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PRELIMINARY ASSESSMENT LETTER REPORT FOR AREA OF CONCERN 2 SOLID
WASTE MANAGEMENT UNIT 1 CSS PANAMA CITY FL
9/27/2002
TETRA TECH

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September 27, 2002

Project Number 4221

Ms. Tracie Vaught
Florida Dept. of Environmental Protection
Twin Towers Office Bldg.
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Reference: Clean Contract No. N62467-94-D0888
Contract Task Order No. 0240

Subject: Preliminary Assessment Report
Area of Concern 2/Solid Waste Management Unit 1
Coastal Systems Station Panama City
Panama City, Florida

Dear Ms. Vaught:

Tetra Tech NUS, Inc. (TtNUS) is pleased to submit this Preliminary Assessment Letter Report for petroleum contamination at Area of Concern 2 (AOC2)/Solid Waste Management Unit 1 (SWMU1) at Coastal Systems Station (CSS) Panama City, in Panama City, Florida. This report documents site activities performed by TtNUS from May 13 through August 21, 2002 for the U.S. Navy, Southern Division Naval Facilities Engineering Command. This work was performed under Contract Task Order (CTO) 0240, under the Comprehensive Long-Term Environmental Action Navy (CLEAN III), Contract Number N62467-94-D-0888.

PURPOSE AND SCOPE

The Preliminary Site Assessment discussed in this report was conducted at the area of Coastal Systems Station (CSS) Panama City designated as AOC2/SWMU1. This investigation was a continuation of ongoing site assessment activities at AOC2/SWMU1. The purpose of the additional site assessment was to continue to evaluate the extent of petroleum contamination that had been detected during previous investigations in the area designated as AOC2/SWMU1. The additional site assessment field activities included:

1. Advancing soil borings with a direct push testing (DPT) rig to collect soil samples for headspace screening and lithologic logging.
2. Screening selected soil samples collected from the soil borings using an onsite mobile laboratory.
3. Screening groundwater samples collected from the soil borings using an onsite mobile laboratory.
4. Installing monitoring wells to evaluate the extent dissolved hydrocarbons at the site.
5. Surveying the top of casing (TOC) elevations of the new monitoring wells and measuring water and free product levels in the new wells.

SITE DESCRIPTION AND HISTORY

According to the RCRA Facility Investigation Report (ABB Environmental Services Inc., RCRA Facility Investigation, 1995), AOC2 consists of a former aboveground storage tank (Tank 11) and its associated transfer piping. The tank was constructed in 1943 and was originally used to store diesel fuel unloaded from barges at the South Dock. Underground transfer lines were used to distribute fuel from the tank to other vessels. Approximately 50,000 gallons of diesel fuel were lost from the tank system in 1953. The exact location of the leak, and whether or not the underground piping had failed, was unknown. The former tank was refurbished in 1957 by complete dismantling, cleaning, and re-assembly with new bolts and gaskets, and replacement of 28 bottom plates. The tank was then used to store gasoline, aviation fuel, diesel fuel, and waste oil. Numerous small leaks, primarily at the tank seams, were reported to have occurred both before and after the tank had been refurbished. In the mid 1960s, an estimated 10,000 gallons of oil was released from ruptured fuel transfer lines located between the dock and storage tank. Following the rupture, seepage of diesel oil was observed in Alligator Bayou at the South Dock's steel bulkhead. The tank was removed in 1979. Transfer piping from the tank wall to an earthen berm was removed. The earthen berm provided secondary containment at a distance of 60 feet around the tank. The remaining piping was capped and abandoned in place.

Assessment work at the site has focussed on evaluating the source of a fuel release detected by CSS personnel in Alligator Bayou in July 1997. According to CSS personnel, the fuel release observed entering Alligator Bayou in July 1997 was from a storm water drain which has an outfall located within the concrete seawall of the West Dock.

A DPT investigation was conducted in May 1998. Monitoring well installation and sampling was conducted in September and October 1998. A Preliminary Assessment Report (PAR) was submitted in December 1998. Additional soil and groundwater sampling was conducted in August and September 1999. A PAR Addendum was submitted in November 1999. The PAR Addendum recommended that Site 333 and AOC2 be combined into one site investigation and that a closure assessment be performed on the AOC2 product line and additional assessment be performed to delineate the extent of free product.

Additional assessment activities were conducted in August 2000. A PAR was submitted in September 2000. The PAR indicated that the dissolved hydrocarbon plume and free product plume were more extensive than originally estimated. The PAR recommended that a pipeline closure assessment be conducted, followed by additional groundwater assessment to delineate the extent of free product and dissolved hydrocarbons.

A geophysical survey was conducted by Florida Spill Response Corporation (FSRC) in February 2001 to locate buried portions of the fuel lines associated with Tank 11. The survey identified an abandoned 6 inch transfer line and two 3 inch transfer lines. Following the geophysical survey, the ends of the identified pipelines were excavated for cleaning and capping. During the pipeline cleaning process, a vacuum truck was used to remove the contents of lines. Water was recovered from the 6 inch transfer line, but no petroleum product was present. One of the two 3 inch transfer lines was empty but the other 3 inch line contained approximately 100 gallons of diesel fuel. The exposed ends of the pipelines were grouted and the excavations filled.

Following the pipeline cleaning, a closure assessment was conducted on the portions of the pipeline identified during the geophysical survey. A Pipeline Closure Assessment Report (PCAR) was submitted to the Bay County Health Department in December, 2001. The PCAR indicated that petroleum products' contaminants of concern exceeded the target levels in soil and groundwater in the vicinity of the former location of Tank 11. The PCAR concluded that the contamination was likely the result of releases from Tank 11 and not associated with the transfer lines. The PCAR recommended that additional assessment be conducted to delineate the petroleum impacted soil and groundwater in the vicinity of Tank 11.

SUBSURFACE INVESTIGATION METHODS

Quality Assurance

The preliminary assessment at AOC2/SWMU1 was conducted in accordance with the Standard Operating Procedures prescribed by the FDEP Quality Assurance Section Document DER-001/92, and adopted by the TtNUS Comprehensive Quality Assurance Plan (CQAP) Number 980038. Soil and groundwater sampling equipment was decontaminated and quality assurance samples were collected as specified in the CQAP.

Direct-Push Soil Boring Investigation

In May, 2002, 37 soil borings (SB-01 through SB-37) were installed to further delineate the extent of petroleum impacted soil and groundwater at the site. Soil borings were advanced from ground surface to below the water table at each boring location. Buried utilities were investigated at each soil boring location by advancing the soil boring with a hand auger from 0 to 4 feet below land surface (bls). Soil samples were collected for soil headspace screening and lithologic description. Soil samples from the 0 to 4 feet bls interval were collected from the hand auger bucket. The soil borings were then advanced to total depth (TD) with a truck-mounted direct-push hydraulic soil probe. Soil samples from below 4 feet bls were collected with four-foot long steel soil core samplers with plastic liners. The soil core samplers were pushed in four-foot increments at each soil boring location until the water table was encountered. Soil boring locations are depicted on Figure 1.

Soil Logging

Descriptions of soil lithology, texture and color were logged for the soil samples from each boring location. Soil samples were visually inspected for evidence of staining or free product. Unusual odors from the soil samples were noted when detected. Soil moisture and approximate depth to saturated soil were also noted.

Head Space Screening

Soil samples were collected from each boring for headspace screening with an Organic Vapor Analyzer-Flame Ionization Detector (OVA-FID) in accordance with the methods specified in Chapter 62-770, 200(8), F.A.C. The soil samples were screened at 2-foot intervals from ground surface to the water table, which was usually encountered between 6 and 7 feet bls during this investigation. The results of the soil headspace screening are summarized in Table 1 and depicted on Figure 1.

Onsite Laboratory Soil Sampling and Analysis

Soil samples for onsite mobile laboratory analysis were collected from each soil boring based on OVA field screening data and depth to groundwater. One soil sample was collected at each boring location from the subsurface interval above the water table with the highest OVA response. The majority of the soil samples analyzed by the mobile laboratory were collected from the 4 to 6 foot bls interval, since groundwater was encountered at approximately 6 feet bls at most of the soil boring locations.

Soil samples were submitted to the onsite mobile laboratory to be analyzed for BTEX, naphthalene and MTBE. The results of the onsite mobile laboratory analysis of soil samples are summarized in Table 2 and depicted on Figure 1.

Preliminary review of the data suggested that another source area exists to the northwest of the site in the vicinity of Building 400. After some research it was discovered that a fuel dispensing facility was formerly located in this area (southeast of Building 400). As a result, TtNUS personnel returned to the site in June, 2002 to install 26 additional hand auger soil borings (HA-01 through HA-26) in the vicinity of Building 400. Soil samples were collected from these borings for headspace screening with an OVA-FID. The results of the soil headspace screening are summarized in Table 1 and depicted on Figure 1.

Direct-Push Groundwater Sampling Investigation

Following subsurface soil sampling, a temporary monitoring well constructed of 1/2 inch inside diameter (ID) polyvinyl chloride (PVC) well screen was immediately inserted into the open borehole to approximately ten feet bls. Sufficient Teflon tubing was inserted into each well to reach the bottom of the screen.

Groundwater samples were collected from the temporary wells with a peristaltic pump. New silicon and Teflon tubing were used for each groundwater sample. A small volume of water was pumped from the screen to reduce the amount of sediment in the sample. The groundwater samples were then pumped directly into 40-ml sample vials. The small volume of purge water generated during this investigation was placed in the decontamination pit and allowed to evaporate. Following groundwater sample collection, the temporary well materials were pulled and the soil borings were abandoned.

Groundwater samples were submitted to the onsite mobile laboratory to be analyzed for BTEX, naphthalene and MTBE. The results of the onsite mobile laboratory analysis of groundwater samples are summarized in Table 3 and depicted on Figure 2.

Monitoring Well Investigation

A total of 10 shallow monitoring wells and one deep monitoring well were installed in August, 2002 to further delineate the extent of the dissolved hydrocarbon plume at the site.

Shallow Monitoring Well Installation

The shallow monitoring wells were installed using a truck mounted drill rig equipped with 4.25-inch ID hollow stem augers. Each well was constructed of 2-inch inside diameter (ID), flush-threaded, schedule 40 polyvinyl chloride (PVC) riser and 0.010-inch slot well screen with a 6-inch point cap. The shallow wells were installed to approximately 12 to 13 feet bls with a 10-foot screen section. The shallow monitoring wells were designed so that the screened interval bracketed the water table. The annulus around each well was filled to approximately two feet above the top of the screen with US Standard Sieve size 20/30 silica sand, followed by a one foot 30/65 fine sand seal. The remainder of the annulus was grouted to the surface with a Type 1 Portland cement/bentonite slurry. Each well was secured with a locking, watertight cap within a steel, 8-inch diameter steel manhole. The manhole was set in a 24-inch square concrete apron finished slightly above grade. Monitoring well construction details are summarized on Table 4 and the monitoring well completion diagrams are provided in Attachment A.

Deep Monitoring Well Installation

A deep monitoring well was installed to provide water quality data from deeper within the surficial aquifer. To prevent cross contamination from shallower zones, a surface casing was installed from the ground surface to a total depth of 20 feet bls. The surface casing boring was drilled with a truck mounted drill rig and 8.25-inch ID hollow stem augers. A 6-inch, schedule 40 PVC surface casing was installed to 20 feet and grouted into place. The grout was allowed to cure over 24 hours before drilling was continued. The deep well boring was advanced through the

surface casing to a total depth of 35 feet using mud rotary drilling techniques. The well was constructed of 2-inch inside diameter (ID), flush-threaded, schedule 40 polyvinyl chloride (PVC) riser and 0.010-inch slot well screen with a 6-inch point cap. The deep well was installed to approximately 35 feet bls with a 5-foot screen section. The annulus around the well was filled to approximately two feet above the top of the screen with US Standard Sieve size 20/30 silica sand, followed by a three foot 30/65 fine sand seal. The remainder of the annulus was grouted to the surface. The well was secured with a locking, watertight cap within a steel, 8-inch diameter steel manhole. The manhole was set within a 24-inch square concrete apron finished slightly above grade. Monitoring well construction details are summarized on Table 4 and the monitoring well completion diagrams are provided in Attachment A.

Monitoring Well Groundwater Sampling

Groundwater samples were collected from the newly installed monitoring wells to evaluate groundwater quality in the shallow surficial aquifer. The groundwater samples were collected using the low-flow quiescent purging and sampling method. New Teflon tubing was installed in each well for groundwater sampling. Approximately five well volumes were removed from each well using a peristaltic pump and Teflon tubing. Temperature, pH, specific conductance, dissolved oxygen concentration, and sample turbidity were monitored while the wells were purged. The field measurements and well purge volumes were recorded during well purging and at the time of sample collection. Groundwater sample log sheets are provided in Attachment B.

Groundwater samples were collected from each monitoring well to be analyzed for VOAs (EPA Method 8260B), PAHs (EPA Method 8310), ethylene dibromide (EDB) by EPA Method 504.1, TRPH (FL-PRO) and Lead (EPA Method 6010A). The groundwater samples were placed on ice and shipped via Federal Express to Accutest Laboratories, Inc. in Orlando, Florida, for analysis. The fixed-base groundwater analytical results are summarized on Table 5 and depicted on Figure 3. Groundwater laboratory analytical reports are presented in Attachment C.

Free Product Evaluation and Groundwater Level Measurements

During the course of the site investigation, free product thickness and depth to groundwater were measured from TOC in the newly installed monitoring wells using an electronic oil/water level interface probe. No free product was detected in any of the newly installed monitoring wells. The water level measurements are summarized in Table 6 and depicted on Figure 4.

Following the surface completion of the permanent monitoring wells, TtNUS personnel surveyed the TOC elevation of the north rim of the well casing for each newly installed monitoring well. The TOC elevations were surveyed with an auto-level and surveying rod to the nearest 0.01-foot using the TOC elevation of an existing monitoring well as the reference datum. The water table elevations were calculated by subtracting the measured depth to water from the surveyed TOC elevation.

RESULTS OF INVESTIGATION

Data collected during this preliminary site investigation were used to evaluate current site conditions. Soil sampling results were compared to requirements of 62-770 F.A.C. for headspace screening, and soil cleanup target levels (SCTLs) for onsite laboratory analytical results. Groundwater screening and fixed-base laboratory analytical results were compared to the appropriate groundwater cleanup target levels (GCTLs).

Soil Investigation Results

The vertical and horizontal distribution of petroleum contaminated soil in the vadose zone was assessed through headspace screening and mobile laboratory analysis performed during the direct-push investigation.

Headspace Screening Results

Soil samples from 36 DPT soil borings and 26 hand auger locations were screened using headspace analysis techniques. The headspace screening results indicate that "excessively contaminated" soil (greater than 50 ppm for diesel constituents as defined by Chapter 62-770.200, F.A.C.) is present at the site. Headspace screening results exceeding 50 ppm were detected in vadose zone soil samples collected from 14 locations. Many of the soil samples collected from 6 to 8 feet bls had elevated headspace screening responses, however, these samples included soils from the saturated zone below the water table and are not representative of vadose zone soil conditions. Headspace screening results are summarized in Table 1 and depicted on Figure 1.

Onsite Mobile Laboratory Soil Analytical Results

Vadose zone soil samples were collected from 36 soil boring locations for onsite mobile laboratory analysis for BTEX, naphthalene and MTBE. Concentrations of one or more contaminants of concern (COC) exceeded Chapter 62-770 SCTLs in three of the 36 soil borings. The onsite mobile laboratory analytical results for soil are summarized in Table 2 and depicted on Figure 1.

Groundwater Investigation Results

Onsite Mobile Laboratory Groundwater Analytical Results

Groundwater samples were collected from 37 soil boring locations for onsite mobile laboratory analysis for BTEX, naphthalene and MTBE. Concentrations of one or more COCs exceeded Chapter 62-770 GCTLs in 17 of the 37 soil borings. The onsite mobile laboratory analytical results for groundwater are summarized in Table 3 and depicted on Figure 2.

Fixed-Base Laboratory Groundwater Analytical Results

Groundwater samples were collected from the 11 newly installed monitoring wells. The samples were collected and analyzed for VOCs, PAHs, EDB, TRPH, and lead at an offsite fixed-base laboratory. Concentrations of COCs exceeded GCTLs in samples collected from monitoring wells PCY-AOC2-MW13, PCY-AOC2-MW15, PCY-AOC2-MW18, PCY-AOC2-MW20 and PCY-AOC2-MW21. The fixed-base laboratory analytical results are summarized in Table 4 and depicted on Figure 3. The laboratory analytical reports are provided in Attachment C.

CONCLUSIONS AND RECOMMENDATIONS

The results of the soil assessment indicate that the vadose zone soil at the site has been impacted by petroleum products. The data indicates that the extent of soil contamination has been delineated around Tank 11. In addition, the data indicates that an area of petroleum impacted soil is present to the northwest of the site, south of Building 400. This area of soil contamination appears to correlate with the reported former location of underground storage tanks associated with a former gas station located in the vicinity of Building 400. The extent of the vadose zone soil contamination in this area appears to be delineated.

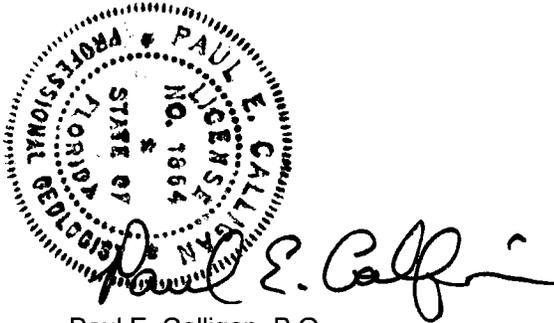
The results of the groundwater assessment indicate that the groundwater at the site has been impacted by petroleum products. The horizontal extent of the dissolved hydrocarbon plume appears to be delineated to the north, east and west of Tank 11. However, the horizontal extent of the dissolved hydrocarbon plume has not been delineated to the south of Tank 11; as indicated by the GCTL exceedances detected in monitoring well PCY-AOC2-MW13. In addition, the data indicates that an area of petroleum impacted groundwater is present to the northwest of the site, south of Building 400. This area of groundwater contamination appears to correlate with the reported former location of underground storage tanks associated with a former gas station located in the vicinity of Building 400. The horizontal extent of the dissolved hydrocarbon plume has not been delineated in this area; as indicated by the GCTL exceedances detected in monitoring wells PCY-AOC2-MW15, PCY-AOC2-MW18 and PCY-AOC2-MW21.

Recommendations

Additional assessment is required to fully delineate the dissolved hydrocarbon plume in the areas identified above. The additional assessment should include a DPT/mobile lab investigation to aid in determining the optimum number and location of permanent monitoring wells required to delineate the plume. The DPT investigation should also include the installation of temporary piezometers to delineate the extent of free product identified during previous investigations, and the collection of soil samples in the vicinity of Tank 307 to determine if contaminated soil is still present at that location. Once the dissolved hydrocarbon and free product plumes have been delineated, a complete round of groundwater samples should be collected from all new and existing monitoring wells at the site and a Site Assessment Report prepared and submitted to the Florida Department of Environmental Protection.

If you have any questions regarding presented in this report, please contact me by phone at (813) 806-0202, or via e-mail at calliganp@ttnus.com.

Sincerely,



Paul E. Calligan, P.G.
Task Order Manager
Florida License No. PG-0001864
Date: September 27, 2002

/pc

Enclosures (1)

c: Mr. Wayne Hansel, SOUTHDIV (CD Only)
Mr. A. McDonald, CSS (Hard Copy and CD)
Ms. D. Wroblewski (Cover Letter Only)
Mr. M. Perry (Unbound)

TABLES

TABLE 1

SOIL OVA SCREENING RESULTS
 AOC2/SWMU1 ADDITIONAL SITE ASSESSMENT REPORT
 COASTAL SYSTEMS STATION PANAMA CITY
 PANAMA CITY, FLORIDA

SAMPLE			OVA SCREENING RESULTS				COMMENTS
BORING NO.	DATE COLLECTED	DEPTH TO WATER	SAMPLE INTERVAL (fbis)	TOTAL READING (ppm)	CARBON FILTERED (ppm)	NET READING (ppm)	
PCY-AOC2-SB01	5/13/02	6'	0-2	0.1	-	0.1	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
			6-8	0.0	-	0.0	
PCY-AOC2-SB02	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
			6-8	0.0	-	0.0	
PCY-AOC2-SB03	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
			6-8	0.0	-	0.0	
PCY-AOC2-SB04	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
			6-8	90.4	0.0	90.4	
PCY-AOC2-SB05	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	13.8	0.0	13.8	
			6-8	65.7	0.0	65.7	
PCY-AOC2-SB06	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	113.4	76.1	37.3	
			6-8	262.7	55.0	207.7	
PCY-AOC2-SB07	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
			6-8	9.6	0.0	9.6	
PCY-AOC2-SB08	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	8.3	-	8.3	
			6-8	13.2	0.0	13.2	
PCY-AOC2-SB09	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
			6-8	0.0	-	0.0	
PCY-AOC2-SB10	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
			6-8	0.0	-	0.0	
PCY-AOC2-SB11	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
			6-8	25.2	0.0	25.2	

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SAMPLE			OVA SCREENING RESULTS				COMMENTS
BORING NO.	DATE COLLECTED	DEPTH TO WATER	SAMPLE INTERVAL (fbls)	TOTAL READING (ppm)	CARBON FILTERED (ppm)	NET READING (ppm)	
PCY-AOC2-SB12	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
			6-8	0.0	-	0.0	
PCY-AOC2-SB13	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	69.1	0.0	69.1	
			6-8	153.6	109.7	43.9	
PCY-AOC2-SB14	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	74.2	0.0	74.2	
			6-8	137.2	120.1	17.1	
PCY-AOC2-SB15	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	115.4	57.5	57.9	
			6-8	340.0	116.0	224.0	
PCY-AOC2-SB16	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
			6-8	3093.0	10.3	3082.7	
PCY-AOC2-SB17	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	12.5	-	12.5	
			6-8	142.6	32.5	110.1	
PCY-AOC2-SB18	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
			6-8	0.0	-	0.0	
PCY-AOC2-SB19	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
			6-8	1.2	-	1.2	
PCY-AOC2-SB20	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
			6-8	60.4	13.8	46.6	
PCY-AOC2-SB21	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
			6-8	180.6	95.1	85.5	
PCY-AOC2-SB22	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	7.1	-	7.1	
			4-6	24.6	0.0	24.6	
			6-8	92.7	23.7	69.0	

TABLE 1

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 PANAMA CITY, FLORIDA

SAMPLE			OVA SCREENING RESULTS				COMMENTS
BORING NO.	DATE COLLECTED	DEPTH TO WATER	SAMPLE INTERVAL (fbis)	TOTAL READING (ppm)	CARBON FILTERED (ppm)	NET READING (ppm)	
PCY-AOC2-SB23	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
			6-8	0.3	-	0.3	
PCY-AOC2-SB24	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
			6-8	174.2	88.2	86.0	
PCY-AOC2-SB25	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
			6-8	2066.0	0.0	2066.0	
PCY-AOC2-SB26	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
			6-8	0.0	-	0.0	
PCY-AOC2-SB27	5/13/02	6'	0-2	207.2	69.2	138.0	
			2-4	284.1	13.4	270.7	
			4-6	310.4	37.8	272.6	
			6-8	1171.0	159.4	1011.6	
PCY-AOC2-SB28	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	123.2	70.1	53.1	
			6-8	89.4	79.5	9.9	
PCY-AOC2-SB29	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	75.4	19.3	56.1	
			6-8	320.7	305.3	15.4	
PCY-AOC2-SB30	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
			6-8	35.1	0.0	35.1	
PCY-AOC2-SB31	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	5.9	-	5.9	
			6-8	152.6	0.0	152.6	
PCY-AOC2-SB32	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	271.4	101.7	169.7	
			6-8	145.9	69.1	76.8	
PCY-AOC2-SB33	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	165.7	19.8	145.9	
			6-8	937.0	277.1	659.9	
PCY-AOC2-SB34	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	331.4	119.1	212.3	
			6-8	501.4	305.6	195.8	

TABLE 1

**SOIL OVA SCREENING RESULTS
AOC2/SWMU1 ADDITIONAL SITE ASSESSMENT REPORT
COASTAL SYSTEMS STATION PANAMA CITY
PANAMA CITY, FLORIDA**

SAMPLE			OVA SCREENING RESULTS				COMMENTS
BORING NO.	DATE COLLECTED	DEPTH TO WATER	SAMPLE INTERVAL (fbis)	TOTAL READING (ppm)	CARBON FILTERED (ppm)	NET READING (ppm)	
PCY-AOC2-SB35	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	185.6	104.9	80.7	
			6-8	386.4	166.8	219.6	
PCY-AOC2-SB36	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	116.1	86.2	29.9	
			6-8	308.0	203.6	104.4	
PCY-AOC2-HA01	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
PCY-AOC2-HA02	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
PCY-AOC2-HA03	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
PCY-AOC2-HA04	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	968.0	23.2	944.8	
			4-6	2561.0	51.9	2509.1	
PCY-AOC2-HA05	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	1896.0	70.0	1826.0	
			4-6	27396.0	45.1	27350.9	
PCY-AOC2-HA06	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
PCY-AOC2-HA07	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
PCY-AOC2-HA08	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	4615.0	1222.0	3393.0	
			4-6	12282.0	987.0	11295.0	
PCY-AOC2-HA09	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	30.3	0.0	30.3	
			4-6	41555.0	3.0	41552.0	
PCY-AOC2-HA10	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
PCY-AOC2-HA11	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
PCY-AOC2-HA12	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
PCY-AOC2-HA13	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
PCY-AOC2-HA14	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
PCY-AOC2-HA15	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	

TABLE 1

**SOIL OVA SCREENING RESULTS
AOC2/SWMU1 ADDITIONAL SITE ASSESSMENT REPORT
COASTAL SYSTEMS STATION PANAMA CITY
PANAMA CITY, FLORIDA**

SAMPLE			OVA SCREENING RESULTS				COMMENTS
BORING NO.	DATE COLLECTED	DEPTH TO WATER	SAMPLE INTERVAL (fbls)	TOTAL READING (ppm)	CARBON FILTERED (ppm)	NET READING (ppm)	
PCY-AOC2-HA16	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
PCY-AOC2-HA17	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
PCY-AOC2-HA18	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
PCY-AOC2-HA19	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
			6-8	0.0	-	0.0	
PCY-AOC2-HA20	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
PCY-AOC2-HA21	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	4406.0	451.7	3954.3	
			4-6	0.0	-	0.0	
PCY-AOC2-HA22	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
PCY-AOC2-HA23	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
PCY-AOC2-HA24	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	
PCY-AOC2-HA25	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	11.1	0.0	11.1	
			4-6	0.0	-	0.0	
PCY-AOC2-HA26	5/13/02	6'	0-2	0.0	-	0.0	
			2-4	0.0	-	0.0	
			4-6	0.0	-	0.0	

fbls = feet below land surface
ppm = parts per million
NS = not sampled

TABLE 2

**MOBILE LAB SOIL ANALYTICAL SUMMARY
AOC2/SWMU1 ADDITIONAL SITE ASSESSMENT REPORT
COASTAL SYSTEMS STATION PANAMA CITY
PANAMA CITY, FLORIDA**

Sampling Details				OVA	Laboratory Analyses							Comments
Boring No.	Date Collected	Depth to Water	Sample Interval (fbls)	Net OVA Reading (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	M and P Xylenes (mg/kg)	O Xylene (mg/kg)	Naphthalene (mg/kg)	MTBE (mg/kg)	
PCY-AOC2-SB01	5/13/2002	6	4-6	0.0	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB02	5/13/2002	6	4-6	0.0	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB03	5/14/2002	6	4-6	0.0	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB04	5/14/2002	6	4-6	0.0	< 0.005	<0.010	<0.010	<0.010	<0.010	0.192	<0.05	
PCY-AOC2-SB05	5/14/2002	6	4-6	13.8	< 0.005	<0.010	<0.010	<0.010	<0.010	0.093	<0.05	
PCY-AOC2-SB06	5/14/2002	6	4-6	37.3	<0.012	<0.024	<0.024	<0.024	<0.024	0.24	<0.12	
PCY-AOC2-SB07	5/14/2002	6	4-6	0.0	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB08	5/14/2002	6	4-6	8.3	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB09	5/14/2002	6	4-6	0.0	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB10	5/14/2002	6	4-6	0.0	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB11	5/14/2002	6	4-6	0.0	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB12	5/14/2002	6	4-6	0.0	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB13	5/14/2002	6	4-6	69.1	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB14	5/15/2002	6	4-6	74.2	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB15	5/15/2002	6	4-6	57.9	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB16	5/15/2002	6	4-6	0.0	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB17	5/15/2002	6	4-6	12.5	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB18	5/15/2002	6	4-6	0.0	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB19	5/15/2002	6	4-6	0.0	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB20	5/15/2002	6	4-6	0.0	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB21	5/15/2002	6	4-6	0.0	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB22	5/15/2002	6	4-6	24.6	< 0.005	<0.010	0.041	0.021	<0.010	<0.05	<0.05	
PCY-AOC2-SB23	5/15/2002	6	4-6	0.0	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB24	5/15/2002	6	4-6	0.0	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB25	5/15/2002	6	4-6	0.0	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	

TABLE 2

**MOBILE LAB SOIL ANALYTICAL SUMMARY
AOC2/SWMU1 ADDITIONAL SITE ASSESSMENT REPORT
COASTAL SYSTEMS STATION PANAMA CITY
PANAMA CITY, FLORIDA**

Sampling Details				OVA	Laboratory Analyses							Comments
Boring No.	Date Collected	Depth to Water	Sample Interval (fbls)	Net OVA Reading (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	M and P Xylenes (mg/kg)	O Xylene (mg/kg)	Naphthalene (mg/kg)	MTBE (mg/kg)	
PCY-AOC2-SB26	5/16/2002	6	4-6	0.0	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB27	5/16/2002	6	4-6	272.6	<.05	<0.1	2.0	<0.1	<0.1	36L	<0.5	
PCY-AOC2-SB28	5/16/2002	6	4-6	53.1	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB29	5/16/2002	6	4-6	56.1	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB30	5/16/2002	6	4-6	0.0	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB31	5/16/2002	6	4-6	5.9	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB32	5/16/2002	6	4-6	169.7	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	
PCY-AOC2-SB33	5/16/2002	6	4-6	145.9	< 0.1	<0.2	<0.2	<0.2	<0.2	15	<1	
PCY-AOC2-SB34	5/16/2002	6	4-6	212.3	< 0.005	<0.010	0.015	<0.010	<0.010	0.55	<0.05	
PCY-AOC2-SB35	5/16/2002	6	4-6	80.7	< 0.005	<0.010	<0.010	<0.010	<0.010	0.11	<0.05	
PCY-AOC2-SB36	5/16/2002	6	4-6	29.9	< 0.005	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	

NOTES:
OVA Organic Vapor Analyzer
fbls feet below land surface
ppm parts per million
mg/kg milligrams per kilogram
Bold values exceed SCTL

TABLE 3

**MOBILE LAB GROUNDWATER ANALYTICAL SUMMARY
AOC2/SWMU1 ADDITIONAL SITE ASSESSMENT REPORT
COASTAL SYSTEMS STATION PANAMA CITY
PANAMA CITY, FLORIDA**

Sampling Details		Laboratory Analyses						
Boring No.	Date Collected	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	M and P Xylenes (ug/L)	O Xylene (ug/L)	Naphthalene (ug/L)	MTBE (ug/L)
PCY-AOC2-SB01	5/13/2002	<1	<1	<1	<1	<1	<5	<5
PCY-AOC2-SB02	5/13/2002	<1	<1	<1	<1	<1	<5	<5
PCY-AOC2-SB03	5/14/2002	<1	<1	<1	<1	<1	<5	<5
PCY-AOC2-SB04	5/14/2002	<1	<1	<1	2.7	2.7	30.0	<5
PCY-AOC2-SB05	5/14/2002	<2	<2	37	150	92	170	<10
PCY-AOC2-SB06	5/14/2002	<10	<10	17	97	50	130	<50
PCY-AOC2-SB07	5/14/2002	<1	<1	<1	<1	<1	<5	<5
PCY-AOC2-SB08	5/14/2002	<1	<1	<1	2.0	<1	<5	<5
PCY-AOC2-SB09	5/14/2002	<1	<1	<1	<1	<1	<5	<5
PCY-AOC2-SB10	5/14/2002	<1	<1	<1	<1	<1	<5	<5
PCY-AOC2-SB11	5/14/2002	<20	<20	<20	110	26	<100	<100
PCY-AOC2-SB12	5/14/2002	<1	<1	<1	1.2	<1	<5	<5
PCY-AOC2-SB13	5/14/2002	<1	<1	<1	1.4	<1	<5	<5
PCY-AOC2-SB14	5/15/2002	<1	<1	15	136L	<1	109L	<5
PCY-AOC2-SB15	5/15/2002	<1	<1	<1	<1	<1	<5	<5
PCY-AOC2-SB16	5/15/2002	<10	<10	<10	<10	<10	40	<50
PCY-AOC2-SB17	5/15/2002	<20	<20	<20	89	<20	130	<100
PCY-AOC2-SB18	5/15/2002	<1	<1	<1	<1	<1	<5	<5
PCY-AOC2-SB19	5/15/2002	<1	<1	<1	<1	<1	<5	<5
PCY-AOC2-SB20	5/15/2002	<1	<1	<1	<1	<1	<5	<5
PCY-AOC2-SB21	5/15/2002	<1	<1	2.4	1.8	<1	22.4	<5
PCY-AOC2-SB22	5/15/2002	<5	<5	25	50	16	190	<25
PCY-AOC2-SB23	5/15/2002	<1	<1	<1	<1	<1	<5	<5
PCY-AOC2-SB24	5/15/2002	<1	<1	<1	<1	<1	<5	<5
PCY-AOC2-SB25	5/15/2002	<50	<50	<50	250	62	<250	<250
PCY-AOC2-SB26	5/16/2002	<1	<1	<1	<1	<1	<5	<5
PCY-AOC2-SB27	5/16/2002	<1	<1	6.3	<1	<1	59.9	<5
PCY-AOC2-SB28	5/16/2002	<1	<1	<1	<1	<1	10.5	<5
PCY-AOC2-SB29	5/16/2002	<1	<1	<1	<1	<1	<5	<5
PCY-AOC2-SB30	5/16/2002	<1	<1	<1	<1	<1	<5	<5
PCY-AOC2-SB31	5/16/2002	<1	<1	1.2	4.9	2.5	51	<5
PCY-AOC2-SB32	5/16/2002	<20	<20	65	310	88	120	<100
PCY-AOC2-SB33	5/16/2002	<1	<1	14.6	4.1	1.2	259L	<5
PCY-AOC2-SB34	5/16/2002	<2	<2	43	<2	<2	470L	<10
PCY-AOC2-SB35	5/16/2002	<1	<1	<1	1.2	<1	80.9	<5
PCY-AOC2-SB36	5/16/2002	<1	<1	<1	1.0	<1	5.2	<5
PCY-AOC2-SB37	5/17/2002	<10	<10	<10	<10	<10	<50	<50

NOTES:
ug/l micrograms per liter
Bold values exceed GCTL

TABLE 4

**MONITORING WELL CONSTRUCTION DETAILS
AOC2/SWMU1 ADDITIONAL SITE ASSESSMENT REPORT
COASTAL SYSTEMS STATION PANAMA CITY
PANAMA CITY, FLORIDA**

Well No.	Date Installed	Drilling Method	Top of Casing Elevation	A/G Riser Length, If Applicable	Total Well Depth (Feet)	Screened Interval (FBLs)	Well Diameter (Inches)	Lithology of Screened Interval
PCY-AOC2-MW10	8/12/02	HSA	10.07	N/A	13.90	3.90	2	Brown Silty Sand
PCY-AOC2-MW11	8/12/02	HSA	10.05	N/A	13.70	3.70	2	Brown Silty Sand
PCY-AOC2-MW12D	8/13/02	HSA/Mud	8.01	N/A	35.50	30.50	2	Dark Gray Silty Clay
PCY-AOC2-MW13	8/13/02	HSA	10.07	N/A	13.60	3.60	2	Brown Silty Sand
PCY-AOC2-MW14	8/13/02	HSA	7.49	N/A	13.60	3.60	2	Brown Silty Sand
PCY-AOC2-MW15	8/13/02	HSA	7.87	N/A	13.00	3.00	2	Brown Silty Sand
PCY-AOC2-MW16	8/13/02	HSA	8.62	N/A	11.60	1.60	2	Brown Silty Sand
PCY-AOC2-MW17	8/13/02	HSA	8.51	N/A	12.60	2.60	2	Brown Silty Sand
PCY-AOC2-MW18	8/14/02	HSA	7.49	N/A	12.90	2.90	2	Brown Silty Sand
PCY-AOC2-MW19	8/14/02	HSA	12.63	N/A	13.48	3.48	2	Brown Silty Sand
PCY-AOC2-MW20	8/15/02	HSA	9.71	N/A	12.40	2.40	2	Brown Silty Sand
PCY-AOC2-MW21	8/15/02	HSA	8.44	N/A	12.80	2.80	2	Brown Silty Sand
NOTES:								
HSA	Hallow Stem Auger							
A/G	Above Ground							
NA	Not Applicable							
FBLs	Feet Below Land Surface							

TABLE 5

SUMMARY OF FIXED-BASE GROUNDWATER ANALYTICAL RESULTS
 VOAS, OTHER ORGANICS, AND LEAD
 AOC2/SWMU1 ADDITIONAL SITE ASSESSMENT REPORT
 COASTAL SYSTEMS STATION PANAMA CITY
 PANAMA CITY, FLORIDA

Sample ID	Date Collected	Benzene	Ethylbenzene	Toluene	Xylenes (total)	1,2-Dibromoethane (EDB)	1,2-Dichloroethane	Methyl Tert Butyl Ether (MTBE)	TPH	Lead
GCTL ⁽¹⁾	N/A	1	30	40	20	0.02	3	50	5	15
PCY-AOC2-MW10	8/20/2002	<1.0	<1.0	<1.0	<3.0	<0.018	<1.0	<1.0	<0.26	1.7B
PCY-AOC2-MW11	8/20/2002	<1.0	<1.0	<1.0	<3.0	<0.019	<1.0	<1.0	2.77	1.7B
PCY-AOC2-MW12	8/21/2002	<1.0	<1.0	<1.0	<3.0	<0.018	<1.0	<1.0	0.417	3.0B
PCY-AOC2-MW13	8/21/2002	<1.0	19.5	<1.0	86.7	<0.019	<1.0	<1.0	6.95	2.3B
PCY-AOC2-MW14	8/20/2002	<1.0	<1.0	<1.0	<3.0	<0.018	<1.0	<1.0	0.868	1.2U
PCY-AOC2-MW15	8/21/2002	<1.0	1.8	<1.0	<3.0	<0.018	<1.0	<1.0	4.48	1.2U
PCY-AOC2-MW16	8/20/2002	<1.0	<1.0	<1.0	<3.0	<0.018	<1.0	<1.0	0.498	1.7B
PCY-AOC2-MW17	8/21/2002	<1.0	<1.0	<1.0	2.4	<0.018	<1.0	<1.0	1.76	2.1B
PCY-AOC2-MW18	8/21/2002	<1.0	8.4	<1.0	3.4	<0.018	<1.0	<1.0	2.53	1.9B
PCY-AOC2-MW19	8/21/2002	<1.0	<1.0	<1.0	<3.0	<0.019	<1.0	<1.0	0.468	1.9B
PCY-AOC2-MW20	8/21/2002	<1.0	<1.0	<1.0	7.3	<0.019	<1.0	<1.0	4.16	1.7B
PCY-AOC2-MW21	8/21/2002	<1.0	8.3	<1.0	<3.0	<0.018	<1.0	<1.0	7.82	1.2U

NOTES:

VOA and lead concentrations reported in micrograms per liter.
 TPH concentrations reported in milligrams per liter.
 Shaded values are positive detections.
 Bold values exceed GCTL.
 J = Estimated Concentration.
⁽¹⁾ Groundwater Cleanup Target Level as defined by Chapter 62-770, F.A.C.

TABLE 5

SUMMARY OF FIXED-BASE GROUNDWATER ANALYTICAL RESULTS
 POLYNUCLEAR AROMATIC HYDROCARBONS
 AOC2/SWMU1 ADDITIONAL SITE ASSESSMENT REPORT
 COASTAL SYSTEMS STATION PANAMA CITY
 PANAMA CITY, FLORIDA

Sample ID	Date Collected	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(ghi)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3)pyrene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Phenanthrene	Pyrene
GCTL ⁽¹⁾		20	210	2,100	0.2	0.2	0.2	210	0.5	4.8	0.2	280	280	0.2	20	20	20	120	210
PCY-AOC2-MW10	8/20/2002	<1.1	<1.1	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<1.1	<1.1	<0.21	<1.1	<1.1	<1.1	<1.1	<1.1
PCY-AOC2-MW11	8/20/2002	<1.1	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<1.1	0.60	<0.22	0.79	1.6	4.0	<1.1	<1.1
PCY-AOC2-MW12	8/21/2002	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0
PCY-AOC2-MW13	8/21/2002	1.3	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<1.0	3.5	<0.21	92.9	18.4	5.8	<1.0	<1.0
PCY-AOC2-MW14	8/20/2002	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<1.0	<1.0	<0.21	0.52	<1.0	<1.0	<1.0	<1.0
PCY-AOC2-MW15	8/21/2002	2.4	0.70	<1.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<1.1	3.7	<0.21	18.4	20.2	5.6	<1.1	<1.1
PCY-AOC2-MW16	8/20/2002	<1.2	<1.2	<1.2	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<1.2	<1.2	<0.23	<1.2	<1.2	<1.2	<1.2	<1.2
PCY-AOC2-MW17	8/21/2002	<1.2	<1.2	<1.2	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<1.2	<1.2	<0.24	2.5	7.0	0.65	<1.2	<1.2
PCY-AOC2-MW18	8/21/2002	3.1	<1.0	0.33	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<1.0	5.9	<0.21	31.0	68.6	79.3	5.5	<1.0
PCY-AOC2-MW19	8/21/2002	<1.0	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<1.0	<1.0	<0.21	<1.0	<1.0	<1.0	<1.0	<1.0
PCY-AOC2-MW20	8/21/2002	0.79	<1.1	<1.1	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<1.1	1.2	<0.22	4.8	18.6	31.8	1.2	<1.1
PCY-AOC2-MW21	8/21/2002	1.7	<1.0	<1.0	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<1.0	2.2	<0.21	86.7	61.5	56.8	<1.0	<1.0

NOTES:

Concentrations reported in micrograms per liter.
 Shaded values are positive detections.
 Bold values exceed GCTL.
 J = Estimated Concentration.
⁽¹⁾ Groundwater Cleanup Target Level as defined by Chapter 62-770, F.A.C.

TABLE 6

**GROUNDWATER ELEVATION SUMMARY
AOC2/SWMU1 ADDITIONAL SITE ASSESSMENT REPORT
COASTAL SYSTEMS STATION PANAMA CITY
PANAMA CITY, FLORIDA**

Well No.	PCY-AOC2-MW10	PCY-AOC2-MW11	PCY-AOC2-12D	PCY-AOC2-MW13	PCY-AOC2-MW14	PCY-AOC2-MW15
Well Diameter	2 Inch	2 inch	2 inch	2 inch	2 inch	2 inch
Well Depth	12.8 Feet	13.7 Feet	35.5 Feet	13.6 Feet	13.6 Feet	13 Feet
Screened Interval	10 Feet	10 Feet	5 Feet	10 Feet	10 Feet	10 Feet
TOC Elevation	10.07	10.05	8.01	10.07	7.49	7.87

Date	ELEV	DTW	FP															
8/22/2002	5.44	4.63	N/A	4.30	5.75	N/A	3.13	4.88	N/A	3.79	6.28	N/A	2.39	5.10	N/A	3.31	4.56	N/A

Well No.	PCY-AOC2-MW16	PCY-AOC2-MW17	PCY-AOC2-MW18	PCY-AOC2-MW19	PCY-AOC2-MW20	PCY-AOC2-MW21
Well Diameter	2 Inch					
Well Depth	11.6 Feet	12.6 Feet	12.9 Feet	13.48 Feet	12.4 Feet	12.8 Feet
Screened Interval	10 Feet					
TOC Elevation	8.62	8.51	9.12	12.63	9.71	8.44

Date	ELEV	DTW	FP															
8/22/2002	3.69	4.93	N/A	3.55	4.96	N/A	4.29	4.83	N/A	4.80	7.83	N/A	3.69	6.02	N/A	3.89	4.55	N/A

NOTES:

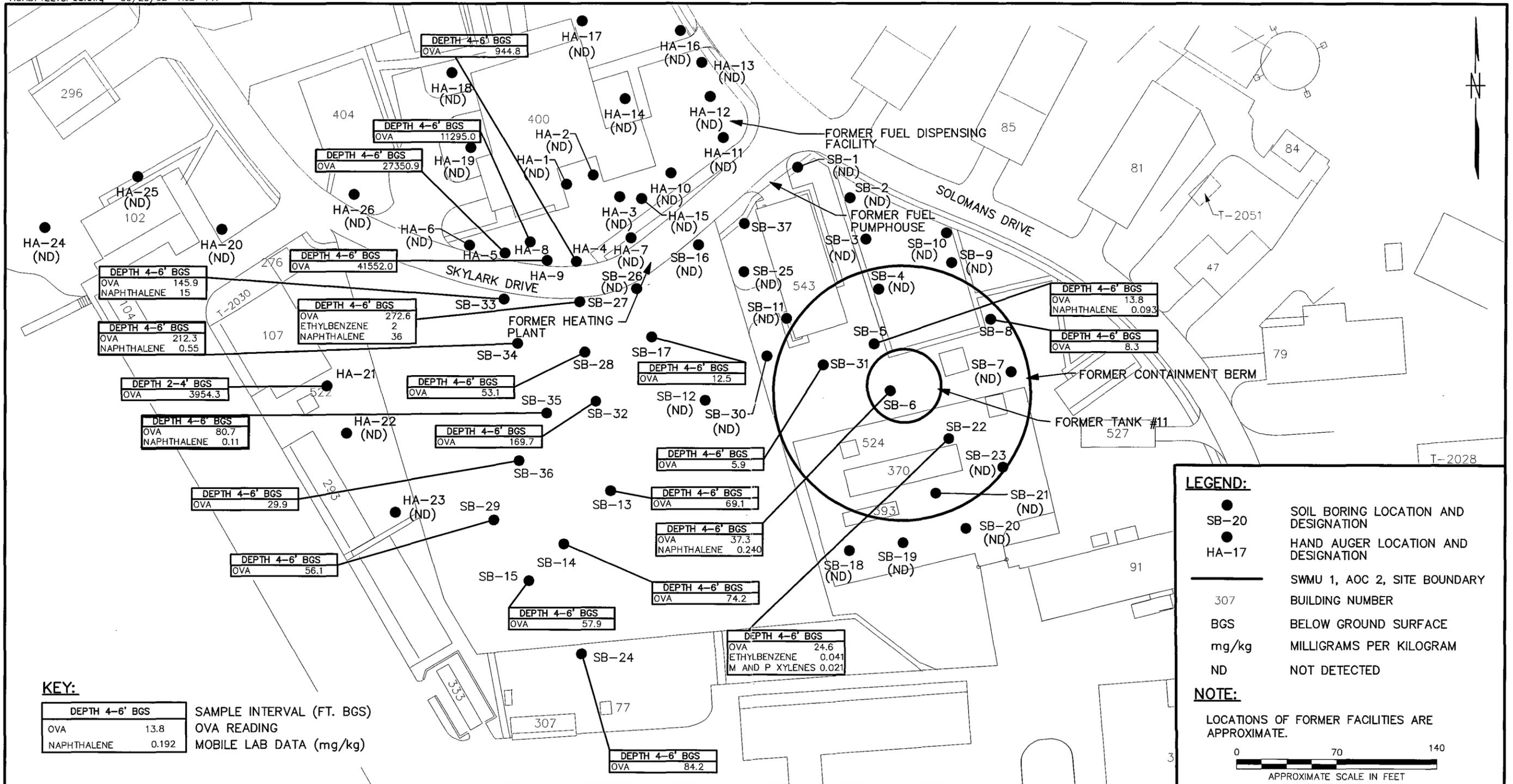
Measurements in feet.

PCY-AOC2-P01/PCY-AOC2-P02/PCY-AOC2-P03 were abandoned 8/12/00

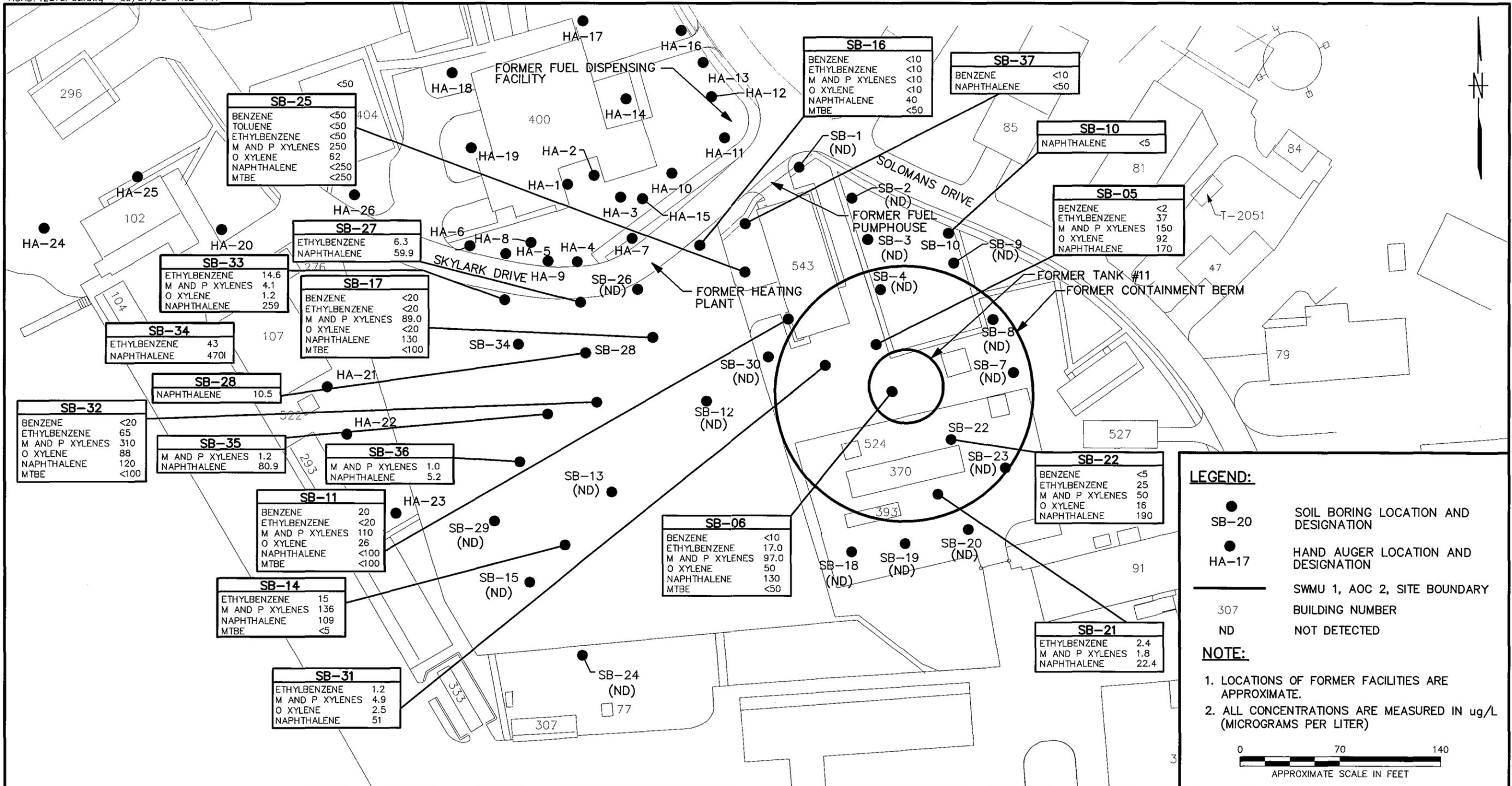
TOC elevations surveyed 8/12/00 using TOC of PCY-AOC2-MW07 as benchmark.

- TOC Top Of Casing
- ELEV Elevation
- DTW Depth To Water
- FP Free Product thickness
- ND Not Detected

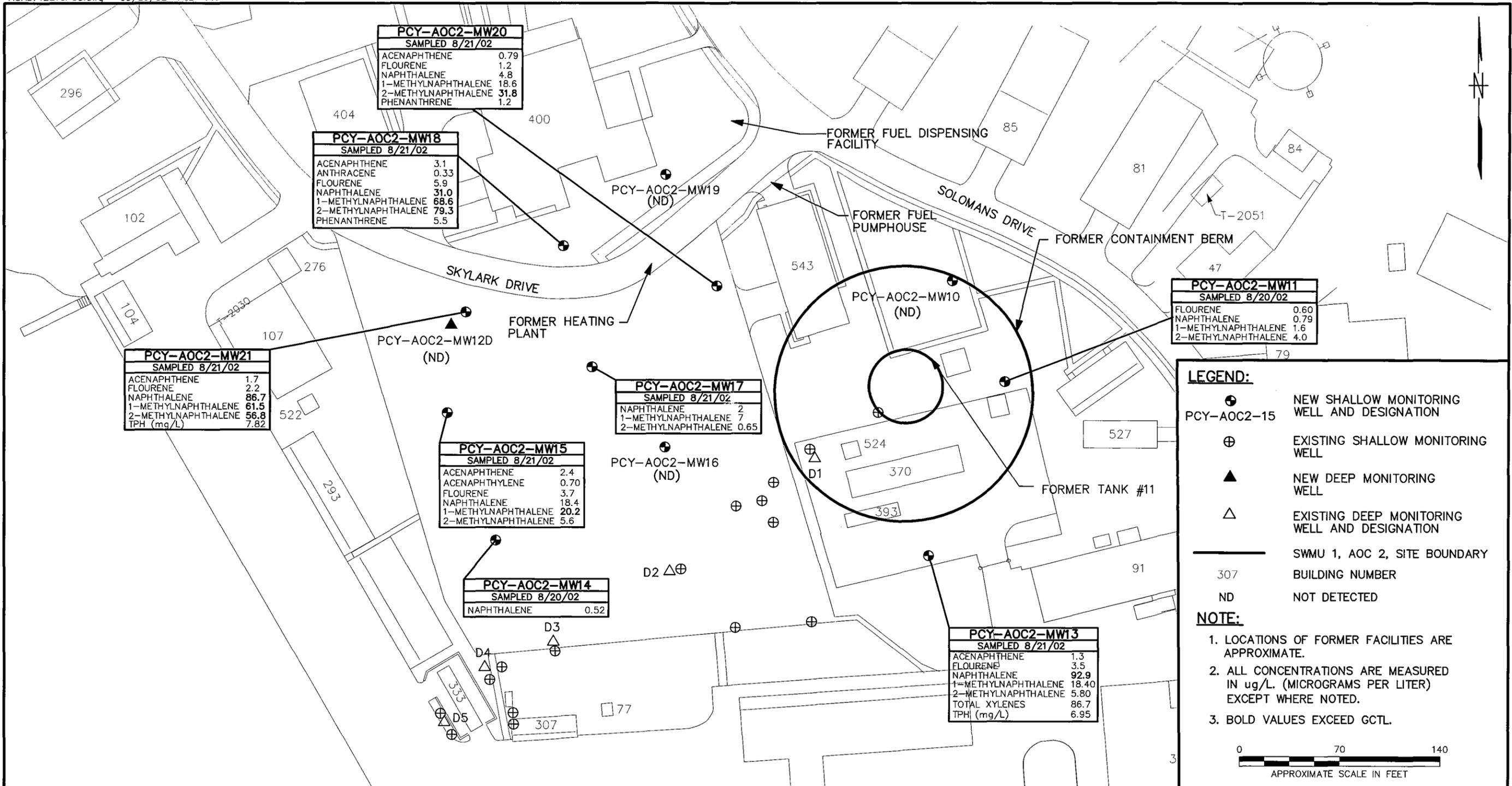
FIGURES



NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES	DRAWN BY	DATE		OVA/SOIL MOBILE LAB DATA AOC2 PRELIMINARY ASSESSMENT COASTAL SYSTEMS STATION PANAMA CITY, FLORIDA	CONTRACT NO. 4221			
							HJB	9/25/02			APPROVED BY	DATE		
											APPROVED BY	DATE		
											DRAWING NO.	REV.	FIGURE 1	0



NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES	DRAWN BY	DATE		GROUNDWATER MOBILE LAB SCREENING DATA AOC2 PRELIMINARY ASSESSMENT COASTAL SYSTEMS STATION PANAMA CITY, FLORIDA	CONTRACT NO.		
							HJB	9/25/02			4221	APPROVED BY	DATE
											APPROVED BY	DATE	
											DRAWING NO.	REV.	
										FIGURE 2	0		



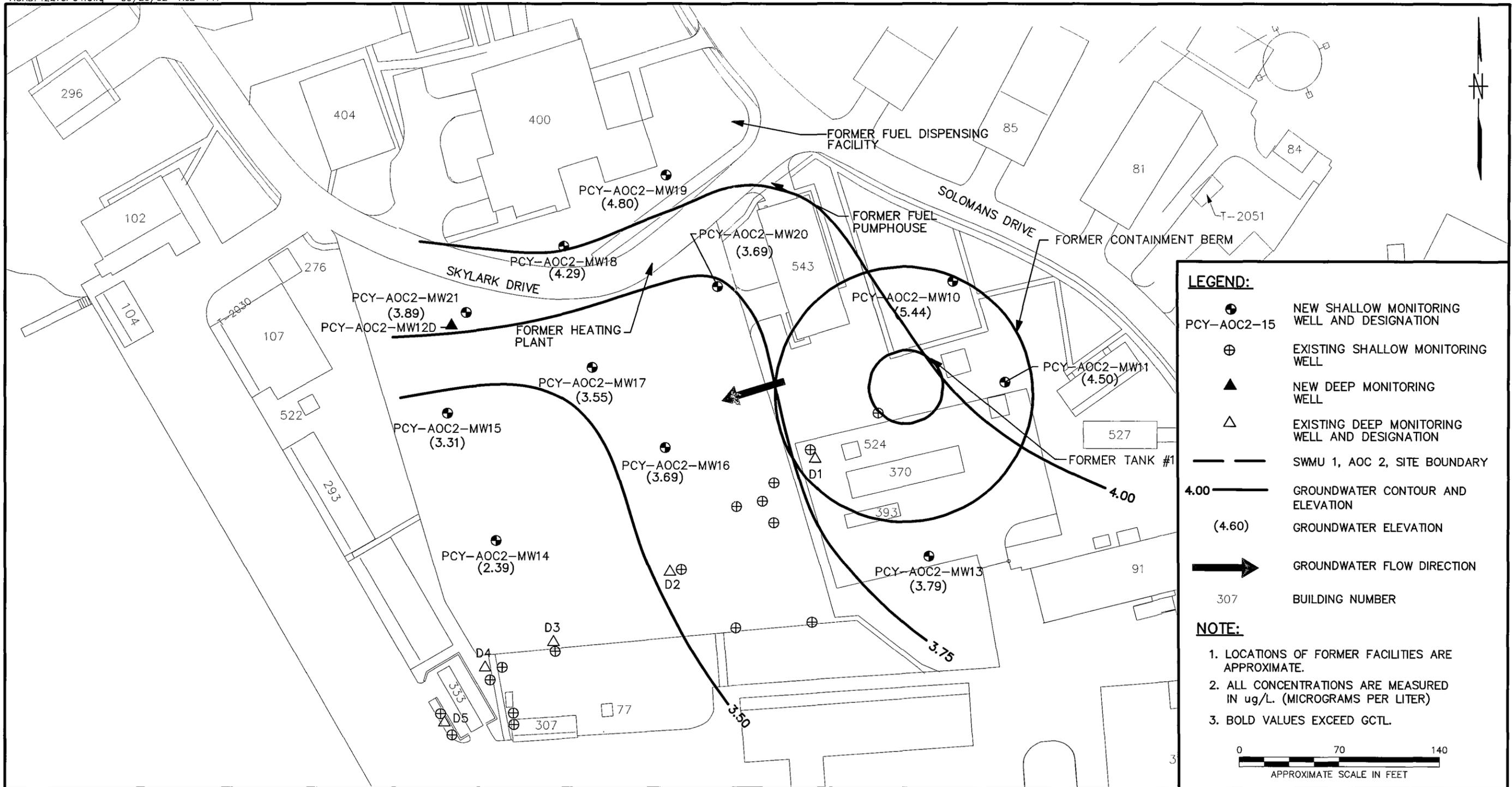
NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY HJB DATE 9/25/02
 CHECKED BY DATE
 COST/SCHED-AREA
 SCALE AS NOTED



**FIXED BASE GROUNDWATER ANALYTICAL DATA
 AOC2 PRELIMINARY ASSESSMENT
 COASTAL SYSTEMS STATION
 PANAMA CITY, FLORIDA**

CONTRACT NO. 4221	
APPROVED BY	DATE
APPROVED BY	DATE
DRAWING NO. FIGURE 3	REV. 0



NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY HJB DATE 9/26/02
 CHECKED BY DATE
 COST/SCHED-AREA
 SCALE AS NOTED



**GROUNDWATER ELEVATION MAP
 AOC2 PRELIMINARY ASSESSMENT
 COASTAL SYSTEMS STATION
 PANAMA CITY, FLORIDA**

CONTRACT NO. 4221	
APPROVED BY	DATE
APPROVED BY	DATE
DRAWING NO. FIGURE 4	REV. 0

ATTACHMENT A

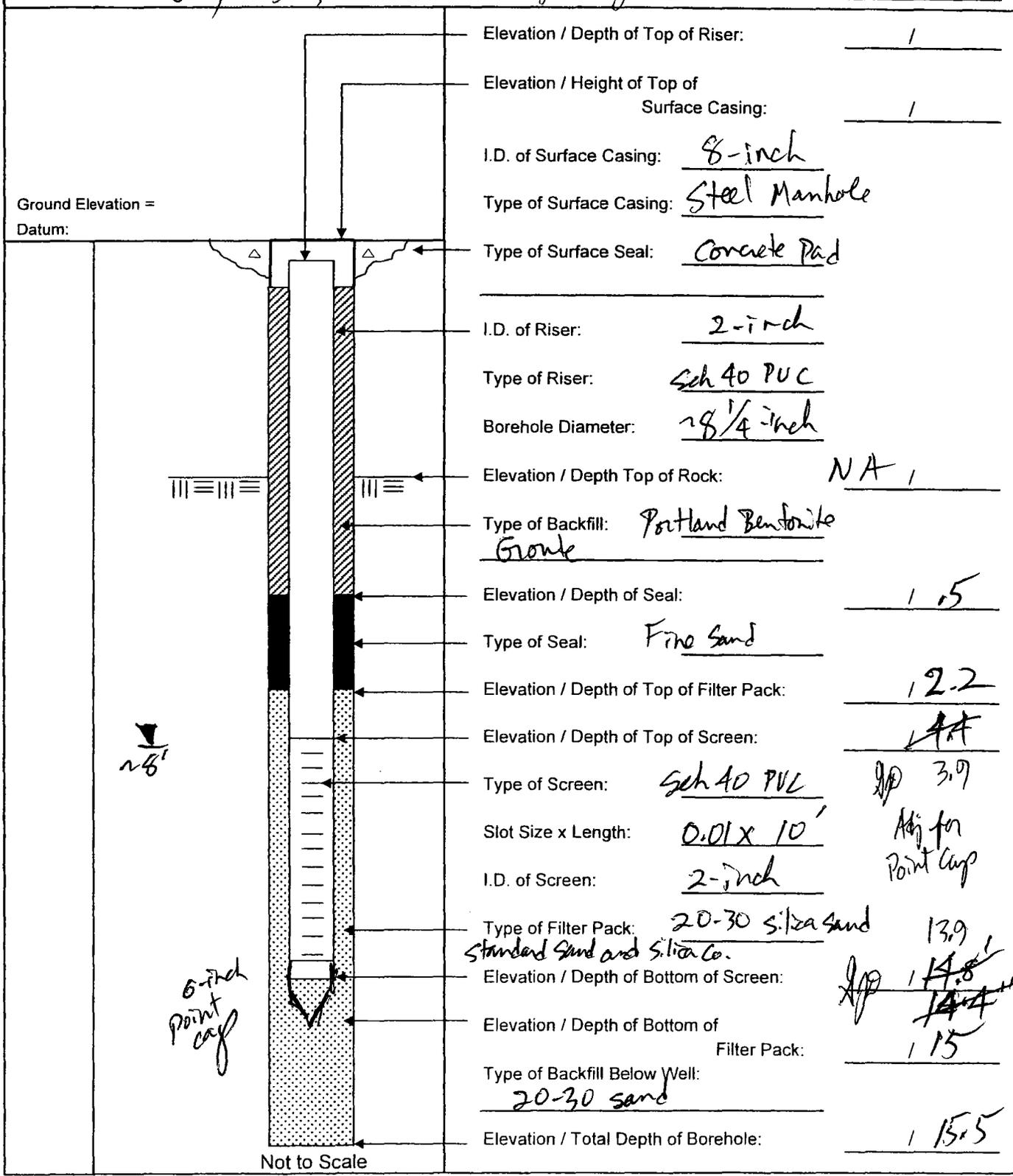


Tetra Tech NUS, Inc.

WELL No.: PCY-AOC2-MW10

MONITORING WELL SHEET

PROJECT: NCS - Panama City DRILLING Co.: Pro Sonic BORING No.: MW-10
 PROJECT No.: N4221 DRILLER: Michael Stockton DATE COMPLETED: 8-12-02
 SITE: AOC2 DRILLING METHOD: ASK NORTHING: _____
 GEOLOGIST: Gary J. Davis DEV. METHOD: Pump & Surge EASTING: _____





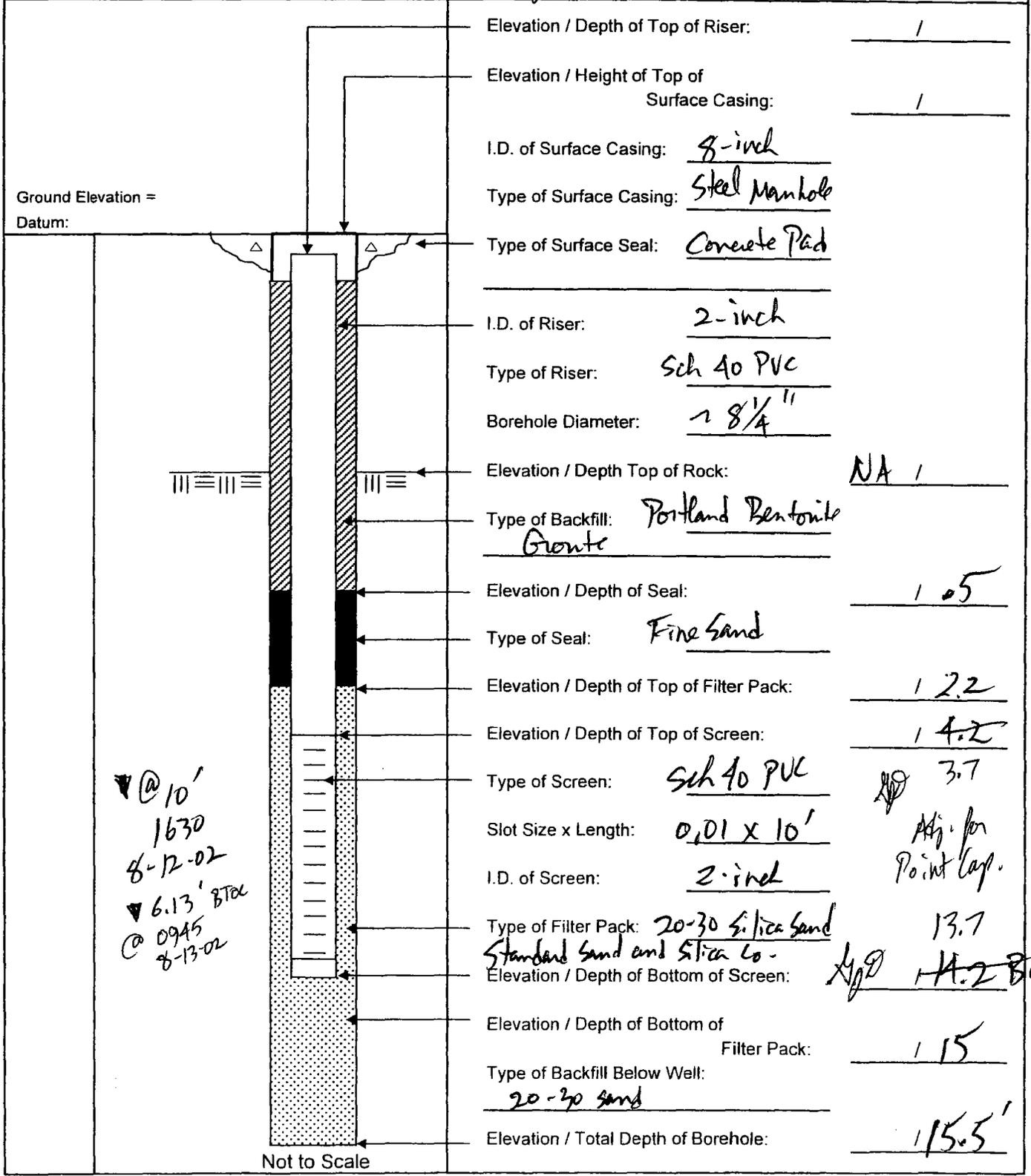
Tetra Tech NUS, Inc.

WELL No.: PCY-AOC2-MW11

Panama City

MONITORING WELL SHEET

PROJECT: NCS5 - AOC2 DRILLING Co.: Pro Sonic BORING No.: MW-11
 PROJECT No.: N4221 DRILLER: Michael Stockton DATE COMPLETED: 8-12-02
 SITE: AOC2 DRILLING METHOD: HSA NORTHING: _____
 GEOLOGIST: Gary J. Davis DEV. METHOD: Pump & Surge EASTING: _____



Elevation / Depth of Top of Riser: 1
 Elevation / Height of Top of Surface Casing: 1
 I.D. of Surface Casing: 8-inch
 Type of Surface Casing: Steel Manhole
 Type of Surface Seal: Concrete Pad
 I.D. of Riser: 2-inch
 Type of Riser: Sch 40 PVC
 Borehole Diameter: ~ 8 1/4"
 Elevation / Depth Top of Rock: NA 1
 Type of Backfill: Portland Bentonite Grout
 Elevation / Depth of Seal: 1.05
 Type of Seal: Fine Sand
 Elevation / Depth of Top of Filter Pack: 1.22
 Elevation / Depth of Top of Screen: 1.42
 Type of Screen: Sch 40 PVC
 Slot Size x Length: 0.01 x 10'
 I.D. of Screen: 2-inch
 Type of Filter Pack: 20-30 silica sand Standard sand and silica Co.
 Elevation / Depth of Bottom of Screen: 13.7
 Elevation / Depth of Bottom of Filter Pack: 1.15
 Type of Backfill Below Well: 20-30 sand
 Elevation / Total Depth of Borehole: 115.5'

Handwritten notes on right side of diagram:
 3.7
 Adj. for Point Cap.
 13.7
 114.2 BGS



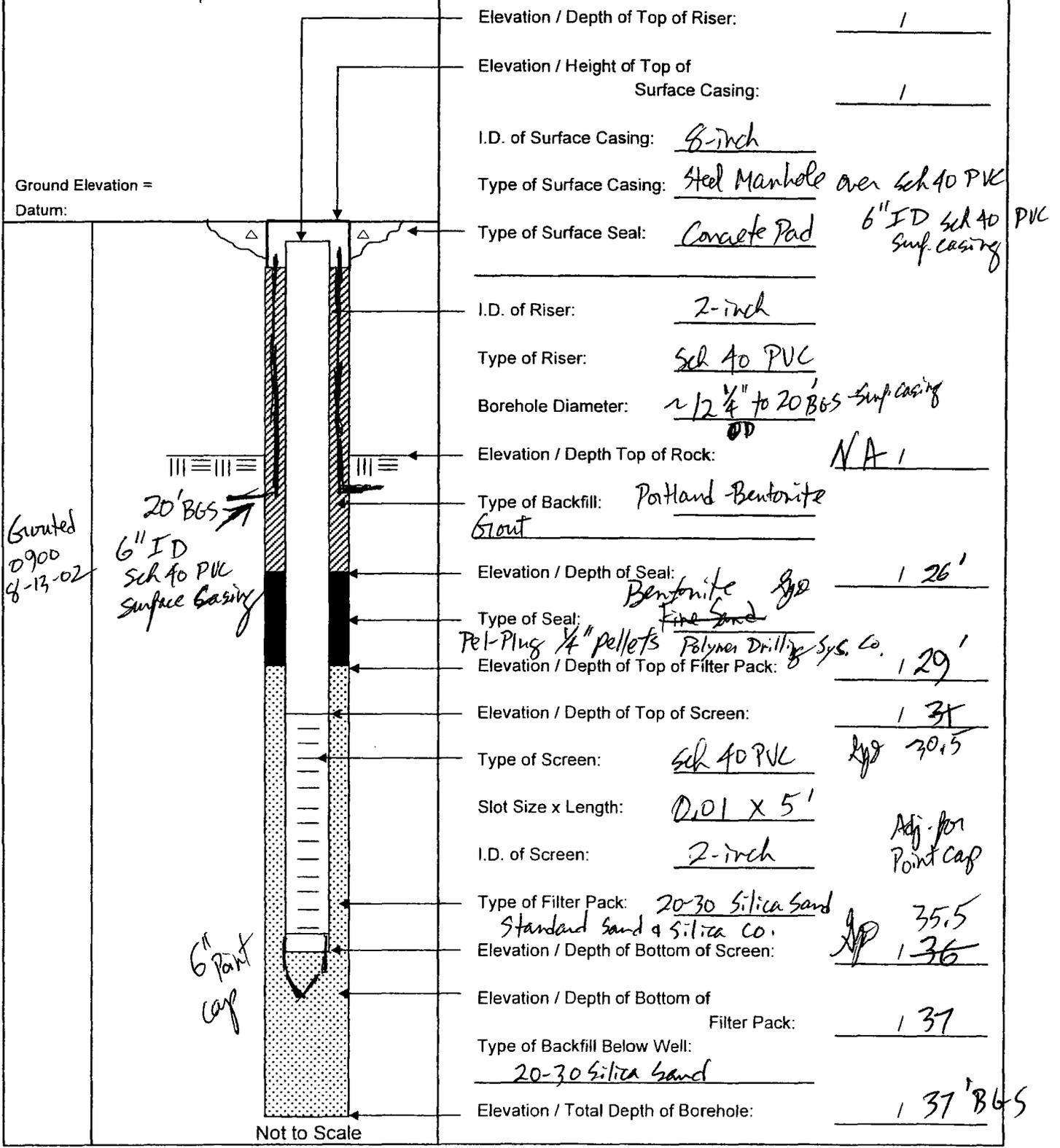
Tetra Tech NUS, Inc.

Panama City

WELL No.: PCY-A002-12D

MONITORING WELL SHEET

PROJECT: NCSS DRILLING Co.: ProSonic BORING No.: MV-12D
 PROJECT No.: NA221 DRILLER: Michael Stackton DATE COMPLETED: Surf. Casing 8-13-02
 SITE: A002 DRILLING METHOD: HSA & Mud Rotary NORTHING: well - 8-14-02
 GEOLOGIST: Gary J. Davis DEV. METHOD: Pumped Surge EASTING: _____





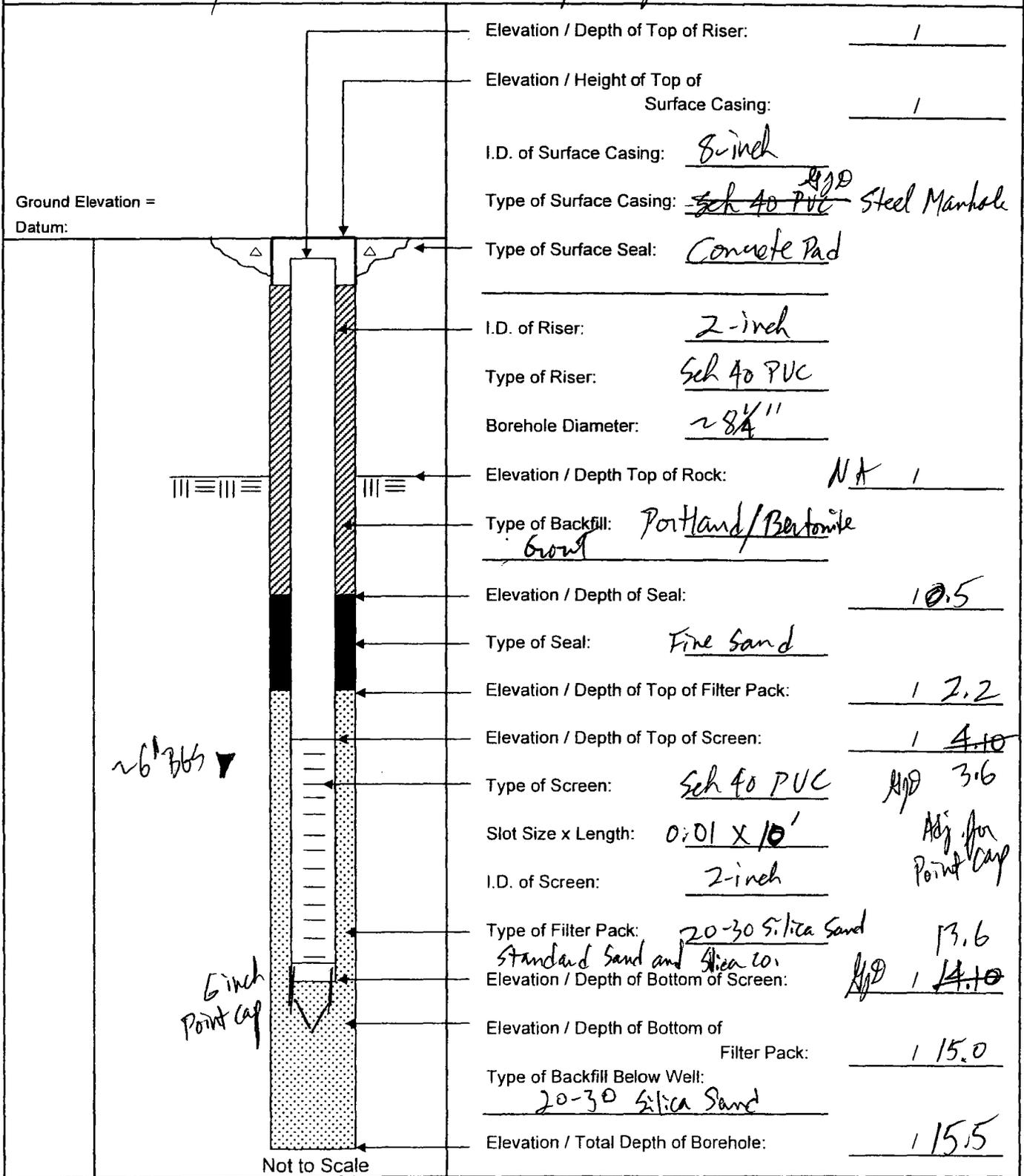
Tetra Tech NUS, Inc.

WELL No.: PCY-A002-MW13

Panama City

MONITORING WELL SHEET

PROJECT: NCSS-A002 DRILLING Co.: ProSonic BORING No.: MW13
 PROJECT No.: NA221 DRILLER: Michael Stockton DATE COMPLETED: 8-13-02
 SITE: A002 DRILLING METHOD: HSA NORTHING: _____
 GEOLOGIST: Gary J. Davis DEV. METHOD: Pump a Sample EASTING: _____



Elevation / Depth of Top of Riser: 1
 Elevation / Height of Top of Surface Casing: 1
 I.D. of Surface Casing: 8-inch
 Type of Surface Casing: ~~4 inch 40 PVC~~ Steel Manhole
 Type of Surface Seal: Concrete Pad
 I.D. of Riser: 2-inch
 Type of Riser: 4 inch 40 PVC
 Borehole Diameter: ~8 1/4"
 Elevation / Depth Top of Rock: NA 1
 Type of Backfill: Portland/Bentonite Grout
 Elevation / Depth of Seal: 10.5
 Type of Seal: Fine Sand
 Elevation / Depth of Top of Filter Pack: 1 2.2
 Elevation / Depth of Top of Screen: 1 4.10
 Type of Screen: 4 inch 40 PVC Adj 3.6
 Slot Size x Length: 0.01 x 10' Adj. for Point Cap
 I.D. of Screen: 2-inch
 Type of Filter Pack: 20-30 Silica Sand 13.6
Standard Sand and Silica Co.
 Elevation / Depth of Bottom of Screen: Adj 1 14.10
 Elevation / Depth of Bottom of Filter Pack: 1 15.0
 Type of Backfill Below Well: 20-30 Silica Sand
 Elevation / Total Depth of Borehole: 1 15.5

Not to Scale

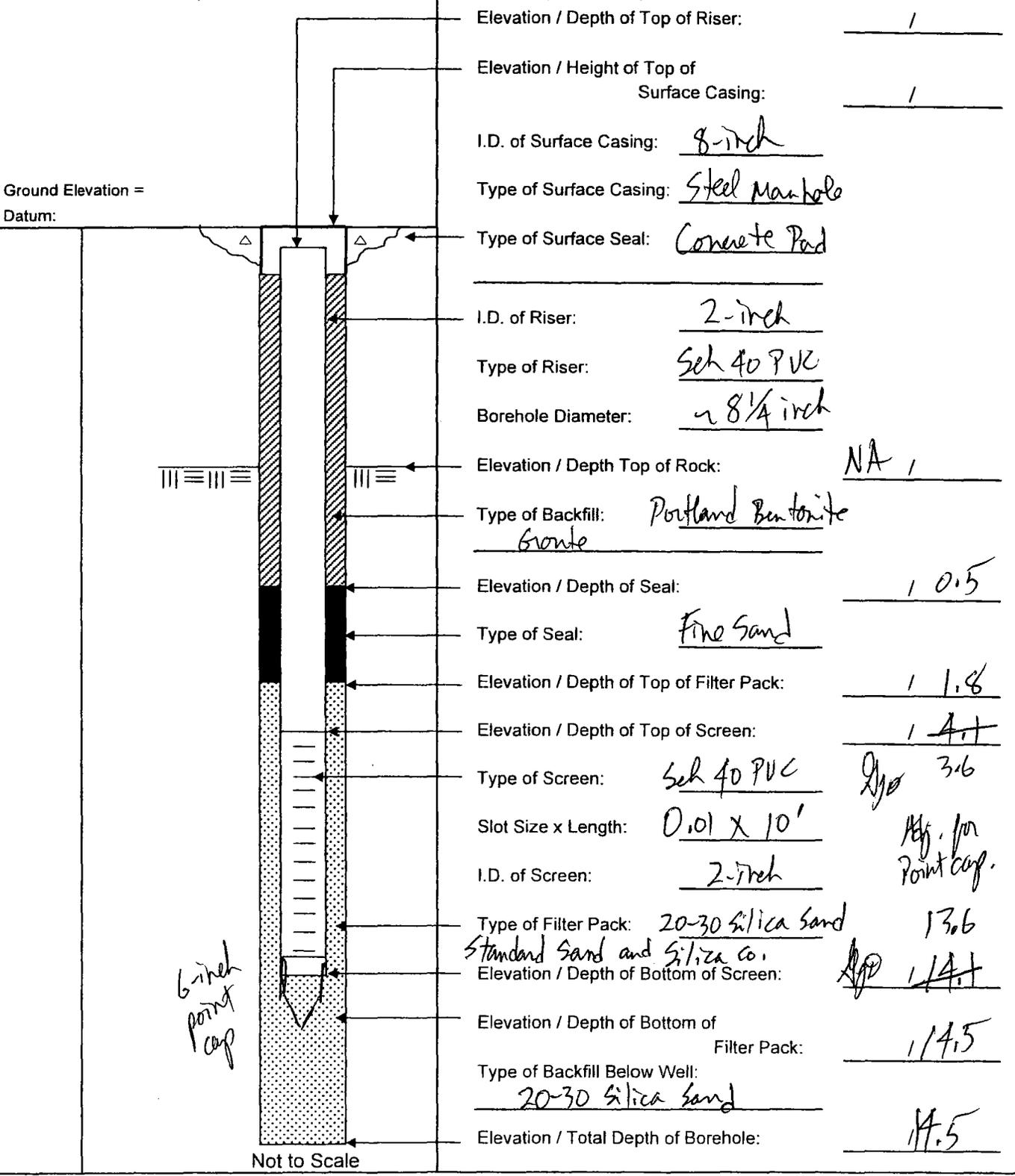


Tetra Tech NUS, Inc.

WELL No.: PCY-AOC2-MW14

MONITORING WELL SHEET

PROJECT: Panama City / ACS5 DRILLING Co.: Pro Sonic BORING No.: MW14
 PROJECT No.: N4221 DRILLER: Michael Stockton DATE COMPLETED: 8-13-02
 SITE: AOC2 DRILLING METHOD: HSA NORTHING: _____
 GEOLOGIST: Gary J. Davis DEV. METHOD: Pump & Surge EASTING: _____



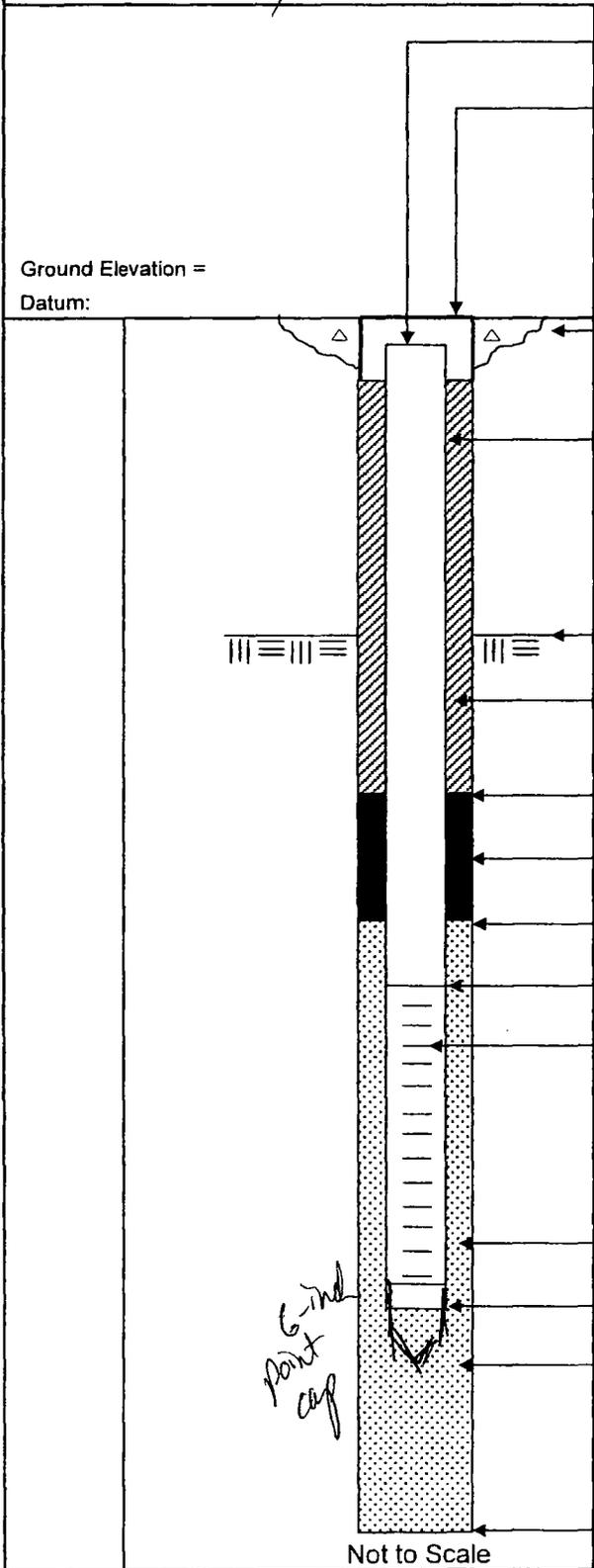


Tetra Tech NUS, Inc.

WELL No.: PCY-AOC2-MW15

Panama City MONITORING WELL SHEET

PROJECT: N-CSS DRILLING Co.: Pro Sonic BORING No.: MW-15
 PROJECT No.: N-4221 DRILLER: Michael Stackton DATE COMPLETED: 8-13-02
 SITE: AOC2 DRILLING METHOD: HSA NORTHING: _____
 GEOLOGIST: Gary J. Davis DEV. METHOD: Pump & Surge EASTING: _____



Elevation / Depth of Top of Riser: 1

Elevation / Height of Top of Surface Casing: 1

I.D. of Surface Casing: 8-inch

Type of Surface Casing: steel Manhole

Type of Surface Seal: Concrete Pad

I.D. of Riser: 2-inch

Type of Riser: Sch 40 PVC

Borehole Diameter: ~8 1/4"

Elevation / Depth Top of Rock: NA 1

Type of Backfill: Portland Cement grout

Elevation / Depth of Seal: 10.5

Type of Seal: Five sand

Elevation / Depth of Top of Filter Pack: 1 1.5

Elevation / Depth of Top of Screen: 1 3.5

Type of Screen: Sch 40 PVC Adj. for Point Cap

Slot Size x Length: 0.01 x 10'

I.D. of Screen: 2-inch

Type of Filter Pack: 20-30 silica sand Standard sand and silica co.

Elevation / Depth of Bottom of Screen: 1 13.5

Elevation / Depth of Bottom of Filter Pack: 1 13.5

Type of Backfill Below Well: 20-30 silica sand

Elevation / Total Depth of Borehole: 1 13.5



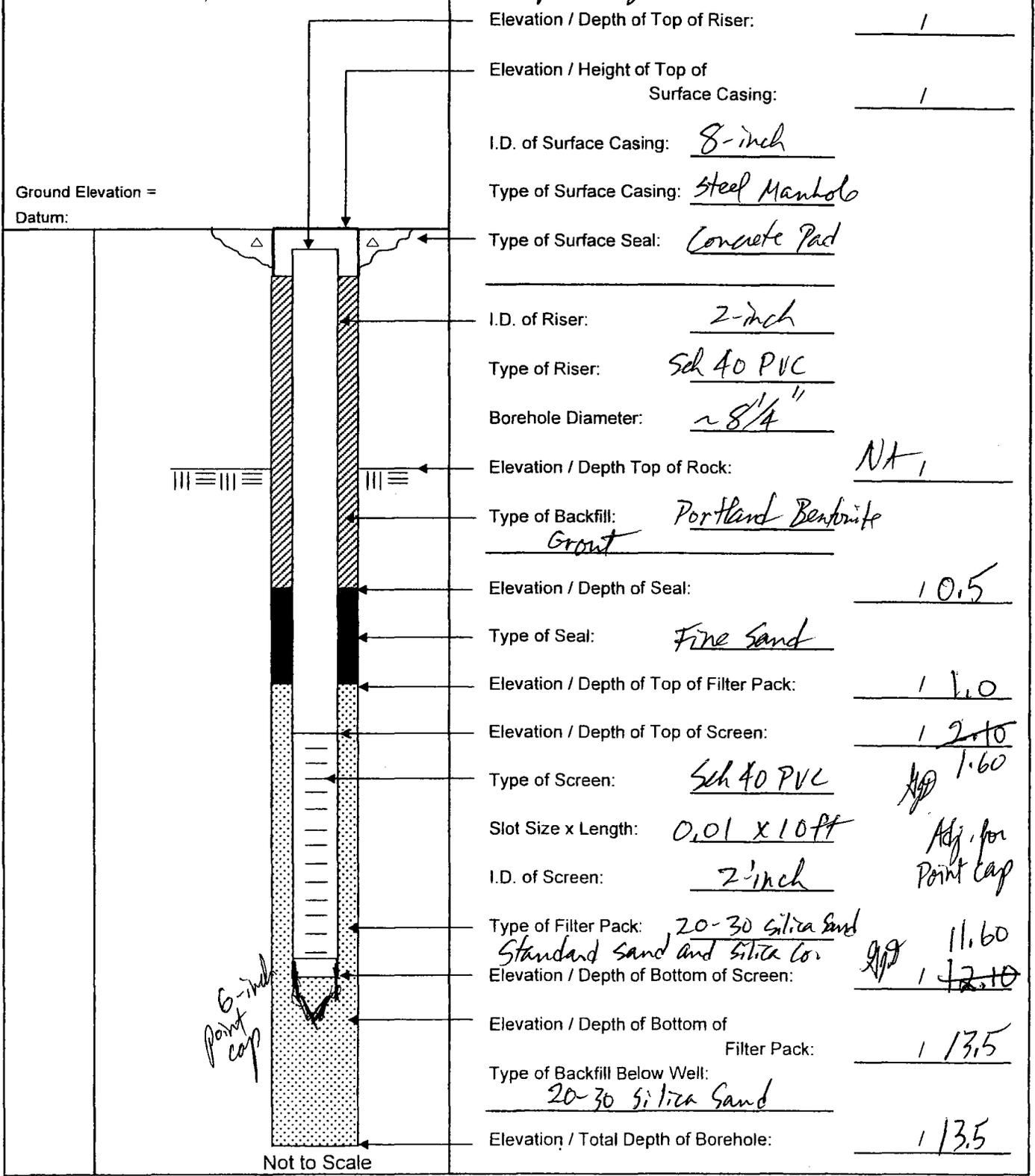
Tetra Tech NUS, Inc.

WELL No.: PCY-AOC2-MW16

Panama City

MONITORING WELL SHEET

PROJECT: N-CSS DRILLING Co.: Pro Sonic BORING No.: MW16
 PROJECT No.: N4221 DRILLER: Michael Stockton DATE COMPLETED: 8-13-02
 SITE: AOC2 DRILLING METHOD: HSA NORTHING: _____
 GEOLOGIST: Gary J. Davis DEV. METHOD: Pump & Surge EASTING: _____



Elevation / Depth of Top of Riser: 1
 Elevation / Height of Top of Surface Casing: 1
 I.D. of Surface Casing: 8-inch
 Type of Surface Casing: Steel Manhole
 Type of Surface Seal: Concrete Pad
 I.D. of Riser: 2-inch
 Type of Riser: Sch 40 PVC
 Borehole Diameter: ~8 1/4"
 Elevation / Depth Top of Rock: NA
 Type of Backfill: Portland Bentonite Grout
 Elevation / Depth of Seal: 10.5
 Type of Seal: Fine Sand
 Elevation / Depth of Top of Filter Pack: 1 11.0
 Elevation / Depth of Top of Screen: 1 12.10
 Type of Screen: Sch 40 PVC 1.60
 Slot Size x Length: 0.01 x 10 ft Adj. for Point cap
 I.D. of Screen: 2-inch
 Type of Filter Pack: 20-30 silica sand Standard sand and silica con 11.60
 Elevation / Depth of Bottom of Screen: 1 12.10
 Elevation / Depth of Bottom of Filter Pack: 1 13.5
 Type of Backfill Below Well: 20-30 silica sand
 Elevation / Total Depth of Borehole: 1 13.5

Not to Scale

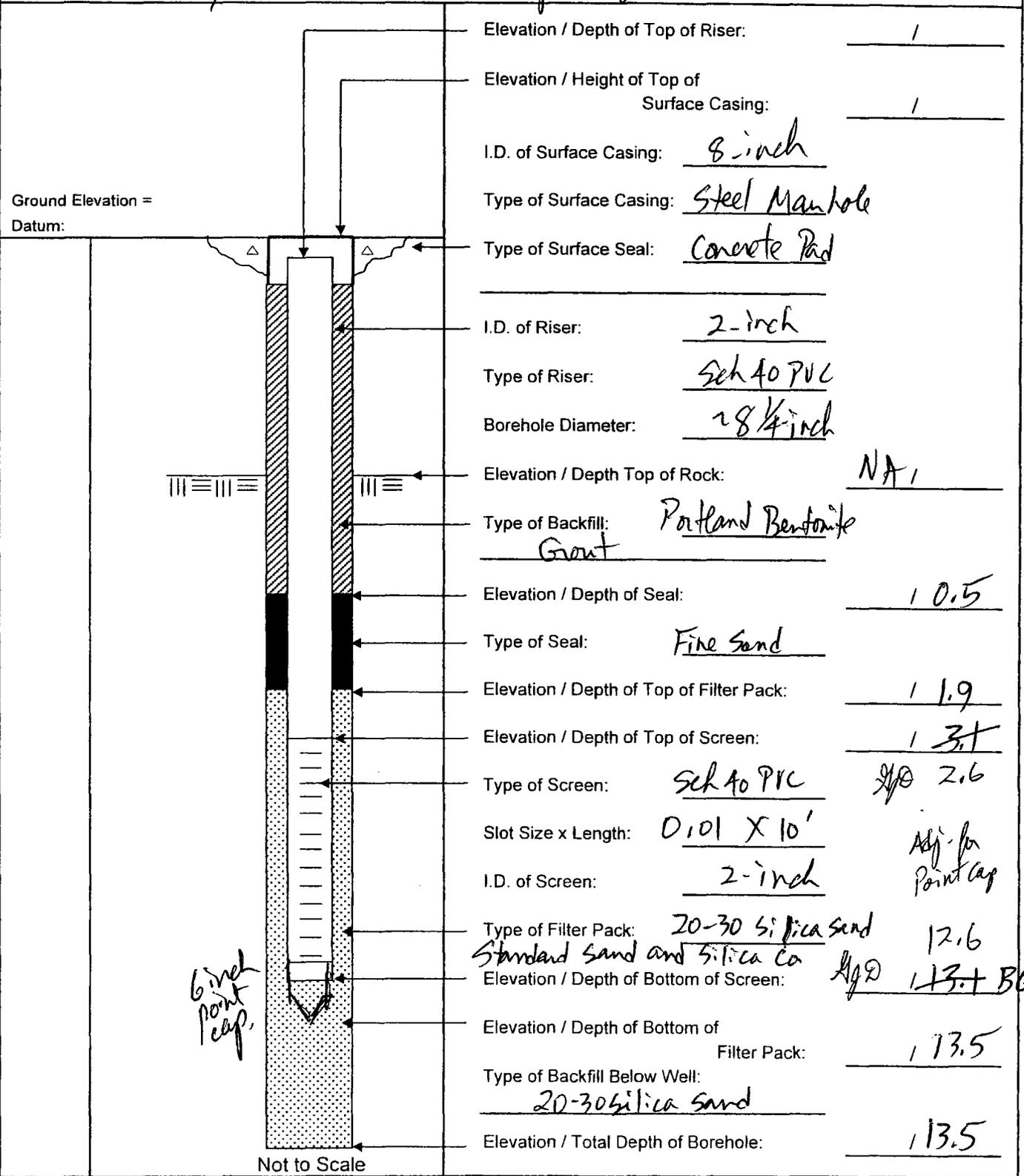


Tetra Tech NUS, Inc.

WELL No.: PLY-A0C2-MW17

MONITORING WELL SHEET

PROJECT: Panama City N-CSS DRILLING Co.: Pro Sonic BORING No.: MW-17
 PROJECT No.: N4221 DRILLER: Michael Stador DATE COMPLETED: 8-13-02
 SITE: A0C2 DRILLING METHOD: HSA NORTHING: _____
 GEOLOGIST: Gary J. Davis DEV. METHOD: Pump & Surge EASTING: _____



Elevation / Depth of Top of Riser: 1
 Elevation / Height of Top of Surface Casing: 1
 I.D. of Surface Casing: 8-inch
 Type of Surface Casing: Steel Manhole
 Type of Surface Seal: Concrete Pad
 I.D. of Riser: 2-inch
 Type of Riser: Sch 40 PVC
 Borehole Diameter: 2 8/16-inch
 Elevation / Depth Top of Rock: NA
 Type of Backfill: Portland Bentonite Grout
 Elevation / Depth of Seal: 1 0.5
 Type of Seal: Fine Sand
 Elevation / Depth of Top of Filter Pack: 1 1.9
 Elevation / Depth of Top of Screen: 1 3.1
 Type of Screen: Sch 40 PVC 2.6
 Slot Size x Length: 0.01 X 10' Adj. for Point Cap
 I.D. of Screen: 2-inch
 Type of Filter Pack: 20-30 silica sand 12.6
Standard sand and silica Ca Adj 13.1 BGS
 Elevation / Depth of Bottom of Screen: _____
 Elevation / Depth of Bottom of Filter Pack: 1 13.5
 Type of Backfill Below Well: 20-30 silica sand
 Elevation / Total Depth of Borehole: 13.5



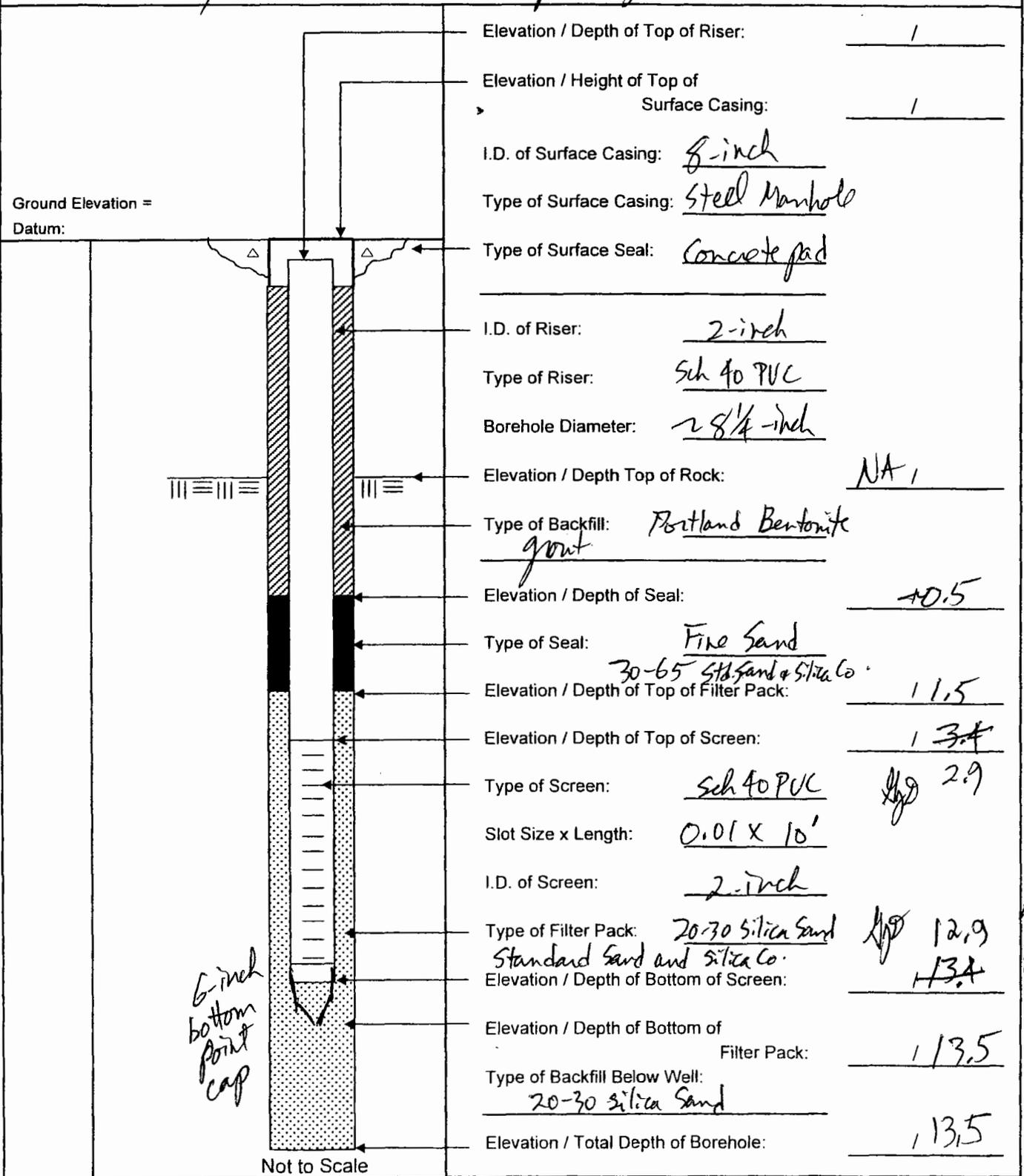
Tetra Tech NUS, Inc.

WELL No.: PCY-A012-MW18

Panama City

MONITORING WELL SHEET

PROJECT: Navy - CSS - AOC2 DRILLING Co.: ProSonic BORING No.: MW-18
 PROJECT No.: NA221 DRILLER: Michael Stockton DATE COMPLETED: 8-14-02
 SITE: AOC2 DRILLING METHOD: MSA NORTHING: _____
 GEOLOGIST: Gary J. Davis DEV. METHOD: Pumps & Sarge EASTING: _____





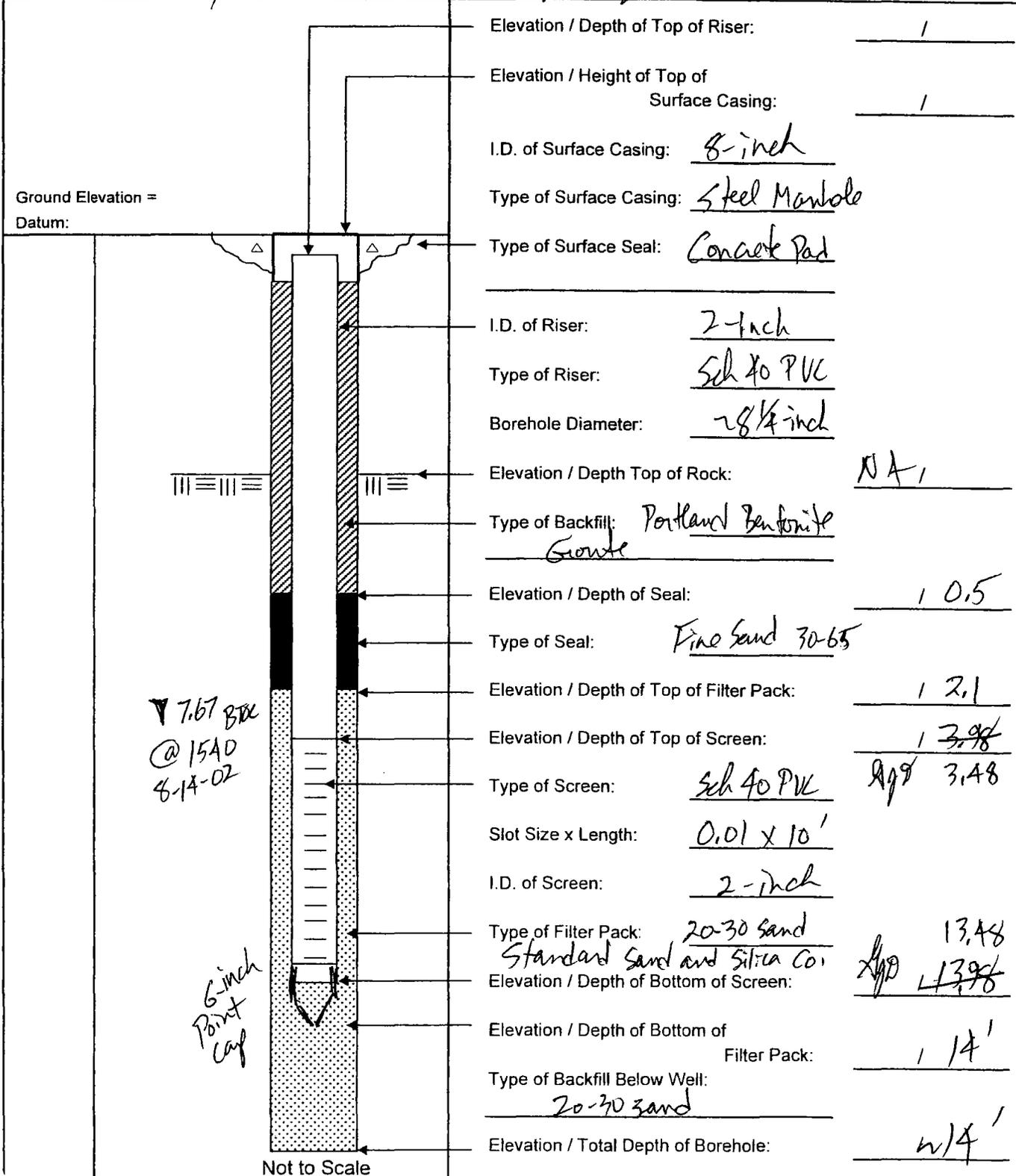
Tetra Tech NUS, Inc.

WELL No.: PCY-AOC2-MW19

Panama City

MONITORING WELL SHEET

PROJECT: Navy-CSS-AOC2 DRILLING Co.: Pro Sonic BORING No.: MW-19
 PROJECT No.: NA221 DRILLER: Michael Stackton DATE COMPLETED: 8-14-02
 SITE: AOC2 DRILLING METHOD: HSA NORTHING: _____
 GEOLOGIST: Gary Davis DEV. METHOD: Pump & Surge EASTING: _____





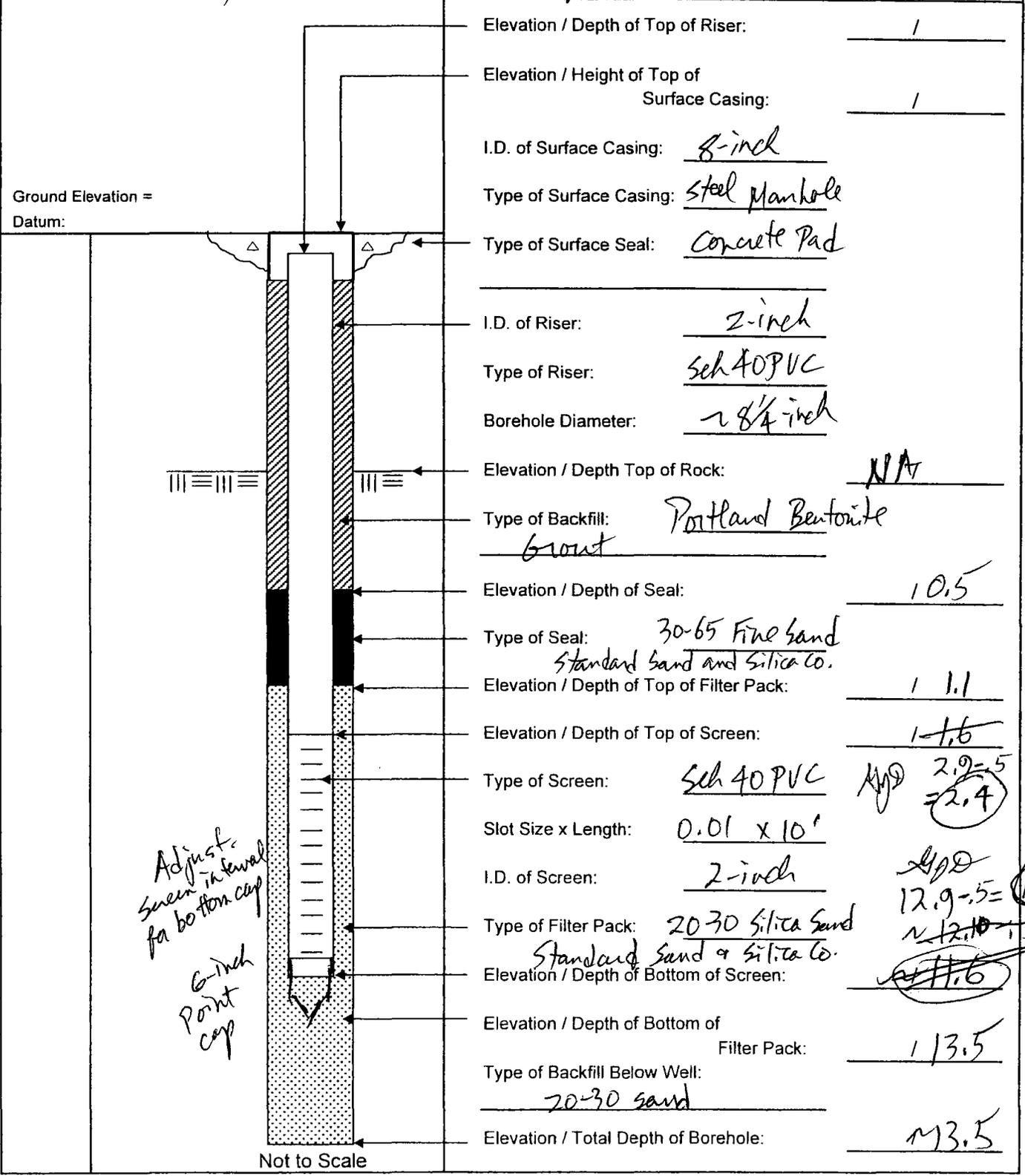
Tetra Tech NUS, Inc.

WELL No.: PCY-AOC2-MW20

Panama City

MONITORING WELL SHEET

PROJECT: Navy-CSS DRILLING Co.: Pro Sonic BORING No.: MW-20
 PROJECT No.: N4221 DRILLER: Michael Stockton DATE COMPLETED: 8-15-02
 SITE: AOC2 DRILLING METHOD: HSA NORTHING: _____
 GEOLOGIST: Gary J. Davis DEV. METHOD: Pump & Surge EASTING: _____



Elevation / Depth of Top of Riser: 1
 Elevation / Height of Top of Surface Casing: 1
 I.D. of Surface Casing: 8-inch
 Type of Surface Casing: steel manhole
 Type of Surface Seal: concrete pad
 I.D. of Riser: 2-inch
 Type of Riser: sch 40 PVC
 Borehole Diameter: ~ 8 1/4 inch
 Elevation / Depth Top of Rock: NA
 Type of Backfill: Portland Bentonite Grout
 Elevation / Depth of Seal: 10.5
 Type of Seal: 30-65 Fine sand Standard Sand and Silica Co.
 Elevation / Depth of Top of Filter Pack: 1 1.1
 Elevation / Depth of Top of Screen: 1-1.6
 Type of Screen: Sch 40 PVC App 2.9-5 = 2.4
 Slot Size x Length: 0.01 x 10'
 I.D. of Screen: 2-inch App 12.9-5 = 12.4
 Type of Filter Pack: 20-30 Silica Sand Standard Sand & Silica Co. ~ 12.10 - 1.5 = 11.6
 Elevation / Depth of Bottom of Screen: 11.6
 Elevation / Depth of Bottom of Filter Pack: 1 13.5
 Type of Backfill Below Well: 20-30 sand
 Elevation / Total Depth of Borehole: 13.5



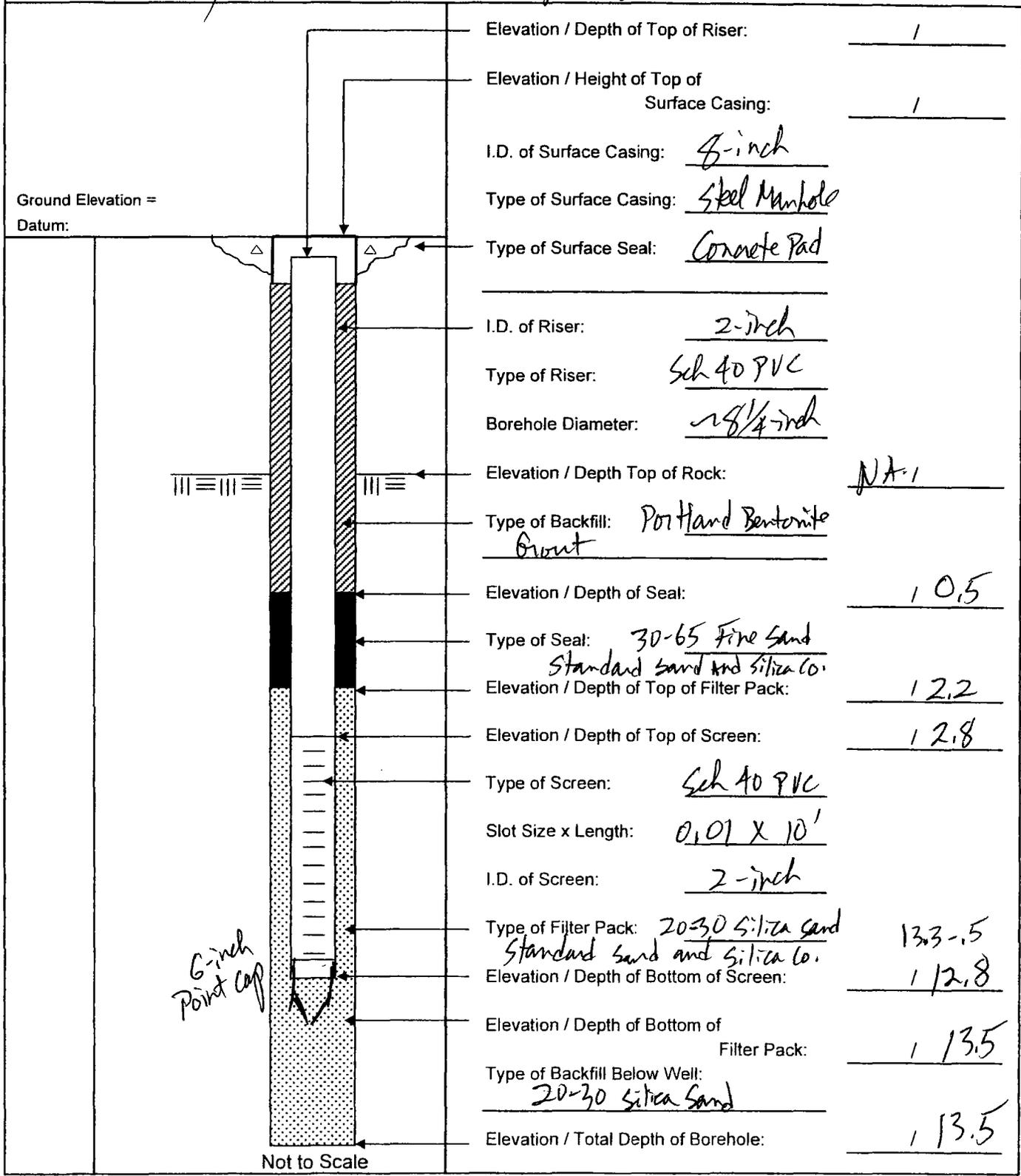
Tetra Tech NUS, Inc.

WELL No.: PCY-AOC2-MW21

Panama City

MONITORING WELL SHEET

PROJECT: Navy - CSS DRILLING Co.: ProSonic BORING No.: MW-21
 PROJECT No.: N4221 DRILLER: Michael Stackton DATE COMPLETED: 8-15-02
 SITE: AOC2 DRILLING METHOD: HSA NORTHING: _____
 GEOLOGIST: Gary J. Davis DEV. METHOD: Pumped Surge EASTING: _____



ATTACHMENT B



Project Site Name: AOC2 UST / PCY
Project No.: N4221

Sample ID No.: PCY A2 m1010
Sample Location: MW-10
Sampled By: ND
C.O.C. No.: 8

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: _____
- QA Sample Type: _____

- Type of Sample:
- Low Concentration
- High Concentration

SAMPLING DATA:

Date: <u>8/20/02</u>	Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	TBD ORP	TBD
Time: <u>11:55</u>								
Method: <u>LOW Flow trap</u>	<u>Clear</u>	<u>5.84</u>	<u>0.146</u>	<u>27.8</u>	<u>1.9</u>	<u>1.90</u>	<u>73</u>	

PURGE DATA:

Date: <u>8/20/02</u>	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	TBD ORP	TBD
Method: <u>LOW Flow</u>	<u>1.014</u>	<u>5.82</u>	<u>0.155</u>	<u>27.6</u>	<u>13.2</u>	<u>4.29</u>	<u>110</u>	<u>400ml/min</u>
Monitor Reading (ppm): <u>∅</u>	<u>1.4gal</u>	<u>5.85</u>	<u>0.150</u>	<u>27.8</u>	<u>0.0</u>	<u>2.01</u>	<u>73</u>	<u>1145</u>
Well Casing Diameter & Material Type: <u>2" PVC</u>	<u>1.7gal</u>	<u>5.87</u>	<u>0.149</u>	<u>27.9</u>	<u>0.1</u>	<u>1.95</u>	<u>72</u>	<u>1148</u>
	<u>2.0gal</u>	<u>5.88</u>	<u>0.148</u>	<u>27.8</u>	<u>0.0</u>	<u>1.93</u>	<u>72</u>	<u>1151</u>
Total Well Depth (TD): <u>13.98</u>	<u>2.25gal</u>	<u>5.84</u>	<u>0.146</u>	<u>27.8</u>	<u>1.9</u>	<u>1.90</u>	<u>73</u>	<u>1154</u>
Static Water Level (WL): <u>5.40</u>								
One Casing Volume (gal): <u>1.38</u>								
Start Purge (hrs): <u>11:20</u>								
End Purge (hrs): <u>11:54</u>								
Total Purge Time (min): <u>34</u>								
Total Vol. Purged (gal): <u>2.5</u>								

13.58
5.40
8.58
1.86
0.09
0.43
1.38

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
<u>8260</u>	<u>H2Z</u>	<u>3x400ml</u>	<u>✓</u>
<u>EDR</u>	<u>HCL</u>	<u>3x400ml</u>	<u>✓</u>
<u>LCAD</u>	<u>NNO3</u>	<u>1 x 12 poly</u>	<u>✓</u>
<u>8270</u>	<u>4°C</u>	<u>2 x 12 amber</u>	<u>✓</u>
<u>FL-PRO</u>	<u>4°C</u>	<u>2 x 12 amber</u>	<u>✓</u>
	<u>*Pres. @</u>	<u>Lab</u>	

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Drawdown of 5.41' TOC @ Purge rate

Circle if Applicable:

MS/MSD Duplicate ID No.:

Signature(s):

web p oca



Project Site Name: PCY AOC2 OST
Project No.: N 4221

Sample ID No.: PCY - A2 - MW - 11
Sample Location: PCY - A2
Sampled By: SRM
C.O.C. No.: _____

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: _____
- QA Sample Type: _____

- Type of Sample:
- Low Concentration
 - High Concentration

SAMPLING DATA:

Date: <u>8/20/02</u>	Color	pH	S.C.	Temp.	Turbidity	DO	TBD	TBD
Time: <u>1155</u>	Visual	Standard	mS/cm	°C	NTU	mg/l	ORP	Time
Method: <u>Peristaltic Pump</u>	<u>Clear</u>	<u>5.50</u>	<u>0.126</u>	<u>26.4</u>	<u>1.3</u>	<u>0.61</u>	<u>-141</u>	<u>1155</u>

PURGE DATA:

Date: <u>8/20/02</u>	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	TBD	Time
Method: <u>Peristaltic Pump</u>		<u>5.61</u>	<u>0.138</u>	<u>26.3</u>	<u>1.8</u>	<u>0.63</u>	<u>-111</u>		<u>1230</u>
Monitor Reading (ppm): <u>0</u>	<u>2.5</u>	<u>5.59</u>	<u>0.129</u>	<u>26.3</u>	<u>1.1</u>	<u>0.69</u>	<u>-115</u>		<u>1235</u>
Well Casing Diameter & Material	<u>5.0</u>	<u>5.56</u>	<u>0.129</u>	<u>26.3</u>	<u>1.2</u>	<u>0.67</u>	<u>-124</u>		<u>1240</u>
Type: <u>2" PVC</u>	<u>7.5</u>	<u>5.53</u>	<u>0.130</u>	<u>26.3</u>	<u>1.2</u>	<u>0.65</u>	<u>-132</u>		<u>1245</u>
Total Well Depth (TD): <u>14.8</u>	<u>10.0</u>	<u>5.50</u>	<u>0.126</u>	<u>26.4</u>	<u>1.3</u>	<u>0.61</u>	<u>-141</u>		<u>1250</u>
Static Water Level (WL): <u>5.71</u>									
One Casing Volume (gal/L): <u>1.45</u>									
Start Purge (hrs): <u>1230</u> <u>1130</u>									
End Purge (hrs): <u>1250</u> <u>1150</u>									
Total Purge Time (min): <u>20</u>									
Total Vol. Purged (gal/L): <u>10</u>									

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
<u>8260</u>	<u>HCl</u>	<u>40 ml vials 3 ea</u>	<input checked="" type="checkbox"/>
<u>8270 PAH</u>		<u>2.1 liter Amber</u>	<input checked="" type="checkbox"/>
<u>PAHs</u>			
<u>FL-PRO</u>		<u>2.1 liter Amber</u>	<input checked="" type="checkbox"/>
<u>LEAD</u>	<u>HNO3</u>	<u>1-500 ml plastic</u>	<input checked="" type="checkbox"/>
<u>EDB</u>	<u>HCl</u>	<u>40 ml vials 3 ea</u>	<input checked="" type="checkbox"/>

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Pump Rate 500 ml/min
Drawdown to 5.74

Circle if Applicable:

MS/MSD	Duplicate ID No.:
--------	-------------------

Signature(s):

Scott R. McGuire



Project Site Name: PC4 AOC2
Project No.: N4227

Sample ID No.: MW12D
Sample Location: MW12D
Sampled By: WAO
C.O.C. No.: _____

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: _____
- QA Sample Type: _____

- Type of Sample:
 - Low Concentration
 - High Concentration

SAMPLING DATA:

Date:	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity	Other
8/21/02	clear	5.49	0.135	28.1	14.1	1.36	50	

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
8/21/02	1WIT	5.55	0.133	28.9	21.3	3.59	40	20000/100
Method: LOWFLOW	2 Q	5.48	0.133	28.8	18.1	2.16	45	DD5.35
Monitor Reading (ppm): 11.4	4 Q	5.52	0.135	28.5	11.4	1.62	44	DD5.35
Well Casing Diameter & Material Type: 2" PVC	6 Q	5.49	0.133	28.2	5.5	1.46	49	DD5.36
Total Well Depth (TD): 35.80	8 Q	5.49	0.133	28.2	12.7	1.41	49	
Static Water Level (WL): 4.83	10 Q	5.49	0.135	28.1	14.1	1.36	51	DD 5.37
One Casing Volume (gal/L): 4.8								
Start Purge (hrs): 1150								
End Purge (hrs): 1235								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): 10 Q								

4.17
35.80
4.83
30.97
3.01
1.30
1.5
4.8

AD 5.29

Purge system vol. 22L

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
8260	HCL	3x 40ml	✓
EDB	HCL	3x 40ml	✓
Lead	HNO3	1 x 12 Poly	✓
8270	40C	2 x 12 amber	✓
FL-PRO	H2SO4	2 x 12 amber	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
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Signature(s):

WAO



Project Site Name: PC4 AOC2 UST
Project No.: NH22

Sample ID No.: PC4 A2 MUB

Sample Location: MW-13

Sampled By: WPO

C.O.C. No.: _____

Type of Sample: _____

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: _____
- QA Sample Type: _____

- Low Concentration
- High Concentration

SAMPLING DATA:

Date: <u>8/2/10</u>	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	Other
Time: <u>1015</u>	<u>Clear</u>	<u>5.75</u>	<u>0.213</u>	<u>28.2</u>	<u>1.3</u>	<u>1.18</u>	<u>-184</u>	
Method: <u>Low Flow Trap</u>								

PURGE DATA:

Date: <u>8/2/10</u>	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: <u>Low Flow</u>	<u>INIT</u>	<u>5.89</u>	<u>0.230</u>	<u>28.4</u>	<u>2.3</u>	<u>3.53</u>	<u>-152</u>	<u>400 ml/min</u>
Monitor Reading (ppm): <u>0</u>	<u>1.4</u>	<u>5.76</u>	<u>0.219</u>	<u>28.3</u>	<u>-4.9</u>	<u>1.51</u>	<u>-169</u>	<u>1005</u>
Well Casing Diameter & Material Type: <u>2" PVC</u>		<u>5.75</u>	<u>0.21</u>	<u>28.2</u>	<u>4.9</u>	<u>1.29</u>	<u>-178</u>	<u>1008</u>
Total Well Depth (TD): <u>14.65</u>		<u>5.75</u>	<u>0.215</u>	<u>28.2</u>	<u>-3.0</u>	<u>1.26</u>	<u>-180</u>	<u>1011</u>
Static Water Level (WL): <u>6.28</u>								
One Casing Volume (gal/L): <u>1.34</u>								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
<u>B260</u>	<u>HCL</u>	<u>3X 40ml</u>	<u>X</u>
<u>EDB</u>	<u>HCL</u>	<u>3X 40ml</u>	<u>X</u>
<u>Lead</u>	<u>HNO3</u>	<u>1X 12 polyc</u>	<u>X</u>
<u>B270</u>	<u>HOC</u>	<u>2X 12 amber</u>	<u>X</u>
<u>FL-PRO</u>	<u>H2SO4</u>	<u>2X 12 amber</u>	<u>X</u>

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
--------	-------------------

Signature(s):

WPO

14.85
6.28
8.37
.84
.42
.08
1.34

DD6.29



Project Site Name: PCY 140C2 Sample ID No.: PCY 42 MW14
 Project No.: N4221 Sample Location: MW14
 Sampled By: WBO
 C.O.C. No.: _____
 Type of Sample: _____
 Domestic Well Data
 Monitoring Well Data
 Other Well Type: _____
 QA Sample Type: _____
 Low Concentration
 High Concentration

SAMPLING DATA:

Date: <u>8/20/02</u>	Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	TBD ORP	TBD
Time: <u>1340</u>	<u>Clear</u>	<u>6.08</u>	<u>0.335</u>	<u>31.9</u>	<u>-2.2</u>	<u>1.07</u>	<u>-156</u>	
Method: <u>Low Flow Amp</u>								

PURGE DATA:

Date: <u>8/20/02</u>	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP TBD	TBD <u>ORP</u>
Method: <u>Low Flow</u>	<u>1.17</u>	<u>6.15</u>	<u>0.31</u>	<u>32.0</u>	<u>2.3</u>	<u>2.95</u>	<u>-136</u>	<u>400ml</u>
Monitor Reading (ppm): <u>0</u>	<u>1.4</u>	<u>6.08</u>	<u>0.331</u>	<u>31.9</u>	<u>-0.5</u>	<u>1.38</u>	<u>-146</u>	<u>1330</u>
Well Casing Diameter & Material Type: <u>2" PVC</u>	<u>1.7</u>	<u>6.08</u>	<u>0.341</u>	<u>31.9</u>	<u>-1.1</u>	<u>1.15</u>	<u>-151</u>	<u>1333</u>
	<u>2.0</u>	<u>6.09</u>	<u>0.346</u>	<u>31.9</u>	<u>-2.1</u>	<u>1.09</u>	<u>-154</u>	<u>1336</u>
Total Well Depth (TD): <u>13.53</u>	<u>2.25</u>	<u>6.08</u>	<u>0.335</u>	<u>31.9</u>	<u>-2.2</u>	<u>1.07</u>	<u>-156</u>	<u>1339</u>
Static Water Level (WL): <u>4.89</u>								
One Casing Volume (gal/L): <u>1.38</u>								
Start Purge (hrs): <u>13:10</u>								
End Purge (hrs): <u>13:39</u>								
Total Purge Time (min): <u>29</u>								
Total Vol. Purged (gal/L): <u>2.5</u>								

DD.491

2.4
13.53
4.89
8.64
1
9
138

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
<u>8260</u>	<u>HCL</u>	<u>3X 400ml</u>	
<u>EDB</u>	<u>HCL</u>	<u>3X 400ml</u>	
<u>Lead</u>	<u>HNO3</u>	<u>1X 16 poly</u>	
<u>8276</u>	<u>40</u>	<u>2X 16 amber</u>	
<u>FL-PRO</u>	<u>40</u>	<u>2X 16 amber</u>	
		<u>lab Pres. upon receipt</u>	

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

sulfuro odor from water

Circle if Applicable:

Signature(s):

MS/MSD

Duplicate ID No.:

WBO



GROUNDWATER SAMPLE LOG SHEET

Project Site Name: PCYUST AOC2
Project No.: N4221

Sample ID No.: PCY42 MW15
Sample Location: MW-15
Sampled By: UAD

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: _____
- QA Sample Type: _____

C.O.C. No.: _____
Type of Sample:
 Low Concentration
 High Concentration

SAMPLING DATA:

Date:	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (‰)	Other
<u>6/21/02</u>	<u>Clear</u>	<u>6.18</u>	<u>0.187</u>	<u>31.1</u>	<u>3.0</u>	<u>1.16</u>	<u>0.75</u>	<u>-225</u>

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
<u>6/21/02</u>	<u>INIT</u>	<u>6.04</u>	<u>0.219</u>	<u>30.8</u>	<u>6.8</u>	<u>2.69</u>	<u>-170</u>	<u>300 Mm</u>
Method: <u>LOW FLOW</u>								
Monitor Reading (ppm): <u>5.1</u>	<u>1.4</u>	<u>6.15</u>	<u>0.187</u>	<u>30.9</u>	<u>2.3</u>	<u>1.16</u>	<u>-210</u>	<u>0825</u>
Well Casing Diameter & Material	<u>1.6</u>	<u>6.16</u>	<u>0.187</u>	<u>31.1</u>	<u>2.3</u>	<u>1.17</u>	<u>-215</u>	<u>0828</u>
Type: <u>2" PVC</u>	<u>1.8</u>	<u>6.16</u>	<u>0.186</u>	<u>30.9</u>	<u>2.9</u>	<u>1.13</u>	<u>-219</u>	<u>084131</u>
Total Well Depth (TD): <u>13.30</u>	<u>2.0</u>	<u>6.18</u>	<u>0.187</u>	<u>31.1</u>	<u>3.0</u>	<u>1.16</u>	<u>-225</u>	<u>084434</u>
Static Water Level (WL): <u>4.50</u>								
One Casing Volume (gal/L): <u>1.41</u>								
Start Purge (hrs): <u>0800</u>								
End Purge (hrs): <u>0835</u>								
Total Purge Time (min): <u>35</u>								
Total Vol. Purged (gal/L): <u>3.6</u>								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
<u>0260</u>	<u>NCL</u>	<u>3x40ml</u>	<u>✓</u>
<u>ED19</u>	<u>NCL</u>	<u>3x40ml</u>	<u>✓</u>
<u>Lead</u>	<u>HNO3</u>	<u>1x10 poly</u>	<u>✓</u>
<u>0270</u>	<u>HOC</u>	<u>2x10 amber</u>	<u>✓</u>
<u>FLURO</u>	<u>H2SO4</u>	<u>2x10 amber</u>	<u>✓</u>

OBSERVATIONS / NOTES:

sulfur odor

Circle if Applicable:

MS/MSD	Duplicate ID No.:
--------	-------------------

Signature(s):

W. D. Olson

2.80
4.50
8.80

2.88
1.44
1.09

1.41

DD4.53
DD4.53
0828
084131
084434



Project Site Name: PCY AOC2 UST Sample ID No.: PCY - A2 - MW16
 Project No.: N 4221 Sample Location: PCY - A2
 Sampled By: SRM
 Domestic Well Data C.O.C. No.: _____
 Monitoring Well Data Type of Sample: _____
 Other Well Type: _____ Low Concentration
 QA Sample Type: _____ High Concentration

SAMPLING DATA:

Date: <u>8/20/02</u>	Color	pH	S.C.	Temp.	Turbidity	DO	TBD	TBD
Time: <u>1355</u>	Visual	Standard	mS/cm	°C	NTU	mg/l	ORP	Time
Method: <u>Peristaltic</u>	<u>Clear</u>	<u>5.61</u>	<u>0.228</u>	<u>30.8</u>	<u>2.1</u>	<u>0.51</u>	<u>-44</u>	<u>1355</u>

PURGE DATA:

Date: <u>8/20/02</u>	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	TBD	TBD Time
Method: <u>Peristaltic</u>		<u>5.65</u>	<u>0.239</u>	<u>31.2</u>	<u>4.7</u>	<u>0.63</u>	<u>-8</u>	<u>1325</u>
Monitor Reading (ppm): <u>0</u>	<u>1.5</u>	<u>5.64</u>	<u>0.241</u>	<u>31.2</u>	<u>4.3</u>	<u>0.60</u>	<u>-12</u>	<u>1330</u>
Well Casing Diameter & Material	<u>3.0</u>	<u>5.58</u>	<u>0.225</u>	<u>30.8</u>	<u>3.3</u>	<u>0.53</u>	<u>-33</u>	<u>1340</u>
Type: <u>2" PVC</u>	<u>4.5</u>	<u>5.60</u>	<u>0.229</u>	<u>31.0</u>	<u>2.9</u>	<u>0.52</u>	<u>-44</u>	<u>1345</u>
Total Well Depth (TD): <u>12.4</u>	<u>6.0</u>	<u>5.61</u>	<u>0.228</u>	<u>30.8</u>	<u>2.1</u>	<u>0.51</u>	<u>-44</u>	<u>1350</u>
Static Water Level (WL): <u>5.06</u>								
One Casing Volume (gal/L): <u>1.17</u>								
Start Purge (hrs): <u>1325</u>								
End Purge (hrs): <u>1350</u>								
Total Purge Time (min): <u>25</u>								
Total Vol. Purged (gal/L): <u>6.0</u>								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
<u>8260</u>	<u>HCl</u>	<u>40 ml vials 3 ea</u>	<u>✓</u>
<u>8270 PAH</u>		<u>2 - 1 litre Amber</u>	<u>✓</u>
<u>FL-PRO</u>		<u>2 - 1 litre Amber</u>	<u>✓</u>
<u>EDB</u>	<u>HCl</u>	<u>40 ml vials 3 ea</u>	<u>✓</u>
<u>LEAD</u>	<u>HNO3</u>	<u>1 - 500 ml plastic</u>	<u>✓</u>

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).
 Pump Rate 300 ml/min
 Drawdown to 5.09

Circle if Applicable: MS/MSD Duplicate ID No.: _____ Signature(s): Scott R. McGuire



Project Site Name:	<u>PCY AOC2 OST</u>	Sample ID No.:	<u>PCY-A2-MW17</u>
Project No.:	<u>104221</u>	Sample Location:	<u>PCY-A2</u>
<input type="checkbox"/> Domestic Well Data		Sampled By:	<u>SRM</u>
<input checked="" type="checkbox"/> Monitoring Well Data		C.O.C. No.:	
<input type="checkbox"/> Other Well Type:		Type of Sample:	
<input type="checkbox"/> QA Sample Type:		<input checked="" type="checkbox"/> Low Concentration	
		<input type="checkbox"/> High Concentration	

SAMPLING DATA:

Date:	Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	TBD ORP	TBD TIME
<u>8/21/02</u>								
Time: <u>0835</u>								
Method: <u>Peristaltic Pump</u>	<u>clear</u>	<u>6.06</u>	<u>0.201</u>	<u>31.2</u>	<u>1.3</u>	<u>0.47</u>	<u>-194</u>	<u>0835</u>

PURGE DATA:

Date:	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	TBD	TBD
<u>8/21/02</u>								
Method: <u>Peristaltic Pump</u>		<u>5.87</u>	<u>0.217</u>	<u>31.2</u>	<u>11.4</u>	<u>0.87</u>	<u>-159</u>	<u>0800</u>
Monitor Reading (ppm):	<u>2</u>	<u>6.04</u>	<u>0.205</u>	<u>30.8</u>	<u>3.9</u>	<u>1.96</u>	<u>-164</u>	<u>0805</u>
Well Casing Diameter & Material	<u>4</u>	<u>6.06</u>	<u>0.216</u>	<u>31.1</u>	<u>3.4</u>	<u>0.55</u>	<u>-185</u>	<u>0810</u>
Type: <u>2" PVC</u>	<u>6</u>	<u>6.04</u>	<u>0.208</u>	<u>31.3</u>	<u>5.2</u>	<u>0.50</u>	<u>-192</u>	<u>0815</u>
Total Well Depth (TD): <u>12.6</u>	<u>8.65</u>	<u>6.04</u>	<u>0.207</u>	<u>31.3</u>	<u>4.6</u>	<u>0.48</u>	<u>-192</u>	<u>0820</u>
Static Water Level (WL): <u>4.97</u>	<u>6.8570</u>	<u>6.08</u>	<u>0.204</u>	<u>31.5</u>	<u>3.0</u>	<u>0.49</u>	<u>-198</u>	<u>0825</u>
One Casing Volume (gal/L): <u>1.22</u>	<u>2.075</u>	<u>6.06</u>	<u>0.201</u>	<u>31.2</u>	<u>1.3</u>	<u>0.47</u>	<u>-194</u>	<u>0830</u>
Start Purge (hrs): <u>0800</u>								
End Purge (hrs): <u>0830</u>								
Total Purge Time (min): <u>30</u>								
Total Vol. Purged (gal/L): <u>7.5</u>								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
<u>8260</u>	<u>HCl</u>	<u>3-40 ml vials</u>	<u>✓</u>
<u>8270 PAH</u>		<u>2-1 liter Amber</u>	<u>✓</u>
<u>FL-PRO</u>	<u>I</u>	<u>2-1 liter Amber</u>	<u>✓</u>
<u>F-DB</u>	<u>HCl</u>	<u>3-40 ml vials</u>	<u>✓</u>
<u>LEAD</u>	<u>HNO3</u>	<u>1-500ml Plastic</u>	<u>✓</u>

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Pump Rate 400 ml/min
 Drawdown to 5.0'
 0815 slowed to 100ml/min
 Slight Petroleum odor

Circle if Applicable:

MS/MSD

Duplicate ID No.:

PCY-A2-Dup1

Signature(s):

Scott R. McGinnis



Project Site Name:	<u>PCY AOC2 UST</u>	Sample ID No.:	<u>PCY-A2-MW18</u>
Project No.:	<u>N4221</u>	Sample Location:	<u>PCY-A2</u>
<input type="checkbox"/> Domestic Well Data		Sampled By:	<u>SRN</u>
<input checked="" type="checkbox"/> Monitoring Well Data		C.O.C. No.:	
<input type="checkbox"/> Other Well Type:		Type of Sample:	
<input type="checkbox"/> QA Sample Type:		<input checked="" type="checkbox"/> Low Concentration	
		<input type="checkbox"/> High Concentration	

SAMPLING DATA:

Date:	<u>8/21/02</u>	Color		pH		S.C.		Temp.		Turbidity		DO		TBD		TBD
Time:	<u>1200</u>	Visual		Standard		mS/cm		°C		NTU		mg/l		ORP		TIME
Method:	<u>Peristaltic</u>	<u>Clear</u>		<u>5.75</u>		<u>0.142</u>		<u>26.9</u>		<u>0</u>		<u>0.44</u>		<u>-88</u>		<u>1200</u>

PURGE DATA:

Date:	<u>8/21/02</u>	Volume		pH		S.C.		Temp. (C)		Turbidity		DO		TBD		TBD
Method:	<u>Peristaltic</u>			<u>6.02</u>		<u>0.146</u>		<u>26.9</u>		<u>5.5</u>		<u>0.90</u>		<u>-97</u>		<u>1135</u>
Monitor Reading (ppm):	<u>0</u>	<u>15</u>		<u>5.85</u>		<u>0.144</u>		<u>26.9</u>		<u>1.5</u>		<u>0.58</u>		<u>-95</u>		<u>1140</u>
Well Casing Diameter & Material	<u>3.0</u>	<u>5.78</u>		<u>0.143</u>		<u>26.9</u>		<u>0.5</u>		<u>0.46</u>		<u>-90</u>		<u>1145</u>		
Type: <u>2" PVC</u>	<u>4.5</u>	<u>5.75</u>		<u>0.142</u>		<u>26.9</u>		<u>0</u>		<u>0.44</u>		<u>-88</u>		<u>1150</u>		
Total Well Depth (TD): <u>13'</u>	<u>6.0</u>	<u>5.73</u>		<u>0.140</u>		<u>26.9</u>		<u>0</u>		<u>0.41</u>		<u>-85</u>		<u>1155</u>		
Static Water Level (WL): <u>4.84</u>																
One Casing Volume (gal/L): <u>1.30</u>																
Start Purge (hrs): <u>1135</u>																
End Purge (hrs): <u>1155</u>																
Total Purge Time (min): <u>205</u>																
Total Vol. Purged (gal/L): <u>6.0</u>																

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
<u>B260</u>	<u>HCl</u>	<u>3- 40ml vials</u>	<input checked="" type="checkbox"/>
<u>B270 PAH</u>		<u>2- 1 liter Amber</u>	<input checked="" type="checkbox"/>
<u>FL-PRO</u>	<u>HCl</u>	<u>2- 1 liter Amber</u>	<input checked="" type="checkbox"/>
<u>EDB</u>	<u>HCl</u>	<u>3- 40 ml vials</u>	<input checked="" type="checkbox"/>
<u>LEAD</u>	<u>HNO3</u>	<u>1- 500ml Plastic</u>	<input checked="" type="checkbox"/>

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Pumping Rate 300 ml/min
Drawdown to 4.87

Circle if Applicable:

MS/MSD Duplicate ID No.:

Signature(s):

Scott R. McQuinn



Project Site Name: PCY AOC 2 US1
 Project No.: N4221

Domestic Well Data
 Monitoring Well Data
 Other Well Type:
 QA Sample Type:

Sample ID No.: PCY-A2-MW19
 Sample Location: PCY-A2
 Sampled By: SRM
 C.O.C. No.:
 Type of Sample:
 Low Concentration
 High Concentration

SAMPLING DATA:

Date: <u>8/21/02</u>	Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	TBD ORP	TBD TIME
Time: <u>1035</u>	<u>clear</u>	<u>6.07</u>	<u>0.52</u>	<u>25.7</u>	<u>1.2</u>	<u>2.82</u>	<u>72</u>	<u>1035</u>
Method: <u>Peristaltic</u>								

PURGE DATA:

Date: <u>8/21/02</u>	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	TBD	TBD
Method: <u>Peristaltic</u>		<u>6.14</u>	<u>0.140</u>	<u>25.7</u>	<u>9.7</u>	<u>3.54</u>	<u>85</u>	<u>1010</u>
Monitor Reading (ppm): <u>0</u>	<u>1.5</u>	<u>6.13</u>	<u>0.150</u>	<u>25.7</u>	<u>4.8</u>	<u>3.18</u>	<u>72</u>	<u>1015</u>
Well Casing Diameter & Material	<u>3.0</u>	<u>6.11</u>	<u>0.151</u>	<u>25.7</u>	<u>1.5</u>	<u>2.94</u>	<u>67</u>	<u>1020</u>
Type: <u>2" PVC</u>	<u>4.5</u>	<u>6.07</u>	<u>0.152</u>	<u>25.7</u>	<u>1.6</u>	<u>2.84</u>	<u>73</u>	<u>1025</u>
Total Well Depth (TD): <u>13.8</u>	<u>6.0</u>	<u>6.07</u>	<u>0.152</u>	<u>25.7</u>	<u>1.2</u>	<u>2.82</u>	<u>72</u>	<u>1030</u>
Static Water Level (WL): <u>7.82</u>								
One Casing Volume (gal/L): <u>3.28</u>								
Start Purge (hrs): <u>1010</u>								
End Purge (hrs): <u>1030</u>								
Total Purge Time (min): <u>20</u>								
Total Vol. Purged (gal/L): <u>6.0</u>								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
B266 B260	HCl	3-40 ml vials	✓
B270 PAH	—	2-1 liter Amber	✓
FL-PRO	HCl	2-1 liter Amber	✓
EDB	HCl	3-40 ml vials	✓
LEAD	HNO3	1-500 ml Plastic	✓

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Pumping Rate 300 ml/min
Drawdown to 7.89

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Scott R. McGuire



Project Site Name: PCY AOC2 UST
Project No.: N4221

Sample ID No.: PCY-A2-MW20
Sample Location: PCY-A2
Sampled By: SRM

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: _____
- QA Sample Type: _____

C.O.C. No.: _____
Type of Sample:
 Low Concentration
 High Concentration

SAMPLING DATA:

Date: <u>8/21/02</u>	Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	TBD ORP	TBD TIME
Time: <u>1315</u>	<u>clear</u>	<u>6.29</u>	<u>0.186</u>	<u>28.8</u>	<u>0.6</u>	<u>0.39</u>	<u>-237</u>	<u>1310</u>
Method: <u>Peristaltic</u>								

PURGE DATA:

Date: <u>8/21/02</u>	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	TBD	TBD
Method: <u>Peristaltic</u>		<u>6.13</u>	<u>0.181</u>	<u>28.4</u>	<u>30.0</u>	<u>1.22</u>	<u>-206</u>	<u>1245</u>
Monitor Reading (ppm): <u>0</u>	<u>1.5</u>	<u>6.14</u>	<u>0.174</u>	<u>28.7</u>	<u>7.8</u>	<u>0.76</u>	<u>-213</u>	<u>1250</u>
Well Casing Diameter & Material Type: <u>2" PVC</u>	<u>3.0</u>	<u>6.14</u>	<u>0.184</u>	<u>28.7</u>	<u>6.1</u>	<u>0.49</u>	<u>-226</u>	<u>1255</u>
	<u>4.5</u>	<u>6.13</u>	<u>0.198</u>	<u>28.8</u>	<u>4.7</u>	<u>0.42</u>	<u>-226</u>	<u>1300</u>
Total Well Depth (TD): <u>12.8</u>	<u>6.0</u>	<u>6.11</u>	<u>0.193</u>	<u>28.7</u>	<u>2.1</u>	<u>0.40</u>	<u>-228</u>	<u>1305</u>
Static Water Level (WL): <u>6.0</u>	<u>7.5</u>	<u>6.09</u>	<u>0.186</u>	<u>28.8</u>	<u>0.6</u>	<u>0.39</u>	<u>-237</u>	<u>1310</u>
One Casing Volume (gal/L): <u>1.08</u> <u>4.31</u>								
Start Purge (hrs): <u>1.245</u>								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
<u>8260</u>	<u>Hcl</u>	<u>3-40 ml vials</u>	<input checked="" type="checkbox"/>
<u>8270 PAH</u>		<u>2-1 liter Amber</u>	<input checked="" type="checkbox"/>
<u>FI-PRO</u>	<u>Hcl</u>	<u>2-1 liter Amber</u>	<input checked="" type="checkbox"/>
<u>EDB</u>	<u>Hcl</u>	<u>3-40 ml Vials</u>	<input checked="" type="checkbox"/>
<u>LEAD</u>	<u>HNO3</u>	<u>1-500 ml plastic</u>	<input checked="" type="checkbox"/>

OBSERVATIONS / NOTES:

See Field Analytical Log Sheets for Geochemical Parameters (i.e. natural attenuation).

Pumping Rate at 300 ml/min
Drawdown to 6.04

Circle if Applicable:

<input type="checkbox"/> MS/MSD	Duplicate ID No.: _____
---------------------------------	-------------------------

Signature(s):

Scott R. Meth



GROUNDWATER SAMPLE LOG SHEET

Project Site Name: PCY AOCZ UST
Project No.: N 4221

Sample ID No.: PCY A2 MW021

Sample Location: MW-21

Sampled By: WHO

C.O.C. No.:

Type of Sample:

- Domestic Well Data
- Monitoring Well Data
- Other Well Type:
- QA Sample Type:

- Low Concentration
- High Concentration

SAMPLING DATA:

Date:	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (‰)	Other
8/21/02	Clear	6.07	0.269	31.5	3.5	1.35	214	
Time: 1410								
Method: Low Flow								

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
8/21/02	INIT	6.07	0.388	31.6	52.7	5.86	-176	400-1/4in
Method: Low Flow	1.4	6.06	0.274	31.3	28.4	1.60	-204	1400
Monitor Reading (ppm): 0		6.07	0.271	31.4	28.0	1.43	-209	1403
Well Casing Diameter & Material Type: 2" PVC		6.02	0.269	31.5	3.7	1.35	-214	1406
Total Well Depth (TD): 13.03								
Static Water Level (WL): 4.52								
One Casing Volume (gal/L): 1.37								
Start Purge (hrs): 1345								
End Purge (hrs): 1410								
Total Purge Time (min): 25								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
B260	HCL	3X40ml	✓
EDB	HCL	3X40ml	✓
Lead	HNO3	1X12 poly	✓
8270	H ⁺	2X12 amber	✓
FL-PRO	H2SO4	2X12 amber	✓

OBSERVATIONS / NOTES:

Pot. odor

Circle if Applicable:

MS/MSD

Duplicate ID No.:

PCY A2 DUP2

Signature(s):

2
13.03
4.32
8.51
85
09
43
1.37

DO 4.50



Tetra Tech NUS, Inc.

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: PC7 AOC2 USTProject No.: N4221Location: AOC2Personnel: W.D. Olson / S. McGuireWeather Conditions: HotMeasuring Device: Keck WLITidally Influenced: Yes No

Remarks:

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
mw20	8-22-02	0800	9.71	12.8	6.02	NA	3.69	TOC Elev
mw19			12.63	13.8	7.83		4.80	from
mw18			9.12	13	4.83		4.29	Survey
mw17		0805	8.51	12.6	4.96		3.55	
mw21			8.44	13.03	4.55		3.89	
mw12D		0810	8.01	35.80	4.88		3.13	
mw15			7.87	13.30	4.56		3.31	
mw16			8.62	12.4	4.93		3.69	
mw14		0817	7.49	13.53	5.10		2.39	
mw10			10.07	13.98	5.44		4.63	
mw11		0821	10.05	14.8	5.75		4.30	
mw13			10.07	14.65	6.28		3.79	
mw3		0829	8.36	14'	5.57		2.79	TOC Elev / TD
mw4D			8.38	30'	5.40		2.98	from
mw5		0835	8.45	14'	5.21		3.24	1998
mw6D			8.52	30'	5.11		3.41	PA Report
mw09		0840	7.78	14'	5.42		2.86 2.36	
mw08		0847	9.66	14'	6.18		3.48	
mw07			9.10	14'	5.48		3.92	
P2		0852	NA	NA	5.51		NA	

* All measurements to the nearest 0.01 foot



SURVEYING DATA SHEET

Project Name: PCY ABC2 UST
 Project No.: N4221 Date: 8/22/02
 Personnel: W.D. Olson - Instrument / S.R. McGuire - Rod

Station ID	Backsight (BS)	Height of Instrument (HI)	Foresight (FS)	Elevation	Comments
Bench Mark	4.90	14.00	—	9.10	mw07 TOC Previously Surveyed
mw20	—	14.00	4.29	9.71	
mw16	—	14.00	5.38	8.62	
mw14	—	14.00	6.51	7.49	
mw15	—	14.00	6.13	7.87	
mw12D	—	14.00	5.99	8.01	
mw21	—	14.00	5.56	8.44	
mw17	—	14.00	5.49	8.51	
mw18	—	14.00	4.88	9.12	
mw19	—	14.00	1.37	12.63	
TBM	—	14.00	2.24	11.76	Edge of sidewalk South of Bldg 543
TBM	3.83	15.59	—	11.76	
mw11	—	15.59	5.54	10.05	
mw10	—	15.59	5.52	10.07	
mw07	5.02	14.12	—	9.10	
mw13	—	14.12	4.05	10.07	

HI = BM Elevation + BM Backsight
 Station Elevation = HI - Station FS

- To create a Turning Point (TP):
1. Shoot a FS to the TP
 2. HI - FS = the TP Elevation
 3. Move the instrument to the new location
 4. Shoot a BS to the TP
 5. The BS + TP Elevation = the new HI

ATTACHMENT C

Technical Report for

Tetra-Tech, NUS

CSS-Panama City CTO#240 (N4221)

WR#45

Accutest Job Number: F14290

Report to:

calliganp@ttnus.com

Total number of pages in report: 106



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.


Harry Behzadi, Ph.D.
Laboratory Director

Certification: Florida DOH E83510

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Sample Summary

Tetra-Tech, NUS

Job No: F14290

CSS-Panama City CTO#240 (N4221)

Project No: WR#45

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F14290-1	08/20/02	11:55	WDO 08/21/02	AQ	Ground Water	PCYA2MW11
F14290-2	08/20/02	11:55	WDO 08/21/02	AQ	Ground Water	PCYA2MW10
F14290-3	08/20/02	13:40	WDO 08/21/02	AQ	Ground Water	PCYA2MW14
F14290-4	08/20/02	13:55	WDO 08/21/02	AQ	Ground Water	PCYA2MW16
F14290-5	08/20/02	00:00	WDO 08/21/02	AQ	Trip Blank Water	PCYA2TB0820

Report of Analysis

Client Sample ID:	PCYA2MW11	Date Sampled:	08/20/02
Lab Sample ID:	F14290-1	Date Received:	08/21/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G0017709.D	1	08/23/02	KW	n/a	n/a	VG579
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW11 Lab Sample ID: F14290-1 Matrix: AQ - Ground Water Method: SW846 8260B Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/20/02 Date Received: 08/21/02 Percent Solids: n/a
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VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		86-115%
17060-07-0	1,2-Dichloroethane-D4	117%		78-125%
2037-26-5	Toluene-D8	94%		87-113%
460-00-4	4-Bromofluorobenzene	87%		84-117%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW11	Date Sampled:	08/20/02
Lab Sample ID:	F14290-1	Date Received:	08/21/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C BY SIM SW846 3510C		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L014085.D	1	08/28/02	ME	08/27/02	OP5741	SL783
Run #2							

Run #	Initial Volume	Final Volume
Run #1	890 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	1.1	ug/l	
208-96-8	Acenaphthylene	ND	1.1	ug/l	
120-12-7	Anthracene	ND	1.1	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	0.22	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	1.1	ug/l	
86-73-7	Fluorene	0.60	1.1	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
90-12-0	1-Methylnaphthalene	1.6	1.1	ug/l	
91-57-6	2-Methylnaphthalene	4.0	1.1	ug/l	
91-20-3	Naphthalene	0.79	1.1	ug/l	J
85-01-8	Phenanthrene	ND	1.1	ug/l	
129-00-0	Pyrene	ND	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	97%		49-119%
321-60-8	2-Fluorobiphenyl	96%		45-118%
1718-51-0	Terphenyl-d14	94%		46-135%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW11	Date Sampled: 08/20/02
Lab Sample ID: F14290-1	Date Received: 08/21/02
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: EPA 504.1 EPA 504	
Project: CSS-Panama City CTO#240 (N4221)	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST15890.D	1	08/26/02	SKW	08/26/02	OP5737	GST594
Run #2							

	Initial Volume	Final Volume
Run #1	37.8 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.019	ug/l	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW11 Lab Sample ID: F14290-1 Matrix: AQ - Ground Water Method: FLORIDA-PRO SW846 3510C Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/20/02 Date Received: 08/21/02 Percent Solids: n/a
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	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP23036.D	1	08/26/02	SKW	08/23/02	OP5728	GOP830
Run #2							

	Initial Volume	Final Volume
Run #1	820 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	2.77	0.30	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	87%		51-125%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW11	Date Sampled:	08/20/02
Lab Sample ID:	F14290-1	Date Received:	08/21/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	CSS-Panama City CTO#240 (N4221)		

Metals Analysis

Analyte	Result	RL	IDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	1.7 B	5.0	1.2	ug/l	1	08/22/02	08/23/02 DM	SW846 6010B	SW846 3010A

RL = Reporting Limit
 IDL = Instrument Detection Limit

U = Indicates a result < IDL
 B = Indicates a result >= IDL but < RL

Report of Analysis

Client Sample ID:	PCYA2MW10	Date Sampled:	08/20/02
Lab Sample ID:	F14290-2	Date Received:	08/21/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G0017710.D	1	08/23/02	KW	n/a	n/a	VG579
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW10	Date Sampled:	08/20/02
Lab Sample ID:	F14290-2	Date Received:	08/21/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		86-115%
17060-07-0	1,2-Dichloroethane-D4	112%		78-125%
2037-26-5	Toluene-D8	111%		87-113%
460-00-4	4-Bromofluorobenzene	91%		84-117%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW10	Date Sampled:	08/20/02
Lab Sample ID:	F14290-2	Date Received:	08/21/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C BY SIM SW846 3510C		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L014086.D	1	08/28/02	ME	08/27/02	OP5741	SL783
Run #2							

Run #	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	1.1	ug/l	
208-96-8	Acenaphthylene	ND	1.1	ug/l	
120-12-7	Anthracene	ND	1.1	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.21	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.21	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.21	ug/l	
218-01-9	Chrysene	ND	0.21	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.21	ug/l	
206-44-0	Fluoranthene	ND	1.1	ug/l	
86-73-7	Fluorene	ND	1.1	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.21	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.1	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.1	ug/l	
91-20-3	Naphthalene	ND	1.1	ug/l	
85-01-8	Phenanthrene	ND	1.1	ug/l	
129-00-0	Pyrene	ND	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	94%		49-119%
321-60-8	2-Fluorobiphenyl	86%		45-118%
1718-51-0	Terphenyl-d14	100%		46-135%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW10 Lab Sample ID: F14290-2 Matrix: AQ - Ground Water Method: EPA 504.1 EPA 504 Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/20/02 Date Received: 08/21/02 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST15893.D	1	08/26/02	SKW	08/26/02	OP5737	GST594
Run #2							

Run #	Initial Volume	Final Volume
Run #1	38.2 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.018	ug/l	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW10 Lab Sample ID: F14290-2 Matrix: AQ - Ground Water Method: FLORIDA-PRO SW846 3510C Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/20/02 Date Received: 08/21/02 Percent Solids: n/a
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	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP23037.D	1	08/26/02	SKW	08/23/02	OP5728	GOP830
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.26	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	94%		51-125%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW10 Lab Sample ID: F14290-2 Matrix: AQ - Ground Water Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/20/02 Date Received: 08/21/02 Percent Solids: n/a
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Metals Analysis

Analyte	Result	RL	IDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	1.7 B	5.0	1.2	ug/l	1	08/22/02	08/23/02 DM	SW846 6010B	SW846 3010A

RL = Reporting Limit
 IDL = Instrument Detection Limit

U = Indicates a result < IDL
 B = Indicates a result >= IDL but < RL

Report of Analysis

Client Sample ID:	PCYA2MW14	Date Sampled:	08/20/02
Lab Sample ID:	F14290-3	Date Received:	08/21/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G0017711.D	1	08/23/02	KW	n/a	n/a	VG579
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW14	Date Sampled:	08/20/02
Lab Sample ID:	F14290-3	Date Received:	08/21/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		86-115%
17060-07-0	1,2-Dichloroethane-D4	116%		78-125%
2037-26-5	Toluene-D8	93%		87-113%
460-00-4	4-Bromofluorobenzene	94%		84-117%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW14	Date Sampled:	08/20/02
Lab Sample ID:	F14290-3	Date Received:	08/21/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C BY SIM SW846 3510C		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L014087.D	1	08/28/02	ME	08/27/02	OP5741	SL783
Run #2							

Run #	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	1.0	ug/l	
208-96-8	Acenaphthylene	ND	1.0	ug/l	
120-12-7	Anthracene	ND	1.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.21	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.21	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.21	ug/l	
218-01-9	Chrysene	ND	0.21	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.21	ug/l	
206-44-0	Fluoranthene	ND	1.0	ug/l	
86-73-7	Fluorene	ND	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.21	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	ug/l	
91-20-3	Naphthalene	0.52	1.0	ug/l	J
85-01-8	Phenanthrene	ND	1.0	ug/l	
129-00-0	Pyrene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	102%		49-119%
321-60-8	2-Fluorobiphenyl	97%		45-118%
1718-51-0	Terphenyl-d14	98%		46-135%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW14 Lab Sample ID: F14290-3 Matrix: AQ - Ground Water Method: EPA 504.1 EPA 504 Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/20/02 Date Received: 08/21/02 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST15894.D	1	08/26/02	SKW	08/26/02	OP5737	GST594
Run #2							

Run #	Initial Volume	Final Volume
Run #1	38.4 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.018	ug/l	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW14 Lab Sample ID: F14290-3 Matrix: AQ - Ground Water Method: FLORIDA-PRO SW846 3510C Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/20/02 Date Received: 08/21/02 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP23038.D	1	08/26/02	SKW	08/23/02	OP5728	GOP830
Run #2							

Run #	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	0.868	0.26	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	93%		51-125%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW14	Date Sampled:	08/20/02
Lab Sample ID:	F14290-3	Date Received:	08/21/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	CSS-Panama City CTO#240 (N4221)		

Metals Analysis

Analyte	Result	RL	IDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	1.2 U	5.0	1.2	ug/l	1	08/22/02	08/23/02 DM	SW846 6010B	SW846 3010A

RL = Reporting Limit
IDL = Instrument Detection Limit

U = Indicates a result < IDL
B = Indicates a result >= IDL but < RL

Report of Analysis

Client Sample ID:	PCYA2MW16	Date Sampled:	08/20/02
Lab Sample ID:	F14290-4	Date Received:	08/21/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B0011171.D	1	08/28/02	JG	n/a	n/a	VB491
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW16	Date Sampled:	08/20/02
Lab Sample ID:	F14290-4	Date Received:	08/21/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		86-115%
17060-07-0	1,2-Dichloroethane-D4	103%		78-125%
2037-26-5	Toluene-D8	102%		87-113%
460-00-4	4-Bromofluorobenzene	107%		84-117%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW16	Date Sampled:	08/20/02
Lab Sample ID:	F14290-4	Date Received:	08/21/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C BY SIM SW846 3510C		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L014088.D	1	08/28/02	ME	08/27/02	OP5741	SL783
Run #2							

Run #	Initial Volume	Final Volume
Run #1	860 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	1.2	ug/l	
208-96-8	Acenaphthylene	ND	1.2	ug/l	
120-12-7	Anthracene	ND	1.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.23	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.23	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.23	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.23	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.23	ug/l	
218-01-9	Chrysene	ND	0.23	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.23	ug/l	
206-44-0	Fluoranthene	ND	1.2	ug/l	
86-73-7	Fluorene	ND	1.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.23	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.2	ug/l	
91-20-3	Naphthalene	ND	1.2	ug/l	
85-01-8	Phenanthrene	ND	1.2	ug/l	
129-00-0	Pyrene	ND	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	105%		49-119%
321-60-8	2-Fluorobiphenyl	99%		45-118%
1718-51-0	Terphenyl-d14	109%		46-135%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW16 Lab Sample ID: F14290-4 Matrix: AQ - Ground Water Method: EPA 504.1 EPA 504 Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/20/02 Date Received: 08/21/02 Percent Solids: n/a
--	--

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST15895.D	1	08/26/02	SKW	08/26/02	OP5737	GST594
Run #2							

Run #	Initial Volume	Final Volume
Run #1	38.1 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.018	ug/l	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW16 Lab Sample ID: F14290-4 Matrix: AQ - Ground Water Method: FLORIDA-PRO SW846 3510C Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/20/02 Date Received: 08/21/02 Percent Solids: n/a
--	--

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP23040.D	1	08/26/02	SKW	08/23/02	OP5728	GOP830
Run #2							

Run #	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	0.498	0.26	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	90%		51-125%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW16 Lab Sample ID: F14290-4 Matrix: AQ - Ground Water Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/20/02 Date Received: 08/21/02 Percent Solids: n/a
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Metals Analysis

Analyte	Result	RL	IDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	1.7 B	5.0	1.2	ug/l	1	08/22/02	08/23/02 DM	SW846 6010B	SW846 3010A

RL = Reporting Limit
 IDL = Instrument Detection Limit

U = Indicates a result < IDL
 B = Indicates a result >= IDL but < RL

Report of Analysis

Client Sample ID:	PCYA2TB0820	Date Sampled:	08/20/02
Lab Sample ID:	F14290-5	Date Received:	08/21/02
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G0017708.D	1	08/23/02	KW	n/a	n/a	VG579
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2TB0820	
Lab Sample ID: F14290-5	Date Sampled: 08/20/02
Matrix: AQ - Trip Blank Water	Date Received: 08/21/02
Method: SW846 8260B	Percent Solids: n/a
Project: CSS-Panama City CTO#240 (N4221)	

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		86-115%
17060-07-0	1,2-Dichloroethane-D4	112%		78-125%
2037-26-5	Toluene-D8	115% ^a		87-113%
460-00-4	4-Bromofluorobenzene	99%		84-117%

(a) Outside control limits however sample is ND.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Technical Report for

Tetra-Tech, NUS

CSS-Panama City CTO#240 (N4221)

WR#

Accutest Job Number: F14308

Report to:

Tetra-Tech, NUS

calliganp@ttnus.com

ATTN: Paul Calligan

Total number of pages in report: 179



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.


Harry Behzadi, Ph.D.
Laboratory Director

Certification: Florida DOH E83510

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Sample Summary

Tetra-Tech, NUS

Job No: F14308

CSS-Panama City CTO#240 (N4221)

Project No: WR#

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F14308-1	08/21/02	08:35	SWWD08/22/02	AQ	Ground Water	PCYA2MW17
F14308-2	08/21/02	08:35	SWWD08/22/02	AQ	Ground Water	PCYA2MW15
F14308-3	08/21/02	10:15	SWWD08/22/02	AQ	Ground Water	PCYA2MW13
F14308-4	08/21/02	10:30	SWWD08/22/02	AQ	Ground Water	PCYA2MW19
F14308-5	08/21/02	12:00	SWWD08/22/02	AQ	Ground Water	PCYA2MW18
F14308-6	08/21/02	12:35	SWWD08/22/02	AQ	Ground Water	PCYA2MW12
F14308-7	08/21/02	13:50	SWWD08/22/02	AQ	Ground Water	PCYA2MW20
F14308-8	08/21/02	14:10	SWWD08/22/02	AQ	Ground Water	PCYA2MW21
F14308-9	08/21/02	15:45	SWWD08/22/02	AQ	Ground Water	PCYA2RB01
F14308-10	08/21/02	00:00	SWWD08/22/02	AQ	Ground Water	PCYA2DUP1
F14308-11	08/21/02	00:00	SWWD08/22/02	AQ	Ground Water	PCYA2DUP2

Report of Analysis

Client Sample ID:	PCYA2MW17	Date Sampled:	08/21/02
Lab Sample ID:	F14308-1	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0011377.D	1	09/04/02	JG	n/a	n/a	VC508
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	2.4	3.0	ug/l	J

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW17	Date Sampled:	08/21/02
Lab Sample ID:	F14308-1	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		86-115%
17060-07-0	1,2-Dichloroethane-D4	105%		78-125%
2037-26-5	Toluene-D8	100%		87-113%
460-00-4	4-Bromofluorobenzene	96%		84-117%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW17	Date Sampled:	08/21/02
Lab Sample ID:	F14308-1	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C BY SIM SW846 3510C		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L014095.D	1	08/28/02	ME	08/27/02	OP5741	SL783
Run #2							

Run #	Initial Volume	Final Volume
Run #1	850 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	1.2	ug/l	
208-96-8	Acenaphthylene	ND	1.2	ug/l	
120-12-7	Anthracene	ND	1.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.24	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.24	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.24	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.24	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.24	ug/l	
218-01-9	Chrysene	ND	0.24	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.24	ug/l	
206-44-0	Fluoranthene	ND	1.2	ug/l	
86-73-7	Fluorene	ND	1.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.24	ug/l	
90-12-0	1-Methylnaphthalene	7.0	1.2	ug/l	
91-57-6	2-Methylnaphthalene	0.65	1.2	ug/l	J
91-20-3	Naphthalene	2.5	1.2	ug/l	
85-01-8	Phenanthrene	ND	1.2	ug/l	
129-00-0	Pyrene	ND	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	96%		49-119%
321-60-8	2-Fluorobiphenyl	96%		45-118%
1718-51-0	Terphenyl-d14	95%		46-135%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW17	Date Sampled:	08/21/02
Lab Sample ID:	F14308-1	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 504.1 EPA 504		
Project:	CSS-Panama City CTO#240 (N4221)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST15896.D	1	08/26/02	SKW	08/26/02	OP5737	GST594
Run #2							

	Initial Volume	Final Volume
Run #1	37.9 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.018	ug/l	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW17	Date Sampled: 08/21/02
Lab Sample ID: F14308-1	Date Received: 08/22/02
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: FLORIDA-PRO SW846 3510C	
Project: CSS-Panama City CTO#240 (N4221)	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP23113.D	1	08/29/02	SKW	08/28/02	OP5748	GOP833
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	1.76	0.27	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	90%		51-125%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW17 Lab Sample ID: F14308-1 Matrix: AQ - Ground Water Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/21/02 Date Received: 08/22/02 Percent Solids: n/a
---	--

Metals Analysis

Analyte	Result	RL	IDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	2.1 B	5.0	1.2	ug/l	1	08/23/02	08/26/02 DM	SW846 6010B	SW846 3010A

RL = Reporting Limit
 IDL = Instrument Detection Limit

U = Indicates a result < IDL
 B = Indicates a result >= IDL but < RL

Report of Analysis

Client Sample ID:	PCYA2MW15	Date Sampled:	08/21/02
Lab Sample ID:	F14308-2	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0011378.D	1	09/04/02	JG	n/a	n/a	VC508
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	1.8	1.0	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW15	Date Sampled:	08/21/02
Lab Sample ID:	F14308-2	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		86-115%
17060-07-0	1,2-Dichloroethane-D4	105%		78-125%
2037-26-5	Toluene-D8	99%		87-113%
460-00-4	4-Bromofluorobenzene	97%		84-117%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW15	Date Sampled: 08/21/02
Lab Sample ID: F14308-2	Date Received: 08/22/02
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8270C BY SIM SW846 3510C	
Project: CSS-Panama City CTO#240 (N4221)	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L014096.D	1	08/28/02	ME	08/27/02	OP5741	SL783
Run #2							

Run #	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	2.4	1.1	ug/l	
208-96-8	Acenaphthylene	0.70	1.1	ug/l	J
120-12-7	Anthracene	ND	1.1	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.21	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.21	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.21	ug/l	
218-01-9	Chrysene	ND	0.21	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.21	ug/l	
206-44-0	Fluoranthene	ND	1.1	ug/l	
86-73-7	Fluorene	3.7	1.1	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.21	ug/l	
90-12-0	1-Methylnaphthalene	20.2	1.1	ug/l	
91-57-6	2-Methylnaphthalene	5.6	1.1	ug/l	
91-20-3	Naphthalene	18.4	1.1	ug/l	
85-01-8	Phenanthrene	ND	1.1	ug/l	
129-00-0	Pyrene	ND	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	75%		49-119%
321-60-8	2-Fluorobiphenyl	92%		45-118%
1718-51-0	Terphenyl-d14	95%		46-135%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW15	Date Sampled: 08/21/02
Lab Sample ID: F14308-2	Date Received: 08/22/02
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: EPA 504.1 EPA 504	
Project: CSS-Panama City CTO#240 (N4221)	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST15898.D	1	08/26/02	SKW	08/26/02	OP5737	GST594
Run #2							

	Initial Volume	Final Volume
Run #1	38.6 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.018	ug/l	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW15 Lab Sample ID: F14308-2 Matrix: AQ - Ground Water Method: FLORIDA-PRO SW846 3510C Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/21/02 Date Received: 08/22/02 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP23114.D	2	08/29/02	SKW	08/28/02	OP5748	GOP833
Run #2							

Run #	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	4.48	0.51	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	86%		51-125%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW15	Date Sampled:	08/21/02
Lab Sample ID:	F14308-2	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	CSS-Panama City CTO#240 (N4221)		

Metals Analysis

Analyte	Result	RL	IDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	1.2 U	5.0	1.2	ug/l	1	08/23/02	08/26/02 DM	SW846 6010B	SW846 3010A

RL = Reporting Limit
 IDL = Instrument Detection Limit

U = Indicates a result < IDL
 B = Indicates a result >= IDL but < RL

Report of Analysis

Client Sample ID:	PCYA2MW13	Date Sampled:	08/21/02
Lab Sample ID:	F14308-3	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0011381.D	1	09/04/02	JG	n/a	n/a	VC508
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	19.5	1.0	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	86.7	3.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW13	Date Sampled:	08/21/02
Lab Sample ID:	F14308-3	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		86-115%
17060-07-0	1,2-Dichloroethane-D4	101%		78-125%
2037-26-5	Toluene-D8	99%		87-113%
460-00-4	4-Bromofluorobenzene	97%		84-117%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW13	Date Sampled: 08/21/02
Lab Sample ID: F14308-3	Date Received: 08/22/02
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8270C BY SIM SW846 3510C	
Project: CSS-Panama City CTO#240 (N4221)	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L014099.D	1	08/29/02	ME	08/27/02	OP5741	SL784
Run #2	L014114.D	4	08/29/02	ME	08/27/02	OP5741	SL784

Run #	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2	970 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	1.3	1.0	ug/l	
208-96-8	Acenaphthylene	ND	1.0	ug/l	
120-12-7	Anthracene	ND	1.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.21	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.21	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.21	ug/l	
218-01-9	Chrysene	ND	0.21	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.21	ug/l	
206-44-0	Fluoranthene	ND	1.0	ug/l	
86-73-7	Fluorene	3.5	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.21	ug/l	
90-12-0	1-Methylnaphthalene	18.4	1.0	ug/l	
91-57-6	2-Methylnaphthalene	5.8	1.0	ug/l	
91-20-3	Naphthalene	92.9 ^a	4.1	ug/l	
85-01-8	Phenanthrene	ND	1.0	ug/l	
129-00-0	Pyrene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	91%	99%	49-119%
321-60-8	2-Fluorobiphenyl	94%	99%	45-118%
1718-51-0	Terphenyl-d14	93%	100%	46-135%

(a) Result is from Run# 2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW13 Lab Sample ID: F14308-3 Matrix: AQ - Ground Water Method: EPA 504.1 EPA 504 Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/21/02 Date Received: 08/22/02 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST15899.D	1	08/26/02	SKW	08/26/02	OP5737	GST594
Run #2							

Run #	Initial Volume	Final Volume
Run #1	37.2 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.019	ug/l	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW13 Lab Sample ID: F14308-3 Matrix: AQ - Ground Water Method: FLORIDA-PRO SW846 3510C Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/21/02 Date Received: 08/22/02 Percent Solids: n/a
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	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP23115.D	4	08/29/02	SKW	08/28/02	OP5748	GOP833
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	6.95	1.0	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	79%		51-125%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW13	Date Sampled:	08/21/02
Lab Sample ID:	F14308-3	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	CSS-Panama City CTO#240 (N4221)		

Metals Analysis

Analyte	Result	RL	IDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	2.3 B	5.0	1.2	ug/l	1	08/23/02	08/26/02 DM	SW846 6010B	SW846 3010A

RL = Reporting Limit
 IDL = Instrument Detection Limit

U = Indicates a result < IDL
 B = Indicates a result >= IDL but < RL

Report of Analysis

Client Sample ID:	PCYA2MW19	Date Sampled:	08/21/02
Lab Sample ID:	F14308-4	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0011382.D	1	09/04/02	JG	n/a	n/a	VC508
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	2.5	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	25.7	1.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW19	Date Sampled:	08/21/02
Lab Sample ID:	F14308-4	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		86-115%
17060-07-0	1,2-Dichloroethane-D4	101%		78-125%
2037-26-5	Toluene-D8	99%		87-113%
460-00-4	4-Bromofluorobenzene	100%		84-117%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW19	Date Sampled:	08/21/02
Lab Sample ID:	F14308-4	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C BY SIM SW846 3510C		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L014100.D	1	08/29/02	ME	08/27/02	OP5741	SL784
Run #2							

Run #	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	1.0	ug/l	
208-96-8	Acenaphthylene	ND	1.0	ug/l	
120-12-7	Anthracene	ND	1.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.21	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.21	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.21	ug/l	
218-01-9	Chrysene	ND	0.21	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.21	ug/l	
206-44-0	Fluoranthene	ND	1.0	ug/l	
86-73-7	Fluorene	ND	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.21	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	1.0	ug/l	
85-01-8	Phenanthrene	ND	1.0	ug/l	
129-00-0	Pyrene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	103%		49-119%
321-60-8	2-Fluorobiphenyl	99%		45-118%
1718-51-0	Terphenyl-d14	115%		46-135%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW19 Lab Sample ID: F14308-4 Matrix: AQ - Ground Water Method: EPA 504.1 EPA 504 Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/21/02 Date Received: 08/22/02 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST15900.D	1	08/26/02	SKW	08/26/02	OP5737	GST594
Run #2							

Run #	Initial Volume	Final Volume
Run #1	37.5 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.019	ug/l	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW19 Lab Sample ID: F14308-4 Matrix: AQ - Ground Water Method: FLORIDA-PRO SW846 3510C Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/21/02 Date Received: 08/22/02 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP23116.D	1	08/29/02	SKW	08/28/02	OP5748	GOP833
Run #2							

Run #	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	0.468	0.26	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	91%		51-125%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW19 Lab Sample ID: F14308-4 Matrix: AQ - Ground Water Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/21/02 Date Received: 08/22/02 Percent Solids: n/a
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Metals Analysis

Analyte	Result	RL	IDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	1.9 B	5.0	1.2	ug/l	1	08/27/02	08/28/02 DM	SW846 6010B	SW846 3010A

RL = Reporting Limit
 IDL = Instrument Detection Limit

U = Indicates a result < IDL
 B = Indicates a result >= IDL but < RL

Report of Analysis

Client Sample ID:	PCYA2MW18	Date Sampled:	08/21/02
Lab Sample ID:	F14308-5	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0011383.D	1	09/04/02	JG	n/a	n/a	VC508
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	8.4	1.0	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	3.4	3.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW18 Lab Sample ID: F14308-5 Matrix: AQ - Ground Water Method: SW846 8260B Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/21/02 Date Received: 08/22/02 Percent Solids: n/a
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VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		86-115%
17060-07-0	1,2-Dichloroethane-D4	102%		78-125%
2037-26-5	Toluene-D8	99%		87-113%
460-00-4	4-Bromofluorobenzene	97%		84-117%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW18	Date Sampled:	08/21/02
Lab Sample ID:	F14308-5	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C BY SIM SW846 3510C		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L014115.D	1	08/29/02	ME	08/27/02	OP5741	SL784
Run #2	L014101.D	4	08/29/02	ME	08/27/02	OP5741	SL784

Run #	Initial Volume	Final Volume
Run #1	960 ml	1.0 ml
Run #2	960 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	3.1	1.0	ug/l	
208-96-8	Acenaphthylene	ND	1.0	ug/l	
120-12-7	Anthracene	0.33	1.0	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.21	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.21	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.21	ug/l	
218-01-9	Chrysene	ND	0.21	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.21	ug/l	
206-44-0	Fluoranthene	ND	1.0	ug/l	
86-73-7	Fluorene	5.9	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.21	ug/l	
90-12-0	1-Methylnaphthalene	68.6 ^a	4.2	ug/l	
91-57-6	2-Methylnaphthalene	79.3 ^a	4.2	ug/l	
91-20-3	Naphthalene	31.0	1.0	ug/l	
85-01-8	Phenanthrene	5.5	1.0	ug/l	
129-00-0	Pyrene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	93%	100%	49-119%
321-60-8	2-Fluorobiphenyl	88%	95%	45-118%
1718-51-0	Terphenyl-d14	104%	104%	46-135%

(a) Result is from Run# 2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW18 Lab Sample ID: F14308-5 Matrix: AQ - Ground Water Method: EPA 504.1 EPA 504 Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/21/02 Date Received: 08/22/02 Percent Solids: n/a
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	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST15901.D	1	08/26/02	SKW	08/26/02	OP5737	GST594
Run #2							

	Initial Volume	Final Volume
Run #1	38.7 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.018	ug/l	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW18	Date Sampled:	08/21/02
Lab Sample ID:	F14308-5	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	FLORIDA-PRO SW846 3510C		
Project:	CSS-Panama City CTO#240 (N4221)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP23118.D	1	08/29/02	SKW	08/28/02	OP5748	GOP833
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	2.53	0.26	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	89%		51-125%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW18	Date Sampled: 08/21/02
Lab Sample ID: F14308-5	Date Received: 08/22/02
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: CSS-Panama City CTO#240 (N4221)	

Metals Analysis

Analyte	Result	RL	IDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	1.9 B	5.0	1.2	ug/l	1	08/27/02	08/28/02 DM	SW846 6010B	SW846 3010A

RL = Reporting Limit
 IDL = Instrument Detection Limit

U = Indicates a result < IDL
 B = Indicates a result >= IDL but < RL

Report of Analysis

Client Sample ID:	PCYA2MW12	Date Sampled:	08/21/02
Lab Sample ID:	F14308-6	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0011353.D	1	09/03/02	JG	n/a	n/a	VC507
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	1.0	1.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW12	Date Sampled:	08/21/02
Lab Sample ID:	F14308-6	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		86-115%
17060-07-0	1,2-Dichloroethane-D4	105%		78-125%
2037-26-5	Toluene-D8	101%		87-113%
460-00-4	4-Bromofluorobenzene	99%		84-117%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW12	Date Sampled:	08/21/02
Lab Sample ID:	F14308-6	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C BY SIM SW846 3510C		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L014102.D	1	08/29/02	ME	08/27/02	OP5741	SL784
Run #2							

Run #	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	1.0	ug/l	
208-96-8	Acenaphthylene	ND	1.0	ug/l	
120-12-7	Anthracene	ND	1.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	0.20	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	1.0	ug/l	
86-73-7	Fluorene	ND	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	1.0	ug/l	
85-01-8	Phenanthrene	ND	1.0	ug/l	
129-00-0	Pyrene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	102%		49-119%
321-60-8	2-Fluorobiphenyl	100%		45-118%
1718-51-0	Terphenyl-d14	103%		46-135%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW12 Lab Sample ID: F14308-6 Matrix: AQ - Ground Water Method: EPA 504.1 EPA 504 Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/21/02 Date Received: 08/22/02 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST15902.D	1	08/26/02	SKW	08/26/02	OP5737	GST594
Run #2							

Run #	Initial Volume	Final Volume
Run #1	39.1 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.018	ug/l	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW12 Lab Sample ID: F14308-6 Matrix: AQ - Ground Water Method: FLORIDA-PRO SW846 3510C Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/21/02 Date Received: 08/22/02 Percent Solids: n/a
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	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP23119.D	1	08/29/02	SKW	08/28/02	OP5748	GOP833
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	0.417	0.26	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	89%		51-125%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW12	Date Sampled:	08/21/02
Lab Sample ID:	F14308-6	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	CSS-Panama City CTO#240 (N4221)		

Metals Analysis

Analyte	Result	RL	IDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	3.0 B	5.0	1.2	ug/l	1	08/23/02	08/26/02 DM	SW846 6010B	SW846 3010A

RL = Reporting Limit
IDL = Instrument Detection Limit

U = Indicates a result < IDL
B = Indicates a result >= IDL but < RL

Report of Analysis

Client Sample ID:	PCYA2MW20	Date Sampled:	08/21/02
Lab Sample ID:	F14308-7	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	C0011415.D	1	09/05/02	JG	n/a	n/a	VC509
Run #2	C0011373.D	5	09/04/02	JG	n/a	n/a	VC508

Run #	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	7.3	3.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW20	Date Sampled: 08/21/02
Lab Sample ID: F14308-7	Date Received: 08/22/02
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: CSS-Panama City CTO#240 (N4221)	

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%	105%	86-115%
17060-07-0	1,2-Dichloroethane-D4	103%	107%	78-125%
2037-26-5	Toluene-D8	106%	100%	87-113%
460-00-4	4-Bromofluorobenzene	97%	96%	84-117%

(a) Sample was analyzed beyond method hold time, reported results are considered minimum values.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW20	Date Sampled:	08/21/02
Lab Sample ID:	F14308-7	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C BY SIM SW846 3510C		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L014103.D	1	08/29/02	ME	08/27/02	OP5741	SL784
Run #2							

Run #	Initial Volume	Final Volume
Run #1	910 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	0.79	1.1	ug/l	J
208-96-8	Acenaphthylene	ND	1.1	ug/l	
120-12-7	Anthracene	ND	1.1	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	0.22	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	1.1	ug/l	
86-73-7	Fluorene	1.2	1.1	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
90-12-0	1-Methylnaphthalene	18.6	1.1	ug/l	
91-57-6	2-Methylnaphthalene	31.8	1.1	ug/l	
91-20-3	Naphthalene	4.8	1.1	ug/l	
85-01-8	Phenanthrene	1.2	1.1	ug/l	
129-00-0	Pyrene	ND	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	102%		49-119%
321-60-8	2-Fluorobiphenyl	100%		45-118%
1718-51-0	Terphenyl-d14	103%		46-135%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW20 Lab Sample ID: F14308-7 Matrix: AQ - Ground Water Method: EPA 504.1 EPA 504 Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/21/02 Date Received: 08/22/02 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST15903.D	1	08/26/02	SKW	08/26/02	OP5737	GST594
Run #2							

Run #	Initial Volume	Final Volume
Run #1	37.3 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.019	ug/l	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW20 Lab Sample ID: F14308-7 Matrix: AQ - Ground Water Method: FLORIDA-PRO SW846 3510C Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/21/02 Date Received: 08/22/02 Percent Solids: n/a
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	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP23120.D	2	08/29/02	SKW	08/28/02	OP5748	GOP833
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	4.16	0.53	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	89%		51-125%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW20	Date Sampled:	08/21/02
Lab Sample ID:	F14308-7	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	CSS-Panama City CTO#240 (N4221)		

Metals Analysis

Analyte	Result	RL	IDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	1.7 B	5.0	1.2	ug/l	1	08/27/02	08/28/02 DM	SW846 6010B	SW846 3010A

RL = Reporting Limit
 IDL = Instrument Detection Limit

U = Indicates a result < IDL
 B = Indicates a result >= IDL but < RL

Report of Analysis

Client Sample ID:	PCYA2MW21	Date Sampled:	08/21/02
Lab Sample ID:	F14308-8	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0011384.D	1	09/04/02	JG	n/a	n/a	VC508
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	8.3	1.0	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW21	Date Sampled:	08/21/02
Lab Sample ID:	F14308-8	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		86-115%
17060-07-0	1,2-Dichloroethane-D4	101%		78-125%
2037-26-5	Toluene-D8	97%		87-113%
460-00-4	4-Bromofluorobenzene	98%		84-117%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW21	Date Sampled:	08/21/02
Lab Sample ID:	F14308-8	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C BY SIM SW846 3510C		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L014104.D	1	08/29/02	ME	08/27/02	OP5741	SL784
Run #2	L014116.D	4	08/29/02	ME	08/27/02	OP5741	SL784

Run #	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2	970 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	1.7	1.0	ug/l	
208-96-8	Acenaphthylene	ND	1.0	ug/l	
120-12-7	Anthracene	ND	1.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.21	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.21	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.21	ug/l	
218-01-9	Chrysene	ND	0.21	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.21	ug/l	
206-44-0	Fluoranthene	ND	1.0	ug/l	
86-73-7	Fluorene	2.2	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.21	ug/l	
90-12-0	1-Methylnaphthalene	61.5 ^a	4.1	ug/l	
91-57-6	2-Methylnaphthalene	56.8 ^a	4.1	ug/l	
91-20-3	Naphthalene	86.7 ^a	4.1	ug/l	
85-01-8	Phenanthrene	ND	1.0	ug/l	
129-00-0	Pyrene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	94%	89%	49-119%
321-60-8	2-Fluorobiphenyl	91%	98%	45-118%
1718-51-0	Terphenyl-d14	85%	91%	46-135%

(a) Result is from Run# 2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2MW21 Lab Sample ID: F14308-8 Matrix: AQ - Ground Water Method: EPA 504.1 EPA 504 Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/21/02 Date Received: 08/22/02 Percent Solids: n/a
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	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST15904.D	1	08/26/02	SKW	08/26/02	OP5737	GST594
Run #2							

	Initial Volume	Final Volume
Run #1	38.2 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.018	ug/l	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW21	Date Sampled:	08/21/02
Lab Sample ID:	F14308-8	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	FLORIDA-PRO SW846 3510C		
Project:	CSS-Panama City CTO#240 (N4221)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP23162.D	4	08/30/02	SKW	08/28/02	OP5748	GOP833
Run #2							

	Initial Volume	Final Volume
Run #1	960 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	7.82	1.0	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	67%		51-125%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2MW21	Date Sampled:	08/21/02
Lab Sample ID:	F14308-8	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	CSS-Panama City CTO#240 (N4221)		

Metals Analysis

Analyte	Result	RL	IDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	1.2 U	5.0	1.2	ug/l	1	08/23/02	08/26/02 DM	SW846 6010B	SW846 3010A

RL = Reporting Limit
 IDL = Instrument Detection Limit

U = Indicates a result < IDL
 B = Indicates a result >= IDL but < RL

Report of Analysis

Client Sample ID:	PCYA2RB01	Date Sampled:	08/21/02
Lab Sample ID:	F14308-9	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0011352.D	1	09/03/02	JG	n/a	n/a	VC507
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2RB01	Date Sampled: 08/21/02
Lab Sample ID: F14308-9	Date Received: 08/22/02
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: CSS-Panama City CTO#240 (N4221)	

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		86-115%
17060-07-0	1,2-Dichloroethane-D4	104%		78-125%
2037-26-5	Toluene-D8	101%		87-113%
460-00-4	4-Bromofluorobenzene	99%		84-117%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2RB01	Date Sampled:	08/21/02
Lab Sample ID:	F14308-9	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C BY SIM SW846 3510C		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L014105.D	1	08/29/02	ME	08/27/02	OP5741	SL784
Run #2							

Run #	Initial Volume	Final Volume
Run #1	960 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	1.0	ug/l	
208-96-8	Acenaphthylene	ND	1.0	ug/l	
120-12-7	Anthracene	ND	1.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.21	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.21	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.21	ug/l	
218-01-9	Chrysene	ND	0.21	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.21	ug/l	
206-44-0	Fluoranthene	ND	1.0	ug/l	
86-73-7	Fluorene	ND	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.21	ug/l	
90-12-0	1-Methylnaphthalene	ND	1.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	1.0	ug/l	
85-01-8	Phenanthrene	ND	1.0	ug/l	
129-00-0	Pyrene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	102%		49-119%
321-60-8	2-Fluorobiphenyl	95%		45-118%
1718-51-0	Terphenyl-d14	120%		46-135%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2RB01 Lab Sample ID: F14308-9 Matrix: AQ - Ground Water Method: EPA 504.1 EPA 504 Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/21/02 Date Received: 08/22/02 Percent Solids: n/a
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	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST15905.D	1	08/26/02	SKW	08/26/02	OP5737	GST594
Run #2							

	Initial Volume	Final Volume
Run #1	37.7 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.019	ug/l	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2RB01 Lab Sample ID: F14308-9 Matrix: AQ - Ground Water Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/21/02 Date Received: 08/22/02 Percent Solids: n/a
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Metals Analysis

Analyte	Result	RL	IDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	1.2 U	5.0	1.2	ug/l	1	08/23/02	08/26/02 DM	SW846 6010B	SW846 3010A

RL = Reporting Limit
 IDL = Instrument Detection Limit

U = Indicates a result < IDL
 B = Indicates a result >= IDL but < RL

Report of Analysis

Client Sample ID:	PCYA2DUP1	Date Sampled:	08/21/02
Lab Sample ID:	F14308-10	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0011385.D	1	09/04/02	JG	n/a	n/a	VC508
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	1.4	3.0	ug/l	J

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2DUP1	
Lab Sample ID: F14308-10	Date Sampled: 08/21/02
Matrix: AQ - Ground Water	Date Received: 08/22/02
Method: SW846 8260B	Percent Solids: n/a
Project: CSS-Panama City CTO#240 (N4221)	

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		86-115%
17060-07-0	1,2-Dichloroethane-D4	101%		78-125%
2037-26-5	Toluene-D8	98%		87-113%
460-00-4	4-Bromofluorobenzene	96%		84-117%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2DUP1	Date Sampled:	08/21/02
Lab Sample ID:	F14308-10	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C BY SIM SW846 3510C		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L014106.D	1	08/29/02	ME	08/27/02	OP5741	SL784
Run #2							

Run #	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	1.1	ug/l	
208-96-8	Acenaphthylene	ND	1.1	ug/l	
120-12-7	Anthracene	ND	1.1	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	0.22	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	1.1	ug/l	
86-73-7	Fluorene	ND	1.1	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
90-12-0	1-Methylnaphthalene	6.6	1.1	ug/l	
91-57-6	2-Methylnaphthalene	0.63	1.1	ug/l	J
91-20-3	Naphthalene	2.5	1.1	ug/l	
85-01-8	Phenanthrene	ND	1.1	ug/l	
129-00-0	Pyrene	ND	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	99%		49-119%
321-60-8	2-Fluorobiphenyl	101%		45-118%
1718-51-0	Terphenyl-d14	111%		46-135%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2DUP1 Lab Sample ID: F14308-10 Matrix: AQ - Ground Water Method: EPA 504.1 EPA 504 Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/21/02 Date Received: 08/22/02 Percent Solids: n/a
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	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST15906.D	1	08/26/02	SKW	08/26/02	OP5737	GST594
Run #2							

	Initial Volume	Final Volume
Run #1	37.8 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.019	ug/l	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2DUP1 Lab Sample ID: F14308-10 Matrix: AQ - Ground Water Method: FLORIDA-PRO SW846 3510C Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/21/02 Date Received: 08/22/02 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP23124.D	1	08/29/02	SKW	08/28/02	OP5748	GOP833
Run #2							

Run #	Initial Volume	Final Volume
Run #1	910 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	1.84	0.27	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	87%		51-125%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2DUP1 Lab Sample ID: F14308-10 Matrix: AQ - Ground Water Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/21/02 Date Received: 08/22/02 Percent Solids: n/a
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Metals Analysis

Analyte	Result	RL	IDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	2.5 B	5.0	1.2	ug/l	1	08/29/02	08/30/02 DM	SW846 6010B	SW846 3010A

RL = Reporting Limit
 IDL = Instrument Detection Limit

U = Indicates a result < IDL
 B = Indicates a result >= IDL but < RL

Report of Analysis

Client Sample ID:	PCYA2DUP2	Date Sampled:	08/21/02
Lab Sample ID:	F14308-11	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0011386.D	1	09/04/02	JG	n/a	n/a	VC508
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	12.8	1.0	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2DUP2	Date Sampled: 08/21/02
Lab Sample ID: F14308-11	Date Received: 08/22/02
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: CSS-Panama City CTO#240 (N4221)	

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		86-115%
17060-07-0	1,2-Dichloroethane-D4	101%		78-125%
2037-26-5	Toluene-D8	99%		87-113%
460-00-4	4-Bromofluorobenzene	99%		84-117%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2DUP2	Date Sampled:	08/21/02
Lab Sample ID:	F14308-11	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C BY SIM SW846 3510C		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L014117.D	1	08/29/02	ME	08/27/02	OP5741	SL784
Run #2	L014107.D	4	08/29/02	ME	08/27/02	OP5741	SL784

Run #	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2	990 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	1.6	1.0	ug/l	
208-96-8	Acenaphthylene	ND	1.0	ug/l	
120-12-7	Anthracene	ND	1.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	0.20	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	1.0	ug/l	
86-73-7	Fluorene	2.1	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
90-12-0	1-Methylnaphthalene	50.2	1.0	ug/l	
91-57-6	2-Methylnaphthalene	46.1	1.0	ug/l	
91-20-3	Naphthalene	67.5 ^a	4.0	ug/l	
85-01-8	Phenanthrene	ND	1.0	ug/l	
129-00-0	Pyrene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	94%	91%	49-119%
321-60-8	2-Fluorobiphenyl	95%	97%	45-118%
1718-51-0	Terphenyl-d14	102%	98%	46-135%

(a) Result is from Run# 2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2DUP2 Lab Sample ID: F14308-11 Matrix: AQ - Ground Water Method: EPA 504.1 EPA 504 Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/21/02 Date Received: 08/22/02 Percent Solids: n/a
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST15907.D	1	08/26/02	SKW	08/26/02	OP5737	GST594
Run #2							

Run #	Initial Volume	Final Volume
Run #1	38.2 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.018	ug/l	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCYA2DUP2	Date Sampled:	08/21/02
Lab Sample ID:	F14308-11	Date Received:	08/22/02
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	FLORIDA-PRO SW846 3510C		
Project:	CSS-Panama City CTO#240 (N4221)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP23163.D	4	08/30/02	SKW	08/28/02	OP5748	GOP833
Run #2							

Run #	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	8.50	1.0	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	78%		51-125%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PCYA2DUP2 Lab Sample ID: F14308-11 Matrix: AQ - Ground Water Project: CSS-Panama City CTO#240 (N4221)	Date Sampled: 08/21/02 Date Received: 08/22/02 Percent Solids: n/a
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Metals Analysis

Analyte	Result	RL	IDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	2.3 B	5.0	1.2	ug/l	1	08/23/02	08/26/02 DM	SW846 6010B	SW846 3010A

RL = Reporting Limit
 IDL = Instrument Detection Limit

U = Indicates a result < IDL
 B = Indicates a result >= IDL but < RL