

# SARASOTA COUNTY

"Dedicated to Quality Service"

September 17, 2002

Florida Department of Environmental Protection Southwest District ATTN: Susan Pelz 3804 Coconut Palm Drive Tampa, Florida 33619-8318

Re: Correction to Letter Dated September 11, 2002

Dear Ms. Pelz,

This letter is in reference to our meeting at the Sarasota County landfill on July 18, 2002 where we discussed what requirements were necessary for the stockpile and use of north county ditch cleanings at the county landfill. John Morris, Jim Somers, John Ryan, Gary Bennett, and Lois Rose also attended this meeting.

The material in question is located at the southwest corner of the intersection of Sawgrass Road and Center Road. (These ditch cleanings are from the north half of the county.) It was tested in November 2001 for RCRA metals, total recoverable petroleum hydrocarbons, volatile organic compounds listed by EPA Method 8260, and semi-volatile organic compounds listed by EPA Method 8270D.

Per your direction at the July 18, 2002 meeting, we need to provide you with an equal amount of SPLP tests for lead and silver before the material can be stockpiled at the landfill. We have contracted with Ardaman and Associates to take seven random samples and test for materials in accordance with SW-846, Chapter Nine. Once the sampling is complete, we will provide you with the results and a copy of the sampling plan.

If the results from the tests meet the landfill's requirements, then we would like to work with you and the landfill to define a stockpile program.

We appreciate your time and assistance to help us develop a disposal plan that creates a mutual benefit between Sarasota County Public Works and Solid Waste. Thank you.

Sincerely,

Jennifer W. Shannon, E.I.

Stormwater

C: Jim Somers, P.E., Sarasota County, Drainage Operations
John Ryan, Sarasota County, Environmental Services
Lois Rose, Sarasota County, Environmental Services
Gary Bennett, Sarasota County, Environmental Services
John Morris, Florida Department of Environmental Protection

<Pcf



### SARASOTA COUNTY

"Dedicated to Quality Service"

September 11, 2002

Florida Department of Environmental Protection Southwest District

ATTN: Susan Pelz 3804 Coconut Palm Drive Tampa, Florida 33619-8318

Re: Ditch Cleanings at Palmer Boulevard and Bell Road (north county) in Sarasota County, FL

Dear Ms. Pelz,

This letter is in reference to our meeting at the Sarasota County landfill on July 18, 2002 where we discussed what requirements were necessary for the stockpile and use of north county ditch cleanings at the county landfill. John Morris, Jim Somers, John Ryan, Gary Bennett, and Lois Rose also attended this meeting.

Southwest District

The material in question is located at the southwest corner of the intersection of Sawgrass Road and Center Road. (These ditch cleanings are from the north half of the county.) It was tested in November 2001 for RCRA metals, total recoverable petroleum hydrocarbons, volatile organic compounds listed by EPA Method 8260, and semi-volatile organic compounds listed by EPA Method 8270D.

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If the results from the tests meet the landfill's requirements, then we would like to work with you and the landfill to define a stockpile program.

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Sincerely,

Jennifer W. Shannon

Jennifer W. Shannon, E.I.

Stormwater

C: Jim Somers, P.E., Sarasota County, Drainage Operations John Ryan, Sarasota County, Environmental Services Lois Rose, Sarasota County, Environmental Services Gary Bennett, Sarasota County, Environmental Services John Morris, Florida Department of Environmental Protection REPUTED BY
LETTER alufor
LOCID Alufor







7/19/02

MEETING AT SAMSTOTA COUNTY - DITCH CLEANING MATERIALS

LOK ROSE
JIM SUMMON
JENNIFEN SHAMON
JOHN RYAM
GARU BENNETT
SF
JEM

- SWITH COUNTY BETHE USED FOR COVER AT SAMOON CENTUR
- NORTH COUNTY HIGHER LEVELS OF AMSENIC
  - WANT TO TAKE IT TO LANDFUL FOR DAILY GVER, PROSLEM WY STORING OUTSIDE LINED COLES
  - PARMOLIBEN RD PROPERTY HAS BOON FULLD TO PERMITTED GALLOS, VOLEMATOD &

    NOWED NOT ACTIVELY USED
  - CENTEL & SACIGNASS "NOOTH COUNTY STOCKELLE" TOOO YD"

     HIGH IN AMIENIC
  - 1,000,000 40° ON CONTER ABAD FROM EXCHATTION OF COLOMY FICTUS

     SILTY, MUCKY SOIL THAT HAS ASTINGUME FUL

     PRODUMS IN HANDUNG THIS MATERIAL AS LOVER \$ AT LANDFILL

20,000 - 30,000 TONS/ YEAR GOLDRATED BY NORTH WUNTY AMER

CENTRIC LE OFF LIMER LYS MONITORING

ON-YOUNG DITCH CUTTHING HANDLING

- SOLLO WASTE PETUNT WASTE PARCESUNG FACULTY
- NOED ENGINEERED DAMINGS SIGNED & SETTLED RUNS -> 62-701. 700
- DOES NOT HAVE TO BE IN A BUILDING

SALASOTA - ditch eleanings

North County & South County -South County pile going to scesus for over

North (anty - (cuten & Saugnaus)

- Ansenic higher than residential, below industrial

- want to send to ECCSWD:

- 4000-8000 cy

Nilanty Bell Rd & Palmen (NE conner)

- permitted to fill as part of celery field

- graded & planted grass

- Not taking ditch cleanings there anymore

IM cy removed from Celeny Fields (Center Rd)

Adjacent to N. Country pile

- muck; Sw doesn't like consistency so don't

unt to use it for one

Center & Stagnas --totals only

Please Proddell WCU Memo

North Carry pile - (Songrass)

compare to SPLP for lead & silver existing pile - No new mat'l

gut stds - doe's not exceed leaching > then ok to LF off liner

- sampling same as before 8 samples

New material - organing operation

Another stockpile up 6k-7k cy

fest it, hard to LF



# FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION 3804 COCONUT PALM DRIVE TAMPA, FL 33619-8318

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| TO: FROM:  |
|--|
| LOIS ROSE SARASOTA COUNTY JOHN MORRIS  |
| PHONE: (813) 744-6100, EXT - 334   |
| FAX #: (813) 744-6125  |
| CC:    Reply ASAP   Please comment   Ple |
| REMARKS: Urgent V For your review Reply ASAP Please comment  |
| LOIS-<br>LETTER DATED S/9/00 ATTICHED. THIS LETTER ADMISSED  |
| THE MIXED STOCKENE THAT WAS AT THE SOUTH COUNTY PUBLIC.  |
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| IF THE SOURCES OF THE NATIONALS HAVE CHANGED SINCE MAY 2000,   |
| ADDITIONAL ANALYSES WILL BE REQUIRED TO CHAMICTORIZE IT,   |
| SIMULAN TO WHAT WAS DONE FOR PHILLIPPI CALER DAEDLE STOILS   |
| (SEE LETTER FROM BOS BUTERA TO GARY BENNETT DATED 1/11/02).  |

WE GET HAVE NOT HOW MANY SAMPLES WHEN YOU CAN ESTIMATE SIZE OF PILE.



# Department of Environmental Protection

Jeb Bush Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

David B. Struhs Secretary

May 9, 2000

Mr. Dan Blackwood Sarasota County Road & Bridge Manager 100 Cattleman Road Sarasota, Florida 34232

Re: Request for the Department's Guidance for Use of Ditch Cleanings located at South County Road and Bridge Facility, Annex Road, Venice, Sarasota County, Florida

Dear Mr: Blackwood:

The Florida Department of Environmental Protection appreciates meeting and discussing with you options available for the proper management of streetsweepings and ditch cleanings collected at the referenced facility on April 27, 2000. Based on the sampling results from the analytical results in the Ardaman Report entitled Sampling and Analysis of Ditch Cleanings from North and South County Stockpiles, Sarasota County, Florida in the February 23, 2000 report submitted to the Department on March 15, 2000 the Department has no objection for the unresticted use of the ditch cleanings stockpiles at the South County location only.

Ditch cleanings may or may not be classified as solid waste depending on how they are managed. At this time the Department does not intend to regulate ditch cleanings if the materials are free of solid wastes (paper, plastic, metals, etc.) such as the piles observed at the referenced facility. Currently no further testing of future accumulation of ditch cleanings originating from the sources that generated the piles currently stockpiled and sampled will be required. Should the Street Sweeping Focus Group address the management of ditch cleanings and the associated testing protocol the Department will inform the County. Please be aware that street sweepings, catch basin sediments, stormwater sediments, dredge spoils and other similar soil type materials must be managed as a solid waste and reuse options will have to be authorized by the Department in accordance with criteria established by the Street Sweeping Focus Group.

It is the Department's understanding that all street sweepings currently managed at the referenced site shall be tipped onto the slab contained within the three-sided structure and removed by day's end to a roll-off container. In addition, the roll-off shall be tarped at all times except when being loaded and ultimately disposed of when full at a permitted Class I Landfill.

If you have any questions concerning this letter please contact me at 813-744-6100, Ext. 451.

Sincerely yours,

Robert J. Butera, P.E. Solid Waste Manager

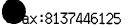
Southwest District

cc: William Nichols, Sarasota County Director of Public Works

Gary Bennett, Sarasota County Solid Waste Operations Manager. 4000 Knights Trail Road,

Nokomis, FL 34275

John Morris, P.G. - FDEP



## \*\* Transmit Conf.Report \*\*

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# FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION 3804 COCONUT PALM DRIVE TAMPA, FL 33619-8318

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# Department of Environmental Protection

Jeb Bush Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

David B. Struhs Secretary

January 11, 2002

Mr. Gary Bennett
Sarasota County Solid Waste Operations Division
4000 Knights Trail Road
Nokomis, FL 34275

Re:

Disposal/Stockpiling Dredged Materials from Phillippi Creek

Central County Solid Waste Disposal Complex DEP Permit No. SO58-299180, Sarasota County

Dear Mr. Bennett:

This letter has been prepared to provide guidance to Sarasota County regarding the management of the dredged materials generated by the ongoing activities in Phillippi Creek. The dredging activities currently underway in Phillippi Creek are authorized by Consolidated Environmental Resource Permit and Sovereign Submerged Lands Authorization No. 58-01511523-001. Specific Condition No. 2 of this permit indicates: "Final disposal of spoil shall be at an approved County Landfill". It was the Department's intention that the dredged materials be disposed at an operating, currently permitted Class I landfill to minimize potential releases to the environment associated with their inappropriate reuse. It is the Department's understanding that approximately 16,000 cubic yards (cy) of dredged material have been stockpiled at the Bee Ridge Landfill property, and approximately 6,000 cy are located in the impoundment along the banks of Phillippi Creek and are ready to be transported. It is the Department's understanding that the total volume of materials generated by dredging in Phillippi Creek is approximately 40,000 cy.

Management alternatives of the dredged materials include the following:

#### DISPOSAL/MANAGEMENT IN A LINED LANDFILL

The direct disposal or management of all the dredged materials within the lined cells at Sarasota Central Landfill is in accordance with Specific Condition No. 2 of the ERP permit. The Department will accept the results of the *in-situ* sediment sampling conducted in Phillippi Creek during September 1998 as an adequate demonstration that the dredged materials are not hazardous and are therefore suitable for disposal at Sarasota Central Landfill.

The Department does not require additional sampling and analyses of the dredged materials for this alternative.

# 2. TEMPORARY STOCKPILING FOR USE AS DAILY COVER AT A LINED LANDFILL

The temporary stockpiling of the dredged materials outside the lined cells at Sarasota Central Landfill for later use as daily cover material does not fully comply with Specific Condition No. 2 of the ERP permit. By stockpiling the dredged materials at the Sarasota Central Landfill exposure to the public is minimized, however the constituents in the dredged materials have an opportunity to leach out and potentially impact ground water and surface water quality. Additionally, the proposed stockpile area is located in a part of the Sarasota Central Landfill that is not covered by the existing monitor well network, therefore impacts to ground water quality at the site cannot be tracked.

"More Protection, Less Process"

Mr. Gary Bennett January 11, 2002 Page 2 of 3

Sampling and analysis of the dredged materials to be temporarily stockpiled at Sarasota Central Landfill for reuse as daily cover are required to be characterized for this leaching potential. This includes the dredged materials stockpiled at Bee Ridge Landfill property, the materials located in the impoundment along the banks of Phillippi Creek, and the materials to be generated by continued activities in the creek. The sampling plan to characterize the leaching potential of the dredged materials should include the following:

- a. The collection of at least five samples from the stockpile at Bee Ridge Landfill <u>and</u> at least five samples from the impoundment along the banks of Phillippi Creek for laboratory analysis may be adequate to characterize the nature of the materials. At least five additional samples of the dredged materials shall be collected each time the impoundment along the banks of Phillippi Creek approaches capacity (approximately every 5,000 cy) and <u>prior to</u> transportation of the dewatered dredged materials to Sarasota Central Landfill. Please note that if the statistical analysis (Chapter 9, SW-846) of the laboratory results indicates that the materials are highly variable, additional samples may be required to be collected and analyzed to adequately characterize the materials.
- b. Grid systems shall be established at the stockpile located at Bee Ridge Landfill and within the impoundment along the banks of Phillippi Creek that will result in a three-dimensional simple random sampling strategy. Composite samples may be prepared from multiple core samples collected in the stockpile or dredge material impoundment provided that at least five composite samples are submitted for each location or event. Scale-drawn figures showing the selected sampling locations shall be provided with the analytical results for each sampling event.
- c. Individual core samples through the dredged materials shall be <u>continuously</u> collected from the surface to within five feet of the bottom to be representative of the entire stockpile and of all the dredge materials in the impoundment.
- d. Sample collection and analysis must be conducted by firms that have approved quality assurance plans or must be conducted in accordance with Department SOPs. Appropriate quality control samples (pre-cleaned or field-cleaned equipment blanks, trip blanks, and duplicate samples) must be included during the collection of samples from the stockpile and from the impoundment.
- e. <u>SPLP</u> analyses shall be conducted for the RCRA metals, aluminum, copper, nickel, zinc, and the semi-volatile organic compounds listed in EPA Method 8270D. The method detection limits that are reported by the laboratory must be at or below the individual analyte's maximum contaminant level or guidance concentration to demonstrate compliance.
- f. Sarasota County shall notify the Department a minimum of 48 hours before the sampling activities are scheduled to provide the Department with the opportunity to observe the activities or to collect split samples.

In the event that the results of the SPLP analyses do not indicate exceedances of ground water standards the temporary stockpiling of the dredged materials outside the lined cells may be conducted. However, if the results of the SPLP analyses exceed ground water standards, the materials must be disposed directly in a lined cell of the Sarasota Central Landfill or the ground water monitoring network must be expanded to include the stockpile area. The expansion of the monitoring network shall require a minor modification of the operating permit for the landfill and supplemental sampling of the new monitor wells shall be conducted at least until the dredged material stockpile is consumed at the Sarasota Central Landfill.

Mr. Gary Bennett January 11, 2002 Page 3 of 3

#### 3. TEMPORARY STOCKPILING FOR REUSE

The temporary stockpiling of the dredged materials at uncontrolled locations for later reuse does not comply with Specific Condition No. 2 of the ERP permit and is not authorized by the Department. Stockpiling the dredged materials at other locations does not minimize exposure to the public and provides the opportunity for constituents to leach out and potentially impact ground water and surface water quality.

Sampling and analysis of the dredged materials to be used for other reuse purposes are required to characterize the human exposure and leaching potentials. Total and SPLP analyses would be required to demonstrate that any proposed reuse of the dredged materials does not pose a health threat for human exposure or result in a release to the environment. Please note that the *in-situ* sediment sampling results indicate that arsenic is present at levels that exceed the soil cleanup target levels (SCTLs) listed in Chapter 62-777, F.A.C. The results of the sediment sampling have been compared with these SCTLs for informational purposes, however it is noted that the County has the option of developing alternate site-specific target levels. The Department will accept the use of the SCTLs in Chapter 62-777, F.A.C., if the County chooses not to develop alternate target levels. The results provided for the *in-situ* sediments collected from Phillippi Creek indicate that the unrestricted reuse of the dredged materials is not appropriate unless the impact of this elevated arsenic is addressed by institutional or engineering controls. Upon completion of this testing, a specific reuse proposal must be submitted to the Department for approval for each proposed reuse of the dredged material.

Please note that the reuse of the dredged materials for any reuse other than as daily cover at Sarasota Central Landfill is outside the scope of this letter and is not authorized. Please contact me at (813) 744-6100, extension 451 if other uses of the dredged materials from Phillippi Creek are anticipated.

Sincerely,

Robert Butera, P.E.

Solid Waste Section Manager

Southwest District

cc: James Ley, Sarasota County Administrator, 1660 Ringling Blvd., Sarasota, FL 34236

William Nichols, P.E., Sarasota County Public Works and Maintenance, 101 Sarasota Crescent Blvd.,

Sarasota, FL 34240

Lois Rose, Sarasota County Solid Environmental Services, 8350 Bee Ridge Road, Sarasota, FL 34241

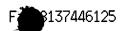
William Kutash, FDEP Tampa, Waste Management Program Administrator

Richard Tedder, P.E., FDEP Tallahassee, Solid Waste Administrator

Mark Peterson, FDEP Tampa, ERP Section

John Morris, P.G., FDEP Tampa, Solid Waste Section

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3804 Coconut Palm Drive, Tampa, FL 33619-8318

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From:

Bob Buten

Phone: (813) 744-6100 \* 45 l

Fax phone: (813) 744-6125

| REMARKS: | ☐ Urgent                 | For your review               | Reply ASAP                | ☐ Please comment                  |
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**FAX** 

# FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION 3804 COCONUT PALM DRIVE TAMPA, FL 33619-8318

| TO:<br>JENNIFER SHANNON                                  | FROM:  | BOB BU                | TE KA                         |
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#### Memorandum

# Florida Department of Environmental Protection

TO:

Robert Butera, P.E.

FROM:

John Morris, P.G.

DATE:

November 1, 2001

**SUBJECT:** Sampling Plan

Stockpiled Materials, Sawgrass Road and Center Road

Sarasota County

I have reviewed the letter from Sarasota County dated October 25, 2001, received October 29, 2001 regarding the stockpiled materials located near the intersection of Sawgrass Road and Center Road. Attached to the County's letter was a sampling plan for the stockpiled materials that was prepared by Ardaman & Associates, Inc. I do not object to the implementation of the proposed sampling plan subject to the following conditions:

- 1. Collection of seven samples from the stockpiled for laboratory analysis area may adequate to characterize the nature of the materials. However if the statistical analysis (Chapter 9, SW-846) of the laboratory results indicates that the materials are highly variable, additional samples of the stockpiled materials may be required to be collected and analyzed to adequately characterize these materials.
- 2. Sample collection and analysis must be conducted by firms that have approved quality assurance plans or must be conducted in accordance with Department SOPs. Appropriate quality control samples (pre-cleaned or field-cleaned equipment blanks, trip blanks, and duplicate samples) must be included during the collection of samples of the stockpiled materials.
- 3. The results of <u>total</u> analyses for the parameters listed in the County's letter dated October 25, 2001 shall be compared with the Soil Cleanup Target Levels (SCTLs) listed in Table II, Chapter 62-777, F.A.C. The method detection limits that are reported by the laboratory must be at or below the individual analyte's SCTLs to demonstrate compliance.
- 4. <u>If</u> the pesticides listed in EPA Method 8270D are reported at concentrations that exceed the residential SCTLs listed in Table II, Chapter 62-777, F.A.C., additional analyses may be required to further characterize the presence of pesticides.

jrm

# **ED BARBER & ASSOCIATES**

ENVIRONMENTAL CONSULTING

ENVIRONMENTAL MANAGEMENT SETVICES

Wildewood Professional Park 3639 Cortez Road West, Suite 211 Bradenton, Florida 34210 Tel: 941-739-3903 Fax: 941-739-3829

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| FAX  |
| TO: Bob States/FDEP FROM: Sam Soluston, JR FAX: 813-744-6000 DATE: MAY 3, 2000     |
| FAX: 813-744-6000 DATE: MAY 3, 2000  |
| PHONE: 813-744-6100 PAGES (including cover):                                       |
| □Urgent □For Review / Comment □As Requested □For Your Information □Reply Requested |
| SUBJECT: Spoil MATERIAL TESTING  |
| Comments:  |
| Bob - your assistance with this issue  |
| is weath appeliated. It is important that  |
| such issues as has been performed for other  |
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**SMROMENTAL MINIGENERIT SERVICES** 

May 3, 2000

Mr. Bob Stetler, Environmental Administrator Submerged Lands and Environmental Resources Florida Department of Environmental Protection, Southwest District 3804 Coconut Palm Drive Tampa, FL 33619

RE: Dredge Material Testing for the West Coast Inland Navigation District

Dear Mr. Stetler:

As a follow-up to my telephone message of last Friday, we request agency guidance with regard to analyses for dredged spoil material. Specifically, we have been informed by managers of Sarasota and Manatee Counties' permitted Class I solid waste disposal facilities of acceptance of proposed dredge spoil as cover or stockpile material. The acceptance of said material, however, is conditioned by the chemical characteristics of the spoil. In correspondence dated April 28th we mentioned that sampling of the proposed dredge material for the multi-site locations had been scheduled to assist with needed characterization for planned dredge operations and such landfill cover use. This exercise has been scheduled as early as next week, with parametric coverage to include TCLP analyses for the RCRA "8" metals, sieve tests for grain size determinations and stratigraphy.

Although the District had prepared to mobilize for these efforts we are receiving some mixed signals from varying sources regarding requisite testing of proposed maintenance dredge material. Testing of spoil materials for Manatee County's Lena Road Landfill would require the previously mentioned RCRA metals whereas the tests for Sarasota County could require the following suites of analyses:

- RCRA Metals + aluminum, copper, nickel and zinc
- Total Recoverable Petroleum Hydrocarbons
- Volatile Organics pursuant to EPA Method 8260
- Semi-volatile organics pursuant to EPA Method 8270
- Pesticides exceeding residential criteria for soil in EPA Method 8270 would "trigger" additional tests for pesticides

While we do not wish to avoid analyses of any parameters necessary to satisfy maintenance of water quality standards it is important that such tests be reasonably selected. For example, the efficacies of volatile organic analyses on dredge spoils and the use of residential criteria thresholds for sediments slated for landfill cover or stockpiling should be thoroughly evaluated. Should soil analytes for guidance cleanup target levels apply to estuarine sediments? It is unlikely that volatiles would be found in channel bottom sediments or that residential criteria would apply to

these materials destined for a solid waste disposal site. Additionally, in situ surrogate monitoring parameters such as turbidity and pH, long established for their ability to signal compliance or exceedances of metals or other pollutants, should be used wherever possible. Also, where background data exist, such as Phillippi Creek, this information should be used to screen the applicability of additional testing.

In light of these varying guidelines we have decided to hold in abeyance our sampling and analyses of the multi-site maintenance dredge spoil pending a consistent response from the Department. Your ability to coordinate this reply in your role of permitting oversight in the Submerged Lands and Environmental Resources would be helpful due to the District's direct involvement through this section's broad oversight of both dredge and fill activities.

Please feel free to contact Dean Mades at (941) 739-3903 or myself should you need additional information regarding this request for agency guidance and clarification. It is extremely important that we receive this guidance as soon as possible in order to meet current sampling schedules.

Sincerely2

7/

cc: Chuck Listowski/WCIND

Dean Mades/EBA

# Florida epartment of **Environmental Protection**

MCIND

To:

Robert Stetler, Environmental Administrator

From: Robert Butera, P.E. III, Solid Waste Manager

Date: May 5, 2000

Re:

Dredge Material Testing for the West Coast Inland Navigation District – Letter to

you dated May 3, 2000 from Sam Johnston Jr.

At your request I have reviewed the subject letter you received requesting clarification relating to the various suites of sampling analysis that may be requested by Sarasota County vs. the requirements for RCRA metals only for the Manatee County Lena Road Landfill.

Manatee County's Lena Road Landfill is a slurry wall landfill. The slurry wall encompasses about 130 acres in the current active phase. The facility is required to maintain an inward gradient by operating a leachate collection system and measuring water levels at pairs of groundwater monitoring wells on both sides of the slurry wall. This solid waste facility can accept all materials that are not hazardous and has extensive storage areas for staging approved cover materials within the slurry wall for future use assuring the Department that no discharges will occur outside the groundwater monitoring system.

The suites of analysis identified in the referenced letter that may be required by Sarasota County were received from the Department's solid waste section for screening ditch cleanings and other drainage sediments to allow staging of that waste type outside the lined landfill for the potential use as landfill cover. Sarasota County's Central Disposal Complex is a lined landfill which is segmented into 5-11 acre sections. The current active cell is 11 acres while all other cells have no waste disposed and they are valved to discharge to stormwater until utilized for waste disposal. The solid waste section, specifically John Morris, P.G. has received a request from Gary Bennett of Sarasota County to determine the testing protocol. John Morris will be responding to Gary Bennett of Sarasota County with the required sampling analysis for the potential dredge materials. Please provide John or myself a copy of the permit issued for the dredging and assistance with metals or other pollutants that we should typically be aware of within background data for Phillippi Creek.

I hope this clarifies the reason for the varying guidelines and I assure you we will not require testing other than testing required to provide the Department assurance that the groundwater and surface waters at the proposed staging areas are protective of the environment. On May 4, 2000 I contacted Mr. Dean Mades to clarify the reasons for the suites noted in the letter as well as the variations in the proposed storage areas prior to use of the material.

cc: Mr. Sam Johnston, Jr. Chuck Listowski, WCIND Dean Mades, EBA Gary Bennett, Sarasota County John Morris, P.G., FDEP



# SARASOTA COUNTY

"Dedicated to Quality Service"

October 25, 2001

Florida Department of Environmental Protection Southwest District ATTN: Robert Butera 3804 Coconut Palm Drive Tampa, Florida 33619-8318

Re: Ditch Cleanings at Sawgrass Road and Center Road

Dear Mr. Butera,

I am contacting you in reference to the sampling and analysis of ditch cleaning materials located at the southeastern corner of the intersection of Sawgrass Road and Center Road. This stockpile is adjacent to the much larger stockpile of material left from the Celery Fields Project. It is composed primarily of ditch cleanings with a small amount of sand bar removed from Phillipi Creek which was under a SWFMWD exemption (copy enclosed). There are no street sweepings in this stockpile and any solid waste was removed from the soil when the ditch cleanings were piled.

There are approximately 2,300 cubic yards of material in the area in question. We plan to have Ardaman and Associates take seven random samples as per their recommendation and test for materials in accordance with SW-846, Chapter Nine. The materials we will specifically be testing for are:

- RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), aluminum, copper, nickel, and zinc
- Total recoverable petroleum hydrocarbons
- Volatile organic compounds listed by EPA Method 8260
- Semi-volatile organic compounds listed by EPA Method 8270D.

A copy of Ardaman and Associates' sampling plan is enclosed. Included in the plan is the volume for each cell, a map of the cell, and a description of the random number generator. We plan to execute the necessary purchase orders and proceed with this sampling plan on November 19, 2001 if no additional direction is given. Ultimate usage of this material and/or disposal will be in accordance with the recommended limits for residential or commercial placement.

Sincerely,

Junifer W. Shanner Jennifer W. Shannon, E.I.

C: James N. Somers, P.E., Manager, Drainage Operations
William J. Nichols, P.E., General Manager, Operations and Maintenance
John Ryan, Environmental Specialist III, Natural Resources – Pollution Control
Don Lewis, P. E., Natural Resources – Pollution Control
Reading File





ID:813-486-2048

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Bartow Service Office 170 Century Boulevard Barlow, Florida 33830-7700 (863) 534-1448 or 1-800-492-7862 (FL only) SUNCOM 572-6200

2379 Broad Street, Brooksville, Florida 34604-6899 (352) 796-7211 or 1-800-423-1476 (FL only) SUNCOM 628-4150 TDD only 1-800-231-6103 (FL only)

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Lecanto Service Office 3600 West Sovereign Path Suite 226 Lecanto, Florida 34461-8070 (352) 527-8131 SUNCOM 667-3271

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

SOUTHWEST DISTRICT

December 15, 2000

Chair, Polk "Al" Coogler Vice Chair, Citrus Sally Thompson Secretary, Hillsborough

ld C. Johnson

Treasurer, Pinellas rard W. Chance Manateo

Thomas G. Dabney, II Sarasota

Paméla L. Fi **Highlands** 

Watson L. Heypes, H **Pinalias** 

Janet D. Koyzob Hillsborough

Heldi B. McCree Hillisborough

John K. Renke, 📳 Pasco

E. D. "Sonny" Vorgana Executive Director Bana & Heath Assistant Executive Director William S. Bilonky General Counsel

James N. Somers, P.E. Sarasota County Public Works, Operations & Maintenance 100 Cattlemen Road Sarasota, FL 34232

Subject:

Project Evaluation - No Permit Required

Project Name:

Sarasota County - Silt Removal From Phillippi Creek at

Webber Street

**Inquiry Number.** 

CT80523 Sarasota

County: Sec/Twp/Rge:

38/36S/18E

Reference:

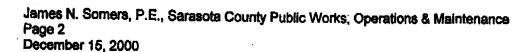
Sections 40D-4.041, Florida Administrative Code (F.A.C.)

Dear Mr. Somers:

The District has reviewed the information you submitted on November 1, 2000 for the project referenced above and has determined that an Environmental Resource Permit will not be required for the removal of a sediment plume in Phillippi Creek, north of Webber Street. The plume, 150± feet long by 40± feet wide, consisting of 320 cubic feet shall be removed to a depth which matches the adjacent bottom elevation.

The information received by the District will be kept in the Venice Service Office to support the District's determination regarding your project. The District's determination that your project does not require an ERP is only applicable pursuant to the statutes and rules in effect at the time the information was submitted and may not be valid in the event subsequent changes occur in the applicable rules and statutes. Additionally, this notification does not mean that the District has determined that your project is permanently exempt from permitting requirements. Any subsequent change you make in the project's operation may necessitate further evaluation or permitting by the District. Therefore, you are advised to contact the District before beginning the project and before beginning any activity which is not specifically described in your submittal.

This letter constitutes notice of final agency action of the project referenced above. You or any person whose substantial interests are affected by the District's action regarding a permit may request an administrative hearing in accordance with Sections 120.569 and 120.57, F.S., and Chapter 28-106, F.A.C., of the Uniform Rules of Procedure. A request for hearing must: (1) explain how the substantial interests of each person requesting the hearing will be affected by the District's action, or proposed action, (2) state all material facts disputed by the person requesting the hearing or state that there are no disputed facts, and (3) otherwise comply with Chapter 28-106, F.A.C. Copies of Sections 28-106.201 and 28-106.301, F.A.C. are enclosed for your reference. A request for hearing must be filed with (received by) the Agency Clerk of the District at the District's Brooksville address within 21 days of receipt of this notice. Receipt is deemed to be the fifth day after the date on which this notice is deposited in the United States mail. Failure to file a request for hearing within this time period shall constitute a waiver of any right you or such person may have to request a hearing under Sections



120.569 and 120.57, F.S. Mediation pursuant to Section 120.573, F.S., to settle an administrative dispute regarding the District's action in this matter is not available. Enclosed is a "Noticing Packet" that provides information regarding District Rule, Section 40D-1.1010, F.A.C., which addresses the notification of persons whose substantial interests may be affected by the District's action in this matter. The packet contains guidelines on how to provide notice of the District's action, and a notice that you may use.

If you have questions regarding this determination, please contact Daryl R. Flatt, P.E., at the Venice Service Office, extension 6508. Please reference the Project Name and Inquiry Number in future communications concerning this project.

Sincerely

James P. Guida, P.G., Director Venice Regulation Department

JPG:DRF:bxm

Enclosures:

Noticing Packet (42.00-04)

Sections 28-106.201 and 28-106.301, F.A.C.

CC:

Inquiry No. CT80523

USACOE

Ms. Kim Dupree, FDEP



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Venice Service Office 115 Corporation Way Venice, Florida 34292-3524 (941) 486-1212 or 1-800-320-3503 (FL only) SUNCOM 526-6900

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Held S. McCroe Hillsborough

John K. Renke, 111 Pasco

E. D. "Sonny" Vergers
Executive Director
Gene A. Heath
Assistant Executive Director

December 15, 2000

James N. Somers, P.E. Sarasota County Public Works, Operations & Maintenance 100 Cattlemen Road Sarasota, FL 34232

Subject: Notice of Final Agency Action for Approval

Sovereignty Lands Consent of Use

Project Name:

Sarasota County - Removal of Sediment Plume in Phillippi Creek

Project No.: County: CT80523 Sarasota

Sec/Twp/Rge:

36/36S/18E

Dear Mr. Somers:

The project referenced above includes activities on sovereign submerged lands which require a Proprietary Authorization from the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees), pursuant to Article X, Section 11 of the Florida Constitution, and Sections 253.002 and 253.77, Florida Statutes (F.S.). As staff to the Board of Trustees, the District has the responsibility to review and take final action on requests for a Proprietary Authorization in accordance with Sections 18-21.0051 and 40D-1.602, Florida Administrative Code (F.A.C.).

Project description: The maintenance dredging of a portion of Phillippi Creek, consisting of the removal of 320 cubic yards (cy) of sediment buildup. The depth of sediment removal shall match adjacent bottom depth. The material shall be used by Sarasota County on public property.

| ACTIVITY (Enter subdype gode description) | PREEMPTED AREA | DREDGED         | NO. OF SLIPS |
|---|----------------|-----------------|--------------|
| 11  | 0              | 320 cubic yards | 0            |
| TOTALS:                                   | 0 square feet  | 320 cubic yerds | 0            |

Waterbody Name:

Phillippi Creek Shoreline Length: 150 feet (CRK 089)

Aquatic Preserve: N/A

A proprietary conservation easement is not required.

Authorization is granted to use sovereign submerged lands as shown by the application, approved drawings, plans, and other documents kept on file at the District under the provisions of Article X, Section 11 of the Florida Constitution, Chapter 253, F.S., Title 18, F.A.C., and the policies of the Board of Trustees. This approval does not disclaim any title interest that the Board of Trustees may have in the project site. Any conditions necessary to satisfy the fiduciary responsibilities of the Board of trustees as well as other applicable statutory or rule requirements implemented by Department of Environmental Protection's Division of State Lands or other governmental agencies authorized by Florida Statutes.

James N. Somers, P.E. Page 2 December 15, 2000

The proposed construction is subject to the following general conditions:

- 1. Removal of sediment is limited to the depth of creek immediately adjacent to sediment deposition.
- The Permittee shall provide during construction manatee protection by ensuring that:
  - a. The contractor instructs all personnel associated with the project of the potential presence of manatees and that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973, and the Fiorida Manatee Sanctuary Act.
  - b. Any collision with and/or injury to a manatee shall be reported immediately to the Florida Marine Patrol (1-800-DIAL FMP) and to the U.S. Fish and Wildlife Service, Jacksonville Office (904-232-2580) for North Florida and to the Vero Beach Field Office (407-562-3909) for South Florida.
  - c. Siltation barriers are made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment.
  - d. All vessels associated with the project operate at "no wake/idle" speeds at all times while in water where draft of the vessel provides less than four-foot clearance from the bottom and will follow routes of deep water whenever possible. Each vessel involved in the construction shall display in a prominent location, visible to the vessel operator an 8 ½" X 11" temporary placard reading: "Manatee Habitat/Idle Speed in Construction Area."
  - e. All construction activities in open water cease upon the sighting of a manatee(s) within 100 yards of the project area. Construction activities will not resume until the manatee(s) have departed the project area.
  - f. Prior to commencement of construction activities, a second temporary 8 ½" X 11" placard reading "Warning Manatee Area" will be posted in a location prominently visible to water-related construction crews.
  - The contractor maintains a log detailing sightings, collisions, or injuries to manatees should they occur during the contract period. Following project completion, a report summarizing incidents and sightings is submitted to the Florida Department of Environmental Protection, Marine Research Institute, Office of Protected Species Research, 100 Eighth Avenue SE, St. Petersburg, Florida 33701-5095 and to the U.S. Fish and Wildlife Service Office, 3100 University Boulevard, Jacksonville, Florida 32216.

You or any person whose substantial interests are affected by the District's action regarding a permit may request an administrative hearing in accordance with Sections 120.569 and 120.57, F.S., and Chapter 28-106, F.A.C., of the Uniform Rules of Procedure. A request for hearing must: (1) explain how the substantial interests of each person requesting the hearing will be affected by the District's action, or proposed action, (2) state all material facts disputed by the person requesting the hearing or state that there are no disputed facts, and (3) otherwise comply with Chapter 28-106, F.A.C. Copies of Sections 28-106.201 and 28-106.301, F.A.C. are enclosed for your reference. A request for hearing must be filled with (received by) the Agency Clerk of the District at the District's Brooksville address within 21 days of receipt of this notice. Receipt is deemed to be the fifth day after the date on which this notice is deposited in the United States mail. Failure to file a request for hearing within this time period shall constitute a waiver of any right you or such person may have to request a hearing under Sections 120.569 and 120.57, F.S. Mediation pursuant to Section 120.573, F.S., to settle an administrative dispute regarding the District's action in this matter is not available prior to the filling of a request for hearing.

James N. Somers, P.E. Page 3 December 15, 2000

Enclosed is a "Noticing Packet" that provides information regarding District Rule, Section 40D-1.1010, F.A.C., which addresses the notification of persons whose substantial interests may be affected by the District's action in this matter. The packet contains guidelines on how to provide notice of the District's action, and a notice that you may use.

If you have questions concerning this letter, please contact Daryl R. Flatt, P.E. at the Venice Service Office, extension 6508. For assistance with environmental concerns, please contact Hugh D. Dinkler, P.W.S., extension 6516.

Sincerely

James P. Guida, P.G., Director Venice Regulation Department

JPG:DRF:HDD:bxm

Enclosures:

Noticing Packet (42.00-047)

Sections 28-106.201 and 28-106.301, F.A.C.

cc/enc:

File of Record

USACOE



# Ardaman & Associates, Inc.

Geotechnical, Environmental and Materials Consultants



October 23, 2001 File No. 99-8597

TO:

Sarasota County Public Works Business Center

**Drainage Operations Division** 

100 Cattlemen Road Sarasota FL 34232

Attention: Jennifer W. Shannon

SUBJECT:

Sampling of Materials from Ditch Cleanings Currently Stockpiled at Intersection of

Sawgrass Road and Center Road, Sarasota County, Florida

#### Dear Ms. Shannon:

As requested, the following is our suggestion for random sampling of the stockpiled materials which are currently located at the southeast corner of the intersection of Sawgrass Road and Center Road in Sarasota, Florida. Our experience has shown that with a stockpile of the size described below, seven (7) samples would provide the necessary approximate statistical analysis. The materials considered for this sampling exercise are those which are located north of the blockaded area marked by wooden stakes and pink survey tape. Based on this landmark, the stockpiled materials are approximately 265 feet north to south by 66 feet east to west and can best be described by a wedge which is 1 foot deep at the southern most point of the wedge extending to a total of 6 feet of depth at the northerly extent. It is our estimate that approximately 2300 cubic yards are currently stockpiled.

Based upon these dimensions, we propose using a grid which is generally 22 feet by 22 feet over the aerial extent of the stockpile and utilizing vertical horizons 1½ feet in depth. Based upon those assumptions, a total of 102 possible sampling cells would be available for sample collection. Cells are noted in the attached rough sketch with cells 1 through 34 consisting of the eastern most 22 foot wide grid area, cells 35 through 68 comprising the center 22 foot wide sampling area and cells 69 through 102 comprising the western most grid sampling area. A random number generator was utilized from a Microsoft Excel spreadsheet for seven (7) random numbers between 1 and 102. The selected cells were cells 16, 47, 95, 82, 4, 57 and 49 as also shown in the attached document. Samples would then be collected from these random cells as close to the center of the cell as can be determined through field observations.

Sarasota County Public Works Business Center File No. 99-8597

October 23, 2001

If this sampling regime is acceptable, please notify our office so that we may get it on the schedule. Please order the appropriate sample kits from the laboratory. If you should have any questions please contact the undersigned at 941-922-3526.

Very truly yours,

Ardaman & Associates, Inc.

Ashby Hoover, P.E. Project Engineer

Eng. Reg. No. 49942

AH/GHS:nh

Gary H. Schmidt, P.E.

Vice President

Eng. Reg. No. 12305

# Ardaman & Asseiates, Inc.

2500 Bee Ridge Road Sarasota, FL 34239 P.O. Box 15008 (34237)

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- COWMN A @ BOTTOM

- COLUMN A C TOP - COLUMN B C TOP - COLUMN B C TOP

- COLUMN BE M.D

- COLUMN C @ TOP

phone: (941) 922-3526

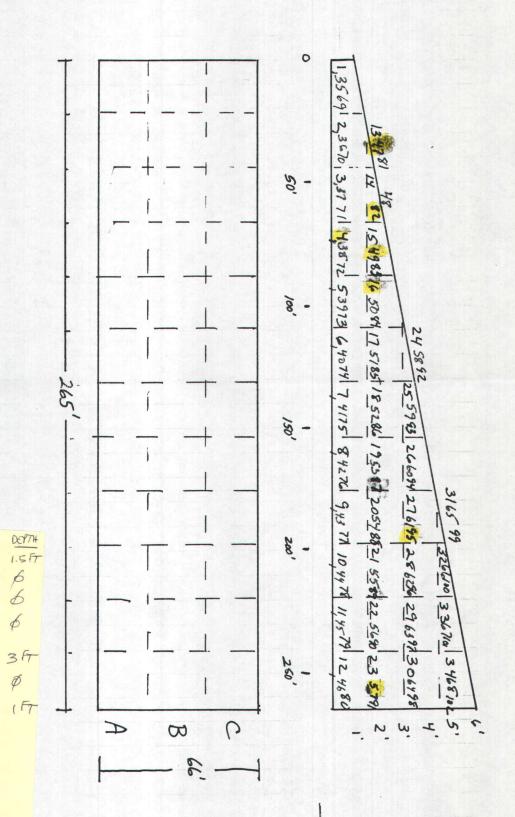
fax: (941) 922-6743

e-mail: ardasara@gte.net

Ву: \_

Project: Dich Cleaning
File No.:

Date: Sheet:











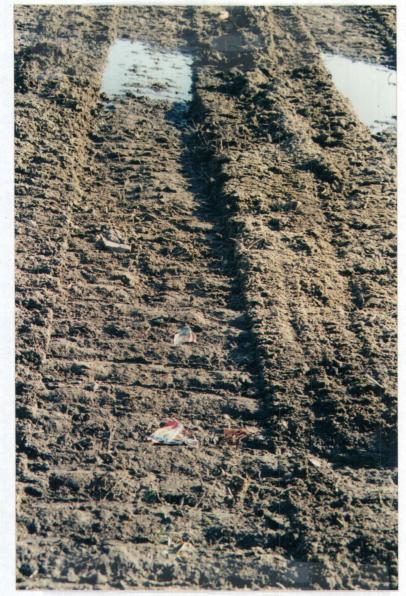




































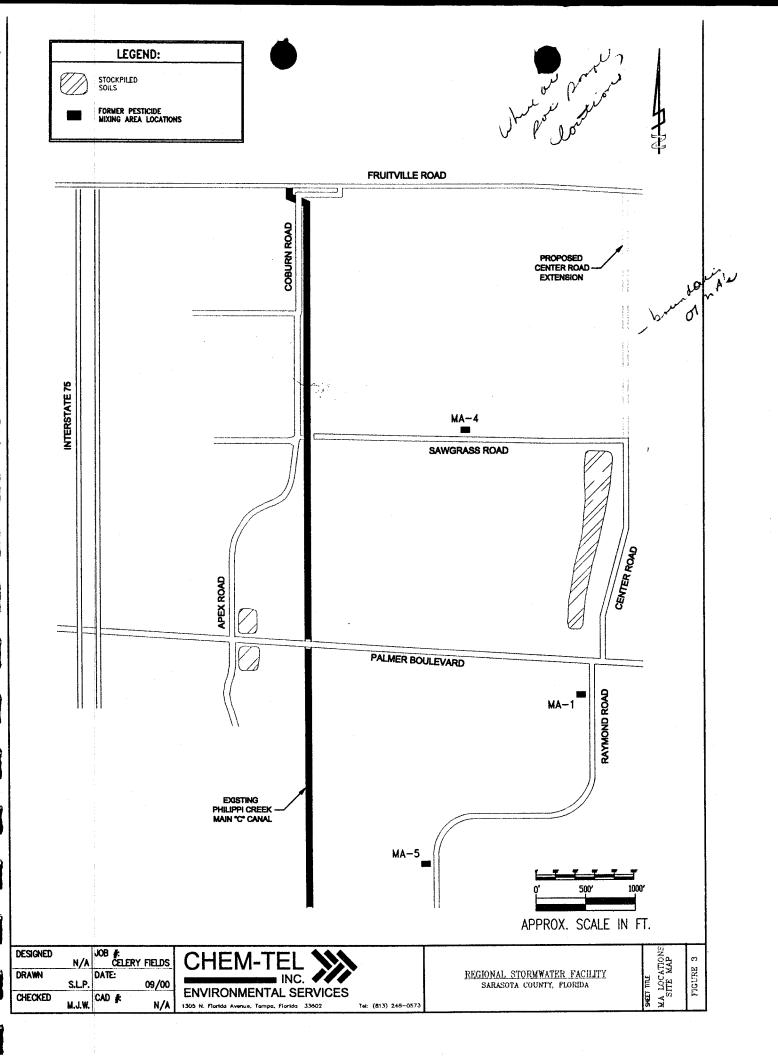


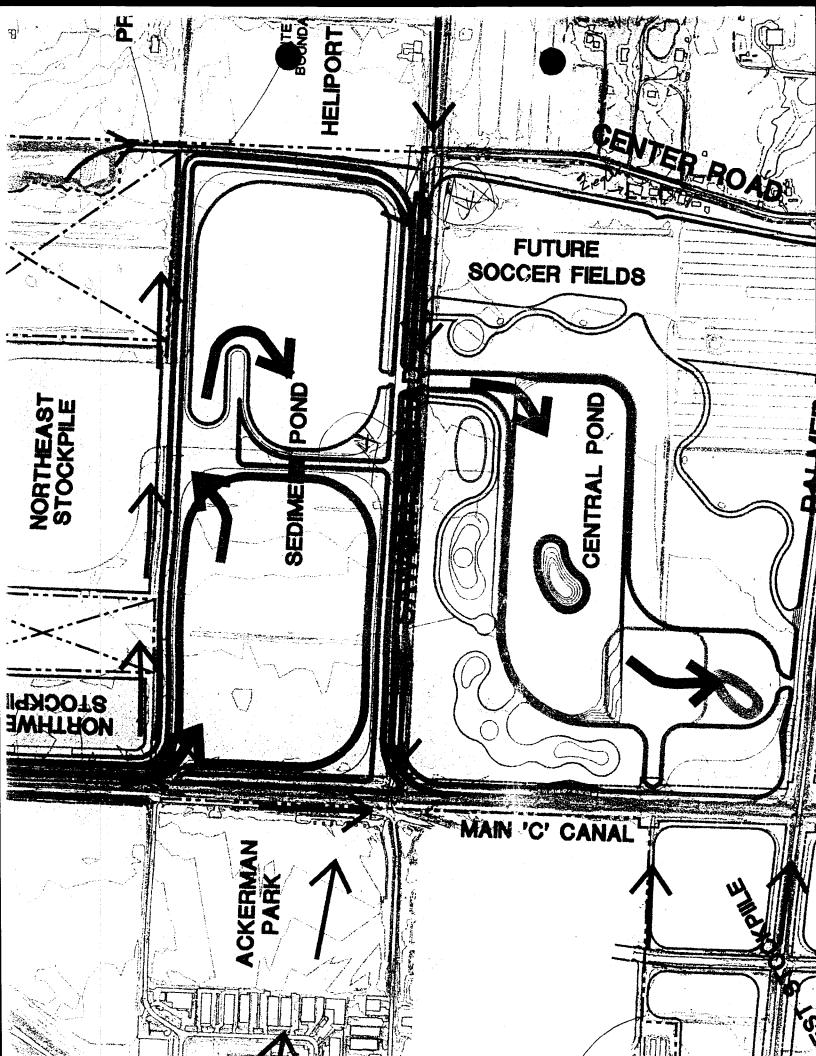














## Department of Environmental Protection

Jeb Bush Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

David B. Struhs Secretary

October 5, 2001

Ms. Jennifer Shannon Sarasota County Public Works Department 100 Cattleman Road Sarasota, FL 34232

Re:

Bell Road Stockpile & Center/Sawgrass Road Stockpile - Ditch Cleanings, etc.

Dear Ms. Shannon:

The Department is in receipt of your letter dated September 27, 2001. Based on our recent conversation and your letter I am providing you the following for your information and guidance as well as the Department's expectations on the stockpiling of ditch cleanings at the referenced locations.

The Bell Road site is known to have stockpiled solid wastes other than ditch cleanings. It is documented that dredge spoils from Philippi Creek as well as streetsweeepings were stockpiled at the site. The fact that the material will not be relocated and it has been covered and vegetated does not resolve the Department's concerns, as the site must be monitored based on the analyticals. The County is required to follow the guidance provided in the letter from the Department dated August 9, 2001. The Department noted specifically that the sampling plan shall be approved by the Department prior to implementation. The Department anticipates compliance with the requirements of the letter dated August 9, 2001 or enforcement by the Department may be initiated.

It has been the Department's experience based on inspections of other ditch cleaning stockpiles that other solid wastes are included in the stockpiles. The Department will contact you to schedule a time that the site at Center Road/Sawgrass Road may be visited to determine the type of wastes included in the 2000 cubic yards you noted have been stockpiled at the site.

If you have any questions concerning this letter or questions relating to the information I faxed you on October 2, 2001 please call Susan Pelz at 813-744-6100, Ext. 386 or myself at Ext. 451.

Sincerely,

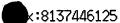
Robert J. Butera, P.E. Solid Waste Manager

Southwest District

cc: James N. Somers, P.E. Manager, Drainage Operations - Sarasota County

William J. Nichols, P.E., General Manager, Operations and Maintenance - Sarasota County

Reading File



### \*\* Transmit Conf.Report \*\*

P. 1

Oct 3 2001 7:30

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### FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION 3804 COCONUT PALM DRIVE TAMPA, FL 33619-8318

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|                               | PHONE:      | (813) 744-6100, | × 45 1           |
|-------------------------------|-------------|-----------------|------------------|
| C#: 941-316-1376              |             | (813) 744-6125  |                  |
| MARKS: Urgent For your review | □ Re        | oly ASAP        | □ Please comment |
| FYI - AS DISCUSSED . TOO      | <i>a.</i> / |                 |                  |



### FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION 3804 COCONUT PALM DRIVE TAMPA, FL 33619-8318

| FAX | Date: 10/2/01                          | , |
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| TO: SHANNON  | FROM:    | Sob BUTERA             |  |  |  |
|--|----------|------------------------|--|--|--|
| OLNOTPUL SPANNUP                                   |          |                        |  |  |  |
| PHONE:   | PHONE:   | (813) 744-6100, × 45 1 |  |  |  |
| FAX#: 941-316- 1376                                | FAX #:   | (813) 744-6125         |  |  |  |
| CC:  |          |                        |  |  |  |
| REMARKS: Urgent For your review                    | □ Rep    | oly ASAP               |  |  |  |
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| FYI - AS DISLUSSED TOOK                            | <b>y</b> |                        |  |  |  |
| FDEP IS EXPECTING A CH                             |          | TAMINATION ASSERBAT    |  |  |  |
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Jeb Bush Governor

## Department of Environmental Protection

Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400

David B. Struhs Secretary

October 20, 1999

Mr. Michael Herr, Director Polk County Department of Transportation Post Office Box 9005 Bartow, Florida 33831

Dear Mr. Herring:



Thank you for your September 23 letter about the disposal of materials removed from roadside ditches in Polk County. Your letter was somewhat similar to one I received from Ms. Wendy Kluge in that both letters were prompted by Bob Butera's letter dated April 27, 1999. For that reason I copied you on my response to Ms. Kluge thinking it would be helpful to both of you to know the history of the Department's regulations as well as our recent involvement with the Street Sweepings Focus Group. As noted in that October 8 response, roadside ditches will not be part of the statewide characterization study that the Focus Group is about to undertake. Also, to my knowledge Bob Butera's letter did not specifically request information concerning the handling of roadside ditch material.

I appreciate you sending me a copy of the correspondence between Polk County and the Southwest District concerning ditch cleaning materials but I feel it is important for you to understand that I do not have the authority to overrule their decisions unless they are clearly contrary to established rules or policies. In general, the Department tends to view materials which are collected or generated by the County and then discarded, as solid waste, unless specifically exempted by our rules or statutes. Street sweepings, catch basin sediments, and stormwater treatment sediments have traditionally been collected and disposed of by local governments and so they are considered solid waste; this is why the Focus Group is studying these materials. Ditch cleaning materials may or may not be considered solid waste, depending on how they are managed. There are probably cases where sediments are removed from roadside ditches and used on-site in berms or medians; since they are never really collected or disposed of, they would not be regulated as solid

Mr. Michael Herr October 20, 1999 Page Two

waste. I'll defer to the District to make these exact calls as well as to answer the question of whether staging areas for these materials should be viewed as a Transfer Station.

I hope this answers some of your questions and clarifies that there has not been a change of position in the Department regarding the handling of these materials. I have discussed these matters with Bob Butera to make sure he is in agreement with my statements and it appears the only unanswered question is whether the stockpile areas should be permitted as a solid waste transfer station. In a letter to the County from Rick Garrity, dated April 14, 1994, (enclosed) it is stated that " Polk County's urban ditch cleanings could often be a solid waste due to the variety and amount of solid waste materials mixed with the The letter goes on to state that the mixed nature of the incoming waste would necessitate the need for a transfer station should a storage site be established for ditch cleanings that still contained solid waste. Letters from Polk County, dated May 6, 1994 and June 10, 1994, do not seem to agree with this conclusion. Given that many of the key players that were involved in writing this correspondence are no longer in these positions, I suggest you take this issue up with Deborah Getzoff, the new Director of the Southwest District, in order to revive these discussions. Bob Butera has indicated to me that he sees many options available to the County that would alleviate the storage area being designated as a transfer station. If I can be of any further assistance, please feel free to call me at 850/921-9976.

on, Administrator

Section

MJY/myl

Enclosure:

cc: Wendy Kluge - Polk County Chris McGuire - DEP, OGC Deborah Getzoff - SWD -Bob Butera - SWD



### Florida Department of Environmental Protection

Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619 813-744-6100

Virginia B. Wetherell Secretary

APR 1 4 1994

Certified Mail Return Receipt Requested

Mr. Daniel J. Costello, Chairman Polk County Board of County Commissioners Post Office Box 60 Bartow, Florida 33830

RE:

**Ditch Cleanings** 

Dear Mr. Costello:

In response to your letter of March 16, 1994, the following is a further explanation of the Department's position on the handling of ditch excavation waste. Section 403.708(1)(a), Florida Statutes (F.S.), provides that the deposition of solid waste in or on land is prohibited except in a manner approved by the Department. The Department has previously observed that all types of waste materials can be found in urban roadside ditches, such as garbage, construction debris, tires, used oil containers, etc. Discussions with County officials have confirmed this assessment. The Department's belief is that this type of ditch cleanings, i.e. a mixture of solid waste and soils is a "solid waste" as defined by Section 403.703(13), F.S. They are not considered "clean debris" as defined by Section 403.703(33), F.S. Not only is the Department concerned with the types of waste found in roadside ditches, but there is also a considerable amount of information that indicates contaminants such as automotive fluids, brake lining metals, and nutrients may be included in stormwater run-off into these ditches, especially in urban areas.

The Department's Stormwater / Non point Source Management Section has generated guidelines for sampling, analyzing, and disposing of stormwater sediments. A copy of these guidelines is attached. The guidelines discuss the potential contaminants found in stormwater sediments, and reasons for potential restrictions on their disposal. The guidelines also provide guidance for sampling of the materials to determine proper disposal and discuss site considerations for potential disposal or storage. These guidelines are applicable to the

handling of ditch cleanings as well as retention facilities.

On the basis of all available information, the Southwest District made its determination that Polk County's urban ditch cleanings could often be a solid waste due to the variety and amount of solid waste materials mixed with the soils. In order to best deal with this material, the County has the option of separating the solid waste from the soils, and the soils can then be used as landfill cover, or, if not otherwise contaminated above the levels identified in the attached guidance memo, can be used for roadside stabilization or other beneficial uses as the County deems appropriate. All other solid waste removed from the ditches being cleaned shall be transported directly to a permitted landfill. As an alternative, if use of a temporary storage site is deemed more economical by the County, then such a site would be required to be

permitted by the Department as a solid waste transfer station due to the mixed nature of the incoming waste.

The Department has communicated this opinion to Polk County both in writing and in discussions with Darrell Gunn, Public Works Director and Timothy Campbell, County Attorney. However the Department is not inflexible in its opinion. We have communicated to the County that they could, if they chose to, conduct sampling of the ditch soils similar to those provided in the above referenced guidance, and propose to the Department that alternate handling of the ditch soils is environmentally acceptable. Also, routine ditch or culvert maintenance soils which are substantially free of solid waste can be used as "clean fill". If the County can establish a procedure for separating the solid waste from the soils, they could be used as "clean fill". To date, the County has not proposed any policy or guidelines to be used by Polk County to assure that county employees and contractors will handle these solid wastes and soils appropriately. The Department is aware of the economic and convenience impacts of landfilling contaminated ditch cleanings, but economic and convenience considerations alone cannot outweigh evidence of potential environmental impact associated with the inappropriate disposal of contaminated soils and solid waste.

The Southwest District has consulted with Department headquarters on the issue of soil testing, and a decision has been made to develop a statewide policy which clarifies our intent in this area. While the potential impacts of improper handling of ditch cleanings do exist, the degree of impact is such that the Department has not actively pursued this issue. The issue was addressed in Polk County because of unpermitted disposal activities by the County's Public Works Department. This was brought to our attention by several citizen complaints and media coverage. In connection with that investigation, the County informed the Department of their activities in regard to ditch cleanings and asked the Department for a determination of their proper handling. The Department's opinion on the handling of ditch cleanings would be identical in all counties whose circumstances were similar.

Hopefully this has clarified the Department's position on this matter so as to allow the County to constructively address the issue to their satisfaction. However, should you have any further questions in regard to any of the issues discussed above, please feel free to contact our District Solid Waste Section.

Richard D. Garrity, Ph.D.

**Director of District Management** 

Southwest District

RDG/sgm

Attachment

cc: Robert Butera, SW
Steve Morgan, SW
Mary Jean Yon, SW Tallahassee



D.E.P.

OCT 0 1 2001

Southwest District Tampa

September 27, 2001

Florida Department of Environmental Protection Southwest District ATTN: Robert Butera 3804 Coconut Palm Drive Tampa, Florida 33619-8318

Re: Ditch Cleanings at Palmer Boulevard and Bell Road and Sawgrass Road and Center Road

Dear Mr. Butera,

I am contacting you in reference to the sampling and analysis of ditch cleaning materials located at the northeast corner of the intersection of Palmer Road and Bell Road. We no longer plan to relocate this material. It has been seeded and has not been disturbed since April 2001.

We have begun another stockpile of ditch cleanings at the southeastern corner of the intersection of Sawgrass Road and Center Road. There are approximately 2,000 cubic yards of ditch cleanings in this area. We plan to have Ardaman and Associates take seven random samples to test for materials in accordance with SW-846, Chapter Nine. The number of samples has been recommended by Ardaman and Associates. The materials we will specifically be testing for are:

- RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), aluminum, copper, nickel, and zinc
- Total recoverable petroleum hydrocarbons
- Volatile organic compounds listed by EPA Method 8260
- Semi-volatile organic compounds listed by EPA Method 8270D.

We assume this plan is acceptable and intend to have the test results by November 5, 2001. Ultimate usage of this material will be in accordance with the recommended limits for residential or commercial placement.

Sincerely,

Jeanifer W. Shannon, E.I.

C: James N. Somers, P.E., Manager, Drainage Operations
William J. Nichols, P.E., General Manager, Operations and Maintenance
Reading File



# Department of Environmental Protection

Jeb Bush Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

David B. Struhs Secretary

Ms. Jennifer Shannon Sarasota County Public Works Department 100 Cattlemen Road Sarasota, FL 34232

Re:

Bell Road Stockpile - Ditch Cleanings, etc.

Sampling plan (letter) dated June 26, 2001(received July 5, 2001)

Dear Ms. Shannon:

This letter is to acknowledge receipt of your plan, dated June 26, 2001 (received July 3, 2001), for sampling and analysis of the ditch cleaning materials from the North County stockpile. Your plan indicates that the quantity of materials in the stockpile has increased since the quantity reported in February 2000, and that you would like to reuse the material as fill for "commercial county projects" such as backfill under parking lots or roads. Your plan also indicates that based on analyses conducted in February 2000, that the stockpile is only proposed to be tested for Arsenic.

Unfortunately, the Department cannot approve your plan, at this time, for the following reasons:

1. Additional materials have been added to the stockpile since the initial sampling. These additional materials were not characterized prior to placement in the stockpile, so the analyses from February 2000 may not be representative of the materials currently in the pile.

2. Fifteen samples may not be adequate to characterize the stockpile (now approximately 15,000 c.y.).

The Department suggests that the County analyze the materials for the parameters listed in the Department's June 23, 2000 letter (attached). A figure showing the proposed locations and depths of the samples should be provided to the Department before implementation. The Department does not object to initially taking fifteen samples (composited through the depth of the pile), and less frequent sampling may also be acceptable based on the statistical variability of the analytical results. To clarify, if the analyses indicate that the concentrations of a particular parameter vary widely (large standard deviation), then additional samples will have to be taken for that parameter.

Please provide a figure with the number of samples, locations, and sampling methodology at least 15 days prior to the anticipated date of sampling. Please be reminded that the Department will evaluate the proposed reuses based on the analytical results, and some requested uses may not be approved. If you have any questions you may contact John Morris or myself at 813-744-6100, Ext. 336 or 451, respectively.

Sincerely,

August 9, 2001

Robert J. Butera, P.E Solid Waste Manager Southwest District

Attachment RJB/sjp

James N. Somers, P.E., Drainage Operations, Sarasota County Public Works, 100 Cattlemen Road, Sarasota, Fl. 34232 Gary Bennett, Manager Solid Waste Operations

John Morris, P.G., FDEP - Tampa



### Environmental Protection Southwest District

Jeb Bush Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

Department of

David B. Struhs Secretary

June 23, 2000

Mr. James N. Somers, P.E. Manager, Drainage Operations Sarasota County Public Works Department 100 Cattlemen Road Sarasota, FL 34232

Re: Bell Road Stockpile - Ditch Cleanings, etc.

Dear Mr. Somers:

The Department was in receipt of your letter requesting information required for soil sampling of the referenced stockpile for future management and or reuses. At the April 27, 2000 meeting and in your letter you indicated that this Department had permitted and provided authorization for filling the northwest quadrant to elevation 21.0. The attached plan you submitted may have been approved by the County's Stormwater Environmental Utility Department but staff in our (ERP) Environmental Resource Permitting section have no knowledge of any permits or authorization to fill this referenced site. Please provide such authorization or permits you may be able to locate and submit them to the Department.

, 6/13/00

Direct sale to contractors for removal from the site for unrestricted use or use as a topsoil replacement in yards or green areas will require the material to be classified as "clean debris" as defined in FAC 62-701.200(14) or a determination that all analytical results are at or below the residential soil cleanup target levels. The solid waste section will discuss the use of the material as restoration for canal banks and restoration of mitigated areas with our ERP section pending results of the sampling data you provide to the Department for review.

Prior to a determination of potential reuses of the stockpiled material, a Department approved Sampling Plan must be implemented. The requirements for the Sampling Plan and analytical parameters follow:

Sampling Plan – The existing north county stockpile must be characterized in a manner consistent with the procedures described in the EPA document entitled "Test Methods for Evaluating Solid Waste", SW-846, Chapter Nine. At a minimum, fourteen representative composite samples are needed to characterize the existing stockpile. The locations of the samples within the stockpile shall be randomly selected using a grid pattern as presented in SW-846 (attached). All sample collection and analytical activities performed to characterize the stockpile shall be conducted by firms possessing a Comprehensive Quality Assurance Plan (CompQAP) approved by the Department to meet the requirements of Chapter 62-160, F.A.C. The CompQAP must specifically address the types of sampling and analytical work required for characterization of the stockpile. Please submit the proposed sampling plan to the Department for review and approval prior to implementation.

Mr. James N. Somers, P.E.
Manager, Drainage Operations
Sarasota County Public Works Department

June 23, 2000 Page 2

Analytical Parameters – Total analyses of the collected soil samples are required. The method detection limits reported by the laboratory must be at or below the individual analyte's Soil Cleanup Target Levels (SCTL) presented in Table II, Chapter 62-777, F.A.C., to demonstrate compliance. The parameters of interest for the existing north county stockpile follow:

- RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), aluminum, copper, nickel, and zinc.

- Total recoverable petroleum hydrocarbons.

Volatile organic compounds listed by EPA Method 8260B.

- Semi-volatile organic compounds listed by EPA Method 8270D.

- If the pesticides listed in EPA Method 8270D are reported at concentrations that exceed the residential Soil Cleanup Target Levels presented in Table II of Chapter 62-777, F.A.C., additional analyses may be required to further characterize the presence of pesticides. Upon review of the analytical results, the Department will identify supplemental analytical methods, if appropriate.

If you have any questions you may contact John Morris or myself at 813-744-6100, Ext. 336 or 451, respectively.

Sincerely,

Robert J. Butera, P.E Solid Waste Manager Southwest District

#### Attachments

cc: John Morris, FDEP - Tampa
Gary Bennett, Manager Solid Waste Operations
William Nichols, P.E. - General Manager, Operations & Maintenance

### Waste Piles

In waste piles, the accessibility of waste for sampling is usually a function of pile size, a key factor in the design of a sampling strategy for a waste pile. Ideally, piles containing unknown wastes should be sampled using a three-dimensional simple random sampling strategy. This strategy can be employed only if all points within the pile can be accessed. In such cases, the pile should be divided into a three-dimensional grid system, the grid sections assigned numbers, and the sampling points then chosen using random-number tables or random-number generators.

If sampling is limited to certain portions of the pile, then the collected sample will be representative only of those portions, unless the waste is known to be homogeneous.

In cases where the size of a pile impedes access to the waste, a set of samples that are representative of the entire pile can be obtained with a minimum of effort by scheduling sampling to coincide with pile removal. The number of truckloads needed to remove the pile should be estimated and the truckloads randomly chosen for sampling.

The sampling devices most commonly used for small piles are thiefs, triers, and shovels. Excavation equipment, such as backhoes, can be useful for sampling medium-sized piles.

### Landfills and Lagoons

Landfills contain primarily solid waste, whereas lagooned waste may range from liquids to dried sludge residues. Lagooned waste that is either liquid or semisolid is often best sampled using the methods recommended for large tanks. Usually, solid wastes contained in a landfill or lagoon are best sampled using the three-dimensional random sampling strategy.

The three-dimensional random sampling strategy involves establishing an imaginary three-dimensional grid of sampling points in the waste and then using random-number tables or random-number generators to select points for sampling. In the case of landfills and lagoons, the grid is established using a survey or map of the area. The map is divided into two two-dimensional grids with sections of equal size. (An alternative way of choosing random sampling locations is presented in the second example described in Section 9.2.2.1.) These sections are then assigned numbers sequentially.

Next, the depth to which sampling will take place is determined and subdivided into equal levels, which are also sequentially numbered. (The lowest sampling depth will vary from landfill to landfill. Usually, sampling extends to the interface of the fill and the natural soils. If soil contamination is suspected, sampling may extend into the natural soil.) The horizontal and vertical sampling coordinates are then selected using random-number tables or random-number generators. If some information is known about the nature of the waste, then a modified three-dimensional strategy may be more appropriate. For example, if the landfill consists of several cells, a more precise measurement may be obtained by considering each cell as a stratum and employing a stratified three-dimensional random sampling strategy (see Section 9.1).



June 26, 2001

Florida Department of Environmental Protection Southwest District ATTN: Susan Pelz 3804 Coconut Palm Drive Tampa, Florida 33619-8318

Re: Ditch Cleanings at Palmer Boulevard and Bell Road (north county) in Sarasota County, FL

Dear Ms. Pelz,

I am contacting you in reference to the sampling and analysis of ditch cleaning materials from the north county stockpile in Sarasota County, Florida. In a report dated February 23, 2000 (File No. 99-8597), Ardaman and Associates reported that the two soil samples passed the tests for FL-PRO, barium, cadmium, chromium, copper, lead, nickel, selenium, silver, zinc, and mercury. However, the samples exceeded the direct exposure limit of .08 mg/kg for arsenic at concentrations of 1.4 and 1.8 mg/kg. These levels met the commercial fill specifications, but not the residential specifications. The soil was sampled on February 10, 2000.

Approximately 8,000 cubic yards were at this site by February 10, 2000 and approximately 7,000 cubic yards were added to this site after testing. We would like to use this soil as fill for commercial county projects such as backfill under a parking lot or road. We would not be selling this soil as commercial fill as indicated in Robert Butera's letter from June 23, 2000, but utilizing it as our own commercial fill.

With this intent in mind, we would like to have Ardaman and Associates take 15 samples of the 15,000 cubic yards of ditch cleanings for arsenic analysis only. The samples will be taken in a grid pattern across the site. A single composited soil sample will be collected at each of the 15 sample locations through the fill material horizon.

If this testing plan is acceptable to FDEP and assuming it again meets the commercial fill tolerances for arsenic, we will continue to use it for Sarasota County projects. Please let me know what documentation may be required.

Your time and assistance is appreciated. Thank you.

Sincerely,

Jennifer W. Shannon

Enclosure

C:

Jim Somers, P.E., Drainage Operations

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

JUL 0 3 2001

SOUTHWEST DISTRICT



Jeb Bush Governor

# Department of Environmental Protection

Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

David B. Struhs Secretary

June 23, 2000

Mr. James N. Somers, P.E.
Manager, Drainage Operations
Sarasota County Public Works Department
100 Cattlemen Road
Sarasota, FL 34232

RECEIVED

PUBLIC WONTERFORMER

Re: Bell Road Stockpile - Ditch Cleanings, etc.

Dear Mr. Somers:

The Department was in receipt of your letter requesting information required for soil sampling of the referenced stockpile for future management and or reuses. At the April 27, 2000 meeting and in your letter you indicated that this Department had permitted and provided authorization for filling the northwest quadrant to elevation 21.0. The attached plan you submitted may have been approved by the County's Stormwater Environmental Utility Department but staff in our (ERP) Environmental Resource Permitting section have no knowledge of any permits or authorization to fill this referenced site. Please provide such authorization or permits you may be able to locate and submit them to the Department.

Direct sale to contractors for removal from the site for unrestricted use or use as a topsoil replacement in yards or green areas will require the material to be classified as "clean debris" as defined in FAC 62-701.200(14) or a determination that all analytical results are at or below the residential soil cleanup target levels. The solid waste section will discuss the use of the material as restoration for canal banks and restoration of mitigated areas with our ERP section pending results of the sampling data you provide to the Department for review.

Prior to a determination of potential reuses of the stockpiled material, a Department approved Sampling Plan must be implemented. The requirements for the Sampling Plan and analytical parameters follow:

Sampling Plan – The existing north county stockpile must be characterized in a manner consistent with the procedures described in the EPA document entitled "Test Methods for Evaluating Solid Waste", SW-846, Chapter Nine. At a minimum, fourteen representative composite samples are needed to characterize the existing stockpile. The locations of the samples within the stockpile shall be randomly selected using a grid pattern as presented in SW-846 (attached). All sample collection and analytical activities performed to characterize the stockpile shall be conducted by firms possessing a Comprehensive Quality Assurance Plan (CompQAP) approved by the Department to meet the requirements of Chapter 62-160, F.A.C. The CompQAP must specifically address the types of sampling and analytical work required for characterization of the stockpile. Please submit the proposed sampling plan to the Department for review and approval prior to implementation.

Mr. James N. Somers, P.E. Manager, Drainage Operations Sarasota County Public Works Department June 23, 2000 Page 2

<u>Analytical Parameters</u> – Total analyses of the collected soil samples are required. The method detection limits reported by the laboratory must be at or below the individual analyte's Soil Cleanup Target Levels (SCTL) presented in Table II, Chapter 62-777, F.A.C., to demonstrate compliance. The parameters of interest for the existing north county stockpile follow:

- RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), aluminum, copper, nickel, and zinc.
- Total recoverable petroleum hydrocarbons.
- Volatile organic compounds listed by EPA Method 8260B.
- Semi-volatile organic compounds listed by EPA Method 8270D.
- If the pesticides listed in EPA Method 8270D are reported at concentrations that exceed the residential Soil Cleanup Target Levels presented in Table II of Chapter 62-777, F.A.C., additional analyses may be required to further characterize the presence of pesticides. Upon review of the analytical results, the Department will identify supplemental analytical methods, if appropriate.

If you have any questions you may contact John Morris or myself at 813-744-6100, Ext. 336 or 451, respectively.

Sincerely,

Robert J. Butera, P.E Solid Waste Manager Southwest District

#### Attachments

cc: John Morris, FDEP - Tampa
Gary Bennett, Manager Solid Waste Operations
William Nichols, P.E. - General Manager, Operations & Maintenance

#### Waste Piles

In waste piles, the accessibility of waste for sampling is usually a function of pile size, a key factor in the design of a sampling strategy for a waste pile. Ideally, piles containing unknown wastes should be sampled using a three-dimensional simple random sampling strategy. This strategy can be employed only if all points within the pile can be accessed. In such cases, the pile should be divided into a three-dimensional grid system, the grid sections assigned numbers, and the sampling points then chosen using random-number tables or random-number generators.

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The sampling devices most commonly used for small piles are thiefs, triers, and shovels. Excavation equipment, such as backhoes, can be useful for sampling medium-sized piles.

#### Landfills and Lagoons

Landfills contain primarily solid waste, whereas lagooned waste may range from liquids to dried sludge residues. Lagooned waste that is either liquid or semisolid is often best sampled using the methods recommended for large tanks. Usually, solid wastes contained in a landfill or lagoon are best sampled using the three-dimensional random sampling strategy.

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Revision 0 Date <u>September 1986</u>



# Department of Environmental Protection

Jeb Bush Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

David B. Struhs Secretary

June 23, 2000

Mr. James N. Somers, P.E. Manager, Drainage Operations Sarasota County Public Works Department 100 Cattlemen Road Sarasota, FL 34232

Re: Bell Road Stockpile - Ditch Cleanings, etc.

Dear Mr. Somers:

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Mr. James N. Somers, P.E. Manager, Drainage Operations Sarasota County Public Works Department June 23, 2000 Page 2

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Sincerely,

Robert J. Butera, P.E Solid Waste Manager Southwest District

#### Attachments

cc: John Morris, FDEP - Tampa
Gary Bennett, Manager Solid Waste Operations
William Nichols, P.E. - General Manager, Operations & Maintenance

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June 13, 2000

Mr. Robert J. Butera, P.E. Manager, Solid Waste Florida Department of Environmental Protection 3804 Coconut Palm Drive Tampa, FL 33619

RE:

Letter of May 9, 2000 to Dan Blackwood

Dear Mr. Butera:

Thank you for your letter of May 9, 2000 outlining the result of our April 27 meeting. The comments regarding ditch-cleaning material at the South County yard were particularly positive and we are moving forward to recycle the stockpile.

The purpose of this letter is to request clarification of the last sentence in the second paragraph stating "Please be aware ... stormwater sediments, dredge spoils ... must be managed as a solid waste and reuse option will have to be authorized by the Department in accordance with criteria established by the Street Sweeping Focus Group."

Stormwater sediment or dredge spoils, in the form of sandbars in our waterways are removed routinely to improve stormwater flow. This material is generally silty sand and after drying is applicable for use as pipe backfill, slope restoration and other similar efforts.

Additionally, at our meeting, reference was made to a "stockpile testing procedure". If you can provide me with the details of this sampling/testing technique, we would utilize this method on the Bell Road stockpile.

Yours Truly,

James N. Somers, P.E.

Manager, Drainage Operations

JNS/ske

c: Dan Blackwood, Manager, Road and Bridge Operations



## **Department of Environmental Protection**

leb Bush Governor

Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

David B. Struhs Secretary

May 9, 2000

Mr. Dan Blackwood Sarasota County Road & Bridge Manager 100 Cattleman Road Sarasota, Florida 34232

> Re: Request for the Department's Guidance for Use of Ditch Cleanings located at South County Road and Bridge Facility, Annex Road, Venice, Sarasota County, Florida

Dear Mr: Blackwood:

The Florida Department of Environmental Protection appreciates meeting and discussing with you options available for the proper management of streetsweepings and ditch cleanings collected at the referenced facility on April 27, 2000. Based on the sampling results from the analytical results in the Ardaman Report entitled Sampling and Analysis of Ditch Cleanings from North and South County Stockpiles, Sarasota County, Florida in the February 23, 2000 report submitted to the Department on March 15, 2000 the Department has no objection for the unresticted use of the ditch cleanings stockpiles at the South County location only.

Ditch cleanings may or may not be classified as solid waste depending on how they are managed. At this time the Department does not intend to regulate ditch cleanings if the materials are free of solid wastes (paper, plastic, metals, etc.) such as the piles observed at the referenced facility. Currently no further testing of future accumulation of ditch cleanings originating from the sources that generated the piles currently stockpiled and sampled will be required. Should the Street Sweeping Focus Group address the management of ditch cleanings and the associated testing protocol the Department will inform the County. Please be aware that street sweepings, catch basin sediments, stormwater sediments, dredge spoils and other similar soil type materials must be managed as a solid waste and reuse options will have to be authorized by the Department in accordance with criteria established by the Street Sweeping Focus Group.

It is the Department's understanding that all street sweepings currently managed at the referenced site shall be tipped onto the slab contained within the three-sided structure and removed by day's end to a roll-off container. In addition, the roll-off shall be tarped at all times except when being loaded and ultimately disposed of when full at a permitted Class I Landfill.

If you have any questions concerning this letter please contact me at 813-744-6100, Ext. 451.

Sincerely yours,

Robert J. Butera, P.E. Solid Waste Manager

Southwest District

CC:

William Nichols, Sarasota County Director of Public Works

Gary Bennett, Sarasota County Solid Waste Operations Manager, 4000 Knights Trail Road,

Nokomis, FL 34275

John Morris, P.G. - FDEP





SOUTHWES IN

May 1, 2000

Mr. John Morris Florida Department of Environmental Protection 3804 Coconut Palm Drive Tampa, FL 33619-8318

RE: Bell Road Stockpile

Dear Mr. Morris;

As per our on site meeting of April 27, 2000, please accept the following information:

#### Sources of Material Stockpiled

- Ditch cleaning material (confined to northwesterly, lower level of stockpile)
- Excavation of mitigation area (littoral shelf) from Phillippi Creek at McIntosh Road (placed in northwest quadrant)
- Excess material from storm sewer construction (various areas)
- Grass mats and sand bar removal (various areas of non-navigable waterways).

#### Types of reuse

- County backfill for storm sewer installation (piping existing ditches)
- County topsoil replacement in yards and other green areas
- Slope restoration of eroded canal banks
- County topsoil for restored mitigation areas
- Direct sale to contractors for removal from site (pending Deed Restrictions for commercial uses)

 Remain in place (FDEP permitted plans for Celery Fields construction includes filling of northwest guadrant to elevation 21.0, copy attached. Pending deed restrictions for commercial use. This option has been approved by Stormwater Environmental Utility.

Further understanding of that meeting, is that upon your review of this information, you will provide a stockpile sampling plan and a list of additional parameters that require testing. These tests will then determine the ultimate fate of these soils.

We wish to again thank you for the consideration you have shown, and if you have any questions, please call me at (941) 316-1460.

Yours Truly,

James N. Somers, P.E.

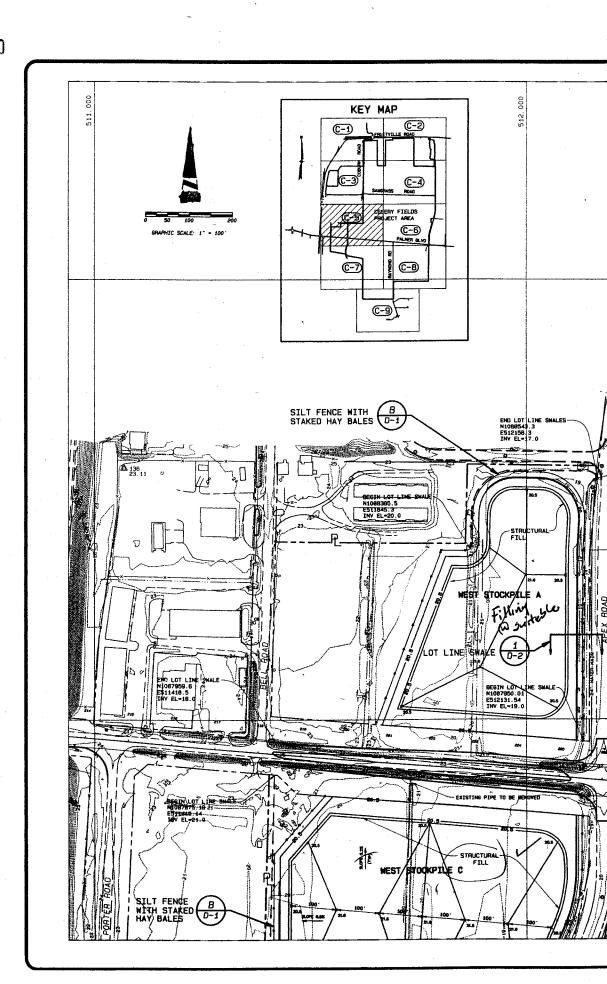
Manager, Drainage Operations

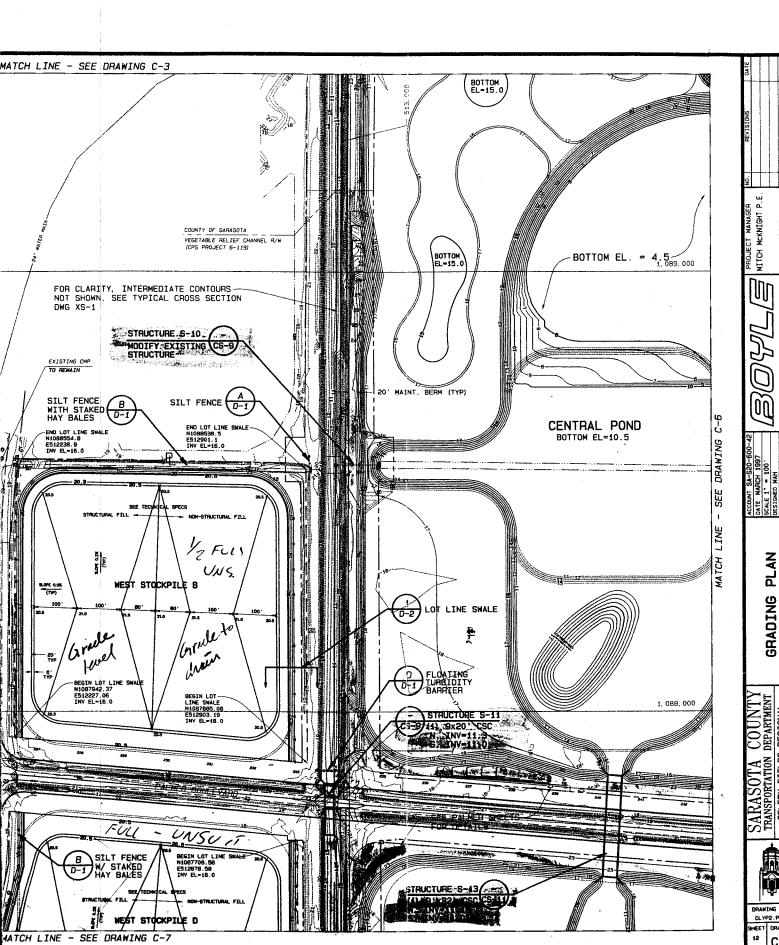
JNS/ske

c: Robert J. Bulteva, P.E., Manager, Solid Waste William J. Nichols, P.E., General Manager, Operations & Maintenance Gary Bennett, Manager Solid Waste Operations Dan Blackwood, Manager, Road & Bridge

MAY 0 3 2000

COURT MEST THE





CELERY FIELDS REGIONAL STORMWATER FACILITY PHASE

HEET DRAWING C-5

RB

## STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION SOUTHWEST DISTRICT

#### CONVERSATION RECORD

| Date 4(17/60                              | Subject DAEDGE MATERIAL DISPOSAL                   |
|---|--|
| Time 1450                                 | Permit No. $\sqrt{4}$                              |
|   | County SAMSOTA                                     |
| MR GAM BENNET                             | Telephone No. 941 - 436 - 7600                     |
| Representing SARASOTA COUNTY              |  |
| [ ] Phoned Me [ ] Was Cal                 | lled [ ] Scheduled Meeting [ ] Unscheduled Meeting |
| Other Individuals Involved in Conversa    | ation/Meeting                                      |
|   |  |
| Summary of Conversation/Meeting           |  |
| - DAEDENG PADVECT BEING PLANT             | NEO BY SARASOTA COUNTY UTILITIES                   |
| - HE IS LEDICING FOR 1 INPUT              | REGAMING THE USE OF THE MATERIAL AS COVER & WHAT   |
| TESTING COUTENA WOULD BE                  | Rearmed By DEP.                                    |
| - REFERMED TO THE FAT I                   | SOUT TO MARK TRUPLETT WHOM FLAST LEDICED AT        |
| SALASOTA COUNTY DITCH CL                  | LOAVINGS FILE AT SWITH COUNTY DPW YARD WHEN IT     |
|   | FOR USE AT VENUE LF FOR REGRADING                  |
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| Pennelli Croak WEST of                    | US 41 HE THINKS, BUT NOT SURE OF LOCATION          |
| - HE DOES NOT KNOW WHE                    | ERE IT WOND BE STOCKFUED ON HOW WATER              |
| DAPINING OUT OF THE MA                    | TEMAL WAND BE HANDLED , HE WANTS IT TO             |
| DAAIN BEFORE THINSPORT                    | TO COURSE COUNTY LF                                |
| - WANTS TO KNOW FREEZUENCY                | OF TESTING STOLD HIM I WOULD COMMINATE W           |
| RJB of CALL HIM BALK                      |  |
| - LOUICING AT JULY DEAN                   | DUNE FOR COUNTY TO WAS GET BID OUT                 |
| (continue on another sheet, if necessary) | Signature  |
|   | Title  |

PA-01 1/96 pap

# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION SOUTHWEST DISTRICT

#### CONVERSATION RECORD

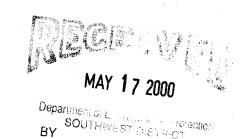
| Date 4-17-00  | Subject  |
|---|--|
| Time //:30 A.M.   | Permit No.   |
|   | County SALASOTA COUNTY   |
| M. R. DAS BLACKWOOD   | Telephone No.  |
| Representing  |  |
| Phoned Me [ ] Was Called Other Individuals Involved in Conversation/M | [ ] Scheduled Meeting [ ] Unscheduled Meeting eeting   |
| Summary of Conversation/Meeting                                       |  |
| - DISCUSS SAMPLING RESULT<br>DITTER CLEANING PLES.                    | IS FROM NORTH CONNY & SOUTH COUNTY   |
|   | WIN RESTRICTED USE OF THE SOUTH COUNTY   |
|   | 45 COLECTED IN SOUTH COLLY WILL BE   |
| SEMI-ANNUALLY PRIOR TO L  |  |
| THE NEW STOCKPIED AND EXISTA  | of THE SOUTH COUNTY COCATION COCATANY  |
| - WILL DISCUSS USE OF NO  | ATH COUNTY DITCH CLEANINGS AT SCHEPULE   |
| MEETING (a) 9:00 A.M. (a) SOUTH                                       |  |
|   |  |
|   |  |
| (continue on another Signal sheet, if necessary)  Title               | e = The state of t |

PA-01 1/96

pap

4/11/00 6 mos to 1/2 years
about 20,000 yds
Fill dirt fill Dirt 2-3 years ABout 10,000 yd Skeller





May 1, 2000

Mr. John Morris Florida Department of Environmental Protection 3804 Coconut Palm Drive Tampa, FL 33619-8318

RE: Bell Road Stockpile

Dear Mr. Morris;

As per our on site meeting of April 27, 2000, please accept the following information:

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We wish to again thank you for the consideration you have shown, and if you have any questions, please call me at (941) 316-1460.

Yours Truly,

James N. Somers, P.E.

Manager, Drainage Operations

JNS/ske

C: Robert J. Bulteva, P.E., Manager, Solid Waste William J. Nichols, P.E., General Manager, Operations & Maintenance Gary Bennett, Manager Solid Waste Operations Dan Blackwood, Manager, Road & Bridge

Mr. Buttera,

Please forgive me
for not catching the
spelling of your last name
before pending out.

Sendy astabrooks

#### INTEROFFICE MEMORANDUM

Date:

12-May-2000 09:15pm

From:

RJbutera

rjbutera@home.com

Dept: Tel No:

To:

Susan.Pelz

To:

John Morris

( Susan.Pelz@dep.state.fl.us )

( John.Morris@dep.state.fl.us )

Subject: Letter to WCIND

I forgot to add to your list......track down the letter I drafted to I believe Sam Johnston @ West Coast Inland Navigation District relating to ditch cleanings. I asked Bob Stetler to review it before I sent it. He gave it to Mark Petersen......what a log jam!!!!!! Hopefully you and John receive this message.

> Mark Refersor said they marked you memo "dast!" & Faxed to Sam Johnston. He seemed to be satisfied with it, So the dosel - No finther Action weedel. If they went AN "OFicial" copy (not dust) they will let us know.

Memorandym

# Florida Department of Environmental Protection

To: Robert Stetler, Environmental Administrator

From: Robert Butera, P.E. III, Solid Waste Manager

DRAFT

Date: May 5, 2000

Re: Dredge Material Testing for the West Coast Inland Navigation District - Letter to

you dated May 3, 2000 from Sam Johnston Jr.

At your request I have reviewed the subject letter you received requesting clarification relating to the various suites of sampling analysis that may be requested by Sarasota County vs. the requirements for RCRA metals only for the Manatee County Lena Road Landfill.

Manatee County's Lena Road Landfill is a slurry wall landfill. The slurry wall encompasses about 130 acres in the current active phase. The facility is required to maintain an inward gradient by operating a leachate collection system and measuring water levels at pairs of groundwater monitoring wells on both sides of the slurry wall. This solid waste facility can accept all materials that are not hazardous and has extensive storage areas for staging approved cover materials within the slurry wall for future use assuring the Department that no discharges will occur outside the groundwater monitoring system.

The suites of analysis identified in the referenced letter that may be required by Sarasota County were received from the Department's solid waste section for screening ditch cleanings and other drainage sediments to allow staging of that waste type outside the lined landfill for the potential use as landfill cover. Sarasota County's Central Disposal Complex is a lined landfill which is segmented into 5 – 11 acre sections. The current active cell is 11 acres while all other cells have no waste disposed and they are valved to discharge to stormwater until utilized for waste disposal. The solid waste section, specifically John Morris, P.G. has received a request from Gary Bennett of Sarasota County to determine the testing protocol. John Morris will be responding to Gary Bennett of Sarasota County with the required sampling analysis for the potential dredge materials. Please provide John or myself a copy of the permit issued for the dredging and assistance with metals or other pollutants that we should typically be aware of within background data for Phillippi Creek.

I hope this clarifies the reason for the varying guidelines and I assure you we will not require testing other than testing required to provide the Department assurance that the groundwater and surface waters at the proposed staging areas are protective of the environment. On May 4, 2000 I contacted Mr. Dean Mades to clarify the reasons for the suites noted in the letter as well as the variations in the proposed storage areas prior to use of the material.

cc: Mr. Sam Johnston, Jr.
Chuck Listowski, WCIND
Dean Mades, EBA
Gary Bennett, Sarasota County
John Morris, P.G., FDEP

## INTEROFFICE MEMORANDUM

Date:

12-May-2000 09:15pm

From:

RJbutera

rjbutera@home.com

Dept: Tel No:

To:

Susan.Pelz

To:

John.Morris

( Susan.Pelz@dep.state.fl.us )

( John.Morris@dep.state.fl.us )

Subject: Letter to WCIND

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- sent email to Mark Peterson s/12/00 - update?























#### SARASOTA COUNTY GOVERNMENT SARASOTA, FLORIDA

#### **Transportation Department**

RECEIVE Guerations
MAR 1 7 2000

| Depai | u                  |
|-------|--------------------|
|       | SOUTHWEST DISTRICT |
| BY.   |                    |

100 Cattlemen Road Sarasota, Florida 34232 Telephone (941) 316-1460 FAX (941) 316-1326

March 15, 2000

Department of Environmental Protection Mr. Robert J. Butera, P.E., Solid Waste Manager Southwest District 3804 Coconut Palm Drive Tampa, FL 33619

Dear Mr. Butera:

This letter is in reply to your request regarding our management procedures and testing results of ditch cleanings after our January 20, 2000 meeting.

The Road & Bridge Division of Public Works has leased two twenty yard roll-off containers to store street sweeping materials prior to transport to the Sarasota County Central Landfill. After the sweepers unload, the materials are immediately placed in the covered roll-offs located at Gypsy Street and the South County Maintenance facility and taken as solid waste to the Landfill after the containers reach capacity. The catch basin sediments, which are collected by the Drainage Division of Public Works, are immediately taken to the landfill after decanting for disposal.

Please find enclosed analysis reports for ditch cleaning materials dated February 23, 2000 and March 8, 2000 as prepared by Ardaman and Associates, Inc., Geotechnical, Environmental and Materials Consultants. As evident within the reports, the initial test and resample test for ditch cleanings from North County indicated Arsenic levels exceeding Soil Cleanup Target Levels. All other constituents noted in both the North and South County samplings were detected at levels below both the Direct Exposure and Leachability Limits.

We would therefore like, after your review, to schedule another meeting to discuss the reuse and or disposal options for the ditch cleanings presently collected by the County. Since our previous meeting, we have deferred all transporting of materials to the Central Landfill for disposal or reuse pending your consideration of our findings. We would appreciate meeting with you at your earliest convenience.

Sincerely,

A. Daniel Blackwood, Manager Road & Bridge Division

10 DPStackum

William J. Nichols, P.E., General Manager, Public Works Operations & Maintenance
 James N. Somers, P.E., Manager, Drainage Operations
 Gary Bennett, Manager, Solid Waste Operations

Printed on Decycled Pane



#### Ardaman & Associates, Inc.



Department of Environmental Protection SOUTHWEST DISTRICT

March 8, 2000 File No. 99-8597

TO:

Sarasota County Public Works Business Center

Drainage Operations Division

100 Cattlemen Road Sarasota FL 34232

Attention: Mr. Jim Sommers

SUBJECT:

Testing of Materials for Ditch Cleanings at North County Facility, Sarasota

County, Florida

#### Ladies and Gentlemen:

As requested by Mr. Jim Somers, additional sampling of North County Ditch Cleaning (NCDC) materials was conducted for Arsenic analysis. Two (2) samples were collected at the facility located at the intersection of Bell Road and Palmer Lane. Samples were collected as described in the February 23, 2000 report. Samples were submitted to the laboratory for Arsenic analysis only. A copy of the chain-of-custody form and laboratory analysis for the two (2) sample locations are included as an attachment. As indicated Arsenic was detected at North County Ditch Cleaning Location 1 at 1.4 milligrams per kilogram and at North County Ditch Cleaning Location 2 at 1.1 mg/kg. Both detected concentrations exceed the Soil Cleanup Target Level for Arsenic under direct exposure residential limits of 0.8 mg/kg.

It has been a pleasure to be of assistance to you. Please contact our office when we may be of further service to you or if you should have any questions.

Very truly yours,

Ardaman & Associates, Inc.

Ashby Hoover, P.E.

Project Engineer

Eng. Reg. No. 49942

Gary H. Schmidt, P.E.

Vice President

Eng. Reg. No. 12305

AH/GHS:nh

4420 Pé..\_Jla Point Roac Tampa, Florida 33615 (813) 247-2805 • Fax: (813) 248-1537 E-Mail: login@Pelab.con ⊋ 2000 Chain of Custody Record
Record/Work Request

| 0110011 1110111 1110111                       |               |                           |                               | 200                       | 2003-000 Km            |  | ⊋₽>- <br> <br> |
|---|---------------|---------------------------|-------------------------------|---------------------------|------------------------|--|----------------|
| PEL Laboratories, Inc.                        |               |                           |                               |                           |                        | Page of  | 07-<br>'       |
| Company:                                      | E V           | Sorasofa Dif              | Dikh Cleaning                 | 2658-66                   | 1297                   | DEP Form #: 62-770.900(2)  | 2000           |
| Address:                                      |               |                           | \                             |                           |                        | Form Title: Chain of Custody Record Effective Date: September 23, 1997 | 15:            |
| 150 Cae Kide Co. Causala                      |               | Purchase Order:           | 2                             |                           |                        | FDEP Facility No.  | 57             |
| Phone:  | 1             |                           |                               | Preservatives (see codes) | codes)                 | Project Name:  |                |
|   |               |                           | 4                             |                           |                        | Sampling CompQAP No:   |                |
| ove   |               |                           |                               | Analyses Requested        | ested                  | Approval Date:   |                |
| Sampler(s) Signature(s)                       |               |                           | 24                            |                           |                        | REQUESTED DUE DATE   |                |
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| Shipment Method                               |               |                           | Tota                          | 8                         | K                      | A And A defication Date  | E              |
| Out: / / Via:                                 | Item Nos.     | Relinquished              | Relinquished by / Affiliation | Date Time                 | 1                      | 1  | 81             |
| Returned: / / Via.                            |               | 7                         | ackul!                        |                           | Charles Charles        | Dans 1 Par   | 3 2            |
| Additional Comments:                          |               | 1                         |                               |                           |                        |  | 48             |
| Stude Ach lor 10's Che                        |               | ,                         |                               |                           |                        |  | 153            |
|   |               |                           |                               |                           |                        |  | 7              |
|   | - -           | () () (Temperature(c) (C) | magnitude (C)                 |                           | Sampling Kit No.       | Equipment ID No.   | P. 6           |
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| due: 3/8/00                                   |               |                           | - 1                           |                           | W = Water (Blanks) 0 = | O = Other (specify)  | /04            |
| MATRIX CODES: A = Air GW = Groundwater        | S             | - 1                       |                               |                           | O = Other              | cify)  |                |
| PRESERVATION CODES: H-Hydrochloric acid + ice |               | I=Ice only N=I            | N = Nitric acid + ice S:      | = Suirunc acto + 1cc      |                        |  |                |

Chip Hoover To:

Ardaman & Associates

PEL Lab# : 200300501

Client ID: NCDC-1

Matrix: Soil

PROJECT\_SEQ: 2003005

PROJECT ID: Sarasota Ditch Cleaning

Collection Information:

Sample Date: 2/29/00 11:22:00 AM

ND = Less than RL

| Parameter  | Method      | Results | Units | RL   | Dilution<br>Factor |
|------------|-------------|---------|-------|------|--------------------|
| INORGANICS | SW-846 6010 |         |       |      |                    |
| Arsenic    | SW-846 6010 | 1.4     | mg/Kg | 0.50 | 1                  |

PEL

To: Chip Hoover

Ardaman & Associates

PROJECT\_SEQ: 2003005

PROJECT ID: Sarasota Ditch Cleaning

Collection Information:

Sample Date: 2/29/00 11:38:00 AM

ND = Less than RL

PEL Lab# : 200300502 Client ID : NCDC-2

Matrix: Soil

| Parameter  | Method      | Results | Units | RL   | Dilution<br>Factor |
|------------|-------------|---------|-------|------|--------------------|
| INORGANICS | SW-846 6010 |         |       |      |                    |
| Arsenic    | SW-846 6010 | 1.1     | mg/Kg | 0.50 | 1                  |

Brian C. Spann

Laboratory Manager



SAMPLING AND ANALYSIS OF DITCH CLEANING MATERIALS FROM "NORTH AND SOUTH COUNTY STOCKPILES, SARASOTA COUNTY, FLORIDA"



Ardaman & Associates, Inc.

#### **OFFICES**

Orlando, 8008 S. Orange Avenue, Orlando, Florida 32809, Phone (407) 855-3860

Bartow, 1525 Centennial Drive, Bartow, Florida 33830, Phone (941) 533-0858

Cocoa, 1300 N. Cocoa Blvd., Cocoa, Florida 32922, Phone (407) 632-2503

Fort Lauderdale, 3665 Park Central Boulevard North, Pompano Beach, Florida 33064, Phone (954) 969-8788

Fort Myers, 9970 Bavaria Road, Fort Myers, Florida 33913, Phone (941) 768-6600

Miami, 2608 W. 84th Street, Hialeah, Florida 33016, Phone (305) 825-2683

Port Charlotte, 740 Tamiami Trail, Unit 3, Port Charlotte, Florida 33954, Phone (941) 624-3393

Port St. Lucie, 1017 S.E. Holbrook Ct., Port St. Lucie, Florida 34952, Phone (561) 337-1200

Sarasota, 2500 Bee Ridge Road, Sarasota, Florida 34239, Phone (941) 922-3526

Tallahassee, 3175 West Tharpe Street, Tallahassee, Florida 32303, Phone (850) 576-6131

Tampa, 1406 Tech Boulevard, Tampa, Florida 33619, Phone (813) 620-3389

West Palm Beach, 2511 Westgate Avenue, Suite 10, West Palm Beach, Florida 33409, Phone (561) 687-8200

#### MEMBERS:

A.S.F.E.
American Concrete Institute
American Society for Testing and Materials
Florida Institute of Consulting Engineers



February 23, 2000 File No. 99-8597

TO:

Sarasota County Public Works Business Center

**Drainage Operations Division** 

100 Cattlemen Road Sarasota FL 34232

Attention: Mr. Jim Sommers and Mr. Gary Downing

SUBJECT:

Sampling and Analysis of Ditch Cleaning Materials from North and South County

Stockpiles, Sarasota County, Florida

#### Ladies and Gentlemen:

As requested, Ardaman & Associates, Inc. has conducted additional sampling and analysis of material stockpiles accumulated by Sarasota County as a result of ditch cleaning operations. This report will document the results of our field sampling and analysis.

On February 10, 2000, ditch cleaning materials stockpiled at Sarasota County locations were collected for submittal to the laboratory. Material locations had been previously identified by County personnel. The South County stockpile area is located in a maintenance facility on S.R. 776 in Venice, Florida. Two (2) stockpiles are located at this facility, which consist of ditch cleaning material. The northern most stockpile is from recently accumulated ditch cleaning and the southern stockpile is generally material which has been accumulated for over 1 year. Samples collected at this facility consisted of South County Ditch Cleaning 1 (SCDC-1), which consisted of the older material and South Cleaning Ditch Cleaning 2 (SCDC-2), which consists of the newly accumulated material. At the North County location, located at the intersection of Bell Road and Palmer Boulevard, two (2) soil samples were also collected from ditch cleaning material. The samples were identified as North County Ditch Cleaning 1 (NCDC-1), which consisted of the northern one-half of the stockpile and North County Ditch Cleaning 2 (NCDC-2), which consisted of samples collected from the south half of the stockpile.

Soil samples were collected from five (5) locations within each dedicated area with the exception of organics collected according to EPA Method 8260, which was selected from a single sampling area at each sample site. The remaining samples were collected from five locations and composited in a stainless steel bowl and then placed directly into sample containers. Sample containers were capped, labeled and packed on ice for transport to the laboratory. Samples were submitted to the lab for analysis according to EPA Method 8260

Sarasota County Public Works Business Center File No. 99-8597 February 23, 2000

for volatile organics, Method 8270 for semi-volatile organics, EPA Methods 6010 and 7471 for the 8 RCRA Metals, plus Nickel, Copper and Zinc and according to the FL-PRO Method for petroleum hydrocarbons. A copy of the chain-of-custody form and laboratory analysis are included as an Appendix to this report. The detected analytes of concern in the ditch cleaning materials are summarized in Table 2.

As indicated, a number of metals were detected, as well as petroleum hydrocarbons. The two (2) right hand co of Table 2 indicate the Direct Exposure Limits (DE) for residential exposure and leachability limits (L) according to FAC 62-777. As indicated in the Table, only Arsenic, detected in North County Ditch Cleanings 1 and 2, at concentrations of 1.4 and 1.8 milligrams per kilogram (mg/kg), respectively, exceed the Direct Exposure Limit of 0.8 mg/kg. All other constituents which were detected, were detected at levels below both the Direct Exposure and Leachability Limits.

It has been a pleasure to be of assistance to you with this project. Please contact our office when we may be of further service to you or should you have any questions concerning this report.

Very truly yours,

Ardaman & Associates, Inc.

Ashby Hoover, P.E. Project Engineer

Eng. Reg. No. 49942

AH/GHS:nh

Gar H. Schmidt, P.E. Vice President

Eng. Reg. No. 12305

TOTALS OPEN PROPIAL WOIT PO EXC. SPLP. CLEANINGS

390

23,000 /

3.45.4

GEMI-ANNUAL TABLE

ANALYTES DETECTED IN DITCH CLEANINGS

| ANALYTE  | NCDC-1  | NCDC-2  | SCDC-1  | SCDC-2   | DE    | L      |
|----------|---------|---------|---------|----------|-------|--------|
| FL-PRO   | 81 🗸    | 210 🗸   | 94 🗸    | 35 🗸     | 340   | 340    |
| Arsenic  | 1.4 ✓   | 1.8 < 3 | 0.55 ⋅√ | 0.43 ✓   | 0.8 🗸 | 29 ✓   |
| Barium   | 7.4 🗸   | 28 /    | 5.5 ✓   | 4.7 ✓    | 110 🗸 | 1600 ✓ |
| Cadmium  | ND <0.1 | 0.47 /  | ND <0.1 | ND <0.1  | 75 /  | 8 🗸    |
| Chromium | 4.1 ✓   | 11 /    | 2.8 √   | 2.8 2.5  | 210 ✓ | 38 🗸   |
| Copper   | 9.8 /   | 16 🗸    | 2.1 ✓   | 2.5 0.95 | 110 🗸 |        |
| Lead     | 7.1 √   | 34 /    | 6.0 ✓   | 9.85 3.3 | 400 🗸 | en ee  |
| Nickel   | 0.99    | 5.1 🗸   | 0.67 🗸  | 3.3 0.34 | 110   | 130 🗸  |
| Selenium | ND <0.3 | 0.59    | ND <0.3 | 0.34<0.3 | 390 🗸 | 5      |

ND

7.9

ND (0:04

<0.1

ND <0.1

ND 3.8

3.8 <0.04

12,000

27 35

,6000

2.1

Concentrations in milligrams per kilogram = mg/kg

ND ∠<u>0.</u>1

ND < 0.03%

12

Silver

Mercury

Zinc

DE = Direct Exposure Limits for residential settings FAC 62-777

ND <0.1

527

0.057

L = Leachability Limits FAC 62-777

NCDC = North County Ditch Cleanings

SCDC = South County Ditch Cleanings

#### **APPENDIX**

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5. P.O. No.:

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DISTRIBUTION: White with report; Blue, Green, Yellow to labs; Gold to submitter

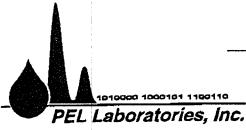
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Revised: 1/99



Report Date:

02/22/2000

To:

Craig Obrecht

Ardaman & Associates

2500 Bee Ridge Road

Sarasota, FL 34239

W 941-922-3526

F 941-922-6743

PROJECT ID: Ditch Cleaning / 99-8597

Work Order Number: 2002086

RECEIVE DATE: Friday, February 11, 2000

Project Notes:

Page: 1 of 25

## PEL LABORATORIES, INC.

Please note that the following report contains a Data Qualifier Code. Data Qualifier Codes have been adopted by the Florida Department of Environment Protection for use in environmental programs. These codes provide a description of anomalies that have occurred in the analytical process. The alpha code is located in the results column of the report body, and is defined by the State as follows:

J Estimated value; surrogate recovery limits have been exceeded.

When a sample fails to meet quality assurance limits for precision or accuracy, the sample analyses are repeated in an effort to meet criteria. However, if values continue to fail criteria but the batch QC for the samples meet established QC criteria the failure is a result of matrix interference. The effected results are flagged with a "I" data qualifier code.



To: Craig Obrecht

Ardaman & Associates

PEL Lab#: 200208601

Client ID: NCDC-1

Matrix: Soil

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 1:45:00 PM

ND = Less than RL

| Parameter                   | Method             | Results | Units         | RL         | Dilution   |
|-----------------------------|--------------------|---------|---------------|------------|------------|
| Semivolatiles               | FL Pro             |         |               |            |            |
| FL PRO                      | FL Pro             | 81      | mg/Kg(Dry wt) | 18         | 1          |
| C39 Surrogate               | FL Pro             | 86.9    | %             | (60 - 118) |            |
| o-Terphenyl Surrogate       | FL Pro             | 83.2    | %             | (62 - 109) |            |
| INORGANICS                  | SW-846 6010        |         |               |            |            |
| Arseni¢                     | SW-846 6010        | 1.4     | mg/Kg         | 0.20       | 1          |
| Barium                      | SW-846 6010        | 7.4     | mg/Kg         | 0.10       | 1          |
| Cadmium                     | SW-846 6010        | ND      | mg/Kg         | 0.10       | 1          |
| Chromium                    | SW-846 6010        | 4.1     | mg/Kg         | 0.10       | 1          |
| Copper                      | SW-846 6010        | 9.8     | mg/Kg         | 0.20       | 1          |
| Lead                        | SW-846 6010        | 7.1     | mg/Kg         | 0.20       | 1          |
| Nickel                      | SW-846 6010        | 0.99    | mg/Kg         | 0.20       | 1          |
| Selenium                    | SW-846 6010        | ND      | mg/Kg         | 0.30       | 1          |
| Silver                      | SW-846 6010        | ND      | mg/Kg         | 0.10       | 1          |
| INORGANICS                  | SW-846 6010        |         |               |            |            |
| Zinc                        | SW-846 6010        | 12      | mg/Kg         | 0.60       | 1          |
| Mercury                     | SW-846 7471        | ND      | mg/Kg         | 0.036      | į.         |
| Volatiles                   | SW-846 8260 (High) |         |               |            |            |
| 1,1,1,2-Tetrachloroethane   | SW-846 8260 (High) | ND      | ug/Kg         | 190        | 50         |
| 1,1,1-Trichloroethane       | SW-846 8260 (High) | ND      | ug/Kg         | . 190      | 50         |
| 1,1,2,2-Tetrachloroethane   | SW-846 8260 (High) | ND      | ug/Kg         | 190        | 50         |
| 1,1,2-Trichloroethane       | SW-846 8260 (High) | ND      | ug/Kg         | 190        | 50         |
| I,I-Dichloroethane          | SW-846 8260 (High) | ND      | ug/Kg         | 190        | 50         |
| 1,1-Dichloroethene          | SW-846 8260 (High) | ND      | ug/Kg         | 190        | 50         |
| 1,1-Dichloropropene         | SW-846 8260 (High) | ND      | ug/Kg         | 190        | 50         |
| 1,2,3-Trichlorobenzene      | SW-846 8260 (High) | ND      | ug/Kg         | 190        | <b>5</b> 0 |
| 1,2,3-Trichloropropane      | SW-846 8260 (High) | ND      | ug/Kg         | 190        | 50         |
| 1,2,4-Trichlorobenzene      | SW-846 8260 (High) | ND      | ug/Kg         | 190        | 50         |
| 1,2,4-Trimethylbenzene      | SW-846 8260 (High) | ND      | ug/Kg         | 190        | 50         |
| 1,2-Dibromo-3-chloropropane | SW-846 8260 (High) | ND      | ug/Kg         | 190        | 50         |
| 1,2-Dibromoethane(EDB)      | SW-846 8260 (High) | ND      | ug/Kg         | 190        | 50         |
| 1,2-Dichlorobenzene         | SW-846 8260 (High) | ND      | ug/Kg         | 190        | 50         |

Page: 2 of 25



To: Craig Obrecht

Ardaman & Associates

PEL Lab# : 200208601

Client ID: NCDC-1

Matrix: Soil

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 1:45:00 PM

ND = Less than RL

| Parameter                                   | Method                                   | Results | Units          | RL    | Dilution |
|---|--|---------|----------------|-------|----------|
|   | SW-846 8260 (High)                       | ND      | ug/Kg          | 190   | 50       |
| 1,2-Dichloroethane 1,2-Dichloropropane      | SW-846 8260 (High)                       | ND      | ug/Kg          | 190   | 50       |
| 1,2-Dictiloropropage 1,3,5-Trimethylbenzene | SW-846 8260 (High)                       | ND      | ug/Kg          | 190   | 50       |
|   | SW-846 8260 (High)                       | ND      | ug/Kg          | 190   | 50       |
| 1,3-Dichlorobenzene                         | SW-846 8260 (High)                       | ND      | ug/Kg          | 190   | 50       |
| 1,3-Dichloropropane                         | SW-846 8260 (High)                       | ND      | ug/Kg          | 380   | 50       |
| 1,4-Dichloro-2-butene                       | SW-846 8260 (High)                       | ND      | ug/Kg          | 190   | 50       |
| 1,4-Dichlorobenzene                         | SW-846 8260 (High)                       | ND      | ug/Kg          | 190   | 50       |
| 2,2-Dichloropropane                         | SW-846 8260 (High)                       | ND      | ug/Kg          | 470   | 50       |
| 2-Butanone                                  | SW-846 8260 (High)                       | ND      | ug/Kg          | 190   | 50       |
| 2-Chlorotoluene                             | SW-846 8260 (High)                       | ND      | ug/Kg          | 190   | 50       |
| 2-Hexanone                                  | SW-846 8260 (High)                       | ND      | ug/Kg          | 190   | 50       |
| 4-Chlorotoluene                             | SW-846 8260 (High)                       | ND      | ug/Kg          | 190   | 50       |
| 4-Isopropyltoluene                          | SW-846 8260 (High)                       | ND      | ug/Kg          | 470   | 50       |
| 4-Methyl-2-pentanone                        | SW-846 8260 (High)                       | ND      | ug/Kg          | 950   | 50       |
| Acetone                                     | SW-846 8260 (High)                       | ND      | ug/Kg          | 470   | 50       |
| Acrolein                                    | SW-846 8260 (High)                       | ND      | ug/Kg          | 380   | 50       |
| Acrylonittile                               | SW-846 8260 (High)                       | ND      | ug/Kg          | 190   | 50       |
| Benzene                                     | SW-846 8260 (High)                       | ND      | ug/Kg          | 190   | 50       |
| Bromobenzene                                | SW-846 8260 (High)                       | ND      | ug/Kg          | . 190 |          |
| Bromochloromethane                          | SW-846 8260 (High)                       | ND      | ug/Kg          | 190   | 50       |
| Bromodichloromethane                        | SW-846 8260 (High)                       | ND      | ug/Kg          | 190   |          |
| Bromoform                                   | SW-846 8260 (High)                       | ND      | ug/Kg          | 190   |          |
| Bromomethane                                | SW-846 8260 (High)                       | ND      | ug/Kg          | 190   |          |
| Carbon disulfide                            | SW-846 8260 (High)                       | ND      | ug/Kg          | 190   |          |
| Carbon tetrachloride                        | SW-846 8260 (High)                       | ND      | ug/Kg          | 190   |          |
| Chlorobenzene                               | SW-846 8260 (High)                       | ND      | ug/Kg          | 190   |          |
| Chloroethane                                | , • .                                    | ND      | ug/Kg          | 19    |          |
| Chloroform                                  | SW-846 8260 (High)                       | ND      | ug/Kg<br>ug/Kg | 190   |          |
| Chloromethane                               | SW-846 8260 (High)<br>SW-846 8260 (High) | ND      | ug/Kg<br>ug/Kg | 19    |          |
| cis-1,2-Dichloroethene                      | SW-846 8260 (High)                       | ND      | ug/Kg<br>ug/Kg | 19    |          |
| cis-1,3-Dichloropropene                     | SW-846 8260 (High)                       | ND      | ug/Kg<br>ug/Kg | 19    | -        |
| Dibromochloromethane                        | 2 M-040 9700 (UIRII)                     | ND      | AB **E         | ••    | - 50     |

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To: Craig Obrecht

Ardaman & Associates

PEL Lab# : 200208601

Client ID: NCDC-1

Matrix: Soil

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 1:45:00 PM

ND = Less than RL

| Parameter                 | Method             | Results | Units | RL         | Dilution |
|---------------------------|--------------------|---------|-------|------------|----------|
| Dibromomethane            | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50       |
| Dichlorodifluoromethane   | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50       |
| Ethyl methacrylate        | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50       |
| Ethylbenzene              | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50       |
| Hexachlorobutadiene       | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50       |
| Isopropylbenzene (Cumene) | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50       |
| Methyl iodide             | SW-846 8260 (High) | ND      | ug/Kg | 380        | 50       |
| Methylene chloride        | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50       |
| Naphthalene               | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50       |
| n-Butylbenzene            | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50       |
| n-Propylbenzene           | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50       |
| o-Xylene                  | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50       |
| p,m-Xylene                | SW-846 8260 (High) | ND      | ug/Kg | 380        | 50       |
| sec-Butylbenzene          | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50       |
| Styrene                   | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50       |
| tert-Butylbenzene         | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50       |
| Tetrachloroethene         | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50       |
| Toluene                   | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50       |
| trans-1,2-Dichloroethene  | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50       |
| trans-1,3-Dichloropropene | SW-846 8260 (High) | ND      | ug/Kg | . 190      | 50       |
| Trichloroethene           | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50       |
| Trichlorofluoromethane    | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50       |
| Vinyl acetate             | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50       |
| Vinyl chloride            | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50       |
| 4-Bromofluorobenzene      | SW-846 8260 (High) | 83.8    | %     | (74 - 121) |          |
| Dibromofluoromethane      | SW-846 8260 (High) | 87      | %     | (80 - 120) |          |
| Toluene d8                | SW-846 8260 (High) | 92.8    | %     | (81 - 117) |          |
| Semivolatiles             | SW-846 8270        |         |       |            |          |
| 1,2,4-Trichlorobenzene    | SW-846 8270        | ND      | ug/Kg | 250        | 1        |
| 1,2-Dichlorobenzene       | SW-846 8270        | ND      | ug/Kg | 250        | 1        |
| 1,3-Dichlorobenzene       | SW-846 8270        | ND      | ug/Kg | 250        | 1        |
| 1,4-Dichlorobenzene       | SW-846 8270        | ND      | ug/Kg | 250        | 1        |

#### 813 248 1537 P.07/27

#### - CERTIFICATE OF ANALYSIS -(HRS #E84207 and FDER CompQap #900306)

Craig Obrecht To:

Ardaman & Associates

PEL Lab#: 200208601

Client ID: NCDC-1

Matrix: Soil

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 1:45:00 PM

ND = Less than RL

| Parameter                    | Method      | Results | Units          | RL   | Dilution |
|------------------------------|-------------|---------|----------------|------|----------|
| I-Methylnaphthalene          | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| 2,4,5-Trichlorophenol        | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| 2,4,6-Trichlorophenol        | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| 2,4-Dichlorophenol           | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| 2,4-Dimethylphenol           | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| 2,4-Dinitrophenol            | SW-846 8270 | ND      | u <b>g/K</b> g | 250  | 1        |
| 2,4-Dinitrotoluene           | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| 2,6-Dinitrotoluene           | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| 2-Chloronaphthalene          | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| 2-Chlorophenol               | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| 2-Methyl-4,6-dinitrophenol   | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| 2-Methylnaphthalene          | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| 2-Methylphenol (o-Cresol)    | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| 2-Nitroaniline               | SW-846 8270 | מא      | ug/Kg          | 250  | 1        |
| 2-Nitrophenol                | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| 3&4-Methylphenol(m&p-Cresol) | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| 3,3'-Dichlorobenzidine       | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| 3-Nitroaniline               | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| 4-Bromophenyl-phenylether    | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| 4-Chloro-3-methylphenol      | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| 4-Chloroaniline              | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| 4-Chlorophenyl-phenylether   | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| 4-Nitroaniline               | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| 4-Nitrophenol                | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| Acenaphthene                 | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| Acenaphthylene               | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| Aniline                      | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| Anthracene                   | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| Benzidine                    | SW-846 8270 | ND      | ug/Kg          | 1000 | . 1      |
| Benzo(a)anthracene           | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| Benzo(a)pyrene               | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |
| Benzo(b)fluoranthene         | SW-846 8270 | ND      | ug/Kg          | 250  | 1        |

Page: 5 of 25



PEL

#### - CERTIFICATE OF ANALYSIS -(HRS #E84207 and FDER CompQap #900306)

Craig Obrecht To:

Ardaman & Associates

PEL Lab# : 200208601

Client ID: NCDC-1

Matrix: Soil

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 1:45:00 PM

ND = Less than RL

| Parameter                   | Method      | Results | Units | RL    | <b>Dilution</b> |
|-----------------------------|-------------|---------|-------|-------|-----------------|
| Benzo(g,h,i)perylene        | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Benzo(k)fluoranthene        | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Benzoic acid                | SW-846 8270 | ND      | ug/Kg | 500   | 1               |
| Benzyl alcohol              | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Bis(2-Chloroethoxy)methane  | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Bis(2-Chloroethyl)ether     | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| bis(2-Chloroisopropyl)ether | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| bis(2-ethylhexyl)phthalate  | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Butylbenzylphthalate        | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Chrysene                    | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Dibenz(a,h)anthracene       | SW-846 8270 | · ND    | ug/Kg | 250   | 1               |
| Dibenzofuran                | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Diethylphthalate            | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Dimethyl-phthalate          | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Di-n-butylphthalate         | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Di-n-octylphthalate         | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Fluoranthene                | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Fluorene                    | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Hexachlorobenzene           | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Hexachlorobutadiene         | SW-846 8270 | ND      | ug/Kg | , 250 | 1               |
| Hexachlorocyclopentadiene   | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Hexachloroethane            | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Indeno(1,2,3-cd)pyrene      | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Isophorone                  | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Naphthalene                 | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Nitrobenzene                | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| N-Nitrosodimethylamine      | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| N-Nitroso-di-n-propylamine  | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| N-Nitrosodiphenylamine      | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Pentachlorophenol           | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Phenanthrene                | SW-846 8270 | ND      | ug/Kg | 250   | 1               |
| Phenol                      | SW-846 8270 | ND      | ug/Kg | 250   | 1               |

Page: 6 of 25

PEL

Craig Obrecht To:

Ardaman & Associates

PEL Lab#: 200208601

Client ID: NCDC-1

Matrix : Soil

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 1:45:00 PM

ND = Less than RL

| Parameter            | Method      | Results | Units | RL         | Dilution |
|----------------------|-------------|---------|-------|------------|----------|
| Pyrene               | SW-846 8270 | ND      | ug/Kg | 250        | 1        |
| 2,4,6-Tribromophenol | SW-846 8270 | 80      | %     | (19 - 122) |          |
| 2-Fluorobiphenyl     | SW-846 8270 | 69.3    | %     | (30 - 115) |          |
| 2-Fluorophenol       | SW-846 8270 | 63.5    | %     | (25 - 121) |          |
| Nitrobenzene-d5      | SW-846 8270 | 70      | %     | (23 - 120) |          |
| Phenol-d5            | SW-846 8270 | 67.7    | %     | (24 - 113) |          |
| p-Terphenyl-d14      | SW-846 8270 | 85.2    | %     | (18 - 137) |          |

To: Craig Obrecht

Ardaman & Associates

PEL Lab# : 200208602

Client ID: NCDC-2

Matrix: Soil

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 2:10:00 PM

ND = Less than RL

| Semivolatiles  | Parameter                   | Method             | Results | Units          | RL         | Dilution   |
|--|-----------------------------|--------------------|---------|----------------|------------|------------|
| C39 Surrogate FL Pro 78.3 % (60 - 118) o-Terphenyl Surrogate FL Pro 84 % (62 - 109) INORGANICS SW-846 6010 1.8 mg/Kg 0.20 1 Barium SW-846 6010 28 mg/Kg 0.10 1 Cadmium SW-846 6010 0.47 mg/Kg 0.10 1 Chromium SW-846 6010 11 mg/Kg 0.10 1 Chromium SW-846 6010 11 mg/Kg 0.10 1 Copper SW-846 6010 16 mg/Kg 0.20 1 Lead SW-846 6010 34 mg/Kg 0.20 1 Lead SW-846 6010 5.1 mg/Kg 0.20 1 Selenium SW-846 6010 5.1 mg/Kg 0.20 1 Silver SW-846 6010 0.59 mg/Kg 0.30 1 Silver SW-846 6010 0.059 mg/Kg 0.30 1 Silver SW-846 6010 S.7 mg/Kg 0.30 1 INORGANICS SW-846 6010 Zinc SW-846 6010 Zinc SW-846 6010 Zinc SW-846 6010 Zinc SW-846 8260 (High) ND mg/Kg 0.33 1 IVVolatiles SW-846 8260 (High) ND ug/Kg 190 50 1,1,1,2-Tetrachloroethane SW-846 8260 (High) ND ug/Kg 190 50 1,1,1,2-Tetrachloroethane SW-846 8260 (High) ND ug/Kg 190 50 1,1,1,2-Tichloroethane SW-846 8260 (High) ND ug/Kg 190 50 1,1,1-Dichloroethane SW-846 8260 (High) ND ug/Kg 190 50 1,1,1-Dichloroethane SW-846 8260 (High) ND ug/Kg 190 50 1,1,1-Dichloroethane SW-846 8260 (High) ND ug/Kg 190 50 1,1-Dichloroethane SW-846 8260 (High) ND ug/Kg 190 50 1,2-3-Trichloroethane SW-846 8260 (High) ND ug/Kg 190 50 1,2-3-T | Semivolatiles               | FL Pro             |         |                |            |            |
| o-Terphenyl Surrogate         FL Pro         84         %         (62 - 109)           INORGANICS         SW-846 6010         1.8         mg/Kg         0.20         1           Barium         SW-846 6010         28         mg/Kg         0.10         1           Cadmium         SW-846 6010         0.47         mg/Kg         0.10         1           Chromium         SW-846 6010         11         mg/Kg         0.20         1           Copper         SW-846 6010         34         mg/Kg         0.20         1           Lead         SW-846 6010         5.1         mg/Kg         0.20         1           Nickel         SW-846 6010         5.1         mg/Kg         0.30         1           Silver         SW-846 6010         0.59         mg/Kg         0.30         1           Silver         SW-846 6010         527         mg/Kg         0.30         1           Mercury         SW-846 7471         0.057         mg/Kg         0.03         1           Volatiles         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1,1-Trichloroethane         SW-846 8260 (High)         ND         ug/Kg         190   | FL PRO                      | FL Pro             | 210     | mg/Kg(Dry wt.) | 18         | 1          |
| NORGANICS   SW-846 6010   SW-846 8010   SW   | C39 Surrogate               | FL Pro             | 78.3    | %              | (60 - 118) |            |
| Arsenic SW-846 6010 1.8 mg/Kg 0.20 1 Barium SW-846 6010 28 mg/Kg 0.10 1 Cadmium SW-846 6010 0.47 mg/Kg 0.10 1 Chromium SW-846 6010 11 mg/Kg 0.10 1 Copper SW-846 6010 16 mg/Kg 0.20 1 Lead SW-846 6010 34 mg/Kg 0.20 1 Lead SW-846 6010 5.1 mg/Kg 0.20 1 Selenium SW-846 6010 5.1 mg/Kg 0.20 1 Selenium SW-846 6010 0.59 mg/Kg 0.30 1 Silver SW-846 6010 ND mg/Kg 0.10 1 Silver SW-846 6010 ND mg/Kg 0.10 1 Silver SW-846 6010 ND mg/Kg 0.10 1 INORGANICS SW-846 6010 Zinc SW-846 8010 Zinc SW-846 | o-Terphenyl Surrogate       | FL Pro             | 84      | %              | (62 - 109) |            |
| Barium   | INORGANICS                  | SW-846 6010        |         |                |            |            |
| Cadmium         SW-846 6010         0.47         mg/Kg         0.10         1           Chromium         SW-846 6010         11         mg/Kg         0.10         1           Copper         SW-846 6010         16         mg/Kg         0.20         1           Lead         SW-846 6010         34         mg/Kg         0.20         1           Nickel         SW-846 6010         5.1         mg/Kg         0.30         1           Selenium         SW-846 6010         0.59         mg/Kg         0.10         1           Silver         SW-846 6010         ND         mg/Kg         0.60         1           INORGANICS         SW-846 6010         527         mg/Kg         0.60         1           Mercury         SW-846 6010         527         mg/Kg         0.033         1           Volatiles         SW-846 8260 (High)         ND         ug/Kg         0.033         1           Volatiles         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1,2-Tetrachloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1,2-Trichloroethane         SW-846 8260 (High)         ND   | Arsenic                     | SW-846 6010        | 1.8     | mg/Kg          | 0.20       | 1          |
| Chromium   | Barium                      | SW-846 6010        | 28      | mg/Kg          | 0.10       | 1          |
| Copper         SW-846 6010         16         mg/Kg         0.20         1           Lead         SW-846 6010         34         mg/Kg         0.20         1           Nickel         SW-846 6010         5.1         mg/Kg         0.20         1           Selenium         SW-846 6010         0.59         mg/Kg         0.30         1           Silver         SW-846 6010         ND         mg/Kg         0.10         1           INORGANICS         SW-846 6010         527         mg/Kg         0.60         1           Mercury         SW-846 6010         527         mg/Kg         0.033         1           Volatiles         SW-846 8260 (High)         ND         ug/Kg         0.033         1           Volatiles         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1,1-7-tetrachloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1,2-7-etrachloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1,2-7-trichloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1-Dichloroethane         SW-846 8   | Cadmium                     | SW-846 6010        | 0.47    | mg/Kg          | 0.10       | 1          |
| Lead   SW-846 6010   34   mg/Kg   0.20   1     Nickel   SW-846 6010   5.1   mg/Kg   0.20   1     Selenium   SW-846 6010   0.59   mg/Kg   0.30   1     Silver   SW-846 6010   ND   mg/Kg   0.10   1     INORGANICS   SW-846 6010   S27   mg/Kg   0.60   1     Mercury   SW-846 6010   S27   mg/Kg   0.60   1     Mercury   SW-846 7471   0.057   mg/Kg   0.033   1     Volatiles   SW-846 8260 (High)   ND   ug/Kg   190   50     1,1,1-2-Tetrachloroethane   SW-846 8260 (High)   ND   ug/Kg   190   50     1,1,2-Tetrachloroethane   SW-846 8260 (High)   ND   ug/Kg   190   50     1,1,2-Trichloroethane   SW-846 8260 (High)   ND   ug/Kg   190   50     1,1,2-Trichloroethane   SW-846 8260 (High)   ND   ug/Kg   190   50     1,1-Dichloroethane   SW-846 8260 (High)   ND   ug/Kg   190   50     1,1-Dichloroethane   SW-846 8260 (High)   ND   ug/Kg   190   50     1,1-Dichloroethane   SW-846 8260 (High)   ND   ug/Kg   190   50     1,1-Dichloroptopene   SW-846 8260 (High)   ND   ug/Kg   190   50     1,2-3-Trichlorobenzene   SW-846 8260 (High)   ND   ug/Kg   190   50     1,2,3-Trichloroptopane   SW-846 8260 (High)   ND   ug/Kg   190   50     1,2,3-Trichloroptopane   SW-846 8260 (High)   ND   ug/Kg   190   50     1,2,4-Trimethylbenzene   SW-846 8260 (High)   ND   ug/Kg   190   50     1,2-Dibromo-3-chloroptopane   SW-846 8260 (High)   ND   ug/Kg   190   50     1,2-Dibromo-4-chloroptopane   SW-846 8260 (High)   ND   ug/Kg   190   50     1,2-Dibromo-4-chloroptopane   SW-846 8260 (High)   ND   ug/Kg   190   50     1,2-Dibromo-4-chloroptopane   SW-846 8260 (High)   ND   ug/Kg   190   50     1,2-Di   | Chromium                    | SW-846 6010        | 11      | mg/Kg          | 0.10       | I          |
| Nickel         SW-846 6010         5.1         mg/Kg         0.20         1           Selenium         SW-846 6010         0.59         mg/Kg         0.30         1           Silver         SW-846 6010         ND         mg/Kg         0.10         1           INORGANICS         SW-846 6010         527         mg/Kg         0.60         1           Mercury         SW-846 7471         0.057         mg/Kg         0.033         1           Volatiles         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1,1-Trichloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1,2-Tetrachloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1,2-Trichloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1,2-Trichloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1-Dichloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1-Dichloropropene         SW-846 8260 (High)         ND         ug/Kg         190         50           <  | Copper                      | SW-846 6010        | 16      | mg/Kg          | 0.20       | 1          |
| Selenium         SW-846 6010         0.59         mg/Kg         0.30         1           Silver         SW-846 6010         ND         mg/Kg         0.10         1           INORGANICS         SW-846 6010         527         mg/Kg         0.60         1           Mercury         SW-846 6010         527         mg/Kg         0.033         1           Volatiles         SW-846 8260 (High)         ND         ug/Kg         0.033         1           Volatiles         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1,2-Tetrachloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1,2-Trichloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1,2-Trichloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1-Dichloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1-Dichloropropene         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1-Dichloropropene         SW-846 8260 (High)         ND         ug/Kg         190         50  | Lead                        | SW-846 6010        | 34      | mg/Kg          | 0.20       | 1          |
| Silver   SW-846 6010   ND mg/Kg   0.10   1   | Nickel                      | SW-846 6010        | 5.1     | mg/Kg          | 0.20       | 1          |
| NORGANICS   SW-846 6010   S27   mg/Kg   0.60   1   | Selenium                    | SW-846 6010        | 0.59    | mg/Kg          | 0.30       | 1          |
| Zinc         SW-846 6010         527         mg/Kg         0.60         1           Mercury         SW-846 7471         0.057         mg/Kg         0.033         1           Volatiles         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1,1,2-Tetrachloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1,1-Trichloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1,2-Trichloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1-Dichloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1-Dichloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1-Dichloropropene         SW-846 8260 (High)         ND         ug/Kg         190         50           1,2,3-Trichlorobenzene         SW-846 8260 (High)         ND         ug/Kg         190         50           1,2,4-Trichloropropane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,2,4-Trimethylbenzene         SW-846 8260 (High)         ND         ug/Kg  | Silver                      | SW-846 6010        | ND      | mg/Kg          | 0.10       | 1          |
| Mercury         SW-846 7471         0.057         mg/Kg         0.033         1           Volatiles         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1,12-Tetrachloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1,1-Trichloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1,2-Trichloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1-Dichloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1-Dichloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1-Dichloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1-Dichloropropene         SW-846 8260 (High)         ND         ug/Kg         190         50           1,2-3-Trichlorobenzene         SW-846 8260 (High)         ND         ug/Kg         190         50           1,2,4-Trichlorobenzene         SW-846 8260 (High)         ND         ug/Kg         190         50           1,2,4-Trimethylbenzene         SW-846 8260 (High)         ND         ug/K  | INORGANICS                  | SW-846 6010        |         |                |            | ,          |
| Volatiles         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1,1,2-Tetrachloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1,1-Trichloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1,2-Trichloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1-Dichloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1-Dichloroethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1-Dichloropethane         SW-846 8260 (High)         ND         ug/Kg         190         50           1,1-Dichloropropene         SW-846 8260 (High)         ND         ug/Kg         190         50           1,2,3-Trichlorobenzene         SW-846 8260 (High)         ND         ug/Kg         190         50           1,2,4-Trichlorobenzene         SW-846 8260 (High)         ND         ug/Kg         190         50           1,2,4-Trimethylbenzene         SW-846 8260 (High)         ND         ug/Kg         190         50           1,2-Dibromo-3-chloropropane         SW-846 8260 (High) <td< td=""><td>Zinc</td><td>SW-846 6010</td><td>527</td><td>mg/Kg</td><td>0.60</td><td>1</td></td<>   | Zinc                        | SW-846 6010        | 527     | mg/Kg          | 0.60       | 1          |
| 1,1,1,2-Tetrachloroethane       SW-846 8260 (High)       ND       ug/Kg       190       50         1,1,1-Trichloroethane       SW-846 8260 (High)       ND       ug/Kg       190       50         1,1,2,2-Tetrachloroethane       SW-846 8260 (High)       ND       ug/Kg       190       50         1,1,2-Trichloroethane       SW-846 8260 (High)       ND       ug/Kg       190       50         1,1-Dichloroethane       SW-846 8260 (High)       ND       ug/Kg       190       50         1,1-Dichloropropene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,1-Dichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2,3-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2,4-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2,4-Trimethylbenzene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND       ug/Kg       190       50   | Mercury                     | SW-846 7471        | 0.057   | mg/Kg          | 0.033      | 1          |
| 1,1,1-Trichloroethane       SW-846 8260 (High)       ND       ug/Kg       190       50         1,1,2,2-Tetrachloroethane       SW-846 8260 (High)       ND       ug/Kg       190       50         1,1,2-Trichloroethane       SW-846 8260 (High)       ND       ug/Kg       190       50         1,1-Dichloroethane       SW-846 8260 (High)       ND       ug/Kg       190       50         1,1-Dichloropropene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,1-Dichloropropene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2,3-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2,3-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2,4-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2,4-Trimethylbenzene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND       ug/Kg       190       50   | Volatiles                   | SW-846 8260 (High) |         |                |            |            |
| 1,1,2,2-Tetrachloroethane       SW-846 8260 (High)       ND       ug/Kg       190       50         1,1,2-Trichloroethane       SW-846 8260 (High)       ND       ug/Kg       190       50         1,1-Dichloroethane       SW-846 8260 (High)       ND       ug/Kg       190       50         1,1-Dichloroptopene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2,3-Trichloropenzene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2,3-Trichloropropane       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2,4-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2,4-Trimethylbenzene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND       ug/Kg       190       50  | 1,1,1,2-Tetrachloroethane   | SW-846 8260 (High) | ND      | ug/Kg          | 190        | 50         |
| 1,1,2-Trichloroethane       SW-846 8260 (High)       ND       ug/Kg       190       50         1,1-Dichloroethane       SW-846 8260 (High)       ND       ug/Kg       190       50         1,1-Dichloroethene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,1-Dichloropropene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2,3-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2,3-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2,4-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2,4-Trimethylbenzene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND       ug/Kg       190       50   | 1,1,1-Trichloroethane       | SW-846 8260 (High) | ND      | ug/Kg          | 190        | 50         |
| 1,1-Dichloroethane       SW-846 8260 (High)       ND       ug/Kg       190       50         1,1-Dichloroethene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,1-Dichloropropene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2,3-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2,3-Trichloropropane       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2,4-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2,4-Trimethylbenzene       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND       ug/Kg       190       50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND       ug/Kg       190       50  | 1,1,2,2-Tetrachloroethane   | SW-846 8260 (High) | ND      | ug/Kg          | 190        | 50         |
| 1,1-Dichloroethene       SW-846 8260 (High)       ND ug/Kg       190 50         1,1-Dichloropropene       SW-846 8260 (High)       ND ug/Kg       190 50         1,2,3-Trichlorobenzene       SW-846 8260 (High)       ND ug/Kg       190 50         1,2,3-Trichloropropane       SW-846 8260 (High)       ND ug/Kg       190 50         1,2,4-Trichlorobenzene       SW-846 8260 (High)       ND ug/Kg       190 50         1,2,4-Trimethylbenzene       SW-846 8260 (High)       ND ug/Kg       190 50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND ug/Kg       190 50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND ug/Kg       190 50  | 1,1,2-Trichloroethane       | SW-846 8260 (High) | ND      | ug/Kg          | 190        | 50         |
| 1,1-Dichloropropene       SW-846 8260 (High)       ND ug/Kg       190 50         1,2,3-Trichlorobenzene       SW-846 8260 (High)       ND ug/Kg       190 50         1,2,3-Trichloropropane       SW-846 8260 (High)       ND ug/Kg       190 50         1,2,4-Trichlorobenzene       SW-846 8260 (High)       ND ug/Kg       190 50         1,2,4-Trimethylbenzene       SW-846 8260 (High)       ND ug/Kg       190 50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND ug/Kg       190 50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND ug/Kg       190 50  | 1,1-Dichloroethane          | SW-846 8260 (High) | ND      | ug/Kg          | 190        | 50         |
| 1,2,3-Trichlorobenzene       SW-846 8260 (High)       ND ug/Kg       190 50         1,2,3-Trichloropropane       SW-846 8260 (High)       ND ug/Kg       190 50         1,2,4-Trichlorobenzene       SW-846 8260 (High)       ND ug/Kg       190 50         1,2,4-Trimethylbenzene       SW-846 8260 (High)       ND ug/Kg       190 50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND ug/Kg       190 50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND ug/Kg       190 50   | 1,1-Dichloroethene          | SW-846 8260 (High) | ND      | ug/Kg          | 190        | <i>5</i> 0 |
| 1,2,3-Trichloropropane       SW-846 8260 (High)       ND ug/Kg       190 50         1,2,4-Trichlorobenzene       SW-846 8260 (High)       ND ug/Kg       190 50         1,2,4-Trimethylbenzene       SW-846 8260 (High)       ND ug/Kg       190 50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND ug/Kg       190 50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND ug/Kg       190 50   | 1,1-Dichloropropene         | SW-846 8260 (High) | ND      | ug/Kg          | 190        | 50         |
| 1,2,4-Trichlorobenzene       SW-846 8260 (High)       ND ug/Kg       190 50         1,2,4-Trimethylbenzene       SW-846 8260 (High)       ND ug/Kg       190 50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND ug/Kg       190 50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND ug/Kg       190 50   | 1,2,3-Trichlorobenzene      | SW-846 8260 (High) | ND      | ug/Kg          | 190        | 50         |
| 1,2,4-Trimethylbenzene       SW-846 8260 (High)       ND ug/Kg       190 50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND ug/Kg       190 50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND ug/Kg       190 50   | 1,2,3-Trichloropropane      | SW-846 8260 (High) | ND      | ug/Kg          | 190        | 50         |
| 1,2,4-Trimethylbenzene       SW-846 8260 (High)       ND ug/Kg       190 50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND ug/Kg       190 50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND ug/Kg       190 50   | 1,2,4-Trichlorobenzene      | SW-846 8260 (High) | ND      |                |            |            |
| 1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND ug/Kg       190 50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND ug/Kg       190 50   | 1,2,4-Trimethylbenzene      | SW-846 8260 (High) | ND .    | • •            | 190        |            |
| 1,2-Dibromoethane(EDB) SW-846 8260 (High) ND ug/Kg 190 50  | 1,2-Dibromo-3-chloropropane | SW-846 8260 (High) | ND      |                |            |            |
| 4.6 70.1 1.9   | 1,2-Dibromoethane(EDB)      | SW-846 8260 (High) | ND      | ug/Kg          | 190        |            |
|  | 1,2-Dichlorobenzene         | SW-846 8260 (High) | ND      | ug/Kg          | 190        |            |

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To: Craig Obrecht

Ardaman & Associates

PEL Lab# : 200208602

Client ID: NCDC-2

Matrix: Soil

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 2:10:00 PM

ND = Less than RL

| Parameter               | Method             | Results | Units | RL    | Dilution   |
|-------------------------|--------------------|---------|-------|-------|------------|
| 1,2-Dichloroethane      | SW-846 8260 (High) | ND      | ug/Kg | 190   | 50         |
| 1,2-Dichloropropane     | SW-846 8260 (High) | ND      | ug/Kg | 190   | 50         |
| 1,3,5-Trimethylbenzene  | SW-846 8260 (High) | ND      | ug/Kg | 190   | 50         |
| 1,3-Dichlorobenzene     | SW-846 8260 (High) | ND      | ug/Kg | 190   | 50         |
| 1,3-Dichloropropane     | SW-846 8260 (High) | ND      | ug/Kg | 190   | 50         |
| 1,4-Dichloro-2-butene   | SW-846 8260 (High) | ND      | ug/Kg | 370   | 50         |
| 1,4-Dichlorobenzene     | SW-846 8260 (High) | ND      | ug/Kg | 190   | 50         |
| 2,2-Dichloropropane     | SW-846 8260 (High) | ND      | ug/Kg | 190   | 50         |
| 2-Butanone              | SW-846 8260 (High) | ND      | ug/Kg | 460   | 50         |
| 2-Chlorotoluene         | SW-846 8260 (High) | ND      | ug/Kg | 190   | 50         |
| 2-Hexanone              | SW-846 8260 (High) | ND      | ug/Kg | 190   | 50         |
| 4-Chlorotoluene         | SW-846 8260 (High) | ND      | ug/Kg | 190   | 50         |
| 4-Isopropyltoluene      | SW-846 8260 (High) | ND      | ug/Kg | 190   | 50         |
| 4-Methyl-2-pentanone    | SW-846 8260 (High) | ND      | ug/Kg | 460   | 50         |
| Acetone                 | SW-846 8260 (High) | ND      | ug/Kg | 930   | 50         |
| Acrolein                | SW-846 8260 (High) | ND      | ug/Kg | 460   | 50         |
| Acrylonitrile           | SW-846 8260 (High) | ND      | ug/Kg | 370   | 50         |
| Benzene                 | SW-846 8260 (High) | ND      | ug/Kg | 190   | 50         |
| Bromobenzene            | SW-846 8260 (High) | ND      | ug/Kg | 190   | 50         |
| Bromochloromethane      | SW-846 8260 (High) | ND      | ug/Kg | , 190 | <b>5</b> 0 |
| Bromodichloromethane    | SW-846 8260 (High) | ND      | ug/Kg | 190   | 50         |
| Bromoform               | SW-846 8260 (High) | ND      | ug/Kg | 190   | <i>5</i> 0 |
| Bromomethane            | SW-846 8260 (High) | ND      | ug/Kg | 190   | 50         |
| Carbon disulfide        | SW-846 8260 (High) | ND      | ug/Kg | 190   | 50         |
| Carbon tetrachloride    | SW-846 8260 (High) | ND      | ug/Kg | 190   | 50         |
| Chlorobenzene           | SW-846 8260 (High) | ND      | ug/Kg | 190   | 50         |
| Chloroethane            | SW-846 8260 (High) | ND      | ug/Kg | 190   | 50         |
| Chloroform              | SW-846 8260 (High) | ND      | ug/Kg | 190   | 50         |
| Chloromethane           | SW-846 8260 (High) | ND      | ug/Kg | 190   | <i>5</i> 0 |
| cis-1,2-Dichloroethene  | SW-846 8260 (High) | ND      | ug/Kg | 190   | 50         |
| cis-1,3-Dichloropropene | SW-846 8260 (High) | ND      | ug/Kg | 190   | <i>5</i> 0 |
| Dibromochloromethane    | SW-846 8260 (High) | ND      | ug/Kg | 190   | 50         |

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To: Craig Obrecht

Ardaman & Associates

PEL Lab#: 200208602

Client ID: NCDC-2

Matrix: Soil

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 2:10:00 PM

ND = Less than RL

| Parameter                 | Method             | Results | Units | RL         | Dilutio    |
|---------------------------|--------------------|---------|-------|------------|------------|
| Dibromomethane            | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50         |
| Dichlorodifluoromethane   | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50         |
| Ethyl methacrylate        | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50         |
| Ethylbenzene              | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50         |
| Hexachlorobutadiene       | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50         |
| Isopropylbenzene (Cumene) | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50         |
| Methyl iodide             | SW-846 8260 (High) | ND      | ug/Kg | 370        | 50         |
| Methylene chloride        | SW-846 8260 (High) | ND      | ug/Kg | 190        | <i>5</i> 0 |
| Naphthalene               | SW-846 8260 (High) | ND      | ug/Kg | 190        | <i>5</i> 0 |
| n-Butylbenzene            | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50         |
| n-Propylbenzene           | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50         |
| o-Xylene                  | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50         |
| p,m-Xylene                | SW-846 8260 (High) | ND      | ug/Kg | 370        | 50         |
| sec-Butylbenzene          | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50         |
| Styrene                   | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50         |
| tert-Butylbenzene         | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50         |
| Tetrachloroethene         | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50         |
| Toluene                   | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50         |
| trans-1,2-Dichloroethene  | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50         |
| trans-1,3-Dichloropropene | SW-846 8260 (High) | ND      | ug/Kg | . 190      | 50         |
| Trichloroethene           | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50         |
| Trichlorofluoromethane    | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50         |
| Vinyl acetate             | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50         |
| Vinyl chloride            | SW-846 8260 (High) | ND      | ug/Kg | 190        | 50         |
| 4-Bromofluorobenzene      | SW-846 8260 (High) | 81.6    | %     | (74 - 121) |            |
| Dibromofluoromethane      | SW-846 8260 (High) | 85.4    | %     | (80 - 120) |            |
| Toluene d8                | SW-846 8260 (High) | 91.4    | %     | (81 - 117) |            |
| Semivolatiles             | SW-846 8270        |         |       |            |            |
| 1,2,4-Trichlorobenzene    | SW-846 8270        | ND      | ug/Kg | 270        | 1          |
| 1,2-Dichlorobenzene       | SW-846 8270        | ND      | ug/Kg | 270        | 1          |
| 1,3-Dichlorobenzene       | SW-846 8270        | ND      | ug/Kg | 270        | 1          |
| 1,4-Dichlorobenzene       | SW-846 8270        | ND      | ug/Kg | 270        | 1          |

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To: Craig Obrecht

Ardaman & Associates

PEL Lab#: 200208602

Client ID: NCDC-2

Matrix: Soil

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 2:10:00 PM

ND = Less than RL

| Parameter                    | Method      | Results | Units | RL    | Dilution |
|------------------------------|-------------|---------|-------|-------|----------|
| 1-Methylnaphthalene          | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| 2,4,5-Trichlorophenol        | SW-846 8270 | ND      | ug/Kg | 270   | . 1      |
| 2,4,6-Trichlorophenol        | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| 2,4-Dichlorophenol           | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| 2,4-Dimethylphenol           | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| 2,4-Dinitrophenol            | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| 2,4-Dinitrotoluene           | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| 2,6-Dinitrotoluene           | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| 2-Chloronaphthalene          | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| 2-Chlorophenol               | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| 2-Methyl-4,6-dinitrophenol   | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| 2-Methylnaphthalene          | SW-846 8270 | ND      | ug/Kg | 270   | 1 .      |
| 2-Methylphenol (o-Cresol)    | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| 2-Nitroaniline               | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| 2-Nitrophenol                | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| 3&4-Methylphenol(m&p-Cresol) | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| 3,3'-Dichlorobenzidine       | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| 3-Nitroaniline               | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| 4-Bromophenyl-phenylether    | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| 4-Chloro-3-methylphenol      | SW-846 8270 | ND      | ug/Kg | . 270 | 1        |
| 4-Chloroaniline              | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| 4-Chlorophenyl-phenylether   | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| 4-Nitroaniline               | SW-846 8270 | ND      | ug/Kg | 270   | . 1      |
| 4-Nitrophenol                | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| Acenaphthene                 | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| Acenaphthylene               | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| Aniline                      | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| Anthracene                   | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| Benzidine                    | SW-846 8270 | ND      | ug/Kg | 1100  | 1        |
| Benzo(a)anthracene           | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| Benzo(a)pyrene               | SW-846 8270 | ND      | ug/Kg | 270   | 1        |
| Benzo(b)fluoranthene         | SW-846 8270 | ND      | ug/Kg | 270   | 1        |



To: Craig Obrecht

Ardaman & Associates

PEL Lab#: 200208602

Client ID: NCDC-2

Matrix : Soil

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 2:10:00 PM

ND = Less than RL

| Parameter                   | Method      | Results | Units | RL  | Dilution |
|-----------------------------|-------------|---------|-------|-----|----------|
| Benzo(g,h,i)perylene        | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Benzo(k)fluoranthene        | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Benzoic acid                | SW-846 8270 | ND      | ug/Kg | 540 | 1        |
| Benzyl alcohol              | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Bis(2-Chloroethoxy)methane  | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Bis(2-Chloroethyl)ether     | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| bis(2-Chloroisopropyl)ether | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| bis(2-ethylhexyl)phthalate  | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Butylbenzylphthalate        | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Chrysene                    | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Dibenz(a,h)anthracene       | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Dibenzofuran                | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Diethylphthalate            | SW-846 8270 | ND      | ug/Kg | 270 | I        |
| Dimethyl-phthalate          | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Di-n-butylphthalate         | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Di-n-octylphthalate         | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Fluoranthene                | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Fluorene                    | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Hexachlorobenzene           | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Hexachlorobutadiene         | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Hexachlorocyclopentadiene   | SW-846 8270 | ND      | ug/Kg | 270 | 1 .      |
| Hexachloroethane            | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Indeno(1,2,3-cd)рутеле      | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Isophorone                  | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Naphthalene                 | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Nitrobenzene                | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| N-Nitrosodimethylamine      | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| N-Nitroso-di-n-propylamine  | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| N-Nitrosodiphenylamine      | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Pentachlorophenol           | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Phenanthrene                | SW-846 8270 | ND      | ug/Kg | 270 | 1        |
| Phenol                      | SW-846 8270 | ND      | ug/Kg | 270 | 1        |

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To: Craig Obrecht

Ardaman & Associates

PEL Lab# : 200208602

Client ID: NCDC-2

Matrix : Soil

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 2:10:00 PM

ND = Less than RL

| Parameter            | Method               | Results | Units | RL         | Dilution |
|----------------------|----------------------|---------|-------|------------|----------|
| Pyrene               | SW-846 8270          | ND      | ug/Kg | 270        | 1        |
| 2,4,6-Tribromophenol | SW-846 8270          | 89.3    | %     | (19 - 122) |          |
| 2-Fluorobiphenyl     | SW-846 8270          | 81.4    | %     | (30 - 115) |          |
| 2-Fluorophenol       | SW-846 8270          | 74.6    | %     | (25 - 121) |          |
| Nitrobenzene-d5      | SW-846 8270          | 83.9    | %     | (23 - 120) |          |
| Phenol-d5            | SW-846 8270          | 78.6    | %     | (24 - 113) |          |
| p-Terphenyl-d14      | SW-846 <b>\$</b> 270 | 76.2    | %     | (18 - 137) |          |



To: Craig Obrecht

Ardaman & Associates

PEL Lab#: 200208603

Client ID: SCDC-1

Matrix: Soil

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 12:25:00 PM

ND = Less than RL

| Parameter                   | Method             | Results | Units          | RL         | Dilution |
|-----------------------------|--------------------|---------|----------------|------------|----------|
| Semivolatiles               | FL Pro             |         |                |            |          |
| FL PRO                      | FL Pro             | 94      | mg/Kg(Dry wt.) | 17         | 1        |
| C39 Surrogate               | FL Pro             | 72.7    | %              | (60 - 118) |          |
| o-Terphenyl Surrogate       | FL Pro             | 55.7 J  | %              | (62 - 109) |          |
| INORGANICS                  | SW-846 6010        |         |                |            |          |
| Атѕепіс                     | SW-846 6010        | 0.55    | mg/Kg          | 0.20       | 1        |
| Barium                      | SW-846 6010        | 5.5     | mg/Kg          | 0.10       | 1        |
| Cadmium                     | SW-846 6010        | ND      | mg/Kg          | 0.10       | 1        |
| Chromium                    | SW-846 6010        | 2.8     | mg/Kg          | 0.10       | 1        |
| Copper                      | SW-846 6010        | 2.1     | mg/Kg          | 0.20       | 1        |
| Lead                        | SW-846 6010        | 6.0     | mg/Kg          | 0.20       | 1        |
| Nickel                      | SW-846 6010        | 0.67    | mg/Kg          | 0.20       | 1        |
| Selenium                    | SW-846 6010        | ND      | mg/Kg          | 0.30       | 1        |
| Silver                      | SW-846 6010        | ND      | mg/Kg          | 0.10       | 1        |
| INORGANICS                  | SW-846 6010        |         | · ·            |            |          |
| Zinc                        | SW-846 6010        | 7.9     | mg/Kg          | 0.60       | 1        |
| Mercury                     | SW-846 7471        | ND      | mg/Kg          | 0.040      | 1        |
| Volatiles                   | SW-846 8260 (High) |         | •              |            |          |
| 1,1,1,2-Tetrachloroethane   | SW-846 8260 (High) | ND      | ug/Kg          | 200        | 50       |
| 1,1,1-Trichloroethane       | SW-846 8260 (High) | ND      | ug/Kg          | . 200      | 50       |
| 1,1,2,2-Tetrachloroethane   | SW-846 8260 (High) | ND      | ug/Kg          | 200        | 50       |
| 1,1,2-Trichloroethane       | SW-846 8260 (High) | ND      | ug/Kg          | 200        | 50       |
| 1,1-Dichloroethane          | SW-846 8260 (High) | ND      | ug/Kg          | 200        | 50       |
| 1,1-Dichloroethene          | SW-846 8260 (High) | ND      | ug/Kg          | 200        | 50       |
| 1,1-Dichloropropene         | SW-846 8260 (High) | ND      | ug/Kg          | 200        | 50       |
| 1,2,3-Trichlorobenzene      | SW-846 8260 (High) | ND      | ug/Kg          | 200        | 50       |
| 1,2,3-Trichloropropane      | SW-846 8260 (High) | ND      | ug/Kg          | 200        | 50       |
| 1,2,4-Trichlorobenzene      | SW-846 8260 (High) | ND      | ug/Kg          | 200        | 50       |
| 1,2,4-Trimethylbenzene      | SW-846 8260 (High) | ND      | ug/Kg          | 200        | 50       |
| 1,2-Dibromo-3-chloropropane | SW-846 8260 (High) | ND      | ug/Kg          | 200        | 50       |
| 1,2-Dibromaethane(EDB)      | SW-846 8260 (High) | ND      | ug/ <b>Kg</b>  | 200        | 50       |
| 1,2-Dichlorobenzene         | SW-846 8260 (High) | ND      | ug/Kg          | 200        | 50       |

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PEL

To: Craig Obrecht

Ardaman & Associates

PEL Lab# : 200208603

Client ID: SCDC-1

Matrix : Soil

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 12:25:00 PM

ND = Less than RL

| Parameter               | Method             | Results | Units         | RL   | Dilution   |
|-------------------------|--------------------|---------|---------------|------|------------|
| 1,2-Dichloroethane      | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| 1,2-Dichloropropane     | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| 1,3,5-Trimethylbenzene  | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| 1,3-Dichlorobenzene     | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| 1,3-Dichloropropane     | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| 1,4-Dichlora-2-butene   | SW-846 8260 (High) | ND      | ug/Kg         | 400  | 50         |
| 1,4-Dichlorobenzene     | SW-846 8260 (High) | ND      | ug/ <b>Kg</b> | 200  | 50         |
| 2,2-Dichloropropane     | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| 2-Butanone              | SW-846 8260 (High) | ND      | ug/Kg         | 500  | 50         |
| 2-Chlorotoluene         | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| 2-Нехапопе              | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| 4-Chlorotoluene         | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| 4-Isopropyltoluene      | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| 4-Methyl-2-pentanone    | SW-846 8260 (High) | ND      | ug/Kg         | 500  | 50         |
| Acetone                 | SW-846 8260 (High) | ND      | ug/Kg         | 1000 | 50         |
| Acrolein                | SW-846 8260 (High) | ND      | ug/Kg         | 500  | 50         |
| Acrylonitrile           | SW-846 8260 (High) | ND      | ug/Kg         | 400  | <i>5</i> 0 |
| Benzene                 | SW-846 8260 (High) | ND      | ug/Kg         | 200  | <i>5</i> 0 |
| Bromobenzene            | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| Bromochloromethane      | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| Bromodichloromethane    | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| Bromoform               | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| Bromomethane            | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| Carbon disulfide        | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| Carbon tetrachloride    | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| Chlorobenzene           | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| Chloroethane            | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| Chloroform              | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| Chloromethane           | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| cis-1,2-Dichloroethene  | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| sis-1,3-Dichloropropene | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |
| Dibromochloromethane    | SW-846 8260 (High) | ND      | ug/Kg         | 200  | 50         |

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PEL

Craig Obrecht To:

Ardaman & Associates

PEL Lab# : 200208603

Client ID: SCDC-1

Matrix : Soil

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 12:25:00 PM

ND = Less than RL

| Parameter                 | Method             | Results | Units             | RL         | Dilution |
|---------------------------|--------------------|---------|-------------------|------------|----------|
| Dibromomethane            | SW-846 8260 (High) | ND      | ug/Kg             | 200        | 50       |
| Dichlorodifluoromethane   | SW-846 8260 (High) | ND      | ug/Kg             | 200        | 50       |
| Ethyl methacrylate        | SW-846 8260 (High) | ND      | ug/Kg             | 200        | 50       |
| Ethylbenzene              | SW-846 8260 (High) | ND      | ug/Kg             | 200        | 50       |
| Hexachlorobutadiene       | SW-846 8260 (High) | ND      | ug/Kg             | 200        | 50       |
| Isopropylbenzene (Cumene) | SW-846 8260 (High) | ND      | ug/Kg             | 200        | 50       |
| Methyl iodide             | SW-846 8260 (High) | ND      | ug/Kg             | 400        | 50       |
| Methylene chloride        | SW-846 8260 (High) | ND      | ug/ <b>Kg</b>     | 200        | 50       |
| Naphthalene               | SW-846 8260 (High) | ND      | ug/Kg             | 200        | 50       |
| n-Butylbenzene            | SW-846 8260 (High) | ND      | ug/Kg             | 200        | 50       |
| n-Propylbenzene           | SW-846 8260 (High) | ND      | ug/Kg             | 200        | 50       |
| o-Xylene                  | SW-846 8260 (High) | ND      | ug/Kg             | 200        | 50       |
| p,m-Xylene                | SW-846 8260 (High) | ND      | ug/Kg             | 400        | 50       |
| sec-Butylbenzene          | SW-846 8260 (High) | ND      | ug/Kg             | 200        | 50       |
| Styrene                   | SW-846 8260 (High) | ND      | ug/Kg             | 200        | 50       |
| tert-Butylbenzene         | SW-846 8260 (High) | ND      | ug/Kg             | 200        | 50       |
| Tetrachloroethene         | SW-846 8260 (High) | ND      | ug/Kg             | 200        | 50       |
| Toluene                   | SW-846 8260 (High) | ND      | ug/Kg             | 200        | 50       |
| trans-1,2-Dichloroethene  | SW-846 8260 (High) | ND      | ug/Kg             | 200        | 50       |
| uans-1,3-Dichloropropene  | SW-846 8260 (High) | ND      | ug/Kg             | 200        | 50       |
| Trichloroethene           | SW-846 8260 (High) | ND      | ug/ <b>Kg</b>     | 200        | 50       |
| Trichlorofluoromethane    | SW-846 8260 (High) | ND      | ug/Kg             | 200        | 50       |
| Vinyl acetate             | SW-846 8260 (High) | ND      | ug/Kg             | 200        | 50       |
| Vinyl chloride            | SW-846 8260 (High) | ND      | ug/Kg             | 200        | 50       |
| 4-Bromofluorobenzene      | SW-846 8260 (High) | 86.5    | - <i>g</i> g<br>% | (74 - 121) |          |
| Dibromofluoromethane      | SW-846 8260 (High) | 87.7    | %                 | (80 - 120) |          |
| Toluene d8                | SW-846 8260 (High) | 95.2    | %                 | (81 - 117) |          |
| Semivolatiles .           | SW-846 8270        |         |                   | (,)        |          |
| 1,2,4-Trichlorobenzene    | SW-846 8270        | ND      | ug/Kg             | 270        | 1        |
| 1,2-Dichlorobenzene       | SW-846 8270        | ND      | ug/Kg             | 270        | 1        |
| 1,3-Dichlorobenzene       | SW-846 8270        | ND      | ug/ <b>K.g</b>    | 270        | I        |
| 1,4-Dichlorobenzene       | SW-846 8270        | ND      | ug/Kg             | 270        | 1        |

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PEL

To: Craig Obrecht

Ardaman & Associates

PEL Lab#: 200208603

Client ID: SCDC-1

Matrix: Soil

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 12:25:00 PM

ND = Less than RL

| Parameter                    | Method      | Results | Units | RL   | Dilution |
|------------------------------|-------------|---------|-------|------|----------|
| 1-Methylnaphthalene          | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| 2,4,5-Trichlorophenol        | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| 2,4,6-Trichlorophenol        | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| 2,4-Dichlorophenol           | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| 2,4-Dimethylphenol           | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| 2,4-Dinitrophenol            | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| 2,4-Dinitrotoluene           | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| 2,6-Dinitrotoluene           | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| 2-Chloronaphthalene          | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| 2-Chlorophenol               | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| 2-Methyl-4,6-dinitrophenol   | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| 2-Methylnaphthalene          | SW-846 8270 | ND      | ug/Kg | 270  | . 1      |
| 2-Methylphenol (o-Cresol)    | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| 2-Nitroaniline               | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| 2-Nitrophenol                | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| 3&4-Methylphenol(m&p-Cresol) | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| 3,3'-Dichlorobenzidine       | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| 3-Nitroaniline               | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| 4-Bromophenyl-phenylether    | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| 4-Chloro-3-methylphenol      | SW-846 8270 | ND      | ug/Kg | 270  | - 1      |
| 4-Chloroaniline              | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| 4-Chlorophenyl-phenylether   | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| 4-Nitroaniline               | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| 4-Nitrophenol                | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| Асепарhthene                 | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| Acenaphthylene               | SW-846 8270 | ND      | ug/Kg | 270  | ī        |
| Aniline                      | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| Anthracene                   | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| Benzidine                    | SW-846 8270 | ND      | ug/Kg | 1100 | 1        |
| Benzo(a)anthracene           | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| Benzo(a)pyrene               | SW-846 8270 | ND      | ug/Kg | 270  | 1        |
| Benzo(b)fluoranthene         | SW-846 8270 | ND      | ug/Kg | 270  | 1        |

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To: Craig Obrecht

Ardaman & Associates

PEL Lab# : 200208603

Client ID: SCDC-1

Matrix: Soil

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 12:25:00 PM

ND = Less than RL

| Parameter                   | Method        | Results  | Units          | RL         | Dilution |
|-----------------------------|---------------|----------|----------------|------------|----------|
| Benzo(g,h,i)perylene        | SW-846 8270   | ND       | ug/Kg          | 370        |          |
| Benzo(k)fluoranthene        | SW-846 8270   | ND       | ug/Kg          | 270        | 1        |
| Benzoic acid                | SW-846 8270   | ND       | ug/Kg          | 270        | I        |
| Benzyl alcohol              | SW-846 8270   | ND       | ug/Kg          | 540<br>370 | 1        |
| Bis(2-Chloroethoxy)methane  | SW-846 8270   | ND       | ug/Kg          | 270        | 1        |
| Bis(2-Chloroethyl)ether     | SW-846 8270   | ND ND    | ug/Kg          | 270        | I -      |
| bis(2-Chloroisopropyl)ether | SW-846 8270   | ND       | ug/Kg          | 270        | 1        |
| bis(2-ethylhexyl)phthalate  | SW-846 8270   | ND       | ug/Kg<br>ug/Kg | 270        | 1        |
| Butylbenzylphthalate        | SW-846 8270   | ND       | ug/Kg          | 270        | 1        |
| Chrysene                    | SW-846 8270   | ND       | ug/Kg<br>ug/Kg | 270        | 1        |
| Dibenz(a,h)anthracene       | SW-846 8270   | ND       | - <del>-</del> | 270        | 1        |
| Dibenzofuran                | SW-846 8270   | ND       | ug/Kg          | 270        | 1        |
| Diethylphthalate            | SW-846 8270   | ND<br>ND | ug/Kg          | 270        | 1        |
| Dimethyl-phthalate          | SW-846 8270   | ND       | ug/Kg          | 270        | 1        |
| Di-n-butylphthalate         | SW-846 8270   | ND       | ug/Kg          | 270        | 1        |
| Di-n-octylphthalate         | SW-846 8270   | ND       | ug/Kg          | 270        | 1        |
| Fluoranthene                | SW-846 8270   | ND<br>ND | ug/Kg          | 270        | 1        |
| Fluorene                    | SW-846 8270   | ND<br>ND | ug/Kg          | 270        | 1        |
| Hexachlorobenzene           | SW-846 8270   | ND       | ug/Kg          | 270        | 1        |
| Hexachlorobutadiene         | SW-846 8270   | ND       | ug/Kg          | 270        | 1        |
| Hexachlorocyclopentadiene   | SW-846 8270   | ND       | ug/Kg          | 270        | 1        |
| Hexachloroethane            | SW-846 8270   | ND       | ug/Kg          | 270        | 1        |
| Indeno(1,2,3-cd)pyrene      | SW-846 8270   | ND<br>ND | ug/Kg          | 270        | 1        |
| Isophorone                  | SW-846 8270   |          | ug/Kg          | 270        | 1        |
| Naphthalene                 | SW-846 8270   | ND       | ug/Kg          | 270        | 1        |
| Nitrobenzene                | SW-846 8270   | ND       | ug/Kg          | 270        | 1        |
| N-Nitrosodimethylamine      | SW-846 8270   | ND       | ug/Kg          | 270        | 1        |
| N-Nitroso-di-n-propylamine  | SW-846 8270   | ND       | ug/Kg          | 270        | I        |
| N-Nitrosodiphenylamine      | SW-846 8270   | ND       | ug/Kg          | 270        | 1        |
| Pentachlorophenol           | SW-846 8270   | ND       | ug/Kg          | 270        | 1        |
| Phenanthrene                | SW-846 8270   | ND       | ug/Kg          | 270        | 1        |
| Phenol                      | SW-846 8270   | ND       | ug/Kg          | 270        | 1        |
|                             | - // 010 0210 | ND       | ug/Kg          | 270        | 1        |

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To: Craig Obrecht

Ardaman & Associates

PEL Lab#: 200208603

Client ID: SCDC-1

Matrix: Soil

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 12:25:00 PM

ND = Less than RL

| Parameter            | Method      | Results | Units | RL         | Dilution |
|----------------------|-------------|---------|-------|------------|----------|
| Pyrene               | SW-846 8270 | ND      | ug/Kg | 270        |          |
| 2,4,6-Tribromophenol | SW-846 8270 | 93.2    | %     | (19 - 122) | ī        |
| 2-Fluorobiphenyl     | SW-846 8270 | 82.4    | %     | (30 - 115) |          |
| 2-Fluorophenol       | SW-846 8270 | 77.2    | %     | (25 - 121) |          |
| Nitrobenzene-d5      | SW-846 8270 | 82,2    | %     | (23 - 120) |          |
| Phenol-d5            | SW-846 8270 | 76.7    | %     | (24 - 113) |          |
| p-Terphenyl-d14      | SW-846 8270 | 77.6    | %     | (18 - 137) |          |

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To: Craig Obrecht

Ardaman & Associates

PEL Lab#: 200208604

Client ID: SCDC-2

Matrix : Soil

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 12:40:00 PM

ND = Less than RL

| Semivolatiles   | Parameter                 | Method             | Results | Units          | RL       | Dilution |
|---|---------------------------|--------------------|---------|----------------|----------|----------|
| C39 Surrogate   FL Pro   79.4 % (60 - 118)  | Semivolatiles             | FL Pro             |         | h !            |          |          |
| C39 Surrogate   | FL PRO                    | FL Pro             | 35      | mg/Kg(Drv wt.) | 17       | 1        |
| O-Terphenyl Surrogate FL Pro 84.8 % (62 - 109)  INORGANICS SW-846 6010  Arsenic SW-846 6010 0.43 mg/kg 0.20 1  Barium SW-846 6010 1.7 mg/kg 0.10 1  Cadmium SW-846 6010 1.5 mg/kg 0.10 1  Chromium SW-846 6010 0.95 mg/kg 0.10 1  Copper SW-846 6010 0.95 mg/kg 0.20 1  Lead SW-846 6010 0.95 mg/kg 0.20 1  Nickel SW-846 6010 0.34 mg/kg 0.20 1  Nickel SW-846 6010 0.34 mg/kg 0.20 1  Silver SW-846 6010 ND mg/kg 0.30 1  Silver SW-846 6010 ND mg/kg 0.30 1  INORGANICS SW-846 6010  Zine SW-846 6010  Zine SW-846 6010  Zine SW-846 6010  XW-846 8010  XW-846 8010 | C39 Surrogate             | FL Pro             |         | ,              |          | 1        |
| NORGANICS   SW-846 6010   SW-846 6010   SW-846 6010   SW-846 6010   A.7   mg/Kg   0.10   1   1   1   1   1   1   1   1   1  | o-Terphenyl Surrogate     | FL Pro             |         |                |          |          |
| Barium SW-846 6010 4.7 mg/Kg 0.10 1 Cadmium SW-846 6010 ND mg/Kg 0.10 1 Chromium SW-846 6010 0.95 mg/Kg 0.10 1 Copper SW-846 6010 0.95 mg/Kg 0.20 1 Lead SW-846 6010 0.34 mg/Kg 0.20 1 Nickel SW-846 6010 0.34 mg/Kg 0.20 1 Selenium SW-846 6010 ND mg/Kg 0.30 1 Silver SW-846 6010 ND mg/Kg 0.30 1 Silver SW-846 6010 ND mg/Kg 0.30 1 Silver SW-846 6010 ND mg/Kg 0.10 1 INORGANICS SW-846 6010 Zinc SW-846 6010 Xinc SW-846 8260 (High) 1,1,1,2-Tetrachloroethane SW-846 8260 (High) ND ug/Kg 210 50 1,1,1,2-Tetrachloroethane SW-846 8260 (High) ND ug/Kg 210 50 1,1,2-Tetrachloroethane SW-846 8260 (High) ND ug/Kg 210 50 1,1,2-Tetrachloroethane SW-846 8260 (High) ND ug/Kg 210 50 1,1,2-Tichloroethane SW-846 8260 (High) ND ug/Kg 210 50 1,1,1-Dichloroethane SW-846 8260 (High) ND ug/Kg 210 50 1,1,1-Dichloroethane SW-846 8260 (High) ND ug/Kg 210 50 1,1-Dichloroethane SW-846 8260 (High) ND ug/Kg 210 50 1,1-Dichloroethane SW-846 8260 (High) ND ug/Kg 210 50 1,1-Dichloroptopene SW-846 8260 (High) ND ug/Kg 210 50 1,1-Dichloroptopene SW-846 8260 (High) ND ug/Kg 210 50 1,1-Dichloroptopene SW-846 8260 (High) ND ug/Kg 210 50 1,2-3-Trichloroptopene SW-846 8260 (High) ND ug/Kg 210 50 1,2-3-Trichloroptopene SW-846 8260 (High) ND ug/Kg 210 50 1,2-4-Trimethylbenzene SW-846 8260 (High) ND ug/Kg 210 50 1,2-4-Trimethylbenzene SW-846 8260 (High) ND ug/Kg 210 50 1,2-Dichloroptopene SW-846 8260 (High) ND ug/Kg 210 50                      | INORGANICS                | SW-846 6010        |         |                | (02 145) |          |
| Barium  | Arsenic                   | SW-846 6010        | 0.43    | me/Ke          | 0.20     | 1        |
| Cadmium SW-846 6010 ND mg/Kg 0.10 1 Chromium SW-846 6010 2.5 mg/Kg 0.10 1 Copper SW-846 6010 0.95 mg/Kg 0.20 1 Lead SW-846 6010 3.3 mg/Kg 0.20 1 Nickel SW-846 6010 0.34 mg/Kg 0.20 1 Selenium SW-846 6010 ND mg/Kg 0.30 1 Silver SW-846 6010 ND mg/Kg 0.30 1 Silver SW-846 6010 ND mg/Kg 0.30 1 INORGANICS SW-846 6010 ND mg/Kg 0.10 1 INORGANICS SW-846 6010 ND mg/Kg 0.60 1 Mercury SW-846 6010 SB mg/Kg 0.60 1 Mercury SW-846 6010 ND mg/Kg 0.50 1 I,1,1,2-Tetrachloroethane SW-846 8260 (High) ND mg/Kg 0.026 1 I,1,1,2-Tetrachloroethane SW-846 8260 (High) ND ug/Kg 210 50 I,1,2,2-Tetrachloroethane SW-846 8260 (High) ND ug/Kg 210 50 I,1,2-Tichloroethane SW-846 8260 (High) ND ug/Kg 210 50 I,1,2-Tichloroethane SW-846 8260 (High) ND ug/Kg 210 50 I,1,1-Dichloroethane SW-846 8260 (High) ND ug/Kg 210 50 I,1-Dichloroethane SW-846 8260 (High) ND ug/Kg 210 50 I,2-3-Trichloroethane | Barium                    | SW-846 6010        |         | - <del>-</del> |          |          |
| Chromium SW-846 6010 2.5 mg/Kg 0.10 1 Copper SW-846 6010 0.95 mg/Kg 0.20 1 Lead SW-846 6010 3.3 mg/Kg 0.20 1 Nickel SW-846 6010 0.34 mg/Kg 0.20 1 Selenium SW-846 6010 ND mg/Kg 0.30 1 Silver SW-846 6010 ND mg/Kg 0.10 1 INORGANICS SW-846 6010 ND mg/Kg 0.10 1 INORGANICS SW-846 6010 ND mg/Kg 0.00 1 INORGANICS SW-846 6010 ND mg/Kg 0.00 1 INORGANICS SW-846 6010 ND mg/Kg 0.00 1 INORGANICS SW-846 6010 Sw-846 8010 Sw-846 8260 (High) ND mg/Kg 0.00 1 I,1,1,2-Tetrachloroethane SW-846 8260 (High) ND ug/Kg 210 50 I,1,1,2-Tetrachloroethane SW-846 8260 (High) ND ug/Kg 210 50 I,1,2-Trichloroethane SW-846 8260 (High) ND ug/Kg 210 50 I,1,2-Trichloroethane SW-846 8260 (High) ND ug/Kg 210 50 I,1,1-Dichloroethane SW-846 8260 (High) ND ug/Kg 210 50 I,1-Dichloroethane SW-846 8260 (High) ND ug/Kg 210 50 I,2,3-Trichloropropane SW-846 8260 (High) ND ug/Kg 210 50 I,2,3-Trichloropropane SW-846 8260 (High) ND ug/Kg 210 50 I,2,4-Trimethylbenzene SW-846 8260 (High) ND ug/Kg 210 50 I,2,4-Trimethylbenzene SW-846 8260 (High) ND ug/Kg 210 50 I,2,2-Dichloroethane SW-846 8260 (High) ND ug/Kg 210 50 I,2-Diblorom-3-chloropropane SW-846 8260 (High) ND ug/Kg 210 50 I,2-Diblorom-5-chloropropane SW-846 8260 (High) ND ug/Kg 210 50 I I I I I I I I I I I I I I I I I I I                     | Cadmium                   | SW-846 6010        |         |                |          | _        |
| Copper  | Chromium                  | SW-846 6010        |         |                |          |          |
| Lead   SW-846 6010   3.3 mg/kg   0.20   1   | Copper                    | SW-846 6010        |         | - <del>-</del> |          |          |
| Nickel SW-846 6010 0.34 mg/Kg 0.20 1 Selenium SW-846 6010 ND mg/Kg 0.30 1 Silver SW-846 6010 ND mg/Kg 0.10 1 INORGANICS SW-846 6010 Zine SW-846 6010 3.8 mg/Kg 0.60 1 Mercury SW-846 7471 ND mg/Kg 0.026 1 Volatiles SW-846 8260 (High) 1,1,1,2-Tetrachloroethane SW-846 8260 (High) ND ug/Kg 210 50 1,1,1-Trichloroethane SW-846 8260 (High) ND ug/Kg 210 50 1,1,2-Trichloroethane SW-846 8260 (High) ND ug/Kg 210 50 1,1,2-Trichloroethane SW-846 8260 (High) ND ug/Kg 210 50 1,1,2-Trichloroethane SW-846 8260 (High) ND ug/Kg 210 50 1,1-Dichloroethane SW-846 8260 (High) ND ug/Kg 210 50 1,1-Dichloroethane SW-846 8260 (High) ND ug/Kg 210 50 1,1-Dichloroethane SW-846 8260 (High) ND ug/Kg 210 50 1,1-Dichloroethene SW-846 8260 (High) ND ug/Kg 210 50 1,1-Dichloropropene SW-846 8260 (High) ND ug/Kg 210 50 1,2,3-Trichlorobenzene SW-846 8260 (High) ND ug/Kg 210 50 1,2,3-Trichloropropane SW-846 8260 (High) ND ug/Kg 210 50 1,2,3-Trichloropropane SW-846 8260 (High) ND ug/Kg 210 50 1,2,3-Trichloropropane SW-846 8260 (High) ND ug/Kg 210 50 1,2,4-Trichlorobenzene SW-846 8260 (High) ND ug/Kg 210 50 1,2,4-Trimethylbenzene SW-846 8260 (High) ND ug/Kg 210 50 1,2-Dibromo-3-chloropropane SW-846 8260 (High) ND ug/Kg 210 50 1,2-Dibromo-thane(EDB) SW-846 8260 (High) ND ug/Kg 210 50  | Lead                      | SW-846 6010        |         |                |          |          |
| Selenium  | Nickel                    | SW-846 6010        |         |                |          |          |
| Silver         SW-846 6010         ND         mg/Kg         0.10         1           INORGANICS         SW-846 6010         3.8         mg/Kg         0.60         1           Zine         SW-846 6010         3.8         mg/Kg         0.60         1           Mercury         SW-846 6010         ND         mg/Kg         0.026         1           Volatiles         SW-846 8260 (High)         ND         mg/Kg         0.026         1           1,1,1-Trichloroethane         SW-846 8260 (High)         ND         ug/Kg         210         50           1,1,2-Tetrachloroethane         SW-846 8260 (High)         ND         ug/Kg         210         50           1,1,2-Trichloroethane         SW-846 8260 (High)         ND         ug/Kg         210         50           1,1-Dichloroethane         SW-846 8260 (High)         ND         ug/Kg         210         50           1,1-Dichloroethane         SW-846 8260 (High)         ND         ug/Kg         210         50           1,1-Dichloroptopene         SW-846 8260 (High)         ND         ug/Kg         210         50           1,2,3-Trichlorobenzene         SW-846 8260 (High)         ND         ug/Kg         210         50 <t< td=""><td>Selenium</td><td>SW-846 6010</td><td></td><td></td><td></td><td></td></t<>  | Selenium                  | SW-846 6010        |         |                |          |          |
| INORGANICS  | Silver                    | SW-846 6010        | ND      |                |          |          |
| No.   | INORGANICS                | SW-846 6010        |         |                | 0.14     | 1        |
| Mercury         SW-846 7471         ND         mg/Kg         0.026         1           Volatiles         SW-846 8260 (High)         1,1,1,2-Tetrachloroethane         SW-846 8260 (High)         ND         ug/Kg         210         50           1,1,1-Trichloroethane         SW-846 8260 (High)         ND         ug/Kg         210         50           1,1,2-Tetrachloroethane         SW-846 8260 (High)         ND         ug/Kg         210         50           1,1-Dichloroethane         SW-846 8260 (High)         ND         ug/Kg         210         50           1,1-Dichloroethane         SW-846 8260 (High)         ND         ug/Kg         210         50           1,1-Dichloroethane         SW-846 8260 (High)         ND         ug/Kg         210         50           1,1-Dichloroptopene         SW-846 8260 (High)         ND         ug/Kg         210         50           1,1-Dichloroptopene         SW-846 8260 (High)         ND         ug/Kg         210         50           1,2,3-Trichlorobenzene         SW-846 8260 (High)         ND         ug/Kg         210         50           1,2,4-Trichlorobenzene         SW-846 8260 (High)         ND         ug/Kg         210         50           1,2-Dibromo-3-chloropropane  | Zinc                      | SW-846 6010        | 3.8     | mg/Kg          | 0.60     | 1        |
| Volatiles         SW-846 8260 (High)         ND         ug/Kg         210         50           1,1,1,2-Tetrachloroethane         SW-846 8260 (High)         ND         ug/Kg         210         50           1,1,1-Trichloroethane         SW-846 8260 (High)         ND         ug/Kg         210         50           1,1,2-Trichloroethane         SW-846 8260 (High)         ND         ug/Kg         210         50           1,1-Dichloroethane         SW-846 8260 (High)         ND         ug/Kg         210         50           1,1-Dichloroethane         SW-846 8260 (High)         ND         ug/Kg         210         50           1,1-Dichloropropene         SW-846 8260 (High)         ND         ug/Kg         210         50           1,1-Dichloropropene         SW-846 8260 (High)         ND         ug/Kg         210         50           1,2,3-Trichlorobenzene         SW-846 8260 (High)         ND         ug/Kg         210         50           1,2,3-Trichloropropane         SW-846 8260 (High)         ND         ug/Kg         210         50           1,2,4-Trichlorobenzene         SW-846 8260 (High)         ND         ug/Kg         210         50           1,2-Dibromo-3-chloropropane         SW-846 8260 (High) <td< td=""><td>Mercury</td><td>SW-846 7471</td><td>•</td><td></td><td></td><td></td></td<>   | Mercury                   | SW-846 7471        | •       |                |          |          |
| 1,1,1-Trichloroethane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,1,2,2-Tetrachloroethane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,1,2-Trichloroethane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,1-Dichloroethane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,1-Dichloropthane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,1-Dichloroptopene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,3-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,3-Trichloroptopane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,4-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,4-Trimethylbenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dichlorobenz   | Volatiles                 | SW-846 8260 (High) |         |                | 0.020    | •        |
| 1,1,1-Trichloroethane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,1,2,2-Tetrachloroethane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,1,2-Trichloroethane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,1-Dichloroethane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,1-Dichloroptopene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,3-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,3-Trichloropropane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,4-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,4-Trimethylbenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50   | 1,1,1,2-Tetrachloroethane | SW-846 8260 (High) | ND      | ug/Kg          | 210      | 50       |
| 1,1,2,2-Tetrachloroethane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,1,2-Trichloroethane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,1-Dichloroethane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,1-Dichloropropene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,3-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,3-Trichloropropane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,4-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,4-Trimethylbenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50  | 1,1,1-Trichloroethane     | SW-846 8260 (High) | ND      |                |          |          |
| 1,1,2-Trichloroethane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,1-Dichloroethane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,1-Dichloroptoethene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,1-Dichloroptoethene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,3-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,3-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,4-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,4-Trimethylbenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50  |                           | SW-846 8260 (High) | ND      |                |          |          |
| 1,1-Dichloroethane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,1-Dichloroethene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,1-Dichloropropene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,3-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,3-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,4-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-4-Trimethylbenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50   |                           | SW-846 8260 (High) | ND      |                |          |          |
| 1,1-Dichloroethene       SW-846 8260 (High)       ND ug/Kg       210 50         1,1-Dichloropropene       SW-846 8260 (High)       ND ug/Kg       210 50         1,2,3-Trichlorobenzene       SW-846 8260 (High)       ND ug/Kg       210 50         1,2,3-Trichloropropane       SW-846 8260 (High)       ND ug/Kg       210 50         1,2,4-Trichlorobenzene       SW-846 8260 (High)       ND ug/Kg       210 50         1,2,4-Trimethylbenzene       SW-846 8260 (High)       ND ug/Kg       210 50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND ug/Kg       210 50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND ug/Kg       210 50         1,2-Dichlorobenzene       SW-846 8260 (High)       ND ug/Kg       210 50  | 1,1-Dichloroethane        | SW-846 8260 (High) | ND      |                |          |          |
| 1,1-Dichloropropene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,3-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,3-Trichloropropane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,4-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,4-Trimethylbenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50  |                           | SW-846 8260 (High) | ND      |                |          |          |
| 1,2,3-Trichlorobenzene       SW-846 8260 (High)       ND ug/Kg       210 50         1,2,3-Trichloropropane       SW-846 8260 (High)       ND ug/Kg       210 50         1,2,4-Trichlorobenzene       SW-846 8260 (High)       ND ug/Kg       210 50         1,2,4-Trimethylbenzene       SW-846 8260 (High)       ND ug/Kg       210 50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND ug/Kg       210 50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND ug/Kg       210 50         1,2-Dichlorobenzene       SW-846 8260 (High)       ND ug/Kg       210 50   |                           | SW-846 8260 (High) | ND      | _ ·            |          |          |
| 1,2,3-Trichloropropane       SW-846 8260 (High)       ND ug/Kg       210 50         1,2,4-Trichlorobenzene       SW-846 8260 (High)       ND ug/Kg       210 50         1,2,4-Trimethylbenzene       SW-846 8260 (High)       ND ug/Kg       210 50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND ug/Kg       210 50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND ug/Kg       210 50         1,2-Dichlorobenzene       SW-846 8260 (High)       ND ug/Kg       210 50   | 1,2,3-Trichlorobenzene    | SW-846 8260 (High) | ND      |                |          |          |
| 1,2,4-Trichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2,4-Trimethylbenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50   |                           | SW-846 8260 (High) | ND      |                |          |          |
| 1,2,4-Trimethylbenzene       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dibromo-3-chloropropane       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dibromoethane(EDB)       SW-846 8260 (High)       ND       ug/Kg       210       50         1,2-Dichlorobenzene       SW-846 8260 (High)       ND       ug/Kg       210       50   |                           | SW-846 8260 (High) | ND      | •              |          |          |
| 1,2-Dibromo-3-chloropropane SW-846 8260 (High) ND ug/Kg 210 50 1,2-Dibromoethane(EDB) SW-846 8260 (High) ND ug/Kg 210 50 1,2-Dichlorobenzene SW-846 8260 (High) ND ug/Kg 210 50   |                           |                    |         |                |          |          |
| 1,2-Dibromoethane(EDB) SW-846 8260 (High) ND ug/Kg 210 50 1,2-Dichlorobenzene SW-846 8260 (High) ND ug/Kg 210 50  | _ <del>_</del>            | SW-846 8260 (High) |         |                |          |          |
| 1,2-Dichlorobenzene SW-846 8260 (High)  |                           | SW-846 8260 (High) |         |                |          |          |
|   | 1,2-Dichlorobenzene       | SW-846 8260 (High) | ND      | ug/ <b>Kg</b>  | 210      | 50       |

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To: Craig Obrecht

Ardaman & Associates

PEL Lab#: 200208604

Client ID: SCDC-2

Matrix : Soil

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 12:40:00 PM

ND = Less than RL

| Parameter               | Method             | Results | Units         | RL         | Dilution   |
|-------------------------|--------------------|---------|---------------|------------|------------|
| 1,2-Dichloroethane      | SW-846 8260 (High) | ND      | ug/Kg         | 210        | 50         |
| 1,2-Dichloropropane     | SW-846 8260 (High) | ND      | ug/Kg         | 210        | 50<br>50   |
| 1,3,5-Trimethylbenzene  | SW-846 8260 (High) | ND      | ug/Kg         | 210        | 50<br>50   |
| 1,3-Dichlorobenzene     | SW-846 8260 (High) | ND      | ug/Kg         | 210        | 50<br>50   |
| 1,3-Dichloropropane     | SW-846 8260 (High) | ND      | ug/Kg         | 210        | 50         |
| 1,4-Dichloro-2-butene   | SW-846 8260 (High) | ND      | ug/Kg         | 420        | 50         |
| 1,4-Dichlorobenzene     | SW-846 8260 (High) | ND      | ug/Kg         | 210        | 50         |
| 2,2-Dichloropropane     | SW-846 8260 (High) | ND      | ug/Kg         | 210        | <i>5</i> 0 |
| 2-Butanone              | SW-846 8260 (High) | ND      | ug/Kg         | 520        | 50         |
| 2-Chlorotoluene         | SW-846 8260 (High) | ND      | ug/Kg         | 210        | 50         |
| 2-Hexanone              | SW-846 8260 (High) | ND      | ug/Kg         | 210        | 50<br>50   |
| 4-Chlorotoluene         | SW-846 8260 (High) | ND      | ug/Kg         | 210        | 5 <b>0</b> |
| 4-Isopropyltoluene      | SW-846 8260 (High) | ND      | ug/Kg         | 210        | 50<br>50   |
| 4-Methyl-2-pentanone    | SW-846 8260 (High) | ND      | ug/Kg         | 520        | 50         |
| Acetone                 | SW-846 8260 (High) | ND      | ug/Kg         | 1000       | 50         |
| Acrolein                | SW-846 8260 (High) | ND      | ug/Kg         | 520        |            |
| Acrylonitrile           | SW-846 8260 (High) | ND      | ug/Kg         | 420        | 50<br>50   |
| Benzene                 | SW-846 8260 (High) | ND      | ug/Kg         | 210        | 50<br>50   |
| Bromobenzene            | SW-846 8260 (High) | ND      | ug/Kg         | 210        | 50<br>50   |
| Bromochloromethane      | SW-846 8260 (High) | ND      | ug/Kg         | 210        |            |
| Bromodichloromethane    | SW-846 8260 (High) | ND      | ug/ <b>Kg</b> | 210        | 50<br>50   |
| Bromoform               | SW-846 8260 (High) | ND      | ug/Kg         | 210        | 50<br>50   |
| Bromomethane            | SW-846 8260 (High) | ND      | ug/Kg         | 210        | 50         |
| Carbon disulfide        | SW-846 8260 (High) | ND      | ug/Kg         | 210        | 50<br>50   |
| Carbon tetrachloride    | SW-846 8260 (High) | ND      | ug/Kg         | 210        |            |
| Chlorobenzene           | SW-846 8260 (High) | ND      | ug/Kg         | 210        | 50<br>50   |
| Chloroethane            | SW-846 8260 (High) | ND      | ug/Kg         | 210        | 50         |
| Chloroform              | SW-846 8260 (High) | ND      | ug/Kg         |            | 50         |
| Chloromethane           | SW-846 8260 (High) | ND      | ug/Kg         | 210        | 50         |
| cis-1,2-Dichloroethene  | SW-846 8260 (High) | ND      | ug/Kg         | 210        | 50         |
| cis-1,3-Dichloropropene | SW-846 8260 (High) | ND      | ug/Kg         | 210        | 50         |
| Dibromochloromethane    | SW-846 8260 (High) | ND      | ug/Kg         | 210<br>210 | 50<br>50   |
|                         |                    |         | <b>U B</b>    | 210        | 30         |

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To: Craig Obrecht

Ardaman & Associates

PEL Lab# : 200208604

Client ID: SCDC-2

Matrix: Soil

, PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 12:40:00 PM

ND = Less than RL

| Parameter                 | Method             | Results | Units          | RL         | Dilution |
|---------------------------|--------------------|---------|----------------|------------|----------|
| Dibromomethane            | SW-846 8260 (High) | ND      | ug/Kg          | 210        | 50       |
| Dichlorodifluoromethane   | SW-846 8260 (High) | ND      | ug/Kg          | 210        | 50<br>50 |
| Ethyl methacrylate        | SW-846 8260 (High) | ND      | ug/Kg          | 210        | 50<br>50 |
| Ethylbenzene              | SW-846 8260 (High) | ND      | ug/Kg          | 210        | 50       |
| Hexachlorobutadiene       | SW-846 8260 (High) | ND      | ug/Kg          | 210        | 50       |
| Isopropylbenzene (Cumene) | SW-846 8260 (High) | ND      | ug/Kg          | 210        | 50       |
| Methyl iodide             | SW-846 8260 (High) | ND      | ug/Kg          | 420        | 50       |
| Methylene chloride        | SW-846 8260 (High) | ND      | ug/Kg          | 210        | 50       |
| Naphthalene               | SW-846 8260 (High) | ND      | ug/Kg          | 210        | 50       |
| n-Butylbenzene            | SW-846 8260 (High) | ND      | ug/Kg          | 210        | 50       |
| n-Propylbenzene           | SW-846 8260 (High) | ND      | ug/Kg          | 210        |          |
| o-Xylene                  | SW-846 8260 (High) | ND      | ug/Kg          | 210        | 50<br>50 |
| p,m-Xylene                | SW-846 8260 (High) | ND      | ug/Kg          | 420        | 50<br>50 |
| sec-Butylbenzene          | SW-846 8260 (High) | ND      | ug/Kg          | 210        |          |
| Styrene                   | SW-846 8260 (High) | ND      | ug/Kg          | 210        | 50<br>50 |
| tert-Butylbenzene         | SW-846 8260 (High) | ND      | ug/Kg          | 210        | 50       |
| Tetrachloroethene         | SW-846 8260 (High) | ND      | ug/Kg          | 210        | 50       |
| Toluene                   | SW-846 8260 (High) | ND      | ug/Kg          | 210        | 50       |
| trans-1,2-Dichloroethene  | SW-846 8260 (High) | ND      | ug/Kg          | 210        | 50       |
| trans-1,3-Dichloropropene | SW-846 8260 (High) | ND      | ug/Kg          | 210        | 50       |
| Trichloroethene           | SW-846 8260 (High) | ND      | ug/Kg          | 210        | 50       |
| Trichlorofluoromethane    | SW-846 8260 (High) | ND      | ug/Kg          |            | 50       |
| Vinyl acetate             | SW-846 8260 (High) | ND      | ug/Kg          | 210        | 50       |
| Vinyl chloride            | SW-846 8260 (High) | ND      | ug/Kg          | 210        | 50       |
| 4-Bromofluorobenzene      | SW-846 8260 (High) | 83      | %              | 210        | 50       |
| Dibromofluoromethane      | SW-846 8260 (High) | 85.3    | %              | (74 - 121) |          |
| Foluene d8                | SW-846 8260 (High) | 93.1    | %              | (80 - 120) |          |
| Semivolatiles             | SW-846 8270        | 73.1    | 70             | (81 - 117) |          |
| ,2,4-Trichlorobenzene     | SW-846 8270        | ND      | va/V a         |            |          |
| ,2-Dichlorobenzene        | SW-846 8270        | ND      | ug/Kg<br>ug/Kg | 270        | 1        |
| ,3-Dichlorobenzene        | SW-846 8270        | ND      | ug/Kg<br>ug/Kg | 270        | 1        |
| ,4-Dichlorobenzene        | SW-846 8270        | ND      | ug/Kg<br>ug/Kg | 270<br>270 | 1        |

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To: Craig Obrecht

Ardaman & Associates

PEL Lab# : 200208604

Client ID: SCDC-2

Matrix : Soil

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 12:40:00 PM

ND = Less than RL

| Parameter                    | Method       | Results | Units          | RL   | Dilution |
|------------------------------|--------------|---------|----------------|------|----------|
| 1-Methylnaphthalene          | SW-846 8270  | ND      | ug/Kg          |      | **···    |
| 2,4,5-Trichlorophenol        | SW-846 8270  | ND      | ug/Kg<br>ug/Kg | 270  | 1        |
| 2,4,6-Trichlorophenol        | SW-846 8270  | ND      | • •            | 270  | 1        |
| 2,4-Dichlorophenol           | SW-846 8270  | ND      | ug/Kg          | 270  | 1        |
| 2,4-Dimethylphenol           | SW-846 \$270 | ND      | ug/Kg          | 270  | 1        |
| 2,4-Dinitrophenol            | SW-846 8270  | ND      | ug/Kg          | 270  | 1        |
| 2,4-Dinitrotoluene           | SW-846 8270  | ND      | ug/Kg          | 270  | 1        |
| 2,6-Dinitrotoluene           | SW-846 8270  |         | ug/Kg          | 270  | 1        |
| 2-Chloronaphthalene          | SW-846 8270  | ND      | ug/Kg          | 270  | 1        |
| 2-Chlorophenol               | SW-846 8270  | ND      | ug/Kg          | 270  | 1        |
| 2-Methyl-4,6-dinitrophenol   | SW-846 8270  | ND      | ug/Kg          | 270  | 1        |
| 2-Methylnaphthalene          | SW-846 8270  | ND      | ug/Kg          | 270  | 1        |
| 2-Methylphenol (o-Cresol)    | SW-846 8270  | ND      | ug/Kg          | 270  | 1 .      |
| 2-Nitroaniline               | SW-846 8270  | ND      | ug/Kg          | 270  | 1        |
| 2-Nitrophenol                | SW-846 8270  | ND      | ug/ <b>K</b> g | 270  | 1        |
| 3&4-Methylphenol(m&p-Cresol) | SW-846 8270  | ND      | ug/Kg          | 270  | 1        |
| 3,3'-Dichlorobenzidine       | SW-846 8270  | ND      | ug/Kg          | 270  | 1        |
| 3-Nitroaniline               | SW-846 8270  | ND      | ug/Kg          | 270  | 1        |
| -Bromophenyl-phenylether     | SW-846 8270  | ND      | ug/Kg          | 270  | 1        |
| -Chloro-3-methylphenol       | SW-846 8270  | ND      | ug/Kg          | 270  | 1        |
| -Chloroaniline               | SW-846 8270  | ND      | ug/Kg          | 270  | 1        |
| -Chlorophenyl-phenylether    |              | ND      | ug/Kg          | 270  | 1        |
| -Nitroaniline                | SW-846 8270  | ND      | ug/Kg          | 270  | 1        |
| -Nitrophenol                 | SW-846 8270  | ND      | ug/Kg          | 270  | 1        |
| cenaphthene                  | SW-846 8270  | ND      | ug/Kg          | 270  | 1        |
| cenaphthylene                | SW-846 8270  | ND      | ug/Kg          | 270  | 1        |
| miline                       | SW-846 8270  | ND      | ug/Kg          | 270  | ı        |
| mal.                         | SW-846 8270  | ND      | ug/Kg          | 270  | 1        |
|                              | SW-846 8270  | ND      | ug/Kg          | 270  | 1        |
|                              | SW-846 8270  | ND      | ug/Kg          | 1100 | _        |
| amma (-)                     | SW-846 8270  | ND      | ug/Kg          | 270  | 1        |
| # N                          | SW-846 8270  | ND      | ug/Kg          | 270  |          |
| erred outracted the          | SW-846 8270  | ND      | ug/Kg          | 270  | 1        |

Page: 23 of 25

P.26/27



### - CERTIFICATE OF ANALYSIS - (HRS #E84207 and FDER CompQap #900306)

To: Craig Obrecht

Ardaman & Associates

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

Collection Information:

Sample Date: 2/10/00 12:40:00 PM

ND = Less than RL

PEL Lab#: 200208604
Client ID: SCDC-2
Matrix: Soil

| Parameter                   | Method      | Results | Units          | RL         | Dilution |
|-----------------------------|-------------|---------|----------------|------------|----------|
| Benzo(g,h,i)perylene        | SW-846 8270 | ND      | ug/ <b>K</b> g | 270        | 1        |
| Benzo(k)fluoranthene        | SW-846 8270 | ND      | ug/Kg          | 270        | 1        |
| Benzoic acid                | SW-846 8270 | ND      | ug/Kg          | 540        | 1        |
| Benzyl alcohol              | SW-846 8270 | ND      | ug/Kg          | 270        | 1        |
| Bis(2-Chloroethoxy)methane  | SW-846 8270 | ND      | ug/Kg          | 270        | 1        |
| Bis(2-Chloroethyl)ether     | SW-846 8270 | ND      | ug/Kg          | 270        | 1        |
| bis(2-Chloroisopropyl)ether | SW-846 8270 | ND      | ug/Kg          | 270        | 1        |
| bis(2-ethylhexyl)phthalate  | SW-846 8270 | ND      | ug/Kg          | 270        |          |
| Butylbenzylphthalate        | SW-846 8270 | ND      | ug/Kg          | 270        | 1        |
| Chrysene                    | SW-846 8270 | ND      | ug/Kg          | 270        | 1        |
| Dibenz(a,h)anthracene       | SW-846 8270 | ND      | ug/Kg          | 270        | 1        |
| Dibenzofuran                | SW-846 8270 | ND      | ug/Kg          | 270        | I        |
| Diethylphthalate            | SW-846 8270 | ND      | ug/Kg          | 270        | 1        |
| Dimethyl-phthalate          | SW-846 8270 | ND      | ug/Kg          | 270<br>270 | 1        |
| Di-n-butylphthalate         | SW-846 8270 | ND      | ug/Kg          | 270        | 1        |
| Di-n-octylphthalate         | SW-846 8270 | ND      | ug/Kg          | 270        | 1        |
| Fluoranthene                | SW-846 8270 | ND      | ug/Kg          | 270        | I .      |
| Fluorene                    | SW-846 8270 | ND      | ug/Kg          |            | 1        |
| Hexachlorobenzene           | SW-846 8270 | ND      | ug/Kg          | 270<br>270 | 1        |
| Hexachlorobutadiene         | SW-846 8270 | ND      | ug/Kg          |            | 1        |
| Hexachlorocyclopentadiene   | SW-846 8270 | ND      | ug/Kg          | 270        | 1        |
| Hexachloroethane            | SW-846 8270 | ND      | ug/Kg          | 270        | 1        |
| Indeno(1,2,3-cd)pyrene      | SW-846 8270 | ND      | ug/Kg          | 270        | 1        |
| Isophorone                  | SW-846 8270 | ND      | ug/Kg          | 270        | 1        |
| Naphthalene                 | SW-846 8270 | ND      | ug/Kg          | 270        | 1        |
| Nitrobenzene                | SW-846 8270 | ND      | ug/Kg<br>ug/Kg | 270        | 1        |
| N-Nitrosodimethylamine      | SW-846 8270 | ND      | - <del>-</del> | 270        | 1        |
| N-Nitroso-di-n-propylamine  | SW-846 8270 | ND      | ug/Kg          | 270        | 1        |
| N-Nitrosodiphenylamine      | SW-846 8270 | ND      | ug/Kg          | 270        | 1        |
| Pentachlorophenol           | SW-846 8270 | ND      | ug/Kg          | 270        | 1        |
| henanthrene                 | SW-846 8270 | ND      | ug/Kg          | 270        | 1        |
| henol                       | SW-846 8270 |         | ug/Kg          | 270        | 1        |
|                             | · ·         | ND      | ug/Kg          | 270        | 1        |

Page: 24 of 25

Craig Obrecht co:

Ardaman & Associates

PROJECT\_SEQ: 2002086

PROJECT ID: Ditch Cleaning / 99-8597

PEL Lab#:

200208604

Collection Information:

Client ID:

SCDC-2

Sample Date: 2/10/00 12:40:00 PM

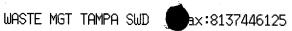
Matrix: Soil

ND = Less than RL

| Parameter            | Method       | Results | Units | RL         | Dilution |
|----------------------|--------------|---------|-------|------------|----------|
| Ругепе               | SW-846 8270  | ND      | 1.4/V |            |          |
| 2,4,6-Tribromophenol | SW-846 8270  |         | ug/Kg | 270        | 1        |
| 2-Fluorobiphenyl     |              | 89.6    | %     | (19 - 122) |          |
| . 7                  | SW-846 8270  | 72.1    | %     | (30 - 115) |          |
| 2-Fluorophenol       | SW-846 8270  | 65.5    | %     | (25 - 121) |          |
| Nitrobenzene-d5      | SW-846 8270  | 71.7    | %     | (23 - 121) |          |
| Phenol-d5            | SW-846 8270  | 67.6    | %     |            |          |
| p-Terphenyl-d14      | SW-846 8270  |         |       | (24 - 113) |          |
|                      | 011 040 b270 | 70.2    | %     | (18 - 137) |          |

Brian C. Spann

aboratory Manager



### \*\* Transmit Conf.Report \*\*

P.1

Feb 3 2000 13:48

| Telephone Number | Mode   | Start   | Time  | Pages | Result | Note |
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| Post-it® Fax Note 7671 Date 2 3 pages 1  To CHIP HOWER From JUHN MOUNS  CO. Dept. ANDAMAN Co. | 3804 Coco_c Palm Drive  1- Tampa, FL 33619-8318        |
|---|--|
| Phone # - CALLIFYOU  Fax # 941 - 922 - 67-43 Fax # HANE GLUSSTIONS.  BOB [4]                  | Date: 9 10 99  Number of pages including cover sheer:  |
| TO: John  | From:  |
| MARK TRIPLETT   | JOHN MORRIS  |
| Phone: 941-486-2620 CC:   | Phone: (813) 744-6100 × 336  Fax phone: (813) 744-6125 |
|   |  |

| MARK-           |               |              |             |             | Please comment |
|-----------------|---------------|--------------|-------------|-------------|----------------|
| ACMILIES.       | •             |              |             |             |                |
| PALAMETER       | OF INTERES    | T FOR SOUT   | א בשטיריל ו | DRCH CLEMIN | & STOUCHUE:    |
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## STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION SOUTHWEST DISTRICT

#### CONVERSATION RECORD

| Date 2/3/00   | Subject SACASOTA COUNTY STREET SWEETINGS       |
|---|--|
| Time 0945   | Permit No. N/A                                 |
| Tune 0143   | County SAMSOTA                                 |
| MR CHIP HOOVER  |  |
| Representing ARDAMAN  | Telephone No. 941-922-3526 (922-6743 FAX)      |
| [A] Phoned Me [K] Was Call Other Individuals Involved in Conversa |  |
| Office marriadas myoryon m competu                                |  |
| Summary of Conversation/Meeting                                   | FT MESSAGE ON VOICE MAIL                       |
| RETURN CALL TO C. H. / LM   | TC W RECEPTIONIST                              |
| 2/3/00 C 1125 C.H. LOT ME   | ISTEE ON VOICE MALL                            |
| C1340 RETURNED CALLTO CH.   | /LMTC W/ RETEPTIONIST                          |
|   | CHIP THAT WAS INITIALLY SOUT TO MARK TRIPLET   |
| W SANASOTA COUNTY   | NEWARDING ANTHUSIS FOR DITCH CHEAVING STOUGHLE |
|   |  |
|   |  |
|   |  |
|   | -  |
| (continue on another sheet, if necessary)                         | Signature J. Marks                             |
|   | Title  |

PA-01 1/96

pap



# Department of Environmental Protection

Jeb Bush Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

David B. Struhs Secretary

January 31, 2000

Mr. Dan Blackwood Sarasota County Road & Bridge Manager 100 Cattleman Road Sarasota, Florida 34232

Re: Meeting Summary – Thursday, January 20, 2000 – Management of Streetsweepings, Catch Basin, Stormwater Pond Sediments and Ditch Cleanings

Attendees: William Nichols, Dan Blackwood, James Somers, Gary Bennett, Don Schaulis (Sarasota County) John Morris, Bob Butera (FDEP)

Dear Mr: Blackwood:

The Florida Department of Environmental Protection appreciates meeting and discussing with you options available for the proper management of streets weepings, catch basin sediments and stormwater pond sediments at the various locations within the County. The management options of the aforementioned waste streams may be managed at: (1) a regulated and permitted transfer station with leachate containment, or (2) by tipping on a concrete slab, removing the wastes to a roll-off at days end and transporting to a lined permitted landfill authorized to accept such wastes. As discussed, the roll-off container, if not leakproof shall be covered at the end of each day to prevent discharge of contaminants to groundwater. Implementation of option (2) would be unregulated as the Department has no authority to regulate roll-offs and/or containers unless they are located within a permitted facility.

The Department requested that a proposed management plan including the specific locations of storage of streetsweepings, catch basin and stormwater pond sediments be submitted to the Department for review prior to February 29, 2000. The Department requests that the anticipated holding time on site of the containers be included in the management plan.

The Department anticipates receipt of required sampling data to support reuse and/or disposal options for the ditch cleanings within 30 days of the date of the meeting. After review of the data the Department will evaluate possible options that may include unrestricted use of the material.

After the meeting, the Department visited the following sites with staff and is providing the following comments and/or requirements for your information:

<u>Palmer Blvd. & Bell Road</u> – Due to lack of restricted access or controls it was apparent streetsweepings are being disposed at the site. A container should be provided to allow containment and disposal of solid wastes at the site. Incidental waste was apparent within the ditch cleanings.

McIntosh Road & Gypsy Lane – The slab constructed appears to be adequate to provide a tipping floor for streetsweepings but the push walls should be extended to encompass the total slab. A roll-off container shall be placed for storage, but the existing gravel filled trench cannot be utilized for leachate discharges at the site due to potential groundwater contamination. A roof installed over the slab will eliminate the need to cover the roll-off container if the roof extends over the container. Associated dumping of wood, buckets, tires and other wastes at this location shall be terminated and a container for these solid wastes shall be provided. The Department requests that all waste materials currently stored on the ground be removed.

Mr. Dan Blackwood January 31, 2000 Page 2

As discussed it may be feasible that all streetsweepings, catch basin and stormwater sediments and ditch cleanings (depending on sampling results) may be staged at the Sarasota County Central Landfill outside the landfill cells may be utilized for initial cover. Depending on the location of the staging area for this waste material groundwater monitoring wells may be required.

During these site visits the Department was informed that Sarasota County is responsible for maintenance of all stormwater conveyances within the City of Sarasota. The Department suggests that catch basin and stormwater sediments removed within the City be transported to the City's Transfer Station located at Osprey & 12<sup>th</sup> Street. The City of Sarasota street sweepers are currently utilizing this facility and it has been reported to the Department that the street sweepers have easy access to and from the facility's tipping floor.

The Department looks forward to closure on the referenced subject with Sarasota County. If you have any questions relating to this letter please contact me at 813-744-6100, extension 451.

Sincerely yours,

Robert J. Butera, P.E. Solid Waste Manager

Southwest District

cc: William Nichols, Sarasota County Director of Public Works

James N. Somers, P.E., Sarasota County Drainage Operations Manager

Gary Bennett, Sarasota County Solid Waste Operations Manager, 4000 Knights Trail Road,

Nokomis, FL 34275 John Morris, P.G. – FDEP SAMPOTA COUNTY

SOUTH COUNTY

| 1/20/00  | SATURSOTA COUNTY MOETING   |
|--|--|
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| 3510ED F   | MEA PUTTING STROOT SWOOPINGS ON CONCLUTE PAD/SLAB AT GOTH NORTH/SOUTH COUNTY |
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| and foundative or a management of the control of th | - SUGGEST USE OF WATERTIENT ROLLOFF / NOT REGULATED BY DEPT.                 |
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|  |  |
|  | - TRANSFER STATION WILL INVOLVE PERMITTING, LEAGHTE HANGE (THOTTMONT         |
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|  | DITCH CLEANING SEDIMENTS   |
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### FLORIDA DEPARIMENT OF ENVIRONMENTAL PROTECTION | Tampa, FL 33619-8318

941-486-2620

Phone:

CC:

Fax phone:

# 3804 Cocol Palm Drive

| FAX                                   | 603- FL                          | Date: |
|---------------------------------------|----------------------------------|-------|
|                                       | FIL; SOUT<br>TO MANK<br>THIS AM. | Numb  |
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| <b>To:</b>                            | 79h-                             | From  |
| MARK TI                               | RIPLETT                          | Jo    |
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| •     |        | - · |  |
|-------|--------|-----|--|
| From: |        |     |  |
| JOHN  | MORRIS |     |  |

(813) 744-6100

(813) 744-6125

John

Phone:

Fax phone:

0/10/99

| ——————————————————————————————————————  |
|---|
| REMARKS: Urgent For your review Reply ASAP Please comment   |
| MARK  |
| PALAMETER OF INTEREST FOR SOUTH COUNTY DITCH CLEANING STOCKPILE:                                  |
| () METALS: RCRA METALS + ALUMINUM, COPPER, NICKEL, ZINC   |
| 2) TOTAL RECOVERABLE PETROLEUM HYDROCALBONS   |
| 6) VOLATILE OMBANIC PALAMETERS LISTED BY EPA METHOD 8260  |
| (4) SEMI-VOLATILE ORGANIC PARAMETERS LISTED BY ERA METHOD 8270                                    |
| (5) IE PETICULES LISTED BY ESH METHOD SETO ANE REPORTED AT CONCENTRATIONS                         |
| THAT EXCERD RESIDENTIAL CLITERIA FOR SOIL CLEANUP TARGET LEVAS PRESONTED                          |
| TAGE I OF 62-779 FAC ANTUSIS OF ADDITIONAL PESTICIDES MAY BE                                      |
| REQUISED: OPEN REVIEW OF THE DATA SULLEMENTAL ANALYS WILL BE IDENTIFIED, IT ANY                   |
| WITHOUTH MATS MUST BE IT OR LOWER THAN THE INDIVIDUAL ANALITES                                    |
| Soil Chemior Tanger Levels in 62-777, FAC, TO DEMONSTRATE CONSTRATE CONSTRATE CONSTRATE CONSTRATE |
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| - SUFFICIENT NUMBER OF SAMPLES/WEATHOUS TO BE REPRESENTATIVE OF ENTIRE PILE                       |

- SAMBUNG ANALYSES ACTIVITIES MUST BE IN COMPUNITE WITH AN ACHONES COMPRAY.

CALL IF YOU HAVE QUESTIONS COMMENTS,





