McCallen

SAMPLER: CHAIN-OF-CUSTODY # 378280

PURPOSE: FEDEX Waybill # 3538918773

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INTERNATIONAL TECHNOLOGY CORPORATION

Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): B-3 (Well or Boring Number) SAMPLE #: SB6031

LOG DATE (LOGDATE): 07/10/95 (MM-DD-YY)

LOG TIME (LOGTIME): 1240 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 0.~~00~~ 5 (xx.xx) SAMPLE ENDING DEPTH (SED): 8.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8 oz	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N 0 ~~2~~ 1
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: QTRIP: QEQUIP: RIWTP1

LOT CONTROL # (LOTCTLNUM): 0 1 0 A (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: P. McCarren PREPARED BY: Paul C. McCarren

SAMPLER: CHAIN-OF-CUSTODY # 378280

PURPOSE: FEDEX Waybill # 3538918773

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INTERNATIONAL TECHNOLOGY CORPORATION

Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): B-3 (Well or Boring Number) SAMPLE #: SB6032

LOG DATE (LOGDATE): 07/10/95 (MM-DD-YY)

LOG TIME (LOGTIME): 1305 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 8.00 (xx.xx) SAMPLE ENDING DEPTH (SED): 10.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8 oz	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): ITL LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N 0 ~~A~~ 2
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: QTRIP: QEQUIP: RIWPT1

LOT CONTROL # (LOTCTLNUM): 0 1 0 A (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: P. McCARREN PREPARED BY: Paul C McCarren

SAMPLER: CHAIN-OF-CUSTODY # 378280

PURPOSE: FEDEX Waybill # 3538918773

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Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): B-4 (Well or Boring Number) SAMPLE #: SB6041

LOG DATE (LOGDATE): 07/11/95 (MM-DD-YY)

LOG TIME (LOGTIME): 0855 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): ~~0.5~~ 2.00 (xx.xx) SAMPLE ENDING DEPTH (SED): 5.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8 oz	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N01
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: QTRIP: QEQUIP: RIWTP 2

LOT CONTROL # (LOTCTLNUM): 01 0A (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: P. McCarren PREPARED BY: [signature]

SAMPLER: CHAIN-OF-CUSTODY # 378281

PURPOSE: FEDEX Waybill # 3538918736

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Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): B-4 (Well or Boring Number) SAMPLE #: SBG041 MS/MSD

LOG DATE (LOGDATE): 07/11/95 (MM-DD-YY)

LOG TIME (LOGTIME): 0855 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 2.00 (xx.xx) SAMPLE ENDING DEPTH (SED): 5.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
2	8 oz	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N02 or FD1 ?
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: QTRIP: QEQUIP: RIWTP2

LOT CONTROL # (LOTCTLNUM): 01 0A (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: P. McCARREN PREPARED BY: Paul C McCarren

SAMPLER: CHAIN-OF-CUSTODY # 378281

PURPOSE: FEDEX Waybill # 3538918736

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Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): B-4 (Well or Boring Number) SAMPLE #: SBG042

LOG DATE (LOGDATE): 07/11/95 (MM-DD-YY)

LOG TIME (LOGTIME): 0915 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 5.00 (xx.xx) SAMPLE ENDING DEPTH (SED): 10.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8 oz	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N03
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: QTRIP: QEQUIP: RIWTP2

LOT CONTROL # (LOTCTLNUM): 0104 (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: P. McLaren PREPARED BY: Paul C McLaren

SAMPLER: CHAIN-OF-CUSTODY # 378281

PURPOSE: FEDEX Waybill # 3538918736

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INTERNATIONAL TECHNOLOGY CORPORATION

Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): B-5 (Well or Boring Number) SAMPLE #: SB6051

LOG DATE (LOGDATE): 07/10/95 (MM-DD-YY)

LOG TIME (LOGTIME): 1215 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 0.~~00~~ 5 (xx.xx) SAMPLE ENDING DEPTH (SED): 5.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8 oz	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N 0 ☒ 1
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: QTRIP: QEQUIP: RIWTP1

LOT CONTROL # (LOTCTLNUM): 0 1 0 A (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: P. McCarren PREPARED BY: Paul C McCarren

SAMPLER: CHAIN-OF-CUSTODY # 378280

PURPOSE: FEDEX Waybill # 3538918773

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INTERNATIONAL TECHNOLOGY CORPORATION

Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): B-5 (Well or Boring Number) SAMPLE #: SBG052

LOG DATE (LOGDATE): 07/10/95 (MM-DD-YY)

LOG TIME (LOGTIME): 1225 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 5.00 (xx.xx) SAMPLE ENDING DEPTH (SED): 10.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8 oz	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N02
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: QTRIP: QEQUIP: RIWTP1

LOT CONTROL # (LOTCTLNUM): 01 0A (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: P. McCarren PREPARED BY: Paul C McCarren

SAMPLER: CHAIN-OF-CUSTODY # 378280

PURPOSE: FEDEX Waybill # 3538918773

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INTERNATIONAL TECHNOLOGY CORPORATION

Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): BM-6 (Well or Boring Number) SAMPLE #: SBM061

LOG DATE (LOGDATE): 07/11/95 (MM-DD-YY)

LOG TIME (LOGTIME): 0950 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 0.50 (xx.xx) SAMPLE ENDING DEPTH (SED): 5.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8 oz	/4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N01
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: QTRIP: QEQUIP: RIWTP2

LOT CONTROL # (LOTCTLNUM): 01 0A (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: D. McCarren PREPARED BY: Paul C McCarren

SAMPLER: CHAIN-OF-CUSTODY # 378281

PURPOSE: FEDEX Waybill # 3538918756

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INTERNATIONAL TECHNOLOGY CORPORATION

Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): BM-6 (Well or Boring Number) SAMPLE #: SBM062

LOG DATE (LOGDATE): 07/11/95 (MM-DD-YY)

LOG TIME (LOGTIME): 1030 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 10.00 (xx.xx) SAMPLE ENDING DEPTH (SED): 15.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8 oz	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): ITL LOCATION CLASS (LTCCODE): B4 MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N02
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: QTRIP: QEQUIP: RIWTP2

LOT CONTROL # (LOTCTLNUM): 01 0A (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: P. McCarren PREPARED BY: P. C. McCarren

SAMPLER: CHAIN-OF-CUSTODY # 378281

PURPOSE: FEDEX Waybill # 3538918736

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Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): BM 8 (Well or Boring Number) SAMPLE #: SBM081

LOG DATE (LOGDATE): 07/11/95 (MM-DD-YY)

LOG TIME (LOGTIME): 1250 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 0.00 (xx.xx) SAMPLE ENDING DEPTH (SED): 5.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8 oz	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N01
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: QTRIP: QEQUIP: RIWTP2

LOT CONTROL # (LOTCTLNUM): 01A (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: P. McCarren PREPARED BY: [signature]

SAMPLER: CHAIN-OF-CUSTODY # 378281

PURPOSE: FEDEX Waybill # 3538918736

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Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): BM8 (Well or Boring Number) SAMPLE #: S8M082

LOG DATE (LOGDATE): 07/11/95 (MM-DD-YY)

LOG TIME (LOGTIME): 1315 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 5.00 (xx.xx) SAMPLE ENDING DEPTH (SED): 10.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8 oz	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS: _____

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N02
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: _____ QTRIP: _____ QEQUIP: RIWTPZ

LOT CONTROL # (LOTCTLNUM): 01OA (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: D. McCarren PREPARED BY: [signature]

SAMPLER: _____ CHAIN-OF-CUSTODY # 378281

PURPOSE: _____ FEDEX Waybill # 3538916736

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INTERNATIONAL TECHNOLOGY CORPORATION

Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): BM9 (Well or Boring Number) SAMPLE #: SBM091

LOG DATE (LOGDATE): 07/11/95 (MM-DD-YY)

LOG TIME (LOGTIME): 1545 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 0 50 (xx.xx) SAMPLE ENDING DEPTH (SED): 6 00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8 oz	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N01
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: QTRIP: QEQUIP: RIWTP2

LOT CONTROL # (LOTCTLNUM): 0104 (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: P. McCarren PREPARED BY: [signature]

SAMPLER: CHAIN-OF-CUSTODY # 378281

PURPOSE: FEDEX Waybill # 3538918736

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INTERNATIONAL TECHNOLOGY CORPORATION

Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): BM9 (Well or Boring Number) SAMPLE #: SBM092

LOG DATE (LOGDATE): 07/11/95 (MM-DD-YY)

LOG TIME (LOGTIME): 1555 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 6.00 (xx.xx) SAMPLE ENDING DEPTH (SED): 10.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8 oz	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N03
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: QTRIP: QEQUIP: RIWTP2

LOT CONTROL # (LOTCTLNUM): 01A (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: P. McCarren PREPARED BY: Paul C McCarren

SAMPLER: CHAIN-OF-CUSTODY # 378281

PURPOSE: FEDEX Waybill # 3538918736

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INTERNATIONAL TECHNOLOGY CORPORATION

Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): Bm 9 (Well or Boring Number) SAMPLE #: SDUPL2

LOG DATE (LOGDATE): 0 7 / 1 1 / 9 5 (MM-DD-YY)

LOG TIME (LOGTIME): 1 5 4 5 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 0.50 (xx.xx) SAMPLE ENDING DEPTH (SED): 6.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8 oz	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): BM MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N 0 2
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: QTRIP: QEQUIP: RIWTP2

LOT CONTROL # (LOTCTLNUM): 0 1 0 A (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: R. McCarren PREPARED BY: Paul C McCarren

SAMPLER: CHAIN-OF-CUSTODY # 376281

PURPOSE: FEDEX Waybill # 3538918736

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INTERNATIONAL TECHNOLOGY CORPORATION

Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): BG-1 (Well or Boring Number) SAMPLE #: SBKG 11

LOG DATE (LOGDATE): 07/12/95 (MM-DD-YY)

LOG TIME (LOGTIME): 0850 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 0.50 (xx.xx) SAMPLE ENDING DEPTH (SED): 5.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8 oz	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N01
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: QTRIP: QEQUIP: RIWTP3

LOT CONTROL # (LOTCTLNUM): 01 0A (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: R. McCarron PREPARED BY: Paul C McCarron

SAMPLER: CHAIN-OF-CUSTODY # 378282

PURPOSE: FEDEX Waybill # 353891875 1

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INTERNATIONAL TECHNOLOGY CORPORATION

Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): ITWP

LOCATION ID (LOCID): BG-1 (Well or Boring Number) SAMPLE #: SBKG12

LOG DATE (LOGDATE): 07/12/95 (MM-DD-YY)

LOG TIME (LOGTIME): 0900 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 05.00 (xx.xx) SAMPLE ENDING DEPTH (SED): 10.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8 oz	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N02
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: QTRIP: QEQUIP: RIWTP3

LOT CONTROL # (LOTCTLNUM): 01 0A (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: P. McCarren PREPARED BY: Paul C. McCarren

SAMPLER: CHAIN-OF-CUSTODY # 378282

PURPOSE: FEDEX Waybill # 3538918751

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INTERNATIONAL TECHNOLOGY CORPORATION

Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): B6-2 (Well or Boring Number) SAMPLE #: SBK621

LOG DATE (LOGDATE): 07/12/95 (MM-DD-YY)

LOG TIME (LOGTIME): 1000 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 0.50 (xx.xx) SAMPLE ENDING DEPTH (SED): 4.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8 oz	/4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): IX LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N01
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: _____ QTRIP: _____ QEQUIP: RIWTP3

LOT CONTROL # (LOTCTLNUM): 01 0A (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: P. McCARREN PREPARED BY: Paul C. McCarren

SAMPLER: _____ CHAIN-OF-CUSTODY # 378282

PURPOSE: _____ FEDEX Waybill # 3538918751

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INTERNATIONAL TECHNOLOGY CORPORATION

Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): BG-2 (Well or Boring Number) SAMPLE #: SBKG22

LOG DATE (LOGDATE): 07/12/95 (MM-DD-YY)

LOG TIME (LOGTIME): 1010 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 4.00 (xx.xx) SAMPLE ENDING DEPTH (SED): 0.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8 oz	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS: _____

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N02
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: _____ QTRIP: _____ QEQUIP: RIWTP3

LOT CONTROL # (LOTCTLNUM): ____ (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: P. McGrren PREPARED BY: Paul C. McGrren

SAMPLER: _____ CHAIN-OF-CUSTODY # 378282

PURPOSE: _____ FEDEX Waybill # 353991875 1

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INTERNATIONAL TECHNOLOGY CORPORATION

Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): B6-2 (Well or Boring Number) SAMPLE #: SBUAL3

LOG DATE (LOGDATE): 07/12/95 (MM-DD-YY)

LOG TIME (LOGTIME): 1010 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 4.00 (xx.xx) SAMPLE ENDING DEPTH (SED): 10.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8 oz	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): ~~N~~ ~~D~~ FD 1
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD (FD)

Enter sample numbers for blanks associated to this sample:
QFIELD: QTRIP: QEQUIP: RIWTP3

LOT CONTROL # (LOTCTLNUM): 01 0A (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: R. McCallen PREPARED BY: Paul C Nelson

SAMPLER: CHAIN-OF-CUSTODY # 375282

PURPOSE: FEDEX Waybill # 353891875

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INTERNATIONAL TECHNOLOGY CORPORATION

Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): BG-3 (Well or Boring Number) SAMPLE #: SBKG31

LOG DATE (LOGDATE): 07/12/95 (MM-DD-YY)

LOG TIME (LOGTIME): 1045 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 0.50 (xx.xx) SAMPLE ENDING DEPTH (SED): 7.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8oz	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N01
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: QTRIP: QEQUIP: RIWTP3

LOT CONTROL # (LOTCTLNUM): 01A (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: D. McLaren PREPARED BY: Paul C McLaren

SAMPLER: CHAIN-OF-CUSTODY # 378282

PURPOSE: FEDEX Waybill # 3538918751

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INTERNATIONAL TECHNOLOGY CORPORATION

Soil Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): BG-3 (Well or Boring Number) SAMPLE #: SBKG32

LOG DATE (LOGDATE): 07/12/95 (MM-DD-YY)

LOG TIME (LOGTIME): 1055 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 7.00 (xx.xx) SAMPLE ENDING DEPTH (SED): 10.00 (xx.xx)

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	8 oz	Glass /4°C	Nitrate	300.0
		/4°C	Chromium III	SW846 6010 Minus G^{+6}
		/4°C	Chromium VI	SW7196A
		/4°C	Flouride	340.2

COMMENTS:

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): BH MATRIX (MATRIX): S

SAMPLING METHOD (SMCODE): CC

SAMPLE /QC TYPE (SACODE): N02
(N# = Normal, AB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: QTRIP: QEQUIP: RIWTP3

LOT CONTROL # (LOTCTLNUM): 01 0A (Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler Letter)

SAMPLER: P. McAllen PREPARED BY: Paul C McAllen

SAMPLER: CHAIN-OF-CUSTODY # 378282

PURPOSE: FEDEX Waybill # 3538518751

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Rinsate Sample Collection Logs

INTERNATIONAL TECHNOLOGY CORPORATION

Groundwater Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): _____ (Well Number) SAMPLE #: R I W T A 1

LOG DATE (LOGDATE): 0 7 / 1 0 / 9 5 (MM-DD-YY)

LOG TIME (LOGTIME): 1 6 3 0 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 0 (Water Level XX.XX in Feet)
SAMPLE ENDING DEPTH (SED): 0

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	1 L	poly /4°C	Nitrate	EPA 300.0
		poly /4°C	Chromium III	SW846 C 601 Minus Cr^{+6}
1	500 mL	poly /HNO_3, 4°C	Chromium VI	SW7196A
		poly /4°C	Fluoride	EPA 340.2

COMMENTS: _____

LOG CODE (LOGCODE): IR LOCATION CLASS (LTCCODE): MATRIX (MATRIX): W SAMPLING METHOD (SMCODE):

SAMPLE /QC TYPE (SACODE): E B 1 (N# = Normal, MB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: _____ QTRIP: _____ QEQUIP: _____

LOT CONTROL # (LOTCTLNUM): 0 1 0 A (Ambient Blank # - Equipment Blank # - Trip Blank # -Cooler #)

SAMPLER: D. McCarren PREPARED BY: David C McCarren

SAMPLER: _____ CHAIN-OF-CUSTODY # 378280

PURPOSE: _____ FEDEX Waybill # 3538918773

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INTERNATIONAL TECHNOLOGY CORPORATION

Groundwater Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): _____ (Well Number) SAMPLE #: R I W T P Z

LOG DATE (LOGDATE): 0 7 / 1 1 / 9 5 (MM-DD-YY)

LOG TIME (LOGTIME): 1 6 3 0 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 0 (Water Level XX.XX in Feet)
SAMPLE ENDING DEPTH (SED): 0

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	1 L	Poly /4°C	Nitrate	EPA 300.0
		/4°C	Chromium III	SW846 601 Minus G^{+6}
1	500 mL	Poly /HNO_3, 4°C	Chromium VI	SW7196A
		/4°C	Fluoride	EPA 340.2

COMMENTS: _____

LOG CODE (LOGCODE): I.C LOCATION CLASS (LTCCODE): MATRIX (MATRIX): W SAMPLING METHOD (SMCODE):

SAMPLE /QC TYPE (SACODE): E B 2 (N# = Normal, MB# = Material Blank, EB#-Equipment Blank, TB# = Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: _____ QTRIP: _____ QEQUIP: _____

LOT CONTROL # (LOTCTLNUM): 0 1 0 A (Ambient Blank # - Equipment Blank # - Trip Blank # -Cooler #)

SAMPLER: R. McCaleen PREPARED BY: Paul A. McCaleen

SAMPLER: _____ CHAIN-OF-CUSTODY # 378281

PURPOSE: _____ FEDEX Waybill # 3538518736

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INTERNATIONAL TECHNOLOGY CORPORATION

Groundwater Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID):

LOCATION ID (LOCID): _____ (Well Number) SAMPLE #: R I W T P 3

LOG DATE (LOGDATE): 0 7 / 1 2 / 9 5 (MM-DD-YY)

LOG TIME (LOGTIME): 1 2 3 0 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 0 (Water Level XX.XX in Feet)
SAMPLE ENDING DEPTH (SED): 0

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	1L	poly/4°C	Nitrate	EPA 300.0
		/4°C	Chromium III	SW846 601 Minus G^{+6}
1	500ml	poly/HNO_3, 4°C	Chromium VI	SW7196A
		/4°C	Fluoride	EPA 340.2

COMMENTS: _____

LOG CODE (LOGCODE): IR LOCATION CLASS (LTCCODE): MATRIX (MATRIX): SAMPLING METHOD (SMCODE):

SAMPLE /QC TYPE (SACODE): E B B (N# = Normal, MB# = Material Blank, EB#-Equipment Blank, TB# = Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: _____ QTRIP: _____ QEQUIP: _____

LOT CONTROL # (LOTCTLNUM): 0 1 0 A (Ambient Blank # - Equipment Blank # - Trip Blank # -Cooler #)

SAMPLER: P. McCallen PREPARED BY: Paul C McCallen

SAMPLER: _____ CHAIN-OF-CUSTODY # 378262

PURPOSE: _____ FEDEX Waybill # 353891875 1

Groundwater Elevation Logs

INTERNATIONAL TECHNOLOGY CORPORATION

Groundwater Elevation Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

Site ID (SITEID)	Location (LOCID)	Log Date (LOGDATE) (MM-DD-YY)	Log Time (HHMM) (LOGTIME)	Static Depth to Water (STATDEP) (xxxx.xx)	Static Depth to Product (xxxx.xx)	Well Depth (SOUND ING) (xxxx.xx)
IWTP	MW1	07-13-95	1100	9.16	NA	19.50
	MW2	07-13-95	1240	3.00	NA	9.42
	MW3	07-13-95	1355	2.76	NA	9.26
	MW4	07-13-95	1510	4.26	NA	9.01
	MW5	07-13-95	1540	4.21	NA	10.09
	MW1		1606	15.52		19.50
	MW2		1608	8.96		9.42
	MW3		1610	8.24		9.26
	MW4		1612	7.22		~~10.09~~ 9.01
	MW5		1615	8.15		10.09
	MW1	07-14-95	0910	14.71	NA	
	MW2		0911	2.98	NA	
	MW3		0915	7.31	NA	
	MW4		0912	3.46	NA	
	MW5		0908	4.25	NA	

Groundwater Well Development/Purge Logs

Groundwater Well Development/Purge Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID: ~~Mwt~~ IWTP LOCATION ID: MW 1 (Well Number) Target Purge Volume : 5.27 gal

Purging Method/Equipment: Bailing / 36" Disposable Bailer Sampling Equipment/ID No: NA

Well Casing Diameter (a) in : 2" Unit Casing Volume (b): 0.17 ft

Sounding (Depth to Well Bottom) (c): 19.5 Static Water Level (Depth to Water) (d): 9.16

Length of Static Water Column in Casing (e) = (c) - (d) = 19.5 - 9.16 = 10.34 6" Diameter = 1.5 gal/ft

Casing Water Volume (f) = (b) x (e) = 0.17 x 10.34 = 1.76 4" Diameter = 0.67 gal/ft

Casing Volumes = 3 x (f) 1.76 = 5.27 gals 2" Diameter = 0.17 gal/ft

Date	Time 24hr	Recovery Time (min)	Purge Rate (gal/min)	Dynamic H2O Level (ft)	Volume Purged (gl)	Temp C°	pH	Cond.	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By:	Water Description
07/13/95	11 : 05			9.16	0.0	20.6	6.94	1925					Cloudy
	11 : 10			10.52	.25	19.7	6.94	1900					
	11 : 20			14.26	1.0	19.2	6.91	1925					
	11 : 35			16.78	2.0	19.1	6.90	1900					
	11 : 45				3.0	19.1	6.92	1900					
	11 : 55				4.0	19.2	6.90	1900					
	12 : 05				5.0	19.2	6.93	1900					
	12 : 15			17.25	6.0	19.1	6.92	1900					
Post sample	12 : 40			17.25	Post sample	19.3	6.98	1925					
	:												
	:												
	:												
	:												
	:												

Recovery Depth* (ft from TOC) : _____ Final Recovery Time* (min) : _____

* Taken As Final Water Level Reading and Time after sampling is complete and well has recovered.

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Groundwater Well Development/Purge Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID: ~~MW2~~ IWTP LOCATION ID: MW2 (Well Number) Target Purge Volume : 3.27 gal

Purging Method/Equipment: BAILER / Disposable BAILER Sampling Equipment/ID No: NA

Well Casing Diameter (a) in : 2" Unit Casing Volume (b): 0.17

Sounding (Depth to Well Bottom) (c): 9.42 Static Water Level (Depth to Water) (d): 3.00

Length of Static Water Column in Casing (e) = (c) - (d) = 9.42 - 3.00 = 6.42

Casing Water Volume (f) = (b) x (e) = 0.17 x 6.42 = 1.09

Casing Volumes = 3 x (f) 1.09 = 3.27

6" Diameter = 1.5 gal/ft
4" Diameter = 0.67 gal/ft
2" Diameter = 0.17 gal/ft

Date	Time 24hr	Recovery Time (min)	Purge Rate (gal/min)	Dynamic H2O Level (ft)	Volume Purged (gl)	Temp C°	pH	Cond.	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By:	Water Description
07/13/95	12:40			3.00	0.0	24.0	7.49	400					P Cloudy
	12:50			4.40	0.25	23.9	7.48	400					
	12:55			5.24	0.50	23.3	7.54	400					
	13:05			6.64	1.50	22.3	7.42	550					
	13:10			7.68	2.50	22.7	7.40	550					
	13:15			Dry	2.75	22.5	7.44	550					
07-14-95	~~11:35~~	Post Sample		4.68	Post Sample	25.2	8.31	300					CLEAR
	11:45												
	:												
	:												
	:												
	:												
	:												
	:												

Recovery Depth* (ft from TOC) : _____ Final Recovery Time* (min) : _____

* Taken As Final Water Level Reading and Time after sampling is complete and well has recovered.

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Groundwater Well Development/Purge Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID: ~~MW3~~ IWTP LOCATION ID: MW 3 (Well Number) Target Purge Volume : 13.07 gal

Purging Method/Equipment: BAILER / Disposable BAILER Sampling Equipment/ID No: NA

Well Casing Diameter (a) in : 4" Unit Casing Volume (b): 0.67

Sounding (Depth to Well Bottom) (c): 9.26 Static Water Level (Depth to Water) (d): 2.76

Length of Static Water Column in Casing (e) = (c) - (d) = 9.26 - 2.76 = 6.50

Casing Water Volume (f) = (b) x (e) = 0.67 x 6.50 = 4.36

Casing Volumes = 3 x (f) 4.36 = 13.07

6" Diameter = 1.5 gal/ft
4" Diameter = 0.67 gal/ft
2" Diameter = 0.17 gal/ft

Date	Time 24hr	Recovery Time (min)	Purge Rate (gal/min)	Dynamic H2O Level (ft)	Volume Purged (gl)	Temp C°	pH	Cond.	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By:	Water Description
07-13-95	13 :55			2.76	0.0	24.0	6.88	525					Cloudy
	14 :15			4.38	2.0	24.1	6.63	825					PARTICULATES
	14 :25			6.20	4.0	23.5	6.55	1150					
	14 :35			9.15	6.0	23.1	6.42	1700					
	15 :00			DRY	6.25								
7-14-95	11 :55			8.17	POST SAMPLE	21.6	6.67	1350					
	:												
	:												
	:												
	:												
	:												
	:												
	:												
	:												

Recovery Depth* (ft from TOC) : _____ Final Recovery Time* (min) : _____

* Taken As Final Water Level Reading and Time after sampling is complete and well has recovered.

1200

Groundwater Well Development/Purge Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID: ~~AFW~~ IWTP LOCATION ID: MW 4 (Well Number) Target Purge Volume : 2.42 gal

Purging Method/Equipment: Bailer / Disposable Bailer Sampling Equipment/ID No: NA

Well Casing Diameter (a) in : 2" Unit Casing Volume (b): 0.17

Sounding (Depth to Well Bottom) (c): 9.01 Static Water Level (Depth to Water) (d): 4.24

Length of Static Water Column in Casing (e) = (c) - (d) = 9.01 - 4.24 = 4.75

Casing Water Volume (f) = (b) x (e) = 0.17 x 4.75 = 0.81

Casing Volumes = 3 x (f) 0.81 = 2.42

6" Diameter = 1.5 gal/ft
4" Diameter = 0.67 gal/ft
2" Diameter = 0.17 gal/ft

Date	Time 24hr	Recovery Time (min)	Purge Rate (gal/min)	Dynamic H2O Level (ft)	Volume Purged (gl)	Temp C°	pH	Cond.	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By:	Water Description
	15 :25			4.24	0.0	23.9	7.54	850					
	15 :20			7.02	1.0	22.9	7.59	775					
	15 :30			8.77	1.5	21.5	7.50	800					
	15 :35			DRY	1.75		7.52						
07/14/95	12 :15			6.25	Post Sample	22.4	~~7.50~~	750					
	:												
	:												
	:												
	:												
	:												
	:												
	:												
	:												
	:												

Recovery Depth* (ft from TOC) : _____ Final Recovery Time* (min) : _____

* Taken As Final Water Level Reading and Time after sampling is complete and well has recovered.

1225

Groundwater Well Development/Purge Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID: ~~AF85~~ IWTP LOCATION ID: MW 5 (Well Number) Target Purge Volume : 3.00 gal

Purging Method/Equipment: Bailer / Disposable bailer Sampling Equipment/ID No: NA

Well Casing Diameter (a) in : 2" Unit Casing Volume (b): 0.17

Sounding (Depth to Well Bottom) (c): 10.09 Static Water Level (Depth to Water) (d): 4.21

Length of Static Water Column in Casing (e) = (c) - (d) = 10.09 - 4.21 = 5.88

Casing Water Volume (f) = (b) x (e) = 0.17 x 5.88 = 1.00

Casing Volumes = ~~1.00~~ 3 x (f) 1.00 = 3.00

6" Diameter = 1.5 gal/ft
4" Diameter = 0.67 gal/ft
2" Diameter = 0.17 gal/ft

Date	Time 24hr	Recovery Time (min)	Purge Rate (gal/min)	Dynamic H2O Level (ft)	Volume Purged (gl)	Temp C°	pH	Cond.	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By:	Water Description
07-13-95	15 : 40			4.21	0.0	22.7	7.29	500					
	15 : 45			6.40	1.0	21.9	7.28	500					
	15 : 55			8.26	2.25	21.4	7.36	500					
	16 : 05			Dry	2.50	21.8	7.32	500					
07-14-95	12 : 30			4.21	Post sample	21.2	7.31	500					
	:												
	:												
	:												
	:												
	:												
	:												
	:												
	:												
	:												

Recovery Depth* (ft from TOC) : _____ Final Recovery Time* (min) : _____

* Taken As Final Water Level Reading and Time after sampling is complete and well has recovered.

Groundwater Sample Collection Logs

INTERNATIONAL TECHNOLOGY CORPORATION

Groundwater Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): MW1 (Well Number) SAMPLE #: G M W 0 1 1

LOG DATE (LOGDATE): 0 7 / 1 3 / 9 5 (MM-DD-YY)

LOG TIME (LOGTIME): 1 2 2 5 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 0 (Water Level XX.XX in Feet)
SAMPLE ENDING DEPTH (SED): 0

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	1L	Poly /4°C	Nitrate	EPA 300.0
		/4°C	Chromium III	SW846 601 Minus G^{+6}
1	500 ml	Poly /HNO_3, 4°C	Chromium VI	SW7196A
		/4°C	Fluoride	EPA 340.2

COMMENTS: _____

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): WL MATRIX (MATRIX): W SAMPLING METHOD (SMCODE): B

SAMPLE /QC TYPE (SACODE): N 0 1 (N# = Normal, MB# = Material Blank, EB#-Equipment Blank, TB# = Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: _____ QTRIP: _____ QEQUIP: _____

LOT CONTROL # (LOTCTLNUM): 0 0 0 A (Ambient Blank # - Equipment Blank # - Trip Blank # -Cooler #)

SAMPLER: D. McCarren PREPARED BY: David C McCarren

SAMPLER: _____ CHAIN-OF-CUSTODY # 375283

PURPOSE: _____ FEDEX Waybill # 3538918740

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INTERNATIONAL TECHNOLOGY CORPORATION

Groundwater Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): MW 2 (Well Number) SAMPLE #: G M W 0 2 1

LOG DATE (LOGDATE): 0 7 / 1 4 / 9 5 (MM-DD-YY)

LOG TIME (LOGTIME): 1 1 3 0 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 0 (Water Level XX.XX in Feet)
SAMPLE ENDING DEPTH (SED): 0

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	1L	poly /4°C	Nitrate	EPA 300.0
		/4°C	Chromium III	SW846 601 Minus G^{+6}
1	500 mL	poly /HNO_3, 4°C	Chromium VI	SW7196A
		/4°C	Fluoride	EPA 340.2

COMMENTS:

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): WL MATRIX (MATRIX): W SAMPLING METHOD (SMCODE): B

SAMPLE /QC TYPE (SACODE): N 0 1 (N# = Normal, MB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: _____ QTRIP: _____ QEQUIP: _____

LOT CONTROL # (LOTCTLNUM): 0 0 0 A (Ambient Blank # - Equipment Blank # - Trip Blank # -Cooler #)

SAMPLER: P. McCarren PREPARED BY: Paul C McLaren

SAMPLER: _____ CHAIN-OF-CUSTODY # 378284

PURPOSE: _____ FEDEX Waybill # 353891876 2

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INTERNATIONAL TECHNOLOGY CORPORATION

Groundwater Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): MW2 (Well Number) SAMPLE #: G A U A L 01

LOG DATE (LOGDATE): 0 7 / 1 4 / 9 5 (MM-DD-YY)

LOG TIME (LOGTIME): 1 1 3 0 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 0 (Water Level XX.XX in Feet)
SAMPLE ENDING DEPTH (SED): 0

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	1L	poly /4°C	Nitrate	EPA 300.0
		/4°C	Chromium III	SW846 601 Minus G^{+6}
1	500mL	poly /HNO_3, 4°C	Chromium VI	SW7196A
		/4°C	Fluoride	EPA 340.2

COMMENTS: _____

LOG CODE (LOGCODE): LOCATION CLASS (LTCCODE): MATRIX (MATRIX): SAMPLING METHOD (SMCODE): B

SAMPLE /QC TYPE (SACODE): ITC N 0 2 FR1 WL W (N# = Normal, MB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: _____ QTRIP: _____ QEQUIP: _____

LOT CONTROL # (LOTCTLNUM): 0 0 0 A (Ambient Blank # - Equipment Blank # - Trip Blank # -Cooler #)

SAMPLER: D. McCarren PREPARED BY: Paul C McCarren

SAMPLER: _____ CHAIN-OF-CUSTODY # 378284

PURPOSE: _____ FEDEX Waybill # 3538918762

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INTERNATIONAL TECHNOLOGY CORPORATION

Groundwater Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): MW 3 (Well Number) SAMPLE #: G M W 0 3 1

LOG DATE (LOGDATE): 0 7 / 1 4 / 9 5 (MM-DD-YY)

LOG TIME (LOGTIME): 1 1 5 0 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 0 (Water Level XX.XX in Feet)
SAMPLE ENDING DEPTH (SED): 0

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	1L	poly /4°C	Nitrate	EPA 300.0
		/4°C	Chromium III	SW846 601 Minus G^{+6}
1	500mL	poly /HNO_3, 4°C	Chromium VI	SW7196A
		/4°C	Fluoride	EPA 340.2

COMMENTS:

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): WL MATRIX (MATRIX): W SAMPLING METHOD (SMCODE): S

SAMPLE /QC TYPE (SACODE): N 0 1 (N# = Normal, MB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: _____ QTRIP: _____ QEQUIP: _____

LOT CONTROL # (LOTCTLNUM): 0 0 0 A (Ambient Blank # - Equipment Blank # - Trip Blank # -Cooler #)

SAMPLER: D McCarren PREPARED BY: [signature]

SAMPLER: _____ CHAIN-OF-CUSTODY # 378284

PURPOSE: _____ FEDEX Waybill # 3538918762

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INTERNATIONAL TECHNOLOGY CORPORATION

Groundwater Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): MW 4 (Well Number) SAMPLE #: G M W 0 4 1

LOG DATE (LOGDATE): 0 7 / 1 4 / 9 5 (MM-DD-YY)

LOG TIME (LOGTIME): 1 2 0 0 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 0 (Water Level XX.XX in Feet)
SAMPLE ENDING DEPTH (SED): 0

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	1L	poly /4°C	Nitrate	EPA 300.0
		/4°C	Chromium III	SW846 601 Minus G^{+6}
1	500 mL	poly /HNO_3, 4°C	Chromium VI	SW7196A
		/4°C	Fluoride	EPA 340.2

COMMENTS:

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): WL MATRIX (MATRIX): W SAMPLING METHOD (SMCODE): B

SAMPLE /QC TYPE (SACODE): N 0 1 (N# = Normal, MB# = Material Blank, EB#-Equipment Blank, TB# =Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: _____ QTRIP: _____ QEQUIP: _____

LOT CONTROL # (LOTCTLNUM): 0 0 0 A (Ambient Blank # - Equipment Blank # - Trip Blank # -Cooler #)

SAMPLER: D. McCarren PREPARED BY: Paul C McCarren

SAMPLER: _____ CHAIN-OF-CUSTODY # 378284

PURPOSE: _____ FEDEX Waybill # 3538915762

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INTERNATIONAL TECHNOLOGY CORPORATION

Groundwater Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): MW4 (Well Number) SAMPLE #: G M W 0 4 / MS/MFD

LOG DATE (LOGDATE): 0 7 / 1 4 / 9 5 (MM-DD-YY)

LOG TIME (LOGTIME): 1 2 0 0 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 0 (Water Level XX.XX in Feet)
SAMPLE ENDING DEPTH (SED): 0

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
2	1L	Poly /4°C	Nitrate	EPA 300.0
		/4°C	Chromium III	SW846 601 Minus G^{+6}
2	500 mL	Poly /HNO_3, 4°C	Chromium VI	SW7196A
		/4°C	Fluoride	EPA 340.2

COMMENTS: _____

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): WL MATRIX (MATRIX): W SAMPLING METHOD (SMCODE): B

SAMPLE /QC TYPE (SACODE): N 0 2 (N# = Normal, MB# = Material Blank, EB#-Equipment Blank, TB# = Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: _____ QTRIP: _____ QEQUIP: _____

LOT CONTROL # (LOTCTLNUM): 0 0 0 A (Ambient Blank # - Equipment Blank # - Trip Blank # -Cooler #)

SAMPLER: P. McMaren PREPARED BY: Paul C McMaren

SAMPLER: _____ CHAIN-OF-CUSTODY # 378284

PURPOSE: _____ FEDEX Waybill # 3538518762

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INTERNATIONAL TECHNOLOGY CORPORATION

Groundwater Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): MW5 (Well Number) SAMPLE #: G M W 0 5 1

LOG DATE (LOGDATE): 0 7 / 1 4 / 9 5 (MM-DD-YY)

LOG TIME (LOGTIME): 1 2 2 5 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 0 (Water Level XX.XX in Feet)
SAMPLE ENDING DEPTH (SED): 0

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	1L	Poly /4°C	Nitrate	EPA 300.0
		/4°C	Chromium III	SW846 601 Minus G^{+6}
1	500 mL	Poly /HNO_3, 4°C	Chromium VI	SW7196A
		/4°C	Fluoride	EPA 340.2

COMMENTS: _____

LOG CODE (LOGCODE): IR LOCATION CLASS (LTCCODE): WL MATRIX (MATRIX): W SAMPLING METHOD (SMCODE): B

SAMPLE /QC TYPE (SACODE): _____ (N# = Normal, MB# = Material Blank, EB#-Equipment Blank, TB# = Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: _____ QTRIP: _____ QEQUIP: _____

LOT CONTROL # (LOTCTLNUM): 0 0 0 A (Ambient Blank # - Equipment Blank # - Trip Blank # -Cooler #)

SAMPLER: P. McCarren PREPARED BY: Paul C McCarren

SAMPLER: _____ CHAIN-OF-CUSTODY # 378285

PURPOSE: _____ FEDEX Waybill # 3538918725

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INTERNATIONAL TECHNOLOGY CORPORATION

Groundwater Sample Collection Log

AIR FORCE PLANT 85, IWTP COLUMBUS, OH
PROJECT: 816265

SITE ID (SITEID): IWTP

LOCATION ID (LOCID): MW 5 (Well Number) SAMPLE #: G M W 0 5 , D

LOG DATE (LOGDATE): 0 7 / 1 4 / 9 5 (MM-DD-YY)

LOG TIME (LOGTIME): 1 2 2 5 (HHMM)

SAMPLE BEGINNING DEPTH (SBD): 0 (Water Level XX.XX in Feet)
SAMPLE ENDING DEPTH (SED): 0

CONTAINERS:

QTY	SIZE	TYPE/Preservation	PARAMETER	METHOD
1	1L	poly /4°C	Nitrate	EPA 300.0
		/4°C	Chromium III	SW846 601 Minus G^{+6}
1	500ml	poly /HNO_3, 4°C	Chromium VI	SW7196A
		/4°C	Fluoride	EPA 340.2

COMMENTS: _____

LOG CODE (LOGCODE): ITC LOCATION CLASS (LTCCODE): WL MATRIX (MATRIX): W SAMPLING METHOD (SMCODE): B

SAMPLE /QC TYPE (SACODE): F R 2 (N# = Normal, MB# = Material Blank, EB#-Equipment Blank, TB# = Trip Blank)

Please Circle if any of these sample types are designated: MS SD FD

Enter sample numbers for blanks associated to this sample:
QFIELD: _____ QTRIP: _____ QEQUIP: _____

LOT CONTROL # (LOTCTLNUM): 0 0 0 A (Ambient Blank # - Equipment Blank # - Trip Blank # -Cooler #)

SAMPLER: P. McQueen PREPARED BY: Paul C McQueen

SAMPLER: _____ CHAIN-OF-CUSTODY # 378285

PURPOSE: _____ FEDEX Waybill # 3538918725

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Appendix B
Laboratory Certificates of Analysis

Quanterra

Quanterra
Environmental Services

SAMPLE DESCRIPTION INFORMATION
for
IT Corporation

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
043295-0001-SA	SBG051	SOIL	10 JUL 95	12:15	11 JUL 95
043295-0002-SA	SBG052	SOIL	10 JUL 95	12:25	11 JUL 95
043295-0003-SA	SBG031	SOIL	10 JUL 95	12:40	11 JUL 95
043295-0004-SA	SBG032	SOIL	10 JUL 95	13:05	11 JUL 95
043295-0005-SA	SBG021	SOIL	10 JUL 95	14:40	11 JUL 95
043295-0006-SA	SBG022	SOIL	10 JUL 95	15:00	11 JUL 95
043295-0007-RB	RIWTB	AQUEOUS	10 JUL 95	16:30	11 JUL 95

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SBG051
Lab ID: 043295-0001-SA
Matrix: SOIL
Authorized: 11 JUL 95

Sampled: 10 JUL 95
Prepared: See Below

Received: 11 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	7.6	mg/kg	1.0	7196/6010	NA	18 JUL 95
Chromium (VI)	ND	mg/kg	0.050	7196	NA	12 JUL 95
Fluoride	2.3	mg/kg	0.50	340.2 Mod.	12 JUL 95	12 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	12 JUL 95	13 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Roxanne Sullivan

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SBG052
Lab ID: 043295-0002-SA
Matrix: SOIL
Authorized: 11 JUL 95

Sampled: 10 JUL 95
Prepared: See Below

Received: 11 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	8.5	mg/kg	1.0	7196/6010	NA	18 JUL 95
Chromium (VI)	ND	mg/kg	0.050	7196	NA	12 JUL 95
Fluoride	2.1	mg/kg	0.50	340.2 Mod.	12 JUL 95	12 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	12 JUL 95	13 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Roxanne Sullivan

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SBG031
Lab ID: 043295-0003-SA
Matrix: SOIL
Authorized: 11 JUL 95

Sampled: 10 JUL 95
Prepared: See Below

Received: 11 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	19.3	mg/kg	2.0	7196/6010	NA	18 JUL 95
Chromium (VI)	ND	mg/kg	0.050	7196	NA	12 JUL 95
Fluoride	2.4	mg/kg	0.50	340.2 Mod.	12 JUL 95	12 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	12 JUL 95	13 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Roxanne Sullivan

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SBG032
Lab ID: 043295-0004-SA
Matrix: SOIL
Authorized: 11 JUL 95

Sampled: 10 JUL 95
Prepared: See Below

Received: 11 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	8.3	mg/kg	1.0	7196/6010	NA	18 JUL 95
Chromium (VI)	ND	mg/kg	0.050	7196	NA	12 JUL 95
Fluoride	1.9	mg/kg	0.50	340.2 Mod.	12 JUL 95	12 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	12 JUL 95	13 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Roxanne Sullivan

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SBG021
Lab ID: 043295-0005-SA
Matrix: SOIL
Authorized: 11 JUL 95

Sampled: 10 JUL 95
Prepared: See Below

Received: 11 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	24.0	mg/kg	2.0	7196/6010	NA	18 JUL 95
Chromium (VI)	ND	mg/kg	0.050	7196	NA	12 JUL 95
Fluoride	3.1	mg/kg	0.50	340.2 Mod.	12 JUL 95	12 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	12 JUL 95	13 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Roxanne Sullivan

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SBG022
Lab ID: 043295-0006-SA
Matrix: SOIL
Authorized: 11 JUL 95

Sampled: 10 JUL 95
Prepared: See Below

Received: 11 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	7.9	mg/kg	1.0	7196/6010	NA	18 JUL 95
Chromium (VI)	ND	mg/kg	0.050	7196	NA	12 JUL 95
Fluoride	1.9	mg/kg	0.50	340.2 Mod.	12 JUL 95	12 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	12 JUL 95	13 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Roxanne Sullivan

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: RIWTB
Lab ID: 043295-0007-RB
Matrix: WATER-QA
Authorized: 11 JUL 95

Sampled: 10 JUL 95
Prepared: See Below

Received: 11 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	ND	mg/L	0.010	7196/6010	NA	25 JUL 95
Chromium (VI)	ND	mg/L	0.010	7196	NA	11 JUL 95
Fluoride	ND	mg/L	0.10	340.2	NA	12 JUL 95
Nitrate as N	ND	mg/L	0.10	300.0	NA	12 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Roxanne Sullivan

Quanterra
Environmental Services

SAMPLE DESCRIPTION INFORMATION
for
IT Corporation

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
043324-0001-SA	SBG011	SOIL	11 JUL 95	08:10	12 JUL 95
043324-0002-SA	SBG012	SOIL	11 JUL 95	08:30	12 JUL 95
043324-0003-SA	SBG041	SOIL	11 JUL 95	08:55	12 JUL 95
043324-0003-MS	SBG041MS	SOIL	11 JUL 95	08:55	12 JUL 95
043324-0003-SD	SBG041SD	SOIL	11 JUL 95	08:55	12 JUL 95
043324-0004-SA	SBG042	SOIL	11 JUL 95	09:15	12 JUL 95
043324-0005-SA	SBM061	SOIL	11 JUL 95	09:50	12 JUL 95
043324-0006-SA	SBM062	SOIL	11 JUL 95	10:30	12 JUL 95
043324-0007-SA	SDUPL1	SOIL	11 JUL 95	08:30	12 JUL 95
043324-0008-SA	SBM081	SOIL	11 JUL 95	12:50	12 JUL 95
043324-0009-SA	SBM082	SOIL	11 JUL 95	13:15	12 JUL 95
043324-0010-SA	SBM091	SOIL	11 JUL 95	15:45	12 JUL 95
043324-0011-SA	SBM092	SOIL	11 JUL 95	15:55	12 JUL 95
043324-0012-SA	SDUPL2	SOIL	11 JUL 95	15:45	12 JUL 95
043324-0013-RB	RIWTP2	WATER-QA	11 JUL 95	16:30	12 JUL 95

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SBG011
Lab ID: 043324-0001-SA
Matrix: SOIL
Authorized: 12 JUL 95

Sampled: 11 JUL 95
Prepared: See Below

Received: 12 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	11.9	mg/kg	1.0	7196/6010	NA	20 JUL 95
Chromium (VI)	2.7	mg/kg	0.50	7196	NA	14 JUL 95 t
Fluoride	1.6	mg/kg	0.50	340.2 Mod.	13 JUL 95	18 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	13 JUL 95	14 JUL 95

Note t : Sample diluted due to the concentration of target compounds.

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Jody Tolle

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SBG012
Lab ID: 043324-0002-SA
Matrix: SOIL
Authorized: 12 JUL 95

Sampled: 11 JUL 95
Prepared: See Below

Received: 12 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	10.7	mg/kg	1.0	7196/6010	NA	20 JUL 95
Chromium (VI)	ND	mg/kg	0.050	7196	NA	14 JUL 95
Fluoride	2.2	mg/kg	0.50	340.2 Mod.	13 JUL 95	18 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	13 JUL 95	14 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Jody Tolle

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SBG041
Lab ID: 043324-0003-SA
Matrix: SOIL
Authorized: 12 JUL 95

Sampled: 11 JUL 95
Prepared: See Below

Received: 12 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	27.6	mg/kg	1.0	7196/6010	NA	20 JUL 95
Chromium (VI)	0.10	mg/kg	0.050	7196	NA	14 JUL 95
Fluoride	10.4	mg/kg	0.50	340.2 Mod.	13 JUL 95	18 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	13 JUL 95	14 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Jody Tolle

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SBG042
Lab ID: 043324-0004-SA
Matrix: SOIL
Authorized: 12 JUL 95

Sampled: 11 JUL 95
Prepared: See Below

Received: 12 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	8.9	mg/kg	1.0	7196/6010	NA	20 JUL 95
Chromium (VI)	ND	mg/kg	0.050	7196	NA	14 JUL 95
Fluoride	1.5	mg/kg	0.50	340.2 Mod.	13 JUL 95	18 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	13 JUL 95	14 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Jody Tolle

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SBM061
Lab ID: 043324-0005-SA
Matrix: SOIL
Authorized: 12 JUL 95

Sampled: 11 JUL 95
Prepared: See Below

Received: 12 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	25.2	mg/kg	1.0	7196/6010	NA	20 JUL 95
Chromium (VI)	0.29	mg/kg	0.050	7196	NA	14 JUL 95
Fluoride	1.9	mg/kg	0.50	340.2 Mod.	13 JUL 95	18 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	13 JUL 95	14 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Jody Tolle

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SBM062
Lab ID: 043324-0006-SA
Matrix: SOIL
Authorized: 12 JUL 95

Sampled: 11 JUL 95
Prepared: See Below

Received: 12 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	7.6	mg/kg	1.0	7196/6010	NA	20 JUL 95
Chromium (VI)	ND	mg/kg	0.050	7196	NA	14 JUL 95
Fluoride	0.76	mg/kg	0.50	340.2 Mod.	13 JUL 95	18 JUL 95
Nitrate as N	3.5	mg/kg	2.5	300.0 Mod.	13 JUL 95	14 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Jody Tolle

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SDUPL1
Lab ID: 043324-0007-SA
Matrix: SOIL
Authorized: 12 JUL 95

Sampled: 11 JUL 95
Prepared: See Below

Received: 12 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	7.9	mg/kg	2.0	7196/6010	NA	20 JUL 95
Chromium (VI)	ND	mg/kg	0.050	7196	NA	14 JUL 95
Fluoride	1.6	mg/kg	0.50	340.2 Mod.	13 JUL 95	18 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	13 JUL 95	14 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Jody Tolle

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SBM081
Lab ID: 043324-0008-SA
Matrix: SOIL
Authorized: 12 JUL 95

Sampled: 11 JUL 95
Prepared: See Below

Received: 12 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	408	mg/kg	2.0	7196/6010	NA	20 JUL 95
Chromium (VI)	ND	mg/kg	0.050	7196	NA	14 JUL 95
Fluoride	5.5	mg/kg	0.50	340.2 Mod.	13 JUL 95	18 JUL 95
Nitrate as N	13.1	mg/kg	2.5	300.0 Mod.	13 JUL 95	14 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Jody Tolle

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SBM082
Lab ID: 043324-0009-SA
Matrix: SOIL
Authorized: 12 JUL 95

Sampled: 11 JUL 95
Prepared: See Below

Received: 12 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	9.2	mg/kg	1.0	7196/6010	NA	20 JUL 95
Chromium (VI)	ND	mg/kg	0.050	7196	NA	14 JUL 95
Fluoride	1.5	mg/kg	0.50	340.2 Mod.	13 JUL 95	18 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	13 JUL 95	14 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Jody Tolle

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SBM091
Lab ID: 043324-0010-SA
Matrix: SOIL
Authorized: 12 JUL 95

Sampled: 11 JUL 95
Prepared: See Below

Received: 12 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	11.5	mg/kg	1.0	7196/6010	NA	20 JUL 95
Chromium (VI)	0.71	mg/kg	0.10	7196	NA	14 JUL 95 G
Fluoride	1.2	mg/kg	0.50	340.2 Mod.	13 JUL 95	18 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	13 JUL 95	14 JUL 95

Note G : Reporting limit raised due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Jody Tolle

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SBM092
Lab ID: 043324-0011-SA
Matrix: SOIL
Authorized: 12 JUL 95

Sampled: 11 JUL 95
Prepared: See Below

Received: 12 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	7.9	mg/kg	1.0	7196/6010	NA	20 JUL 95
Chromium (VI)	ND	mg/kg	0.050	7196	NA	14 JUL 95
Fluoride	4.0	mg/kg	0.50	340.2 Mod.	13 JUL 95	18 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	13 JUL 95	14 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Jody Tolle

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SDUPL2
Lab ID: 043324-0012-SA
Matrix: SOIL
Authorized: 12 JUL 95

Sampled: 11 JUL 95
Prepared: See Below

Received: 12 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	11.4	mg/kg	1.0	7196/6010	NA	20 JUL 95
Chromium (VI)	ND	mg/kg	0.050	7196	NA	14 JUL 95
Fluoride	3.4	mg/kg	0.50	340.2 Mod.	13 JUL 95	18 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	13 JUL 95	14 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Jody Tolle

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: RIWTP2
Lab ID: 043324-0013-RB
Matrix: WATER-QA
Authorized: 12 JUL 95

Sampled: 11 JUL 95
Prepared: See Below

Received: 12 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	ND	mg/L		7196/6010	NA	20 JUL 95
Chromium (VI)	ND	mg/L	0.010	7196	NA	12 JUL 95
Fluoride	ND	mg/L	0.10	340.2	NA	18 JUL 95
Nitrate as N	ND	mg/L	0.10	300.0	NA	12 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Jody Tolle

Quanterra
Environmental Services

SAMPLE DESCRIPTION INFORMATION
for
IT Corporation

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
043352-0001-SA	SBKG11	SOIL	12 JUL 95	08:50	13 JUL 95
043352-0002-SA	SBKG12	SOIL	12 JUL 95	09:00	13 JUL 95
043352-0003-SA	SBKG21	SOIL	12 JUL 95	10:00	13 JUL 95
043352-0004-SA	SBKG22	SOIL	12 JUL 95	10:10	13 JUL 95
043352-0005-SA	SBKG31	SOIL	12 JUL 95	10:45	13 JUL 95
043352-0006-SA	SBKG32	SOIL	12 JUL 95	10:55	13 JUL 95
043352-0007-SA	SDUPL3	SOIL	12 JUL 95	10:10	13 JUL 95
043352-0008-RB	RIWTP3	WATER-QA	12 JUL 95	12:30	13 JUL 95

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SBKG11
Lab ID: 043352-0001-SA
Matrix: SOIL
Authorized: 13 JUL 95

Sampled: 12 JUL 95
Prepared: See Below

Received: 13 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	11.6	mg/kg	1.0	7196/6010	NA	21 JUL 95
Chromium (VI)	ND	mg/kg	0.050	7196	NA	17 JUL 95
Fluoride	0.56	mg/kg	0.50	340.2 Mod.	17 JUL 95	20 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	17 JUL 95	17 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Jody Tolle

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SBKG12
Lab ID: 043352-0002-SA
Matrix: SOIL
Authorized: 13 JUL 95

Sampled: 12 JUL 95
Prepared: See Below

Received: 13 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	9.8	mg/kg	1.0	7196/6010	NA	21 JUL 95
Chromium (VI)	ND	mg/kg	0.050	7196	NA	17 JUL 95
Fluoride	1.7	mg/kg	0.50	340.2 Mod.	17 JUL 95	20 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	17 JUL 95	17 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Jody Tolle

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SBKG21
Lab ID: 043352-0003-SA
Matrix: SOIL
Authorized: 13 JUL 95

Sampled: 12 JUL 95
Prepared: See Below

Received: 13 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	12.3	mg/kg	1.0	7196/6010	NA	21 JUL 95 G
Chromium (VI)	0.42	mg/kg	0.10	7196	NA	17 JUL 95
Fluoride	2.7	mg/kg	0.50	340.2 Mod.	17 JUL 95	20 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	17 JUL 95	17 JUL 95

Note G : Reporting limit raised due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Jody Tolle

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SBKG22
Lab ID: 043352-0004-SA
Matrix: SOIL
Authorized: 13 JUL 95

Sampled: 12 JUL 95
Prepared: See Below

Received: 13 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	6.4	mg/kg	2.0	7196/6010	NA	21 JUL 95
Chromium (VI)	ND	mg/kg	0.050	7196	NA	17 JUL 95
Fluoride	3.3	mg/kg	0.50	340.2 Mod.	17 JUL 95	20 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	17 JUL 95	17 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Jody Tolle

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SBKG31
Lab ID: 043352-0005-SA
Matrix: SOIL
Authorized: 13 JUL 95

Sampled: 12 JUL 95
Prepared: See Below

Received: 13 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	13.8	mg/kg	1.0	7196/6010	NA	21 JUL 95 G
Chromium (VI)	0.36	mg/kg	0.25	7196	NA	17 JUL 95
Fluoride	0.84	mg/kg	0.50	340.2 Mod.	17 JUL 95	20 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	17 JUL 95	17 JUL 95

Note G : Reporting limit raised due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Jody Tolle

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SBKG32
Lab ID: 043352-0006-SA
Matrix: SOIL
Authorized: 13 JUL 95

Sampled: 12 JUL 95
Prepared: See Below

Received: 13 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	8.8	mg/kg	1.0	7196/6010	NA	21 JUL 95
Chromium (VI)	ND	mg/kg	0.050	7196	NA	17 JUL 95
Fluoride	1.6	mg/kg	0.50	340.2 Mod.	17 JUL 95	20 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	17 JUL 95	17 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Jody Tolle

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SDUPL3
Lab ID: 043352-0007-SA
Matrix: SOIL
Authorized: 13 JUL 95

Sampled: 12 JUL 95
Prepared: See Below

Received: 13 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	7.8	mg/kg	1.0	7196/6010	NA	21 JUL 95
Chromium (VI)	ND	mg/kg	0.050	7196	NA	17 JUL 95
Fluoride	2.9	mg/kg	0.50	340.2 Mod.	17 JUL 95	20 JUL 95
Nitrate as N	ND	mg/kg	2.5	300.0 Mod.	17 JUL 95	17 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Jody Tolle

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: RIWTP3
Lab ID: 043352-0008-RB
Matrix: WATER-QA
Authorized: 13 JUL 95

Sampled: 12 JUL 95
Prepared: See Below

Received: 13 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	ND	mg/L	0.010	7196/6010	NA	21 JUL 95
Chromium (VI)	ND	mg/L	0.010	7196	NA	13 JUL 95
Fluoride	ND	mg/L	0.10	340.2	NA	18 JUL 95
Nitrate as N	ND	mg/L	0.10	300.0	NA	13 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Jody Tolle

Quanterra
Environmental Services

SAMPLE DESCRIPTION INFORMATION
for
IT Corporation

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
043390-0001-SA	GMW011	AQUEOUS	13 JUL 95	12:25	14 JUL 95

Quanterra Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: GMW011
Lab ID: 043390-0001-SA
Matrix: AQUEOUS
Authorized: 14 JUL 95

Sampled: 13 JUL 95
Prepared: See Below

Received: 14 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	ND	mg/L	0.010	7196/6010	NA	20 JUL 95
Chromium (VI)	ND	mg/L	0.010	7196	NA	14 JUL 95
Fluoride	0.17	mg/L	0.10	340.2	NA	18 JUL 95
Nitrate as N	67.0	mg/L	0.20	300.0	NA	14 JUL 95 t

Note t : Sample diluted due to the concentration of target compounds.

ND = Not detected
NA = Not applicable

Reported By: Rodney Smith

Approved By: Jody Tolle

Quanterra
Environmental Services

SAMPLE DESCRIPTION INFORMATION
for
IT Corporation

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
043417-0001-SA	GMW021	AQUEOUS	14 JUL 95	11:30	15 JUL 95
043417-0002-SA	GDUPL01	AQUEOUS	14 JUL 95	11:30	15 JUL 95
043417-0003-SA	GMW031	AQUEOUS	14 JUL 95	11:50	15 JUL 95
043417-0004-SA	GMW041	AQUEOUS	14 JUL 95	12:00	15 JUL 95
043417-0004-MS	GMW041MS/MSD	AQUEOUS	14 JUL 95	12:00	15 JUL 95
043417-0004-SD	GMW041MS/MSD	AQUEOUS	14 JUL 95	12:00	15 JUL 95
043417-0005-SA	GMW051	AQUEOUS	14 JUL 95	12:25	15 JUL 95
043417-0006-SA	GWP1	AQUEOUS	14 JUL 95	13:30	15 JUL 95
043417-0007-SA	SWP1	SOIL	14 JUL 95	13:45	15 JUL 95

Quanterra
Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: GMW021
Lab ID: 043417-0001-SA
Matrix: AQUEOUS
Authorized: 15 JUL 95

Sampled: 14 JUL 95
Prepared: See Below

Received: 15 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	0.069	mg/L	0.010	7196/6010	NA	24 JUL 95
Chromium (VI)	ND	mg/L	0.010	7196	NA	15 JUL 95
Fluoride	0.59	mg/L	0.10	340.2	NA	18 JUL 95
Nitrate as N	0.29	mg/L	0.10	300.0	NA	15 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Judy Lange

Approved By: Jody Tolle

Quanterra
Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: GDUPL01
Lab ID: 043417-0002-SA
Matrix: AQUEOUS
Authorized: 15 JUL 95

Sampled: 14 JUL 95
Prepared: See Below

Received: 15 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	0.056	mg/L	0.010	7196/6010	NA	24 JUL 95
Chromium (VI)	ND	mg/L	0.010	7196	NA	15 JUL 95
Fluoride	0.61	mg/L	0.10	340.2	NA	18 JUL 95
Nitrate as N	0.35	mg/L	0.10	300.0	NA	15 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Judy Lange

Approved By: Jody Tolle

Quanterra
Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: GMW031
Lab ID: 043417-0003-SA
Matrix: AQUEOUS
Authorized: 15 JUL 95

Sampled: 14 JUL 95
Prepared: See Below

Received: 15 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	0.10	mg/L	0.010	7196/6010	NA	24 JUL 95
Chromium (VI)	ND	mg/L	0.050	7196	NA	15 JUL 95
Fluoride	0.13	mg/L	0.10	340.2	NA	18 JUL 95
Nitrate as N	4.9	mg/L	0.10	300.0	NA	15 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Judy Lange

Approved By: Jody Tolle

Quanterra
Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: GMW041
Lab ID: 043417-0004-SA
Matrix: AQUEOUS
Authorized: 15 JUL 95

Sampled: 14 JUL 95
Prepared: See Below

Received: 15 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	0.017	mg/L	0.010	7196/6010	NA	24 JUL 95
Chromium (VI)	ND	mg/L	0.010	7196	NA	15 JUL 95
Fluoride	0.38	mg/L	0.10	340.2	NA	18 JUL 95
Nitrate as N	1.9	mg/L	0.10	300.0	NA	15 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Judy Lange

Approved By: Jody Tolle

Quanterra
Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: GMW051
Lab ID: 043417-0005-SA
Matrix: AQUEOUS
Authorized: 15 JUL 95

Sampled: 14 JUL 95
Prepared: See Below

Received: 15 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium III	ND	mg/L	0.010	7196/6010	NA	24 JUL 95
Chromium (VI)	1.1	mg/L	0.25	7196	NA	15 JUL 95
Fluoride	0.31	mg/L	0.10	340.2	NA	18 JUL 95
Nitrate as N	5.5	mg/L	0.10	300.0	NA	15 JUL 95

ND = Not detected
NA = Not applicable

Reported By: Judy Lange

Approved By: Jody Tolle

Quanterra
Environmental Services

Volatile Organic Toxicity Characteristic List
TCLP Leachate
Method 8240

Client Name: IT Corporation
Client ID: GWP1
Lab ID: 043417-0006-SA
Matrix: AQUEOUS

Sampled: 14 JUL 95
Received: 15 JUL 95
Authorized: 15 JUL 95

Leached: 19 JUL 95
Prepared: 24 JUL 95
Analyzed: 24 JUL 95

Parameter	Result	Units	Reporting Limit
Vinyl chloride	ND	mg/L	0.050
1,1-Dichloroethene	ND	mg/L	0.025
Chloroform	ND	mg/L	0.025
1,2-Dichloroethane	ND	mg/L	0.025
2-Butanone	ND	mg/L	0.050
Carbon tetrachloride	ND	mg/L	0.025
Trichloroethene	ND	mg/L	0.025
Benzene	ND	mg/L	0.025
Tetrachloroethene	ND	mg/L	0.025
Chlorobenzene	ND	mg/L	0.025

Surrogate	Recovery	
Toluene-d8	98	%
4-Bromofluorobenzene	98	%
1,2-Dichloroethane-d4	108	%

ND = Not detected
NA = Not applicable

Reported By: Sandra Jones

Approved By: Audrey Cornell

Quanterra
Environmental Services

Volatile Organic Toxicity Characteristic List
TCLP Leachate
Method 8240

Client Name: IT Corporation
Client ID: SWP1
Lab ID: 043417-0007-SA
Matrix: SOIL

Sampled: 14 JUL 95
Received: 15 JUL 95
Authorized: 15 JUL 95

Leached: 19 JUL 95
Prepared: 24 JUL 95
Analyzed: 24 JUL 95

Parameter		Result	Units	Reporting Limit
Vinyl chloride	-	ND	mg/L	0.050
1,1-Dichloroethene		ND	mg/L	0.025
Chloroform		ND	mg/L	0.025
1,2-Dichloroethane		ND	mg/L	0.025
2-Butanone		ND	mg/L	0.050
Carbon tetrachloride		ND	mg/L	0.025
Trichloroethene		ND	mg/L	0.025
Benzene		ND	mg/L	0.025
Tetrachloroethene		ND	mg/L	0.025
Chlorobenzene		ND	mg/L	0.025

Surrogate	Recovery	
Toluene-d8	100	%
4-Bromofluorobenzene	101	%
1,2-Dichloroethane-d4	105	%

ND = Not detected
NA = Not applicable

Reported By: Sandra Jones

Approved By: Audrey Cornell

Quanterra
Environmental Services

Semivolatile Organic Toxicity Characteristic List
TCLP Leachate
Method 8270

Client Name: IT Corporation
Client ID: GWP1
Lab ID: 043417-0006-SA
Matrix: AQUEOUS

Sampled: 14 JUL 95
Received: 15 JUL 95
Authorized: 15 JUL 95

Leached: 19 JUL 95
Prepared: 20 JUL 95
Analyzed: 28 JUL 95

Parameter	Result	Units	Reporting Limit
Pyridine	ND	mg/L	0.10
1,4-Dichlorobenzene	ND	mg/L	0.050
2-Methylphenol	ND	mg/L	0.050
3/4-Methylphenol	ND	mg/L	0.050
Hexachloroethane	ND	mg/L	0.050
Nitrobenzene	ND	mg/L	0.050
Hexachlorobutadiene	ND	mg/L	0.050
2,4,6-Trichlorophenol	ND	mg/L	0.050
2,4,5-Trichlorophenol	ND	mg/L	0.25
2,4-Dinitrotoluene	ND	mg/L	0.050
Hexachlorobenzene	ND	mg/L	0.050
Pentachlorophenol	ND	mg/L	0.25

Surrogate	Recovery	
Nitrobenzene-d5	74	%
2-Fluorobiphenyl	70	%
Terphenyl-d14	93	%
Phenol-d5	70	%
2-Fluorophenol	69	%
2,4,6-Tribromophenol	81	%

ND = Not detected
NA = Not applicable

Reported By: Shawn Kassner

Approved By: Audrey Cornell

Quanterra
Environmental Services

Semivolatile Organic Toxicity Characteristic List
TCLP Leachate
Method 8270

Client Name: IT Corporation
Client ID: SWP1
Lab ID: 043417-0007-SA
Matrix: SOIL

Sampled: 14 JUL 95
Received: 15 JUL 95
Authorized: 15 JUL 95

Leached: 19 JUL 95
Prepared: 20 JUL 95
Analyzed: 28 JUL 95

Parameter	Result	Units	Reporting Limit
Pyridine	ND	mg/L	0.10
1,4-Dichlorobenzene	ND	mg/L	0.050
2-Methylphenol	ND	mg/L	0.050
3/4-Methylphenol	ND	mg/L	0.050
Hexachloroethane	ND	mg/L	0.050
Nitrobenzene	ND	mg/L	0.050
Hexachlorobutadiene	ND	mg/L	0.050
2,4,6-Trichlorophenol	ND	mg/L	0.050
2,4,5-Trichlorophenol	ND	mg/L	0.25
2,4-Dinitrotoluene	ND	mg/L	0.050
Hexachlorobenzene	ND	mg/L	0.050
Pentachlorophenol	ND	mg/L	0.25

Surrogate	Recovery	
Nitrobenzene-d5	78	%
2-Fluorobiphenyl	75	%
Terphenyl-d14	96	%
Phenol-d5	79	%
2-Fluorophenol	77	%
2,4,6-Tribromophenol	94	%

ND = Not detected
NA = Not applicable

Reported By: Shawn Kassner

Approved By: Audrey Cornell

Quanterra
Environmental Services

Chlorinated Pesticides Organic Toxicity Characteristic List
TCLP Leachate
Method 8080

Client Name: IT Corporation
Client ID: GWP1
Lab ID: 043417-0006-SA
Matrix: AQUEOUS

Sampled: 14 JUL 95
Received: 15 JUL 95
Authorized: 15 JUL 95

Leached: 19 JUL 95
Prepared: 25 JUL 95
Analyzed: 27 JUL 95

Parameter	Result	Units	Reporting Limit
gamma-BHC (Lindane)	ND	mg/L	0.00050
Chlordane	ND	mg/L	0.0050
Endrin	ND	mg/L	0.0010
Heptachlor (and its epoxide)	ND	mg/L	0.00050
Methoxychlor	ND	mg/L	0.0050
Toxaphene	ND	mg/L	0.050

Surrogate	Recovery	
Dibutyl chlorendate	101	%
Decachlorobiphenyl	113	%
Tetrachloro-m-xylene	83	%

ND = Not detected
NA = Not applicable

Reported By: Houa Vue

Approved By: Audrey Cornell

Quanterra
Environmental Services

Chlorinated Pesticides Organic Toxicity Characteristic List
TCLP Leachate
Method 8080

Client Name: IT Corporation
Client ID: SWP1
Lab ID: 043417-0007-SA
Matrix: SOIL

Sampled: 14 JUL 95
Received: 15 JUL 95
Authorized: 15 JUL 95

Leached: 19 JUL 95
Prepared: 25 JUL 95
Analyzed: 27 JUL 95

Parameter	Result	Units	Reporting Limit
gamma-BHC (Lindane)	ND	mg/L	0.00050
Chlordane	ND	mg/L	0.0050
Endrin	ND	mg/L	0.0010
Heptachlor (and its epoxide)	ND	mg/L	0.00050
Methoxychlor	ND	mg/L	0.0050
Toxaphene	ND	mg/L	0.050

Surrogate	Recovery	
Dibutyl chlorendate	96	%
Decachlorobiphenyl	110	%
Tetrachloro-m-xylene	82	%

ND = Not detected
NA = Not applicable

Reported By: Houa Vue

Approved By: Audrey Cornell

Quanterra
Environmental Services

Herbicides Organic Toxicity Characteristic List
TCLP Leachate
Method 8150

Client Name: IT Corporation
Client ID: GWP1
Lab ID: 043417-0006-SA
Matrix: AQUEOUS

Sampled: 14 JUL 95
Received: 15 JUL 95
Authorized: 15 JUL 95

Leached: 19 JUL 95
Prepared: 26 JUL 95
Analyzed: 28 JUL 95

Parameter	Result	Units	Reporting Limit
2,4-D	ND	mg/L	0.0050
2,4,5-TP (Silvex)	ND	mg/L	0.0010

Surrogate	Recovery	
DCAA	NC	%

ND = Not detected
NA = Not applicable

Reported By: Joseph Aten

Approved By: Audrey Cornell

Quanterra
Environmental Services

Herbicides Organic Toxicity Characteristic List
TCLP Leachate
Method 8150

Client Name: IT Corporation
Client ID: SWP1
Lab ID: 043417-0007-SA
Matrix: SOIL

Sampled: 14 JUL 95
Received: 15 JUL 95
Authorized: 15 JUL 95

Leached: 19 JUL 95
Prepared: 26 JUL 95
Analyzed: 28 JUL 95

Parameter	Result	Units	Reporting Limit
2,4-D	ND	mg/L	0.0050
2,4,5-TP (Silvex)	ND	mg/L	0.0010

Surrogate	Recovery	
DCAA	81	%

ND = Not detected
NA = Not applicable

Reported By: Joseph Aten

Approved By: Audrey Cornell

Quanterra
Environmental Services

Toxicity Characteristic Metals
TCLP Leachate

Client Name: IT Corporation
Client ID: GWP1
Lab ID: 043417-0006-SA
Matrix: AQUEOUS

Sampled: 14 JUL 95
Received: 15 JUL 95
Authorized: 15 JUL 95

Leached: 19 JUL 95
Prepared: See Below
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Arsenic	ND	mg/L	0.10	6010	20 JUL 95	21 JUL 95	
Barium	0.81	mg/L	0.010	6010	20 JUL 95	21 JUL 95	B
Cadmium	ND	mg/L	0.010	6010	20 JUL 95	21 JUL 95	
Chromium	ND	mg/L	0.010	6010	20 JUL 95	21 JUL 95	
Lead	ND	mg/L	0.050	6010	20 JUL 95	21 JUL 95	
Mercury	ND	mg/L	0.00040	7470	21 JUL 95	21 JUL 95	
Selenium	ND	mg/L	0.20	6010	20 JUL 95	21 JUL 95	
Silver	ND	mg/L	0.010	6010	20 JUL 95	21 JUL 95	

Note B : Compound is also detected in the blank.

ND = Not detected
NA = Not applicable

Reported By: Norma Baier

Approved By: Richard Persichitte

Quanterra
Environmental Services

Toxicity Characteristic Metals
TCLP Leachate

Client Name: IT Corporation
Client ID: SWP1
Lab ID: 043417-0007-SA
Matrix: SOIL

Sampled: 14 JUL 95
Received: 15 JUL 95
Authorized: 15 JUL 95

Leached: 19 JUL 95
Prepared: See Below
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Arsenic	ND	mg/L	0.10	6010	20 JUL 95	21 JUL 95	
Barium	1.0	mg/L	0.010	6010	20 JUL 95	21 JUL 95	B
Cadmium	ND	mg/L	0.010	6010	20 JUL 95	21 JUL 95	
Chromium	ND	mg/L	0.010	6010	20 JUL 95	21 JUL 95	
Lead	ND	mg/L	0.050	6010	20 JUL 95	21 JUL 95	
Mercury	ND	mg/L	0.00040	7470	21 JUL 95	21 JUL 95	
Selenium	ND	mg/L	0.20	6010	20 JUL 95	21 JUL 95	
Silver	ND	mg/L	0.010	6010	20 JUL 95	21 JUL 95	

Note B : Compound is also detected in the blank.

ND = Not detected
NA = Not applicable

Reported By: Norma Baier

Approved By: Richard Persichitte

Quanterra
Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: GWP1
Lab ID: 043417-0006-SA
Matrix: AQUEOUS
Authorized: 15 JUL 95

Sampled: 14 JUL 95
Prepared: See Below

Received: 15 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Reactive	ND	mg/L	0.10	EPA/OSW	NA	20 JUL 95
Ignitability	>160	deg F	--	1010	NA	19 JUL 95 o
pH	8.3	units	--	9040	NA	15 JUL 95
Sulfide, Reactive	ND	mg/L	0.50	EPA/OSW	NA	20 JUL 95

Note o : This test is unreliable for any sample other than a non-aqueous liquid.

ND = Not detected
NA = Not applicable

Reported By: Damon Lona

Approved By: Jody Tolle

Quanterra
Environmental Services

General Inorganics

Client Name: IT Corporation
Client ID: SWP1
Lab ID: 043417-0007-SA
Matrix: SOIL
Authorized: 15 JUL 95

Sampled: 14 JUL 95
Prepared: See Below

Received: 15 JUL 95
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Reactive	ND	mg/kg	0.10	EPA/OSW	NA	19 JUL 95
Ignitability	>160	deg F	--	1010	NA	19 JUL 95 o
pH	7.8	units	--	9045	17 JUL 95	17 JUL 95
Sulfide, Reactive	ND	mg/kg	0.50	EPA/CSW	NA	20 JUL 95

Note o : This test is unreliable for any sample other than a non-aqueous liquid.

ND = Not detected
NA = Not applicable

Reported By: Damon Lona

Approved By: Jody Tolle

Weston Environmental Metrics, Inc.
2417 Bond Street
University Park, Illinois 60466-3182
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533
Fax: (708) 534-5211

To: IT Corp.-Cincinnati

11499 Chester Road
Cincinnati, OH 45246

Attn: Mr. Paul McCarren

Date: Wednesday August 2nd, 1995

RE: GMW051D
Project # 00000-000-000-0000
Lab ID: 9507G036-001
Sample Date: 07/14/95
Date Received: 07/15/95

Inorganic Data Report

Parameters	Result	Units	Reporting Limit
Chromium III	0.12	mg/L	0.020
Chromium VI	0.94	mg/L	0.020
Fluoride	0.36	mg/L	0.10

Weston

Attachment 1

Data Validation Report