Dept. of Environment Protection

JUL 12 2006

Southwest District

SITE ASSESSMENT REPORT ADDENDUM
Countryside Executive Golf Course
2506 Countryside Boulevard
Clearwater, Florida
HSA Project Number 601-5982-00



Dept. of Environmental Protection

JUL 12 2006

July 10, 2006

Southwest District

Florida Department of Environmental Protection Southwest District 13051 North Telecom Parkway Temple Terrace, Florida 33637-0926

Attention:

Mr. Robert Sellers, CHMM

Environmental Specialist II

Subject:

Site Assessment Report Addendum

Countryside Executive Golf Course

2506 Countryside Blvd. Clearwater, Florida

HSA Project Number 601-5982-00

Dear Mr. Sellers:

HSA Engineers & Scientists (HSA), on behalf of Beazer Homes, respectfully submits this Site Assessment Report Addendum, which includes responses to the Florida Department of Environmental Protection (FDEP) May 17, 2006 correspondence that provided comments on the December 29, 2005 Site Assessment Report and Remedial Action Plan for the above-referenced site. For ease of review, the Department's comments are presented below, followed by HSA's response.

Comment 1: The Plan does not include any information regarding site-specific geology. Site-specific stratigraphy, including description of the composition, thickness and continuity of the lithologic units, should be included in the Plan. The Plan should also include a minimum of two cross sections relative to NGVD of 1929 or NAVD of 1988 that illustrate the site-specific stratigraphy.

Response:

In order to evaluate site-specific stratigraphy, HSA reviewed available stratigraphic information gathered during a previous geotechnical investigation conducted at the subject site. Copies of the geotechnical boring logs are included in **Appendix A** and a site plan depicting the location of the geotechnical borings is included as **Figure 1**. With the exception of the on-site lake, the site has an approximate elevation of 75 feet (ft) National Geodetic Vertical Datum (NGVD). Geologic cross-sections are included as **Figures 2** and 3. The geology and

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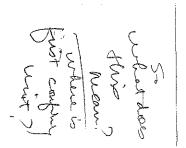
lithology that underlies the site, inferred from cross-sections A-A' (see Figure 2) and B-B' (see Figure 3) generally consists of brown to gray-brown fine sand with roots (including top soil) to a maximum depth of approximately 5.0 feet below land surface (ft bls) underlain by brown to gray-brown variegated fine sand from land surface to depths ranging from 14 to 23 ft bls. The sand is sporadically interlaminated with organic silty to silty fine sand. Gray-brown limestone underlies most of the sand; however, in the northern and southern parts of the site, the limestone is missing and replaced by green-brown to gray-brown silty fine sand to a depth of approximately 28 ft bls. The limestone and silty fine sand are underlain by green clayey silt or green brown dolomitic silty sand. The distribution of lithologies at depths greater than 31 ft bls is generally inferred with respect to the lithologies observed at soil borings B-13 and B-14, which were advanced to a depth of approximately 35 ft bls.

Comment 2: Section 1.4 – Four wells were identified at the site (two irrigation, two potable), as well as four potable wells within ¼ mile and two between ¼ and ½ mile from the site. These wells should be tested for arsenic.

Response:

On May 31, 2006 HSA located and sampled each of the irrigation wells located on the subject property. The irrigation well located in the vicinity of the maintenance facility (Well 1) and the irrigation well located in the southern portion of the site (Well 2) were sampled and analyzed by PEL Laboratories, Inc. (PEL) for the presence of arsenic by EPA Method 6010 (see Figure 4). The results of the analysis indicate concentrations below the laboratory reporting limit of 5 micrograms per liter (ug/L) at each of the wells sampled. Complete laboratory analytical results are included as Appendix B.

HSA also reviewed available groundwater quality data for three City of Clearwater potable wells located within proximity of the subject site. Public supply well numbers 56, 58, and 63 were reportedly sampled in January 2006 with arsenic results of 14, 13, and 21 ug/L, exceeding the Groundwater Cleanup Target Level (GCTL) established in Chapter 62-777, Florida Administrative Code (FAC) of 10 ug/L. Public supply well numbers 56 and 63 are located on-site and well number 58 is located northwest and upgradient of the subject site. The arsenic identified in these public supply wells suggests that low-level arsenic groundwater impacts may be widespread, and indicative of the local background groundwater quality. Potable supply well laboratory analytical results are included in **Appendix** C.





Comment 3: Section 1.5 – The Report states that groundwater flow "in the area of the site is to the east except near streams where water flows laterally to the channels". A generalized groundwater flow for an area or region is not acceptable. Water table elevations should be measured and used to determine groundwater flow direction. A groundwater contour map should be included in all future submittals. Once groundwater flow is determined, the extent of the arsenic contamination in the groundwater must be fully delineated both vertically and horizontally.

Response:

On May 31, 2006, Top-of-casings (TOCs) of the monitoring wells located in the vicinity of the maintenance facility were surveyed to a relative common datum. Because several of the previously installed monitoring wells were either damaged or destroyed, several of the wells were replaced prior to evaluating groundwater flow across the site. A summary of the well construction details of existing and newly installed wells is included as **Table 1**. A summary of TOC data is included as **Table 2**. Depth to water measurements were also gathered from all of the existing wells on May 31, 2006. Based on the TOC and depth to water measurements, groundwater elevations were calculated and plotted (see **Figure 5**). The groundwater elevation data gathered from the vicinity of the maintenance facility indicate a south to southeast groundwater flow at this site. Groundwater appears to flow to the existing pond located south of the maintenance facility and east toward a ditch that runs north to south along the eastern portion of the site. This groundwater flow likely varies slightly seasonally depending upon runoff to nearby surface water features.

In order to evaluate groundwater quality conditions downgradient of the maintenance facility, HSA resampled monitoring well TW-12 on June 13, 2006. The sampling was conducted in accordance with FDEP SOP FS2200. The groundwater sample was submitted to PEL for arsenic analysis by EPA Method 6010. Groundwater sampling data sheets are included in Appendix D and complete laboratory analytical results are included in Appendix B. The results of the subsequent analysis indicated the presence of arsenic at a concentration of 5.44 ug/L, which is below the arsenic GCTL. The results suggest that the downgradient extent of arsenic in the vicinity of the maintenance facility does not extend beyond monitoring well TW-12.

Comment 4: Soil excavation at the maintenance facility location may be done as an Interim Source Removal. This may help attenuate arsenic levels in the groundwater near this location. TW-1 and TW-5 currently have arsenic concentrations



above the Natural Attenuation Default concentration of 100 ug/L as established in Chapter 62-777, F.A.C. An Interim Source Removal Plan pursuant to Chapter 62-780.500 should be submitted to the Department if this option is chosen.

Response:

An Interim Source Removal Plan will be submitted under separate cover.

Comment 5: Arsenic concentrations at MW-2 (130 ug/L) exceeded the Natural Attenuation Default concentration of 100 ug/L as established in Chapter 62-777, F.A.C. This well is located well away from the maintenance facility. groundwater in the area does flow east, the MW-2 location is not down-gradient of the maintenance facility and the source of the arsenic should be investigated.

Response:

In order to further evaluate the presence of arsenic in groundwater at monitoring well MW-2, HSA reviewed historical information regarding the subject site, conducted soil sampling in the vicinity of monitoring well MW-2, resampled monitoring wells MW-2 and MW-1, and installed and sampled additional wells in the vicinity of monitoring wells MW-2 and MW-1.

The results of the historical information review indicated that monitoring well MW-2 may have been located in the vicinity of a temporary maintenance area historically utilized at the site. As such, additional soil sampling was conducted in the immediate vicinity of monitoring well MW-2. A total of four soil samples (MW-2 south, MW-2 north, MW-2 east, and MW-2 west) were gathered for laboratory analysis. Soil samples were gathered from land surface to 6 inches bls to the north, south, east, and west of monitoring well MW-2 (see Figures 6 and 6A). The soil samples were gathered in laboratory-supplied containers and were delivered to PEL for analysis for the presence of arsenic by EPA Method 6010. The results of the analysis indicated the presence of arsenic at each location at concentrations of 4.7 milligrams per kilogram (mg/kg) (MW-2 south), 6.63 mg/kg (MW-2 north), 3.56 mg/kg (MW-2 east), and 6.38 mg/kg (MW-2 west). Soil sampling data sheets are included as Appendix E. Complete laboratory analytical results are included in Appendix B. These results are consistent with the sitewide arsenic data and do not suggest the presence of a significant soil source that was not previously identified.

On May 30 and June 13, 2006, monitoring well MW-2 was resampled (see Figure 6). Groundwater sampling was conducted in accordance with FDEP SOP FS2200 and the samples were analyzed for the presence of arsenic by EPA Method 6010





at PEL. The results of the resampling event indicated the presence of arsenic at monitoring well MW-2 at concentrations of 37.3 and 79.8 ug/L, which are below the Natural Attenuation Default Source Concentration (NADSC) of 100 ug/L and historical levels, but above the arsenic GCTL of 10 ug/L. Copies of groundwater sampling data sheets are included in **Appendix D** and complete laboratory analytical results are included in **Appendix B**.

On May 30, 2006, monitoring well MW-1 was also located for resampling, but upon inspection, it was determined that the monitoring well was damaged beyond repair. On June 5, 2006, HSA personnel installed a replacement monitoring well adjacent to MW-1 (see Figures 6). The replacement well (MW-1R) was installed to a total depth of 12 feet bls using a decontaminated stainless steel hand auger (see Table 1). The well was constructed with 10 feet of 2-inch diameter 0.010-slot well screen and casing to land surface. The annular area between the well casing and borehole wall was backfilled with 20/30 silica sand to 1 foot above the well screen. The well was sealed with 30/65 sand and neat cement grout. A monitoring well construction detail is included in Appendix F.

Following installation, monitoring well MW-1R was sampled in accordance with FDEP SOP FS2200. The sample was gathered in laboratory supplied containers and was submitted to PEL for analysis for the presence of arsenic by EPA Method 6010. The results of the analysis indicated below detectable levels (<5 ug/L) of arsenic. Groundwater sampling data sheets are included as Appendix D and complete laboratory analytical results are included in Appendix B.

In order to further evaluate the presence of arsenic in the southern portion of the subject site, three additional groundwater monitoring wells were installed. Monitoring wells TW-14, TW-15, and TW-16 were installed on June 13, 2006. Monitoring wells TW-14 and TW-15 were installed in the vicinity of monitoring well MW-2 and monitoring well TW-16 was installed in the vicinity of monitoring well MW-1. Locations of the newly installed monitoring wells are included in **Figure 6**. The wells were constructed similarly to monitoring well MW-1R to total depths of 12 feet bls. Monitoring well construction details are included in **Appendix F**.

Following installation on June 13, 2006, monitoring wells TW-14, TW-15, and TW-16 were sampled in accordance with FDEP SOP FS2200. The samples were analyzed for the presence of arsenic. Groundwater sampling data sheets are included as **Appendix D** and complete laboratory analytical results are included in



Appendix B. The results of the groundwater analysis for samples collected from monitoring wells TW-14, TW-15, and TW-16 reported below detectable levels (<5 ug/L) for each well.

The results of the additional soil and groundwater investigations in the southern portion of the subject site suggest that a limited area of groundwater impact exists in the immediate vicinity of monitoring well MW-2. The limited groundwater impacts may be associated with the historical presence of a temporary maintenance facility that existed in this area of the site. The impacts are isolated and no identifiable soil source has been located. Monitoring well MW-2 was originally sampled on August 26, 2005 nearly a year ago (see Table 4). Since that time, the concentrations of arsenic at monitoring well MW-2 have decreased to concentrations below the NADSC and the recent data from newly installed monitoring wells TW-14 and TW-15 indicate that contaminant migration is not occurring. As such, HSA believes that the groundwater impacts in the vicinity of monitoring well MW-2 will attenuate naturally with time and any potential risk associated with the presence of arsenic in groundwater in the interim will be managed with the proposed site-wide institutional control that will restrict the use of shallow groundwater at the site.

Comment 6: Section 2.1.1 - Arsenic was the only contaminant tested for in soil samples taken throughout the property. Pesticides and herbicides should also be tested for in the soil throughout the site. Pesticide contamination, especially dieldrin, is common in soils located on former or current golf course sites. Delineation of the soil cannot be considered completed until these contaminants of concern are addressed.

Response:

In order to further evaluate the subject site for the presence of herbicides and pesticides, HSA gathered four soil samples (SB-1 through SB-4) from the vicinity of the maintenance facility. The soil samples were gathered in the locations depicted in Figures 6 and 6B. Soil samples were gathered between land surface and six inches below land surface (bls). Each sample was gathered in laboratorysupplied containers and delivered to PEL for analysis for the presence of chlorinated herbicides by EPA Method 8151 and chlorinated pesticides by EPA Method 8081. Laboratory analytical results are included as Appendix B.

The results of the subsequent analysis indicated the presence of Endosulfan I at soil boring SB-1 at a concentration of 17 micrograms per kilogram (ug/kg). Although detected, the concentration of Endosulfan I is well below the most



stringent Soil Cleanup Target Level (SCTL) value of 3,800 ug/kg (Leachability-based) as established in Chapter 62-777, FAC. At soil boring SB-4 2,4'-D (2,4-dichlorophenoxyl acetic acid) was detected at a concentration of 21 ug/kg. Although detected, the concentration of 2,4'-D was well below its most stringent SCTL value of 700 ug/kg (Leachability-based).

Based upon the results of the herbicide and pesticide sampling, it does not appear that significant impacts exist at this site. The soil samples were gathered in the vicinity of the maintenance facility, which is the most likely location for potential herbicide and pesticide impacts.

Comment 7: Section 3.0 – A groundwater monitoring plan should be included in the Remedial Action Plan. A minimum of one year of quarterly monitoring will be required following the excavation in the vicinity of the maintenance facility. Results of these sampling events should be provided to the Department in a Post Remedial Action Monitoring Report.

Response: A groundwater monitoring plan including a minimum of one year of quarterly monitoring will be included in the Interim Source Removal Plan that will be submitted under separate cover.

Comment 8: Section 4.1 – The report states that 95% UCL of the mean was calculated using Pro-UCL for the maintenance area and the entire site. Because the site will be developed for residential use, it is not acceptable to develop a single 95% UCL for the entire resdidential development area. For residential land use involving single dwellings, the exposure unit is typically the residential lot. The Department considers the default residential lot to be 0.25 acres in size. A different exposure scenario can be proposed through preparation of a Risk Assessment (Chapter 62-780.650). Please note that a minimum of ten samples are needed within an exposure unit to calculate a 95% UCL using FLUCL (Technical Report: Development of Cleanup Target Levels for Chapter 62-777, FAC) or pro-UCL (see attached letter). Please refer to Chapter 62-780.680 for the requirements of the Risk Management Options available under the cleanup rule.

Response: Acknowledged. HSA agrees that the use of the 95% UCL of the mean is not acceptable to develop a single 95% UCL for the entire residential development area. Alternatively, the use of engineering/institutional controls is recommended to prevent future exposure to on-site residents. Building foundations, roadways,



driveways, patios, etc. will be utilized as engineering controls following site redevelopment to prevent exposure to future residents. In addition, in exposed areas, two feet of clean fill will be placed above site soils. The use of two feet of clean fill will prevent exposure by future residents. Target soil remediation levels will be discussed in the Interim Source Removal Plan that will be submitted under separate cover.

Comment 9: Section 5.2 - The proposal to place two feet of clean fill in all of the areas that will be exposed following site redevelopment and deed drestrictions on the use of groundwater at the site appears reasonable, but restirications preventing excavation below two feet in depth in these areas must be part of the remedy. While this may prevent direct exposure, it does not resolve groundwater issues at the site.

Response:

Acknowledged. Along with engineering controls, the use of institutional controls will also be part of the long-term risk management strategy at this site. The institutional controls will require that if excavation occurs below two feet at the subject site, the soil will be disposed off-site in accordance with applicable regulations.

Comment 10: Section 5.2 - The report mentions that surface water sampling will be done at several proposed stormwater detention areas. The report does not reference any surface water sampling done to-date. At a minimum, surface water and sediment samples should be collected from the pond immediately south of the maintenance facility and analyzed for organochlorine pesticides and arsenic.

Response:

On May 30, 2006, HSA personnel obtained a sediment and surface water sample from the pond located immediately south of the maintenance facility (see Figure 6). An additional surface water sample was also collected on June 13, 2006. The sediment sample was collected in accordance with FDEP SOP FS4000 and the surface water samples were collected in accordance with FDEP SOP FS2100. The samples collected on May 30th were submitted to PEL for analysis for the presence of arsenic by EPA Method 6010 and chlorinated pesticides by EPA Method 8081. The surface water sample collected on June 13, 2006 was analyzed for the presence of arsenic only. The results of the analysis reported the presence of arsenic in the sediment at a concentration of 3.1 mg/kg and arsenic in the surface water at concentrations of 152 and 49 ug/L. No pesticides were reported above the laboratory reporting limits in either sample. The concentration of arsenic in surface water exceeded the Freshwater Surface Water Criteria (FSWC)





as established in Chapter 62-777, FAC of 50 ug/L for the May 30th sampling, but was below the FSWC for the June 13th sampling event.

Based upon the results of the sediment and surface water results, it does not appear that pesticides are present at elevated levels within the existing pond. The arsenic results for the sediment analysis did not suggest that arsenic has accumulated in pond sediments given the concentration is consistent with sitewide arsenic levels. With regard to surface water sampling, the concentrations of arsenic appear to fluctuate and may vary seasonally with rainfall and runoff conditions. The most recent surface water analysis indicated an arsenic concentration below the FSWC.

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CONCLUSIONS

As presented in the Site Assessment Report and Remedial Action Plan dated December 2005, two environmental concerns exist at the site. First, arsenic is present in shallow soils and groundwater in the vicinity of the maintenance facility at concentrations in excess of the default Residential Exposure SCTL and GCTL for that constituent. The soil and groundwater impacts in the vicinity of the maintenance facility appear to be a result of a historical discharge. Secondly, shallow soil arsenic impacts exist throughout the majority of the subject site that appear to be a result of the proper use of arsenic containing herbicides/pesticides.

In addition to the two areas of concern discussed above, a limited area of groundwater impact exists in the vicinity of monitoring well MW-2. These impacts appear to be a result of activities associated with a temporary maintenance facility located in this area in the past. The impacts are isolated and no identifiable soil source is present. Monitoring well MW-2 was originally sampled on August 26, 2005 nearly a year ago. Since that time, the concentrations of arsenic at monitoring well MW-2 have decreased to concentrations below the arsenic NADSC and the recent data from newly installed monitoring wells TW-14 and TW-15 indicate that contaminant migration is not occurring. As such, HSA believes that the groundwater impacts in the vicinity of monitoring well MW-2 will attenuate naturally with time. Any potential risk associated with the presence of arsenic in groundwater will be managed with a site-wide institutional control that will restrict the use of on-site shallow groundwater at the site.

With regard to groundwater flow beneath the site, groundwater elevation data indicate a general south to southeast flow direction in the vicinity of the maintenance facility. Current groundwater analytical data from monitoring well TW-12 did not indicate an exceedance of the arsenic GCTL suggesting that groundwater impacts are not migrating downgradient beyond TW-12 and/or off-site. Additionally, groundwater data at maintenance facility wells for the past 10 months



indicates decreasing concentrations and attenuation at the perimeter of the groundwater plume rather than expansion of the groundwater plume (see Table 4).

Because the two environmental issues are separated by location and have different source mechanisms, HSA recommends that future actions for each environmental issue be referenced and addressed separately. As discussed above, an Interim Source Removal and Groundwater Monitoring Plan for the maintenance facility will be submitted under separate cover. It is HSA's opinion that soil and groundwater arsenic assessment is complete. Although future remediation and monitoring will be required for the vicinity of the maintenance facility, risks associated with the remainder of the subject site will be managed with engineering/institutional controls (as discussed in the previous submittal) as part of the proposed site redevelopment. At this end, HSA trusts that the above information fully addresses the Department's comments and will enable approval of the site assessment and remedial approach for the site. If you have any questions concerning this report, please contact us.

Sincerely,

HSA Engineers & Scientists

Brian Moore, P.E.

Environmental Program Manager



TABLES

Table	Summary of Monitoring Well Construction Details	Countryside Executive Golf Course, Clearwater, Florida	Total Depth Screened Interval Well Diameter	(ft bls)	11.83 1.83-11.83 2	11.84 1.84-11.84 2 Bent		11.97 1.97 2 Bent could be broken below surface	12.5 2.5-12.5 2	11.79 1.79-11.79 2 Not located	12 Not located	12.1 2.1-12.1 2 Bent	12.03 2.03-12.03 2	12.14 2.14-12.14 2 Broken at surface, no above surface fixer	12.05 2.03-12.05 2 Bent		12.11 2.11-12.11 2.11-12.11 2.2 Bent and broken and surface		11.93 1.93-11.93 2 Bent may be broke below surface.		12.25 2.25-12.25 2	2.5-12.5	12.5 2.5-12.5 2	12.5 2.5-12.5 2	30 25-30 1	Broken at surface,	12.5 2.5-12.5 2	12 2-12 2		15 5-15 2
	Summary of	Countryside Exe	OFF NAMES OF THE PROPERTY OF T	Installed By	LAS III	LAS			HSA	LAS		LAS	LAS			HSA	LAS	HSA	LAS	HSA	LAS	HSA	HSA	HSA	HSA	HSA	HSA	HSA	7 0	HSA
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	* Translate	Sarberromann	THE THE PARTY OF T	Well D	TW-1	TW-2	TW-3	TW-4	TW-4R	TW-5	9-WT	T-W-7	TW-8	6-M.L	1.W-10	TW-10R	TW-11	TW-11R	TW-12	TW-12R	TW-13	TW-14	TW-15	TW-16	DW-1	MW-1	MW-IR	MW-2		MW-3

HSA: Hollow stem auger. ft bl; feet below land surface.

LAS: Land Assessment Services, Inc. HSA: HSA Engineers and Scientists

in: Inches Shading indicates well is damaged or missing.

All replacement monitoring wells were constructed similar to original wells.

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	Summary o	Summary of Groundwater Elevation Data	evation Data	
Ü	ountryside Execu	Countryside Executive Golf Course, Clearwater, Florida	Clearwater, Floric	ea ea
:	HSA P	HSA Project Number 6015982-00	5982-00	
Well ID	Date	TOC Elevation	TOC Elevation Depth to Water	Water Elevation
DW-I	9002/2/9	100	6.65	93.35
I-WI	9/1/2006	103.52	8.51	95.01
TW-2	6/7/2006	104.58	9,18	95.4
TW-3	9002/1/9	102.66	6.92	95.74
TW.4	6/7/2006	102.77	7.74	95.03
01-MI	9002/1/9	100.56	6.81	93.75
	9/1/2006	100.48	7.74	92.74
TW-12	9002/1/9	102.92	8.32	94.6
Pond	900Z/L/9	1	-	93.62

Notes: TOC-top of casing All elevations are in feet

Table 3

Summary of Supplemtental Analytical Data Countryside Executive Golf Course, Clearwater, Florida HSA Project Number 6015982-00

Sample ID	Date	Depth (ft bls)	Arsenic	Chlorinated Endosulfan I	Pesticides All others	Chlorinato	ed Herbicides All others
					Anomera	497 T.	7314 7711112
			Contract and the Contract of t	ytical Data			MIN. 1
			mg/kg	ug/kg	ug/kg	ug/kg	ug/kg
SCTL-Resid	lential Exp	osure	2.1	∕ 450 જા	VA -	770	·
SCTL-Comp	nercial Exp	osure	12	7,600		13,000	AND DESCRIPTION OF THE PERSON
SB-1	8/26/2004	0-0.5	-	17 Mg/F			BRL
SB-2	8/26/2004	0-0.5	-	<1.6	BRL	<10	BRL
SB-3	8/26/2004	0-0.5	-	<1.6	BRL	<10	BRL
SB-4	8/26/2004	0-0.5	-	<1.6	BRL	21	BRL
Sediment Composite	5/30/2006	-	3.1	<1.9	BRL		
MW-2 East	8/26/2004	0-0.5	3.56	-	-	_	_
MW-2 South	8/26/2004	0-0,5	4.7		-	•	
MW-2 North	8/26/2004	0-0.5	6.63	_	**	_	***************************************
MW-2 West	8/26/2004	1	6.38	_			
		Gro	oundwater	Analytical Da	ta		
	Principal Control Cont		ug/L	ug/L	ug/L	ug/L	ug/L
GCTL			10	42		70	_
FSWC			50	0.056	-	80	_
MW-1R	6/5/2006	2-12	<5	-	_		-
1 / III / O	5/30/2006	2-12	37.3		-	-	_
MW-2	6/13/2006	2-12	79.8	-	-		***
TW-12	6/13/2006	2.25-12.25	5.44	-	-		
TW-14	6/13/2006	2-12	<5				
TW-15	6/13/2006	2-12	<5				
TW-16	6/13/2006	2-12	<5				
Surface Water	5/30/2006	-	152	<0.051	BRL	_	-
Surface water	6/13/2006	-	49		-	-	-

Notes:

ft bis - feet below land surface

SCTL-Soil Cleanup Target Level as established in Chapter 62-777, Florida Administrative Code (FAC)

GCTL-Groundwater Cleanup Target Level as established in Chapter 62-777, FAC

FSWC-Freshwater Surface Water Criteria as established in Chapter 62-777, FAC

2,4-D 2,4-dichlorophenoxyl acetic acid

mg/kg - milligrams per kilogram

ug/L - micrograms per liter

mg/L - milligrams per liter

- Compound not analyzed for specific analyte

BRL-Below laboratory reporting limit

Bold indicates that the default Residential SCTL or the default GCTL was exceeded.

Endosustan Oldrin Leachaidith, R. CHI Lean = 3.8 mg/g 0.06 03 02 2,4-D mg/mg 0.77mg/mg

			2221-1-10-10-10-10-10-10-10-10-10-10-10-10-		And the second of the second s	Table 4	open a management of the control of	линентостинальной примененти. Настран	and produced to the state of th	entral production and the contract of the cont	adakteuroo uzronnanen kiizakenkii 25.	octopostania de la composta de la co
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And the second s		TWI		TW-2	.2	E-ML	6.3	TW.	7-4	TW-5	.3	9-M.L
Date	08/27/04 10/07/04	0/07/04	11/16/04	10/06/04	11/16/04	10/06/04 11/16/04 10/06/04 11/15/04 10/06/04 11/15/04	11/15/04	10/06/04	11/15/04	10/07/04 11/16/04	11/16/04	10/07/04
Arsenic	470	620	180	E.	8.21	100	23	18	70	330	540	8.4
			TW. 8	0,WT				TW-12	1 ElsML	TW-114	TW-15	91-M.L
Date	10/03/04 01/13/05	3.05	11/15/04	11/15/04	11/15/04 11/15/04 11/15/04		11/15/04	6/13/2006	11/16/04	11/15/04 6/13/2006 11/16/04 06/13/06 06/13/06	06/13/06	06/13/06
Arsenic	14	<2.8	3.51	4.41	<2.8		2	5.44	12	\$	<5	<5
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		DΨ	W-1		MW-I	V-I		MV	MW-2		MW-3	(-3
Date	07/14/05 08/01/05	38/01/05	08/26/05	08/26/05 11/07/05 08/26/05 6/5/2006 08/26/05 11/07/05 5/30/2006 6/13/2006 08/26/05 11/07/05	08/26/05	9/2/2006	50/97/80	11/07/05	5/30/2006	6/13/2006	08/26/05	11.07/05
Arsenic	17.6	12.4	15.2	<2.8	46.9	<5	119	130	37.3	79.8	159	5.4
	meron management of the control of t	TO THE PERSONNEL PROPERTY OF THE PERSONNEL P	HOLOGOPHICAL CHANGE OF THE PARTY.	The state of the s	STOREST TO STATE OF THE STOREST OF T	THE PERSONAL PROPERTY OF THE PERSONAL PROPERTY	Section of the sectio		PATERIOR DESCRIPTION OF THE PATERIOR OF THE PA		- CANADASA CANADAS AND CANADAS	Server annual contractibilities
	NW-4	4										
Date	08/26/05 11/07/05	11/02/03										
Arsenic	2.5	<2.8										
								STEEN OF THE STEEL BOOK STEEL ST	entherangement and any one of the	THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.	COLUMN TENNESSES	A STATE OF THE PERSON OF THE P

Note:

Units given in micrograms per liter (ug/1).

1: Analyte detected below the quantitation limits.

Red indicates result exceeds Groundwater Cleanup Target Level (GCTL) of 10 ug/L as established in Chapter 62-777, Florida Administrative Code (FAC). Blue indicates result exceeds Natural Attenuation Default Source Concentration (NADSC) of 100 ug/L as established in Chapter 62-777, FAC.

LEGEND

0 225 450 675 900 APPROXIMATE SCALE: 1"=450°± B-1 ● STANDARD PENETRATION TEST BORING LOCATION

P-1 A HAND AUGER BORING LOCATION

A A CROSS-SECTION TRAVERSE LINE

COUNTRYSIDE
EXECUTIVE GOLF COURSE
2506 COUNTRYSIDE BOULEVARD
CLEARWATER, FLORIDA

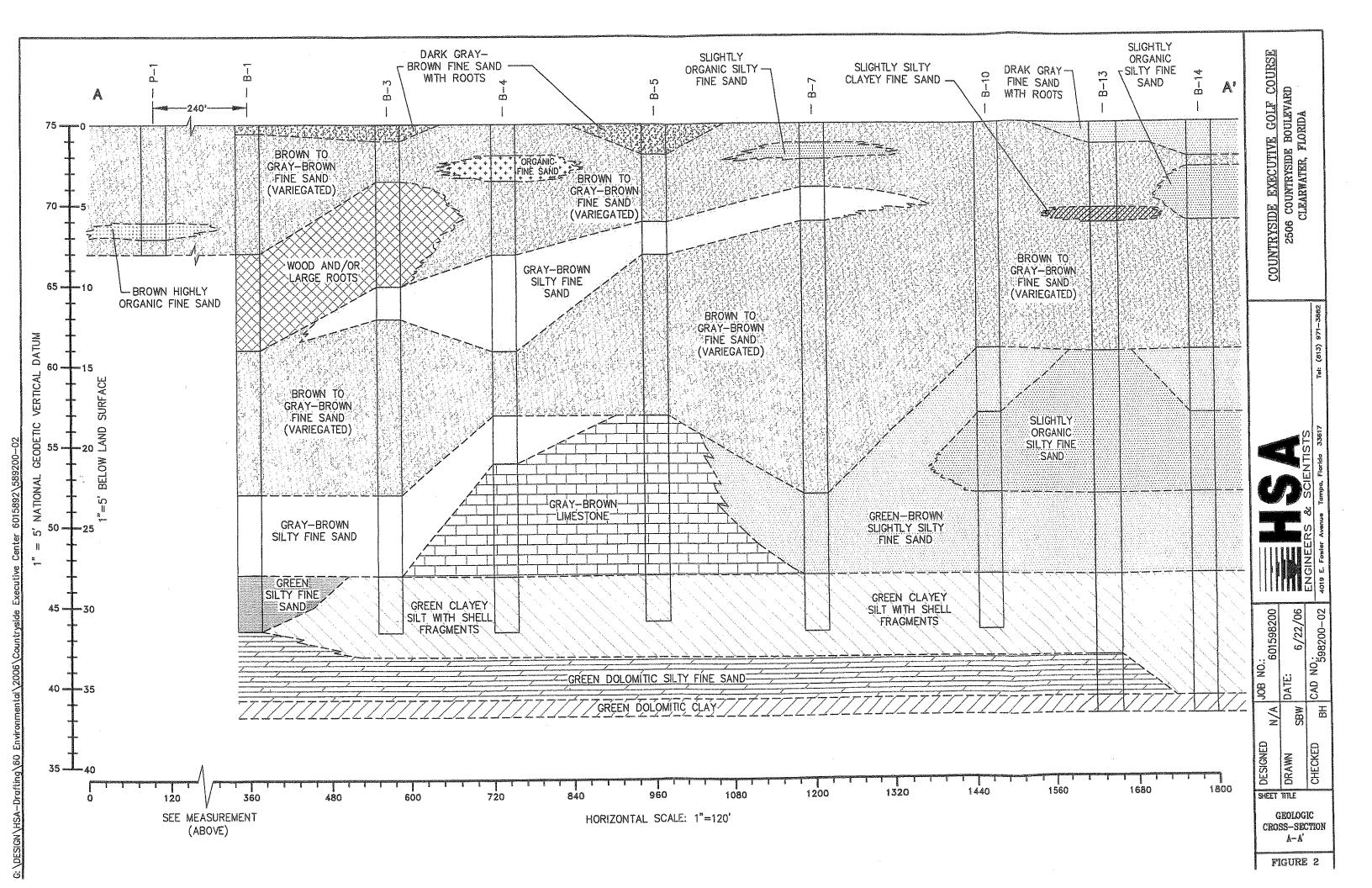
SHEET TITLE

SITE PLAN

FIGURE 1

Tel: (813) 971-3882

6: \DESIGN\HSA-Drafting\60 Environmental\2006\Countryside Executive Center 6015892\589200-01



COUNTRYSIDE EXECUTIVE GOLF COURSE 2506 COUNTRYSIDE BOULEVARD CLEARWATER, FLORIDA

DATE

DESIGNED DRAWN

GEOLOGIC CROSS-SECTION B-B'

FIGURE 3



COUNTRYSIDE EXECUTIVE GOLF COURSE
2506 COUNTRYSIDE BOULEVARD
CLEARWATER, FLORIDA

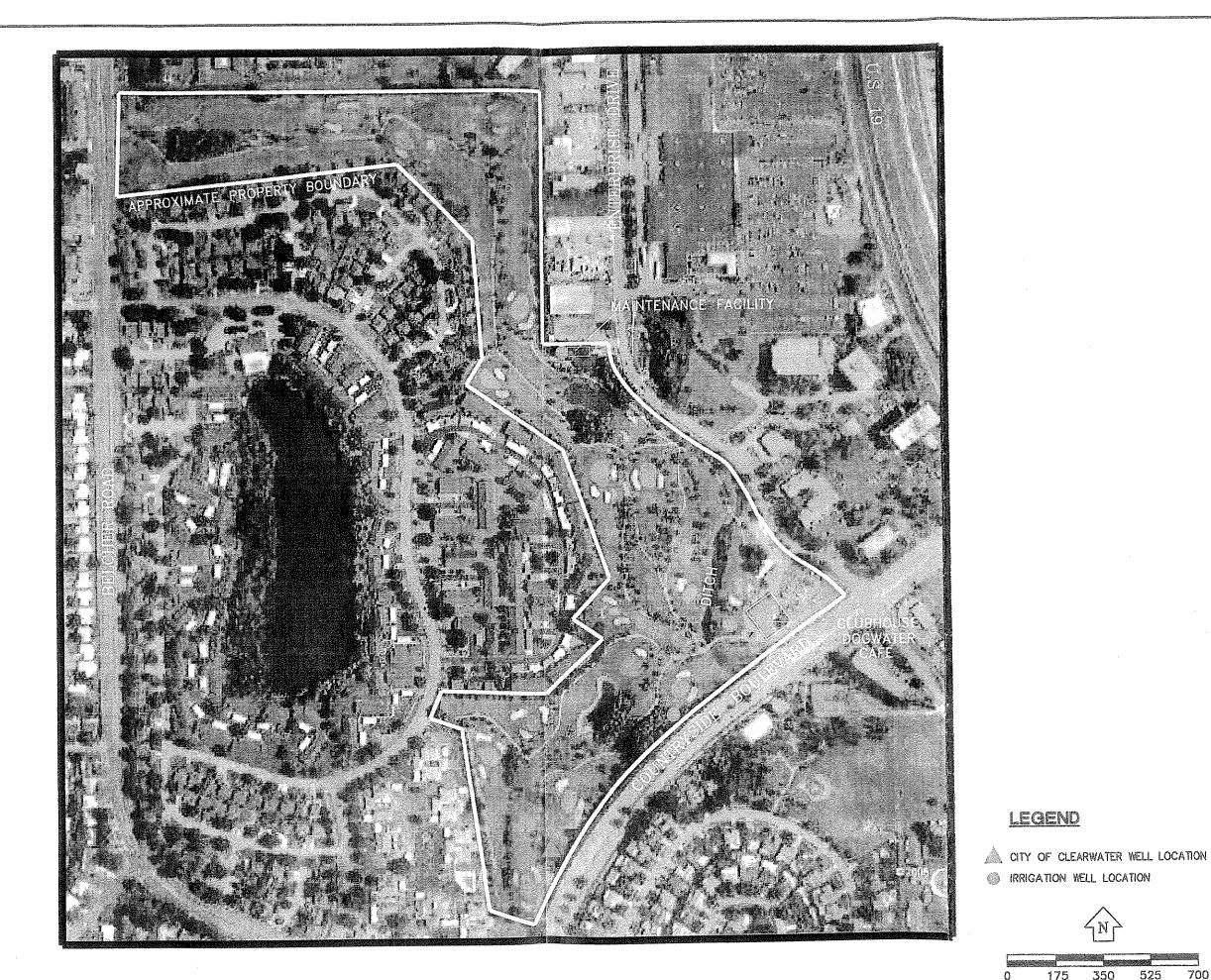
8

N/A DESIGNED DRAWN

SHEET THE
POTALBE &
IRRIGATION
WELL, LOCATION
MAP

FIGURE 4

175 350 525 SCALE: 1" = 350"±

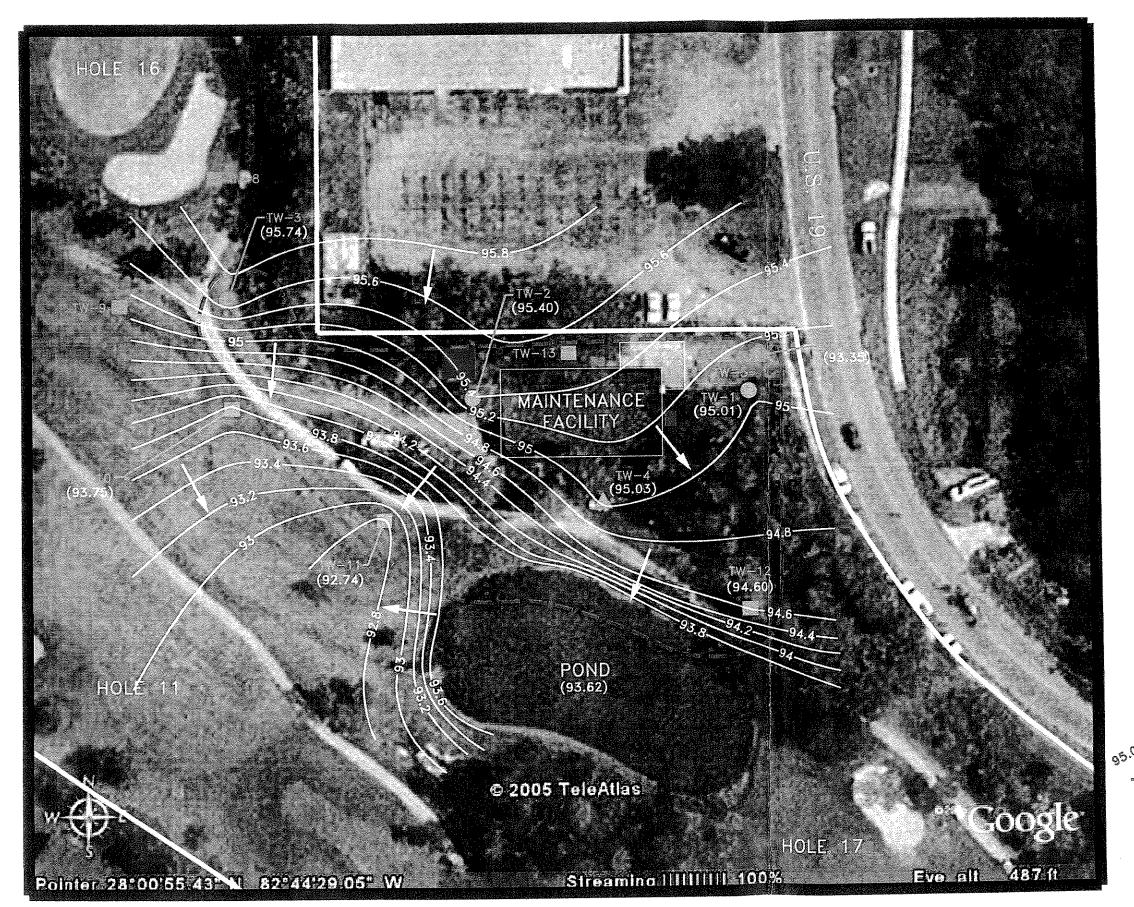


DRAWN SBW CHECKED

sheet title GROUNDWATER ELEVATION PLAN (6/7/08)

DESIGNED

figure 5



6015892\589200-05 REV

3. \DESIGN\HSA-Drafting\60 Environmental\2006\Countryside Executive



- AST MABOVEGROUND STORAGE TANK LOCATION
 - TEMPORARY MONITOR WELL LOCATIONS (TW-1-TW-3) INSTALLED AUGUST 27, 2004
 - TEMPORARY MONITOR WELL LOCATIONS (TW-4-TW-7) INSTALLED OCTOBER 6, 2004
 - TEMPORARY MONITOR WELL LOCATIONS
 (TW-8-TW-13) INSTALLED
 NOVEMBER 12, 2004
 - DEEP MONITOR WELL LOCATION (DW-1)
 INSTALLED JULY 5, 2005

APPROXIMATE EXTENT OF ARSENIC GROUNDWATER IMPACTS ABOVE THE GROUNDWATER CLEAN UP TARGET LEVEL (GCTL) AS ESTABLISHED IN CHAPTER 62-777, F.A.C.

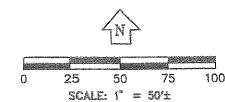
GROUNDWATER INFORMATION APPEARS IN WHITE ON MAP

(95.01) GROUNDWATER ELEVATION IN FEET

GROUNDWATER ELEVATION CONTOUR

INFERRED GROUNDWATER FLOW DIRECTION

NOTE: ELEVATION FOR DEEP WELL (DW-1) NOT USED FOR CONTOURING



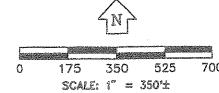
DRAWN SHEET TILE

SITE—WIDE SAMPLING LOCATION PLAN

figure 6

LEGEND

- TEMPORARY MONITOR WELL LOCATIONS (TW-1-TW-3) INSTALLED AUGUST 27, 2004
- TEMPORARY MONITOR WELL LOCATIONS (TW-4-TW-7) INSTALLED OCTOBER 6, 2004
- MONITOR WELL LOCATION (MW-1-MW-4) INSTALLED AUGUST 16, 2005
- SURFACE WATER/SEDIMENT SAMPLE LOCATION
- TEMPORARY MONITOR WELL LOCATIONS (TW-14-TW-16) INSTALLED JUNE 13, 2006



MW-2 → TEMPORARY MONITOR WELL LOCATIONS

MW-2 (SOUTH) ● SOIL BORING LOCATION

SCALE: 1" = 50'±

NOTE: INFORMATION APPEARS IN WHITE ON MAP

COUNTRYSIDE EXECUTIVE GOLF COURSE 2506 COUNTRYSIDE BOULEVARD CLEARWATER, FLORIDA

601598200

DRAWN SHEET TITLE ARSENIC SOIL SAMPLING NEAR MW-2

DESIGNED

figure 6a

SHEET THE
SHEET THE
PESTICIDE
PESTICIDE
SAMPLING NEAR
ANDITENANCE
FACILITY

FIGURE 6B

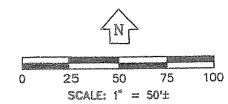
FACILITY POND © 2005 TeleAtlas HOLLE 17 Eve alt 487 ft Streaming | | | | | 100% Pointer 28:00'55.43" N 82:44'29 05" W

3.\DESIGN\HSA-Drafting\60 Environmental\2006\Countryside Executive Center 6015892\589200-068

LEGEND

SB-1 ● SOIL BORING LOCATION

NOTE: INFORMATION APPEARS IN WHITE ON MAP





APPENDIX A

Copies of Geotechnical Boring Logs

			DES 045290 BORING NO. B-1			
Proje	ect To)Wn	house Development, Countryside Exec. Golf Course, F	Pinellas Cty., FL		
	pletio:		Depth To	Foreman	W.M	1.
De	pth_		31.5' Date <u>8/24/04</u> Water 4.0'	Time	Date	8/24/04
DEPTH, FT	SYMBOL	SAMPLES	SOIL DESCRIPTION SURF. EL:	BLOWS ON SAMPLER PER 6" OR PEN. STR.	STANDA PENETRATIC BLOWS/FT. OI SAMPLER-1 HAMMER, 30	ON TEST N 2" O.D. 140 LB. O" DROP
0		F	Dark grayish-brown Fine SAND with roots (SP)		10 20	40 60 80
			Brown Fine SAND (SP) Dark brownish-gray Fine SAND (SP)			
5			Dark brown Fine SAND (SP)			
	And .		Loose dark brown Fine SAND with trace of finely divided organic material (SP)	4/6/4		
- 10	A STATE OF THE PARTY OF THE PAR		Wood	4/3/5	*	
10	1 COEnt			5/3/3		
٠		7		3/3/5		
- 15 -		7	Medium dense to loose dark gray Fine SAND (SP)	6/8/10		
- 20 -				3/4/4		
- 25 -			Medium dense grayish-brown slightly silty Fine SAND (SP-SM)	8/12/15		
30 -		d	Medium dense dark green silty Fine SAND (SM)	2/5/6		
Kem	narks_			Casing	Length	

			DES 045290 BORING NO. B-2				Sandara particular de la constanta de la const	AND DESCRIPTION OF THE PERSON	PROPERTY.
Proj	ect To	W.	nhouse Development, Countryside Exec. Golf Course, I						
	ation <u>s</u> ipletio		e Plate I	Forem	an	W.N	1.		
D	epth	i T	30.2' Date 8/24/04 Water 4.0'	Time		_ Date _	8/2	24/0	4
DEPTH, FT	SYMBOL	SAMPLES	SURF. EL:	BLOWS ON SAMPLER PER 6" OR PEN. STR.	BLO	STANDA NETRATIO WS/FT. O AMPLER-1 MMER, 30	N 7E N 2" I40 L)" DR	0.E B. (OP).
0		8	Dark grayish-brown Fine SAND with trace of roots (SP)				1	Ĭ	0 80
		-		_	-			\Box	+
ļ		S. C.	Gray Fine SAND (SP)					П	\prod
5			Medium dense to loose dark grayish-brown				<u> </u>	$\downarrow \downarrow$	
			Fine SAND (SP)					$\downarrow \downarrow$	44
-				5/7/8				+	
	11	7	- trace of brown clayey Fine SAND at depth 8.0'	3/5/4		/		$\dashv \vdash$	+
10	::::::			3/3/4	/			+	+H
	技技	1	Loose dark gray Fine SAND with finely divided	2/2/3				H	†††
			organic material and trace of roots (SP)					$\dagger \dagger$	111
			Loose dark brown highly organic, silty Fine SAND with roots (Pt)	6/3/4	4			Ħ	
		-							
15		7	Loose to dense light brown to brown Fine SAND (SP)						
		_		2/3/4				igert	\coprod
		disconnection.						igdash	
		The state of the s					_	\vdash	\mathbb{H}
20		***************************************						\vdash	+
20				13/17/21			$\exists \exists$	-	+ + +
		1		10/11/21			7		${\dagger}{\dagger}$
									H
		actorian and	Grayish-brown LIMESTONE					\top	
- 25 -		1		_					
				7/10/12					
				-			1		
				-				7	
- 30 -		-		50*	* 0.2' Pene	etration	$-\!\!\!\!+\!\!\!\!\!+\!\!\!\!\!\!+$	+	\mathcal{A}
				-			\dashv	+	
							\dashv	+	+
	_						+	+	+
Ren	narks E	30	rehole Grouted						#
	~			Casi	ng Length	3			[
									[

		_	DES 045290 BORING NO. B-3					
Proje	ect To	wr	house Development, Countryside Exec. Golf Course,					
•	nion <u>s</u> pletio		Plate I Depth To	Forema	n <u>W.M.</u>			
De	epth _		31.5' Date 8/24/04 Water 3.4'	Time	Date 8/24/04			
ОЕРТН, FT	SYMBOL	SAMPLES	SOIL DESCRIPTION SURF. EL:	BLOWS ON SAMPLER PER 6" OR PEN. STR.	STANDARD PENETRATION TEST BLOWS/FT. ON 2" O.D. SAMPLER-140 LB. HAMMER, 30" DROP			
0	# <u>f</u> : <u>f()</u>	+	Dark brown Fine SAND with roots (SP)		10 20 40 60 80			
ļ			Brown Fine SAND (SP)					
1			Dark brown slightly organic Fine SAND					
5	THE STATE OF		with large roots and wood (SP/Pt)	-				
			Wood or Large Roots	4/2/3				
	000			4/7/6	8			
10	1 63 (1) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Dense grayish-brown slightly silty Fine SAND (SP-SM)	12/15/17				
			Very dense to dense grayish-brown to dark grayish-brown Fine SAND (SP)	21/23/33				
15		7		20/50*	* 0.4' Penetration			
- 20 -		7		16/24/20				
25 -		7	Medium dense dark grayish-green slightly silty Fine SAND (SP-SM)	11/0/6				
			Medium dense greenish-brown dolomitic,	11/8/6				
30 -			clayey Fine SAND with trace of shell fragments (SC)	2/3/24				
Ren	narks	<u></u>						
Casing Length								

		DES 045290 BORING NO. B-4	·						
Loca	tion S	wnhouse Development, Countryside Exec. Golf Course, F See Plate I	inellas Cty., F Forema						
Com	pletio	Depth To		n W.M.					
De	pth _	31.5' Date <u>8/24/04</u> Water <u>3.9'</u>	Time	Date8/24/04					
DEPTH, FT	SYMBOL	SOIL DESCRIPTION SURF. EL:	BLOWS ON SAMPLER PER 6" OR PEN. STR.	STANDARD PENETRATION TEST BLOWS/FT. ON 2" O.D. SAMPLER-140 LB. HAMMER, 30" DROP					
0	(11111)	Dark grayish-brown Fine SAND (SP)		10 20 40 60 80					
		Dark brown highly organic Fine SAND (Pt)							
		Brown Fine SAND (SP)							
5									
	111111	Madium danga liababan wata liaba							
		Medium dense light brown to light grayish-brown Fine SAND (SP)	2/4/8						
	(4 ,						
	(Dense to very dense light grayish-brown to light brownish-gray slightly silty Fine SAND	3/15/17						
10	[[4 3 3 4 3 2 4 3 4 4 4 4 4 4 4 4 4 4 4 4	(SP-SM)	-						
	1 6 1 3 - 1 1		15/28/29						
	r (dairí í Francis		25/50*	* 0.5' Penetration					
	E ERROR		25/50	0.5 Penetration					
	1,4,4,4,4	Very dense dark grayish-brown Fine SAND (SP)	1						
15 -			24/43/31						
			24/43/31						
		Loose dark gray and brown silty Fine SAND (SM)							
- 20 -									
			6/3/6						
		Grayish-brown LIMESTONE							
25 -									
			9/17/15						
	3//	Loose greenish-brown dolomitic, clayey Fine SAND	-						
		with trace of shell fragments (SC)	<u> </u>						
- 30 -			1 2/4/5						
			3/4/5						
			<u> </u>						
Ren	narks	Borehole Grouted							
			Casir	ng Length					
Casing Length									

			DES 045290 BORING NO. B-5 house Development, Countryside Exec. Golf Course,	Pinellas Ctv. I	FI				
Loca	tion 3	See	e Plate I	Forema					
Com	pletion pth	1	Depth To 30.8' Date 8/24/04 Water 3.6'	Time	Date 8/24/04				
ОЕРТН, FT	SYMBOL	SAMPLES	SOIL DESCRIPTION SURF. EL:	BLOWS ON SAMPLER PER 6" OR PEN. STR.	STANDARD PENETRATION TEST BLOWS/FT. ON 2" O.D. SAMPLER-140 LB. HAMMER, 30" DROP				
0	NECT.		Dark grayish-brown Fine SAND with roots (SP)		10 20 40 60 80				
		NO.	Brown Fine SAND (SP)						
		32 (Kelse)	BLOWILL INC OAND (OF)						
5									
	CHROS CHROS		Medium dense grayish-brown slightly silty Fine SAND (SP-SM)	6/10/11					
			Very dense to dense grayish-brown Fine SAND (SP)	14/31/37					
10		7	- brown at depth 10.0'	24/46/32					
				38/50*	* 0.5' Penetration				
15	The state of the s			19/18/21					
- 20 -			Grayish-brown LIMESTONE	6/5/11					
- 25 -				18/12/10					
- 30 -	*************************************		Very dense greenish-brown dolomitic, silty Fine SAND with trace of shell fragments (SM)	28/50*	* 0.3' Penetration				
		Company of the Compan							
Remarks Borehole Grouted Casing Length									

			DES 045290 BORING NO. B-					
Proje	ct <u>lo</u> tion (See	nhouse Development, Countryside Exec. Golf Course e Plate I	e, Pinellas Cty., F Foremar				
Com	pletio	 n	Depth To		VV.IVI.			
De	pth _	,	31.5' Date 8/24/04 Water 5.2'	Time	Date8/24/04			
ОЕРТН, FT	SYMBOL	SAMPLES	SOIL DESCRIPTION SURF. EL:	BLOWS ON SAMPLER PER 6" OR PEN. STR.	STANDARD PENETRATION TEST BLOWS/FT. ON 2" O.D. SAMPLER-140 LB. HAMMER, 30" DROP			
0			Dark brown Fine SAND (SP)		10 20 40 60 80			
			Dark brownish-gray Fine SAND (SP)					
			Dark brown Fine SAND (SP)					
			Brown Fine SAND (SP)					
- 5	1 11 11 11							
J			Grayish-brown slightly silty Fine SAND (SP-SM)					
	i Edicii Uraina		Loose dark brown slightly silty Fine SAND (SP-SM)	2/4/4				
	1013111		Medium dense to dense dark brown					
			to reddish-brown Fine SAND (SP)	8/10/12				
10			(,					
				7/10/10				
		7		8/10/14				
				0/10/14	9			
- 15 -				-				
10				12/19/22				
		Percentage						
				-				
- 20 -				<u> </u>				
				7/14/18				
				-				
			Grayish-green to green dolomitic LIMESTONE					
- 25 -								
<u> </u>		7		5/2/2	•			
		1						
				_				
- 30 -			•	-				
		<u> </u>		3/7/8				
Ren	l narks	L Bo	prehole Grouted					
11011			Tonoic Orouted	Casin	a Lenath			
Casing Length								

Project No. DES 045290 BORING NO. B-7							
Project Townhouse Development, Countryside Exec. Golf Course, Pinellas Cty., FL							
		ee Plate I	Foreman	W.M			
De	pletion epth		Time	Date	8/24/04		
ОЕРТН, FT	SYMBOL	SOIL DESCRIPTION SURF. EL:	BLOWS ON SAMPLER PER 6" OR PEN. STR.	STANDA PENETRATIO BLOWS/FT. OI SAMPLER-1 HAMMER, 30	N TEST N 2" O.D. 40 LB. " DROP		
0	1.1.1.1	Dark brown Fine SAND (SP)		10 20	40 60 80		
- 5		Dark gray slightly organic, slightly silty Fine SAND (SP-SM) Brown Fine SAND (SP) Gray Fine SAND (SP) Brown slightly silty Fine SAND (SP-SM) Light brownish-gray silty Fine SAND (SM)					
		Medium dense light brown to brown Fine SAND (SP)	5/5/7	*			
- 10 -		- loose seam at depth 10.0'	5/6/7				
		- loose seam at depth 10.0	3/4/6				
	7		4/6/7				
45	7	•	5/8/9				
- 20 -	100,000	- grayish-brown at depth 20.0'	6/5/9	5 0			
	initiani initiani initiani initiani initiani initiani urini urini	Very loose dark greenish-brown slightly silty Fine SAND (SP-SM)	3/2/2	<u>/·</u>			
- 30 -	X X	Loose greenish-brown dolomitic, silty Fine SAND with trace of shell fragments (SM)	3/3/5				
Remarks Casing Length							

			DES 045290 BORING NO. B-8 house Development, Countryside Exec. Golf Course	Binallas Ct. El	- COLUMN TO SERVICE OF THE SERV			
Loca	ition S	W.M.						
Com	pletior pth	1	Depth To 31.5' Date 8/23/04 Water 5.4'	Foreman				
	1		57.0 Date 0/20/04 Water 5.4	Time	Date8/23/04			
ОЕРТН, FT	SYMBOL	SAMPLES	SOIL DESCRIPTION SURF. EL:	BLOWS ON SAMPLER PER 6" OR PEN. STR.	STANDARD PENETRATION TEST BLOWS/FT. ON 2" O.D. SAMPLER-140 LB. HAMMER, 30" DROP			
0			Dark gray Fine SAND with roots (SP)		30 20 40 60 80			
<u></u>	1111111		Dark brown Fine SAND (SP)					
	988		- wood below depth 3.0'					
	100 CM	X	Brown Fine SAND (SP)					
- 5		Ì	Light brownish-gray silty Fine SAND (SM)					
		\uparrow	Light brown silty Fine SAND (SM) Dense to medium dense brown Fine SAND (SP)	0(4.4/00				
			Dense to mediatit dense prown Fine SAND (SP)	8/14/32				
- 10				14/14/16				
				6/6/6				
				6/6/8				
15	**************************************		Very dense to loose brown to dark gray slightly silty Fine SAND (SP-SM)	14/27/28				
- 20 -	(444-44 (444-44) (444-44) (444-44) (444-44) (444-44) (444-44) (444-44) (444-44) (444-44) (444-44)			11/5/3				
- 25 -		or or other statements	Cream colored LIMESTONE	4/5/15				
- 30 -	D D 7		Medium dense brownish-green dolomitic, silty Fine SAND with trace of shell fragments (SM)	4/3/8				
Remarks Borehole Grouted								
Casing Length								

Project No. DES 045290 BORING NO. B-9								
Project Townhouse Development, Countryside Exec. Golf Course, Pinellas Cty., FL								
Location See Plate I Foreman W.M. Completion Depth To								
	pth_	· .	31.5' Date <u>8/23/04</u> Water 5.2'	Time	Date 8/23/04			
DEPTH, FT	SYMBOL	SAMPLES	SOIL DESCRIPTION SURF. EL:	BLOWS ON SAMPLER PER 6" OR PEN. STR.	STANDARD PENETRATION TEST BLOWS/FT. ON 2" O.D. SAMPLER-140 LB. HAMMER, 30" DROP			
0	4 E. C.		Dark brown Fine SAND with roots (SP)		10 20 40 60 80			
	/: X		Brown Fine SAND (SP) Dark gray highly organic, silty Fine SAND (Pt) Brown Fine SAND with trace of roots (SP)					
5	1.5.7		Dark brown Fine SAND with trace of roots (SP)	4				
	1,63,64 1,63,64 1,63,64 1,63,64 1,73,74 1,73,74 1,73,74 1,73,74 1,73,74 1,73,74 1,73,74 1,73,74 1,73,74 1,73,74 1,73,74 1,73,74 1,74 1,74 1,74 1,74 1,74 1,74 1,74 1		Loose to dense light brown to brown slightly silty Fine SAND (SP-SM)	3/3/5				
	1.03.000 1.03.000 1.130.00			10/14/29				
10	1 1 1 1 1 1	Z	Very dense to dense brown to light brown Fine SAND (SP)	26/50*	* 0.5' Penetration			
	() () () () () () () () () ()			14/16/18				
- C3			Medium dense dark grayish-brown slightly silty Fine SAND (SP-SM)	10/12/13				
20		/_	Loose dark grayish-green silty Fine SAND (SM) Gray LIMESTONE	3/4/12				
25 -				40/25/20				
- 30 -			·	15/17/21				
				<u> </u>				
Remarks Borehole Grouted Casing Length								

			<u>DES 045290</u> BORING NO. <u>B-10</u>)							
Proje	ct To	wn	house Development, Countryside Exec. Golf Course, F								
	tion <u>s</u> pletio		Plate I	Foreman	W.M						
De	pth _		Depth To 31.5' Date <u>8/23/04 Water</u> 3.7'	Time	Date	8/23/0)4				
рертн, гт	SYMBOL	SAMPLES	SOIL DESCRIPTION SURF. EL:	BLOWS ON SAMPLER PER 6" OR PEN. STR.	STANDA PENETRATIO BLOWS/FT. ON SAMPLER-1 HAMMER, 30	N TEST V 2" O.C 40 LB.	D.				
0			Dark grayish-brown Fine SAND (SP)			40 0	10 80				
5			Brown Fine SAND (SP)								
			Loose to dense light brown to brown Fine SAND (SP)	2/3/3							
		7		6/9/10							
10 -				7/11/10							
				10/16/31							
15			Medium dense light brown to brown slightly silty Fine SAND (SP-SM)	13/9/7							
- 20 -	A Dredanta		Loose dark brown slightly organic, slightly silty Fine SAND (SP-SM)	2/3/3							
- 25 -	1435416 144666 1446666 1466666 1466666 1466666666		Medium dense dark greenish-brown slightly silty Fine SAND (SP-SM)	7/12/8							
- 30 -			Loose light green dolomitic, clayey Fine SAND with trace of shell fragments (SC)	4/3/7							
Rem	RemarksCasing Length										

Project No. DES 045290 BORING NO. B-11 Project Townhouse Development, Countryside Exec. Golf Course, Pinellas Cty., FL												
Locati	ion <u>S</u>	ee	Plate I	Forema		W.N	Л.					
Comp	letion oth		Depth To 35.5' Date 8/24/04 Water 5.9'	Time		Date _		3/24	/04	 !		
ОЕРТН, FT	SURF. EL:							LB DRC	EST 'O.D. _B. ROP 0 60 80			
0	1 1 1 1 1 1 1		Dark grayish-brown Fine SAND (SP)		10	20	7	1	00			
	idjæd Prijad Prijad		Brown slightly silty Fine SAND (SP-SM) Gray and brown Fine SAND (SP)									
5 -			Dark brownish-gray Fine SAND (SP)				\vdash	\Box	+	+		
		¥	Gray Fine SAND with trace of roots (SP)				†	$\dagger \dagger$	+	H		
	/		Medium dense to very dense brown to dark brown Fine SAND (SP)	5/7/12					+			
	/			6/9/8					I			
- 10 -	7		- loose seam at depth 10.0'	3/4/4					+			
	1	Hill	- trace of finely divided organic material below depth 12.0'	4/6/10					-			
15				19/34/48					++/			
- 20				31/40/50*	* 0.4' Penetr	ation						
- 25	DREGNIZANI PREGNIZANI PREGNIZANI		Dense dark brown slightly silty Fine SAND with finely divided organic material (SP-SM)	15/26/23						4		
- 30 -			Very soft dark greenish-brown sandy SILT with trace of shell fragments (MH)	0/0/0								
				- Andrews			1	1	\prod			
		\	Very dense greenish-brown dolomitic, (1)			+	\dashv	-				
Rema	arks (1)	clayey Fine SAND (SC)				<u></u>	<u> </u>	L L	#		
	Casing Length											

Proj	ect T	owr	DES 045 nhouse [Develo	oment, Country	BORING side Exec. G	NO. <u>B-1</u> olf Course.	I1 Pinellas Ctv	FL							
Loca	ation	See	e Plate I					Forem			W.	<u>—</u>				
Com	pletio epth	n	35.5'	Date	8/24/04	Depth To Water	5.9'	Time		Da			8/24	4/0	4	
DEPTH, FT	SYMBOL	SAMPLES	SURF.	EL:	SOIL DESC	RIPTION		BLOWS ON SAMPLER PER 6" OR PEN. STR.	BI	STA PENETR LOWS/F SAMPL JAMMEI	ER- R, 3	ON ON 2 ·140 :0" [TE 2" () LE DR(0.E B. OP). •	
- 35			Very de	ense gr	eenish-brown o	dolomitic,					20	T	40	15	$\frac{3}{}$	3 <u>0</u>
	-	ħ	clayey	Fine S	AND (SC)			50*	* 0.5' 1	Penetra	tion					ŀ
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Ren	narks				****	·								山		Ц
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			DES 045290 BORING NO. B-1	2						
Proj	ect To	Wn Soc	house Development, Countryside Exec. Golf Course, Plate I							
				Forema	an W.M.					
D	epth _		Depth To 31.5' Date 8/23/04 Water 3.2'	Time	Date8/23/04					
ОЕРТН, FT	SYMBOL	SAMPLES	SOIL DESCRIPTION SURF. EL:	STANDARD PENETRATION TEST BLOWS/FT. ON 2" O.D. SAMPLER-140 LB. HAMMER, 30" DROP						
0			Dark grayish-brown Fine SAND (SP)	BLOWS ON SAMPLER PER 6" OR PEN. STR.	10 20 40 00 80					
			Brown Fine SAND (SP) Light brown Fine SAND (SP)							
5	1		Very light grayish-brown Fine SAND (SP)							
			Medium dense to very dense light grayish-brown to light brown Fine SAND (SP)	10/13/10						
				11/14/21						
10			- light brown and light gray at depth 11.0'	18/17/38						
		/	Von (donne de la berra Eine CAND) (CD)	30/50*	* 0.5' Penetration					
15			Very dense dark brown Fine SAND (SP)	25/38/17						
- 20			Loose dark brown slightly silty Fine SAND (SP-SM)	5/5/5						
25			Light gray to cream colored LIMESTONE Cream colored clayey LIMESTONE	4/1/2						
30 -			Cream colored to light brown LIMESTONE	3/3/5						
		_		l l						
Rer	narks			^:	ng Langth					
	Casing Length									

1		_	DES 045290 BORING NO. B-13 house Development, Countryside Exec. Golf Course, F		
Loca	tion S	See	Plate I	Forem	
Comp	pletion pth	1	Depth To 36.5' Date <u>8/23/04</u> Water <u>3.2'</u>	Time	Date 8/23/04
DEPTH, FT	SYMBOL	SAMPLES	SOIL DESCRIPTION SURF. EL:	BLOWS ON SAMPLER PER 6" OR PEN. STR.	STANDARD PENETRATION TEST BLOWS/FT. ON 2" O.D. SAMPLER-140 LB. HAMMER, 30" DROP 10 20 40 60 80
0	1. i.e.	ſ	Dark brown Fine SAND with roots (SP)		10 20 40 00 80
			Dark gray Fine SAND (SP)		
			Brown Fine SAND (SP) Light brown Fine SAND (SP)		
			Light brown Fine SAND (SP)		
5	: : : : : מלוט:גור	4	Crovish brown eilter aliebhe alaner Fine CAND	<u>.</u>	
<u> </u>			Grayish-brown silty, slightly clayey Fine SAND (SM)		
			Very dense light brown Fine SAND (SP)	7/15/34	
				50*	* 0.5' Penetration
40	1::::::				
10		7		43/50*	* 0.3' Penetration
				29/34/41	6
<u> </u>			Modium dans dedukan and Circ CAND	-	
- 15 -	N. C. C.		Medium dense dark brown organic Fine SAND (SP-SM/Pt)		
				5/7/8	
					$ar{}$
<u> </u>	2011		Loose dark brown slightly organic,		
20 -	EER		slightly silty Fine SAND (SP-SM)		
[20 -	200			2/2/4	
		'			
		-			
			Medium dense dark grayish-brown silty Fine SAND (SM)	LEE in marent Lance	
25 -		7	(Olly		
				9/7/5	
			Very soft green clayey SILT with shell fragments	4	
- 30 -		-	(MH)		
30		7_		0/0/1	
			Very soft green clayey SILT with trace of shell fragments (MH)		
			Very loose green dolomitic, silty Fine SAND (1)	-	
Ren	narks	(1	(SM)		l
				Cas	ing Length

	ct No. DES 045290 BORING NO. B-1	3		
Proje	ct Townhouse Development, Countryside Exec. Golf Course,			
	tion See Plate I Depth To	Foreman	W.N	1.
De	pletion Depth To pth 36.5' Date 8/23/04 Water 3.2'	Time	Date _	8/23/04
DEPTH, FT	SAMBLES SAMPLES SAMPLE	BLOWS ON SAMPLER PER 6" OR PEN. STR.	STANDA PENETRATIO BLOWS/FT. OI SAMPLER-1 HAMMER, 30	ON TEST N 2" O.D. 140 LB.
35	Very loose green dolomitic, silty Fine SAND			
	(SM)	2/6/10		
	Very stiff green dolomitic CLAY (CH)			
<u> </u>				
				
- 40				
<u> </u>				
45				
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F- 0				
- 50 -				
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	TERRITORIA			44444
Rem	arks			
		Casing	Length	
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			DES 045290 BORING NO. B-14	4						
Projec	ct To	٧n	house Development, Countryside Exec. Golf Course, f							
Comp			Plate I	Forema	an <u>W.M.</u>					
De	pth		Depth To 36.5' Date <u>8/23/04</u> Water <u>4.0'</u>	Time	Date 8/23/04					
рертн, гт		SAMPLES	SOIL DESCRIPTION SURF. EL:	BLOWS ON SAMPLER PER 6" OR PEN. STR.	STANDARD PENETRATION TEST BLOWS/FT. ON 2" O.D. SAMPLER-140 LB. HAMMER, 30" DROP					
0	# fe \$ { }		Dark gray Fine SAND with roots (SP)							
[3]	1.13 (Dark gray Fine SAND with trace of roots (SP) Gray Fine SAND (SP) Dark brown slightly silty Fine SAND with trace of finely divided organic material (SP-SM) Brown slightly silty Fine SAND (SP-SM)							
All under the state of the stat			Medium dense to very dense light brown to light grayish-brown Fine SAND (SP)	6/6/8						
10		,		6/12/17						
				19/31/47						
			Dense brown slightly silty Fine SAND (SP-SM)	23/28/17						
- 20 -		The state of the s	Loose dark brown slightly organic, silty Fine SAND (SM)	5/3/3						
- 25 -	41444		Loose dark greenish-brown slightly silty Fine SAND (SP-SM)	4/3/2						
30	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		Very loose green silty Fine SAND with trace of shell fragments (SM)	0/0/0						
13	RemarksCasing Length									

	Project No. DES 045290 BORING NO. B-14 Project Townhouse Development, Countryside Exec. Golf Course, Pinellas Cty., FL																	
Proje	ct <u>To</u>	OWI See	nhouse e Plate i	Develop	ment, Cou	ntrys	side Exec. G	olf Course	, Pir	nellas Cty., Forem		······································	W.W	1				_
Comp	oletio	n					Depth To	*		1 Otelli	CA11		AA'I.	V1.	<u>-</u> -			
De	pth _		36.5'	Date	8/23/0)4	Depth To Water	4.0'	_ T	ime		Da	ate _	8	/23	/04	<u> </u>	
DEPTH, FT	SYMBOL	SAMPLES	SURF.		SOIL DE	SC	RIPTION			BLOWS ON SAMPLER PER 6" OR PEN. STR.	B1	ST ENETI OWS/ SAMP IAMME	FT. C LER-	ON 7 ON 2 140 O" C	TES " O LB).D)P	•	 ^
- 35 -	V.	П	Very lo	ose gre	en silty Fin	e S/	AND						Ĭ		Ĭ	Ĭ	Ĭ	Ť
		1	with tra	ace of sh	nell fragme	nts	(SM)			2/3/7		1						I
		仆	Stiff gr	<u>een san</u>	dy CLAY (CH))				ļ	ļ				1	$\perp \mid$	1
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	HAND AUG	ER BORI	NG LOG		
PROJEC	Townhouse Development Countryside Executive Golf Course	CLIEN	DATE:		
TECHNIC	Pinellas County, Florida CIAN: W.M.	DATE		4.6' COM	PLETION DEPTH:
LOCATION	ON: See Plate I	TEST	8.0'		
ELEV. (FT)	DESCRIPTION	DEPTH (FT)	SYMBOL	P-2 RE	MARKS
	Dark brown Fine SAND (SP)	0	<i>S</i>		
	Grayish-brown Fine SAND with roots and gravel (SP)	- 2	0		
ingenerative linguistics	Dark gray organic Fine SAND with trace of roots (SP-SM/Pt) Grayish-green Fine SAND with pockets				
] -	of dark grayish-brown clayey Fine SAND (SP/SC)	4 -			
-	Gray Fine SAND (SP)				
	Dark brown slightly organic Fine SAND (SP)	- 6 -			
		8			
					·
		10			
42-24-27		- 12			
	· · · ·				

	HAND AUG	ER BORIT	G LOG	,							
PROJEC	Townhouse Development	CLIEN	CLIENT: Beazer Homes								
	Countryside Executive Golf Course Pinellas County, Florida	WATE	TABLE	3.6'	azer nomes	DATE:					
TECHNI	CIAN: W.M.	DATE:	8/2	4/04	COMPLET	8/24/04 FION DEPTH:					
LOCATI	ON: See Plate I	TEST	UMBER:	7,04	P-3	8.0'					
ELEV.			ď		1 -9						
(FT)	DESCRIPTION	DEPTH (FT)	SYMBOL		REMAR	KS					
	Dark grayish-brown Fine SAND with trace of roots (SP)	- 2 -									
	Dark gray highly organic SILT (Pt)										
	Dark gray organic, silty Fine SAND (SM/Pt)	4 -	4141914191 4141914191 41717171								
	Grayish-brown Fine SAND (SP)										
		6 -									
1000 mm m m m m m m m m m m m m m m m m		8									
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		GER BORING LOG	
PROJECT	 Townhouse Development 	CLIENT:	Beazer Homes
	Countryside Executive Golf Course Pinellas County, Florida	WATER TABLE:	DATE: 8/24/04
TECHNIC	W.M.	DATE: 8/24/04	COMPLETION DEPTH:
LOCATIO	N: See Plate I	TEST NUMBER:	P-4
ELEV. (FT)	DESCRIPTION	DEPTH OB WAS	REMARKS
(FT)	Brown Fine SAND with trace of roots (SP) Light brown slightly silty Fine SAND (SP-SM) Tannish-brown slightly silty Fine SAND (SP-SM)	(FT) WASS 0	REMARKS
		- 12 -	The state of the s

	HAND AUG	ER BORIN	G LOC	3	•
PROJEC	lownhouse Development	CLIENT		Beaz	zer Homes
	Countryside Executive Golf Course Pinellas County, Florida	1	R TABLE	7.6'	DATE: 8/24/04
TECHNIC	CIAN: W.M.	DATE:	8/2	24/04	COMPLETION DEPTH: 8.0'
LOCATIO		TEST	UMBER		P-5
ELEV. (FT)	DESCRIPTION	DEPTH (FT)	SYMBOL		REMARKS
	Dark brown Fine SAND with roots and trace of finely divided organic material (SP)	2			
The management of the Control of the	Dark grayish-brown Fine SAND (SP)	- 4			
	Dark brown slightly organic, slightly silty Fine SAND (SP-SM)	- 6			
NACONAL CONTRACTOR OF THE CONT	Brown Fine SAND (SP)			- trace	of roots below depth 6.6'
de edjardija vezara i njenjenje do se d	Dark gray Fine SAND with finely divided organic material (SP)	- 8			
The same of the sa				·	
		- 10			

		12			
			,		
		- 14			

PROJECT:	HAND AUG				
VO0E01:	Townhouse Development	CLIEN	T:	Beazer Homes	
	Countryside Executive Golf Course	WATE	R TABLE:		DATE:
ECHNICIA	Pinellas County, Florida	DATE:	3,		8/24/04
	W.M.		8/24/04	COMP	ETION DEPTH:
OCATION	: See Plate I	TEST	NUMBER:	P-6	U, U
			2	F-0	
(FT)	DESCRIPTION	DEPTH (FT)	SYMBOL	REM	ARKS
	Brown Fine SAND (SP)	0			
	Dark gray slightly organic Fine SAND (SP)				
	Dark brown organic Fine SAND with trace of roots (SP-SM/Pt)	- 2			
	Dark brown Fine SAND (SP)		Sace	•	
	Brown Fine SAND (SP)				
		- 4 -			
	Light brown Fine SAND (SP)				
	Light brown slightly silty Fine SAND (SP-SM)	6 -			
	·	1 1			
<u></u>	Light grayish-brown slightly silty Fine SAND (SP-SM)				
		- 10 -			
		10	1		
		12 -			
	*				
		14			

	HAND AU	GER BORING LOG	
PROJECT:	Townhouse Development	GLIENT:	Beazer Homes
	Countryside Executive Golf Course Pinellas County, Florida	WATER TABLE: 3.5'	DATE: 8/24/04
TECHNICIAN:	W.M.	DATE: 8/24/04	COMPLETION DEPTH:
LOCATION:	See Plate I	TEST NUMBER:	P-7
			<i>P-1</i>
ELEV. (FT)	DESCRIPTION	DEPTH (FT) XWBO	REMARKS
	Grayish-brown Fine SAND (SP)	0	
	Brown Fine SAND (SP)		
	Grayish-brown silty, slightly clayey Fine SAND (SM)	4 (XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	•
	Grayish-brown Fine SAND (SP)	8	
		- 10 -	
		- 12 -	

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APPENDIX B

Complete Laboratory Analytical Results



nelad!

Florida Department of Health #E84207 July 1, 2005 - June 30, 2006 CWA - Extractable Organics, General Chemistry, Metals,
Pesticides-herbicides-PCB's, Volatile Organics
RCRA/CERCLS - Extractable Organics, General Chemistry, Metals
Pesticides-Herbicides-PCB's, Volatile Organics

- CERTIFICATE OF ANALYSIS -

Report Date: 06/08/2006

To: Brian Moore

HSA Engineers & Scientists 4019 E Fowler Ave.

Tampa, FL 33617

W (813)971-3882 F (813)971-1862

PROJECT ID:

Countryside

WORK ORDER:

2503968

DATE RECEIVED:

Wednesday, May 31, 2006

Project Notes:

): Short Hold Time Analysis Date

amples reported on dry weight basis

PEL Contact: Mark Gudnason / extension: 242

4420 Pendola Point Road • Tampa, Florida 33619 (813)247-2805 • FAX: (813)248-1537 Website: www.pelab.com

PEL Laboratories, Inc.

DATA QUALIFIER CODES

State of Florida, Department of Environmental Protection and Department of Health Rehabilitative Services / NELAC

- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- **J** Estimated value; value not accurate. This code shall be used in the following instances:
 - 1. Surrogate recovery limits have been exceeded.
 - 2. No known quality control criteria exits for the component.
 - 3. The reported value did not meet the established quality control criteria for either precision or accuracy but falls within the NELAC marginal exceedance range
 - 3M.The reported value did not meet the established quality control criteria for either precision or accuracy and falls beyond the NELAC range for marginal exceedances.
 - 4. The sample matrix interfered with the ability to make an accurate determination.
 - 5. The data is questionable because of improper laboratory or field protocols (e.g. composite sample was collected instead of a grab sample).
- Off-scale high. Actual value is known to be greater than the value given. To be used when the concentration of the analyte is above the acceptable limit for quantitation (exceeds the linear range of the highest calibration standard) and the calibration curve is known to exhibit a negative deflection.
- Sample held beyond acceptable holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for the sample preparation or analysis.
- Indicates that the compound was analyzed for but not detected. This shall beused to indicate that the specified component was not detected. The value associated with the qualifier shall be the laboratory reporting limit. Unless requested by the client, values less than the reporting limit shall not be
- V Indicates that the analyte was detected in both the sample and the associated method blank. Note: The value in the blank shall not be subtracted from associated samples.
- Υ The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.

Client: HSA Engineers & Scientists

CASE NARRATIVE

PEL Lab Reference No./SDG: 2503968

I. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

II. ANALYSIS

A. Blanks:

All acceptance criteria were met.

B. Surrogates:

All acceptance criteria were met.

C. Spikes:

1. Laboratory Control Spikes (LCS)

All acceptance criteria were met with the exception of:

LCS 214588 was analyzed with the soil samples extracted on 06/05/06. The following analyte(s) were recovered below criteria: Heptachlor epoxide at 47.8 % with criteria of (65-130).

Samples coded accordingly.

2. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)

No spikes requested by client.

D. Samples:

Sample analysis proceeded normally.



`o: Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2503968

PROJECT ID: Countryside

PEL Lab#: 250396801

Collection Information:

Client ID:

Composite Sediment

Sample Date: 5/30/2006 11:08:00 AM

Matrix:

			Analysis	Prep				Dilution
Parameter	Method	Results	Date	Date	Units	MDL	RL	Factor
rsenic	6010	3.1	06/07/2006 20:28	06/01/2006 13:50	MG/KG	0.124	0.364	1
,4'-DDD	8081	1.9 ND	06/06/2006 18:35	06/05/2006 9:16	UG/KG	0.64	1.9	1
,4'-DDE	8081	1,9 ND	06/06/2006 18:35	06/05/2006 9:16	UG/KG	0.34	1.9	1
,4'-DDT	8081	1.9 ND	06/06/2006 18:35	06/05/2006 9:16	UG/KG	0.48	1.9	1
Idrin	8081	0.77 1	06/06/2006 18:35	06/05/2006 9:16	UG/KG	0.19	1.9	1
lpha-BHC	8081	1.9 ND	06/06/2006 18:35	06/05/2006 9:16	UG/KG	1.2	1.9	1
eta-BHC	8081	1.9 ND	06/06/2006 18:35	06/05/2006 9:16	UG/KG	0.19	1.9	1
hlordane	8081	19 ND	06/06/2006 18:35	06/05/2006 9:16	UG/KG	2.5	19	1
elta-BHC	8081	1.9 ND	06/06/2006 18:35	06/05/2006 9:16	UG/KG	0.35	1.9	1
feldrin	8081	1.9 ND	06/06/2006 18:35	06/05/2006 9:16	UG/KG	0.2	1.9	1
ndosulfan I	8081	1.9 ND	06/06/2006 18:35	06/05/2006 9:16	UG/KG	0.28	1.9	1
ndosulfan II	8081	1.9 ND	06/06/2006 18:35	06/05/2006 9:16	UG/KG	0.36	1.9	1
ndosulfan sulfate	8081	1.9 ND	06/06/2006 18:35	06/05/2006 9:16	UG/KG	0.25	1.9	1
ndrin	8081	1.9 ND	06/06/2006 18:35	06/05/2006 9:16	UG/KG	0.32	1.9	1
ndrin aldehyde	8081	1.9 ND	06/06/2006 18:35	06/05/2006 9:16	UG/KG	0.45	1.9	1
amma-BHC (Lindane)	8081	1.9 ND	06/06/2006 18:35	06/05/2006 9:16	UG/KG	0.25	1.9	1
leptachlor	8081	1.9 ND	06/06/2006 18:35	06/05/2006 9:16	UG/KG	0.19	1.9	1
eptachlor epoxide	8081	1.9 J3MND	06/06/2006 18:35	06/05/2006 9:16	UG/KG	0.19	1.9	1
lethoxychlor	8081	1.9 ND	06/06/2006 18:35	06/05/2006 9:16	UG/KG	0.34	1.9	1
oxaphene	8081	19 ND	06/06/2006 18:35	06/05/2006 9:16	UG/KG	1.6	19	1
,4,5,6-tetrachloro-m-xylene(SUR	8081	70.7	06/06/2006 18:35	06/05/2006 9:16	%	1.6	(35 - 135) 1
ecachlorobiphenyl(SURR)	8081	86.2	06/06/2006 18:35	06/05/2006 9:16	%	1.6	(25 - 143) 1

FLDOH #E84207

Brian Moore

Matrix:

HSA Engineers & Scientists

WORK ORDER: 2503968

PROJECT ID:

Countryside

PEL Lab#: 250396802

Collection Information:

Client ID: MW-2 SOUTH 0-6ft

S

Sample Date: 5/30/2006 1:11:00 PM

ND = Non Detect

Analysis Prep Dilution Parameter Date Date Units MDL RL Factor Results Method enic 6010 4.7 06/07/2006 20:52 06/01/2006 13:50 MG/KG 1 0.109 0.322

FLDOH #E84207

Brian Moore э:

HSA Engineers & Scientists

WORK ORDER: 2503968

PROJECT ID:

Countryside

Collection Information:

PEL Lab#: 250396803

Matrix: S

Client ID: MW-2 NORTH 0-6ft

Sample Date: 5/30/2006 12:41:00 PM

	•		Analysis	Prep				Dilution
Parameter	Method	Results	Date	Date	Units	MDL	RL	Factor
senic	6010	6.63	06/07/2006 20:57	06/01/2006 13:50	MG/KG	0.112	0.328	1

FLDOH #E84207

o: Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2503968

PROJECT ID: Countryside

PEL Lab#: 250396804

Client ID: MW-2 EAST 0-6ft

Matrix: S

Collection Information:

Sample Date: 5/30/2006 12:53:00 PM

			Analysis	Prep				Dilution
Parameter	Method	Results	Date	Date	Units	MDL	RL	Factor
senic	6010	3.56	06/07/2006 21:02	06/01/2006 13:50	MG/KG	0.106	0.313	1

FLDOH #E84207

Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2503968

PROJECT ID:

Countryside

PEL Lab#: 250396805

Matrix: S

Client ID: MW-2 WEST 0-6ft

Collection Information:

Sample Date: 5/30/2006 12:13:00 PM

			Analysis	Prep				Dilution
Parameter	Method	Results	Date	Date	Units	MDL	RL	Factor
senic	6010	6.38	06/07/2006 21:07	06/04/2006 13:50	MG/KG	0.0058	0.282	1



Brian Moore HSA Engineers & Scientists

WORK ORDER: 2503968

PROJECT ID: Countryside

QC SUMMARY

METHOD: 6010

ethod Blank 214355

Matrix: SQ

:sociated Lab Samples: 214355 214356 214357 250396801 250396802 250396803 250396804 250396805

Parameter	Result		nalysis Date	Prep Date	Units	RL	-	Dilution Factor
enic	, ND	6,	7/2006	6/1/2006	MG/KG	0.5	5	1
ABORATORY CONTR	OL SAMPLI	E 21435	56	Matri	x : SQ			
RAMETER	UNITS	SPIKE CONC	LCS RESULT	SPIKE % REC			RPD	RPD LIMIT
enic ABORATORY CONTR	MG/KG OL SAMPLI	50 E 21,435	50.1 57	100.2 Matrix		120)		
RAMETER	UNITS	SPIKE CONC	LCS RESULT	SPIKE % REC			RPD	RPD LIMIT
enic	, MG/KG	50	49.5	99	(80-	120)	1.2	20



Brian Moore 0:

HSA Engineers & Scientists

WORK ORDER: 2503968

PROJECT ID:

Countryside

METHOD: 8081

[ethod Blank 214587

Matrix: SQ

ssociated Lab Samples:

214587 214588 250396801

		Analysis	Prep			Dilution
Parameter	Results	Date	Date	Units	RL	Factor
4'-DDD	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
4'-DDE	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
4'-DDT	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
drin	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
ha-BHC	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
ta-BHC	NÐ	6/5/2006	6/5/2006	UG/KG	1.5	1
ılordane	ND	6/5/2006	6/5/2006	UG/KG	15	1
Ita-BHC	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
eldrin elektricken	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
idosulfan I	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
idosulfan II	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
idosulfan sulfate	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
ıdrin	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
ıdrin aldehyde	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
mma-BHC (Lindane)	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
ptachlor	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
ptachlor epoxide	J3MND	6/5/2006	6/5/2006	ÙG/KG	1.5	1
∍thoxychlor	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
xaphene	ND	6/5/2006	6/5/2006	UG/KG	15	1
1,5,6-tetrachloro-m-xylene(SUR	86.5	6/5/2006	6/5/2006	%	(35 - 135)	1
:cachlorobiphenyl(SURR) (S)	88.7	6/5/2006	6/5/2006	%	(25 - 143)	1

ABORATORY CONTROL SAMPLE

Matrix: SQ

RAMETER	UNITS	SPIKE CONC	LCS RESULT	SPIKE % REC	% REC LIMITS	RPD	RPD LIMIT
l'-DDD	UG/KG	6.7	6.1	91	(48-135)		
l'-DDE	UG/KG	6.7	5.8	86.6	(70-125)		
l'-DDT	UG/KG	6.7	6.3	94	(45-140)		
irin	UG/KG	6.7	5	74.6	(60-125)		
ha-BHC	UG/KG	6.7	5.1	76.1	(60-125)		
ta-BHC	UG/KG	6.7	5.3	79.1	(60-125)		
lta-BHC	UG/KG	6.7	5.1	76.1	(55-130)		
əldrin	UG/KG	6.7	5.8	86.6	(65-125)		
dosulfan i	UG/KG	6.7	5.3	79.1	(59-128)		
dosulfan li	UG/KG	6.7	5.7	85.1	(35-140)		
dosulfan sulfate	UG/KG	6.7	6.1	91	(60-135)		
drin	UG/KG	6.7	6.1	91	(60-135)		
drin aldehyde	UG/KG	6.7	2.9	43.3	(35-122)		
mma-BHC (Lindane)	UG/KG	6.7	5.1	76.1	(60-125)		
ptachlor	UG/KG	6.7	5.2	77.6	(68-121)		

FLDOH #E84207

: Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2503968

PROJECT ID:

Countryside

METHOD: 8081

ABORATORY CONTROL SAMPLE 214588

Matrix: SQ

RAMETER	UNITS	SPIKE CONC	LCS RESULT	SPIKE % REC	% REC LIMITS	RPD	RPD LIMIT
ptachlor epoxide	UG/KG	6.7	3.2	47.8	* (65-130)		
ethoxychlor	UG/KG	6.7	6.8	102	(55-145)		
,5,6-tetrachloro-m-xylene(SUR	UG/KG	13.3	11.4	85.7	(35-135)		
cachlorobiphenyl(SURR) (S)	UG/KG	13.3	11.9	89.5	(25-143)		



o: Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2503968

PROJECT ID:

Countryside

Brian C. Spann

Digitally signed by Brian C. Spann DN: CN = Brian C. Spann, C = US Date: 2006.06.08

Brian C. Spann David Cantillo

Mark Gudnason

Laboratory Manager Quality Assurance Senior Project Manager

12:24:16 -04'00'

Page 10x 2



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1486-A Skecs Road, West Palm Beach, FL 33411 (561) 688-9008 • Fax (561) 688-9005

425 Cheney Highway, Titusville, FL 32780 (321) 269-9891 • Fax (321) 269-9872

4019 E. Fowler Ave., Tampa, FL 33617 (813) 971-3882 • Fax (813) 971-1862

2503968cm

23B Sheridan Park Circle, Bluffton, S.C. 29910 (843) 815-5120 • Fax (843) 815-5121

Client: HSA	Due Date(TAT): んしょん		
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Project : COUNTING IDE	Bill to:		
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Page 2062

HSA Engineers

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SAMPLE RECEIPT CONFIRMATION SHEET

SDG:	2502069			Client Information										
SDG.	2503968		Req:	1310										
Client:	HSA		Project:	Generic	ļ									
Level:	1		Date Rec'd:	5/31/06 1:22:00 PM	I									
Rec'd via:	courier		Due Date:	06/07/06										
		Sample	Verification											
Samples/Cool	ler Secure?	Yes	Yes											
Temperature (of Samples(Celsius)	4.4	Yes											
pH Verified?		No	Yes											
pH WNL?		No	Yes											
Soil Origin (D	omestic/Foreign):	Domestic	Are All Samples to b	e Analyzed?	Yes									
Site Location	Project on COC?	Yes	Yes											
Client Project	# on COC?	Yes	Yes											
Project Mgr. 1	ndicated on COC?	Yes	Yes											
COC relinquis	shed/Dated by Client?	Yes	Yes											
COC Receive	d/Dated by PEL?	Yes	STD											
Specific Subc	contract indicated?	No	No Client Requests Verbal Results?											
Samples Rec	eived By	courier	courier Client Requests Faxed Results?											
PEL to Condu	ict ALL Analyses?	Yes												
Subcontract Analysis														
Parameter	Due Date	Via	Lab N	ame (Comments									
PEER REVIEV	v).H1 (> ··	PM REVIEW:	ML										

Wednesday, May 31, 2006

Page 1 of 1



Dear Valued Client:

In order to meet the NELAC reporting requirements, as well as improve our final data packages, we have changed the reporting of results.

Effective February 1, 2006, ALL non-detect data that is below the MDL will be reported as "RL ND." Any positive detects between the MDL and RL will be reported and qualified with the FLDEP data qualifier code "I":

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

The reports will continue to list the MDL for each analyte and RL.

If you have any questions regarding this change, please contact your PEL Project Manager.



MACCORON TIEIAO

Florida Department of Health #E84207 July 1, 2005 - June 30, 2006

CWA - Extractable Organics, General Chemistry, Metals,
Pesticides-herbicides-PCB's, Volatile Organics
RCRA/CERCLS - Extractable Organics, General Chemistry, Metals
Pesticides-Herbicides-PCB's, Volatile Organics

- CERTIFICATE OF ANALYSIS -

Report Date: 06/08/2006

To: Brian Moore

HSA Engineers & Scientists

4019 E Fowler Ave.

Tampa, FL 33617

W (813)971-3882 F (813)971-1862

PROJECT ID:

601-5982

WORK ORDER:

2503971

DATE RECEIVED:

Wednesday, May 31, 2006

Project Notes:

·): Short Hold Time Analysis Date

amples reported on dry weight basis

PEL Contact: Mark Gudnason / extension: 242

4420 Pendola Point Road • Tampa, Florida 33619 (813)247-2805 • FAX: (813)248-1537 Website: www.pelab.com

PEL Laboratories, Inc.

DATA QUALIFIER CODES

State of Florida, Department of Environmental Protection and Department of Health Rehabilitative Services / NELAC

- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- **J** Estimated value; value not accurate. This code shall be used in the following instances:
 - 1. Surrogate recovery limits have been exceeded.
 - 2. No known quality control criteria exits for the component.
 - 3. The reported value did not meet the established quality control criteria for either precision or accuracy but falls within the NELAC marginal exceedance range
 - 3M.The reported value did not meet the established quality control criteria for either precision or accuracy and falls beyond the NELAC range for marginal exceedances.
 - 4. The sample matrix interfered with the ability to make an accurate determination.
 - 5. The data is questionable because of improper laboratory or field protocols (e.g. composite sample was collected instead of a grab sample).
- Off-scale high. Actual value is known to be greater than the value given. To be used when the concentration of the analyte is above the acceptable limit for quantitation (exceeds the linear range of the highest calibration standard) and the calibration curve is known to exhibit a negative deflection.
- Sample held beyond acceptable holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for the sample preparation or analysis.
- Indicates that the compound was analyzed for but not detected. This shall beused to indicate that the specified component was not detected. The value associated with the qualifier shall be the laboratory reporting limit. Unless requested by the client, values less than the reporting limit shall not be
- Indicates that the analyte was detected in both the sample and the associated method blank. Note: The value in the blank shall not be subtracted from associated samples.
- The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.

Note: There was not sufficient sample volume to perform a matrix spike/duplicate for the following method(s).: 8081

PEL did analyze a Blank and Laboratory Control sample to ensure the method performed within acceptable guidelines.

Client: HSA Engineers & Scientists

CASE NARRATIVE

PEL Lab Reference No./SDG: 2503971

I. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

II. ANALYSIS

A. Blanks:

All acceptance criteria were met with the exception of:

6010:

Blank 214342 was analyzed with the water samples extracted on 06/01/06. The following analyte(s) were detected below RL: Arsenic at 3.27 UG/L.

B. Surrogates:

All acceptance criteria were met.

C. Spikes:

1. Laboratory Control Spikes (LCS)

All acceptance criteria were met with the exception of: 8081:

LCS 214508 was analyzed with the water samples extracted on 06/02/06. All criteria were met. The following analyte(s) exceeded RPD criteria: Endrin at 17.4 % with criteria of (11).

Samples coded accordingly.

2. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)

No spikes requested by client.

D. Samples:

Sample analysis proceeded normally.

FLDOH #E84207

Brian Moore

HSA Engineers & Scientists

W

WORK ORDER: 2503971

PROJECT ID: 601-5982

PEL Lab#: 250397101

Collection Information:

Client ID: MW-2

Matrix:

Sample Date: 5/30/2006 2:25:00 PM

ND = Non Detect

Analysis Prep Dilution Parameter Results Date Date Units MDL Factor RLMethod senic 6010 37.3 06/07/2006 18:31 06/01/2006 14:30 UG/L 1.8 5 1



Brian Moore

Matrix:

HSA Engineers & Scientists

WORK ORDER: 2503971

PROJECT ID:

601-5982

Collection Information:

PEL Lab#: 250397102

Surface Water Client ID:

Sample Date: 5/30/2006 10:49:00 AM

			Analysis	Prep				Dilution
Parameter	Method	Results	Date	Date	Units	MDL	RL	Factor
senic	6010	152	06/07/2006 18:36	06/01/2006 14:30	UG/L	1,8	5	1
.⊱DDD	8081	0.051 ND	06/06/2006 15:35	06/02/2006 15:56	UG/L	0.0026	0.051	1
'-DDE	8081	0.051 ND	06/06/2006 15:35	06/02/2006 15:56	UG/L	0.0038	0.051	1
'-DDT	8081	0.051 ND	06/06/2006 15:35	06/02/2006 15:56	UG/L	0.0011	0.051	1
irin	8081	0.051 ND	06/06/2006 15:35	06/02/2006 15:56	UG/L	0.00085	0.051	1
ha-BHC	8081	0.051 ND	06/06/2006 15:35	06/02/2006 15:56	UG/L	0.00059	0.051	1
a-BHC	8081	0.051 ND	06/06/2006 15:35	06/02/2006 15:56	UG/L	0.0012	0.051	1
lordane	8081	0.51 ND	06/06/2006 15:35	06/02/2006 15:56	UG/L	0.051	0.51	1
ta-BHC	8081	0.051 ND	06/06/2006 15:35	06/02/2006 15:56	UG/L	0.003	0.051	1
ıldrin	8081	0.051 ND	06/06/2006 15:35	06/02/2006 15:56	UG/L	0.0027	0.051	1
dosulfan I	8081	0.051 ND	06/06/2006 15:35	06/02/2006 15:56	UG/L	0.0044	0.051	1
dosulfan II	8081	0.051 ND	06/06/2006 15:35	06/02/2006 15:56	UG/L	0.0016	0.051	1
dosulfan sulfate	8081	0.051 ND	06/06/2006 15:35	06/02/2006 15:56	UG/L	0.001	0.051	1
drin	8081	0.051 J3ND	06/06/2006 15:35	06/02/2006 15:56	UG/L	0.0018	0.051	1
drin aldehyde	8081 .	0.051 ND	06/06/2006 15:35	06/02/2006 15:56	UG/L	0.0015	0.051	1
nma-BHC (Lindane)	8081	0.051 ND	06/06/2006 15:35	06/02/2006 15:56	UG/L	0.0024	0.051	1
otachlor	8081	0.051 ND	06/06/2006 15:35	06/02/2006 15:56	UG/L	0.0014	0.051	1
otachlor epoxide	8081	0.051 ND	06/06/2006 15:35	06/02/2006 15:56	UG/L	0.0014	0.051	1
thoxychlor	8081	0.051 ND	06/06/2006 15:35	06/02/2006 15:56	UG/L	0.0018	0.051	1
caphene	8081	0.51 ND	06/06/2006 15:35	06/02/2006 15:56	UG/L	0.18	0.51	1
,5,6-tetrachloro-m-xylene(SUR	8081	54	06/06/2006 15:35	06/02/2006 15:56	%	0.18	(45 - 125)) 1
cachiorobiphenyl(SURR)	8081	56	06/06/2006 15:35	06/02/2006 15:56	%	0.18	(34 - 133)) 1



0: Brian Moore HSA Engineers & Scientists

WORK ORDER: 2503971

PROJECT ID:

601-5982

QC SUMMARY

METHOD: 6010

lethod Blank 214342

Matrix: WQ

ssociated Lab Samples: 214342 214343 214344 250397101 250397102

Parameter	Result:		ilysis ate	Prep Date	Uni	ts	RL		ilution Factor
senic	3.27	6/7/	2006	6/1/2006	UG/	L	5		1
ABORATORY CONTROL	SAMPLE	214343		Matrix	:	WQ	·		
\RAMETER	UNITS	SPIKE CONC	LCS RESULT	SPIKE % REC		% REC LIMITS	F	RPD	RPD LIMIT
senic ABORATORY CONTROL	UG/L SAMPLE	500 214344	503	100.6 Matrix	:	(80-120) WQ)		
RAMETER .	UNITS	SPIKE CONC	LCS RESULT	SPIKE % REC		% REC LIMITS	F	RPD	RPD LIMIT
senic	UG/L	500	507	101.4		(80-120)) 0.	8	20



): Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2503971

PROJECT ID:

601-5982

METHOD: 8081

ethod Blank 214506

Matrix: WQ

ssociated Lab Samples: 214506 214507 214508 250397102

Parameter	Results	Analysis Date	Prep Date	Units	RL	Dilution Factor
r-DDD	ND	6/5/2006	6/2/2006	UG/L	0.05	1
l'-DDE	ND	6/5/2006	6/2/2006	UG/L	0.05	1
F-DDT	ND	6/5/2006	6/2/2006	UG/L	0.05	1
irin	ND	6/5/2006	6/2/2006	UG/L	0.05	1
ha-BHC	ND	6/5/2006	6/2/2006	UG/L	0.05	1
ta-BHC	ND	6/5/2006	6/2/2006	UG/L	0.05	1
lordane	ND	6/5/2006	6/2/2006	UG/L	0.5	1
ta-BHC	ND	6/5/2006	6/2/2006	UG/L	0.05	4
əldrin	ND	6/5/2006	6/2/2006	UG/L	0.05	1
dosulfan I	ND	6/5/2006	6/2/2006	UG/L	0.05	1
dosulfan II	ND	6/5/2006	6/2/2006	UG/L	0.05	1
dosulfan sulfate	ND	6/5/2006	6/2/2006	UG/L	0.05	1
drin	J3ND	6/5/2006	6/2/2006	UG/L	0.05	1
drin aldehyde	ND	6/5/2006	6/2/2006	UG/L	0.05	1
mma-BHC (Lindane)	ND	6/5/2006	6/2/2006	UG/L	0.05	1
ptachlor	ND	6/5/2006	6/2/2006	UG/L	0.05	1
ptachlor epoxide	ND	6/5/2006	6/2/2006	UG/L	0.05	1
thoxychlor	ND	6/5/2006	6/2/2006	UG/L	0.05	1
kaphene	ND	6/5/2006	6/2/2006	UG/L	0.5	1
,5,6-tetrachloro-m-xylene(SUR	90	6/5/2006	6/2/2006	%	(45 - 125)	1
cachlorobiphenyl(SURR) (S)	91	6/5/2006	6/2/2006	%	(34 - 133)	. 1

ABORATORY CON	TROL SAMPLE	21450	07	Matrix:	WQ		
RAMETER	UNITS	SPIKE CONC	LCS RESULT	SPIKE % REC	% REC LIMITS	RPD	RPD LIMIT
'-DOO-	UG/L	0.5	0.44	88	(49-127)		
'-DDE	UG/L	0.5	0.43	86	(49-126)		
'-DDT	UG/L	0.5	0.48	96	(46-140)		
rin	UG/L	0.5	0.42	84	(40-114)		
па-ВНС	UG/L	0.5	0.48	96	(65-110)		•
э-BHC	UG/L	0.5	0.45	90	(66-102)		
a-BHC	UG/L	0.5	0.45	90	(51-122)		
ldrin	UG/L	0.5	0.45	90	(67-103)		
losulfan I	UG/L	0.5	0.44	88	(66-105)		
losulfan II	UG/L	0.5	0.45	90,	(46-130)		
iosulfan sulfate	UG/L	0.5	0.45	90	(55-129)		
irin	UG/L	0.5	0.42	84	(55-123)		
Irin aldehyde	UG/L	0.5	0.37	74	(55-98)		
пта-ВНС (Lindane)	UG/L	0.5	0.46	92	(65-109)		
otachlor	UG/L	0.5	0.42	84	(53-113)		



o: Brian Moore

cachlorobiphenyl(SURR) (S)

UG/L

HSA Engineers & Scientists

WORK ORDER: 2503971

PROJECT ID: 601-5982

METHOD: 8081

		1,1,2,2		5001			
ABORATORY CONTRO	L SAMPL	E 21450)7	Matrix:	WQ		
RAMETER	UNITS	SPIKE CONC	LCS RESULT	SPIKE % REC	% REC LIMITS	RPD	RPD LIMIT
ptachlor epoxide	UG/L	0.5	0.44	88	(60-124)		
ethoxychlor	UG/L	0.5	0.5	100	(55-147)		
I,5,6-tetrachloro-m-xylene(SUR	UG/L	1	0.86	86	(45-125)		
cachlorobiphenyl(SURR) (S)	UG/L	1	0.83	83	(34-133)		
ABORATORY CONTRO	L SAMPL	E 21450)8	Matrix:	WQ		
\RAMETER	UNITS	SPIKE CONC	LCS RESULT	SPIKE % REC	% REC LIMITS	RPD	RPD LIMIT
I'-DDD	UG/L	0.5	0.49	98	(49-127)	10.8	15
P-DDE	UG/L	0.5	0.47	94	(49-126)	8.9	13
l'-DDT	UG/L	0.5	0.5	100	(46-140)	4.1	10
Jrin	UG/L	0.5	0.45	90	(40-114)	6.9	20
ha-BHC	UG/L	0.5	0.51	102	(65-110)	6.1	20
ta-BHC	UG/L	0.5	0.5	100	(66-102)	10.5	20
Ita-BHC	UG/L	0.5	0.49	98	(51-122)	8.5	18
∍ldrin	UG/L	0.5	0.49	98	(67-103)	8.5	14
dosulfan I	UG/L	0.5	0.47	94	(66-105)	6.6	20
dosulfan II	UG/L	0.5	0.5	100	(46-130)	10.5	20
dosulfan sulfate	UG/L	0.5	0.49	98	(55-129)	8.5	20
drin	UG/L	0.5	0.5	100	(55-123)	17.4 *	11
drin aldehyde	UG/L	0.5	0.4	80	(55-98)	7.8	20
mma-BHC (Lindane)	UG/L	0.5	0.5	100	(65-109)	8.3	14
ptachlor	UG/L	0.5	0.46	92	(53-113)	9.1	20
ptachlor epoxide	UG/L	0.5	0.48	96	(60-124)	8.7	15
sthoxychior	UG/L	0.5	0.54	108	(55-147)	7.7	20
.,5,6-tetrachloro-m-xylene(SUR	UG/L	1	0.92	92	(45-125)		

0.95

95

(34-133)



Brian Moore HSA Engineers & Scientists

WORK ORDER: 2503971

PROJECT ID: 601-5982

/lark audnason Gudnason, C = US Date: 2006.06.08

Digitally signed by Mark

Gudnason

DN: CN = Mark

Gudnason, C = US

13:40:04 -04'00'

3rian C. Spann

Laboratory Manager

)avid Cantillo

Quality Assurance

1ark Gudnason

Senior Project Manager

Page 105/

HSA Engineers & Scientists

A Member of the CRA Family of Companies

425 Cheney Highway, Titusville, FL 32780 (321) 269-9891 • Fax (321) 269-9872

4019 E. Fowler Ave., Tampa, FL 33617 (813) 971-3882 • Fax (813) 971-1862

1486-A Skees Road, West Palm Beach, FL 33411 (561) 688-9008 • Fax (561) 688-9005

2503971cm

23B Sheridan Park Circle, Bluffton, S.C. 29910 (843) 815-5120 • Fax (843) 815-5121

Client: HSH	Due Date(TAT)	AT): NO!	mail					
Project Mgr. Aren Moore	Fax Reports to:(813/97	1-1862		1.5%			
	Bill to:				8/0			
Project #: 601-5982		***************************************			~ うら ~			
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	Date Time	Lab#	# of Bttls	Pres			Remarks	
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SAMPLE RECEIPT CONFIRMATION SHEET

		Client	Information		
SDG:	2503971		Req:	1310	
Client:	HSA		Project:	Generic	
Level:	1		Date Rec'd:	5/31/06 1:22:00 PM	Л
Rec'd via:	courier		Due Date:	06/07/06	
		Sample	Verification		
Samples/Cool	ler Secure?	Yes	All Samples on COC	accounted For?	Yes
Temperature	of Samples(Celsius)	4.4	All Samples Rec'd In	tact?	Yes
pH Verified?		Yes	Sample Vol. Stuff. Fo	Yes	
pH WNL?		Yes	Samples Rec'd W/I H	lold Time?	Yes
Soil Origin (D	omestic/Foreign):		Are All Samples to b	e Analyzed?	Yes
Site Location	Project on COC?	Yes	Correct Sample Con	tainers?	Yes
Client Project	# on COC?	Yes	COC Comments writ	ten on COC?	Yes
Project Mgr. I	ndicated on COC?	Yes	Samplers Initials on	COG?	Yes
COC relinquis	shed/Dated by Client?	Yes	Sample Date/Time In	dicated?	Yes
COC Received	d/Dated by PEL?	Yes	TAT Requested:	STD	
Specific Subc	contract Indicated?	No	Client Requests Verb	No	
Samples Rece	eived By	courier	Client Requests Fax	No	
PEL to Condu	ct ALL Analyses?	Yes			;
	· · · · · · · · · · · · · · · · · · ·	Subcont	ract Analysis		
Parameter	Due Date	Via	Lab Na	ame	Comments
PEER REVIEV			PM REVIEW:	MG	

Wednesday, May 31, 2006

Page 1 of 1



Dear Valued Client:

In order to meet the NELAC reporting requirements, as well as improve our final data packages, we have changed the reporting of results.

Effective February 1, 2006, ALL non-detect data that is below the MDL will be reported as "RL ND." Any positive detects between the MDL and RL will be reported and qualified with the FLDEP data qualifier code "I":

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

The reports will continue to list the MDL for each analyte and RL.

If you have any questions regarding this change, please contact your PEL Project Manager.



Florida Department of Health #E84207 July 1, 2005 - June 30, 2006

CWA - Extractable Organics, General Chemistry, Metals,
Pesticides-herbicides-PCB's, Volatile Organics

RCRA/CERCLS - Extractable Organics, General Chemistry, Metals
Pesticides-Herbicides-PCB's, Volatile Organics

- CERTIFICATE OF ANALYSIS -

Report Date: 06/09/2006

To: Brian Moore

HSA Engineers & Scientists

4019 E Fowler Ave.

Tampa, FL 33617

W (813)971-3882 F (813)971-1862

PROJECT ID:

Countryside

WORK ORDER:

2503979

DATE RECEIVED:

Thursday, June 01, 2006

Project Notes:

†): Short Hold Time Analysis Date

amples reported on dry weight basis

PEL Contact: Mark Gudnason / extension: 242

4420 Pendola Point Road • Tampa, Florida 33619 (813)247-2805 • FAX: (813)248-1537 Website: www.pelab.com

PEL Laboratories, Inc.

DATA QUALIFIER CODES

State of Florida, Department of Environmental Protection and Department of Health Rehabilitative Services / NELAC

The reported value is between the laboratory method detection limit and the
laboratory practical quantitation limit.

- J Estimated value; value not accurate. This code shall be used in the following instances:
 - 1. Surrogate recovery limits have been exceeded.
 - 2. No known quality control criteria exits for the component.
 - 3. The reported value did not meet the established quality control criteria for either precision or accuracy but falls within the NELAC marginal exceedance range
 - 3M.The reported value did not meet the established quality control criteria for either precision or accuracy and falls beyond the NELAC range for marginal exceedances.
 - 4. The sample matrix interfered with the ability to make an accurate determination.
 - 5. The data is questionable because of improper laboratory or field protocols (e.g. composite sample was collected instead of a grab sample).
- Off-scale high. Actual value is known to be greater than the value given. To be used when the concentration of the analyte is above the acceptable limit for quantitation (exceeds the linear range of the highest calibration standard) and the calibration curve is known to exhibit a negative deflection.
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- V Indicates that the analyte was detected in both the sample and the associated method blank. Note: The value in the blank shall not be subtracted from associated samples.
- Υ The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.

Client: HSA Engineers & Scientists

CASE NARRATIVE

PEL Lab Reference No./SDG: 2503979

I. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

II. ANALYSIS

A. Blanks:

All acceptance criteria were met.

B. Surrogates:

All acceptance criteria were met.

C. Spikes:

1. Laboratory Control Spikes (LCS)

All percent recovery and relative percent difference (RPD) criteria were met.

2. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)

No spikes requested by client.

D. Samples:

Sample analysis proceeded normally.

6010:

Sample 250396604 required a 1:5 dilution due to interferences with the following analyte(s): Arsenic.

FLDOH #E84207

Brian Moore **)**:

HSA Engineers & Scientists

WORK ORDER: 2503979

PROJECT ID:

Countryside

PEL Lab#: 250397901

Matrix: W

Client ID: WELL 1

Collection Information:

Sample Date: 5/31/2006 12:30:00 PM

			Analysis	Prep				Dilution
Parameter	Method	Results	Date	Date	Units	MDL	RL	Factor
senic	6010	5 ND	06/08/2006 17:57	06/02/2006 15:00	UG/L	1.8	5	1

FLDOH #E84207

Brian Moore 0:

HSA Engineers & Scientists

WORK ORDER: 2503979

PROJECT ID:

Countryside

Collection Information:

PEL Lab#: 250397902

Matrix: W

Client ID: WELL 2

Sample Date: 5/31/2006 1:15:00 PM

			Analysis	Prep				Dilution
Parameter	Method	Results	Date	Date	Units	MDL	RL	Factor
senic	6010	3.94 [06/08/2006 18:08	06/02/2006 15:00	UG/L	1.8	5	1



Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2503979

PROJECT ID:

Countryside

QC SUMMARY

METHOD: 6010

[ethod Blank 214449

Matrix:

WQ

ssociated Lab Samples:

214449 214450 214451 250397901 250397902

Parameter	Result:		alysis ate	Prep Date	Uni	ts	RL		ilution Factor
senic	ND	6/8.	/2006	6/2/2006	UG	/L	5		1
ABORATORY CONTROL	SAMPLE	214450)	Matrix	. :	WQ			
		SPIKE	LCS	SPIKE		% REC			RPD
\RAMETER	UNITS	CONC	RESULT	r % REC		LIMITS		RPD	LIMIT
senic	UG/L	500	496	99.2		(80-120)		
ABORATORY CONTROL	SAMPLE	214451	l	Matrix	: :	WQ			
		SPIKE	LCS	SPIKE		% REC			RPD
\RAMETER	UNITS	CONC	RESULT	% REC		LIMITS	l	RPD	LIMIT
senic	UG/L	500	496	99.2		(80-120)) 0		20



Brian Moore э:

HSA Engineers & Scientists

WORK ORDER: 2503979

PROJECT ID:

Countryside

Mark Gudnason Gudnason, C = US

Digitally signed by Mark Gudnason DN: CN = Mark

Date: 2006.06.09 11:31:41 -04'00'

Brian C. Spann

Laboratory Manager Quality Assurance

David Cantillo Mark Gudnason

Senior Project Manager

4420 Pendola Point Road Tampa, Florida 33619 E-Mail: login @ Pelab.com (813) 247-2805 • Fax: (813) 248-1537 Lab. No. 60 Page of Form Title: Chain of Custody Record Effective Date: September 23, 1997 REQUESTED DUE DATE SESTEN STATES Sampling CompQAP No: **JEP Form #: 62-770.900(2)** FDEP Facility No. Remarks Approval Date: Project Name: ž (pubrim Man () 2503979cm Preservatives (see codes) Analyses Requested SAN MORE Chain of Custody Record Record/Work Request 6010 JASSEA X \geq durtrysido Number of Containers Project Name/Number: Project Manager Purchase Order: (see codes) Matrix 哥哥 Composite Grab or Phone: 613 271 3662 Fax: 613 971 162 0 O 1230 Time もで か、 ならぬ 生形 1315 Sampled 5/31/06 here a Laborafories, Inc. Date 1416586 1008101 1100110 HS4 Print Names(s) / Affiliation Field ID No. Sampler(s) Signature(s) NOT とがい

Company:

Address:

Item Š. Total Number of Containers

Shipment Method

SAMPLE RECEIPT CONFIRMATION SHEET

		Client I	nformation		
SDG:	2503979		Req:	1310	
Client:	HSA		Project:	Generic	
Level:	1		Date Rec'd:	6/1/06 10:10:00 A	M
Rec'd via:	courier		Due Date:	06/08/06	
		Sample	Verification		
Samples/Cool	er Secure?	Yes	All Samples on COC	accounted For?	Yes
Temperature	of Samples(Celsius)	4.9	All Samples Rec'd In	tact?	Yes
pH Verified?		Yes	Sample Vol. Stuff. Fo	or Analysis?	Yes
pH WNL?		Yes]Samples Rec'd W/I H	old Time?	Yes
Soil Origin (De	omestic/Foreign):		Are All Samples to b	e Analyzed?	Yes
Site Location/	Project on COG?	Yes	Correct Sample Con	tainers?	Yes
Client Project	# on COC?	Yes	COC Comments writ	ten on COC?	Yes
Project Mgr. I	ndicated on COC?	Yes	Samplers Initials on	Yes	
COC relinquis	hed/Dated by Client?	Yes	Sample Date/Time In	Yes	
COC Received	I/Dated by PEL?	Yes	TAT Requested:	STD	
Specific Subc	ontract Indicated?	No	Client Requests Verb	No	
Samples Rece	lived By	courier	Client Requests Fax	ed Results?	No
PEL to Condu	ct ALL Analyses?	Yes	Communication		
		Subconti	ract Analysis		-
Parameter	Due Date	Via	Lab Na	ıme	Comments
PEER REVIEW	1.1.	6	PM REVIEW		

Thursday, June 01, 2006

Page 1 of 1



Dear Valued Client:

In order to meet the NELAC reporting requirements, as well as improve our final data packages, we have changed the reporting of results.

Effective February 1, 2006, ALL non-detect data that is below the MDL will be reported as "RL ND." Any positive detects between the MDL and RL will be reported and qualified with the FLDEP data qualifier code "I":

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rielad

Florida Department of Health #E84207 July 1, 2005 - June 30, 2006 CWA - Extractable Organics, General Chemistry, Metals,
Pesticides-herbicides-PCB's, Volatile Organics
RCRA/CERCLS - Extractable Organics, General Chemistry, Metals
Pesticides-Herbicides-PCB's, Volatile Organics

- CERTIFICATE OF ANALYSIS -

Report Date: 06/12/2006

To: Brian Moore

HSA Engineers & Scientists

4019 E Fowler Ave.

Tampa, FL 33617

W (813)971-3882 F (813)971-1862

PROJECT ID:

6015982

WORK ORDER:

2503980

DATE RECEIVED:

Thursday, June 01, 2006

Project Notes:

†): Short Hold Time Analysis Date

amples reported on dry weight basis

PEL Contact: Mark Gudnason / extension: 242

4420 Pendola Point Road • Tampa, Florida 33619 (813)247-2805 • FAX: (813)248-1537 Website: www.pelab.com

PEL Laboratories, Inc.

DATA QUALIFIER CODES

State of Florida, Department of Environmental Protection and Department of Health Rehabilitative Services / NELAC

- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
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 - 2. No known quality control criteria exits for the component.
 - 3. The reported value did not meet the established quality control criteria for either precision or accuracy but falls within the NELAC marginal exceedance range
 - 3M. The reported value did not meet the established quality control criteria for either precision or accuracy and falls beyond the NELAC range for marginal exceedances.
 - 4. The sample matrix interfered with the ability to make an accurate determination.
 - 5.The data is questionable because of improper laboratory or field protocols (e.g. composite sample was collected instead of a grab sample).
- Off-scale high. Actual value is known to be greater than the value given. To be used when the concentration of the analyte is above the acceptable limit for quantitation (exceeds the linear range of the highest calibration standard) and the calibration curve is known to exhibit a negative deflection.
- Sample held beyond acceptable holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for the sample preparation or analysis.
- Indicates that the compound was analyzed for but not detected. This shall beused to indicate that the specified component was not detected. The value associated with the qualifier shall be the laboratory reporting limit. Unless requested by the client, values less than the reporting limit shall not be
- Indicates that the analyte was detected in both the sample and the associated method blank. Note: The value in the blank shall not be subtracted from associated samples.
- Υ The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.

Client: HSA Engineers & Scientists

CASE NARRATIVE

PEL Lab Reference No./SDG: 2503980

I. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

II. ANALYSIS

A. Blanks:

All acceptance criteria were met.

B. Surrogates:

All acceptance criteria were met.

C. Spikes:

1. Laboratory Control Spikes (LCS)

All acceptance criteria were met with the exception of: 8151:

LCS 215249 was analyzed with the soil samples extracted on 06/09/06. The following analyte(s) were recovered below criteria: 2,4,5-T at 41.5 % with criteria of (45-101), Dicamba at 49.8 % with criteria of (55-105), Dichloroprop at 67.8 % with criteria of (75-123).

8081:

LCS 214588 was analyzed with the soil samples extracted on 06/05/06. The following analyte(s) were recovered below criteria: Heptachlor epoxide at 47.8 % with criteria of (65-130).

Samples coded accordingly.

2. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD) No spikes requested by client.

D. Samples:

Sample analysis proceeded normally.

8081:

Sample SB-1 required a 1:5 dilution due to high concentration of the following analyte(s): Endosulfan I.



Brian Moore 9:

HSA Engineers & Scientists

WORK ORDER: 2503980

PROJECT ID:

6015982

PEL Lab#: 250398001

Collection Information:

Client ID: SB-1 Matrix: S

Sample Date: 5/31/2006 12:35:00 PM

			Analysis	Prep				Dilution
Parameter	Method	Results	Date	Date	Units	MDL	RL	Factor
1'-DDD	8081	1.6 ND	06/06/2006 16:01	06/05/2006 9:16	UG/KG	0.55	1.6	1
1'-DDE	8081	1.6 ND	06/06/2006 16:01	06/05/2006 9:16	UG/KG	0.29	1.6	1
‡'-DDT	8081	1.6 ND	06/06/2006 16:01	06/05/2006 9:16	UG/KG	0.41	1,6	1
rin	8081	1.6 ND	06/06/2006 16:01	06/05/2006 9:16	UG/KG	0.16	1.6	1
ha-BHC	8081	1.6 ND	06/06/2006 16:01	06/05/2006 9:16	UG/KG	1	1.6	1
ta-BHC	8081	1.6 ND	06/06/2006 16:01	06/05/2006 9:16	UG/KG	0.16	1.6	1
ilordane	8081	16 ND	06/06/2006 16:01	06/05/2006 9:16	UG/KG	2.2	16	1
Ita-BHC	8081	1.6 ND	06/06/2006 16:01	06/05/2006 9:16	UG/KG	0.3	1.6	1
∍ldrin	8081	1.6 ND	06/06/2006 16:01	06/05/2006 9:16	UG/KG	0.17	1.6	1
dosulfan II	8081	1.6 ND	06/06/2006 16:01	06/05/2006 9:16	UG/KG	0.31	1.6	1
dosulfan sulfate	8081	1.6 ND	06/06/2006 16:01	06/05/2006 9:16	UG/KG	0.22	1.6	1
drin .	8081	1.6 ND	06/06/2006 16:01	06/05/2006 9:16	UG/KG	0.28	1.6	1
drin aldehyde	8081	1.6 ND	06/06/2006 16:01	06/05/2006 9:16	UG/KG	0.39	1.6	1 .
mma-BHC (Lindane)	8081	1.6 ND	06/06/2006 16:01	06/05/2006 9:16	UG/KG	0.22	1.6	1
ptachlor	8081	1.6 ND	06/06/2006 16:01	06/05/2006 9:16	UG/KG	0.16	1.6	1
ptachlor epoxide	8081	1.6 J3MND	06/06/2006 16:01	06/05/2006 9:16	UG/KG	0.16	1.6	1
*thoxychlor	8081	1.6 ND	06/06/2006 16:01	06/05/2006 9:16	UG/KG	0.29	1.6	1
xaphene	8081	16 ND	06/06/2006 16:01	06/05/2006 9:16	UG/KG	1.4	16	1
l,5,6-tetrachloro-m-xylene(SUR	8081	68.5	06/06/2006 16:01	06/05/2006 9:16	%	1.4	(35 - 135)) 1
cachlorobiphenyl(SURR)	8081	95.1	06/06/2006 16:01	06/05/2006 9:16	%	1.4	(25 - 143)) 1
dosulfan I	8081	17	06/06/2006 18:09	06/05/2006 9:16	UG/KG	1.2	8.1	5
-,5,6-tetrachloro-m-xylene(SUR	8081	70.6	06/06/2006 18:09	06/05/2006 9:16	%	1.2	(35 - 135)) 5
cachlorobiphenyl(SURR)	8081	79	06/06/2006 18:09	06/05/2006 9:16	% .	1.2	(25 - 143)) 5
.,5-T	8151	11 J3ND	06/10/2006 4:46	06/09/2006 12:56	ug/Kg	1.9	11	1
.,5-TP (Silvex)	8151	11 ND	06/10/2006 4:46	06/09/2006 12:56	ug/Kg	1.4	11	1
.'-D	8151	11 ND	06/10/2006 4:46	06/09/2006 12:56	ug/Kg	2.5	11	1
-DB	8151	11 ND	06/10/2006 4:46	06/09/2006 12:56	ug/Kg	0.88	11	1
lapon	8151	32 ND	06/10/2006 4:46	06/09/2006 12:56	ug/Kg	3.8	32	1
amba	8151	11 J3ND	06/10/2006 4:46	06/09/2006 12:56	ug/Kg	1.9	11 -	1
hloroprop	8151	11 J3ND	06/10/2006 4:46	06/09/2006 12:56	ug/Kg	1.7	11	. 1
ıoseb	8151	11 ND	06/10/2006 4:46	06/09/2006 12:56	ug/Kg	2.3	11	1
PA	8151	1620 ND	06/10/2006 4:46	06/09/2006 12:56	ug/Kg	766	1620	1
PP	8151	1620 ND	06/10/2006 4:46	06/09/2006 12:56	ug/Kg	583	1620	1
:AA(SURR)	8151	62.1	06/10/2006 4:46	06/09/2006 12:56	%	583	(42 - 108)) 1



Brian Moore **)**:

HSA Engineers & Scientists

WORK ORDER: 2503980

PROJECT ID:

6015982

Collection Information:

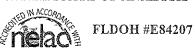
PEL Lab#: 250398002

Client ID: SB-2

Sample Date: 5/31/2006 1:05:00 PM

Matrix: S

•			Analysis	Prep]	Dilution
Parameter	Method	Results	Date	Date	Units	MDL	RL	Factor
l'-DDD	8081	1.6 ND	06/06/2006 16:26	06/05/2006 9:16	UG/KG	0.53	1.6	1
I'-DDE	8081	1.6 ND	06/06/2006 16:26	06/05/2006 9:16	UG/KG	0.28	1.6	1
I'-DDT	8081	1.6 ND	06/06/2006 16:26	06/05/2006 9:16	UG/KG	0.39	1.6	1
frin	8081	1.6 ND	06/06/2006 16:26	06/05/2006 9:16	UG/KG	0.16	1.6	1
ha-BHC	8081	1.6 ND	06/06/2006 16:26	06/05/2006 9:16	UG/KG	0.99	1.6	1
ta-BHC	8081	1.6 ND	06/06/2006 16:26	06/05/2006 9:16	UG/KG	0.16	1,6	1
lordane	8081	16 ND	06/06/2006 16:26	06/05/2006 9:16	UG/KG	2.1	16	1
ta-BHC	8081	1.6 ND	06/06/2006 16:26	06/05/2006 9:16	UG/KG	0.29	1.6	1
∍ldrin	8081	1.6 ND	06/06/2006 16:26	06/05/2006 9:16	UG/KG	0.16	1.6	1
dosulfan I	8081	1.6 ND	06/06/2006 16:26	06/05/2006 9:16	UG/KG	0.23	1.6	1
dosulfan II	8081	1.6 ND	06/06/2006 16:26	06/05/2006 9:16	UG/KG	0.3	1.6	1
dosulfan sulfate	8081	1.6 ND	06/06/2006 16:26	06/05/2006 9:16	UG/KG	0.21	1.6	1
drin	8081	1.6 ND	06/06/2006 16:26	06/05/2006 9:16	UG/KG	0.27	1.6	1
drin aldehyde	8081	1.6 ND	06/06/2006 16:26	06/05/2006 9:16	UG/KG	0.37	1.6	1
mma-BHC (Lindane)	8081	1.6 ND	06/06/2006 16:26	06/05/2006 9:16	UG/KG	0.21	1.6	1
ptachlor	8081	1.6 ND	06/06/2006 16:26	06/05/2006 9:16	UG/KG	0.16	1.6	1
ptachlor epoxide	8081	1.6 J3MND	06/06/2006 16:26	06/05/2006 9:16	UG/KG	0.16	1.6	1
thoxychlor	8081	1.6 ND	06/06/2006 16:26	06/05/2006 9:16	UG/KG	0.28	1.6	1
xaphene	8081	16 ND	06/06/2006 16:26	06/05/2006 9:16	UG/KG	1.3	16	1
,5,6-tetrachloro-m-xylene(SUR	8081	74.6	06/06/2006 16:26	06/05/2006 9:16	%	1.3	(35 - 135)	1
cachlorobiphenyl(SURR)	8081	77.5	06/06/2006 16:26	06/05/2006 9:16	%	1.3	(25 - 143)	1
,5-T	8151	10 J3ND	06/10/2006 5:29	06/09/2006 12:56	ug/Kg	1.9	10	1
,5-TP (Silvex)	8151	10 ND	06/10/2006 5:29	06/09/2006 12:56	ug/Kg	1.3	10	1
'-D	8151	10 ND	06/10/2006 5:29	06/09/2006 12:56	ug/Kg	2.4	10	1
-DB	8151	10 ND	06/10/2006 5:29	06/09/2006 12:56	ug/Kg	0.85	10	1
apon	8151	31 ND	06/10/2006 5:29	06/09/2006 12:56	ug/Kg	3.6	31	1
amba	8151	10 J3ND	06/10/2006 5:29	06/09/2006 12:56	ug/Kg	1.9	10	1
hloroprop	8151	10 J3ND	06/10/2006 5:29	06/09/2006 12:56	ug/Kg	1.6	10	1
oseb	8151	10 ND	06/10/2006 5:29	06/09/2006 12:56	ug/Kg	2.2	10	1
:PA	8151	1550 ND	06/10/2006 5:29	06/09/2006 12:56	ug/Kg	734	1550	1
:PP	8151	1550 ND	06/10/2006 5:29	06/09/2006 12:56	ug/Kg	559	1550	1
AA(SURR)	8151	61.4	06/10/2006 5:29	06/09/2006 12:56	%	559	(42 - 108)	1.



): Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2503980

PROJECT ID: 6015982

PEL Lab#: 250398003

Collection Information:

Client ID: SB-3

Sample Date: 5/31/2006 12:55:00 PM

Matrix: S

			Analysis	Prep				Dilution
Parameter	Method	Results	Date	Date	Units	MDL	RL	Factor
‡'-DDD	8081	1.6 ND	06/06/2006 16:52	06/05/2006 9:16	UG/KG	0.53	1.6	1
1'-DDE	8081	1.6 ND	06/06/2006 16:52	06/05/2006 9:16	UG/KG	0.28	1.6	1
‡'-DDT	8081	1.6 ND	06/06/2006 16:52	06/05/2006 9:16	UG/KG	0.39	1.6	1
nint	8081	. 1.6 ND	06/06/2006 16:52	06/05/2006 9:16	UG/KG	0.16	1.6	1
ha-BHC	8081	1.6 ND	06/06/2006 16:52	06/05/2006 9:16	UG/KG	0.99	1.6	1
ta-BHC	8081	1.6 ND	06/06/2006 16:52	06/05/2006 9:16	UG/KG	0.16	1.6	1
ılordane	8081	16 ND	06/06/2006 16:52	06/05/2006 9:16	UG/KG	2.1	16	1
Ita-BHC	8081	1.6 ND	06/06/2006 16:52	06/05/2006 9:16	UG/KG	0.29	1.6	1
∍ldrin	8081	1.6 ND	06/06/2006 16:52	06/05/2006 9:16	UG/KG	0.16	1.6	1
dosulfan I	8081	1.6 ND	06/06/2006 16:52	06/05/2006 9:16	UG/KG	0.23	1.6	1
dosulfan II	8081	1.6 ND	06/06/2006 16:52	06/05/2006 9:16	UG/KG	0.3	1.6	1
dosulfan sulfate	8081	1.6 ND	06/06/2006 16:52	06/05/2006 9:16	UG/KG	0.21	1.6	1
drin	8081	1.6 ND	06/06/2006 16:52	06/05/2006 9:16	UG/KG	0.27	1.6	1
drin aldehyde	8081	1.6 ND	06/06/2006 16:52	06/05/2006 9:16	UG/KG	0.37	1.6	1
mma-BHC (Lindane)	8081	1.6 ND	06/06/2006 16:52	06/05/2006 9:16	UG/KG	0.21	1.6	1
ptachlor	8081	1.6 ND	06/06/2006 16:52	06/05/2006 9:16	UG/KG	0.16	1.6	1
ptachlor epoxide	8081	1.6 J3MND	06/06/2006 16:52	06/05/2006 9:16	UG/KG	0.16	1.6	1
ithoxychlor	8081	1.6 ND	06/06/2006 16:52	06/05/2006 9:16	UG/KG	0.28	1.6	1
xaphene	8081	16 ND	06/06/2006 16:52	06/05/2006 9:16	UG/KG	1.3	16	1
,5,6-tetrachloro-m-xylene(SUR	8081	74.6	06/06/2006 16:52	06/05/2006 9:16	%	1.3	(35 - 135) 1
cachlorobiphenyl(SURR)	8081	80.4	06/06/2006 16:52	06/05/2006 9:16	%	1.3	(25 - 143)) 1
-,5-T	8151	10 J3ND '	06/10/2006 6:12	06/09/2006 12:56	ug/Kg	1.9	10	1
-,5-TP (Silvex)	8151	10 ND	06/10/2006 6:12	06/09/2006 12:56	ug/Kg	1.3	10	1
.'-D	8151	10 ND	06/10/2006 6:12	06/09/2006 12:56	ug/Kg	2.4	10	1
DB	8151	10 ND	06/10/2006 6:12	06/09/2006 12:56	ug/Kg	0.85	10	1
lapon	8151	31 ND	06/10/2006 6:12	06/09/2006 12:56	ug/Kg	3.6	31	1
amba	8151	10 J3ND	06/10/2006 6:12	06/09/2006 12:56	ug/Kg	1.9	10	1
hloroprop	8151	10 J3ND	06/10/2006 6:12	06/09/2006 12:56	ug/Kg	1.6	10	1
roseb	8151	10 ND	06/10/2006 6:12	06/09/2006 12:56	ug/Kg	2,2	10	1
PA	8151	1550 ND	06/10/2006 6:12	06/09/2006 12:56	ug/Kg	735	1550	1
;PP	8151	1550 ND	06/10/2006 6:12	06/09/2006 12:56	ug/Kg	559	1550	1
:AA(SURR)	8151	55.6	06/10/2006 6:12	06/09/2006 12:56	%	559	(42 - 108) 1



Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2503980

PROJECT ID: 6015982

PEL Lab# : 250398004

~ . . .

Collection Information:

Client ID: SB-4

Sample Date: 5/31/2006 12:45:00 PM

Matrix: S

			Analysis	Prep				Dilution
Parameter	Method	Results	Date	Date	Units	MDL	RL	Factor
'-DDD	8081	1.6 ND	06/06/2006 17:18	06/05/2006 9:16	UG/KG	0.54	1.6	1
'-DDE	8081	1.6 ND	06/06/2006 17:18	06/05/2006 9:16	UG/KG	0.28	1.6	1
'-DDT	8081	1.6 ND	06/06/2006 17:18	06/05/2006 9:16	UG/KG	0.4	1.6	1
rin	8081	1.6 ND	06/06/2006 17:18	06/05/2006 9:16	UG/KG	0.16	1.6	1
na-BHC	8081	1.6 ND	06/06/2006 17:18	06/05/2006 9:16	UG/KG	1	1.6	1
a-BHC	8081	1.6 ND	06/06/2006 17:18	06/05/2006 9:16	UG/KG	0.16	1.6	1
ordane	8081	16 ND	06/06/2006 17:18	06/05/2006 9:16	UG/KG	2.1	. 16	1
:a-BHC	8081	1.6 ND	06/06/2006 17:18	06/05/2006 9:16	UG/KG	0.3	1.6	1
ldrin	8081	1.6 ND	06/06/2006 17:18	06/05/2006 9:16	UG/KG	0.17	1.6	1
dosulfan i	8081	1.6 ND	06/06/2006 17:18	06/05/2006 9:16	UG/KG	0.23	1.6	1
dosulfan II	8081	1.6 ND	06/06/2006 17:18	06/05/2006 9:16	UG/KG	0.31	1.6	1
dosulfan sulfate	8081	1.6 ND	06/06/2006 17:18	06/05/2006 9:16	UG/KG	0.21	1.6	1
rin	8081	1.6 ND	06/06/2006 17:18	06/05/2006 9:16	UG/KG	0.28	1.6	1
irin aldehyde	8081	1.6 ND	06/06/2006 17:18	06/05/2006 9:16	UG/KG	0.38	1.6	1
nma-BHC (Lindane)	8081	1.6 ND	06/06/2006 17:18	06/05/2006 9:16	UG/KG	0.21	1.6	1
otachlor	8081	1.6 ND	06/06/2006 17:18	06/05/2006 9:16	UG/KG	0.16	1.6	1
otachlor epoxide	8081	1.6 J3MND	06/06/2006 17:18	06/05/2006 9:16	UG/KG	0.16	1.6	1
thoxychlor	8081	1.6 ND	06/06/2006 17:18	06/05/2006 9:16	UG/KG	0.28	1.6	1
:aphene	8081	16 ND	06/06/2006 17:18	06/05/2006 9:16	UG/KG	1.4	16	1
.5,6-tetrachloro-m-xylene(SUR	8081	81.6	06/06/2006 17:18	06/05/2006 9:16	%	1.4	(35 - 135) 1
achlorobiphenyl(SURR)	8081	80.1	06/06/2006 17:18	06/05/2006 9:16	%	1.4	(25 - 143)) 1
,5-T	8151	11 J3ND	06/10/2006 6:54	06/09/2006 12:56	ug/Kg	1.9	11	1
.5-TP (Silvex)	8151	11 ND	06/10/2006 6:54	06/09/2006 12:56	ug/Kg	1.4	11	1
-D	8151	. 21	06/10/2006 6:54	06/09/2006 12:56	ug/Kg	2.5	11	1
-DB	8151	11 ND	06/10/2006 6:54	06/09/2006 12:56	ug/Kg	0.88	11	1
apon	8151	32 ND	06/10/2006 6:54	06/09/2006 12:56	ug/Kg	3.8	32	1
amba	8151	11 J3ND	06/10/2006 6:54	06/09/2006 12:56	ug/Kg	1.9	11	1
nloroprop	8151	11 J3ND	06/10/2006 6:54	06/09/2006 12:56	ug/Kg	1.7	11	1
oseb	8151	11 ND	06/10/2006 6:54	06/09/2006 12:56	ug/Kg	2.2	11	1
PA	8151	1610 ND	06/10/2006 6:54	06/09/2006 12:56	ug/Kg	762	1610	1
PP	8151 .	1610 ND	06/10/2006 6:54	06/09/2006 12:56	ug/Kg	579	1610	1
AA(SURR)	8151	56.2	06/10/2006 6:54	06/09/2006 12:56	%	579	(42 - 108)) 1



): Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2503980

SQ

PROJECT ID:

6015982

QC SUMMARY

METHOD: 8081

ethod Blank 214587 Matrix:

ssociated Lab Samples:

214587 214588 250398001 250398001DL1 250398002 250398003 250398004

		Analysis	Prep			Dilution
Parameter	Results	Date	Date	Units	RL	Factor
l'-DDD	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
I'-DDE	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
I'-DDT	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
irin	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
ha-BHC	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
ta-BHC	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
Jordane	ND	6/5/2006	6/5/2006	UG/KG	15	1
Ita-BHC	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
aldrin	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
dosulfan i	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
dosulfan II	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
dosulfan sulfate	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
drin	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
drin aldehyde	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
mma-BHC (Lindane)	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
ptachlor	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
ptachlor epoxide	J3MND	6/5/2006	6/5/2006	UG/KG	1.5	1
thoxychlor	ND	6/5/2006	6/5/2006	UG/KG	1.5	1
xaphene	ND	6/5/2006	6/5/2006	UG/KG	15	1
-,5,6-tetrachloro-m-xylene(SUR	86.5	6/5/2006	6/5/2006	%	(35 - 135)	1
cachlorobiphenyl(SURR) (S)	88.7	6/5/2006	6/5/2006	%	(25 - 143)	1

ABORATORY CONTROL SAMPLE 214588

Matrix: SQ

RAMETER	UNITS	SPIKE CONC	LCS RESULT	SPIKE % REC	% REC LIMITS	RPD	RPD LIMIT
'-DDD	UG/KG	6.7	6.1	91	(48-135)		
'-DDE	UG/KG	6.7	5.8	86,6	(70-125)		
'-DDT	UG/KG	6.7	6.3	94	(45-140)		
rin	UG/KG	6.7	5	74.6	(60-125)		
ha-BHC	UG/KG	6.7	5.1	76.1	(60-125)		
a-BHC	UG/KG	6.7	5.3	79.1	(60-125)		
ta-BHC	UG/KG	6.7	5.1	76.1	(55-130)		
ld rin	UG/KG	6.7	5.8	86.6	(65-125)		
dosulfan I	UG/KG	6.7	5.3	79.1	(59-128)		
dosulfan II	UG/KG	6.7	5.7	85.1	(35-140)		
iosulfan sulfate	UG/KG	6.7	6.1	91	(60-135)		
drin	UG/KG	6.7	6.1	91	(60-135)		



Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2503980

PROJECT ID:

6015982

METHOD: 8081

ABORATORY CONTRO	L SAMPL	E 21458	38"	Matrix	: SQ		
\RAMETER	UNITS	SPIKE CONC	LCS RESULT	SPIKE % REC	% REC		RPD LIMIT
idrin aldehyde	UG/KG	6.7	2.9	43.3	(35-12	2)	***
mma-BHC (Lindane)	UG/KG	6.7	5.1	76.1	(60-12	5)	
ptachlor	UG/KG	6.7	5.2	77.6	(68-12	1)	
ptachlor epoxide	UG/KG	6.7	3.2	47.8	* (65-13	0)	
∍thoxychlor	UG/KG	6.7	6.8	102	(55-14	5)	
1,5,6-tetrachloro-m-xylene(SUR	UG/KG	13.3	11.4	85.7	(35-13	5)	
:cachlorobiphenyl(SURR) (S)	UG/KG	13.3	11.9	89.5	(25-14	3)	



o: Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2503980

PROJECT ID: 6015982

Vlark Gudnason Digitally signed by Mark

Gudnason

DN: CN = Mark Gudnason,

C = US

Date: 2006.06.12 12:43:58 -

04'00'

Brian C. Spann

Laboratory Manager

David Cantillo

Quality Assurance

Mark Gudnason

Senior Project Manager

Chain of Custody Record Record/Work Request

1010001 1000101 1100110

Fampa, Florida 33619 E-Mail: login@Pelab.com 4420 Pendola Point Road (813) 247-2805 • Fax: (813) 248-1537

7.0 Time Lab. No. 38 70 Form Title: Chain of Custody Record of 5 Effective Date: September 23, 1997 REQUESTED DUE DATE Date NAN DAD Equipment fD No. Sampling CompQAP No: DEP Form #: 62-770,900(2) FDEP Facility No. Remarks Approval Date: Project Name: Accepted by JAffiliation O = Other (specify) 2503980cm Sampting Kit No W = Water (Blanks) Preservatives (see codes) Analyses Requested BALLES MODER Total Number of Containers 05/102/06 | 3:45 Time 6015982 Date SW = Surface Water 1518 XX Relinquished by / Affiliations (s) / Temperature(s) (C) Containers Number of 325 255 0 Project Name/Number: NN SO = SoilProject Manager: Purchase Order: (see codes) Matrix A = Air GW = Groundwater SE = SedimentCooled No. Composite Grab or ななが Item Nos. c f) 5 888 Time 1235 Sampled Fax: 413 5/3/06 Laboratories, Inc. Date の ある ある Shipment Method - French Via: Via. Phone: 673 6-21 3642 12.K Print Names(s) / Affiliation Field ID No. Sampler(s) Signature(s) Additional Comments: LECD OU.S. 581R MATRIX CODES: Address: 4019 らやっ Returned: / Company: Out Item ġ

O = Other (specify)

S = Sulfuric acid + ice

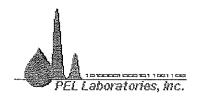
N = Nitric acid + ice

H-Hydrochloric acid + ice I = Ice only

PRESERVATION CODES:

SAMPLE RECEIPT CONFIRMATION SHEET

		Client	ntormation		
SDG:	2503980		Req:	1310	
Client:	HSA		Project:	Generic	
Level:	1		Date Rec'd:	6/1/06 10:10:00 AM	Л
Rec'd via:	courier		Due Date:	06/08/06	
		Sample	Verification	THE STREET OF TH	
Samples/Coo	ler Secure?	Yes	All Samples on COC	accounted For?	Yes
Temperature	of Samples(Celsius)	4.5	All Samples Rec'd In	tact?	Yes
pH Verified?		No	Sample Vol. Stuff. Fo	or Analysis?	Yes
pH WNL?		No	Samples Rec'd W/I H	lold Time?	Yes
Soil Origin (D	omestic/Foreign):	Domestic	Are All Samples to b	e Analyzed?	Yes
Site Location	Project on COC?	Yes	Correct Sample Con	tainers?	Yes
Client Project	# on COC?	Yes	COC Comments writ	ten on COC?	Yes
Project Mgr. I	ndicated on COC?	Yes	Samplers Initials on	COC?	Yes
COC relinquis	shed/Dated by Client?	Yes	Sample Date/Time In	dicated?	Yes
COC Received	d/Dated by PEL?	Yes	TAT Requested:		STD
Specific Subc	ontract Indicated?	No]Client Requests Verl	oal Results?	No
Samples Rec	eived By	courier	Client Requests Fax	ed Results?	No
PEL to Condu	rct ALL Analyses?	Yes			
		Subcont	ract Analysis		
Parameter	Due Date	Via	Lab Na	ame	Comments
PEER REVIEV	v Ju		PM REVIEW:	Mo:	***************************************



Dear Valued Client:

In order to meet the NELAC reporting requirements, as well as improve our final data packages, we have changed the reporting of results.

Effective February 1, 2006, ALL non-detect data that is below the MDL will be reported as "RL ND." Any positive detects between the MDL and RL will be reported and qualified with the FLDEP data qualifier code "I":

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

The reports will continue to list the MDL for each analyte and RL.

If you have any questions regarding this change, please contact your PEL Project Manager.



nelad !

Florida Department of Health #E84207 July 1, 2005 - June 30, 2006 CWA - Extractable Organics, General Chemistry, Metals,
Pesticides-herbicides-PCB's, Volatile Organics
RCRA/CERCLS - Extractable Organics, General Chemistry, Metals
Pesticides-Herbicides-PCB's, Volatile Organics

- CERTIFICATE OF ANALYSIS -

Report Date: 06/13/2006

To: Brian Moore

HSA Engineers & Scientists

4019 E Fowler Ave.

Tampa, FL 33617

W (813)971-3882

F (813)971-1862

PROJECT ID:

Countryside / 601-5982

WORK ORDER:

2504012

DATE RECEIVED:

Tuesday, June 06, 2006

Project Notes:

): Short Hold Time Analysis Date

amples reported on dry weight basis

PEL Contact: Mark Gudnason / extension: 242

4420 Pendola Point Road • Tampa, Florida 33619 (813)247-2805 • FAX: (813)248-1537 Website: www.pelab.com

PEL Laboratories, Inc.

DATA QUALIFIER CODES

State of Florida, Department of Environmental Protection and Department of Health Rehabilitative Services / NELAC

- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J Estimated value; value not accurate. This code shall be used in the following instances:
 - 1. Surrogate recovery limits have been exceeded.
 - 2. No known quality control criteria exits for the component.
 - 3. The reported value did not meet the established quality control criteria for either precision or accuracy but falls within the NELAC marginal exceedance range
 - 3M.The reported value did not meet the established quality control criteria for either precision or accuracy and falls beyond the NELAC range for marginal exceedances.
 - 4. The sample matrix interfered with the ability to make an accurate determination.
 - 5. The data is questionable because of improper laboratory or field protocols (e.g. composite sample was collected instead of a grab sample).
- Off-scale high. Actual value is known to be greater than the value given. To be used when the concentration of the analyte is above the acceptable limit for quantitation (exceeds the linear range of the highest calibration standard) and the calibration curve is known to exhibit a negative deflection.
- Sample held beyond acceptable holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for the sample preparation or analysis.
- Indicates that the compound was analyzed for but not detected. This shall beused to indicate that the specified component was not detected. The value associated with the qualifier shall be the laboratory reporting limit. Unless requested by the client, values less than the reporting limit shall not be
- V Indicates that the analyte was detected in both the sample and the associated method blank. Note: The value in the blank shall not be subtracted from associated samples.
- Υ The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.

Client: HSA Engineers & Scientists

CASE NARRATIVE

PEL Lab Reference No./SDG: 2504012

I. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

II. ANALYSIS

A. Blanks:

All acceptance criteria were met.

B. Surrogates:

All acceptance criteria were met.

C. Spikes:

1. Laboratory Control Spikes (LCS)

All percent recovery and relative percent difference (RPD) criteria were met.

2. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)

No spikes requested by client.

D. Samples:

Sample analysis proceeded normally.

FLDOH #E84207

Brian Moore

Matrix:

HSA Engineers & Scientists

WORK ORDER: 2504012

PROJECT ID:

Countryside / 601-5982

PEL Lab# : 250401202

Client ID: MW IR

W

Sample Date: 6/5/2006 2:07:00 PM

ND = Non Detect

Collection Information:

			Analysis	Prep				Dilution
Parameter	Method	Results	Date	Date	Units	MDL	RL	Factor
senic	6010	5 ND	06/13/2006 13:41	06/07/2006 16:00	UG/L	1.8	5	1



Brian Moore **)**:

HSA Engineers & Scientists

WORK ORDER: 2504012

PROJECT ID:

Countryside / 601-5982

QC SUMMARY

METHOD: 6010

ethod Blank 214908

Matrix: WQ

ssociated Lab Samples: 214908 214909 214910 250401202

Parameter	Result		nalysis Date	Prep Date	Units	RI		Dilution Factor
senic	, ND.	6/	13/2006	6/7/2006	UG/L	5		1
ABORATORY CONT	FROL SAMPLE	21490	09	Matrix	: W(5	***************************************	***************************************
	•	SPIKE	LCS	SPIKE	% F	REC		RPD
RAMETER	UNITS	CONC	RESULT	% REC	LIM	IITS	RPD	LIMIT
senic	UG/L	500	501	100.2	(80-	120)		
ABORATORY CONT	TROL SAMPLE	2149	10	Matrix	: WC	Q		
		SPIKE	LCS	SPIKE	% F	REC		RPD
RAMETER	UNITS	CONC	RESULT	% REC	LIM	IITS	RPD	LIMIT
senic	UG/L	500	466	93.2	(80-	120)	7.2	20



Co:

Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2504012

PROJECT ID:

Countryside / 601-5982

Brian C. Spann

Digitally signed by Brian C. Spann DN: CN = Brian C. Spann, C = US Date: 2006.06.13 16:23:42 -04'00'

Brian C. Spann David Cantillo

Mark Gudnason

Laboratory Manager Quality Assurance Senior Project Manager



A Member of the CRA Family of Companies

425 Chency Highway, Titusville, FL 32780 (321) 269-9891 • Fax (321) 269-9872

H019 E. Fowler Ave., Tampa, FL 33617 (813) 971-3882 • Fax (813) 971-1862

1486-A Skees Road, West Palm Beach, FL 33411 (561) 688-9008 • Fax (561) 688-9005

2504012- BM

23B Sheridan Park Circle, Bluffton, S.C. 29910 (843) 815-5120 • Fax (843) 815-5121

Client 15 A		0		hammandadifik (1881 dek 14 manun yang melak ingana kerkatan menyang melak inganan 1983 mengabang mengangkan kerkatan dalam dalam dalam dalam dalam dalam dalam pengangkan pengangkan pengangkan
Circle: TST		20 cmal		
Project Mgr. Krigin Moore	Fax Reports to:() -			
Project: Cantry Sich	Bill to:	25		
Project #: 601-5982	And the second s	7		
PO #:	Sampler's Initials:			
Station ID	Date Time Lab#	# of Bttls Ptes	Rei	Remarks
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Relinquished By:	Received By:	Date Time		
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Relinquished By:	Receivled By:	Date Time	3	
			977	9
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SAMPLE RECEIPT CONFIRMATION SHEET

Client Information

SDG:	2504012		Req:	1310	
Client:	HSA		Project:	Generic	
Level:	1		Date Rec'd:	6/6/06 1:16:00 P	М
Rec'd via:	courier		Due Date:	06/13/06	
	**************************************	Sample	Verification		
Samples/Coo	ler Secure?	Yes	All Samples on COC	accounted For	? Yes
Temperature	of Samples(Celsius)	4.2	All Samples Rec'd In	tact?	Yes
pH Verified?		Yes	Sample Vol. Stuff. Fo	or Analysis?	Yes
pH WNL?		Yes	Samples Rec'd W/I H	old Time?	Yes
Soil Origin (D	omestic/Foreign):	en e	Are All Samples to b	e Analyzed?	Yes
Site Location/	Project on COC?	Yes	Correct Sample Cont	tainers?	Yes
Client Project	# on COC?	Yes	COC Comments writ	ten on COC?	Yes
Project Mgr. I	ndicated on COC?	Yes	Samplers Initials on	COC?	Yes
COC relinquis	hed/Dated by Client?	Yes	Sample Date/Time In	dicated?	Yes
COC Received	d/Dated by PEL?	Yes	TAT Requested:		STD
Specific Subc	ontract indicated?	No	Client Requests Verb	al Results?	No
Samples Rece	lived By	courier	Client Requests Faxe	ed Results?	No
PEL to Condu	ct ALL Analyses?	Yes] .		
		Subcont	ract Analysis		
Parameter	Due Date	Via	Lab Na	me	Comments
				-	. 1
PEER REVIEW	1.11		PM REVIEW:		W
g m		()			



Dear Valued Client:

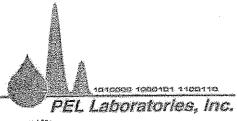
In order to meet the NELAC reporting requirements, as well as improve our final data packages, we have changed the reporting of results.

Effective February 1, 2006, ALL non-detect data that is below the MDL will be reported as "RL ND." Any positive detects between the MDL and RL will be reported and qualified with the FLDEP data qualifier code "I":

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

The reports will continue to list the MDL for each analyte and RL.

If you have any questions regarding this change, please contact your PEL Project Manager.





July 1, 2005 - June 30, 2006

Florida Department of Health #E84207 CWA - Extractable Organics, General Chemistry, Metals, Pesticides-herbicides-PCB's, Volatile Organics RCRA/CERCLS - Extractable Organics, General Chemistry, Metals Pesticides-Herbicides-PCB's, Volatile Organics

- CERTIFICATE OF ANALYSIS -

Report Date: 06/22/2006

To: Brian Moore

HSA Engineers & Scientists

4019 E Fowler Ave.

Tampa, FL 33617

W (813)971-3882 F (813)971-1862

PROJECT ID:

601-5982

WORK ORDER:

2504107

DATE RECEIVED:

Thursday, June 15, 2006

Project Notes:

(†): Short Hold Time Analysis Date

Samples reported on dry weight basis

PEL Contact: Mark Gudnason / extension: 242

4420 Pendola Point Road • Tampa, Florida 33619 (813)247-2805 • FAX: (813)248-1537 Website: www.pelab.com

PEL Laboratories, Inc.

DATA QUALIFIER CODES

State of Florida, Department of Environmental Protection and Department of Health Rehabilitative Services / NELAC

- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- **J** Estimated value; value not accurate. This code shall be used in the following instances:
 - 1. Surrogate recovery limits have been exceeded.
 - 2. No known quality control criteria exits for the component.
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- V Indicates that the analyte was detected in both the sample and the associated method blank. Note: The value in the blank shall not be subtracted from associated samples.
- Υ The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.

Client: HSA Engineers & Scientists

CASE NARRATIVE

PEL Lab Reference No./SDG: 2504107

I. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

II. ANALYSIS

A. Blanks:

All acceptance criteria were met with the exception of:

6010:

Blank 215910 was analyzed with the water samples extracted on 06/16/06. The following analyte(s) were detected below RL: Arsenic at 3.67 UG/L.

B. Surrogates:

All acceptance criteria were met.

C. Spikes:

- 1. Laboratory Control Spikes (LCS)
 All percent recovery and relative percent difference (RPD) criteria were met.
- Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)
 No spikes requested by client.

D. Samples:

Sample analysis proceeded normally.

FLDOH #E84207

To: Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2504107

PROJECT ID:

601-5982

Collection Information:

PEL Lab#: 250410701

Client ID: TW-12

Matrix: W

Sample Date: 6/13/2006 11:52:00 AM

ND = Non Detect

			Analysis	Prep				Dilution
Parameter	Method	Results	Date	Date	Units	MDL	RL	Factor
Arsenic	6010	5.44	06/20/2006 21:25		UG/L	1.8	5	1

FLDOH #E84207

To: Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2504107

PROJECT ID:

601-5982

PEL Lab#: 250410702

Client ID: POND

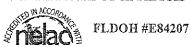
Matrix:

Collection Information:

Sample Date: 6/13/2006 10:29:00 AM

ND = Non Detect

			Analysis	Prep	•			Dilution
Parameter	Method	Results	Date	Date	Units	MDL	RL	Factor
Arsenic	6010	49	06/20/2006 21:31	06/16/2006 20:36	UG/L	1.8	5	1



To: Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2504107

PROJECT ID:

601-5982

QC SUMMARY

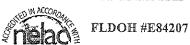
METHOD: 6010

Method Blank 215910

Matrix: WQ

Associated Lab Samples: 215910 215911 215912 250410701 250410702

Parameter	Result		alysis ate	Prep Date	Unit	ts	RL		ilution Factor
Arsenic	3.67	1 6/20	0/2006	6/16/2006	UG/	L	5		1
LABORATORY CONTRO)L SAMPLI	E 215911		Matri	κ:	WQ			
		SPIKE	LCS	SPIKE	Ξ	%REC			RPD
PARAMETER	UNITS	CONC	RESUL	T % REC	;	LIMITS		RPD	LIMIT
Arsenic	UG/L	500	485	97		(80-120)		
LABORATORY CONTRO	DL SAMPLE	215912	2	Matri	κ:	WQ			
		SPIKE	LCS	SPIKE	<u> </u>	% REC			RPD
PARAMETER	UNITS	CONC	RESUL	T %REC	;	LIMITS	1	RPD	LIMIT
Arsenic	UG/L	500	486	97.2		(80-120)	۸ ۸	.2	20



To:

Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2504107

PROJECT ID: 601-5982

Brian C Spann Digitally signed by Brian C. Spann DN: CN = Brian C. Spann, C = US Date: 2006.06.22 13:53:36 -04'00'

Brian C. Spann David Cantillo Laboratory Manager Quality Assurance

Mark Gudnason

Senior Project Manager



A Member of the CRA Family of Companies

425 Cheney Highway, Titusville, FL 32780 (321) 269-9891 • Fax (321) 269-9872

1486-A Skees Road, West Palm Beach, FL 33411 (561) 688-9008 • Fax (561) 688-9005

4019 E. Fowler Ave., Tampa, FL 33617 (813) 971-3882 • Fax (813) 971-1862

23B Sheridan Park Circle, Bluffron, S.C. 29910 (843) 815-5120 • Fox (843) 815-5121

20 $\overline{\circ}$ Remarks Project Notes B B 3.60 6010 DH < 2 Y Q 1.00 0 Time Time Time Time 1262 00/12/00 Date Date Date Date $_{
m b}$ res # of Bttls Fax Reports to:(8/3)971-1862 Due Date(TAT): んしょいのこ Lab# Sampler's Initials: 16c0/1 Received By-Received By: Date |Time 613k 1152 Received By Received By Bill to: Anan Moore 1365-109 10-10h Relinquished By: Relinquished By: Relingalished By: Relinquished By Client: H-S Project Mgr. Station ID Project #: Project : PO #:

SAMPLE RECEIPT CONFIRMATION SHEET

0 , ,,,	W S E SAME CAME BY A SHAREN COMP.				
		Client	Information		
SDG:	2504107		Req:	1310	
Client:	HSA		Project:	Generic	
Level:	1		Date Rec'd:	6/15/06 11:30:00 A	M
Rec'd via:	courier		Due Date:	06/22/06	
		Sample	Verification		W. A. C.
Samples/Cool	fer Secure?	Yes	All Samples on COC	accounted For?	Yes
Temperature	of Samples(Celsius)	3.6	All Samples Rec'd In	tact?	Yes
pH Verified?		Yes	Sample Vol. Stuff. Fo	or Analysis?	Yes
pH WNL?		Yes	Samples Rec'd W/I H	old Time?	Yes
Soil Origin (D	omestic/Foreign):		Are All Samples to b	e Analyzed?	Yes
Site Location/	Project on COC?	Yes	Correct Sample Cont	tainers?	Yes
Client Project	# on COC?	Yes	COC Comments writ	ten on COC?	Yes
Project Mgr. I	ndicated on COC?	Yes	Samplers Initials on	COC?	Yes
COC relinquis	hed/Dated by Client?	Yes	Sample Date/Time In	dicated?	Yes
COC Received	d/Dated by PEL?	Yes	TAT Requested:		STD
Specific Subc	ontract Indicated?	No	Client Requests Verb	al Results?	No
Samples Rece	eived By	courier	Client Requests Faxe	ed Results?	No
PEL to Condu	ict ALL Analyses?	Yes			
L. <u>, , , , , , , , , , , , , , , , , , ,</u>		Subcont	ract Analysis		
Parameter	Due Date	Via	Lab Na	ıme	Comments
PEER REVIEV	V J.111	6	PM REVIEW:	MC	

Thursday, June 15, 2006

Page 1 of 1



Dear Valued Client:

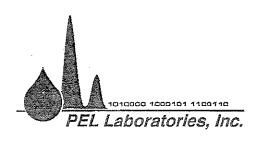
In order to meet the NELAC reporting requirements, as well as improve our final data packages, we have changed the reporting of results.

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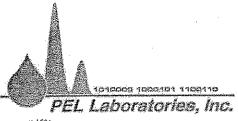


In Observance of Independence Day, PEL Laboratories will be closed Tuesday, July 4th.

As always, PEL will accommodate your needs whenever possible. Please notify us if arrangements need to be made.

Thank you for your cooperation.

4420 Pendola Point Road • Tampa, Florida 33619 (813) 247-2805 • FAX: (813) 248-1537



Prielad

Florida Department of Health #E84207 July 1, 2005 - June 30, 2006 CWA - Extractable Organics, General Chemistry, Metals,
Pesticides-herbicides-PCB's, Volatile Organics
RCRA/CERCLS - Extractable Organics, General Chemistry, Metals
Pesticides-Herbicides-PCB's, Volatile Organics

- CERTIFICATE OF ANALYSIS -

Report Date: 06/22/2006

To: Brian Moore
HSA Engineers & Scientists
4019 E Fowler Ave.
Tampa, FL 33617

W (813)971-3882 F (813)971-1862

PROJECT ID:

Countryside

WORK ORDER:

2504106

DATE RECEIVED:

Thursday, June 15, 2006

Project Notes:

(†): Short Hold Time Analysis Date

Samples reported on dry weight basis

PEL Contact: Mark Gudnason / extension: 242

4420 Pendola Point Road • Tampa, Florida 33619 (813)247-2805 • FAX: (813)248-1537 Website: www.pelab.com

PEL Laboratories, Inc.

DATA QUALIFIER CODES

State of Florida, Department of Environmental Protection and Department of Health Rehabilitative Services / NELAC

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 - 2. No known quality control criteria exits for the component.
 - 3. The reported value did not meet the established quality control criteria for either precision or accuracy but falls within the NELAC marginal exceedance range
 - 3M. The reported value did not meet the established quality control criteria for either precision or accuracy and falls beyond the NELAC range for marginal exceedances.
 - 4. The sample matrix interfered with the ability to make an accurate determination.
 - 5. The data is questionable because of improper laboratory or field protocols (e.g. composite sample was collected instead of a grab sample).
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- Indicates that the analyte was detected in both the sample and the associated method blank. Note: The value in the blank shall not be subtracted from associated samples.
- Υ The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.

Client: HSA Engineers & Scientists

CASE NARRATIVE

PEL Lab Reference No./SDG: 2504106

I. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

II. ANALYSIS

A. Blanks:

All acceptance criteria were met with the exception of:

6010

Blank 215910 was analyzed with the water samples extracted on 06/16/06. The following analyte(s) were detected below RL: Arsenic at 3.67 ug/L.

B. Surrogates:

All acceptance criteria were met.

C. Spikes:

1. Laboratory Control Spikes (LCS)
All percent recovery and relative percent difference (RPD) criteria were met.

2. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)
No spikes requested by client.

D. Samples:

Sample analysis proceeded normally.

FLDOH #E84207

To: Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2504106

PROJECT ID:

Countryside

Collection Information:

PEL Lab#: 250410601

Client ID: MW-2 Matrix: W

Sample Date: 6/13/2006 2:05:00 PM

ND = Non Detect

			Analysis	Prep				Dilution
Parameter	Method	Results	Date	Date	Units	MDL	RL	Factor
Arsenic	6010	79.8	06/20/2006 20:50	06/16/2006 20:36	ug/L.	1.8	5	1

FLDOH #E84207

To: Brian Moore

HSA Engineers & Scientists

PEL Lab#: 250410602

Client ID: TW-14

WORK ORDER: 2504106

PROJECT ID: Countryside

Collection Information:

Sample Date: 6/13/2006 2:38:00 PM

ND = Non Detect

Matrix: W

			Analysis	Prep				Dilution
Parameter	Method	Results	Date	Date	Units	MDL	RL	Factor
Arsenic	6010	5 ND	06/20/2006 21:10	06/16/2006 20:36	ug/L	1.8	5	1

FLDOH #E84207

To: Brian Moore

HSA Engineers & Scientists

W

WORK ORDER: 2504106

PROJECT ID:

Countryside

Collection Information:

PEL Lab#: 250410603

TW-15 Client ID:

Matrix:

Sample Date: 6/13/2006 2:56:00 PM

ND = Non Detect

Analysis Prep Dilution Parameter Results Date Date Units MDL RLFactor Method Arsenic 5 ND 6010 06/20/2006 21:15 06/16/2006 20:36 ug/L 1.8

FLDOH #E84207

To: Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2504106

PROJECT ID:

Countryside

PEL Lab#: 250410604

Matrix: W

Client ID: TW-16

Collection Information:

Sample Date: 6/13/2006 1:14:00 PM

ND = Non Detect

			Analysis	Prep				Dilution
Parameter	Method	Results	Date	Date	Units	MDL	RL	Factor
Arsenic	6010	. 5 ND	06/20/2006 21:20	06/16/2006 20:36	ug/L	1.8	5	1



o: Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2503980

PROJECT ID: 60

6015982

Mark Gudnason Digitally signed by Mark

Gudnason

DN: CN = Mark Gudnason,

C = US

Date: 2006.06.12 12:43:58 -

04'00'

Brian C. Spann

Laboratory Manager

David Cantillo

Quality Assurance

Mark Gudnason

Senior Project Manager

Chain of Custody Record Record/Work Request

4420 Pendola Point Road Tampa, Florida 33619 (813) 247-2805 • Fax: (813) 248-1537 E-Mail: login@Pelab.com 2503980 m

	PEL Laboratories, Inc.	ories, Inc.							7505780	&CCM			
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Phone	Phone: \$13 971 3542	£2 Fax: 813	513 971 BAZ	+	Purchase Order:	***************************************					FDEP Facility No.	No,	
Print	Print Names(s) / Affiliation	m						Preservativ	Preservatives (see codes)		Project Name:		
	•			!							Sampling CompQAP No:	pQAP No:	······································
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Item	Andrews and the state of the st	Sam	Sampled Gra	Grab or	Matrix Nu	Number of	\$0 \$0				TS -	がならかり	
No.	Field ID No.	Date	Time Com	Composite	(see codes)	Containers					Remarks	ks Lab. No.	Š
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MAT	MATRIX CODES: A =	15	GW = Groundwater S	SE = Sediment		ii SW=	H		\subseteq		O = Other (specify)	u	
PRES	PRESERVATION CODES:		H-Hydrochloric acid + ice	I = Ice only		N = Nitric acid + ice		S = Sulfuric acid + ice		O = Other (specify)	₹)		<u></u>

SAMPLE RECEIPT CONFIRMATION SHEET

		Client I	Informa	ation		······································
SDG:	2503980			Req:	1310	
Client:	HSA			Project:	Generic	
Level:	1			Date Rec'd:	6/1/06 10:10:00 AM	М
Rec'd via:	courier			Due Date:	06/08/06	
		Sample	Verific	ation	THE STATE OF THE S	***************************************
Samples/Cool	ler Secure?	Yes	All Sam	ples on COC	accounted For?	Yes
Temperature	of Samples(Celsius)	4.5	All Sam	ples Rec'd in	tact?	Yes
pH Verified?		No	Sample	Vol. Stuff. Fo	or Analysis?	Yes
pH WNL?		No	Sample	s Rec'd W/I H	old Time?	Yes
Soil Origin (D	omestic/Foreign):	Domestic	Are All	Samples to be	e Analyzed?	Yes
Site Location	Project on COC?	Yes	Correct	Sample Cont	ainers?	Yes
Client Project	# on COC?	Yes]coc co	mments writ	ten on COC?	Yes
Project Mgr. I	ndicated on COC?	Yes	Sample	rs Initials on	COC?	Yes
COC relinquis	shed/Dated by Client?	Yes	Sample	Date/Time In	dicated?	Yes
COC Received	d/Dated by PEL?	Yes	TAT Re	quested:		STD
Specific Subc	contract Indicated?	No	Citent R	tequests Verb	oal Results?	No
Samples Rec	eived By	courier	Client R	lequests Fax	ed Results?	No
PEL to Condu	ıct ALL Analyses?	Yes				
		Subcont	ract Ar	nalysis		
Parameter	Due Date	Via		Lab Na	ıme	Comments
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PEER REVIEV	v \ 12		PM F	REVIEW:	Ma.	
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<u></u>						

Thursday, June 01, 2006

Page 1 of 1



Dear Valued Client:

In order to meet the NELAC reporting requirements, as well as improve our final data packages, we have changed the reporting of results.

Effective February 1, 2006, ALL non-detect data that is below the MDL will be reported as "RL ND." Any positive detects between the MDL and RL will be reported and qualified with the FLDEP data qualifier code "I":

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

The reports will continue to list the MDL for each analyte and RL.

If you have any questions regarding this change, please contact your PEL Project Manager.



nelad!

Florida Department of Health #E84207 July 1, 2005 - June 30, 2006 CWA - Extractable Organics, General Chemistry, Metals,
Pesticides-herbicides-PCB's, Volatile Organics
RCRA/CERCLS - Extractable Organics, General Chemistry, Metals
Pesticides-Herbicides-PCB's, Volatile Organics

- CERTIFICATE OF ANALYSIS -

Report Date: 06/13/2006

To: Brian Moore

HSA Engineers & Scientists

4019 E Fowler Ave.

Tampa, FL 33617

W (813)971-3882

F (813)971-1862

PROJECT ID:

Countryside / 601-5982

WORK ORDER:

2504012

DATE RECEIVED:

Tuesday, June 06, 2006

Project Notes:

): Short Hold Time Analysis Date

imples reported on dry weight basis

PEL Contact: Mark Gudnason / extension: 242

4420 Pendola Point Road • Tampa, Florida 33619 (813)247-2805 • FAX: (813)248-1537 Website: www.pelab.com

PEL Laboratories, Inc.

DATA QUALIFIER CODES

State of Florida, Department of Environmental Protection and Department of Health Rehabilitative Services / NELAC

The reported value is between the laboratory method detection limit and the
laboratory practical quantitation limit.

- J Estimated value; value not accurate. This code shall be used in the following instances:
 - 1. Surrogate recovery limits have been exceeded.
 - 2. No known quality control criteria exits for the component.
 - 3. The reported value did not meet the established quality control criteria for either precision or accuracy but falls within the NELAC marginal exceedance range
 - 3M.The reported value did not meet the established quality control criteria for either precision or accuracy and falls beyond the NELAC range for marginal exceedances.
 - 4. The sample matrix interfered with the ability to make an accurate determination.
 - 5. The data is questionable because of improper laboratory or field protocols (e.g. composite sample was collected instead of a grab sample).
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- Indicates that the analyte was detected in both the sample and the associated method blank. Note: The value in the blank shall not be subtracted from associated samples.
- Υ The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.

Client: HSA Engineers & Scientists

CASE NARRATIVE

PEL Lab Reference No./SDG: 2504012

I. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

II. ANALYSIS

A. Blanks:

All acceptance criteria were met.

B. Surrogates:

All acceptance criteria were met.

C. Spikes:

1. Laboratory Control Spikes (LCS)

All percent recovery and relative percent difference (RPD) criteria were met.

2. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)

No spikes requested by client.

D. Samples:

Sample analysis proceeded normally.

FLDOH #E84207

Brian Moore

Matrix:

HSA Engineers & Scientists

WORK ORDER: 2504012

PROJECT ID:

Countryside / 601-5982

PEL Lab#: 250401202

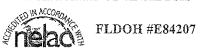
Client ID: MW 1R

Collection Information:

Sample Date: 6/5/2006 2:07:00 PM

ND = Non Detect

			Analysis	Prep				Dilution
Parameter	Method	Results	Date	Date	Units	MDL	RL	Factor
senic	6010	5 ND	06/13/2006 13:41	06/07/2006 16:00	UG/L	1.8	5	1



Brian Moore **)**:

HSA Engineers & Scientists

WORK ORDER: 2504012

PROJECT ID:

Countryside / 601-5982

QC SUMMARY

METHOD: 6010

ethod Blank 214908

Matrix: WQ

sociated Lab Samples: 214908 214909 214910 250401202

Parameter	Result		alysis ate	Prep Date	Units	RL		Dilution Factor
зеnic	ND	6/13	3/2006	6/7/2006	UG/L	5		1
ABORATORY CONTROL	SAMPLE	214909)	Matrix	: WQ			
RAMETER	UNITS	SPIKE CONC	LCS RESULT	SPIKE % REC	% RE LIMIT		RPD	RPD LIMIT
senic ABORATORY CONTROL	UG/L SAMPLE	500 214910	501)	100.2 Matri x	(80-1) : WQ	20)		
RAMETER	UNITS	SPIKE CONC	LCS RESULT	SPIKE % REC	% RE LIMIT		RPD	RPD LIMIT
senic	UG/L	500	466	93.2	(80-1	20)	7.2	20



.°o: Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2504012

PROJECT ID:

Countryside / 601-5982

Spann

Digitally signed by Brian C. Spann
DN: CN = Brian C. Spann, C = US Date: 2006.06.13 16:23:42 -04'00'

Brian C. Spann David Cantillo Mark Gudnason Laboratory Manager Quality Assurance Senior Project Manager



A Member of the CRA Family of Companies

425 Cheney Highway, Titusville, FL 32780 1486-A Skees Road, Wes (321) 269-9891 • Fax (321) 269-9892 • Fax (351)

#019 E. Fowler Ave., Tampa, FL 33617 (813) 971-3882 • Fax (813) 971-1862

1486-A Skees Road, West Palm Beach, FL 33411 (561) 688-9008 • Fax (561) 688-9005

2504012- BM

23B Sheridan Park Circle, Bluffton, S.C. 29910 (843) 815-5120 • Fax (843) 815-5121

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Client: HSF	Due Date(TAT): NO.	vormal / 6/		
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SAMPLE RECEIPT CONFIRMATION SHEET

Client Information

SDG:	2504012		Req:	1310				
Client:	HSA		Project:	Generic				
Level:	1		Date Rec'd:	6/6/06 1:16:00 PM	Л			
Rec'd via:	courier		Due Date:	06/13/06				
Sample Verification								
Samples/Cooler Secure?		Yes	All Samples on COC	accounted For	Yes			
Temperature of Samples(Celsius)		4.2	All Samples Rec'd In	tact?	Yes			
pH Verified?		Yes	Sample Vol. Stuff. Fo	r Analysis?	Yes			
pH WNL?		Yes	Samples Rec'd W/I H	Yes				
Soil Origin (Domestic/Foreign):			Are All Samples to be	Yes				
Site Location/Project on COC?		Yes	Correct Sample Cont	Yes				
Client Project # on COC?		Yes	COC Comments writt	Yes				
Project Mgr. Indicated on COC?		Yes	Samplers Initials on (Yes				
COC relinquished/Dated by Client?		Yes	Sample Date/Time Inc	Yes				
COC Received/Dated by PEL?		Yes	TAT Requested:	STD				
Specific Subcontract Indicated?		No	Client Requests Verb	No				
Samples Received By		courier	Client Requests Faxe	No				
PEL to Condu	ct ALL Analyses?	Yes] .					
Subcontract Analysis								
Parameter	Due Date	Via	Lab Na	me	Comments			
PEER REVIEW	1.M		PM REVIEW:	1	W			



Dear Valued Client:

In order to meet the NELAC reporting requirements, as well as improve our final data packages, we have changed the reporting of results.

Effective February 1, 2006, ALL non-detect data that is below the MDL will be reported as "RL ND." Any positive detects between the MDL and RL will be reported and qualified with the FLDEP data qualifier code "I":

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The reports will continue to list the MDL for each analyte and RL.

If you have any questions regarding this change, please contact your PEL Project Manager.



July 1, 2005 - June 30, 2006

Florida Department of Health #E84207 CWA - Extractable Organics, General Chemistry, Metals, Pesticides-herbicides-PCB's, Volatile Organics RCRA/CERCLS - Extractable Organics, General Chemistry, Metals Pesticides-Herbicides-PCB's, Volatile Organics

- CERTIFICATE OF ANALYSIS -

Report Date: 06/22/2006

To: Brian Moore

HSA Engineers & Scientists

4019 E Fowler Ave. Tampa, FL 33617

W (813)971-3882 F (813)971-1862

PROJECT ID:

601-5982

WORK ORDER:

2504107

DATE RECEIVED:

Thursday, June 15, 2006

Project Notes:

(†): Short Hold Time Analysis Date

Samples reported on dry weight basis

PEL Contact: Mark Gudnason / extension: 242

4420 Pendola Point Road • Tampa, Florida 33619 (813)247-2805 • FAX: (813)248-1537 Website: www.pelab.com

PEL Laboratories, Inc.

DATA QUALIFIER CODES

State of Florida, Department of Environmental Protection and Department of Health Rehabilitative Services / NELAC

- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J Estimated value; value not accurate. This code shall be used in the following instances:
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 - 2. No known quality control criteria exits for the component.
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 - 3M. The reported value did not meet the established quality control criteria for either precision or accuracy and falls beyond the NELAC range for marginal exceedances.
 - 4. The sample matrix interfered with the ability to make an accurate determination.
 - 5. The data is questionable because of improper laboratory or field protocols (e.g. composite sample was collected instead of a grab sample).
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- V Indicates that the analyte was detected in both the sample and the associated method blank. Note: The value in the blank shall not be subtracted from associated samples.
- Υ The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.

Client: HSA Engineers & Scientists

CASE NARRATIVE

PEL Lab Reference No./SDG: 2504107

I. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

II. ANALYSIS

A. Blanks:

All acceptance criteria were met with the exception of:

6010:

Blank 215910 was analyzed with the water samples extracted on 06/16/06. The following analyte(s) were detected below RL: Arsenic at 3.67 UG/L.

B. Surrogates:

All acceptance criteria were met.

C. Spikes:

- 1. Laboratory Control Spikes (LCS)
 All percent recovery and relative percent difference (RPD) criteria were met.
- Matrix Spike/Matrix Spike Duplicate Samples (MS/SD) No spikes requested by client.

D. Samples:

Sample analysis proceeded normally.

FLDOH #E84207

To: Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2504107

PROJECT ID:

601-5982

Collection Information:

PEL Lab#: 250410701

Client ID: TW-12

Matrix: W

Sample Date: 6/13/2006 11:52:00 AM

ND = Non Detect

			Analysis	Prep				Dilution
Parameter	Method	Results	Date	Date	Units	MDL	RL	Factor
Arsenic	6010	5,44	06/20/2006 21:25	06/16/2006 20:36	UG/L	1.8	5	1

To: Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2504107

PROJECT ID:

601-5982

Collection Information:

PEL Lab#: 250410702

Client ID: POND

Matrix:

Sample Date: 6/13/2006 10:29:00 AM

ND = Non Detect

Analysis Prep Dilution Parameter Results Date Date Units MDL RLFactor Method Arsenic 49 06/20/2006 21:31 06/16/2006 20:36 6010 UG/L 1.8 5



To: Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2504107

PROJECT ID:

601-5982

QC SUMMARY

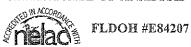
METHOD: 6010

Method Blank 215910

Matrix: WQ

Associated Lab Samples: 215910 215911 215912 250410701 250410702

Parameter	Result		alysis Pate	Prep Date	Unit	s	RL		Dilution Factor
Arsenic	3.67	1 6/2	0/2006	6/16/2006	UG/	L	5		1
LABORATORY CONTROL	. SAMPLE	21591	1	Matri	:	WQ			
PARAMETER	UNITS	SPIKE CONC	LCS RESUL	SPIKE T % REC		% REC LIMITS		RPD	RPD LIMIT
Arsenic LABORATORY CONTROL	UG/L . SAMPLE	500 215912	485 2	97 Matri x	::	(80-120) WQ)		
PARAMETER	UNITS	SPIKE CONC	LCS RESUL	SPIKE T % REC		% REC LIMITS		RPD	RPD LIMIT
Arsenic	UG/L	500	486	97.2		(80-120)). (0.2	20



To: Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2504107

PROJECT ID: 601-5982

Brian C Spann Digitally signed by Brian C. Spann DN: CN = Brian C. Spann, C = US Date: 2006.06.22 13:53:36 -04'00'

Brian C. Spann David Cantillo Laboratory Manager Quality Assurance

Mark Gudnason

Senior Project Manager

HSA Engineers

A Member of the CRA Family of Companies

425 Cheney Highway, Titusville, FL 32780 (321) 269-9891 • Fax (321) 269-9872

4019 E. Fowler Ave., Tampa, FL 33617 (813) 971-3882 • Fax (813) 971-1862

1486-A Skees Road, West Palm Beach, FL 33411 (561) 688-9008 • Fax (561) 688-9005

23B Sheridan Park Circle, Bluffton, S.C. 29910 (843) 815-5120 - Fax (843) 815-5121

Client: H&A	Due Date(TAT): A Joseph	. A Joseph	-	/	/ /*			
Project Mgr. (3020 MOOR	Fax Reports to:(s to:(813)971-1862	5/2		/ h." /			
Project: (201-5982	Bill to:				/1/2			
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PO#.	Sampler's Initials:); ************************************	ter in A section in specimen and section in	3				THE PARTY OF THE P
Station ID	Date Time	Lab# #	# of Bttls PT	5017			Remarks	
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SAMPLE RECEIPT CONFIRMATION SHEET

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		Client l	nformation		
SDG:	2504107		Req:	1310	
Client:	HSA		Project:	Generic	
Level:	1		Date Rec'd:	6/15/06 11:30:00 A	М
Rec'd via:	courier		Due Date:	06/22/06	
		Sample	Verification		
Samples/Cool	er Secure?	Yes	All Samples on COC	accounted For?	Yes
Temperature	of Samples(Celsius)	3,6	All Samples Rec'd In	tact?	Yes
pH Verified?		Yes	Sample Vol. Stuff. Fo	or Analysis?	Yes
pH WNL?		Yes	Samples Rec'd W/I H	old Time?	Yes
Soil Origin (D	omestic/Foreign):		Are All Samples to b	e Analyzed?	Yes
Site Location/	Project on COG?	Yes	Correct Sample Cont	tainers?	Yes
Client Project	# on COC?	Yes	COC Comments writ	ten on COC?	Yes
Project Mgr. I	ndicated on COC?	Yes	Samplers Initials on	Yes	
COC relinquis	hed/Dated by Client?	Yes	Sample Date/Time in	Yes	
COC Received	d/Dated by PEL?	Yes	TAT Requested:	STD	
Specific Subc	ontract Indicated?	No	Client Requests Verb	oal Results?	No
Samples Rece	eived By	courier	Client Requests Faxe	ed Results?	No
PEL to Condu	ct ALL Analyses?	Yes			
		Subcont	ract Analysis		
Parameter	Due Date	Via	Lab Na	ime (Comments
PEER REVIEV	V J.111	6	PM REVIEW:	MC	

Thursday, June 15, 2006

Page 1 of 1



Dear Valued Client:

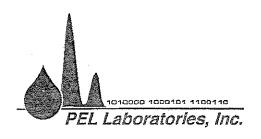
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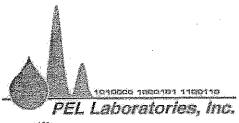


In Observance of Independence Day, PEL Laboratories will be closed Tuesday, July 4th.

As always, PEL will accommodate your needs whenever possible. Please notify us if arrangements need to be made.

Thank you for your cooperation.

4420 Pendola Point Road • Tampa, Florida 33619 (813) 247-2805 • FAX: (813) 248-1537





Florida Department of Health #E84207 July 1, 2005 - June 30, 2006 CWA - Extractable Organics, General Chemistry, Metals,
Pesticides-herbicides-PCB's, Volatile Organics
RCRA/CERCLS - Extractable Organics, General Chemistry, Metals
Pesticides-Herbicides-PCB's, Volatile Organics

- CERTIFICATE OF ANALYSIS -

Report Date: 06/22/2006

To: Brian Moore

HSA Engineers & Scientists 4019 E Fowler Ave. Tampa, FL 33617 W (813)971-3882 F (813)971-1862

PROJECT ID:

Countryside

WORK ORDER:

2504106

DATE RECEIVED:

Thursday, June 15, 2006

Project Notes:

(†): Short Hold Time Analysis Date

Samples reported on dry weight basis

PEL Contact: Mark Gudnason / extension: 242

4420 Pendola Point Road • Tampa, Florida 33619 (813)247-2805 • FAX: (813)248-1537 Website: www.pelab.com

PEL Laboratories, Inc.

DATA QUALIFIER CODES

State of Florida, Department of Environmental Protection and Department of Health Rehabilitative Services / NELAC

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- **J** Estimated value; value not accurate. This code shall be used in the following instances:
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 - 3. The reported value did not meet the established quality control criteria for either precision or accuracy but falls within the NELAC marginal exceedance range
 - 3M.The reported value did not meet the established quality control criteria for either precision or accuracy and falls beyond the NELAC range for marginal exceedances.
 - 4. The sample matrix interfered with the ability to make an accurate determination.
 - 5. The data is questionable because of improper laboratory or field protocols (e.g. composite sample was collected instead of a grab sample).
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- V Indicates that the analyte was detected in both the sample and the associated method blank. Note: The value in the blank shall not be subtracted from associated samples.
- The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.

Client: HSA Engineers & Scientists

CASE NARRATIVE

PEL Lab Reference No./SDG: 2504106

I. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

II. ANALYSIS

A. Blanks:

All acceptance criteria were met with the exception of:

6010

Blank 215910 was analyzed with the water samples extracted on 06/16/06. The following analyte(s) were detected below RL: Arsenic at 3.67 ug/L.

B. Surrogates:

All acceptance criteria were met.

C. Spikes:

- 1. Laboratory Control Spikes (LCS)
 All percent recovery and relative percent difference (RPD) criteria were met.
- Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)
 No spikes requested by client.

D. Samples:

Sample analysis proceeded normally.

FLDOH #E84207

To: Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2504106

PROJECT ID:

Countryside

Collection Information:

PEL Lab#: 250410601

Client ID: MW-2 Matrix: W

Sample Date: 6/13/2006 2:05:00 PM

ND = Non Detect

Prep Dilution Analysis Parameter Results Date Date Units MDL. RL Factor Method Arsenic 6010 79.8 06/20/2006 20:50 06/16/2006 20:36 1.8 ug/L, 5

FLDOH #E84207

Brian Moore To:

HSA Engineers & Scientists

WORK ORDER: 2504106

PROJECT ID:

Countryside

Collection Information:

PEL Lab#: 250410602

Client ID: TW-14 Matrix: W

Sample Date: 6/13/2006 2:38:00 PM

ND = Non Detect

			Analysis	Prep				Dilution
Parameter	Method	Results	Date	Date	Units	MDL	RL	Factor
Arsenic	6010	5 ND	06/20/2006 21:10		ug/L	1.8	5	1

FLDOH #E84207

To: Brian Moore

Client ID:

Matrix:

HSA Engineers & Scientists

WORK ORDER: 2504106

PROJECT ID:

Countryside

PEL Lab#: 250410603

TW-15

Collection Information:

Sample Date: 6/13/2006 2:56:00 PM

ND = Non Detect

Analysis Prep Dilution Date Date Parameter Results Units MDL RL Factor Method Arsenic 6010 5 ND 06/20/2006 21:15 06/16/2006 20:36 ug/L 1.8 5

FLDOH #E84207

To: Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2504106

PROJECT ID:

Countryside

PEL Lab#: 250410604

Client ID: TW-16 Matrix: W

Collection Information:

Sample Date: 6/13/2006 1:14:00 PM

ND = Non Detect

			Analysis	Prep				Dilution
Parameter	Method	Results	Date	Date	Units	MDL	RL	Factor
Arsenic	6010	5 ND	06/20/2006 21:20	06/16/2006 20:36	ug/L	1.8	5	1



To: Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2504106

PROJECT ID: Countryside

QC SUMMARY

METHOD: 6010

Method Blank 215910

Matrix: WQ

Associated Lab Samples: 215910 215911 215912 250410601 250410602 250410603 250410604

Parameter	Results		lysis ate	Prep Date	Unit	s	RL		Dilution Factor
Arsenic	3.67 1	6/20/	2006	6/16/2006	ug/L	•	5		. 1
LABORATORY CONTROL	SAMPLE	215911		Matrix	*	WQ			
		SPIKE	LCS	SPIKE		% REC			RPD
PARAMETER	UNITS	CONC	RESUL	T % REC		LIMITS		RPD	LIMIT
Arsenic	ug/L	500	485	97		(80-120))		,
LABORATORY CONTROL	SAMPLE	215912		Matrix	:	WQ			
•		SPIKE	LCS	SPIKE		% REC			RPD
PARAMETER	UNITS	CONC	RESUL	Γ % REC		LIMITS		RPD	LIMIT
Arsenic	ug/L	500	486	97.2		(80-120))	0.2	20



To:

Brian Moore

HSA Engineers & Scientists

WORK ORDER: 2504106

PROJECT ID:

Countryside

Brian C Spann Digitally signed by Brian C. Spann DN: CN = Brian C. Spann, C = US Date 2006.06.22 13:54:10 -04'00'

Brian C. Spann David Cantillo Laboratory Manager Quality Assurance

Mark Gudnason

Senior Project Manager



A Member of the CRA Family of Companies 425 Cheney Highway, Titusville, FL 32780

1486-A Skees Road, West Palm Beach, FL 33411 (561) 688-9008 • Fax (561) 688-9005

(321) 269-9891 • Fax (321) 269-9872

4019 E. Fowler Ave., Tampa, FL 33617 (813) 971-3882 • Fax (813) 971-1862

23B Sheridan Park Circle, Bluffton, S.C. 29910 (843) 815-5120 • Fax (843) 815-5121 \(\frac{2}{3}\SO4/\ldot\text{\infty} = \xeta \text{\infty}\)

Remarks Project Notes 03 02 ST O \overline{Q} 3.60 60 to) यन्मव 10:00 デル Time /Jacky Time Time Time 06/15/02 Date Date Date Date Pres # of Bttls Fax Reports to:(\$13)971-1862 Due Date(TAT): 人と「ハロー Lab# Sampler's Initials: 1438 1456 Received By: Soft | 140S Received By: Date Time 1374 Received By Received By 1 Bill to: Project Mgr. Gas Moore Project: Country SIDE Relinquished By-Relinquished BX Relinquished By Relinduished By: 10-16 Client: HSA 718-15 TE-14 MW-J Station ID Project #: PO #:

SAMPLE RECEIPT CONFIRMATION SHEET

		Client	Information		
eno.	2504106	- TI-114		4740	
SDG:			Req:	1310	
Client:	HSA .		Project:	Generic	
Level:	1		Date Rec'd:	6/15/06 11:30:00	AM
Rec'd via:	courier		Due Date:	06/22/06	
		Sample	Verification	***************************************	
Samples/Cool	er Secure?	Yes	All Samples on COC	accounted For	Yes
Temperature o	of Samples(Celsius)	3.6	All Samples Rec'd In	tact?	Yes
pH Verified?		Yes	Sample Vol. Stuff. Fo	or Analysis?	Yes
pH WNL?		Yes	Samples Rec'd W/I H	old Time?	Yes
Soil Origin (De	omestic/Foreign):		Are All Samples to be	e Analyzed?	Yes
Site Location/	Project on COC?	Yes	Correct Sample Cont	ainers?	Yes
Client Project	# on COC?	Yes	COC Comments write	ten on COC?	Yes
Project Mgr. Ir	ndicated on COC?	Yes	Samplers Initials on	Yes	
COC relinquis	hed/Dated by Client?	Yes	Sample Date/Time In	Yes	
COC Received	I/Dated by PEL?	Yes	TAT Requested:	STD	
Specific Subc	ontract Indicated?	No	Client Requests Verb	al Results?	No ·
Samples Rece	eived By	courier	Client Requests Faxe	d Results?	No
PEL to Condu	ct ALL Analyses?	Yes]		
		Subconti	ract Analysis		
Parameter	Due Date	Via	Lab Na	me	Comments
PEER REVIEW		7	PM REVIEW:	MC	

Thursday, June 15, 2006

Page 1 of 1



Dear Valued Client:

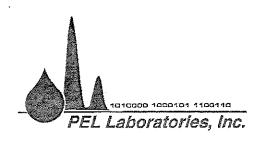
In order to meet the NELAC reporting requirements, as well as improve our final data packages, we have changed the reporting of results.

Effective February 1, 2006, ALL non-detect data that is below the MDL will be reported as "RL ND." Any positive detects between the MDL and RL will be reported and qualified with the FLDEP data qualifier code "I":

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

The reports will continue to list the MDL for each analyte and RL.

If you have any questions regarding this change, please contact your PEL Project Manager.



In Observance of Independence Day, PEL Laboratories will be closed Tuesday, July 4th.

As always, PEL will accommodate your needs whenever possible. Please notify us if arrangements need to be made.

Thank you for your cooperation.

4420 Pendola Point Road • Tampa, Florida 33619 [813] 247-2805 • FAX: [813] 248-1537



APPENDIX C

Copies of Potable Well Laboratory Analytical Results

SOUTHERN ANALYTICAL LABORATORIES, INC.

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677

B1 3-655-1844 fex 81 3-655-2218



City of Clearwater Water Department 1650 N. Arcturas Ave. Clearwater, FL 33765January 27, 2006 Project No: 56946

Laboratory Report

Project Name	Arset	ic Analyses					
Parameters	Units	Results	Method	Detection Limit	Date/Time Analyzed	Date/Time Prep	Analyst
Sample Description Matrix SAL Sample Number Date/Time Collected Date/Time Received	56946 01/23	Orlnking Water					
Metals							
Arsenic	mg/i	0.014	SM 3113 B	0.001	01/25/06 11:00	01/25/06 11:00	HLA
Sample Description Matrix SAL Sample Number Date/Time Collected Date/Time Received	56946 01/23	Drinking Water					
Metals	•						•
Arsenic	mg/l	0.013	SM 3113 B	0.001	01/25/06 11:00	01/25/06 11:00	AJH
Sample Description Matrix SAL Sample Number Date/Time Collected Dale/Time Received	56946 01/23	Orinking Water					
<u>Metals</u>							
Arsenic	mg/l	0.021	SM 3113 B	0.001	01/25/06 11:00	01/25/06 11:00	AJH

Public Supply wells ansenic

FDOH Laboratory No. E84129 NELAP Accredited

Page 1 of 3 Francis I. Daniels, Laboratory Director Leslie C. Boardman, Q. A. Manager



APPENDIX D

Complete Groundwater Sampling Data Sheets

SITE NAM	ME: COUNT	ryside IF Cou	execut	we	PROJECT N	UMBER: &	01598)	SITE LOCAT	TION: Cle	earwe	fer F	-7
WELLNO				SAMPLE		ωz	· · · · · · · · · · · · · · · · · · ·	DATE:	***		0.06	1	
Calibrated	Instruments i	efore sampli	ng yes no	Comment		T	Instruments a	after/durin	g sampling	yes no	Commen	ts .	
WELL DL (IN):	AMETER		TOTAL WEI (FT.);	L DEPTH		STATIC DI WATER (F	EPTH TO	5 7	SCREENED	INȚERVAL:	2-1		
WELL CA	PACITY (L/f	t):	[Well C	apacities (L	/fl): 0.5"=0.04,				2, 3'=1.4, 4'=2.4	6, 5'=3.86, 6'=.			?'=22.26]
Well vol	ите: Wei	Il Depth (ft)	- Depth	to water (j	v) =	=	X Well c	apacity (L	/ft) = We	II volume (L)			<u></u>
WELL VO	LUME:	17.8	Aft - 10.	57	ft =	4.70		· · · · ·	L/ft = 2	1,4113	Liters		······································
PURGE M			PURGE INIT				}		*	TOTAL VO		(Litare)	
# WELL V		a-CDICCOL 1	System volum		<u> </u>			+ cell vo		<u> </u>	e vol.=0.01 L		
PURC			SYSTEM VC				ft+1.0 L =		Liters	I'	OLUMES PU		
TIME	VOLUME PURGED	CUMUL. VOLUME PURGED (mL)	PURGE RATE (LPM)	DEPTH TO WATER (FT)	pH +/- 0.2 (SU)	TEMP. +/- 0.2 (°C)	COND. +/-5% (uS/cm)	TDS (mg/L)	DISSOLVED OXYGEN +/- 0.2 (mg/L)	TURBIDITY +/-5 (NTU)	ORP (mV)	COLOR	ODOR
415	2.75				5,36	35.5	1647		1.46	12.76	-94	elecar	Sulphus
1418	,50				5.37	1	1616		1.36	8,7-3	-196		/)
1421	150				5.37	35.5			1.34	1		9 %	1,1
1424	,50				5.37	75.7			1.32	4.30	-199	11	1,
							1000						
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		·····										 	
													<u> </u>
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***************************************						. 1							
													1
									<u> </u>		<u> </u>		
		Average Rate	***************************************	LPM	DO 20% Sat (mg/l)Temp: 1.	72 @ 23°, 1.68	8 @ 24°, 1.0	65 @ 25°, 1.62 @	26°, 1.59 @ 2	7°. 1.57 @ 28°	, 1.54 @ 29°,	1.51 @ 30°
0.11(0) 50	En El (Mars Va Imma					SAMPLIN	YG DATA			000		V)-	
AFFILIATI		156		well	e ti	lsa_	SAMPLER(•	TURE'S)	W.	fell		
			altic pr	, me D	SAMPLING	INITIATED	AT: 142	')	SAMPLING E	NOED AT:	142	7	
FIELD DEC	'ONTAMINA	ATION:	_ <i>O</i>	· N	FIELD-FILT	ERED:	Y	Ø_	DUPLICATE:		Y	<u>(19</u>	
SAMPL	E CONTAIN	ER SPECIF	ICATION		S	AMPLE PRI	ESERVATIO)N		INTENDE	D ANALYS	IS AND/OR	метнор
NO.	MATERIA	AL CODE	VOLUME		RVATIVE SED		OLUME AD FIELD (inL)	DED IN	FINALpH				
	Pi	=	250m1	HA	<i>1</i> 07					6010	S		
	PE	Ç	1 mage	# K	203					6070			

								·			w		
Remarks:			1	L-C		<u> </u>			l				
MATERIAL	CODES: AC	= AMBER	GLASŠ, CG =	CLEAR O	LASS, PE = I	POLYETHYL	ENE, O = O	THER (SP	ECIFY)				·

SITE NA	^{ΛΕ:} (ου	ntrys	140		PROJECT	NUMBER:			SITE LOCAT	TION: CL	earu	ater	E,
WELL NO		WIR		SAMPLE	ID:	MW	12	DATE:	06	05.06	5	<u> </u>	1 C
Calibrated	Instruments i	,	7	Comments	1	1	Instruments	after/durin	g sampling	yes-no	Commen	ts	
E .	AMETER	<i>/</i> 1	TOTAL WE	LL DEPTH	_ /	STATIC D		<i>r</i>	SCREENED	INTERVAL:		- 11.95	,
(IN): WELLCA	PACITY (L/)		(FT.):	11.98	~~~~~~~	 -	FT): 5:0		i2, 3'=1.4, 4'=2.4				
Well vo	,	ll Depth (ft)				=					1.30, 8'=9.88,	10'=15.44, 12	?'=22.26]
ļ				to water (f						ell volume (L)			
PURGEN	LUME: [1.93							L/ft = 4,		Liters	·····	
 		······································	PURGE INIT					+ cell vo	1406		vol.=0.01 L		
PUR	OLUMES SED:		SYSTEM VO		0.01 L/ft x		fi + 1.0 L =		Liters	# SYSTEM V			· · · · · · · · · · · · · · · · · · ·
TIME	VOLUME PURGED	CUMUL, VOLUME PURGED (tnL)	PURGE RATE (LPM)	DEPTH TO WATER (FT)	pH +/- 0.2 (SU)	TEMP. +/- 0,2 (°C)	COND. +/-5% (uS/cm)	TDS (mg/L)	DISSOLVED OXYGEN +/- 0.2 (mg/L)		<u> </u>	COLOR	ODOR
1334	4.50			5.18	5.63	6.36	1399		0.36	66.7	-122	Clasher	Sugnt
1357	4,50			 	5:59		1320		0.17	15.74	-189	dear	OCENC
1400	.25				উ ত্	26.2	1319		0.17	14.80	-193	fu	64
1403	.95				5159	6.96	1317		0.17	13.29	-171	• •	· ·
1406	2-5·			2.32	5.59	6.36	1322		0.16	13.15	-166	12	
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		<u> </u>					<u> </u>		<u> </u>			<u></u>	
		Average Rate		LPM	DO 20% Sat			8 @ 24°, 1.0	55 @ 25°, 1.62 @	! 26°, 1.59 @ 27	", 1.57 @ 28°	, I.S4 @ 29°,	1.51 @ 30°
SAMPLE	BY (PRINT	Y .				SAMPLI	NG DATA			11 12 1	7 1 2		
AFFILIAT			Grave	eue	if	SA	SAMPLER(S) SIGNA	TURE'S)	S/11/	XXX		
SAMPLIN	G METHOD		taltic p		SAMPLING	INITIATED	AT: 140	1	SAMPLINGE	NDED AT:	14/2		
	CONTAMIN		(2)	4-	FIELD-FILT	ERED:	Y	(M)	DUPLICATE:		Y	M	
SAMP	LE CONTAI	VER SPECIF	ICATION		5	SAMPLE PR	ESERVATIO	N		INTENDE	D ANALYS	IS AND/OR	METHOD
NO.		AL CODE	VOLUME		RVATIVE SED		/OLUME AD FIELD (mL)	DED IN	FINAL pH				
	P	E	Joseml	HN	102								
													
·													
	<u> </u>												
Remarks:													
MATERIA	CODES: A	G = AMBER	GLASS, CG	= CLEAR G	LASS, PE =	POLYETHY	LENE, $O = O$	THER (SP	ECIFY)				

SITE NAM	1E.	どっしかて	DY ≤10€	3	PROJECT 1	NUMBER:			SITE LOCATION:					
WELLNO	: - 73	1-14)		SAMPLE	ID:			DATE:	6/13/60					
Calibrated	Instruments	before sample	ing yes no	Comments	S	Calibrated	d Instruments	after/durin		yes no	Commen	ts		
WELL DIA (IN):	AMETER Z	TOTAL WELL DEPTH STATIC DEPTH TO SCREENED INTERVAL: (FT.): 15 WATER (FT): 8.32 SCREENED INTERVAL:												
WELLCA	PACITY (L/	ft):	[Well	Capacities (L	/fi): 0.5"=0.04,	0.75"=0.08,	1'=0.15, 1.5'=0	7.34, 2'=17.6	52, 3'=1.4, 4'=2.4	6, 5'=3.86, 6'=5	5.56, 8'=9.88,	10'=15.44, 12'	= 22.26]	
Well voli	ите: We	ll Depth (ft)	- Depti	n to water (f	?) =	=	X Well o	apacity (L	-/ft) = We	ell volume (L)	-			
WELL VO	LUME:	10	ft - B	34	ft =	1.60	ſt x	SJ.	L/ft =	Ó	Liters			
PURGEM	ETHOD:		PURGE INI	TIATED AT	: 142	5	PURGE EN	DED AT:	1436	36 TOTAL VOL. PURGED (Liters):				
# WELL V		es given so	System volur	nes: [Voi	. Tube (L/ft)	x Tube leng	1		lume (L)	·	vol.=0.01 L		k sarahan	
PURG	ED:	Markey (2 - 65)	SYSTEM V	OLUME:	0.01 L/ft x		ft + 1.0 L =		Liters	#SYSTEM V	OLUMES PU	RGED:		
TIME	VOLUME PURGED (mL)	I VOLUME	PURGE RATE (LPM)	DEPTH TO WATER (FT)	pH +/- 0.2 (SU)	TEMP. +/- 0.2 (°C)	COND. +/-5% (uS/cm)	TDS (mg/L)	DISSOLVED OXYGEN +/- 0.2 (mg/L)	TURBIDITY . +/-5 (NTU)	ORP (mV)	COLOR	ODOR	
1430	1000		255		458	209	136Z		1,37	18	-148	CHERL	n de	
1433	Goo		Park Service		4.49	25	1359		1.12	8.5	ッパくこ		-63MA	
1936	Goo				4-47	756	1357		1,05	7.1	154			
		KNW	Sec. 2016											
		IMC TA												
			652											
			rie. Politika diskutuar i											
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			<u> </u>										· · · · · · · · · · · · · · · · · · ·	

		4.140万安度												
		Average Rate		LPM	DO 30% Sat (mgrl)Temp: 1	.72 @ 23°, 1.68	@ 24°, 1,1	is @ 25°, 1.62 @	26 . 7.39 @ : 27	°, 1.57 @ 28°,	1.54 @ 29 ⁶ , 1	.51 @ 30°	
		h.				SAMPLI	NG DATA				/			
SAMPLED APFILIATIO	BY (PRINT) DN:	}	CA	V			SAMPLER(S	s) signa'	TURE'S) /			-		
Sampling	METHOD(S): -91	JB146		SAMPLING	INITIATED	AT: 143	38	SAMPLING ENDED AT:					
FIELD DEC	ONTAMIN.	ATION:	Υ	(N)	FIELD, FILTI	ERED:	Y	(N)	DUPLICATE:		Y'	$\overline{\mathbb{A}}$		
SAMPL	E CONTAIN	IER SPECIFI	CATION			·····	ESERVATIO	N		INTENDEL) ANALYSI	S AND/OR N	METHOD	
NO.	MATERIA	ALCODE	VOLUME		VATIVE SED		/OLUME AD FIELD (mL)	DED IN	FINAL pH	***************************************		-		
3	He		250m	H	403					ଚୋଠ	ARS	5N1C		
		:		·/		,,,							***************************************	
Remarks:														
MATERIAL (CODES: AC	G = AMBER	GLASS, CG =	= CLEAR G	LASS. PE = F	OI.YETHYL	LENE, O = 07	THER (SP)	ECIFY)					

					т						······································		
SITE NAM	E: -	TEN	COUNTRY	510E		SITE LOCATION:							
WELL NO:		1-16		SAMPLE		·		DATE:	6/13/0				
Calibrated I	Instruments b	efore sampli		Comments		Calibrated	instruments :	after/during	g sampling	yes no	Commen	ts	
WELL DIAMETER 2 TOTAL WELL DEPTH 10 STATIC DEPTH TO (FT.): WATER (FT): 7.60).(6	SCREENED	INTERVAL:	2-	7		
WELL CAI	PACITY (L/f	t):	[Well C	Capacities (L	/ft): 0.5"=0.04,	0.75"=0.08, 1	'=0.15, 1.5'=	0.34, 2'=0,6.	2, 3'=1.4, 4'=2.4	6, 5'=3.86, 6'=5	5.56, 8°=9.88,	10'=15.44, 12	2=22.26]
Well volu	une: We	ll Depth (fi)	- Depth	to water (f	?) =	=	X Well o	capacity (L	/fi) = We	ill volume (L)			
WELL VO	LUME:	10	ft - 7	60	ft =	2.4	ft x	(Z	L/ft = 🕴	.4	Liters		
PURGE MI	ETHOD:		PURGE INIT	TATED AT	: 136	Ö	PURGE EN	IDED AT:		TOTAL VOI	L. PURGED	(Liters):	
# WELL V			System volum	******	l. Tube (L/ʃl)	x Tube lengt	h (ft)]	+ cell voi	lume (L)	[1/4" tube	vol.=0.01 L	/ft]	\$470.00 ptg residence
PURG	ED:		SYSTEM VO	LUME:	0.01 L/ft x	Ţ	ft + 1.0 L =		Liters	# SYSTEM V	OLUMES PL	RGED:	
TIME	VOLUME PURGED (mL)	CUMUL. VOLUME PURGED (mL)	PURGE RATE (LPM)	DEPTH TO WATER (FT)	pH +/- 0.2 (SU)	TEMP. +/- 0.2 (°C)	COND. +/-5% (uS/cm)	TDS (mg/L)	DISSOLVED OXYGEN +/- 0.2 (mg/L)	TURBIDITY +/-5 (NTU)	ORP (mV)	COLOR	ODOR
1307	1400				4.89	270	793		,18	7.5	187		
130PD	Coo				490	27.0	798		.19	5-Z	185		
1313	600				गु.क	1つ.)	804		.15	5.1	181		
			3-60-50										
			Sec. 1985										,
					,							, \	
												lew	
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		65.76.36											
	,			***************************************								. ,	
												•	
													1
		a de conse									1		
		1.5											
		Average Rate		LPM	DO 211% Sat	.1	.72 @ 23°, 1.6	58 @ 24°, 1.0	65 @ 25°, 1.62 @	26°, 1.59 @ 2	7°, 1.57 @ 28	°. 1.54 @ 29°,	1.51 @ 30°
			L			SAMPLI	NG DATA			. 1/	/		
SAMPLED	BY (PRINT)	CA	Z			SAMPLER	(S) SIGNA	TURE'S) /	M			
SAMPLING	G METHOD	(S): Fi	1819 F		SAMPLING	INITIATED	AT: \\\		SAMPLING E	ENDED AT:	······································	***************************************	<u>,</u>
FIELD DEC	CONTAMIN	·····	Y	(1/1	FIELD-FILT		Y	(N)	DUPLICATE	:	Y	$\left(\mathbb{N} \right)$	······································
SAMPL	E CONTAI	VER SPECIF	FICATION		1	SAMPLE PR	ESERVATION	ON		INTENDE	ED ANALYS	SIS AND/OR	METHOD
NO.	MATERI	AL CODE	VOLUME	i	RVATIVE ISED	1	OLUME AI		FINALpH				
Î	Po	D-	ZSOML		Joa		. 1325 (110)			Golo	ARS	Fa)(C	
ļ <u> </u>	- ` `		0002	1941	<u> </u>					401-	7	200.	
						<u> </u>							
	 	····	 										
Remarks:	1	- Life Committee and the Committee of th		<u> </u>		<u> </u>				<u> </u>		······································	
ļ	CODEC. 4	C = AMDE	0 01 400 00	(TEID :	7/400 BB	DOI VETUU	FNF O - C	7 <i>71150 /</i> 05) #CIEVI				
MAIEKIAL	CODES: A	G = AMBER	GLASS, CG	≔ CLEAR (JLASS, PE =	PULIETHII	LEIVE, U = (JITEK (SP	ECIFI)				

SITE NAM	E:				PROJECT NUMBER:				SITE LOCATION:				
WELL NO:	TWOI	5		SAMPLE	ID: DATE:					06			
Calibrated I			ng yes no	Comments	3	Calibrated	Instruments	after/during					
WELL DIA	METER 2	}	TOTAL WEI (FT.):	L DEPTH	STATIC DEPTH TO 5.56 WATER (FT):				SCREENED	NTERVAL:		· · · · · · · · · · · · · · · · · · ·	
WELL CAP	ACITY (L/f	t):	[Well C	apacities (L	/ft): 0.5"=0.04,	0.75"=0.08, 1	''=0.15, 1.5'=	0.34, 2'=0.62	2, 3'=1.4, 4'=2.4	5, 5'=3.86, 6'=5	.56, 8'=9.88,	10'=15.44, 12	2'=22.26]
Well volu	me: We	l Depth (ft)	- Depth	to water (f	7) =	=	X Well	capacity (L	(ft) = We	ll volume (L)			
WELL VOI	LUME:		ft -		ft =	1.72			L/ft =	<u>, L</u>	Liters		
PURGE METHOD: PURGE INITIATE				TATED AT	: 2:2:	5	PURGE EN	NDED AT:	14:55	TOTAL VOL	PURGED	(Liters):	
# WELL ACCOMICS			System volum		I. Tube (L/ft)	x Tube lengi		+ cell vol		1	vol.=0.01 L		Nesses en en estado
PURG	ED:		SYSTEM VOLUME:		0.01 L/ft x	т	ft + 1.0 L	=	Liters	#SYSTEM V			
TIME	VOLUME PURGED (mL)	CUMUL. VOLUME PURGED (mL)	PURGE RATE (LPM)	DEPTH TO WATER (FT)	pH +/- 0.2 (SU)	TEMP. +/- 0.2 (°C)	COND. +/-5% (uS/cm)	TDS (mg/L)	DISSOLVED OXYGEN +/- 0.2 (mg/L)	TURBIDITY +/-5 (NTU)	ORP (mV)	COLOR	ODOR
14:42					5.91	26,8	375		0.61	25.1	-103		
14:48					5.89	26.8	386		0,51	9.40	-104		
14:51		ur grava.			5.42	26.9	383		0.51	7.71	-109		
14:54		1.010			5.93	26.9	384		0.52	6.68	-[1]		
		6.0.00											
		6.6.446											
		ele de cardo co sistemal											
		136											
				,									
		12 31 42 92	3 6 6 6 6						-				
		100 A			,								
									·				
		E 15 (88)											
		1000000					******						
]	Average Rate		LPM	DO 211% Sat	(mg/l)Temp: 1	.72 @ 23°, 1.0	.l	.L 65 @ 25°, 1.62 @] 26°, 1.59 @ 2.	1. 7°, 1.57 @ 28	°, 1.54 @ 29°,	1.51 @ 30°
							NG DATA		-W				
SAMPLED AFFILIATION	•)					SAMPLER	(S) SIGNA	TURE'S) /	Judgo	, Pa	Max	
SAMPLING	METHOD	(S):			SAMPLING	INITIATED	AT:	1:56	SAMPLING I	ENDED AT:	14:58	3	
FIELD DEC	CONTAMIN	ATION:	Y	N	FIELD-FILT	ERED:	Y	N	DUPLICATE		Y	N	
SAMPL	E CONTAI	NER SPECIF	ICATION			SAMPLE PR	ESERVATI	ON	<u> </u>	INTENDE	ED ANALYS	SIS AND/OR	METHOD
NIO	MATER	MI CODE	VOLUME	PRESE	ERVATIVE	TOTAL	VOLUME A	DDED IN	FINAL pH				
NO. MATERIAL CODE		VOLUME		JSED		FIELD (mL))	riivate piri		······································			
						<u> </u>					·····		
											W		
							······································			<u> </u>			
Remarks:				·									
MATERIAL	CODES: A	G = AMBER	GLASS, CG	= CLEAR	GLASS, PE =	POLYETHY	LENE, $O = 0$	OTHER (SP	PECIFY)				

SITE LOCATION:

PROJECT NUMBER:

SITE NAME:

WELL NO:	MWC	202		SAMPLE ID:					<u>6/13/0</u>	6				
Calibrated I	nstruments b	efore sampli	ng yes no	Comments	Comments Calibrated Instruments			after/during	sampling	yes no	Comment	3		
WELL DIA (IN):	METER 2		TOTAL WEL	LDEPTH		STATIC DI WATER (F	STATIC DEPTH TO SCREENED INTERVAL:							
WELLCAF	ACITY (L/ft	:):			(fi): 0.5"=0.04,				2, 3'=1.4, 4'=2.4	6, 5'=3.86, 6'=5	i.56, 8'=9.88,	10'=15.44, 12'	'=22.26J	
Well volu	Well volume: Well Depth (ft) - Depth to water (ft) = X Well capacity (L/ft) = Well volume (L)													
WELL VOI	LUME:		ft -		ft =	5.01	ft x		L/ft = '2					
PURGE ME	ETHOD:		PURGE INIT	IATED AT	: [2:1]	,	PURGE EN	DED AT:	14:04					
# WELL VOLUMES			System volum	es: [Vol	Tube (L/ft)	x Tube lengt	h (ft)]	+ cell voi	ume (L)	[1/4" tube	<i>(ft</i>]			
PURGED:			SYSTEM VC	LUME:	0.01 L/ft x	-	ft + 1.0 L =	=	Liters	# SYSTEM VOLUMES PURGED:				
TIME	VOLUME PURGED (mL)	CUMUL, VOLUME PURGED (mL)	PURGE RATE (LPM)	DEPTH TO WATER (FT)	pH +/- 0.2 (SU)	TEMP. +/- 0.2 (°C)	COND. +/-5% (uS/cm)	TDS (mg/L)	DISSOLVED OXYGEN +/- 0.2 (mg/L)	TURBIDITY +/-5 (NTU)	ORP (mV)	COLOR	ODOR	
12:30					6.04	26.4	831		1.43	93.0	-50	Cloudy	None	
12:33					6,03	26.3	840		1.36	91.1	-49	P		
12:36				***************************************	6.03	26,2	839		1,31	89.4	-43			
12:45					6.04	26.2			1.04	79.7	-43			
13:00			NE 012 97		6,01	26,2	831		0.78	62.5	-50	,		
13:10					6.00	25.9	840		0.62	55.4	-160			
13:20			2500		6.05	25.9	820		0.62	46,2	-81	Clear		
13:25					6.03	26.0	852		0.48	41.1	-73		-	
13:35					6.02	26,7	829		0.31	27.7	-77			
13:40					5.97	26.5	853		0.28	23,3	-76			
13:45					5.94	26.3	811		0,27	21,7	-103			
13:51					5,97	26,3	831		0.28	24.8	-89			
13:56	,				5,97	26.3	838		0.28	32,8	-75			
14:04					5.97	26.4	830		0.29	19.41	-70			
													·	
		Average Rate		LPM	DO 20% Sat ((mg/l)Temp: 1.	72 @ 23°, 1.6	8 @ 24°, 1.6	is @ 25°, 1.62 @	26°, 1.59 @ 27	7°, 1.57 @ 28°,	1.54 @ 29°,	1.51 @ 30°	
						SAMPLII	NG DATA	***************************************						
SAMPLED AFFILIATION	BY (PRINT) ON:)					SAMPLER(S) SIGNA	TURE'S)					
SAMPLING	METHOD(S):			SAMPLING	INITIATED	AT: 14;	05	SAMPLING E	ENDED AT:	14:07			
FIELD DEC	ONTAMIN	ATION:	Y	N	FIELD-FILT	ERED:	Y	Ν	DUPLICATE:		Υ	N		
SAMPL	E CONTAIN	VER SPECIF	ICATION		S	SAMPLE PR	ESERVATIO)N		INTENDE	D ANALYSI	S AND/OR	METHOD	
NO.	MATERL	AL CODE	VOLUME		RVATIVE SED		OLUME AD	DED IN	FINALpH					
					~									
Remarks:						<u>* · · · · · · · · · · · · · · · · · · ·</u>								
MATERIAL	CODES: A	G = AMBER	GLASS, CG	= CLEAR C	FLASS, PE =	POLYETHYL	.ENE, O = C	THER (SP	ECIFY)					

SITE NAM	E:				PROJECT N	UMBER:	MBER: SITE LOCATION:						·	
WELL NO:	TWOI	Q		SAMPLE	ID:		DATE:							
Calibrated I	nstruments b	efore samplii	ng yes no	Comments		Calibrated	Calibrated Instruments after/during sampling yes no Comments							
	METER 1		TOTAL WEL	LDEPTH	6.41		STATIC DEPTH TO SCREENED INTERVAL:							
(IN): WELL CAI	ACITY (L/fi	:):	<u></u>						?, 3'=1.4, 4'=2.4	s, 5'=3.86, 6'=5	.56, 8'=9.88,	10'=15.44, 12'	=22.261	
Well volu		l Depth (ft)		to water (fi				apacity (L		ll volume (L)				
WELL VO			ft -			3.96	ft x 0;				Liters			
PURGEMI		,	PURGE INIT	IATED AT			PURGE EN			TOTAL VOL		(Liters):	geria iku ka	
			System volum		. Tube (L/fi)		<u></u>	+ cell vol		<u> </u>	vol.=0,01 L			
# WELL VOLUMES PURGED:			SYSTEM VO	LUME:	0.01 L/ft x		ft + 1.0 L =	,	Liters	# SYSTEM V	OLUMES PU	RGED:		
	VOLUME	CUMUL.	PURGE	DEPTH	рН	темр.	COND.		DISSOLVED	TURBIDITY	O.P.D.			
TIME	PURGED	VOLUME PURGED	RATE	TO WATER	+/- 0.2	+/- 0.2	+/-5%	TDS (mg/L)	+/- 0.2	+/-5 (NTU)	ORP (mV)	COLOR	ODOR	
	(mL)	(mL)	(LPM)	(FT)	(SU)	(°C)	(uS/cm)		(mg/L)				2.0	
11:20		100000	155.0		6.38	27.4	2496		1.68	35.7	102	cleady	None	
11123	- 				6.41	27.5	2438		1.53	32.2	102			
11:26	×		ur Turcijani.		6.41	27.4	2397		1,25	29.4	94			
11:39					6.43	27.3	2335		1,07	21.3	92			
11:32					6.44	27.5	3388		0.97	17.43	89			
11:35	3				6.46	27.6	2271		0.87	15.46	89			
11:38			20 No. 10 No		6.46	21.1	2241		0.11	14.49	97			
11:41					6.45	27,6	2203		0.67	13,41	97	4:		
11:44					6.45	27.6	2179		0.61	10.78	91	Clear		
11:47		9 5			6.45	27.6	2143		0.54	9.26				
11:50					6.46	27.7	2118		0.49	9,13	80		·	
		2,031 (504)040												
							-		<u> </u>					
ļ		3 6 6												
							1		(5.0.310.1.63.6		1	0 1 6 4 6 2 24 2	1.51.60.240	
		Average Rate	<u> </u>	LPM	DO 20% Sat			8 (d) 24°, 1.6	65 @ 25°, 1.62 @	y 26", 1.39 (W 27	/*, 1.37 @ 28	*, 1.34 @ 29°,	1.51 @ 30*	
CAMPIED	ייואופט עק ו	`				SAMPLI	NG DATA				<u></u>			
AFFILIATI	BY (PRINT ION:)					SAMPLER	(S) SIGNA	TURE'S)	uskeev	Pust	ar		
SAMPLING	G METHOD	(S):			SAMPLING	INITIATED	AT: { }	52	SAMPLING I	ENDED AT:	11:54			
FIELD DE	CONTAMIN	ATION:	Y	N	FIELD-FILT	ERED:	. A	N	DUPLICATE		Υ	Ν		
SAMPI	LE CONTAIN	VER SPECIF	ICATION			SAMPLE PR	ESERVATION	NC	-	INTENDE	D ANALYS	SIS AND/OR	METHOD	
NO.	MATERI	ALCODE	VOLUME	į.	RVATIVE		VOLUME AI	DDED IN	FINALpH					
					ISED		FIELD (mL)		<u> </u>				10124	
		······································					-						<u></u>	
														
ļ											······································			
						<u> </u>								
Remarks:			1	<u> </u>					1		· · · · · · · · · · · · · · · · · · ·			
<u></u>	COPPL	C = 4140 ED	GLASS, CG	- CIEID	21 400 DE	DOI VETTIV	I FNF O - C	THED /CE	PRCIEVI					
MALEKUAL	CODES. A	G - AMBEK	. GLADD, CU	- CLEAK (JLADO, FE =	LOUIGIUI.	LLIVE, O - C	THER (SF	2,011-17					

SITENAM	E:			PROJECT NUMBER:					SITE LOCATION:					
WELL NO:					EID: Pond (Maintance Blaspate:			6/13/06						
Calibrated	Instruments b	efore sampli	ng yes no	1 1			d Instruments after/during sampling			yes no Comments				
WELL DIA	METER		TOTAL WEL (FT.):	L DEPTH		STATIC D WATER (F			SCREENED INTERVAL:					
WELL CA	PACITY (L/f	t):	[Well C	apaciti es (L	/ft): 0.5"=0.04,	0.75"=0.08,	1'=0.15, 1.5'=0	0.34, 2'=0.6	2, 3'=1.4, 4'=2.4	6, 5'=3.86, 6'=5.	56, 8'=9.8X,	10'=15.44, 1.	2'=22.26]	
Well vol	ume. Wei	l Depth (ft)	- Depth	to water (f	9) =	•	X Well o	capacity (L	/fi) = We	ll volume (L)				
WELL VO	LUME:		ft -		ft =		ft x		L/ft =		Liters			
PURGE M	PURGE METHOD: PURGE			IATED AT	Γ:		PURGE EN	IDED AT:		TOTAL VOL	. PURGED	(Liters):		
# WELL VOLUMES PURGED:		System volum SYSTEM VC		<i>l, Tube (L/ft)</i> 0.01 L/ft x	x Tube leng	$\frac{cth(fl)}{tt+1.0 L} + \frac{cell\ vo}{t}$		<i>lume (L)</i> Liters	[1/4" tube vol. =0.01 L/ft] # SYSTEM VOLUMES PURGED:					
TIME	VOLUME PURGED (mL)	CUMUL, VOLUME PURGED (mL)	PURGE RATE (LPM)	DEPTH TO WATER (FT)	pH +/- 0.2 (SU)	TEMP. +/- 0.2 (°C)	COND. +/-5% (uS/cm)	TDS (mg/L)	DISSOLVED OXYGEN +/- 0.2 (mg/L)	TURBIDITY +/-5 (NTU)	ORP (mV)	COLOR	ODOR	
					<u> </u>								<u> </u>	
		Average Rate	L	LPM	DO 20% Sat			58 @ 24°, 1.	65 @ 25°, 1.62 @) 26°, 1.59 @ 27	°, 1.57 @ 28	°, 1.54 @ 29°,	1.51 @ 30°	
						SAMPLI	NG DATA							
AFFILIAT) BY (PRINT ION:)					SAMPLER	(S) SIGNA	TURE'S)					
SAMPLIN	G METHOD	S):			SAMPLING	INITIATED	AT: 10	:29	SAMPLING E	ENDED AT:	10:31		***************************************	
FIELD DE	CONTAMIN	ATION:	Y	N	FIELD-FILT	ERED:	Y	N	DUPLICATE		Y	И .	•	
SAMPI	LE CONTAIN	VER SPECIF	ICATION			SAMPLE PR	ESERVATION	ИС		INTENDÈ	D ANALYS	is and/or	METHOD	
NO.	MATERI	AL CODE	VOLUME	f	RVATIVE JSED	1	VOLUME AI FIELD (mL)		FINAL pH		***************************************			
							-	J						
-					***************************************									
												,		
Remarks:		<u> </u>	*			1			1.	•				
MATERIAL	. CODES: A	G = AMBER	GLASS, CG	= CLEAR (GLASS, PE =	POLYETHY	LENE, O = C	OTHER (SF	PECIFY)					



APPENDIX E

Complete Soil Sampling Data Sheets



PROJECT NUMBER	PROJECT NAME	DATE/TIME	VISITORS		
60-1-5982-00	Countryside	5-30-06/13:11	None		
SAMPLING METHOD	DECON METHOD	DUPLICATE	SAMPLER		
Hand auger	Field	None	J. Gravelle		
	PROJECT ADI	DRESS			
2506 Countryside Boulevard Clearwater Pinellas					
(STREET) (CITY)		· (C	COUNTY)		

		GRAB SAMPLE	ar •	
SAMPLE ID	LOCATION	DEPTH	ODOR	DESCRIPTION
MW-2 South	10' south of MW-2	0-6 inches bls	None	Grayish brown fine sand
		·		

	LABORATORY ANALYSIS						
SAMPLE CONTAINER CONTAINER PRESERVATE ANALYSIS DESCRIPTION SUPPLIER-LOT# TYPE/SOURCE							
Arsenic	2 oz. Clear glass	PEL	None				



PROJECT NUMBER	PROJECT NAME	DATE/TIME	VISITORS		
60-1-5982-00	Countryside	5-30-06/12:41	None		
SAMPLING METHOD	DECON METHOD	DUPLICATE	SAMPLER		
Hand auger	ger Field None J. Gra				
PROJECT ADDRESS					
2506 Countryside Boulevard Clearwater Pinellas					
(STREET) (CITY) (COUNTY)					

GRAB SAMPLE					
SAMPLE ID	LOCATION	DEPTH	ODOR	DESCRIPTION	
MW-2 North	10' north of MW-2	0-6 inches bls	None	Grayish brown fine sand	
		·			

	LABORATORY ANALYSIS						
SAMPLE CONTAINER CONTAINER PRESERVA ANALYSIS DESCRIPTION SUPPLIER-LOT# TYPE/SOUR							
Arsenic	2 oz. Clear glass	PEL	None				



2506 Countryside (STREET)	Boulevard Clearwat (CITY)		inellas OUNTY)		
PROJECT ADDRESS					
Hand auger	Field	None	J. Gravelle		
SAMPLING METHOD	DECON METHOD	DUPLICATE	SAMPLER		
60-1-5982-00	Countryside	5-30-06/12:53	None		
PROJECT NUMBER	PROJECT NAME	DATE/TIME	VISITORS		

		GRAB SAMPLE		
SAMPLE ID	LOCATION	DEPTH	ODOR	DESCRIPTION
MW-2 East	10' east of MW-2	0-6 inches bls	None	Grayish brown fine sand
			· · · · · · · · · · · · · · · · · · ·	

AINER LIPTION	CONTAINER SUPPLIER-LOT#	PRESERVATIVE TYPE/SOURCE/pH
1		
ear glass	PEL	None



(STREET) (CITY)		(((COUNTY)		
2506 Countryside Boulevard Clearwater Pinellas					
PROJECT ADDRESS					
Hand auger	Field	None	J. Gravelle		
SAMPLING METHOD	DECON METHOD	DUPLICATE	SAMPLER		
60-1-5982-00	Countryside	5-30-06/12:13	None		
PROJECT NUMBER	PROJECT NAME	DATE/TIME	VISITORS		

		GRAB SAMPLE		
SAMPLE ID	LOCATION	DEPTH	ODOR	DESCRIPTION
MW-2 West	10' west of MW-2	0-6 inches bls	None	Grayish brown fine sand
				,
· · · · · · · · · · · · · · · · · · ·	1000			
				

	LABORATORY ANALYSIS						
SAMPLE CONTAINER CONTAINER PRESERV ANALYSIS DESCRIPTION SUPPLIER-LOT# TYPE/SOU							
Arsenic	Arsenic 2 oz. Clear glass		None				



PROJECT NUMBER	PROJECT NAME	DATE/TIME	VISITORS			
60-1-5982-00	Countryside	5-31-06/12:35	None			
SAMPLING METHOD	DECON METHOD	DUPLICATE	SAMPLER			
Hand auger	Field	None	C. Krieter			
	PROJECT ADDRESS					
2506 Countryside	2506 Countryside Boulevard Clearwater Pinellas					
(STREET)	(CITY)	((COUNTY)			

GRAB SAMPLE					
SAMPLE ID	LOCATION	DEPTH	ODOR	DESCRIPTION	
SB-1	20' northeast of maintenance bldg	0-6" bls	None	Brown fine sand	
		`			

	LABORATOI	RY ANALYSIS			
SAMPLE ANALYSIS	CONTAINER TRESER				
8151/8081	51/8081 4 oz. Clear glass PEL		None		



PROJECT NUMBER	PROJECT NAME	DATE/TIME	VISITORS		
60-1-5982-00	Countryside	5-31-06/13:05	None		
SAMPLING METHOD	DECON METHOD	DUPLICATE	SAMPLER		
Hand auger	Field	None	C. Krieter		
	PROJECT ADI	DRESS			
2506 Countryside	2506 Countryside Boulevard Clearwater Pinellas				
(STREET) (CITY)		(C	OUNTY)		

GRAB SAMPLE					
SAMPLE ID	LOCATION	DEPTH	ODOR	DESCRIPTION	
SB-2	20' southeast of maintenance bldg	0-6" bls	None	Brown fine sand	
·					
		~~~			
				d	

	LABORATORY ANALYSIS						
SAMPLE CONTAINER CONTAINER PRESERVA ANALYSIS DESCRIPTION SUPPLIER-LOT# TYPE/SOUR							
8151/8081	8151/8081 4 oz. Clear glass PEL		None				
	4						



PROJECT NUMBER	PROJECT NAME	DATE/TIME	VISITORS		
60-1-5982-00	Countryside	5-31-06/12:55	None		
SAMPLING METHOD	DECON METHOD	DUPLICATE	SAMPLER		
Hand auger	Field	None	C. Krieter		
	PROJECT AD	DRESS			
2506 Countryside	2506 Countryside Boulevard Clearwater Pinellas				
(STREET)	(C	OUNTY)			

GRAB SAMPLE					
SAMPLE ID	LOCATION	DEPTH	ODOR	DESCRIPTION	
SB-3	20' southwest of maintenance bldg	0-6" bls	None	Brown fine sand	

	LABORATORY ANALYSIS						
SAMPLE CONTAINER CONTAINER PRESER ANALYSIS DESCRIPTION SUPPLIER-LOT# TYPE/SO							
8151/8081	4 oz. Clear glass	PEL	None				



PROJECT NUMBER	PROJECT NAME	DATE/TIME	VISITORS		
60-1-5982-00	Countryside	5-31-06/12:45	None		
SAMPLING METHOD	DECON METHOD	DUPLICATE	SAMPLER		
Hand auger	Field	None	C. Krieter		
	PROJECT ADI	DRESS			
2506 Countryside	2506 Countryside Boulevard Clearwater Pinellas				
(STREET)	(CITY)	(COUNTY)			

		GRAB SAMPLE		
SAMPLE ID	LOCATION	DEPTH	ODOR	DESCRIPTION
SB-4	20' northwest of maintenance bldg	0-6" bls	None	Brown fine sand
		7		
~~~				

LABORATORY ANALYSIS								
SAMPLE ANALYSIS	CONTAINER DESCRIPTION	CONTAINER SUPPLIER-LOT#	PRESERVATIVE TYPE/SOURCE/pH					
8151/8081	4 oz. Clear glass	PEL	None					



APPENDIX F

Monitoring Well Construction Details



MONITORING WELL COMPLETION REPORT

Project Name	Countryside	Project Number 601-5982	Date Installed	6/5/2006	Well#MW-IR	
Installation Supervised by	J. Gravelle	Well Location Replacement for MW-1				
Ground Elevation	· · · · · · · · · · · · · · · · · · ·	Water Le	vel Measurement Fro	m Top of Casing		
Well Development Data_		Method		Volum	ne Purged	
Drilling Method	Hand Auge	r	Top of Casing Elevation (Measuring Point)			
Driller_	HSA	Well Head I	Finish Type	A 🔲 в		
A: Concrete Pad with Locking Protective Cover	В: С	oncrete Pad with Locking Cap - N protective Cover	0	C: Flush - Steel Manh Locking Cap	ole with	
Vell Casing Size and Type		-	Depth (ft.)	SOIL F	ROFILE	
1.5	4	Seal Type				
12		Seal Type 30/65 Sand				
	-	Filter Pack Type 20/30 silica				
	3	Screen Type 0.010-slot				



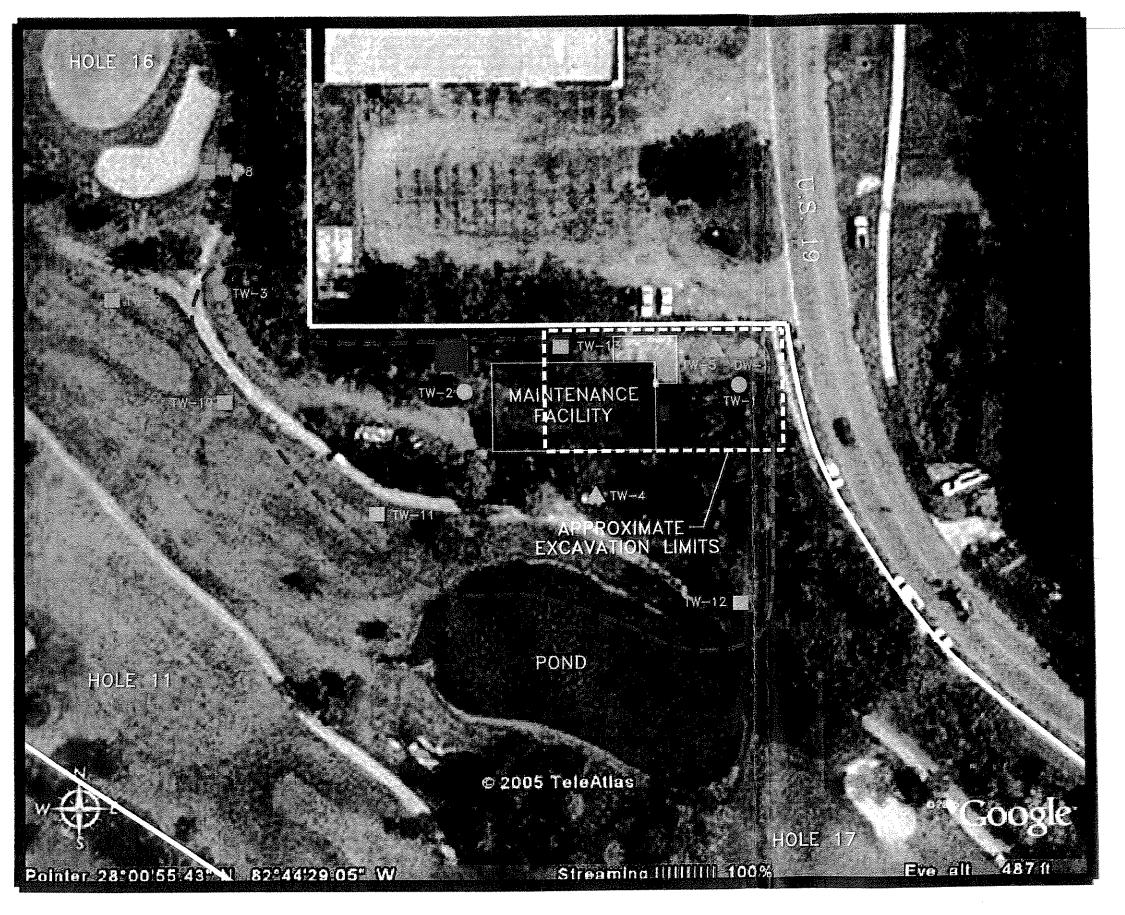
MONITORING WELL COMPLETION REPORT

Project Name Countryside	Project Number 601-5982	Date Installed	6/13/2006	Well # TW-15	
Installation Supervised by C. Krieter	Well Location	·	outheast of MW-2		
Ground Elevation	Water Leve	el Measurement Fro	om Top of Casing		
Well Development Data	Method	Volume Purged			
Drilling Method Hand	Auger	Top of Casing Elevation (Measuring Point)			
Driller H	SA Well Head Fi	nish Type	а 🗆 в 🗆 с 🗆		
A: Concrete Pad with Locking Protective Cover	B: Concrete Pad with Locking Cap - No protective Cover		C; Flush - Steel Manh Locking Cap		
Telf Casing Size and Type	· .	Depth (ft.)	SOIL I	PROFILE	
1.5	Seal Type				
12	Seal Type 30/65 Sand				
	Filter Pack Type 20/30 silica				
	Screen Type 0.0.10-slot				

SHET TIME

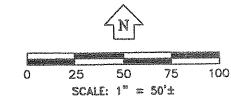
SOIL EXCAVATION PLAN

figure 6



<u>LEGEND</u>

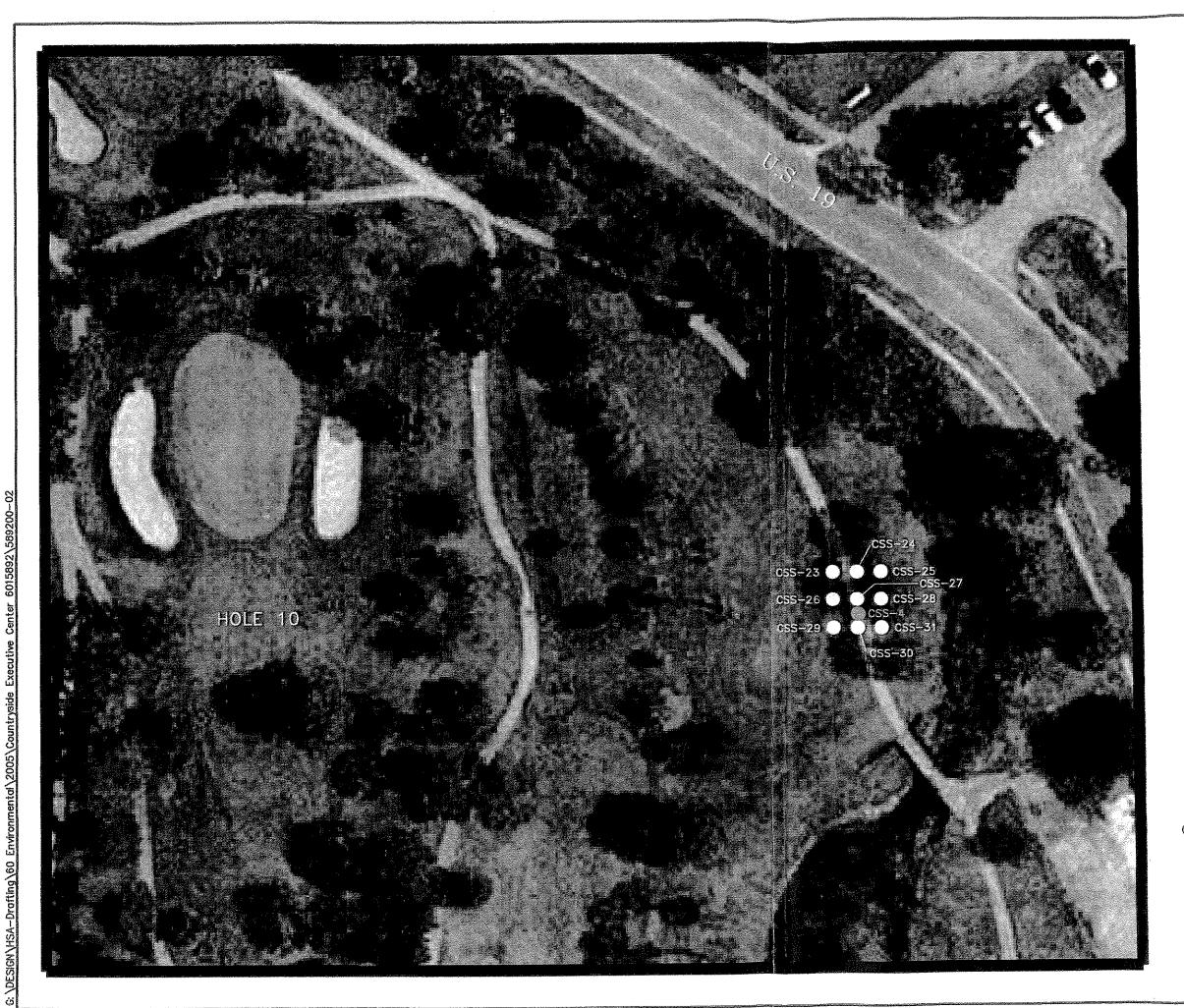
- AST ABOVEGROUND STORAGE TANK LOCATION
 - TEMPORARY MONITOR WELL LOCATIONS (TW-1-TW-3) INSTALLED AUGUST 27, 2004
 - TEMPORARY MONITOR WELL LOCATIONS
 (TW-4-TW-7) INSTALLED
 OCTOBER 6, 2004
 - TEMPORARY MONITOR WELL LOCATIONS
 (TW-8-TW-13) INSTALLED
 NOVEMBER 12, 2004
 - DEEP MONITOR WELL LOCATION (DW-1) INSTALLED JULY 5, 2005
 - APPROXIMATE EXTENT OF ARSENIC GROUNDWATER IMPACTS ABOVE THE GROUNDWATER CLEAN UP TARGET LEVEL (GCTL) AS ESTABLISHED IN CHAPTER 62-777, F.A.C.



DRAWN

SHEET TITLE SOIL SAMPLING LOCATION PLAN (CART PATH)

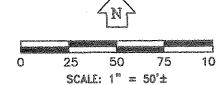
FIGURE 4C



LEGEND

SOIL SAMPLE LOCATIONS (CSS-4)
TAKEN AUGUST 26, 2004

SOIL SAMPLE LOCATIONS (CSS-23-CSS-31) STAKEN OCTOBER 1-7, 2004



SBW

DESIGNED SHEET TITLE

GROUNDWATER
SAMPLING
LOCATION PLAN
(SITE-WIDE)

350

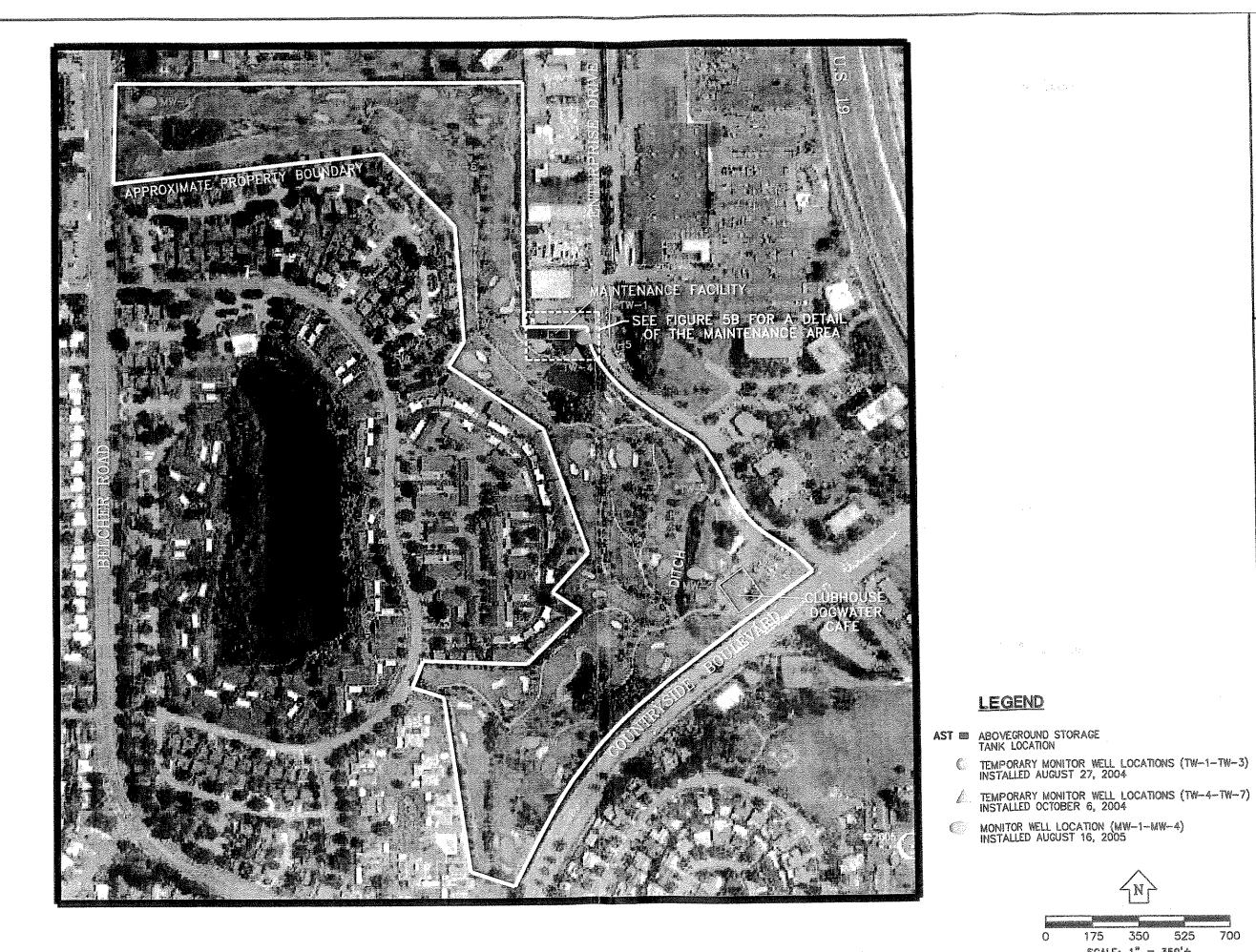
SCALE: 1" = 350'±

175

525

700

FIGURE 5A



<u>LEGEND</u>

TANK LOCATION

OCTOBER 6, 2004

TEMPORARY MONITOR WELL LOCATIONS (TW-1-TW-3) INSTALLED AUGUST 27, 2004

TEMPORARY MONITOR WELL LOCATIONS (TW-4-TW-7) INSTALLED

DEEP MONITOR WELL LOCATION (DW-1) INSTALLED JULY 5, 2005

APPROXIMATE EXTENT OF ARSENIC GROUNDWATER IMPACTS ABOVE THE

GROUNDWATER CLEAN UP TARGET LEVEL (GCTL) AS ESTABLISHED IN CHAPTER 62-777, F.A.C.

50

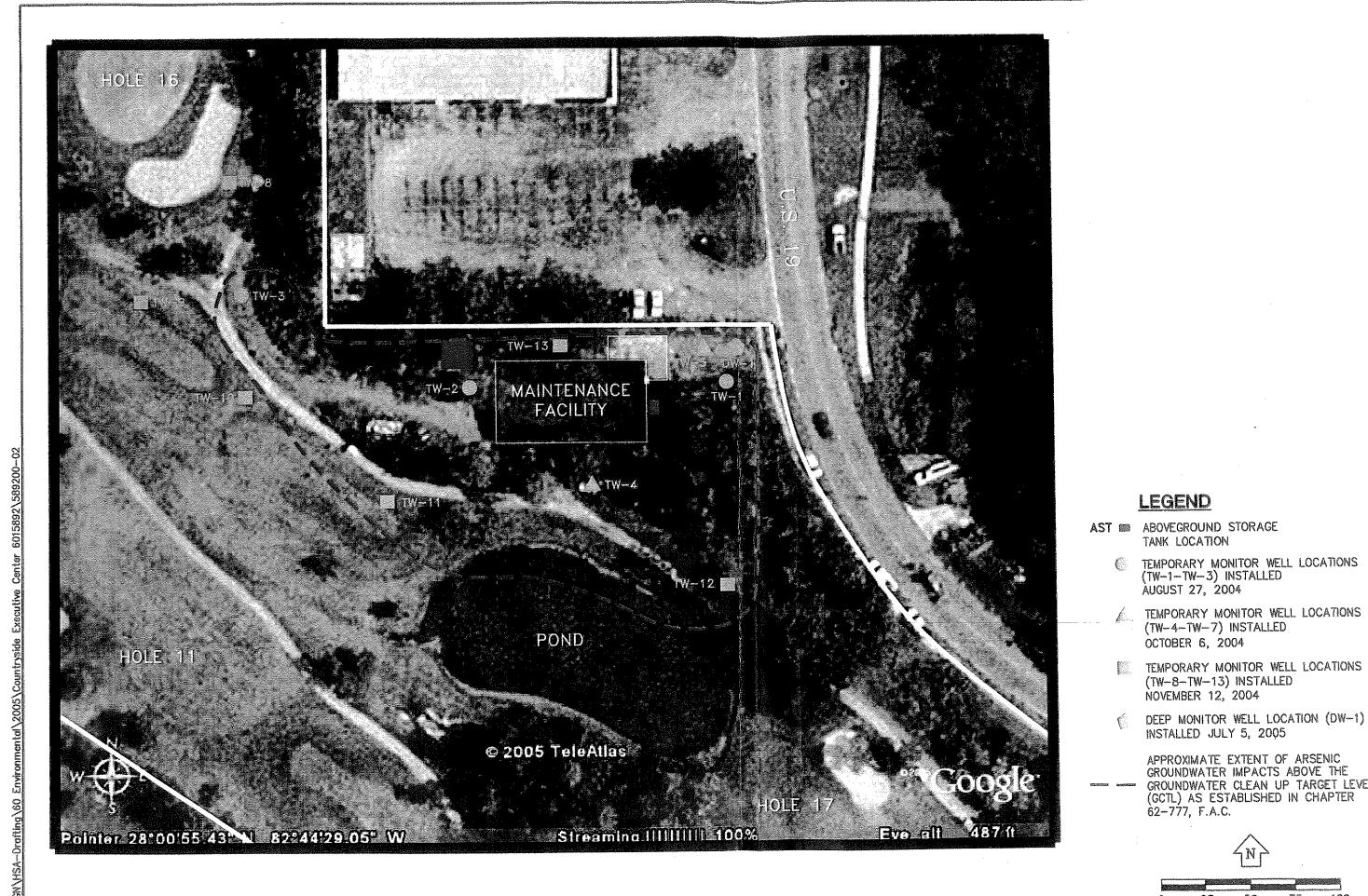
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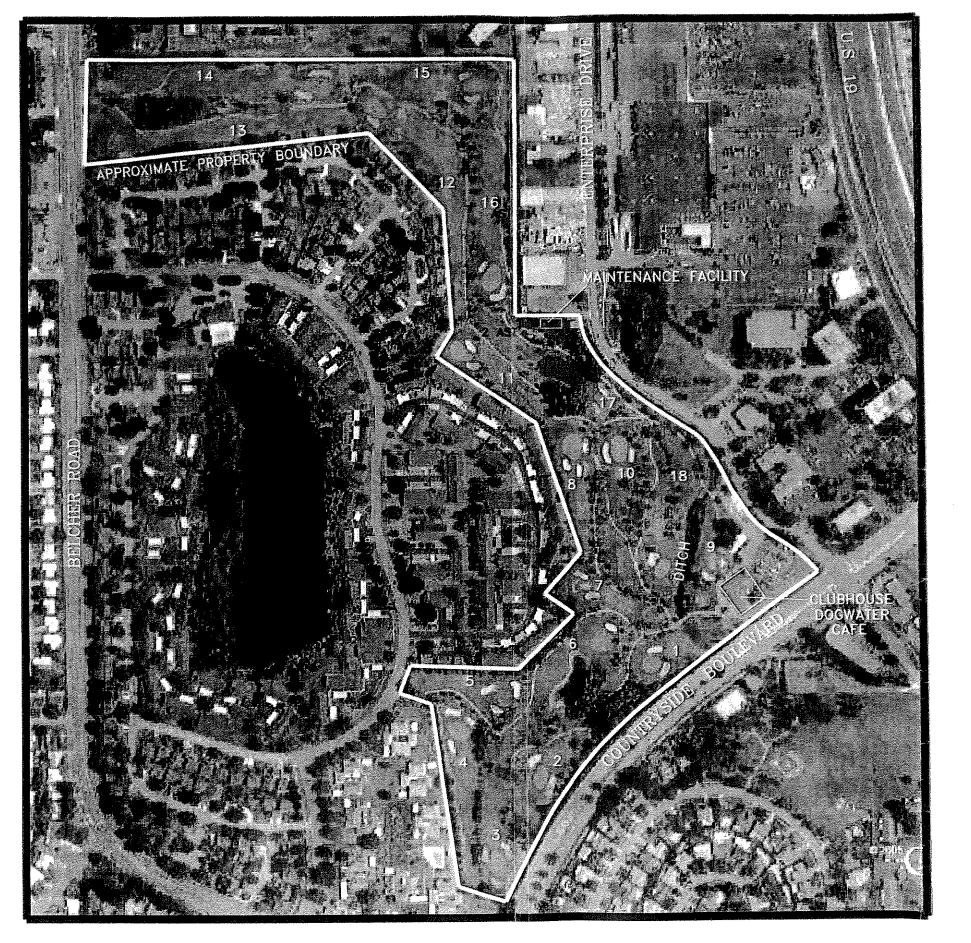
75

601598200 NAM

DRAWN sheet title GROUNDWATER SAMPLING LOCATION PLAN (MAINTENANCE

FACILITY) FIGURE 5B





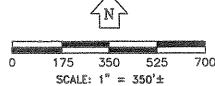


<u>LEGEND</u>

AST BOVEGROUND STORAGE TANK LOCATION

NOTE:

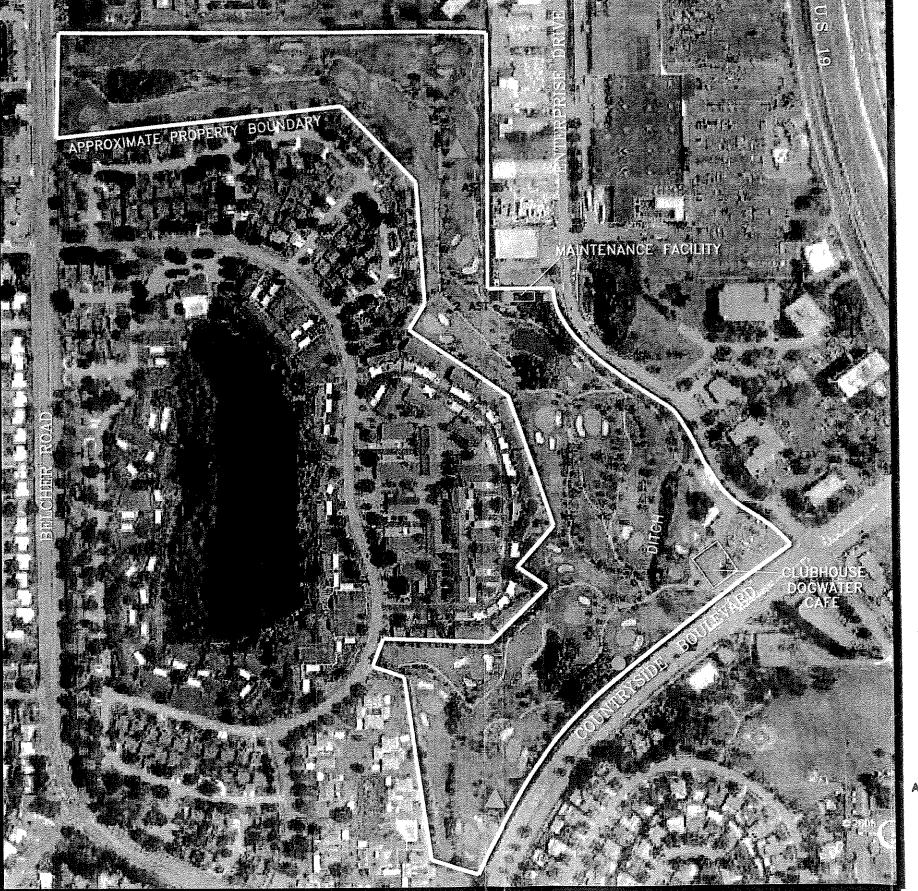
NUMBERS DENOTE HOLE LOCATIONS



COUNTRYSIDE EXECUTIVE GOLF COURSE
2506 COUNTRYSIDE BOULEVARD
CLEARWATER, FLORIDA
704 (813) 977-3882

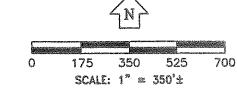
FIGURE 2

site Plan



LEGEND

- AST M ABOVEGROUND STORAGE TANK LOCATION
 - IRRIGATION WELL LOCATION
 - CITY OF CLEARWATER WELL LOCATION



COUNTRYSIDE EXECUTIVE GOLF COURSE 2506 COUNTRYSIDE BOULEVARD CLEARWATER, FLORIDA

DRAWN SHEET TITLE

WELL LOCATION MAP

figure 3

350

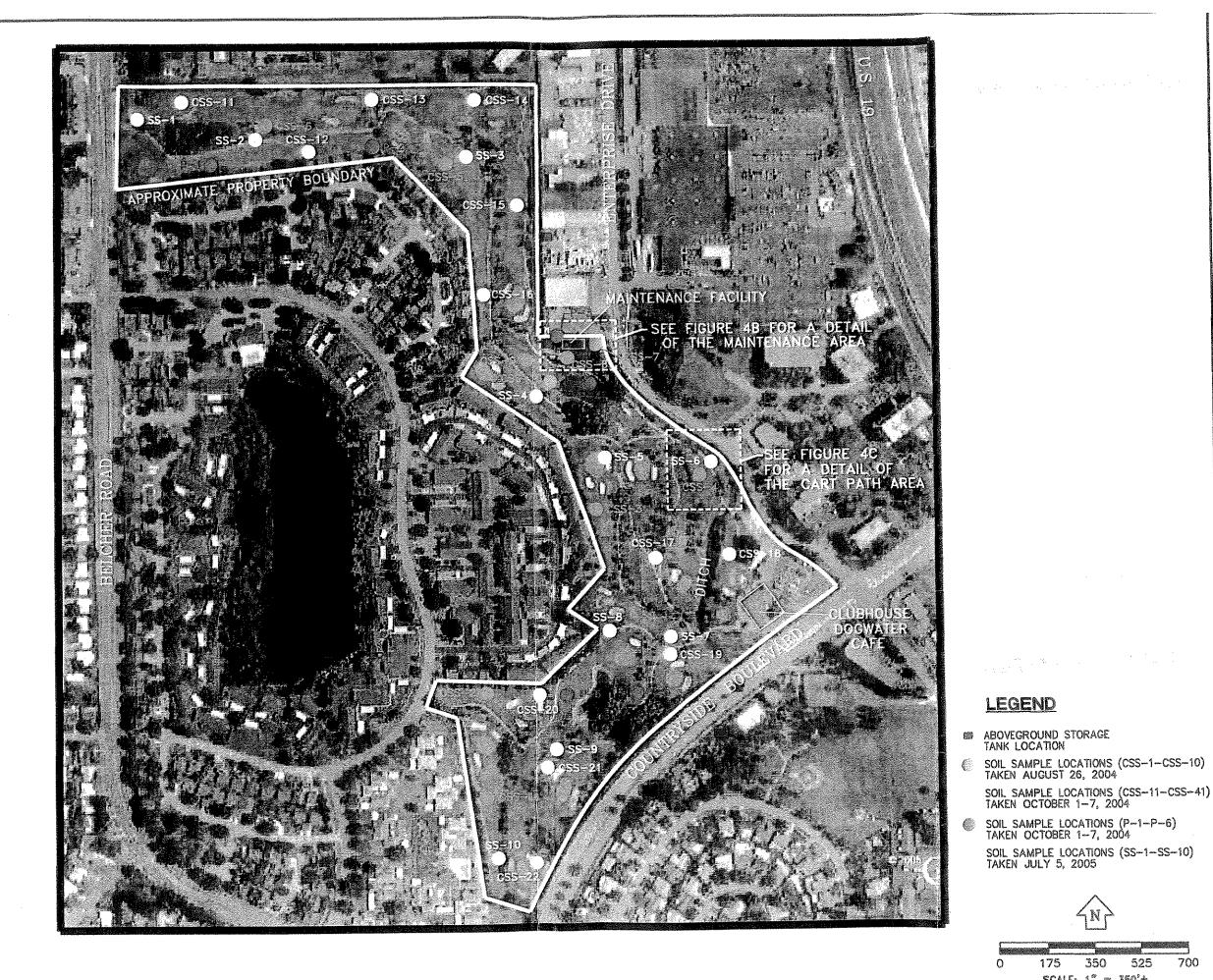
SCALE: 1" = 350'±

175

525

SHEET TITLE SOIL SAMPLING LOCATION PLAN (SITE-WIDE)

FIGURE 4A

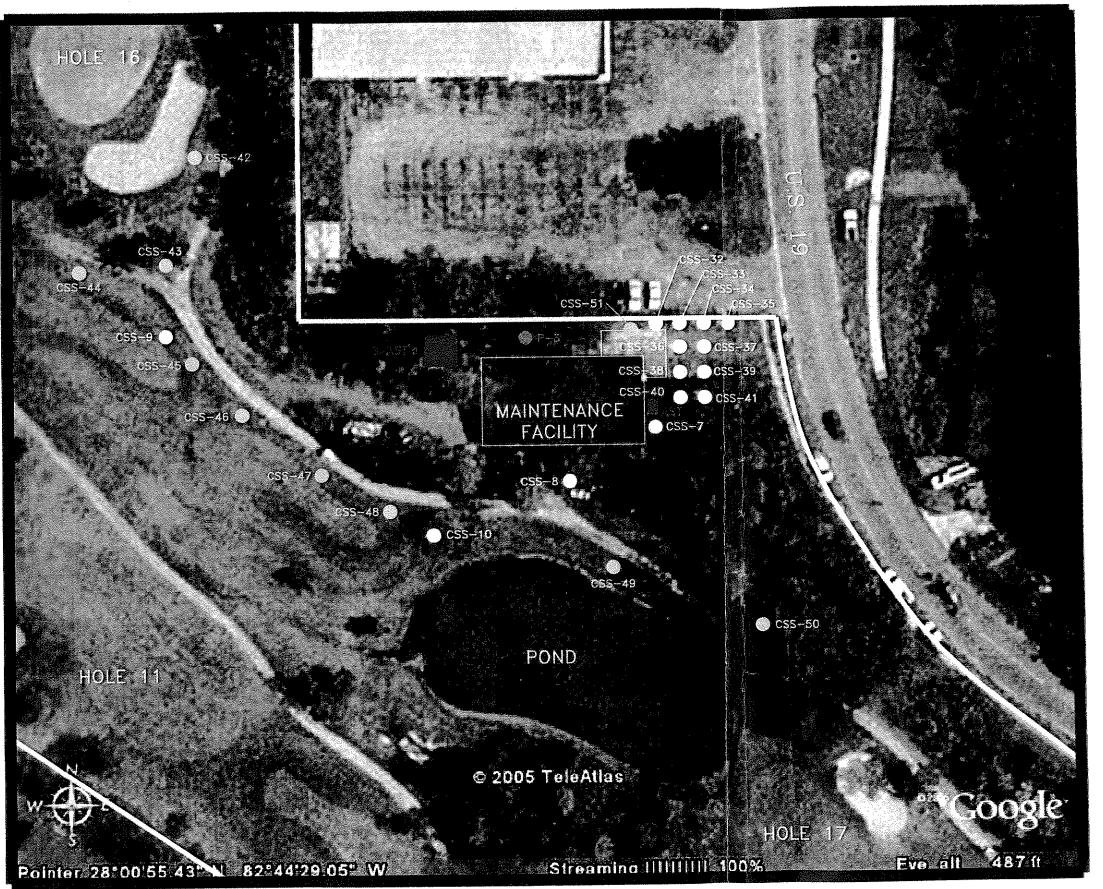




DATE CAD

DESIGNED SHEET TITLE SOIL SAMPLING LOCATION PLAN (MAINTENANCE FACILITY)

FIGURE 4B



Center 6015892\589200-02

G:\DESIGN\HSA-Draftinq\60 Environmenta\2005\Countryside Executive

LEGEND

AST ABOVEGROUND STORAGE TANK LOCATION

SOIL SAMPLE LOCATIONS (CSS-11-CSS-41) TAKEN OCTOBER 1-7, 2004

- SOIL SAMPLE LOCATIONS (P-1-P-6) TAKEN OCTOBER 1-7, 2004
- SOIL SAMPLE LOCATIONS (CSS-42-CSS-50) TAKEN NOVEMBER 15-16, 2004

50

SCALE: 1" = 50'±

75