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Golder Associates

REMEDIAL ACTION REPORT
OU2 SEDIMENT REMOVAL
CENTRE COUNTY KEPONE SITE
STATE COLLEGE, PENNSYLVANIA

Prepared for:

RÜTGERS Organics Corporation
201 Struble Road
State College, PA 16801

Prepared by:

Golder Associates Inc.
200 Century Parkway, Suite C
Mount Laurel, NJ 08054

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November 2008

Project No.: 963-6333

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November 7, 2008

Project No.: 963-6333

U.S. Environmental Protection Agency (3HS22)
1650 Arch Street
Philadelphia, PA 19103-2029

Attn.: Mr. Frank Klanchar

RE: REMEDIAL ACTION REPORT
SEDIMENT REMOVAL ACTION
CENTRE COUNTY KEPONE SITE, STATE COLLEGE, PA

Dear Mr. Klanchar:

On behalf of RÜTGERS Organics Corporation (ROC), Golder Associates, Inc. (Golder) is providing 2 copies of the Remedial Action Report (RAR) for the Operable Unit No. 2 Sediment Removal Action conducted at the Centre County Kepone Site (Site). This report is being submitted pursuant to the May 7, 2007 Administrative Settlement and Order on Consent (AOC) between ROC and the U.S. Environmental Protection Agency (USEPA).

If you have any questions about this matter, please contact Dr. Rainer Domalski at (814) 231-9200 or the undersigned (856-793-2005) with any comments or questions.

Very truly yours,

GOLDER ASSOCIATES INC.

Charles J. Lawrence, Jr.
Senior Project Geologist

Veronica E. Foster, P.E.
Senior Engineer

CJL/VEF:cjl
G:\PROJECTS\1992 - 1999 PROJECTS\963-6333 ROC CENTRE COUNTY\OU2 SED REMOVAL\RAR\OU-2 SED CVR LLTR - 110808.DOC

Attachments

cc: Ms. Cheryl Sinclair, PADEP (w/ Attachment)
Dr. Rainer Domalski, ROC (w/ Attachment)

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1.0 INTRODUCTION

1.1 Project Background

The Centre County Kepone Site in State College, Pennsylvania (Site), was placed on the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) National Priorities List (NPL) on September 8, 1983. RÜTGERS Organics Corporation (ROC), formerly known as Ruetgers-Nease Corporation (RNC), owns and formerly operated a chemical manufacturing plant at the Site. Pursuant to CERCLA, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), ROC and the United States Environmental Protection Agency (USEPA) entered into an Administrative Order of Consent (AOC, EPA Docket No. III-88-22-DC) on November 7, 1988, which stipulated that a Remedial Investigation (RI) and Feasibility Study (FS) be performed for the Site including the former manufacturing area and specific off-property areas including Thornton Spring and a portion of Spring Creek.

In April 1995, the USEPA issued a Record of Decision (ROD) for the Site, which specified certain remedial actions that were defined as Operable Unit No. 1 (OU-1) and required additional sampling and assessment of other areas that constituted Operable Unit No. 2 (OU-2). ROC entered into a Consent Decree (Civil Action No. 03-23) with USEPA in 1997 to implement the ROD. OU-2 includes sediments in the off-property portion of a Fresh Water Drainage Ditch (FWDD) and sediments in the Thornton Spring drainage channel (TSC).

In accordance with the requirements of the ROD, investigation work was carried out in these areas by Golder Associates, Inc. (Golder) between August 27, 2001 and September 14, 2001, with assistance and oversight from representatives of the cooperating Agencies: USEPA, Pennsylvania Department of Environmental Protection (PADEP), Pennsylvania Fish & Boat Commission (PFBC), and U.S. Fish & Wildlife Service (USFWS). The analytical data collected with regards to the FWDD and TSC are summarized below:

Mirex was detected in all four primary samples of fine grained sediment from the lower FWDD at concentrations up to 1,420 ug/kg, while kepone was detected in two samples at concentrations up to 173 ug/kg, and photomirex was detected in one sample at a concentration of 83 ug/kg.

The sampling results for the TSC sediments showed that mirex and kepone were present in virtually all samples of fine-grained sediments. Mirex was present at concentrations up to 309 ug/kg and kepone up to 765 ug/kg; photomirex was not detected.

On September 24, 2002, during a meeting between ROC, Golder, and the various Agencies, it was concluded that removal of fine-grained sediment from the lower FWDD and from the Thornton Spring drainage channel was appropriate. The parties subsequently met on site on October 31, 2002 and agreed upon a probing method to establish the extent and volume of fine-grained sediment.

A letter dated August 14, 2003, described the potential sediment removal action and summarized the results of the probing, which indicated an in-place sediment volume of approximately 118 cubic yards (cu. yds.) for the lower FWDD and approximately 16 cu. yds. for the TSC.

ROC and USEPA subsequently entered into an Administrative Settlement and Order on Consent (2007 AOC) for removal of the fine grained sediment that was effective on May 7, 2007.

The 2007 AOC required that all fine-grained sediments/soils be removed to a depth of 2 feet to be protective of environmental receptors. The depth of excavation may be limited by the occurrence of bedrock. However, if sediments/soils remain after excavation, they must meet the soil cleanup levels of 33,062 micrograms (µg/kg) for mirex, and 72,737 µg/kg for kepone as specified in the 2007 AOC. Any residual sediment/soil contamination remaining in-place must be contained by lining the excavated areas and employing approved erosion control measures. The 2007 AOC also required the submission of a Response Action Plan (RAP) together with an expeditious schedule for completion of the response action in the lower FWDD and TSC.

In order to provide information on current site condition for preparation of the RAP, additional sediment samples were collected, and confirmation sediment probing was conducted in June 2007 using the same methods as the previous work. A summary of the sediment sampling program was presented in the RAP (Golder, 2007). In general, the 2007 work indicated that mirex and kepone were present in the FWDD and TSC at concentrations comparable to previous sampling results. The results of the 2007 sediment thickness survey were also comparable to previous results and are summarized in the RAP that was submitted to the USEPA in July 2007. USEPA conditionally approved the RAP in a letter dated October 5, 2007, and USEPA's comments were addressed in the Remedial Action Design Report (RADR, Golder 2007).

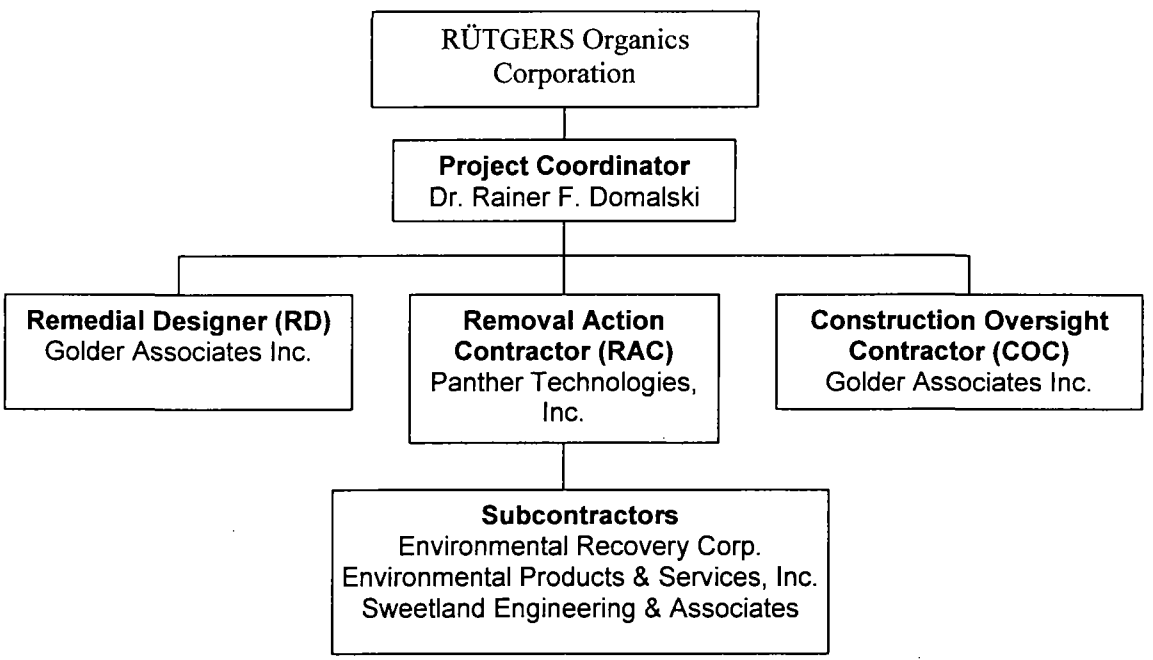
1.2 Construction Documents

The sediment removal action was governed by the above referenced USEPA-approved RAP, the associated RADR, and the following ancillary plans:

- "Sampling and Analysis Plan" prepared by Golder Associates, dated October 2007. (Provided as Appendix A of RAP).
- "Quality Assurance Plan, Sediment Removal Action, Centre County Kepone Site, State College, Pennsylvania", prepared by Golder Associates, dated October 2007. (Provided as Appendix B of RAP).
- "Site Management Plan" prepared by Golder Associates, dated October 2007. (Provided as Appendix D of RAP).
- "Health and Safety/Contingency Plan, OU-2 Sediment Removal Action, Centre County Kepone Site, State College, Pennsylvania" prepared by Golder Associates, dated April 2008.

1.3 Project Participants

This section describes the roles and responsibilities of team members during the sediment removal action. The project organization is illustrated below.



Project Organization Chart

1.3.1 Project Coordinator

The Project Coordinator was Dr. Rainer F. Domalski of ROC. ROC is responsible for the overall coordination and management of activities as detailed in the Consent Decree.

1.3.2 Remedial Designer

Golder was retained by ROC and approved by the USEPA and PADEP as Remedial Designer. As Remedial Designer, Golder performed the following activities:

- Assisted ROC in the selection of the RAC;
- Reviewed RAC submittals and shop drawings for conformance with the design requirements;
- Reviewed all design and specification changes that were proposed by the RAC;
- Provided clarifications to the Contract Drawings and Technical Specifications;
- Provided project oversight during remedial action implementation; and,
- Prepared this RAR at the completion of the project.

Material and method changes proposed during construction were evaluated by Golder for compliance with the intent of the RAP and the Technical Specifications. Any changes made to the scope of work during the course of remedial action implementation were reviewed by Golder and discussed with the Agencies for conditional approval.

1.3.3 Removal Action Contractor

The RAC for the sediment removal action was Panther Technologies, Inc. (Panther) of Medford, New Jersey. Panther acted as the General Contractor and was responsible for the overall coordination and management of the sediment removal activities.

Under Panther's supervision, Environmental Recovery Corp (ERC) of Lancaster, Pennsylvania, and Environmental Products & Services, Inc. (EP&S) of Harrisburg, Pennsylvania, were used for vacuum dredging (vactor) services. Sweetland Engineering & Associates (SE&A) of State College, Pennsylvania, performed land surveying.

1.3.4 Construction Oversight Contractor

The COC was responsible for overseeing implementation of the remedial action. Responsibilities of the COC included the following activities:

- Reviewed the construction activities in the field to verify compliance with the Contract Drawings, Technical Specifications, and related workplans;
- Reviewed construction schedule with the RAC;
- Reviewed each stage of construction, materials, and workmanship provided by the RAC;
- Performed confirmation and characterization sampling, and coordinated analytical testing;
- Reviewed, in conjunction with ROC, USEPA and PADEP, corrective measures to be implemented during construction when deviations from the RADR/RAP occurred;
- Maintained a set of Contract Drawings showing adjustments/changes and as-built information from the RAC;
- Evaluated the soils, geosynthetics, and other testing laboratories' qualifications for the project;
- Observed excavation activities;
- Observed and monitored general construction;
- As part of restoration, monitored and documented geosynthetic material and aggregate material placement;
- Reported identified deficiencies and substantive changes;
- Prepared daily construction reports; and,
- Maintained an on-Site project file for storing the originals or copies of planning documents, material data sheets, and reports generated during construction.

1.3.5 Regulatory Oversight

The USEPA's Project Coordinator was Mr. Frank Klancher. The United States Army Corp of Engineers (Army Corps) occasionally provided assistance to USEPA. At various times Mr. Jim Harbert, Mr. Tom Conway, and Mr. Joe Hollswander represented Army Corp. Other regulatory agency representatives included: Mr. Mark Hartle and Ms. Heather Smiles of the Pennsylvania Fish and Boat Commission (PFBC); and Mr. Steve Clawson of the United States Fish and Wildlife Service.

1.4 Construction Schedule

Construction activities commenced on April 22, 2008 and were substantially completed on June 24, 2008. Sediment was removed from the Site for disposal on September 23, 2008. The initiation and completion dates of the major construction components are discussed in detail in Section 3.

1.5 Organization of the Document

This RAR documents the remedial action work conducted on Site, including the following specific information:

- Section 2 describes the Site and the physical setting;
- Section 3 discusses the activities implemented as part of the RAP;
- Section 4 discusses confirmation and characterization sampling, and sediment disposal; and,
- Section 5 provides a summary and conclusion of the remedial action.

2.0 SITE DESCRIPTION AND PHYSICAL SETTING

2.1 Site Features

The Site is located in College Township, Centre County, Pennsylvania, approximately two and one-quarter miles northeast of the Borough of State College. The ROC property occupies an area approximately 32.2 acres and includes ROC's former manufacturing plant located on Struble Road about 3,000 feet north of the intersection of State Routes 322 and 26.

The topography of the ROC property is relatively gently sloping terrain located on the northwest flank of Nittany Mountain. Ground surface elevations in the area range from approximately 1,090 feet above mean sea level (ft MSL) near the railroad tracks to 1,120 ft MSL in the southwest portion of the Site. Surface water runoff at the Site, primarily from building roof drains and pavement, flows to a retention basin before being discharged to the on-site Fresh Water Drainage Ditch (FWDD), which ultimately discharges to Spring Creek.

The regional climate is temperate and wet, with precipitation occurring throughout the year. Average monthly temperatures for 2007 range from a minimum of 27 degrees Fahrenheit (° F) in January, to a maximum of 71° F in July. In 2007, monthly precipitation for the area ranged from 2.5 inches in February to 4.1 inches in September, with a yearly total of 38.8 inches.

2.2 Surrounding Area

In the immediate vicinity of the Site, the land use is industrial/commercial and residential. Residential dwellings are located along the southeast border of the Site. Commercial establishments are located along State Route 26 which is heavily traveled and runs adjacent to the Site. A restaurant, garden center, and lumber yard are located within 300 feet of the former manufacturing plant.

A public water supply is provided throughout the surrounding area by the College Township Water Authority.

Surface water runoff at the Site, primarily from building roof drains and pavement, flows to a retention basin before being discharged to the on-site Fresh Water Drainage Ditch (FWDD), which ultimately discharges to Spring Creek.

3.0 REMEDIATION ACTIVITIES

3.1 Preparation for Construction

Preparatory activities included the selection, on the basis of qualifications and competitive bids, of a qualified RAC, and selection of the facility to accept the removed sediment for disposal. Panther was selected as the RAC, and Wayne Township Landfill in McElhattan, Pennsylvania was selected as the disposal facility.

Prior to Panther's mobilization, an on-site meeting with the project team was conducted to coordinate field activities, including provision of temporary erosion control and, where needed, traffic control systems along Route 26, Houserville Road, and Pike Street.

Panther obtained mark outs of underground utilities in the vicinity of the response action activities through the Pennsylvania One Call System. Since the FWDD is located within the State Route 26 right of way, access to the FWDD was coordinated with the Pennsylvania Department of Transportation (PennDOT) Engineering District 2-0, located in Clearfield, Pennsylvania.

Access to the TSC was coordinated with adjacent property owners by Panther.

3.2 Field Mobilization & Utility Mark Outs

On April 22, 2008, Panther mobilized to the Site. Panther unloaded and staged equipment and began construction of the sediment dewatering pad on the ROC property, including a sump in the downgradient corner of the pad to collect and transfer draining water to the Site groundwater treatment plant.

Under Panther's supervision, SE&A commenced the pre-construction survey at the TSC and the FWDD. The pre-construction survey was completed on April 23, 2008.

On April 24, 2008, Golder took pre-construction photographs of the TSC and the FWDD. Representative photographs are provided in Figure 1.

3.3 Dewatering and Stream Flow Control Measures

Panther set up a pump bypass systems using a 2-inch trash pump and flexible hose to pump water around the work area and to a discharge point downstream of the work area.

The pump bypass system was used to control water flow through the work area so that sediment consistency allowed the material to be transferred to the vacuum truck ("vac truck") without material clogging the hose.

3.4 Erosion Control

Silt fencing was placed along the down-slope side of the access area, and coir logs with sand bags were placed within the creek channel for erosion control in accordance with requirements outlined in the Pennsylvania Soil Erosion and Sediment Pollution Control Program Manual (PADEP, 2000).

Coir logs were placed within the creek channel to naturally filter disturbed sediment from the work area during the course of construction. Both Panther and Golder personnel performed periodic checks to confirm that disturbed sediment was not flowing past the coir logs further downstream within the TSC or into Spring Creek.

The Centre County Conservation District did not require an Erosion and Sediment Control Plan for this project.

3.5 Sediment Removal

On April 23, 2008, Panther began constructing access to the TSC. Access construction included placing fabric and 1.5-2 inch diameter stone to alleviate any potential impacts from equipment to the ground surface.

On April 28, 2008, operations commenced in the FWDD; however, heavy rains over the weekend had caused increased surface water flow from the surrounding upgradient areas to the FWDD. Heavy rains persisted the following week and after discussing site conditions with USEPA, verbal approval was granted to delay field work and extend the project schedule accordingly, until conditions improved.

On May 27, 2008, Panther remobilized to the Site to continue sediment removal activities.

Sediment removal was initiated in the TSC primarily using vacuum dredging. Where sediment removal became more cumbersome, a field crew of two supplemented the vacuum operation by loosening material with hand shovels. All fine-grained sediments/soils were removed to a minimum depth of at least 2 feet to be protective of environmental receptors. In some instances, the depth of excavation was limited by the occurrence of bedrock.

Removal of sediments/soils to a depth greater than 2 feet was based on field conditions encountered during removal activities. In isolated areas, where sediment was greater that 2-feet in thickness, additional sediment was removed to bedrock so as to obviate the need for post-excavation sampling. If sediments/soils remained after excavation, post-excavation confirmation samples were collected, as described in the Section 4.3, to ensure remaining soils met the cleanup levels specified in the ROD to be protective of groundwater.

On June 2, 2008, a mini-excavator was used to loosen the sediment in the upper portion of the TSC instead of loosening it by hand. Permission was granted from the Agencies to use the mini-excavator or a small backhoe in Thornton Spring provided it was not used to just dig and haul. The mini-excavator was approved for use in the upper third of the channel where the channel was approximately 8 to10 feet wide, and where the majority of the sediment was located. The Agencies requested that all attempts be made to retain the natural rocky substrate of the spring using the existing rocks in the stream, not riprap, to minimize the impact to the stream bank. The excavator was used to loosen and stockpile the sediments, and then to pick out the larger rocks. The vac truck then was used to remove the stockpiles fine-grained sediments. Afterwards, the remaining rocks were placed back in the channel.

Remedial activities at the FWDD and TSC were completed from May 27, 2008 through June 25, 2008. The total weight of material removed from the FWDD and the TSC as part of this sediment removal action was 116.21 tons. Details of each day's removal activities are provided in Appendix A along with daily field reports. Daily field maps, depicting areas in which remediation occurred each day are provided in Appendix B.

3.6 Sediment Staging

Sediment was temporarily staged on the ROC Property while awaiting characterization sample results and approval of an off-site disposal facility by USEPA and PADEP. Panther constructed a sediment dewatering pad that also served as the temporary staging area. The staging area was constructed of 6 millimeter polyethylene plastic with an in-ground collection sump and hay bale berms. It was built atop an existing asphalt pad following the existing grade slope to the collection sump.

Residual water was allowed to drain by gravity from the sediment and collect in the sump. As needed, water collected within the sump was transferred to and treated in the on-site treatment system before discharge to the FWDD.

Sediment was transferred directly from the work area to the sediment dewatering pad via the vac truck. Initially, the sediment was allowed to settle overnight within the vac truck prior to the water portion being pumped to the groundwater treatment system; however, there was not enough space in the treatment system to store the amount of sediment/water being removed and the sediment content was high enough that there was concern it would continually foul the treatment system's bag filters; thus, shutting down the treatment system.

Sediment filter bags were brought to the Site to filter the draining water from the dewatering pad before sending it to the treatment system. The bags that were brought were larger micron bags (approximately 50 to 75 micron) and the water passing through and coming out was still heavily sediment-laden. A test was made with a 10 micron filter bag from the treatment system and it was somewhat effective at filtering the sediment/water, however it quickly filled to capacity in a matter of minutes.

During the setup of the filter bags, ROC personnel suggested using a water tight former secondary containment area near the treatment system to store the sediment/water until the sediment settled out and the water could then be decanted to the treatment system. Approval of this technique was verbally granted during a conference call on May 29, 2008 between Golder, ROC management, and USEPA. Thus, as the vac truck became full of sediment/water from removal operations, it was first mobilized to the secondary containment structure where the liquid portion of the load was pumped off. Once this mixture was allowed enough time to settle, the water was decanted off to the groundwater treatment system.

The remaining solid portion of the vac truck load was then off-loaded to the sediment dewatering pad as performed previously. This technique of using the former secondary containment area as a temporary sedimentation basin was used throughout the rest of the remedial action. At the completion of removal operations, residual sediment remaining in the secondary containment structure was removed and consolidated with the sediment in the temporary staging area.

In the event of inclement weather, sediment off-loaded to the dewatering pad was covered with plastic to divert rainwater off the dewatering pad and away from the dewatering pad sump.

3.7 Restoration Activities

3.7.1 Channel Lining and Restoration

Any residual sediment/soil contamination remaining in place was contained by a channel lining. Due to the rocky nature of the existing channel substrate in both the FWDD and TSC, riprap was used to compliment, as much as possible, existing conditions.

On June 25, 2008, Panther completed the restoration of the TSC and the portion of the private property used to access the TSC. Panther placed stone in the upper portion of TSC to restore the stream channel after sediment removal activities. Prior to placing stone, coir matting was installed in the channel to assist in stabilizing the channel. After placing the stone, coir logs were staked into the side-slopes of the stream channel to assist in stabilizing the banks. The field map from June 25, 2008, depicts the layout of these restoration activities. Where the mini-excavator was approved for use in the upper third of the TSC channel, all attempts were made to retain the natural rocky substrate of the spring using the existing rocks in the stream, not imported material, to minimize the impact to the stream bank as requested by the Agencies. Figure 1 provides the as-built, final stream grade along with pictures showing, comparatively, both pre-existing and post-excavation stream conditions for both the FWDD and TSC . Figure 2 depicts channel lining and restoration features emplaced at the TSC.

The Centre County Conservation District did not require an Erosion and Sediment Control Plan for this project. An Army Corps representative was on-site on behalf of the USEPA to observe restoration activities and was satisfied with the restoration.

3.7.2 ROC Property Restoration

On September 23, 2008, prior to off-loading sediment from the dewatering pad for disposal, Panther transferred any remaining residual material from within the secondary containment area, which was used as a temporary sedimentation basin, to the dewatering pad. Prior to Panther's re-mobilization, ROC personnel decanted the remaining water from the secondary containment area to the groundwater treatment system. The secondary containment area was then decontaminated by washing with a high pressure hose and residual fluids were transferred to the groundwater treatment system.

After all sediment had been completely off-loaded for disposal, the dewatering pad was disassembled and the entire asphalt pad on top of which the dewatering pad sat was cleaned by washing with a high pressure hose. Any residual sediment was transferred by hand shovel to a dump truck with other off-loaded sediment for disposal and the entire area cleaned with a high pressure hose. Residual fluids were transferred to the groundwater treatment system.

3.7.3 Private Property Restoration

A load of pea gravel was also delivered to the TSC area to restore the driveway at 203 Pike Street which was used as the access way to TSC.

3.8 Decontamination

All equipment used for excavation or soil handling activities was decontaminated prior to initial use at the Site, between usage at the FWDD and TSC excavation locations, and prior to final demobilization from the Site. Equipment directly contacting soil was cleaned by a high pressure hose or other methods. Decontamination was performed at the existing decontamination pad located on the ROC property. All liquids generated during decontamination and draining of sediments were conveyed to the on-site groundwater treatment plant for treatment and disposal.

4.0 POST-REMEDIATION SAMPLING AND DISPOSAL

The following subsections describe post-remediation sampling and disposal activities. All samples were collected in accordance with the Sampling and Analysis Plan and Quality Assurance provided as appendices to the RAP.

4.1 Post-Excavation Confirmatory Sampling

In areas where post-excavation sediments/soils at a depth of more than 2 feet remained, post-excavation confirmation samples were collected to ensure remaining soils met the cleanup levels specified in the ROD to be protective of groundwater. These locations only occurred in the TSC. As such, no post excavation samples were obtained from the FWDD. On June 18, 2008, in the upper portion of the TSC, three (3) post-excavation confirmation samples were collected: TSC01-61808, TSC02-61808, and TSC03-61808. Figure 3 depicts the sample locations. A field duplicate of TSC02-61808 was collected and denoted as FD01-61808.

Samples were analyzed by TestAmerica in North Canton, Ohio, for mirex and kepone in accordance with USEPA SW-846 Method 8081A, following extraction by USEPA SW-846 Method 3540 (Soxhlet Extraction). Laboratory analytical data for the samples are summarized on Table 1 and have been provided in Appendix C. A data validation report is provided in Appendix D.

Kepone was detected in samples TSC01-61808, TSC02-61808, and TSC03-61808 at concentrations of 190 µg/kg, 580 µg/kg, and 930 µg/kg, respectively. These concentrations are well below the site specific clean-up standard of 72,737 µg/kg for kepone in the 2007 AOC.

Mirex was only detected in sample TSC01-61808 at a concentration of 3.5 µg/kg. Mirex was not detected above laboratory method detect limits in samples TSC02-61808 and TSC03-61808. This concentration is well below the site specific clean-up standard of 33,062 µg/kg for mirex in the 2007 AOC.

4.2 Sediment Characterization Sampling

On June 25, 2008, Golder personnel collected two composite samples (WP01-062508 and WP02-062508) from the sediment pile for waste profiling purposed. The June 25, 2008 Field Map depicts the locations of these composite samples. Samples were analyzed for volatile organic

compounds (VOCs), toxicity characteristic leaching procedure (TCLP) [VOCs, semivolatile organic compounds (SVOCs), metals, and pesticides/herbicides], Ignitability, total cyanide, total sulfide, pH, paint filter, total organic halogens (TOX), mirex, and kepone. Table 2 provides a summary of these results. Laboratory analytical data packages have been provided in Appendix C, and a data validation report is provided in Appendix D.

4.3 Sediment Disposal

Based on the analytical testing results of characterization samples, OU-2 sediments from the FWDD and the TSC were transported, and disposed as non-hazardous waste to Wayne Township Landfill in McElhattan, Pennsylvania. USEPA approval of disposal at this location was provided in a letter to Golder, dated August 25, 2008. Sediment was removed from the Site for disposal by Panther on September 23, 2008. USEPA approval and all shipping and disposal documentation (such as bill of ladings) is provided as Appendix E.

5.0 SUMMARY AND CONCLUSION

As required in the 2007 AOC, fine-grained sediments/soils were removed, as practical, to a depth of 2 feet to be protective of environmental receptors. Much of the extent of excavation was limited by the occurrence of bedrock at depths shallower than 2 feet. The upper portion of the TSC was the only area of excavation in which sediments/soils remained below a depth of 2 feet after excavation. Since sediment/soils were left in place in this upper portion of the TSC, three post-excavation confirmatory samples were collected and analyzed for mirex and kepone. Post-excavation confirmatory samples were not collected from the FWDD as excavation activities were limited by the presence of bedrock at depths shallower than 2 feet.

Results from post-excavation confirmatory samples did not exceed the standards required by the 2007 AOC and are therefore protective of environmental receptors and impacts to groundwater. Furthermore, this residual sediment/soil remaining in place has been contained by lining the excavated areas and employing approved erosion control measures to prevent future impact to the downgradient stream system.

6.0 REFERENCES

Golder Associates, Inc., 2003. Potential Sediment Removal Action, Centre County Kepone Site Letter, August 2003.

Golder Associates, Inc., 2007. Sediment Removal Action, Confirmation of Site conditions, Centre County Kepone Site Letter, June 7, 2007.

Golder Associates, Inc., 2007. Response Action Plan, Centre County Kepone Site, State College, Pennsylvania, July 2007.

Golder Associates, Inc., 2007. Response Action Design Report, Centre County Kepone Site, State College, Pennsylvania, October 2007.

USEPA, 1988. Administrative Order of Consent, Docket No. III-88-22-DC, November 7, 1988.

USEPA, 1995. Record of Decision for the Centre County Kepone Site, April 1995.

USEPA, 2007. Administrative Settlement and Order on Consent for Removal Response Action for the Centre County Kepone Site, Docket No. CERC-03-2007-0008DC, May 7 2007.

7.0 CERTIFICATION

Except as provided below, I certify that the information contained in or accompanying this Remedial Action Report is, to the best of my knowledge, information, and belief, true, accurate and complete.

As to those portions of this submission for which I cannot personally verify the accuracy, I certify that this submission and all attachments were prepared at the direction of Settler's Project Coordinator, in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of Settler's Project Coordinator, the information is true, accurate and complete to the best of my knowledge, information and belief.

I am aware that there are significant penalties for submitting false information including the possibility of fines and imprisonment for knowing violations.

Signature: Raino Domaschi

Name: Dr. Raino F. Domaschi

Title: President & CEO

Table 1
Pre - and Post- Excavation Analytical Results
Centre County Kepone Site
State College, PA

		Analyte:	Kepone			Mirex			% Moisture		
		Units:	ug/kg			ug/kg			percent		
		Action Level:	72737			33062			NA		
Location	**Sample Depth**	**Date Sampled**	**Result**	**Qual**	**RL**	**Result**	**Qual**	**RL**	**Result**	**Qual**	**RL**
Pre-Excavation Samples											
TSC01-062007-06	0 - 6 inches	6/20/2007	510	B	230	59	J	23	28		
TSC01-062007-12	6 - 12 inchees	6/20/2007	260	B	98	5.9	J	9.8	33		
TSC02-062007-06	0 - 6 inches	6/20/2007	470		91	17	J	9.1	28		
TSC03-062007-06	0 - 6 inches	6/20/2007	420	J	110	14	J	11	39		
TSC03-062007-06D	0 - 6 inches	6/20/2007	860	B	280	140	K	28	41		
TSC03-062007-20	18 - 20 inches	6/20/2007	3700	K	910	< 91	U	91	27		
Post-Excavation Samples											
TSC01-61808		6/18/2008	190	J	39	3.5	J	3.9	16		
TSC02-61808		6/18/2008	580	J	94	< 9.4	U	9.4	30		
FD01-61808 (TSC02)		6/18/2008	150	B	91	< 9.1	U	9.1	28		
TSC03-61808		6/18/2008	930	K	89	< 8.9	U	8.9	26		

Notes:

NA = Not Applicable

Mirex and Kepone Action Levels taken from Table 9 - Soil and Sediment Clean-up Levels

ADMINSTRATIVE SETTLEMENT & ORDER ON CONSENT FOR REMOVAL RESPONSE ACTION - DOCKET NO. 03-2007-0008DC

Qualifier Definitions:

J = Estimated value

K = Estimated value, biased high

B = Blank contamination

U = Undetected

Table 2
Disposal Sample Analytical Results
Centre County Kepone Site
State College, PA

		Sample	WP01-062508			WP02-062508		
		Sample Date:	6/25/2008			6/25/2008		
Analyte	Regulatory Level	Units	Result	Qual	RL	Result	Qual	RL
TCLP Volatile Organic Compounds								
1,2-Dichloroethane	0.5	mg/l	< 0.025	U	0.025	< 0.025	U	0.025
Chlorobenzene	100	mg/l	< 0.025	U	0.025	< 0.025	U	0.025
Tetrachloroethylene	0.7	mg/l	< 0.07	U	0.07	< 0.07	U	0.07
Carbon tetrachloride	0.5	mg/l	< 0.025	U	0.025	< 0.025	U	0.025
Chloroform	6	mg/l	< 0.025	U	0.025	< 0.025	U	0.025
Benzene	0.5	mg/l	< 0.025	U	0.025	< 0.025	U	0.025
Vinyl chloride	0.2	mg/l	< 0.025	U	0.025	< 0.025	U	0.025
1,1-Dichloroethylene	0.7	mg/l	< 0.07	U	0.07	< 0.07	U	0.07
2-Butanone (MEK)	200	mg/l	< 0.25	U	0.25	< 0.25	U	0.25
Trichloroethylene	0.5	mg/l	< 0.05	U	0.05	< 0.05	U	0.05
Total Volatile Organic Compounds								
Ethylbenzene	NS	ug/kg	< 5.9	U	5.9	1.1	B	5.6
Styrene	NS	ug/kg	< 5.9	U	5.9	1.3	B	5.6
cis-1,3-Dichloropropene	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
trans-1,3-Dichloropropene	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
1,4-Dichlorobenzene	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
1,2-Dichloroethane	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
4-Methyl-2-pentanone	NS	ug/kg	< 24	U	24	< 22	U	22
Toluene	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
Chlorobenzene	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
1,2,4-Trichlorobenzene	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
Dibromochloromethane	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
Tetrachloroethene	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
Xylenes (total)	NS	ug/kg	< 12	U	12	3.5	B	11
cis-1,2-Dichloroethene	NS	ug/kg	0.69	J	5.9	< 5.6	U	5.6
trans-1,2-Dichloroethene	NS	ug/kg	0.92	J	5.9	< 5.6	U	5.6
1,3-Dichlorobenzene	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
Carbon tetrachloride	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
2-Hexanone	NS	ug/kg	< 24	U	24	< 22	U	22
Acetone	NS	ug/kg	< 24	U	24	< 22	U	22
Chloroform	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
Benzene	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
1,1,1-Trichloroethane	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
Bromomethane	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
Chloromethane	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
Chloroethane	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
Vinyl chloride	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
Methylene chloride	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
Carbon disulfide	NS	ug/kg	0.61	J	5.9	0.59	J	5.6
Bromoform	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
Bromodichloromethane	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
1,1-Dichloroethane	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
1,1-Dichloroethene	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
1,2-Dichloropropane	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
2-Butanone	NS	ug/kg	< 24	U	24	< 22	U	22
1,1,2-Trichloroethane	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6

Table 2
Disposal Sample Analytical Results
Centre County Kepone Site
State College, PA

		Sample	WP01-062508			WP02-062508		
		Sample Date:	6/25/2008			6/25/2008		
Analyte	Regulatory Level	Units	Result	Qual	RL	Result	Qual	RL
Trichloroethene	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
1,1,2,2-Tetrachloroethane	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
1,2-Dichlorobenzene	NS	ug/kg	< 5.9	U	5.9	< 5.6	U	5.6
TCLP Semivolatile Organic Compounds								
1,4-Dichlorobenzene	7.5	mg/l	< 0.004	U	0.004	< 0.004	U	0.004
Pyridine	5	mg/l	< 0.02	U	0.02	< 0.02	U	0.02
Hexachlorobenzene	0.13	mg/l	< 0.02	U	0.02	< 0.02	U	0.02
2,4-Dinitrotoluene	0.13	mg/l	< 0.02	U	0.02	< 0.02	U	0.02
Hexachloroethane	3	mg/l	< 0.02	U	0.02	< 0.02	U	0.02
Hexachlorobutadiene	0.5	mg/l	< 0.02	U	0.02	< 0.02	U	0.02
Pentachlorophenol	100	mg/l	< 0.04	U	0.04	< 0.04	U	0.04
2,4,6-Trichlorophenol	2	mg/l	< 0.02	U	0.02	< 0.02	U	0.02
o-Cresol	200	mg/l	< 0.004	U	0.004	< 0.004	U	0.004
2,4,5-Trichlorophenol	400	mg/l	< 0.02	U	0.02	< 0.02	U	0.02
Nitrobenzene	2	mg/l	< 0.004	U	0.004	< 0.004	U	0.004
m-Cresol & p-Cresol	200	mg/l	< 0.04	U	0.04	< 0.04	U	0.04
TCLP Pesticides and Herbicides								
Heptachlor epoxide	0.008	mg/l	< 0.0005	U	0.0005	< 0.0005	U	0.0005
Chlordane (technical)	0.03	mg/l	< 0.005	U	0.005	< 0.005	U	0.005
Lindane	0.4	mg/l	< 0.0005	U	0.0005	< 0.0005	U	0.0005
Endrin	0.02	mg/l	< 0.0005	U	0.0005	< 0.0005	U	0.0005
Methoxychlor	10	mg/l	< 0.001	U	0.001	< 0.001	U	0.001
Heptachlor	0.008	mg/l	< 0.0005	U	0.0005	< 0.0005	U	0.0005
Toxaphene	0.5	mg/l	< 0.02	U	0.02	< 0.02	U	0.02
2,4,5-TP (Silvex)	1	mg/l	< 0.1	U	0.1	< 0.1	U	0.1
2,4-D	10	mg/l	< 0.5	UJ	0.5	< 0.5	UJ	0.5
Total Pesticides								
Kepone	NS	ug/kg	500		390	660	J	370
Mirex	NS	ug/kg	72	J	39	88	J	37
Total Polychlorinated Biphenyls								
Aroclor 1260	NS	ug/kg	< 33	U	33	< 33	U	33
Aroclor 1254	NS	ug/kg	< 33	U	33	< 33	U	33
Aroclor 1221	NS	ug/kg	< 33	U	33	< 33	U	33
Aroclor 1232	NS	ug/kg	< 33	U	33	< 33	U	33
Aroclor 1248	NS	ug/kg	< 33	U	33	< 33	U	33
Aroclor 1016	NS	ug/kg	< 33	U	33	< 33	U	33
Aroclor 1242	NS	ug/kg	< 33	U	33	< 33	U	33
TCLP Metals								
Lead	5	mg/l	< 0.5	U	0.5	< 0.5	U	0.5
Silver	5	mg/l	< 0.5	U	0.5	< 0.5	U	0.5
Arsenic	5	mg/l	< 0.5	U	0.5	< 0.5	U	0.5
Barium	100	mg/l	< 10	U	10	< 10	U	10
Cadmium	1	mg/l	< 0.1	U	0.1	< 0.1	U	0.1
Chromium	5	mg/l	< 0.5	U	0.5	< 0.5	U	0.5
Selenium	1	mg/l	< 0.25	U	0.25	< 0.25	U	0.25
Mercury	0.2	mg/l	< 0.002	U	0.002	< 0.002	U	0.002

Table 2
Disposal Sample Analytical Results
Centre County Kepone Site
State College, PA

		Sample	WP01-062508			WP02-062508		
		Sample Date:	6/25/2008			6/25/2008		
Analyte	Regulatory Level	Units	Result	Qual	RL	Result	Qual	RL
Waste Characteristics								
Percent Solids	NS	percent	84.2		10	89.8		10
Corrosivity (pH)	2 - 12.5	pH Units	8			8		
Cyanide, Total	NS	mg/kg	< 0.5	U	0.5	< 0.5	U	0.5
Flashpoint	> 140	deg f	>180			>180		
Oil and Grease (Gravimetric)	NS	mg/kg	< 200	U	200	< 200	U	200
Paint Filter Test	NEG	percent	NEG		0.1	NEG		0.1
Total Extractable Organic Halogens	NS	mg/kg	< 200	U	200	< 200	U	200
Total Sulfide	NS	mg/kg	< 30	U	30	< 30	U	30

Notes:

Notes:

NS = No Standard Available

Qualifier Definitions:

J = Estimated value

K = Estimated value, biased high

B = Blank contamination

U = Undetected

UJ = Undetected, estimated reporting limit

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Figure 1 - Pre-Remediation & Post Remediation Actives

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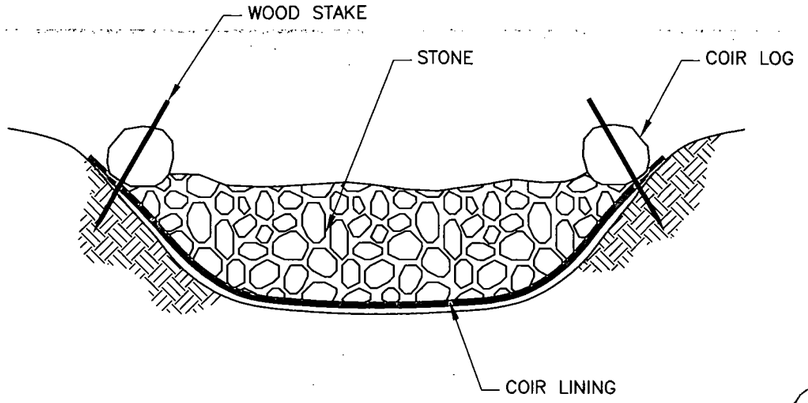
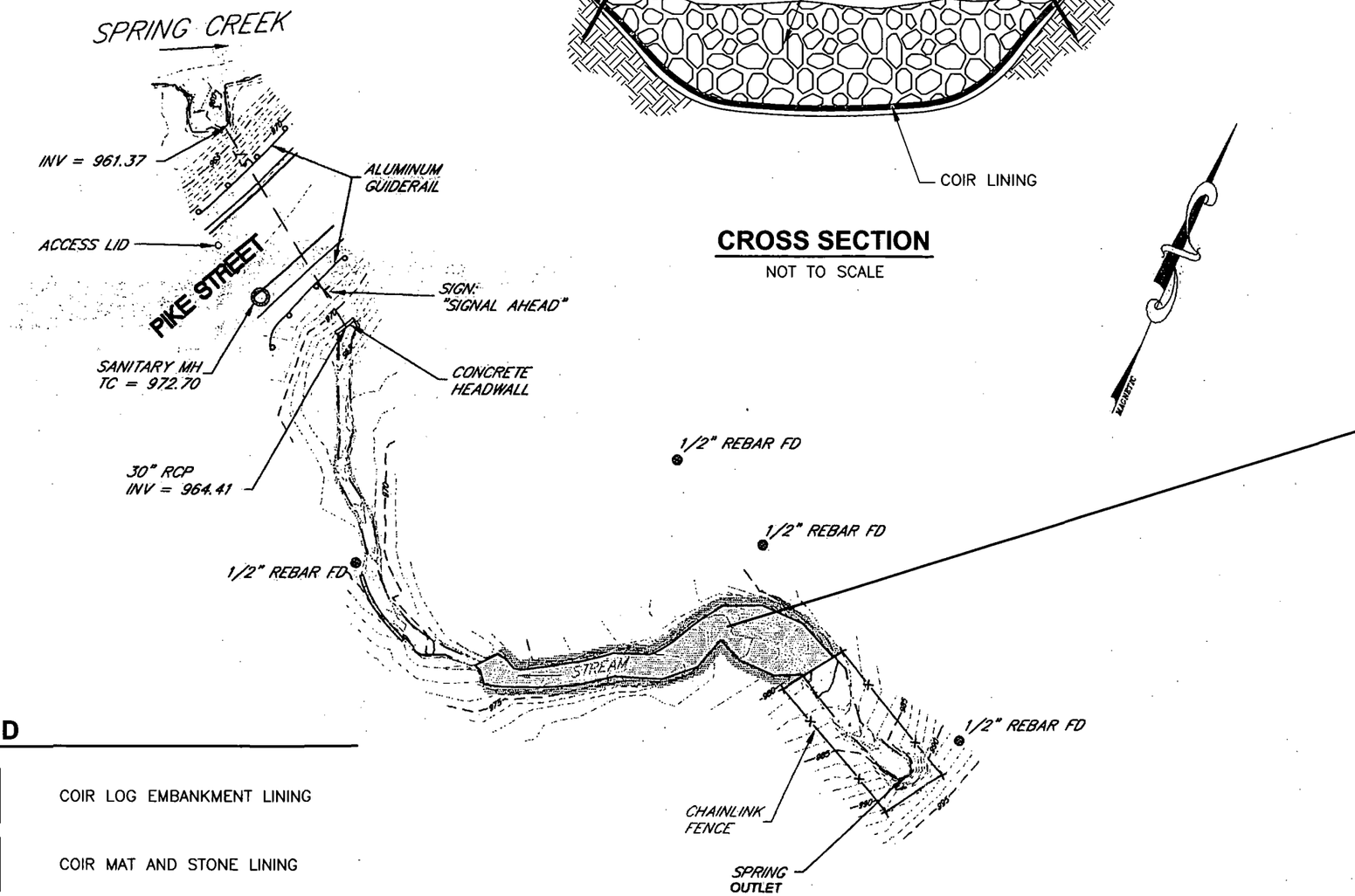


CROSS SECTION

NOT TO SCALE



LEGEND

COIR LOG EMBANKMENT LINING

COIR MAT AND STONE LINING

NOTE

1.) CHANNEL RESTORATION FEATURES NOT TO SCALE AND BASED ON FIELD MEASUREMENTS.

REFERENCE

1.) MAP SCANNED FROM HARDCOPY OF SHEET 1 OF 1, PROJECT NO. 4252 G, DRAWING NO. D-9108, TITLED VOLUME REPORT FOR SEDIMENT DITCH ALONG STATE ROUTE 26 AND THE THORNTON SPRING," PROVIDED BY SWEETLAND ENGINEERING & ASSOCIATES, INC., DATED JULY 1, 2008.

THORNTON SPRING

Drawing file: 9636333R011.dwg Nov 07, 2008 - 10:28am

NJ Authorization #24GA28029100

Golder Associates
Philadelphia USA

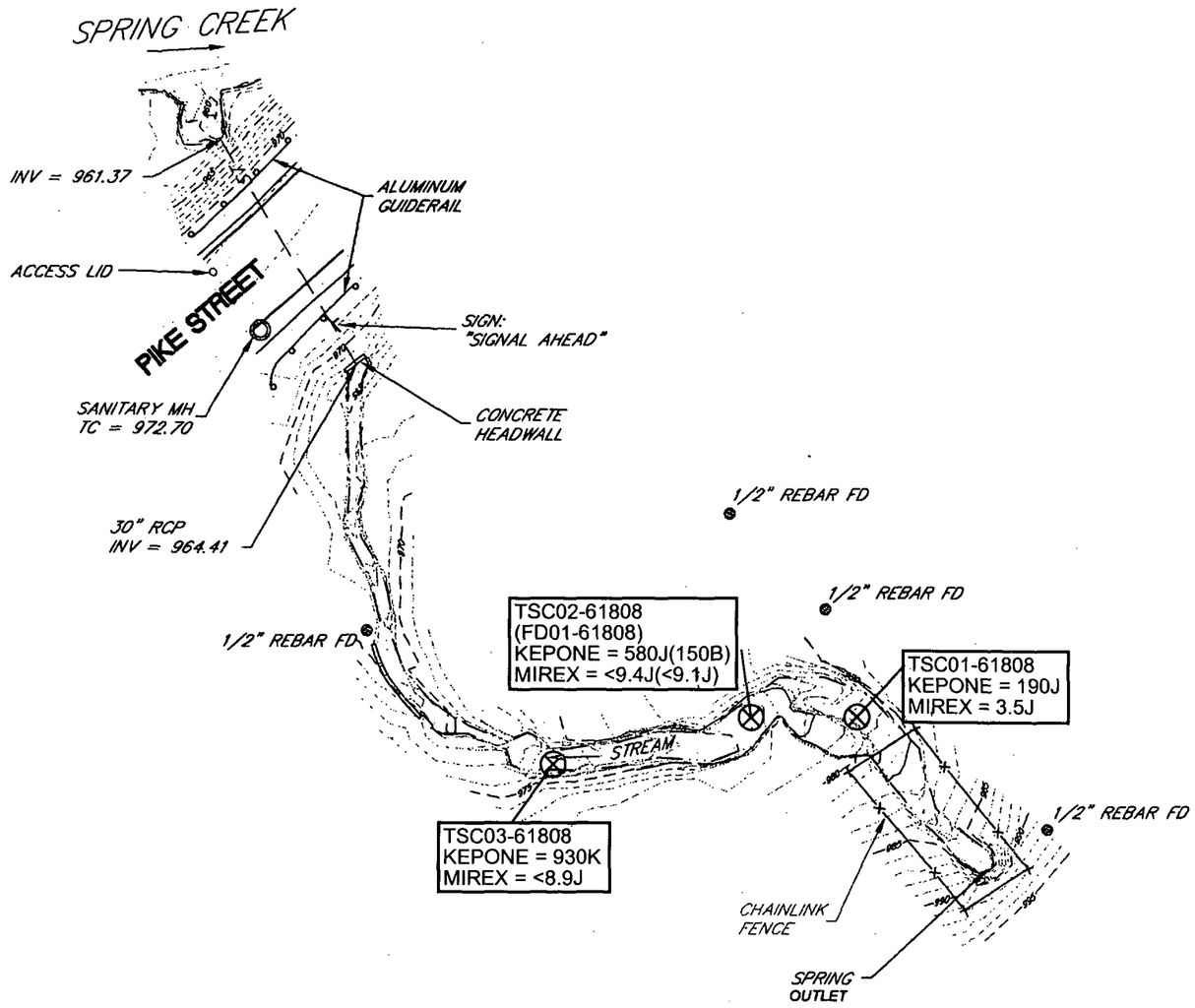
FILE No.	9636333R011
PROJECT No.	963-6333 REV. 0
SCALE	N.T.S.
DATE	11/07/08
DESIGN	CL
CADD	AM
CHECK	VEF
REVIEW	FG

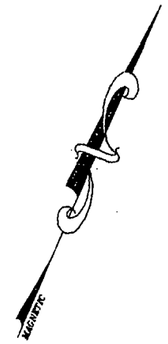
TITLE

CHANNEL LINING AND RESTORATION OU-2 SEDIMENT REMEDIAL ACTION REPORT

RÜTGERS ORGANICS CORP. AR100347

FIGURE 2





THORNTON SPRING

LEGEND

⊗ POST–EXCAVATION CONFIRMATION SOIL SAMPLE LOCATION

NOTES

1.) SOIL SAMPLE RESULTS IN MICROGRAMS PER KILOGRAM (ug/kg).

2.) SAMPLE LOCATIONS BASED ON FIELD MEASUREMENTS.

REFERENCE

1.) MAP SCANNED FROM HARDCOPY OF SHEET 1 OF 1, PROJECT NO. 4252 G, DRAWING NO. D–9108, TITLED VOLUME REPORT FOR SEDIMENT DITCH ALONG STATE ROUTE 26 AND THE THORNTON SPRING," PROVIDED BY SWEETLAND ENGINEERING & ASSOCIATES, INC., DATED JULY 1, 2008.

NJ Authorization #24GA28029100
Golder Associates
Philadelphia USA

FILE No.	9636333R010
PROJECT No.	963–6333 REV. 0

SCALE	N.T.S.
DATE	11/07/08
DESIGN	CL
CADD	AM
CHECK	VEF
REVIEW	FG

TITLE

POST-EXCAVATION CONFIRMATION SAMPLE LOCATIONS OU-2 SEDIMENT REMEDIAL ACTION REPORT

RUTGERS ORGANICS CORP.

AR100348

FIGURE 3

Drawing file: 9636333R010.dwg Nov 07, 2008 - 10:55am

APPENDIX A

SUMMARY OF DAILY FIELD ACTIVITIES AND DAILY FIELD REPORTS

SUMMARY OF DAILY FIELD ACTVITIES
OU-2 SEDIMENT REMEDIAL ACTION REPORT
CENTER COUNTY KEPONE SITE
STATE COLLEGE, PENNSYLVANIA

May 27, 2008

Approximately 1,500-gallons of sediment/water were removed from the upper 40 linear feet of the TSC. Sediment and water was allowed to sit in the vac truck overnight to allow sediments to settle.

May 28, 2008

Approximately 3,500-gallons of sediment/water were removed from approximately 15 linear feet of the upper portion of the TSC. Approximately 1,500-gallons of sediment/water from the first load were pumped off into the treatment systems dirt backwash tank.

May 29, 2008

Approximately 3,000-gallons of sediment/water were removed from the upper portion of Thornton Spring. Sediment/water was pumped into the concrete-lined former secondary containment area. The former secondary containment area was used this date forward as a temporary sedimentation basin, so that sediment could settle out overnight, and then on the following day water could be decanted off to the groundwater treatment system. Solid sediments were off-loaded directly onto the dewatering pad. Approximately ½ to ¾ of a cubic yard of sediment was removed from the vac truck and placed on the dewatering pad.

May 30, 2008

No sediment removal activities were conducted.

June 2, 2008

Panther began sediment removal activities in the FWDD. Approximately 3,000-gallons of sediment/water were removed from the upper portion of the FWDD.

June 3, 2008

Approximately 1,500-gallons of suspended sediment/water and 8 to 10 cubic yards of solid sediments were removed from approximately 100 linear feet of the upper portion of the FWDD. Dewatered sediments were off-loaded onto the dewatering pad.

June 4, 2008

Approximately 2,000-gallons of suspended sediment/water and approximately 2 to 3 cubic yards of dewatered sediments were removed from approximately 40 linear feet of the upper portion of the FWDD.

June 5, 2008

Approximately 3,000-gallons of suspended sediment/water and approximately 3 to 4 cubic yards of dewatered sediments were removed from approximately 120 linear feet of the upper portion of the FWDD.

June 6, 2008

Approximately 1,500-gallons of suspended sediment/water and approximately 2 cubic yards of dewatered sediments were removed from approximately 70 linear feet of the upper portion of the FWDD.

June 9, 2008

Approximately 1,000-gallons of suspended sediment/water and approximately 1 to 2 cubic yards of dewatered sediments were removed from approximately 30 linear feet of the upper portion of the FWDD.

June 10, 2008

Approximately 500-gallons of suspended sediment/water and approximately 2 to 3 cubic yards of dewatered sediments were removed from approximately 70 linear feet of the upper portion of the FWDD.

June 11, 2008

Approximately 500-gallons of suspended sediment/water and approximately 7 cubic yards of dewatered sediments were removed from approximately 55 linear feet of the upper portion of the FWDD.

June 12, 2008

Approximately 1,000-gallons of suspended sediment/water and approximately 7 cubic yards of dewatered sediments were removed from approximately 80 linear feet of the upper portion of the FWDD.

June 13, 2008

Approximately 1,000-gallons of suspended sediment/water and approximately 2 cubic yards of dewatered sediments were removed from approximately 85 linear feet of the upper portion of the FWDD.

June 16, 2008

Approximately 20 to 25 cubic yards of sediments were removed from approximately 60 linear feet of the upper portion of the TSC using traditional excavation methods.

June 17, 2008

Approximately 5 to 6 cubic yards of solid sediments and approximately 100-gallons of suspended sediments were removed from approximately 214 linear feet of the FWDD.

June 18, 2008

Approximately 15 to 18 cubic yards of solid sediments were removed from the TSC using the mini-excavator and loaded it into a roll-off container. This material was then off-loaded to the dewatering pad.

June 19, 2008

Approximately 400-gallons of suspended sediment/water and approximately 10 cubic yards of solid sediments were removed from approximately 310 linear feet of the upper portion of the FWDD.

June 20, 2008

Approximately 400-gallons of suspended sediment/water and approximately 1 cubic yard of solid sediments were removed from approximately 140 linear feet of the TSC.

June 23, 2008

Approximately 5 to 6 cubic yards of solid sediments and approximately 2,500-gallons of suspended sediments were removed from approximately 100 linear feet of the FWDD along Route 26 and 60 linear feet of the FWDD outlet to Spring Creek.

June 24, 2008

Approximately 3 to 4 cubic yards of solid sediments and approximately 5,600-gallons of suspended sediments were removed from approximately 20 linear feet of the TSC.

June 25, 2008

No sediment removal activities were conducted.

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report

SHEET 1 OF 1

DATE: April 22 2008

S M (T) W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** 50's a.m., Upper 60's p.m.
Cloud cover: Partly cloudy **Precipitation:** None **Wind:** Light & variable

GAI PERSONNEL ON SITE: Kevin McCallen
GAI Arrival/Departure: 0900/1545

PANTHER PERSONNEL ON SITE: Steve Inzerna, Melvin Sharpe Todd Vail
PANTHER Arrival/Departure: 1020/1510

EQUIPMENT:
F-150 Pickup, F-250 Pickup w/ equipment box trailer, F-550 Pickup w/ flat bed trailer, T320 Turbo Bobcat

SUMMARY OF REMEDIATION ACTIVITY:
Unloaded equipment; received a load of hay bales to be used in construction of the sediment dewatering pad; & began construction of the dewatering pad.

GAI ACTIVITIES:
Reviewed access to TSC. Oversaw construction of the dewatering pad.

SUMMARY OF SURVEYOR'S ACTIVITIES:
Swartland Engineers (sub to Panther) on-site @ TSC & FWDD to perform pre-construction survey

SUMMARY OF PHOTOGRAPHS TAKEN:
Two photos taken of the Partially completed dewatering pad, looking South

SUMMARY OF PROBLEMS AND RESOLUTIONS:
N/A

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Kick off Health & Safety briefing - GAI & Panther on-site personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

K. McCallen

Kevin McCallen
4/22/08

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report

SHEET 1 OF 1

DATE: April 23, 2008

S M T (W) T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** upper 40's am 70's pm.
Cloud cover: clear am partly cloudy pm
Precipitation: Thunderstorms after 1500
Wind: light & variable gusty during Thunderstorms

GAI PERSONNEL ON SITE: Kevin McCallen
GAI Arrival/Departure: 0655/1530

PANTHER PERSONNEL ON SITE: Steve Inzerma, Melvin Sharpe, & Todd Vail
PANTHER Arrival/Departure: 0700/1510

EQUIPMENT: F-150 Pickup, F-250 pickup, equipment box trailer, F-550 Pickup w/ flat bed trailer, & T320 Turbo Bobcat

SUMMARY OF REMEDIATION ACTIVITY:
Panther dug a sump in the down gradient corner of the dewatering pad & constructed the access to Thornton Spring. Access construction included placing fabric & 1.5-2 in. stone, & silt Fencing on the down-slope side.

GAI ACTIVITIES:
Observed continued construction of the dewatering pad & construction of the access to Thornton Spring.

SUMMARY OF SURVEYOR'S ACTIVITIES:
Swartland Engineers (Panther Sub.) continued pre-construction survey of TSC & FWDD

SUMMARY OF PHOTOGRAPHS TAKEN:
Photos taken of dewatering pad, pre-construction conditions of the TSC access, construction of the access, & the completed access

SUMMARY OF PROBLEMS AND RESOLUTIONS:
Groundwater treatment system is not working properly (pump in MW-61 keeps shutting off). It appears that the pump may need to be replaced (determination of pump replacement will be made tomorrow). After consulting with Panther, ROC

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES): over →
Daily H & S meeting - GAI & Panther Personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

Kevin McCallen

4/23/08

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report

SHEET 1 OF 1

DATE: April 24, 2008

S M T W (T) F S

PROJECT NUMBER: 963-6333 **PROJECT TITLE:** OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania **CONTRACTOR:** Panther Technologies, Inc.

WEATHER: **Temperature:** 40's a.m. 70s p.m.
Cloud cover: clear **Precipitation:** None **Wind:** None

GAI PERSONNEL ON SITE: K. McCullen
GAI Arrival/Departure: 0700/1345

PANTHER PERSONNEL ON SITE: S. Inzerma M. Sharpe
PANTHER Arrival/Departure: 0715/0745

EQUIPMENT:
F-250, Equipment box trailer, F-550 w/ Flat bed trailer, T320 Bobcat

SUMMARY OF REMEDIATION ACTIVITY:
Finished staging equipment for work next week & picked up F-550 w/ Flat bed trailer. Only equipment left on site are the equipment box trailer & T320 Bobcat

GAI ACTIVITIES:
Took pre-construction photos of FWDD & TSC. Pump in MW-60 will be replaced tomorrow 4/25. Cheryl Sinclair (PADEP), who was supposed to be on-site today, called & said she would not be coming.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
Pre-construction photos at FWDD & TSC

SUMMARY OF PROBLEMS AND RESOLUTIONS:
N/A

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily Health & Safety meeting

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

K. McCullen

4/24/08

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report

SHEET 1 OF 1

DATE: April 28, 2008

S (M) T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** 50s
Cloud cover: cloudy **Precipitation:** rain **Wind:** none

GAI PERSONNEL ON SITE: Kevin McCullen
GAI Arrival/Departure: 0900/1610

PANTHER PERSONNEL ON SITE: Steve Inzerma, John McCracken, Melvin Shaffer, Mike Brooks from Panther sub Environmental Recovery Corp. (Vac Truck) also on-site
PANTHER Arrival/Departure: 1000/1200

EQUIPMENT:
F-250, F-550 with Flat bed trailer (traffic control equipment), equipment box trailer, T320 Turbo Bobcat, & Vacuum Truck

SUMMARY OF REMEDIATION ACTIVITY:
Staged traffic control equipment by dewatering pad. Drained dewatering pad of rain water that collected over the weekend.

GAI ACTIVITIES: Frank Klanchar (EPA), Jim Harbert (Army Corps), Tom Conway (Army Corps) on-site; K. McCullen shows them around FWDD & TSC. Met up with Mark Hartle & Heather Smiles (PFBC) @ TSC. Update them on project status & planned activities. Cheryl Sinclair (PADEP) on-site.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
N/A

SUMMARY OF PROBLEMS AND RESOLUTIONS:
Pump in MW-6D is working but due to heavy rain we can't dewater TSC. Also due to heavy rain, FWDD has too much surface water runoff to pump around. No removal activities will occur today.

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily Health & Safety meeting.

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

Kevin McCullen
April 28, 2008

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report

SHEET 1 OF 1

DATE: April 29, 2008

S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** 40s
Cloud cover: cloudy **Precipitation:** None **Wind:** None

GAI PERSONNEL ON SITE: Kevin McCullen
GAI Arrival/Departure: 0900/0930

PANTHER PERSONNEL ON SITE: Steve Inzerma, John McCracken, Melvin Sharpe, & Mike Brooks (sub - ERC)
PANTHER Arrival/Departure: 0700/0750

EQUIPMENT:
F-250, F-550 w/flat bed trailer, equipment box trailer, T320 Turbo Bobcat, & Vac. Truck

SUMMARY OF REMEDIATION ACTIVITY:
Stored traffic control equipment in Box Trailer & secured the site for the week. No sediment removal activities will be performed this week due to heavy rains recently.

GAI ACTIVITIES:
Notified client & Agencies (EPA, DEP, PFBC, & Army Corps) that no removal activities will be conducted this week. Let them know that I will keep them up dated on project schedule.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
N/A

SUMMARY OF PROBLEMS AND RESOLUTIONS:
Unable to perform sediment removal activities due to recent heavy rain

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily Health & Safety meeting

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

Kevin McCullen

April 29, 2008

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 1

DATE: April 22, 2008
S M **T** W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** 50s a.m., upper 60s p.m.
Cloud cover: Partly cloudy **Precipitation:** None **Wind:** Light and variable

GAI PERSONNEL ON SITE: Kevin McCullen
GAI Arrival/Departure: 0900 / 1545

PANTHER PERSONNEL ON SITE: Steve Inzerma, Melvin Sharpe, and Todd Vail
PANTHER Arrival/Departure: 1020 / 1510

EQUIPMENT: F-150 pickup, F-250 with equipment box trailer, F-550 with flat-bed trailer, and T320 Turbo Bobcat

SUMMARY OF REMEDIATION ACTIVITY:
Panther unloaded and staged equipment near the sediment dewatering pad; received a load of hay bales (36) to be used to construct the sediment dewatering pad; and began construction of the dewatering pad/

GAI ACTIVITIES:
Walked access to Thornton Spring Channel (TSC) with Gary Davis (ROC) and observed construction of the dewatering pad

SUMMARY OF SURVEYOR'S ACTIVITIES:
Sweetland Engineers (subcontractor to Panther) on-site at TSC and the Fresh Water Drainage Ditch (FWDD) to commenced the pre-construction survey.

SUMMARY OF PHOTOGRAPHS TAKEN:
Two photos taken of the partially completed dewatering pad, looking east/

SUMMARY OF PROBLEMS AND RESOLUTIONS:
N/A

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Joint kick-off health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

Kevin F. McCullen KFM
April 22, 2008

REVIEWED BY GAI

Veronica Foster VF

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 1

DATE: April 23, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** upper 40s a.m., 70s p.m.
Cloud cover: Clear a.m., partly cloudy in p.m. **Precipitation:** Thunderstorms after 1500
Wind: Light and variable, gusty during thunderstorms

GAI PERSONNEL ON SITE: Kevin McCullen
GAI Arrival/Departure: 0655 / 1530

PANTHER PERSONNEL ON SITE: Steve Inzerma, Melvin Sharpe, and Todd Vail
PANTHER Arrival/Departure: 0700 / 1510

EQUIPMENT: F-150 pickup, F-250 with equipment box trailer, F-550 with flat-bed trailer, and T320 Turbo Bobcat

SUMMARY OF REMEDIATION ACTIVITY:
Panther dug a sump in the downgradient corner of the sediment dewatering pad; and constructed the access to Thornton Spring. Access construction included placing fabric and 1.5-2 inch diameter stone, and silt fencing on the down-slope side of the access.

GAI ACTIVITIES:
Observed continued construction of the dewatering pad and construction of the access to Thornton Spring. Panther laid down fabric and 1.5-2 inch diameter stone to construct access to Thornton spring. Panther also installed silt fence on the down-slope side of the access.

SUMMARY OF SURVEYOR'S ACTIVITIES:
Sweetland Engineers (subcontractor to Panther) were on-site at TSC and the Fresh Water Drainage Ditch (FWDD) to continue the pre-construction survey.

SUMMARY OF PHOTOGRAPHS TAKEN:
Photos taken of the dewatering pad, pre-construction conditions of the TSC access, construction of the TSC access, and the completed TSC access way

SUMMARY OF PROBLEMS AND RESOLUTIONS:
Groundwater treatment system is not working properly (pump in MW-6D keeps shutting down). It appears that the pump may need to be replaced (determination of pump replacement will be made by ROC tomorrow). After consulting with Panther, ROC, and USEPA; it was decided to conduct sediment removal activities in the FWDD starting Monday 4/28/2008 instead of in TSC as originally planned.

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

Kevin F. McCullen
April 23, 2008

REVIEWED BY GAI

Veronica Foster

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 1

DATE: April 24, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** 40s a.m., 70s p.m.
Cloud cover: Clear **Precipitation:** None **Wind:** None

GAI PERSONNEL ON SITE: Kevin McCullen
GAI Arrival/Departure: 0655 / 1345

PANTHER PERSONNEL ON SITE: Steve Inzerma and Melvin Sharpe
PANTHER Arrival/Departure: 0715 / 0745

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, and T320 Turbo Bobcat

SUMMARY OF REMEDIATION ACTIVITY:
Panther finished staging equipment by the dewatering pad. Equipment box trailer and T320 Bobcat were left on-site.

GAI ACTIVITIES:
Took pre-construction photographs of Thornton Spring Channel and the Fresh Water Drainage Ditch. Gary Davis (ROC) let me know that the pump in MW-6D would be replaced on Friday 4/25. If he gets the groundwater treatment system running, he will try to dewater Thornton Spring so we can removed the sediments from there as originally planned. If he cannot dewater Thornton Spring over the weekend, we will remove sediments from the Fresh Water Drainage Ditch. Cheryl Sinclair (PADEP) called and let me know that she would not be visiting the site today.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
Pre-construction photos taken of Thornton Spring and the Fresh Water Drainage Ditch.

SUMMARY OF PROBLEMS AND RESOLUTIONS:
N/A

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

Kevin F. McCullen
April 24, 2008

REVIEWED BY GAI

Veronica Foster

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 1

DATE: April 28, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** 50s
Cloud cover: Cloudy **Precipitation:** Rain **Wind:** None

GAI PERSONNEL ON SITE: Kevin McCullen
GAI Arrival/Departure: 0900 / 1610

PANTHER PERSONNEL ON SITE: Steve Inzerma, John McCracken, and Melvin Sharpe. Mike Brooks from Panther subcontractor Environmental Recovery Corp. (Vac Truck) also on-site.

PANTHER Arrival/Departure: 1000 / 1200

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, and Vac Truck

SUMMARY OF REMEDIATION ACTIVITY:
Panther staged traffic control equipment by the dewatering pad. Panther also drained dewatering pad of rain water that collected over the weekend.

GAI ACTIVITIES:
Frank Klanchar (USEPA), Jim Harbart (Army Corps), and Tim Conway (Army Corps) arrived on site at about the same time as Kevin McCullen. Took Frank, Jim, and Tom on a tour of the Fresh Water Drainage Ditch (FWDD) and Thornton Spring Channel (TSC). While at the TSC, met up with Mark Hartle and Heather Smiles from the Pennsylvania Fish and Boat Commission at 1030. Showed them around and described how the upcoming work will be performed. Cheryl Sinclair (PADEP) arrived on site at 1100.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
N/A

SUMMARY OF PROBLEMS AND RESOLUTIONS:
Although the pump in MW-6D (the well which can dewater TSC) was replaced on Friday 4/25, heavy rains over the weekend have made it difficult to dewater TSC with the groundwater treatment system, thus sediment removal activities cannot be performed in the TSC today. Also, due to the heavy rains, surface water runoff from surrounding upgradient areas has increased the flow in the FWDD to a level that cannot be controlled with the current pump around system, thus sediment removal activities cannot be performed there today.

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

Kevin F. McCullen
April 28, 2008

REVIEWED BY GAI

Veronica Foster

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 1

DATE: April 29, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** 40s
Cloud cover: Cloudy **Precipitation:** None **Wind:** None

GAI PERSONNEL ON SITE: Kevin McCullen
GAI Arrival/Departure: 0700 / 0930

PANTHER PERSONNEL ON SITE: Steve Inzerma, John McCracken, and Melvin Sharpe. Mike Brooks from Panther subcontractor Environmental Recovery Corp. (Vac Truck) also on-site.

PANTHER Arrival/Departure: 0700 / 0750

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, and Vac Truck

SUMMARY OF REMEDIATION ACTIVITY:
Panther stored traffic control equipment in the equipment box trailer and secured the site for the week. Panther will not be performing any sediment removal activities this week due to the recent heavy rains which have cause high water conditions in the TSC and FWDD.

GAI ACTIVITIES:
Notified Rainer Domalski (ROC), Steve Finn (Golder), Frank Klanchar (USEPA), Jim Harbart (Army Corps), Cheryl Sinclair (PADEP) and Heather Smiles (PFBC) that Panther will not be performing any sediment removal activities this week due to the recent heavy rains which have cause high water conditions in the TSC and FWDD. I let them know I would update them on the project schedule as soon as possible.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
N/A

SUMMARY OF PROBLEMS AND RESOLUTIONS:
Unable to perform any sediment removal activities this week due to recent heavy rains which have cause high water conditions in the TSC and FWDD.

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

Kevin F. McCullen KFM
April 29, 2008

REVIEWED BY GAI

Veronica Foster VEF

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 1

DATE: May 27, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** 70s
Cloud cover: Overcast
Precipitation: None **Wind:** None

GAI PERSONNEL ON SITE: Kevin McCullen
GAI Arrival/Departure: 0900 / 1645

PANTHER PERSONNEL ON SITE: Steve Inzerma and Willy Brydges. Mike Brooks and Mike Lehman from Panther's subcontractor, Environmental Recovery Corp. (Vac Truck), also on-site.

PANTHER Arrival/Departure: ERC on site 0925, Panther on-site 0940; Both off-site 1615

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, and Vac Truck

SUMMARY OF REMEDIATION ACTIVITY:
Installed coir log erosion and sediment control filter in Thornton Spring Channel (TSC). Water still flowing in TSC so Panther set up a 2-inch trash pump to reduce flow (pumped from spring outfall, around work area, and discharged water downstream of work area). Began sediment removal activities in the TSC. Removed approximately 1,500-gal. of sediment/water from the upper 40 linear feet of Thornton Spring. Vac truck taken back to the on-site groundwater treatment plant. Sediment and water will sit in the Vac truck overnight to allow sediments to settle. The water will be pumped off to the treatment system tomorrow morning (May 28) and the sediment will be placed on the dewatering pad to drain further. Panther will continue sediment removal activities in TSC tomorrow May 28.

GAI ACTIVITIES:
Oversaw sediment removal activities and monitored sediment load in TSC and Spring Creek. No visible suspended sediment noted in TSC downstream of the coir log filter or in Spring Creek from the sediment removal activities. Jim Harbert (Army Corps) and Steve Clawson (US Fish & Wildlife) on-site to observe sediment removal activities.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
Took pictures of sediment removal activities, the coir log filter, and the sediment loading to TSC and Spring Creek (upstream and downstream) due to removal activities.

SUMMARY OF PROBLEMS AND RESOLUTIONS:
N/A

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

Kevin McCullen KTM

REVIEWED BY GAI

Veronica Foster VLF

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 2

DATE: May 28, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** upper 40s a.m.; 70 p.m.
Cloud cover: Sunny **Precipitation:** None **Wind:** None

GAI PERSONNEL ON SITE: Kevin McCullen
GAI Arrival/Departure: 0655 / 1700

PANTHER PERSONNEL ON SITE: Steve Inzerma and Willy Brydges. Mike Brooks and Mike Lehman from Panther's subcontractor, Environmental Recovery Corp. (Vac Truck), also on-site.

PANTHER Arrival/Departure: ERC on site 0705, Panther on-site 0703; Both off-site 1655

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, and Vac Truck

SUMMARY OF REMEDIATION ACTIVITY:
The suspended sediment/water was pumped off the Vac truck to the treatment system from yesterday's (May 27) removal activities. Panther set up a 2-inch trash pump to reduce flow (pumped from spring outfall, around work area and discharged water downstream of work area). A second 2-inch pump was installed initially to completely dewater Thornton Spring Channel (TSC) but was removed to allow some water flow to aid in the vacuuming of fine grained sediments (silt and clay size particles were bridging in the suction hose when no water was being pumped at the same time). Continued sediment removal activities in the TSC. . Removed approximately 3,500-gal. of sediment/water from approximately 15 linear feet of the upper portion of Thornton Spring (see 5/28/08 field map). Approximately 1,500-gal. of sediment/water from the first load were pumped off into the treatment systems dirt backwash tank. Vac truck taken back to the groundwater treatment plant after second load to allow the approximately 2,000-gal. of sediments from the second load to settle overnight. The suspended sediment/water from the second load will be pumped off to the treatment system tomorrow morning (May 29) prior to further sediment removal efforts. Panther will continue sediment removal activities in TSC tomorrow May 29. No sediments have been placed on the dewatering pad yet.

GAI ACTIVITIES:
Oversaw sediment removal activities and monitored sediment load in TSC and Spring Creek. No suspended sediment noted in TSC downstream of the coir log filter or in Spring Creek from the sediment removal activities during removal of the first ~1,500-gal. of sediment/water. Suspended sediment was noted at the outfall of the pipe under Pike Street, so a second coir log filter was added at the upstream end of the pipe. No suspended sediment noted in at the outfall under Pike Street or in Spring Creek from the sediment removal activities after installation of the second coir log filter. Heather Smiles (PFBC), Cheryl Sinclair (PADEP), Randy Farmerie (PADEP), and Steve Clawson (US Fish & Wildlife) on-site to observe sediment removal activities.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
Took pictures of sediment removal activities, the coir log filters, and the sediment loading to TSC and Spring Creek (upstream and downstream) due to removal activities.

SUMMARY OF PROBLEMS AND RESOLUTIONS:
The treatment system capacity is currently at maximum storage capacity and sediments currently being removed from TSC are in suspension (the sediments are very fine-grained and water is needed to keep them from bridging in

the vacuum hose). This is causing an issue with how to deal with the sediment/water being removed from TSC because 1) there is not enough space in the treatment system to store the amount of suspended sediment/water being removed; and, 2) the sediment content is such that it will continually foul the treatment systems bag filters thus shutting down the treatment system. After discussing this issue with Panther (Steve Inzerma and Brent Peckis), Golder (Kevin McCullen and Veronica Foster), and ROC (Rainer Domalski and Gary Davis) during several separate phone conversations it was decided to bring some sediment filter bags to the Site to filter out the sediments before the water is pumped to the system. The sediment/water will gravity feed through the filter bags and the water will be contained in the dewatering pad, the treatment system sump, the influent tank, and the dirty backwash tank prior to treatment (this should be sufficient space since the water will be gravity feeding and the flow rates should be such that the system can handle it). The sediment filter bags will subsequently be disposed with any other sediments removed from TSC and FWDD. Panther will have the bags out here by approximately 9-10 a.m. tomorrow.

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

Kevin McCullen

REVIEWED BY GAI

Veronica Foster

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 2

DATE: May 29, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** upper 40s a.m.; 70s p.m.
Cloud cover: Sunny **Precipitation:** None **Wind:** None

GAI PERSONNEL ON SITE: Kevin McCullen and Charlie Lawrence
GAI Arrival/Departure: 0655 / 1750

PANTHER PERSONNEL ON SITE: John Coffey, Steve Inzerma, and Willy Brydges. Mike Brooks and Mike Lehman from Panther subcontractor, Environmental Recovery Corp. (Vac Truck), also on-site.

PANTHER Arrival/Departure: ERC 0705 / 1700, Panther 0700 / 1750; John Coffey (Panther) 0830 / 1400

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, and Vac Truck

SUMMARY OF REMEDIATION ACTIVITY:
The sediment/water in the vac truck collected yesterday (May 28) was pumped off to the treatment system through sediment filter bags brought out to the site by John Coffey. Panther set up a 2-inch trash pump to bypass the spring's base flow around the work area (pumped from spring outfall, around work area, and discharged water downstream of work area). Continued sediment removal activities in the TSC. Removed approximately 3,000-gal. of sediment/water from the upper portion of Thornton Spring (see 5/29/08 field map). Sediment/water was pumped off into a former concrete lined secondary containment area so the sediment can settle and the water can be decanted off to the groundwater treatment system. Approximately ½ to ¾ of a cubic yard of sediment was removed from the Vac truck and placed on the dewatering pad.

GAI ACTIVITIES:
Oversaw sediment removal activities and monitored sediment load in TSC and Spring Creek. No suspended sediment noted in TSC downstream of the coir log filters or in Spring Creek from the sediment removal activities during removal activities. Jim Harbert (Army Corps of Engineers) was on-site to observe sediment removal activities.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
Took pictures of sediment removal activities, the coir log filters, and the sediment loading to TSC and Spring Creek (upstream and downstream) due to removal activities.

SUMMARY OF PROBLEMS AND RESOLUTIONS:
The treatment system capacity is currently at maximum storage capacity and sediments currently being removed from TSC are in suspension (the sediments are very fine-grained and water is needed to keep them from bridging in the vacuum hose). This is causing an issue with how to deal with the sediment/water being removed from TSC because 1) there is not enough space in the treatment system to store the amount of sediment/water being removed and 2) the sediment content is such that it will continually foul the treatment systems bag filters thus shutting down the treatment system. Sediment filter bags were brought to the site to filter the sediment/water on the dewatering pad before sending it to the treatment system. The bags that were brought were larger micron bags (~ 50-75 micron) and the water coming out was still muddy. A test was made with a 10 micron filter bag from the treatment system and it was effective in filtering the sediment/water, thus if any more sediment filter bags are used they will have to be a micron size closer to 10 micron then the current 50-75 micron bags. During the setup of the filter bags, Gary

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report

SHEET 2 OF 2

Davis (ROC) suggested using a water tight former secondary containment area near the treatment system to store the sediment/water until the sediment can settle and the water decanted (the containment area is 25'x25'x3'). A conference call was held between Kevin McCullen (Golder), Rainer Domalski (ROC), and Frank Klanchar (USEPA) to discuss the use of the containment area and Frank agreed to let us use it to decant the water.

In an attempt to come up with a way to speed up the progress of the project, discussions were also held between Panther, Frank Klanchar, and Rainer about using a mini-excavator to loosen the sediment in the upper portion of TSC instead of loosening it by hand. Frank thought that this idea was feasible but he wanted to check with BTAG and PFBC to make sure that they were OK with using an excavator since it was their comment to the RADR that asked that vacuum dredging be used in TSC instead of traditional excavation methods (i.e. a mini-excavator). Frank will get back to Golder/ROC when he receives an answer from BTAG and PFBC.

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

Kevin McCullen

REVIEWED BY GAI

Veronica Foster

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 1

DATE: May 30, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** N/A
Cloud cover: N/A **Precipitation:** N/A **Wind:** N/A

GAI PERSONNEL ON SITE: None
GAI Arrival/Departure:

PANTHER PERSONNEL ON SITE: None.

PANTHER Arrival/Departure:

EQUIPMENT: Equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat

SUMMARY OF REMEDIATION ACTIVITY:
No Sediment Activities were conducted

GAI ACTIVITIES:
N/A

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
N/A

SUMMARY OF PROBLEMS AND RESOLUTIONS:
N/A

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
N/A

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

Kevin F. McCullen
May 30, 2008

REVIEWED BY GAI

Veronica Foster

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 2

DATE: June 2, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** upper 60s a.m.; 80 p.m.
Cloud cover: Sunny **Precipitation:** None **Wind:** None

GAI PERSONNEL ON SITE: Kevin McCullen
GAI Arrival/Departure: 0850 / 1720

PANTHER PERSONNEL ON SITE: Steve Inzerma, and Willy Brydges. Mike Brooks from Panther subcontractor, Environmental Recovery Corp. (Vac Truck), also on-site.

PANTHER Arrival/Departure: ERC 0920 / 1720, Panther 0940 / 1720

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, and Vac Truck

SUMMARY OF REMEDIATION ACTIVITY:
The groundwater treatment system was shut off to allow work to begin in the FWDD. Panther set up traffic control devices, per PennDOT Regulations, along Route 26 to allow work to begin in the FWDD. Installed coir log erosion and sediment control filter in FWDD approximately 100 yards downstream of the work area. Began sediment removal activities in the FWDD. Removed approximately 3,000-gal. of sediment/water from the upper portion of FWDD (see 6/02/08 field map). Sediment/water was pumped off into a former secondary containment so the sediment can settle and the water can be decanted off to the groundwater treatment system.

GAI ACTIVITIES:
Oversaw sediment removal activities and monitored sediment load in FWDD. No suspended sediment noted downstream of the coir log filter from the sediment removal activities during removal activities. Jim Harbert (Army Corps of Engineers) on-site to observe sediment removal activities. Heather Smiles (PFBC) and Steve Clawson (US Fish & Wildlife) on-site to discuss the possible use of a mini-excavator or backhoe in the upper portion of TSC.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
Took pictures of sediment removal activities, the coir log filters, and the sediment loading to FWDD (upstream and downstream) due to removal activities.

SUMMARY OF PROBLEMS AND RESOLUTIONS:
Discussed using a mini-excavator to loosen the sediment in the upper portion of TSC instead of loosening it by hand with Heather Smiles (PFBC) and Steve Clawson (US Fish & Wildlife). We got permission from the Agencies to use a mini-excavator or small backhoe in Thornton Spring provided we don't just dig and haul. We can use it in the upper third of the channel where the channel is ~8-10 ft wide and where the majority of the sediment is located. They would like us to keep the natural rocky substrate of the Spring (using the existing rocks in the stream, not rip rap) and minimize the impact to the stream bank. Thus, they would like us to use the excavator to loosen and pile up the sediments, pick out the larger rocks, use the Vac truck to suck up the fine grained sediments, and toss the rocks back in the channel. Rainer Domalski (ROC), Steve Inzerma (Panther), and Frank Klanchar (USEPA) were briefed on the outcome of Kevin McCullen's discussions with Heather Smiles (PFBC) and Steve Clawson (US Fish & Wildlife).

GOLDER ASSOCIATES, INC.

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SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

Kevin McCullen

REVIEWED BY GAI

Veronica Foster

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 2

DATE: June 3, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** 60 a.m.; lower 80s p.m.
Cloud cover: Sunny a.m., partly cloudy p.m. **Precipitation:** None **Wind:** None

GAI PERSONNEL ON SITE: Kevin McCullen
GAI Arrival/Departure: 0655 / 1840

PANTHER PERSONNEL ON SITE: Steve Inzerma, Willy Brydges, and Matt Brooks. Mike Brooks from Panther subcontractor, Environmental Recovery Corp. (Vac Truck), also on-site.

PANTHER Arrival/Departure: ERC 0655 / 1840, Panther 0655 / 1840

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, and Vac Truck

SUMMARY OF REMEDIATION ACTIVITY:
Panther set up traffic control devices, per PennDOT Regulations, along Route 26 to allow work to continue in the FWDD. Continued sediment removal activities in the FWDD. Removed approximately 1,500-gal. of suspended sediment/water and approximately 8-10 cubic yards of solid sediments from approximately 100 linear feet of the upper portion of FWDD (see 6/03/08 field map). Suspended sediment/water pumped off into a former secondary containment so the sediment can settle and the water can be decanted off to the groundwater treatment system. Solid sediments were off-loaded onto the dewatering pad.

GAI ACTIVITIES:
Oversaw sediment removal activities and monitored sediment load in FWDD. No visible suspended sediment noted downstream of the coir log filter from the sediment removal activities during removal activities. Jim Harbert (Army Corps of Engineers) on-site to observe sediment removal activities.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
Took pictures of sediment removal activities, the coir log filters, and the sediment loading to FWDD (upstream and downstream) due to removal activities.

SUMMARY OF PROBLEMS AND RESOLUTIONS:
No issues with the sediment removal action, but it should be noted that other construction activities were conducted at an off-site facility (near the Sheetz gas station and convenience store at the corner of Pike Street and Rte. 26) that affected the sediment loading to Spring Creek. Hazmat-Eagle Towing & Recovery, Inc. of Milesburg, PA (contractor) and Mountain Research, LLC of Altoona, PA (consultant) conducted bank restoration activities along the Pike Street side of Spring Creek near the Sheetz. This activity is part of an ongoing project due to a release from the USTs at the Sheetz that occurred approximately 2 years ago. The bank restoration resulted in sediment loading to Spring Creek. This sediment loading was observed and documented by Kevin McCullen (Golder) and Jim Harbert (Army Corps of Engineers).

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report

SHEET 2 OF 2

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI	**REVIEWED BY GAI**
Kevin McCullen	Veronica Foster

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 2

DATE: June 4, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** 60s a.m. and 60s p.m.
Cloud cover: Overcast **Precipitation:** Off and on drizzly rain **Wind:** None

GAI PERSONNEL ON SITE: Kevin McCullen
GAI Arrival/Departure: 0650 / 1630

PANTHER PERSONNEL ON SITE: Steve Inzerma, Willy Brydges, and Matt Brooks. Mike Brooks from Panther subcontractor, Environmental Recovery Corp. (Vac Truck), also on-site.

PANTHER Arrival/Departure: ERC 0703 / 1510, Panther 0655 / 1540

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, and Vac Truck

SUMMARY OF REMEDIATION ACTIVITY:
Panther set up traffic control devices, per PennDOT Regulations, along Route 26 to allow work to continue in the FWDD. Continued sediment removal activities in the FWDD. Due to slightly higher flow in the FWDD because of overnight rain, a pump around system was set up and two coir log sediment filters were installed (see 6/04/08 field map). Removed approximately 2,000-gal. of suspended sediment/water and approximately 2-3 cubic yards of solid sediments from approximately 40 linear feet of the upper portion of FWDD (see 6/04/08 field map). Sediment off-loaded to the dewatering pad was covered with plastic to divert water off the dewatering pad and away from the dewatering pad sump. Suspended sediment/water was pumped off into a former secondary containment so the sediment can settle and the water can be decanted off to the groundwater treatment system. Solid sediments were off-loaded onto the dewatering pad. Water in the containment area will be decanted to the groundwater system over the weekend when the system can be re-started (the groundwater system is currently shut down to reduce the flow in the FWDD which normally receives the discharge from the treatment system).

GAI ACTIVITIES:
Oversaw sediment removal activities and monitored sediment load in FWDD. No visible suspended sediment noted downstream of the coir log filter from the sediment removal activities during removal activities. Jim Harbert (Army Corps of Engineers) on-site to observe sediment removal activities.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
Took pictures of sediment removal activities, the coir log filters, and the sediment loading to FWDD (upstream and downstream) due to removal activities.

SUMMARY OF PROBLEMS AND RESOLUTIONS:
N/A

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 2 OF 2

SUBMITTED BY GAI

Kevin McCullen

REVIEWED BY GAI

Veronica Foster

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 2

DATE: June 5, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** mid 60s a.m. and upper 80s p.m.
Cloud cover: Partly Sunny **Precipitation:** None **Wind:** None

GAI PERSONNEL ON SITE: Kevin McCullen
GAI Arrival/Departure: 0655 / 1750

PANTHER PERSONNEL ON SITE: Steve Inzerma, Willy Brydges, and Matt Brooks. Gary Jones from Panther subcontractor, Environmental Products and Services of Vermont, Inc (Vac Truck), also on-site.

PANTHER Arrival/Departure: EPS 0730 / 1715, Panther 0655 / 1750

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, and Vac Truck

SUMMARY OF REMEDIATION ACTIVITY:
Panther set up traffic control devices, per PennDOT Regulations, along Route 26 to allow work to continue in the FWDD. Continued sediment removal activities in the FWDD. Due to slightly higher flow in the FWDD because of overnight rain, a pump around system was set up and two coir log sediment filters were installed (see 6/05/08 field map). Removed approximately 3,000-gal. of suspended sediment/water and approximately 3-4 cubic yards of solid sediments from approximately 120 linear feet of the upper portion of FWDD (see 6/05/08 field map). Sediment off-loaded to the dewatering pad was covered with plastic to divert water off the dewatering pad and away from the dewatering pad sump. Suspended sediment/water was pumped off into a former secondary containment so the sediment can settle and the water can be decanted off to the groundwater treatment system. Solid sediments were off-loaded onto the dewatering pad. Water in the containment area will be decanted to the groundwater system over the weekend when the system can be re-started (the groundwater system is currently shut down to reduce the flow in the FWDD which normally receives the discharge from the treatment system).

GAI ACTIVITIES:
Oversaw sediment removal activities and monitored sediment load in FWDD. No visible suspended sediment noted downstream of the coir log filter from the sediment removal activities during removal activities. Cheryl Sinclair (PADEP) on-site to observe sediment removal activities.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
Took pictures of sediment removal activities, the coir log filters, and the sediment loading to FWDD (upstream and downstream) due to removal activities.

SUMMARY OF PROBLEMS AND RESOLUTIONS:
N/A

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

GOLDER ASSOCIATES, INC.

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SHEET 2 OF 2

SUBMITTED BY GAI

Kevin McCullen

REVIEWED BY GAI

Veronica Foster

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 2

DATE: June 6, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** 70s a.m. and upper 80s p.m.
Cloud cover: Partly Cloudy, Hot, Humid **Precipitation:** None **Wind:** None

GAI PERSONNEL ON SITE: Kevin McCullen
GAI Arrival/Departure: 0650 / 1430

PANTHER PERSONNEL ON SITE: Steve Inzerma, Willy Brydges, and Matt Brooks. Gary Jones from Panther subcontractor, Environmental Products and Services of Vermont, Inc. (Vac Truck) also on-site.

PANTHER Arrival/Departure: EPS 0800 / 1230, Panther 0700 / 1410

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, and Vac Truck

SUMMARY OF REMEDIATION ACTIVITY:
Panther set up traffic control devices, per PennDOT Regulations, along Route 26 to allow work to continue in the FWDD. Continued sediment removal activities in the FWDD. A pump around system was set up and a coir log sediment filter was installed (see 6/06/08 field map). Removed approximately 1,500-gal. of suspended sediment/water and approximately 2 cubic yards of solid sediments from approximately 70 linear feet of the upper portion of FWDD (see 6/06/08 field map). Sediment off-loaded to the dewatering pad was covered with plastic to divert water off the dewatering pad and away from the dewatering pad sump. Suspended sediment/water was pumped off into a former secondary containment so the sediment can settle and the water can be decanted off to the groundwater treatment system. Solid sediments were off-loaded onto the dewatering pad. Water in the containment area will be decanted to the groundwater system over the weekend when the system can be re-started (the groundwater system is currently shut down to reduce the flow in the FWDD which normally receives the discharge from the treatment system). Water in the dewatering pad was decanted to the groundwater system dirty backwash tank.

GAI ACTIVITIES:
Oversaw sediment removal activities and monitored sediment load in FWDD. No visible suspended sediment noted downstream of the coir log filter from the sediment removal activities during removal activities. Jim Harbert and Joe Hollswander (Army Corps of Engineers) on-site to observe sediment removal activities.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
Took pictures of sediment removal activities, the coir log filters, and the sediment loading to FWDD (upstream and downstream) due to removal activities.

SUMMARY OF PROBLEMS AND RESOLUTIONS:
N/A

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

GOLDER ASSOCIATES, INC.

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SHEET 2 OF 2

SUBMITTED BY GAI

Kevin McCullen

REVIEWED BY GAI

Veronica Foster

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 2

DATE: June 9, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** 80s a.m. and 90s p.m.
Cloud cover: Sunny, Hot, Humid **Precipitation:** None **Wind:** None

GAI PERSONNEL ON SITE: Kevin McCullen
GAI Arrival/Departure: 0850 / 1600

PANTHER PERSONNEL ON SITE: Steve Inzerma and Matt Brooks. Gary Jones from Panther subcontractor, Environmental Products and Services of Vermont, Inc (Vac Truck), also on-site.

PANTHER Arrival/Departure: EPS 1015 / 1530, Panther 0925 / 1545

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, and Vac Truck

SUMMARY OF REMEDIATION ACTIVITY:
Panther set up traffic control devices, per PennDOT Regulations, along Route 26 to allow work to continue in the FWDD. Continued sediment removal activities in the FWDD. A pump around system was set up and a coir log sediment filter was installed (see 6/09/08 field map). Removed approximately 1,000-gal. of suspended sediment/water and approximately 1-2 cubic yards of solid sediments from approximately 30 linear feet of the upper portion of FWDD (see 6/09/08 field map). Sediment off-loaded to the dewatering pad was covered with plastic to divert water off the dewatering pad and away from the dewatering pad sump. Suspended sediment/water was pumped off into a former secondary containment so the sediment can settle and the water can be decanted off to the groundwater treatment system. Solid sediments were off-loaded onto the dewatering pad. Water in the containment area was decanted to the groundwater system over the weekend and the groundwater treatment system was re-started Friday afternoon 6/06/08.

GAI ACTIVITIES:
Oversaw sediment removal activities and monitored sediment load in FWDD. No visible suspended sediment noted downstream of the coir log filter from the sediment removal activities during removal activities.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
Took pictures of sediment removal activities, the coir log filters, and the sediment loading to FWDD (upstream and downstream) due to removal activities. Pictures were also taken of turbid water which was discharged to the FWDD from an upstream source (see below).

SUMMARY OF PROBLEMS AND RESOLUTIONS:
A large amount of turbid water was discharged to the FWDD at approximately 1420 from an upstream source (either the concrete plant next to the ROC site or by College Twp. Water Department personnel who have been flushing fire hydrants in the area). The source of the water was not able to be determined, but photos were taken to document that the source of the turbid water was coming from and upstream source and not the sediment removal activities. Due to the high volume of water which the pump around system could not mitigate, removal activities were suspended for the remainder of the day.

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

GOLDER ASSOCIATES, INC.

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SHEET 2 OF 2

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

Kevin McCullen

REVIEWED BY GAI

Veronica Foster

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 2

DATE: June 10, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** 70s a.m. and upper 80s p.m.
Cloud cover: Partly Sunny, Brief scattered showers after 1630 **Precipitation:**None
Wind: None

GAI PERSONNEL ON SITE: Kevin McCullen
GAI Arrival/Departure: 0650 / 1850

PANTHER PERSONNEL ON SITE: Steve Inzerma and Matt Brooks. Gary Jones from Panther subcontractor, Environmental Products and Services of Vermont, Inc (Vac Truck), also on-site.

PANTHER Arrival/Departure: EPS 0750 / 1845, Panther 0655 / 1850

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, Bobcat Mini-excavator, and Vac Truck

SUMMARY OF REMEDIATION ACTIVITY:
Panther set up traffic control devices, per PennDOT Regulations, along Route 26 to allow work to continue in the FWDD. Continued sediment removal activities in the FWDD. A pump around system was set up and a coir log sediment filter was installed (see 6/10/08 field map). Removed approximately 500-gal. of suspended sediment/water and approximately 2-3 cubic yards of solid sediments from approximately 70 linear feet of the upper portion of FWDD (see 6/10/08 field map). Sediment off-loaded to the dewatering pad was covered with plastic to divert water off the dewatering pad and away from the dewatering pad sump. Suspended sediment/water was pumped off into a former secondary containment so the sediment can settle and the water can be decanted off to the groundwater treatment system. Solid sediments were off-loaded onto the dewatering pad. Water in the containment area will be decanted to the groundwater system. A pump around system was also set up at TSC in order dewater the spring during removal activities with the Bobcat Mini-excavator. Panther dug out portions of the upper TSC with the mini-excavator (see 6/10/08 field map) and attempted to remove the sediment stockpiles with the Vac truck but were unable to vacuum up the sediments (see below). Joe Hollshwander (Army Corps) on-site to observe sediment removal activities as the USEPA representative. Joe was also on-site when attempts were made to vacuum up the stockpiles in TSC and was involved in the discussions on what course of action to take in the upper portion of TSC (see below).

GAI ACTIVITIES:
Oversaw sediment removal activities and monitored sediment load in FWDD. No visible suspended sediment noted downstream of the coir log filter from the sediment removal activities during removal activities.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
Took pictures of sediment removal activities, the coir log filters, and the sediment loading to FWDD and TSC (upstream and downstream) due to removal activities.

SUMMARY OF PROBLEMS AND RESOLUTIONS:
An attempt was made to vacuum remove sediment stockpiles made at TSC by the mini-excavator but they were unsuccessful. Discussions were held during various separate phone conversations with Panther, USEPA, Golder, ROC, and the Army Corps of Engineers about how to remove these sediments from the upper portion of the TSC. It

GOLDER ASSOCIATES, INC.

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was agreed that these sediments will have to be excavated and loaded into a small dump truck/roll-off container and transported to the ROC site. Exact channel restoration has yet to be determined but the USEPA was receptive to using some rip rap in the upper portion of the TSC, provided that biodegradable materials (coir logs, mats, etc.) be used as much as possible. Channel restoration will be determined after further discussion with the USEPA.

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

Kevin McCullen

REVIEWED BY GAI

Veronica Foster

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 1

DATE: June 11, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** Lower 60s a.m. and 80s p.m.
Cloud cover: Sunny **Precipitation:** None **Wind:** None

GAI PERSONNEL ON SITE: Kevin McCullen and Kevin Barbour
GAI Arrival/Departure: Kevin McCullen 0650 / 1755; Kevin Barbour 0900 / 1915

PANTHER PERSONNEL ON SITE: Steve Inzerma and Matt Brooks. Gary Jones from Panther subcontractor Environmental Products and Services of Vermont, Inc (Vac Truck) also on-site
PANTHER Arrival/Departure: EPS 0810 / 1745, Panther 0655 / 1915

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, 331E Bobcat Mini-excavator, and Vac Truck

SUMMARY OF REMEDIATION ACTIVITY:
Panther set up traffic control devices, per PennDOT Regulations, along Route 26 to allow work to continue in the FWDD. Continued sediment removal activities in the FWDD. A pump around system was set up and a coir log sediment filter was installed (see 6/11/08 field map). Removed approximately 500-gal. of suspended sediment/water and approximately 7 cubic yards of solid sediments from approximately 55 linear feet of the upper portion of FWDD (see 6/11/08 field map). Sediment off-loaded to the dewatering pad was covered with plastic to divert water off the dewatering pad and away from the dewatering pad sump. Suspended sediment/water was pumped off into a former secondary containment so the sediment can settle and the water can be decanted off to the groundwater treatment system. Solid sediments were off-loaded onto the dewatering pad. Water in the containment area will be decanted to the groundwater system. Cheryl Sinclair (PADEP) on-site to observe sediment removal activities. Brent Peckis and John Coffey (Panther) on-site to review site progress and to assess the TSC area.

GAI ACTIVITIES:
Oversaw sediment removal activities and monitored sediment load in FWDD. No visible suspended sediment noted downstream of the coir log filter from the sediment removal activities during removal activities.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
Took pictures of sediment removal activities, the coir log filters, and the sediment loading to FWDD (upstream and downstream) due to removal activities.

SUMMARY OF PROBLEMS AND RESOLUTIONS:
Discussed channel restoration with Frank Klanchar (USEPA); he agrees that limited use or riprap in TSC would be appropriate in any areas where a muddy channel bottom will exist after removal activities. Frank sent an e-mail to BTAG, PFBC, and US Fish & Wildlife regarding the use of rip rap. He will get back to Golder/ROC with a final decision after receiving comments from BTAG, PFBC, and US Fish & Wildlife.

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

Kevin Barbour KAB

REVIEWED BY GAI

Kevin McCullen

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 2

DATE: June 12, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** Lower 60s a.m. and 80s p.m.
Cloud cover: Sunny **Precipitation:** None **Wind:** None

GAI PERSONNEL ON SITE: Kevin Barbour
GAI Arrival/Departure: Kevin Barbour 0650 / 1800

PANTHER PERSONNEL ON SITE: Steve Inzerma and Matt Brooks. Gary Jones from Panther subcontractor Environmental Products and Services of Vermont, Inc (Vac Truck) also on-site

PANTHER Arrival/Departure: EPS 0715 / 1800, Panther 0650 / 1800

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, 331E Bobcat Mini-excavator, and Vac Truck

SUMMARY OF REMEDIATION ACTIVITY:
Panther set up traffic control devices, per PennDOT Regulations, along Route 26 to allow work to continue in the FWDD. Continued sediment removal activities in the FWDD. A pump around system was set up and a coir log sediment filter was installed (see 6/12/08 field map). Approximately 1,000-gallons of suspended sediment/water and approximately 7 cubic yards of solid sediments were removed from approximately 80 linear feet of the upper portion of FWDD (see 6/12/08 field map). Sediment off-loaded to the dewatering pad was covered with plastic to divert water off the dewatering pad and away from the dewatering pad sump. Suspended sediment/water was pumped off into a former secondary containment so the sediment can settle and the water can be decanted off to the groundwater treatment system. Solid sediments were off-loaded onto the dewatering pad. Water in the containment area will be decanted to the groundwater system. Joe Hollshwander (Army Corps. of Engineers) was on site from 1000 until 1110. He inquired about Panther's progress. Also, an excess flow of water coming from upstream of the work area was noticed by Panther at 0900 and overflowed their pump around and damn. The excess flow was cloudy with suspended sediments and may have come from fire hydrant flushing activities up stream.

GAI ACTIVITIES:
Oversaw sediment removal activities and monitored sediment load in FWDD. No visible suspended sediment noted downstream of the coir log filter due the sediment removal activities. Visible suspended sediment was noted in the FWDD from an upstream source unrelated to this sediment removal action.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
Took pictures of sediment removal activities and the sediment loading to FWDD (upstream and downstream) due to removal activities. Also, a photo was taken showing the suspended sediments from the excessive water flow.

SUMMARY OF PROBLEMS AND RESOLUTIONS:
N/A

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

GOLDER ASSOCIATES, INC.

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SHEET 2 OF 2

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

Kevin Barbour K.A.B

REVIEWED BY GAI

Kevin McCullen KTM

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 1

DATE: June 13, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** Lower 60s a.m. and 80s p.m.
Cloud cover: Sunny **Precipitation:** None **Wind:** None

GAI PERSONNEL ON SITE: Kevin Barbour
GAI Arrival/Departure: Kevin Barbour 0655 / 1310

PANTHER PERSONNEL ON SITE: Steve Inzerma and Matt Brooks. Gary Jones from Panther subcontractor Environmental Products and Services of Vermont, Inc (Vac Truck) also on-site

PANTHER Arrival/Departure: EPS 0730 / 1250, Panther 0655 / 1300

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, 331E Bobcat Mini-excavator, and Vac Truck

SUMMARY OF REMEDIATION ACTIVITY:
Panther set up traffic control devices, per PennDOT Regulations, along Route 26 to allow work to continue in the FWDD. Continued sediment removal activities in the FWDD. A pump around system was set up and a coir log sediment filter was installed (see 6/13/08 field map). Approximately 1,000-gallons of suspended sediment/water and approximately 2 cubic yards of solid sediments were removed from approximately 85 linear feet of the upper portion of FWDD (see 6/13/08 field map). Sediment off-loaded to the dewatering pad was covered with plastic to divert water off the dewatering pad and away from the dewatering pad sump. The Vac truck removed excessive liquids and silt from the dewatering pad. Then, suspended sediment/water (from the Vac truck) was pumped off into a former secondary containment so the sediment can settle and the water can be decanted off to the groundwater treatment system. Solid sediments were off-loaded onto the dewatering pad. Water in the containment area will be decanted to the groundwater system. There were no visitors on site today.

GAI ACTIVITIES:
Oversaw sediment removal activities and monitored sediment load in FWDD. No visible suspended sediment noted downstream of the coir log filter from the sediment removal activities during removal activities.

SUMMARY OF SURVEYOR'S ACTIVITIES:
Surveyors on site from ~ 0730 and remained after GAI, Panther and EPS left the site. The surveyors were taking post sediment removal measurements of the FWDD.

SUMMARY OF PHOTOGRAPHS TAKEN:
Took pictures of sediment removal activities in the FWDD.

SUMMARY OF PROBLEMS AND RESOLUTIONS:
N/A

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

Kevin Barbour KAB

REVIEWED BY GAI

Kevin McCullen

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 1

DATE: June 16, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** 70s a.m. and 80s p.m.
Cloud cover: Sunny a.m.; Partly Cloudy **Precipitation:** None **Wind:** None

GAI PERSONNEL ON SITE: Kevin McCullen
GAI Arrival/Departure: Kevin McCullen 0900 / 1625

PANTHER PERSONNEL ON SITE: Steve Inzerma, Willy Brydges, Todd Vail, and Matt Brooks.
PANTHER Arrival/Departure: Inzerma, Brydges, & Brooks 0940 / 1620, Vail 1300 / 1620

EQUIPMENT: F-250, F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, and 331E Bobcat Mini-excavator

SUMMARY OF REMEDIATION ACTIVITY:
Continued sediment removal activities in TSC. A pump around system was set up and two coir log sediment filter was installed (see 6/16/08 field map). Removed approximately 20-25 cubic yards of sediments from approximately 60 linear feet of the upper portion of TSC using traditional excavation methods (see 6/16/08 field map). Sediments were off-loaded to the dewatering pad and covered with plastic to divert water off the dewatering pad and away from the dewatering pad sump.

GAI ACTIVITIES:
Oversaw sediment removal activities and monitored sediment load in TSC. No visible suspended sediment noted downstream of the coir log filter from the sediment removal activities during removal activities.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
Took pictures of sediment removal activities, the coir log filters, and the sediment loading to TSC (upstream and downstream) due to removal activities.

SUMMARY OF PROBLEMS AND RESOLUTIONS:
Discussed channel restoration with Frank Klanchar (USEPA) and Kathy (USEPA – BTAG); they agreed that limited use of riprap in TSC would be appropriate in any areas where a muddy channel bottom will exist after removal activities. They asked that any rip rap used be washed stone or gravel and not crushed rock directly from a quarry (BTAG has concerns about fine grained material typically associated with rock directly from a quarry). They also asked that biodegradable materials still be used as much as possible.

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI
Kevin McCullen

REVIEWED BY GAI
Veronica Foster

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 1

DATE: June 17, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** Upper 50s a.m. and 70s p.m.
Cloud cover: Partly Sunny **Precipitation:** Brief Showers in the afternoon **Wind:** light and variable

GAI PERSONNEL ON SITE: Kevin McCullen
GAI Arrival/Departure: 0645 / 1750

PANTHER PERSONNEL ON SITE: Steve Inzerma, Willy Brydges, Todd Vail, and Matt Brooks. Gary Jones from Panther subcontractor, Environmental Products and Services of Vermont, Inc (Vac Truck), also on-site.

PANTHER Arrival/Departure: EPS 0835 / 1730, Inzerma, Brydges, & Vail 0700 / 1745, Brooks 0700 / 1200

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, 331E Bobcat Mini-excavator, and Vac Truck

SUMMARY OF REMEDIATION ACTIVITY:
Panther set up and removed traffic control devices, per PennDOT Regulations, along Route 26 to allow work to continue in the FWDD. Continued sediment removal activities in the FWDD. A pump around system was set up was installed and removed in today's working area of the FWDD (see 6/17/08 field map). Removed approximately 5-6 cubic yards of solid sediments and approximately 100-gal. of suspended sediments from approximately 214 linear feet of the of FWDD (see 6/17/08 field map). Solid and suspended sediment off-loaded to the dewatering pad was covered with plastic to divert water off the dewatering pad and away from the dewatering pad sump. Sediment removal activities were not conducted at the TSC.

GAI ACTIVITIES:
Oversaw sediment removal activities and monitored sediment load in FWDD. No visible suspended sediment noted downstream of the coir log filter from the sediment removal activities during removal activities.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
Took pictures of sediment removal activities, the coir log filters, and the sediment loading to FWDD (upstream and downstream) due to removal activities.

SUMMARY OF PROBLEMS AND RESOLUTIONS:
N/A

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI
Kevin McCullen

REVIEWED BY GAI
Veronica Foster

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 1

DATE: June 18, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** Lower 60s a.m. and 80s p.m.
Cloud cover: Sunny **Precipitation:** None **Wind:** None

GAI PERSONNEL ON SITE: Kevin McCullen, Kevin Barbour
GAI Arrival/Departure: Kevin McCullen 0650 / 1230; Kevin Barbour 0940 / 1530

PANTHER PERSONNEL ON SITE: Steve Inzerma and Matt Brooks. Gary Jones from Panther subcontractor Environmental Products and Services of Vermont, Inc (Vac Truck) was not on site today.

PANTHER Arrival/Departure: EPS not on site, Panther 0655 / 1530

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, 331E Bobcat Mini-excavator, and Vac Truck

SUMMARY OF REMEDIATION ACTIVITY:
Panther set up the pump around system at the TSC. They continued sediment removal activities using the mini-excavator and loaded it into a roll-off container (see 6/18/08 field map). Approximately 15 to 18 cubic yards of solid sediments were off-loaded to the dewatering pad. Panther added 15-feet of plastic sheeting to extend the dewatering pad upslope. The pad was covered with plastic to divert water off the dewatering pad and away from the dewatering pad sump. Panther loaded the used ADS pipes into a pickup truck for disposal off site. Joe Hollshwander (Army Corps of Engineers) was on site today.

GAI ACTIVITIES:
Oversaw sediment removal activities and monitored sediment load in TSC. No visible suspended sediment noted downstream of the coir log filter from the sediment removal activities during removal activities. Collected 3 confirmation sediment samples, a field duplicate, and a MS/MSD from upper portion of the TSC where sediment was left in place after removing the upper 2 feet of sediment (see 6/18/08 field map and field book for sample locations).

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
Took pictures of sediment removal activities in TSC.

SUMMARY OF PROBLEMS AND RESOLUTIONS:
N/A

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI
Kevin Barbour KAB.

REVIEWED BY GAI
Kevin McCullen KTM

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 1

DATE: June 19, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** Lower 60s a.m. and 80s p.m.
Cloud cover: Sunny **Precipitation:** None **Wind:** None

GAI PERSONNEL ON SITE: Kevin Barbour
GAI Arrival/Departure: Kevin Barbour 0700 / 1930

PANTHER PERSONNEL ON SITE: Steve Inzerma and Matt Brooks. Gary Jones from Panther subcontractor Environmental Products and Services of Vermont, Inc (Vac Truck) also on-site

PANTHER Arrival/Departure: EPS 0820 / 1910, Panther 0655 / 1930

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, 331E Bobcat Mini-excavator, and Vac Truck

SUMMARY OF REMEDIATION ACTIVITY:
Panther set up traffic control devices, per PennDOT Regulations, along Route 26 to allow work to continue in the FWDD. Continued sediment removal activities in the FWDD. A pump around system was set up and a coir log sediment filter was installed (see 6/19/08 field map). Approximately 400-gallons of suspended sediment/water and approximately 10 cubic yards of solid sediments were removed from approximately 310 linear feet of the upper portion of FWDD (see 6/19/08 field map). Sediment off-loaded to the dewatering pad was covered with plastic to divert water off the dewatering pad and away from the dewatering pad sump. Solid and suspended sediments were off-loaded onto the dewatering pad. Water in the dewatering pad was pumped into the ground water treatment system. Joe Hollshwander (Army Corps of Engineers) was on site today from 1400 until 1600. Joe said that the work performed was satisfactory and the FWDD looks good.

GAI ACTIVITIES:
Oversaw sediment removal activities and monitored sediment load in FWDD. No visible suspended sediment noted downstream of the coir log filter from the sediment removal activities during removal activities.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
Took pictures of sediment removal activities in FWDD.

SUMMARY OF PROBLEMS AND RESOLUTIONS:
N/A

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI
Kevin Barbour K. A.B.

REVIEWED BY GAI
Kevin McCullen K.T.M.

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 1

DATE: June 20, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** Lower 60s a.m. and 80s p.m.
Cloud cover: Sunny **Precipitation:** None **Wind:** None

GAI PERSONNEL ON SITE: Kevin Barbour
GAI Arrival/Departure: Kevin Barbour 0700 / 1430

PANTHER PERSONNEL ON SITE: Steve Inzerma and Matt Brooks. Gary Jones from Panther subcontractor Environmental Products and Services of Vermont, Inc (Vac Truck) also on-site

PANTHER Arrival/Departure: EPS 0745 / 1310, Panther 0655 / 1430

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, 331E Bobcat Mini-excavator, and Vac Truck

SUMMARY OF REMEDIATION ACTIVITY:
Panther set up the pump around system at the TSC. Continued sediment removal activities and finished at culvert east of Pike Street (see 6/20/08 field map). Approximately 400-gallons of suspended sediment/water and approximately 1 cubic yard of solid sediments were removed from approximately 140 linear feet of TSC. Sediment off-loaded to the dewatering pad was covered with plastic to divert water off the dewatering pad and away from the dewatering pad sump. Solid and suspended sediments were off-loaded onto the dewatering pad. Water in the dewatering pad was pumped into the ground water treatment system. There were no visitors on site today.

GAI ACTIVITIES:
Oversaw sediment removal activities and monitored sediment load in TSC. No visible suspended sediment noted downstream of the coir log filter from the sediment removal activities during removal activities.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
Took pictures of sediment removal activities in TSC.

SUMMARY OF PROBLEMS AND RESOLUTIONS:
N/A

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

Kevin Barbour K.A.B.

REVIEWED BY GAI

Kevin McCullen KCM

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report

SHEET 1 OF 1

DATE: June 17, 23 KTM, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** Upper 70s a.m. and 80s p.m.
Cloud cover: Partly Sunny **Precipitation:** Thunderstorms late p.m. **Wind:** very light

GAI PERSONNEL ON SITE: Charles J. Lawrence, Jr.
GAI Arrival/Departure: 0900 / 1750

PANTHER PERSONNEL ON SITE: Steve Inzerma, Willy Brydges, and Matt Brooks. Gary Jones from Panther subcontractor Environmental Products and Services of Vermont, Inc (Vac Truck) also on-site

PANTHER Arrival/Departure: EPS Before 0900 / 1750, Inzerma, Brydges, & Brooks 0930 / 1750

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, and Vac Truck

SUMMARY OF REMEDIATION ACTIVITY:
Panther set up and removed traffic control devices, per PennDOT Regulations, along Route 26 to allow work to continue in the FWDD. Continued and completed sediment removal activities in the FWDD. A pump around system was set up and removed in today's working area of the FWDD (see 6/23/08 field map). Panther then moved to the opposite side of Houserville road to remove sediment from the FWDD outlet to Spring Creek. Removed approximately 5-6 cubic yards of solid sediments and approximately 2,500-gal. of suspended sediments from approximately 100 linear feet of the FWDD along Route 26, and approximately 60 linear feet from the FWDD outlet to Spring Creek (see 6/23/08 field map). Solid and suspended sediment off-loaded to the dewatering pad was covered with plastic to divert water off the dewatering pad and away from the dewatering pad sump. Suspended sediment/water was pumped off into a former secondary containment so the sediment can settle and the water can be decanted off to the groundwater treatment system. Water in the containment area will be decanted to the groundwater system.

GAI ACTIVITIES:
Oversaw sediment removal activities and monitored sediment load in FWDD and FWDD Outlet to Spring Creek. No visible suspended sediment noted downstream of the coir log filter from the sediment removal activities during removal activities.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
Took pictures of sediment removal activities, in the FWDD and the FWDD Outlet to Spring Creek (upstream and downstream) due to removal activities.

SUMMARY OF PROBLEMS AND RESOLUTIONS:
N/A

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

Charles J. Lawrence, Jr.

REVIEWED BY GAI

Kevin McCullen

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 1

DATE: June 24, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** Mid 70s a.m. and 80s p.m.
Cloud cover: Partly Sunny **Precipitation:** None **Wind:** light and variable

GAI PERSONNEL ON SITE: Charlie Lawrence; Kevin McCullen
GAI Arrival/Departure: Lawrence 0700 / 1100; McCullen 0900 / 1720

PANTHER PERSONNEL ON SITE: Steve Inzerma, Willy Brydges, and Matt Brooks. Gary Jones from Panther subcontractor Environmental Products and Services of Vermont, Inc (Vac Truck) also on-site

PANTHER Arrival/Departure: EPS 0800 / 1710; Panther 0700 / 1715

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, 331E Bobcat Mini-excavator, and Vac Truck

SUMMARY OF REMEDIATION ACTIVITY:
Panther set up and removed traffic control devices along Pike Street to allow work to continue in TSC. Continued sediment removal activities between the outfall under Pike Street to Spring Creek at TSC. Removed approximately 3-4 cubic yards of solid sediments and approximately 5,600-gal. of suspended sediments from approximately 20 linear feet of TSC (see 6/17/08 field map). Suspended sediment/water was pumped off into a former secondary containment area. Water in the containment area will be decanted to the groundwater system. Solid sediments were off-loaded onto the dewatering pad. Sediment off-loaded to the dewatering pad was covered with plastic to divert water off the dewatering pad and away from the dewatering pad sump. With the removal of the suspended and solids sediments from this section of TSC, removal activities are complete at TSC.

GAI ACTIVITIES:
Oversaw sediment removal activities and monitored sediment load in TSC.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
Took pictures of sediment removal activities in TSC.

SUMMARY OF PROBLEMS AND RESOLUTIONS:
N/A

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

Kevin McCullen

REVIEWED BY GAI

Veronica Foster

GOLDER ASSOCIATES, INC.

CQA Daily Summary Report
SHEET 1 OF 1

DATE: June 25, 2008
S M T W T F S

PROJECT NUMBER: 963-6333
PROJECT TITLE: OU-2 Sediment Removal Action
LOCATION: State College, Pennsylvania
CONTRACTOR: Panther Technologies, Inc.

WEATHER: **Temperature:** Upper 50s a.m. and 80s p.m.
Cloud cover: Partly Sunny **Precipitation:** None **Wind:** light and variable

GAI PERSONNEL ON SITE: Kevin McCullen
GAI Arrival/Departure: 0655 / 1520

PANTHER PERSONNEL ON SITE: Steve Inzerma, Willy Brydges, and Matt Brooks.

PANTHER Arrival/Departure: 0655 / 1515

EQUIPMENT: F-250 with equipment box trailer, F-550 with flat-bed trailer, T320 Turbo Bobcat, and 331E Bobcat Mini-excavator

SUMMARY OF REMEDIATION ACTIVITY:
Panther placed R3 stone in the upper portion of TSC to restore the stream channel after sediment removal activities. Prior to placing stone, coir matting was installed in the channel to assist in stabilizing the channel. After placing the stone, coir logs were staked into the side-slopes of the stream channel to assist in stabilizing the banks (see 6/25/08 field map). A load of pea gravel was also delivered to the TSC area to restore the driveway at 203 Pike Street which was used as the access way to TSC. Panther pumped off the water from the dewatering pad to the on-site groundwater treatment system. They also repaired and improved the plastic cover over the sediment pile on the dewatering pad to divert water off the dewatering pad and away from the dewatering pad sump. Panther demobilized from the site. Joe Hollshwander (Army Corps) was on-site to observe restoration activities as the USEPA representative. Joe was satisfied with the restoration of TSC.

GAI ACTIVITIES:
Oversaw channel restoration activities and collected composite samples from the sediment pile for waste profiling purposed (see 6/25/08 field book and field map for sample composite locations). Samples WP01-062508 and WP02-062508 were collected for the following parameters: VOCs, TCLP (VOCs, SVOCs, Metals, and Pesticides/Herbicides), Ignitability, Total Cyanide, Total Sulfide, pH, Paint Filter, TOX, Mirex, and Kepone.

SUMMARY OF SURVEYOR'S ACTIVITIES:
N/A

SUMMARY OF PHOTOGRAPHS TAKEN:
Took pictures of restoration activities in TSC.

SUMMARY OF PROBLEMS AND RESOLUTIONS:
N/A

SUMMARY OF MEETINGS/ DISCUSSIONS HELD (ATTENDEES AND ISSUES):
Daily health and safety meeting – GAI and Panther personnel

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES:
N/A

SUBMITTED BY GAI

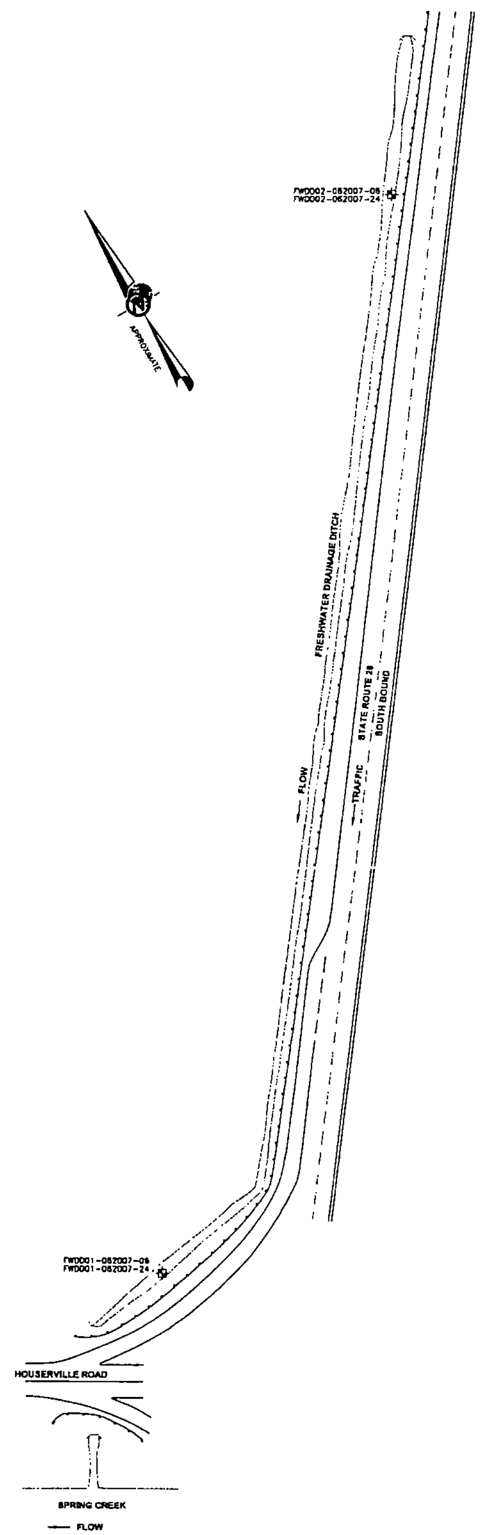
Kevin McCullen

REVIEWED BY GAI

Veronica Foster

APPENDIX B

DAILY FIELD MAPS



FRESHWATER DRAINAGE DITCH

SCALE FEET

LEGEND

- GUARD RAIL
- FENCE
- ROAD
- CREEK
- SEDIMENT SAMPLE LOCATION

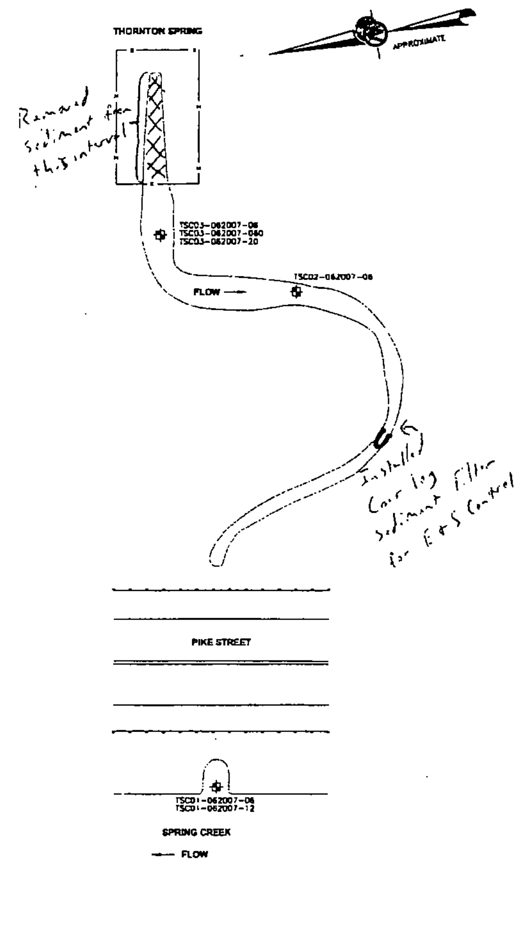
NOTES

1.) LAST TWO DIGITS OF THE SEDIMENT SAMPLE IDENTIFICATIONS INDICATE THE DEPTH THE SAMPLE WAS COLLECTED (i.e. TSC01-062007-06 WAS COLLECTED AT A DEPTH OF 6 INCHES).

REFERENCES

1.) FIGURE BASED ON FIELD MEASUREMENTS COLLECTED ON JUNE 19, 2007.

5/27/08



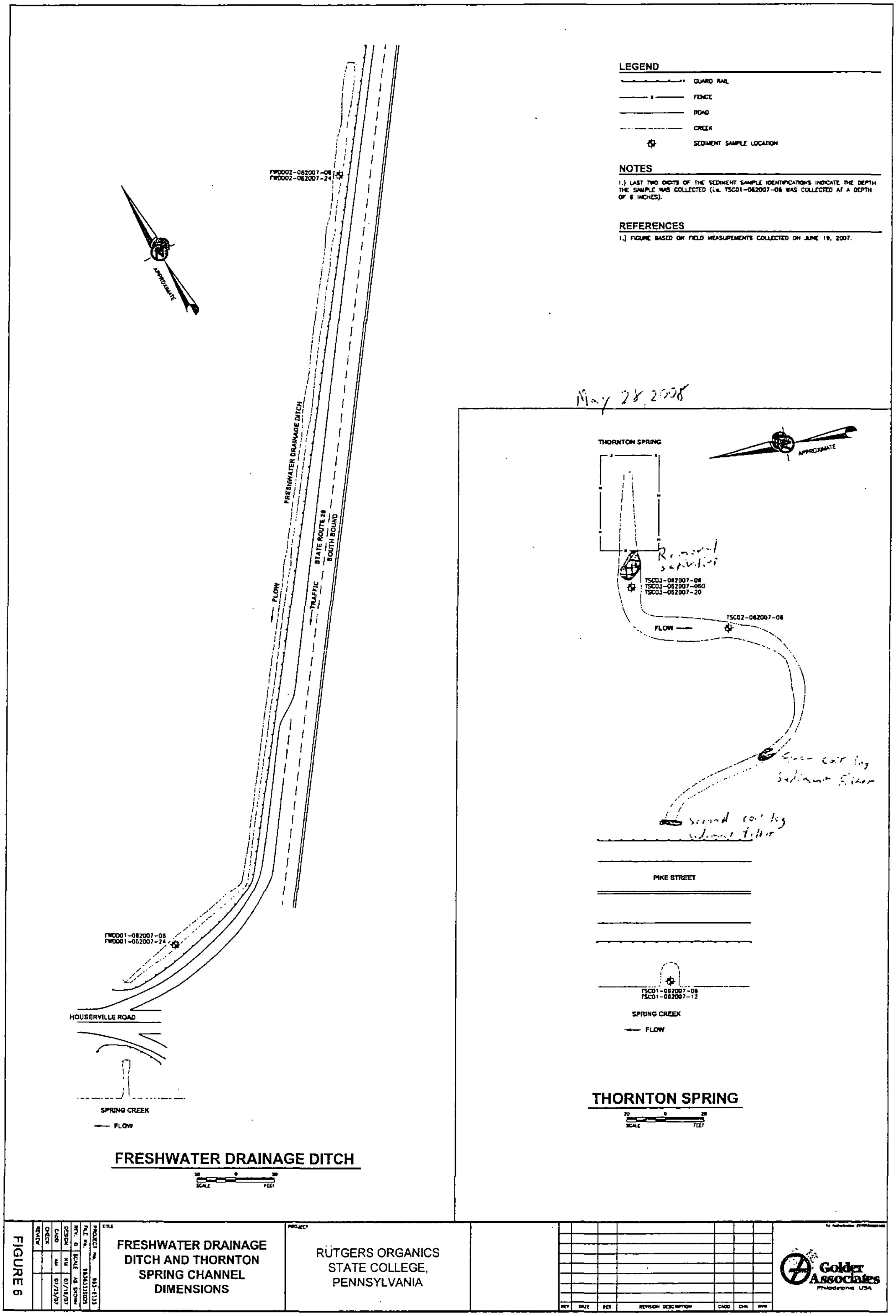
THORNTON SPRING

SCALE FEET

FIGURE 6	
REVIEW	
CHECK	
CADD	AW 07/25/07
DESIGN	RW 07/18/07
REV. 0	SCALE AS SHOWN
FILE No.	
PROJECT No.	
TITLE	FRESHWATER DRAINAGE DITCH AND THORNTON SPRING CHANNEL DIMENSIONS
PROJECT	RÜTGERS ORGANICS STATE COLLEGE, PENNSYLVANIA

REV | DATE | DES | REVISION DESCRIPTION | CADD | CHK | RVW

Golder Associates
Philadelphia USA


LEGEND
GUARD RAIL
FENCE
ROAD
CREEK
SEDIMENT SAMPLE LOCATION
NOTES
1.) LAST TWO DIGITS OF THE SEDIMENT SAMPLE IDENTIFICATIONS INDICATE THE DEPTH THE SAMPLE WAS COLLECTED (i.e. TSC01-062007-06 WAS COLLECTED AT A DEPTH OF 6 INCHES).
REFERENCES
1.) FIGURE BASED ON FIELD MEASUREMENTS COLLECTED ON JUNE 19, 2007.
APPROXIMATE
FWD002-062007-06
FWD002-062007-24
FRESHWATER DRAINAGE DITCH
STATE ROUTE 26 SOUTH BOUND
FLOW
TRAFFIC
FWD001-062007-06
FWD001-062007-24
HOUSERVILLE ROAD
SPRING CREEK
FLOW
FRESHWATER DRAINAGE DITCH
SCALE
FEET
May 28, 2008
THORNTON SPRING
APPROXIMATE
TSC03-062007-06
TSC03-062007-060
TSC03-062007-20
TSC02-062007-06
FLOW
PIKE STREET
TSC01-062007-06
TSC01-062007-12
SPRING CREEK
FLOW
THORNTON SPRING
SCALE
FEET
FIGURE 6
REVIEW
CHECK
CADD AM 07/25/07
DESIGN KM 07/18/07
REV. 0 SCALE AS SHOWN
FILE No.
PROJECT No. 063-6133
TITLE
FRESHWATER DRAINAGE DITCH AND THORNTON SPRING CHANNEL DIMENSIONS
PROJECT
RÜTGERS ORGANICS STATE COLLEGE, PENNSYLVANIA
REV
DATE
DES
REVISION DESCRIPTION
CADD
CHK
RVW
Golder Associates
Philadelphia USA

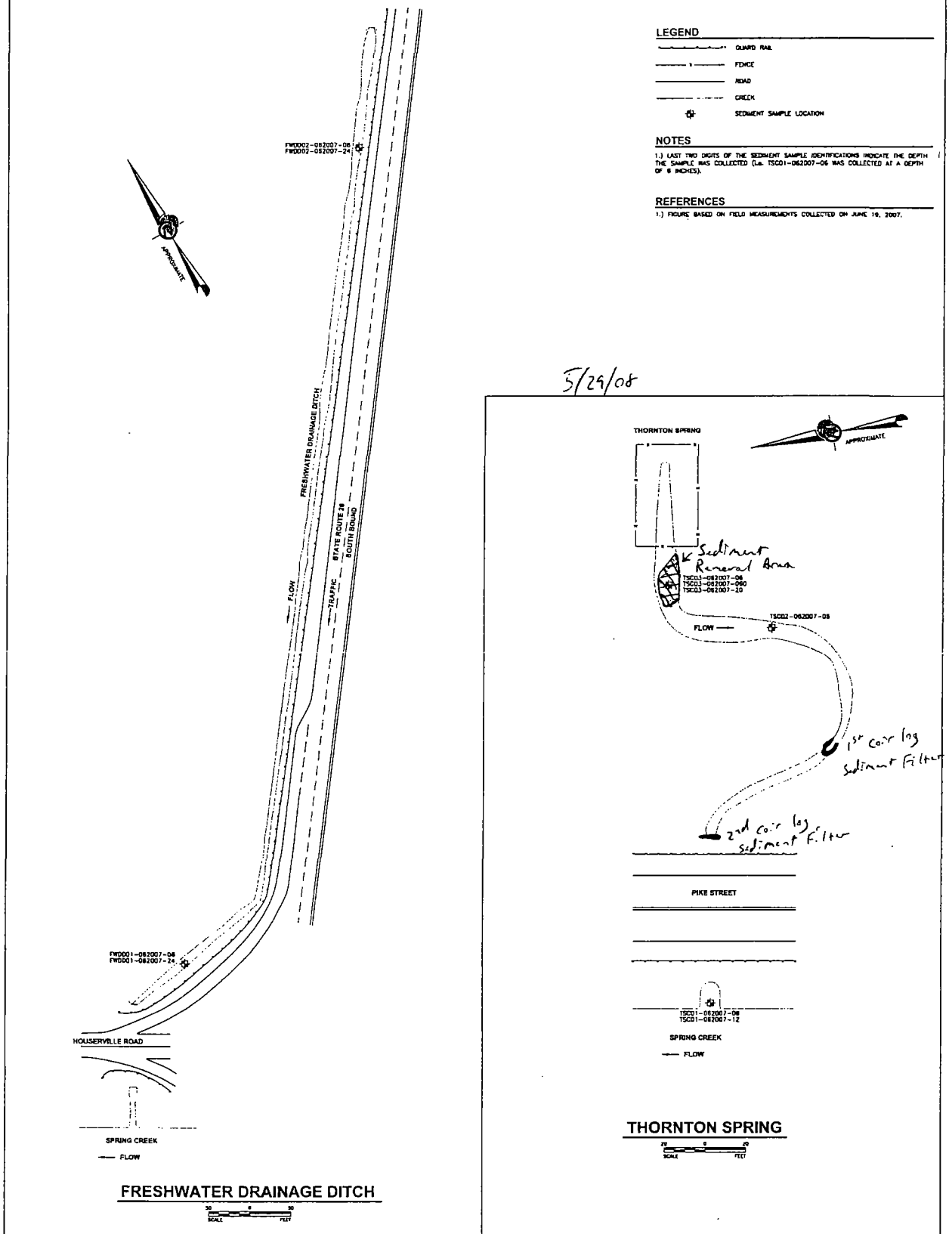


FIGURE 6

FRESHWATER DRAINAGE DITCH AND THORNTON SPRING CHANNEL DIMENSIONS

RÜTGERS ORGANICS
STATE COLLEGE,
PENNSYLVANIA

Golder Associates
Philadelphia USA

AR100399

6/2/08

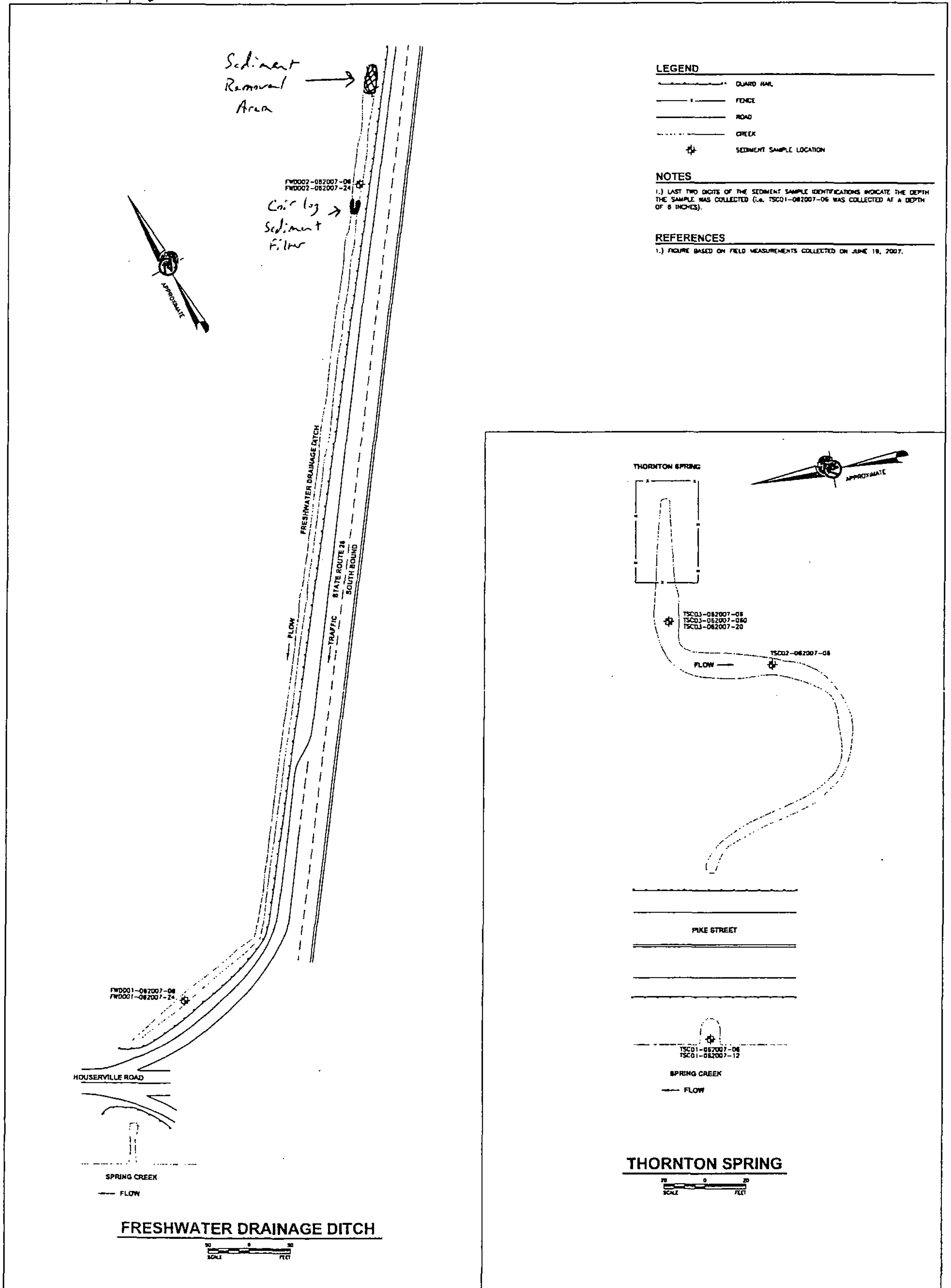


FIGURE 6

REVIEW	CHECK	CADD	DESIGN	REV. 0	FILE No.	PROJECT No.
		AM 07/25/07	RM 07/18/07	SCALE AS SHOWN	983B3335005	983-6333

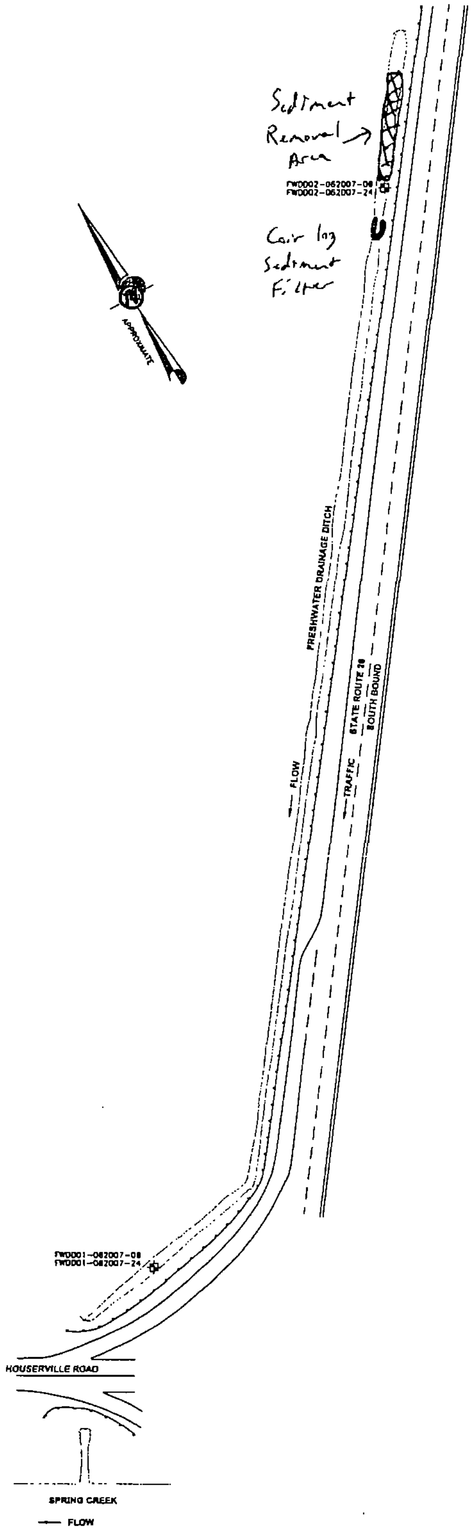
TITLE: FRESHWATER DRAINAGE DITCH AND THORNTON SPRING CHANNEL DIMENSIONS

PROJECT: RÜTGERS ORGANICS STATE COLLEGE, PENNSYLVANIA

REV | DATE | DES | REVISION DESCRIPTION | CADD | CHK | RVW

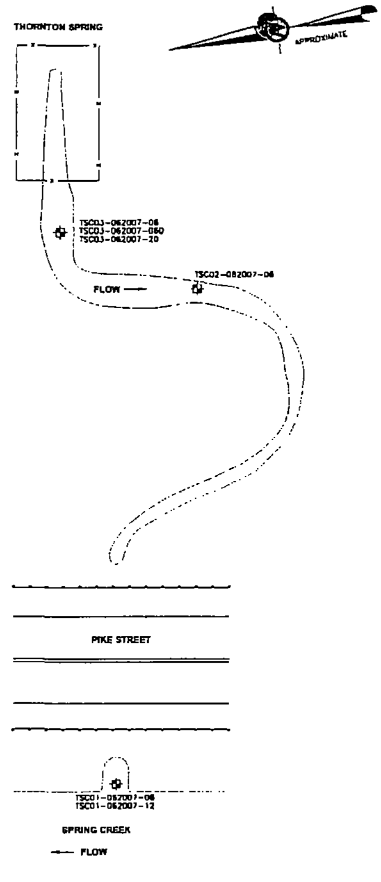
Golder Associates Philadelphia USA

6/3/08



FRESHWATER DRAINAGE DITCH

SCALE 30 0 30 FEET



THORNTON SPRING

SCALE 20 0 20 FEET

LEGEND

- GUARD RAIL
- FENCE
- ROAD
- CREEK
- SEDIMENT SAMPLE LOCATION

NOTES

1.) LAST TWO DIGITS OF THE SEDIMENT SAMPLE IDENTIFICATIONS INDICATE THE DEPTH THE SAMPLE WAS COLLECTED (i.e. TSC01-062007-06 WAS COLLECTED AT A DEPTH OF 6 INCHES).

REFERENCES

1.) FIGURE BASED ON FIELD MEASUREMENTS COLLECTED ON JUNE 19, 2007.

FIGURE 6

PROJECT No.	983-6133
FILE No.	9836133D005
REV. 0	SCALE AS SHOWN
DESIGN	KM 07/18/07
CADD	AW 07/23/07
CHECK	
REVIEW	

TITLE
FRESHWATER DRAINAGE DITCH AND THORNTON SPRING CHANNEL DIMENSIONS

PROJECT
RÜTGERS ORGANICS
STATE COLLEGE,
PENNSYLVANIA

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW

Golder Associates
Philadelphia USA

6/4/08

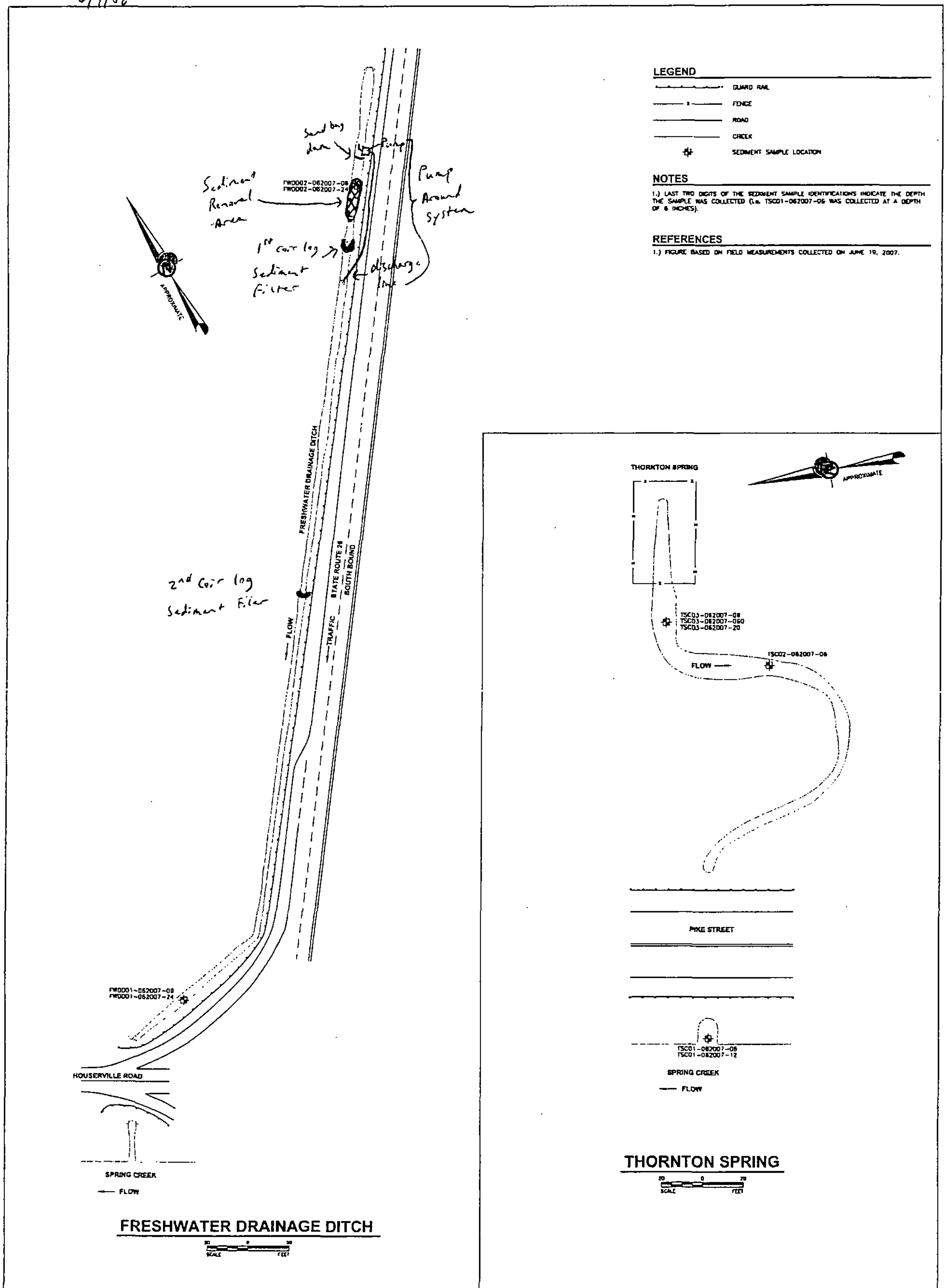


FIGURE 6

FRESHWATER DRAINAGE DITCH AND THORNTON SPRING CHANNEL DIMENSIONS

RUTGERS ORGANICS
STATE COLLEGE, PENNSYLVANIA

Golder Associates
Philadelphia USA

6/5/08

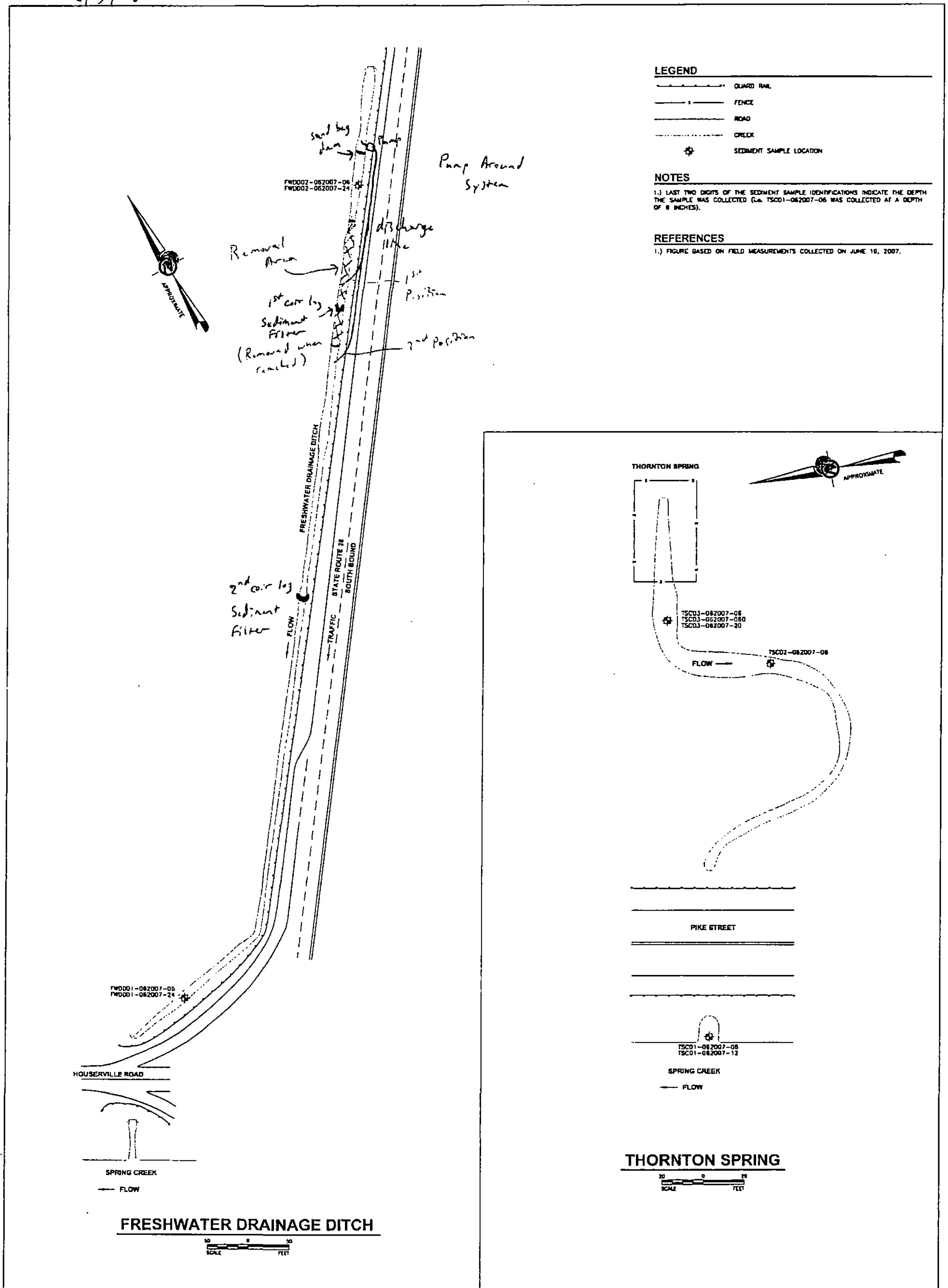


FIGURE 6

PROJECT No.		063-6333
FILE No.		0636333S003
REV. 0	SCALE	AS SHOWN
DESIGN	KM	07/18/07
CADD	AM	07/25/07
CHECK		
REVIEW		

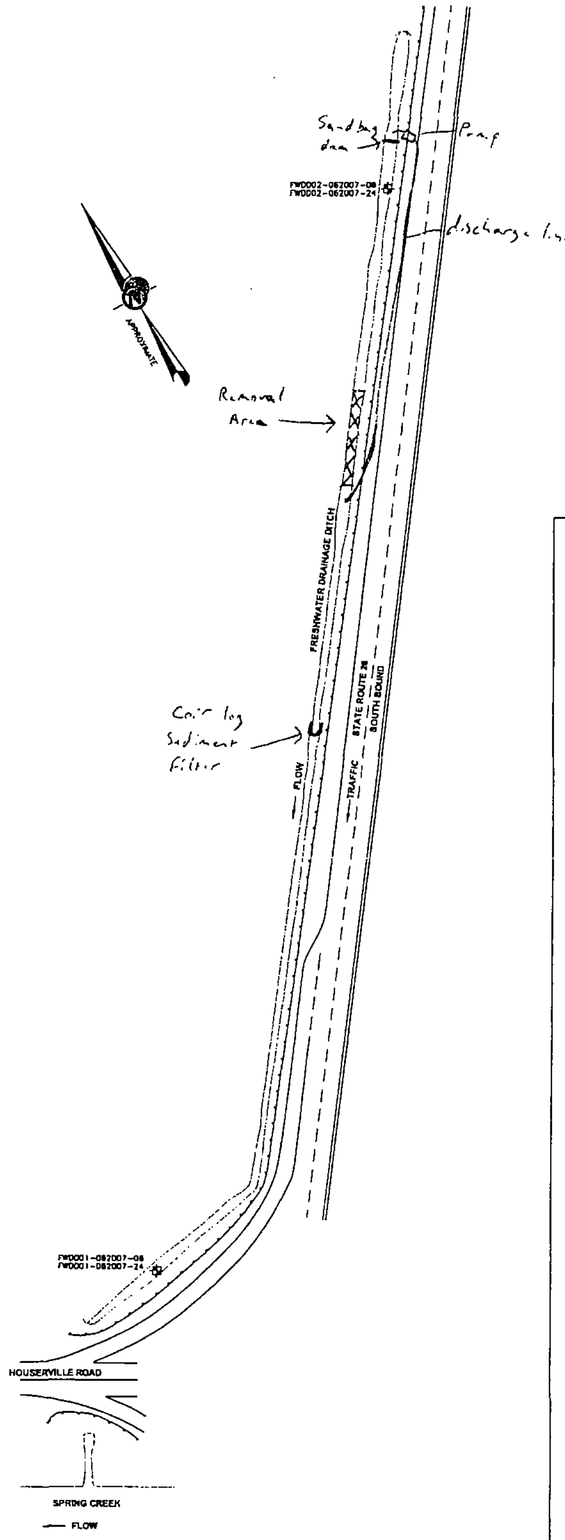
TITLE
FRESHWATER DRAINAGE DITCH AND THORNTON SPRING CHANNEL DIMENSIONS

PROJECT
RÜTGERS ORGANICS
STATE COLLEGE,
PENNSYLVANIA

REV | DATE | DES | REVISION DESCRIPTION | CADD | CHK | RVW

Golder Associates
Philadelphia USA

6/6/08



FRESHWATER DRAINAGE DITCH

LEGEND

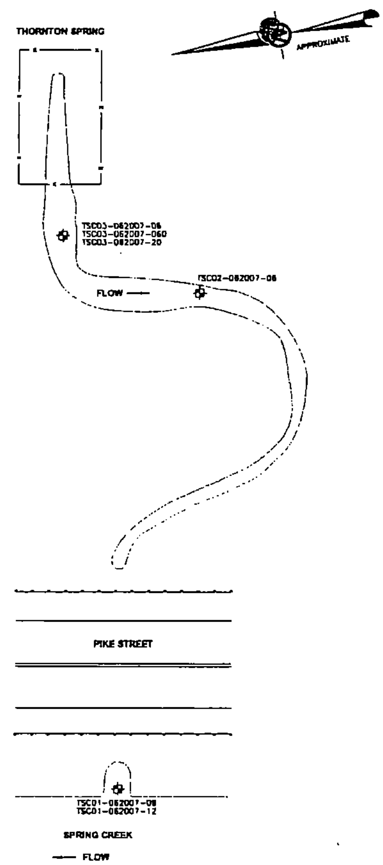
- GUARD RAIL
- FENCE
- ROAD
- CREEK
- SEDIMENT SAMPLE LOCATION

NOTES

1.) LAST TWO DIGITS OF THE SEDIMENT SAMPLE IDENTIFICATIONS INDICATE THE DEPTH THE SAMPLE WAS COLLECTED (i.e. TSC01-062007-08 WAS COLLECTED AT A DEPTH OF 8 INCHES).

REFERENCES

1.) FIGURE BASED ON FIELD MEASUREMENTS COLLECTED ON JUNE 19, 2007.



THORNTON SPRING

FIGURE 6

PROJECT No. 983-6333 | FILE No. 983163335C05 | REV. 0 | SCALE AS SHOWN | DESIGN KM 07/18/07 | CADD AM 07/25/07 | CHECK | REVIEW

TITLE: FRESHWATER DRAINAGE DITCH AND THORNTON SPRING CHANNEL DIMENSIONS

PROJECT: RÜTGERS ORGANICS STATE COLLEGE, PENNSYLVANIA

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW

Golder Associates
Philadelphia USA

6/9/08

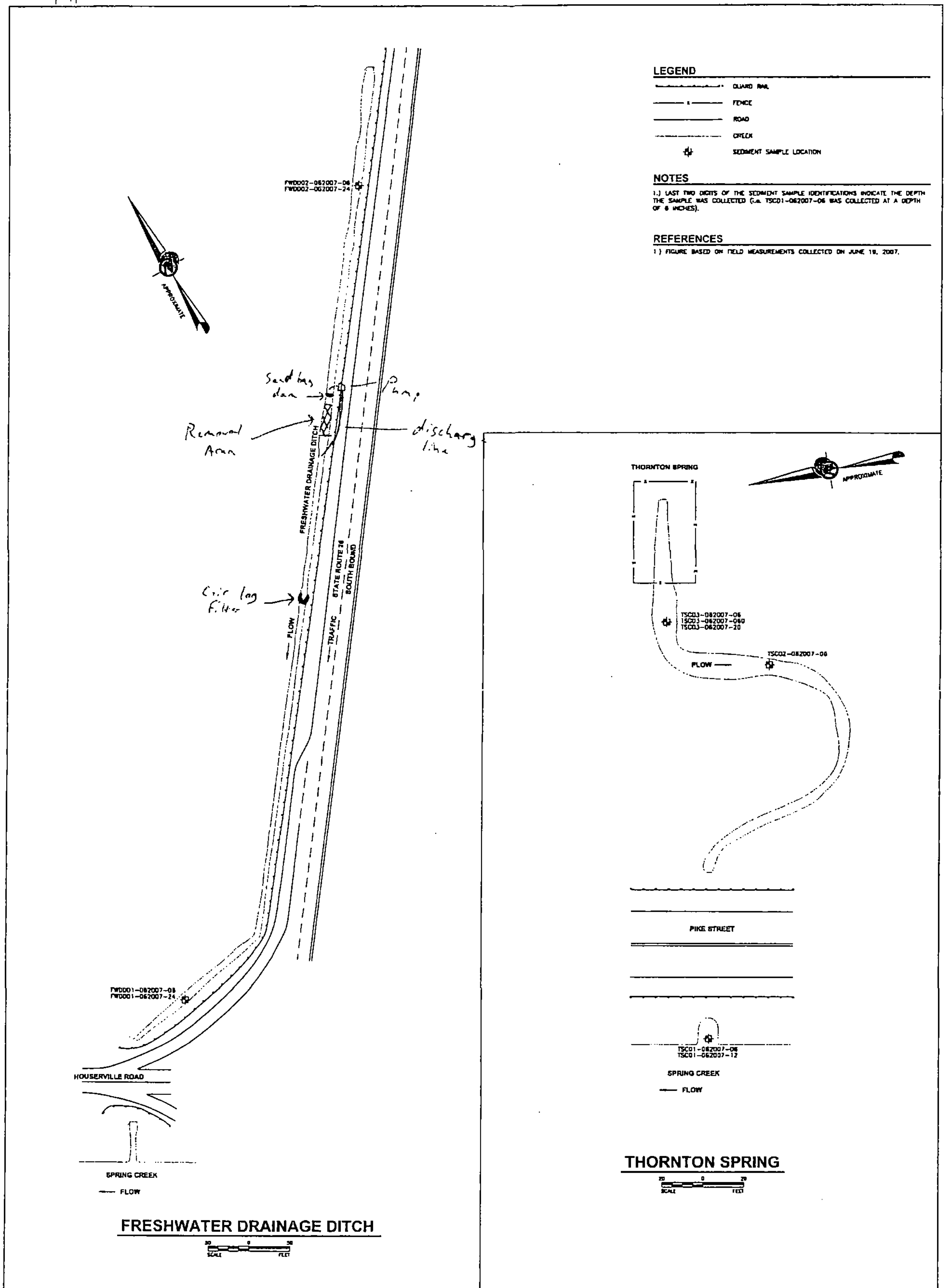


FIGURE 6

PROJECT No.	983-6153
FILE No.	9836153E005
REV.	0
SCALE	AS SHOWN
DESIGN	KW	07/10/07
CADD	AJH	07/25/07
CHECK		
REVIEW		

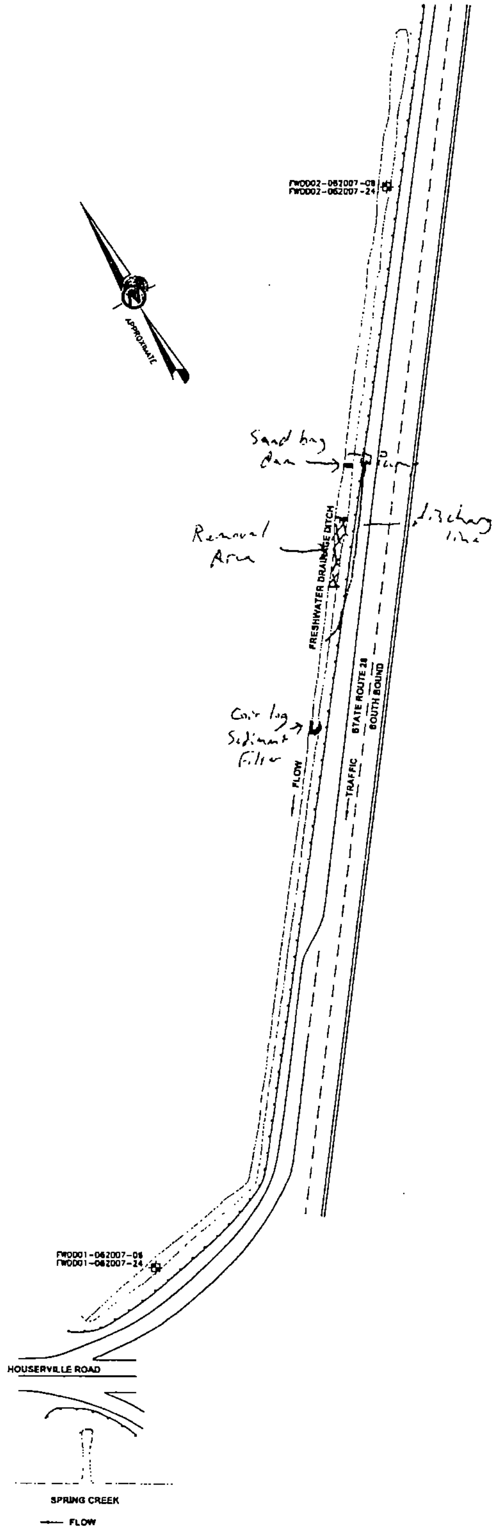
TITLE
FRESHWATER DRAINAGE DITCH AND THORNTON SPRING CHANNEL DIMENSIONS

PROJECT
RÜTGERS ORGANICS
STATE COLLEGE, PENNSYLVANIA

REV | DATE | DES | REVISION DESCRIPTION | CADD | CHK | RVW

Golder Associates
Philadelphia USA

6/10/08



FRESHWATER DRAINAGE DITCH

LEGEND

GUARD RAIL

FENCE

ROAD

CREEK

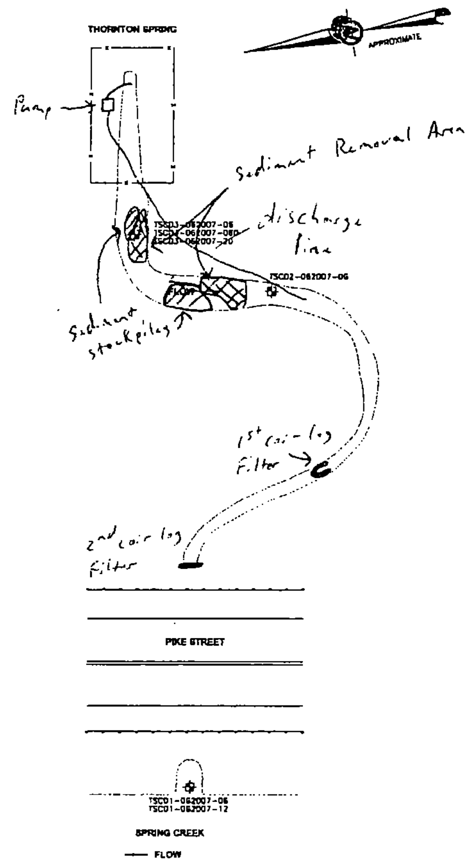
SEDIMENT SAMPLE LOCATION

NOTES

1.) LAST TWO DIGITS OF THE SEDIMENT SAMPLE IDENTIFICATIONS INDICATE THE DEPTH THE SAMPLE WAS COLLECTED (i.e. TSC01-062007-06 WAS COLLECTED AT A DEPTH OF 6 INCHES).

REFERENCES

1.) FIGURE BASED ON FIELD MEASUREMENTS COLLECTED ON JUNE 19, 2007.



THORNTON SPRING

FIGURE 6

PROJECT No. 983-6333 | FILE No. | REV. 0 | SCALE AS SHOWN | DESIGN KM 07/18/07 | CADD AM 07/25/07 | CHECK | REVIEW

TITLE: FRESHWATER DRAINAGE DITCH AND THORNTON SPRING CHANNEL DIMENSIONS

PROJECT: RÜTGERS ORGANICS STATE COLLEGE, PENNSYLVANIA

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW

Golder Associates
Philadelphia USA

6/11/08

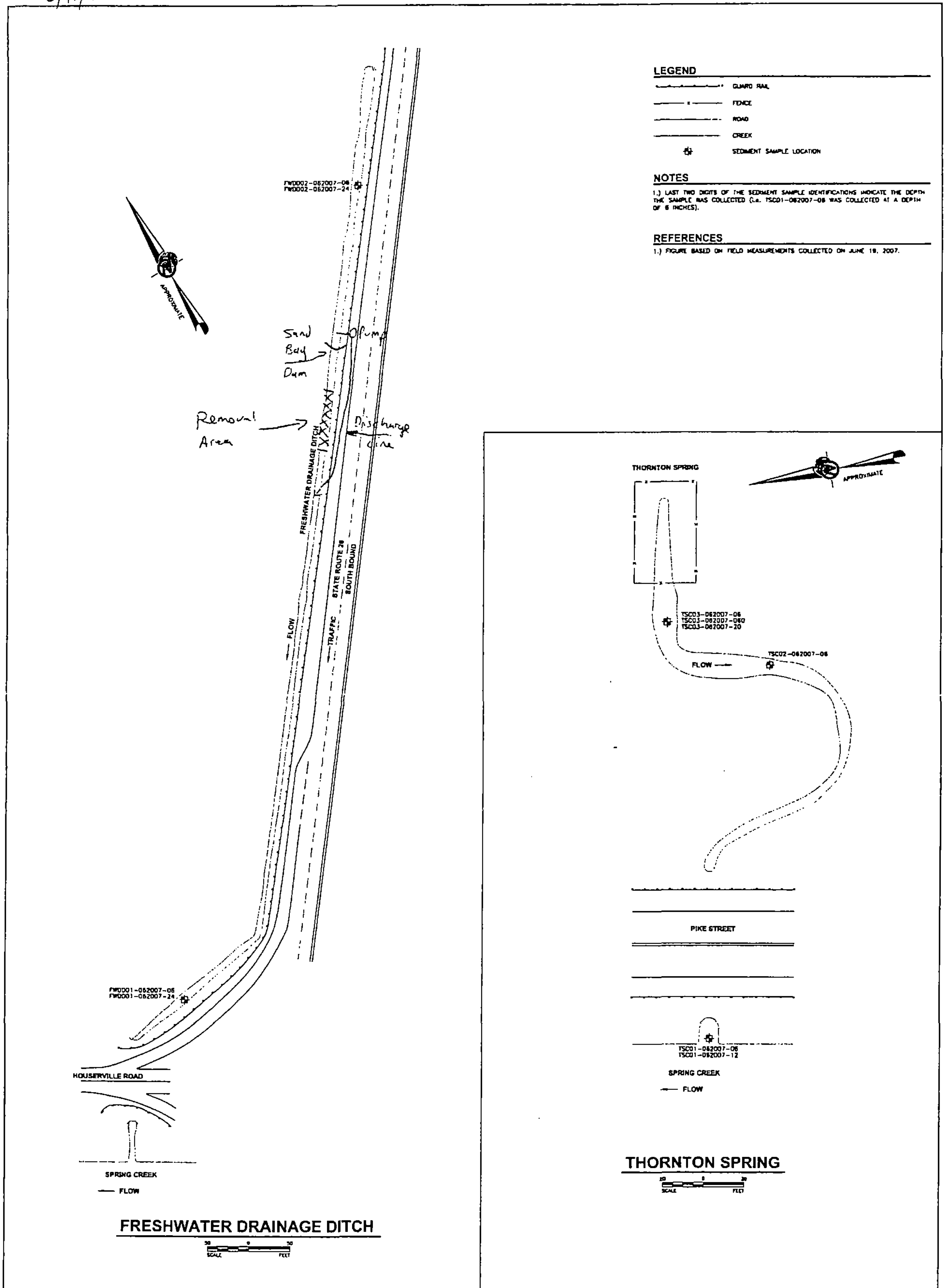


FIGURE 6

REVIEW | CHECK | CADD AM 07/23/07 | DESIGN KM 07/18/07 | REV. 0 SCALE AS SHOWN | FILE No 063833SC03 | PROJECT No 063-8333

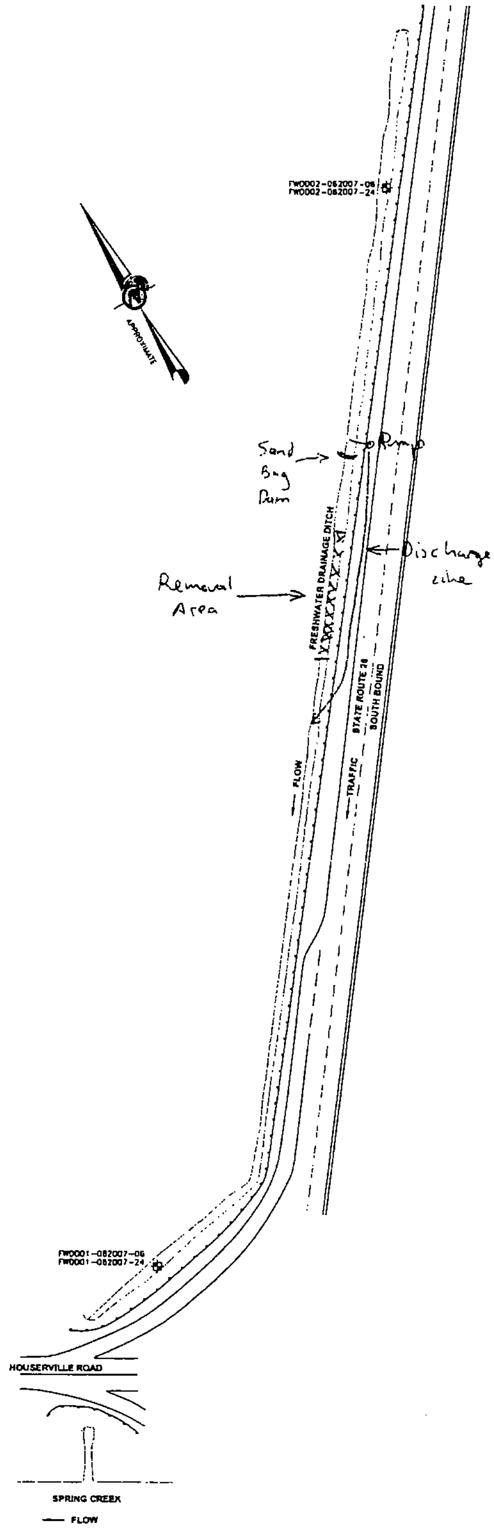
TITLE
FRESHWATER DRAINAGE DITCH AND THORNTON SPRING CHANNEL DIMENSIONS

PROJECT
RÜTGERS ORGANICS
STATE COLLEGE, PENNSYLVANIA

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW

Golder Associates
Philadelphia USA

6/12/08



FRESHWATER DRAINAGE DITCH

LEGEND

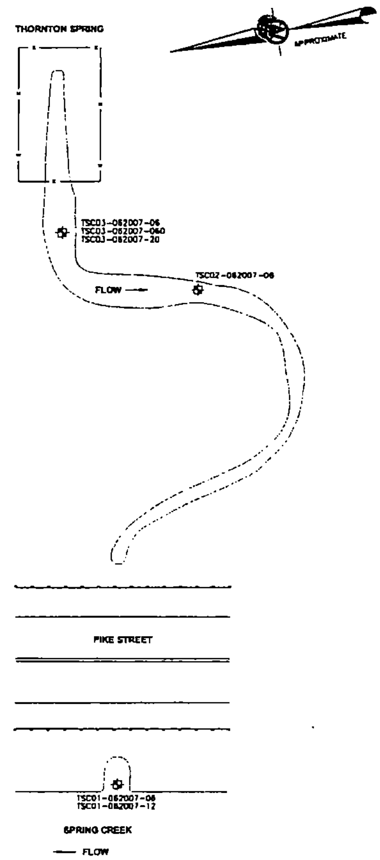
- GUARD RAIL
- FENCE
- ROAD
- CREEK
- SEDIMENT SAMPLE LOCATION

NOTES

1.) LAST TWO DIGITS OF THE SEDIMENT SAMPLE IDENTIFICATIONS INDICATE THE DEPTH THE SAMPLE WAS COLLECTED (i.e. TSC01-062007-06 WAS COLLECTED AT A DEPTH OF 6 INCHES).

REFERENCES

1.) FIGURE BASED ON FIELD MEASUREMENTS COLLECTED ON JUNE 19, 2007.



THORNTON SPRING

FIGURE 6

TITLE: FRESHWATER DRAINAGE DITCH AND THORNTON SPRING CHANNEL DIMENSIONS

PROJECT: RÜTGERS ORGANICS STATE COLLEGE, PENNSYLVANIA

REV 0 · SCALE AS SHOWN · DESIGN KM 07/18/07 · CADD AM 07/23/07

Golder Associates Philadelphia USA

6/13/08

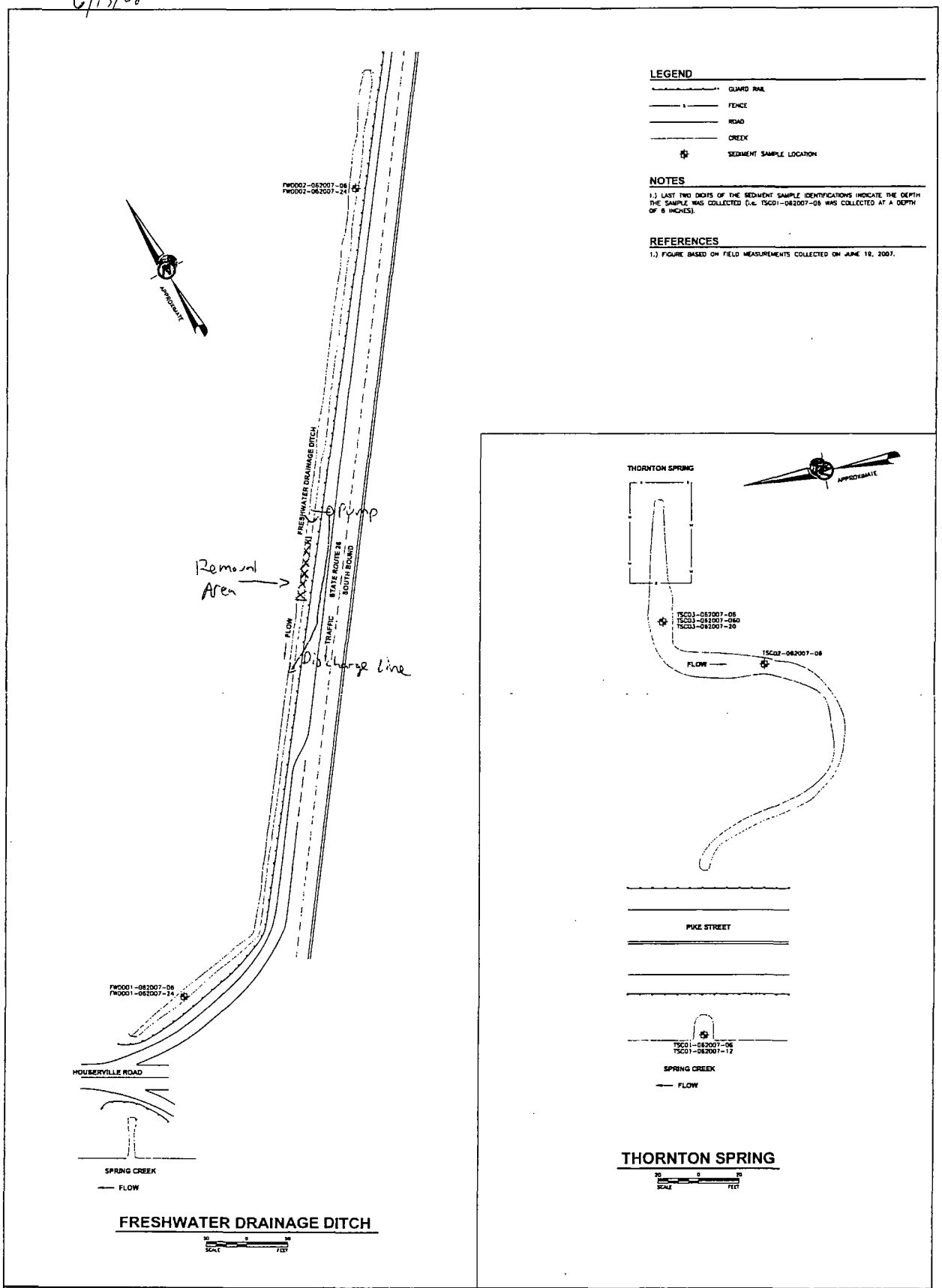


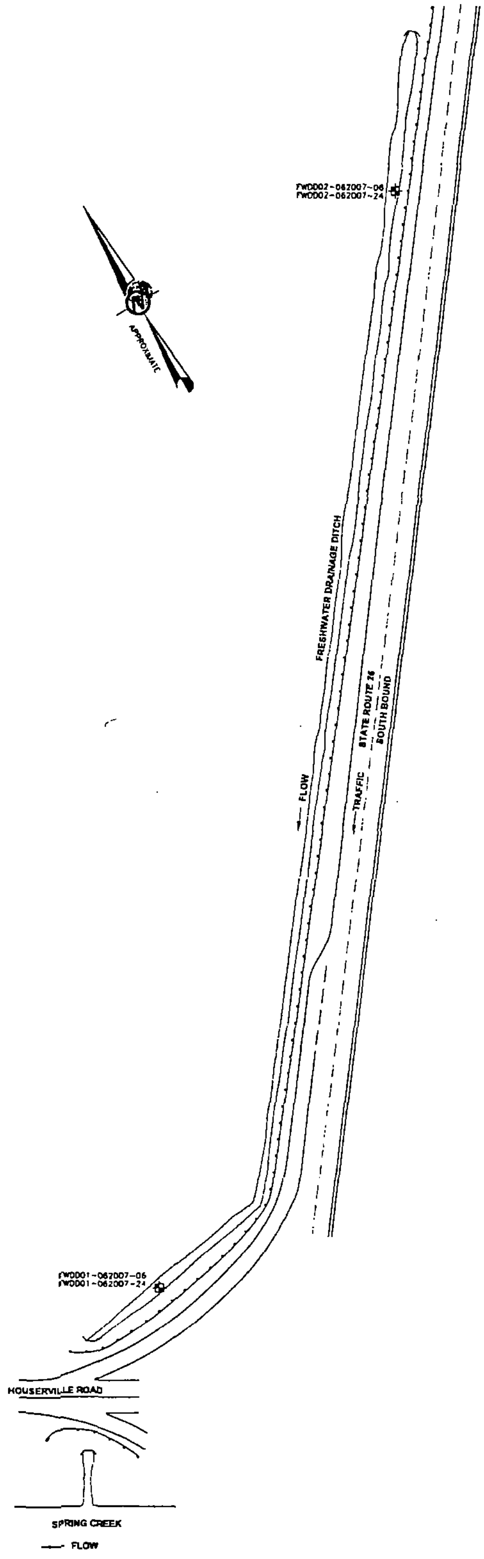
FIGURE 6

FRESHWATER DRAINAGE DITCH AND THORNTON SPRING CHANNEL DIMENSIONS

RÜTGERS ORGANICS
STATE COLLEGE,
PENNSYLVANIA

Golder Associates
Philadelphia USA

AR100409



FRESHWATER DRAINAGE DITCH

SCALE 50 0 50 FEET

LEGEND

GUARD RAIL

FENCE

ROAD

CREEK

SEDIMENT SAMPLE LOCATION

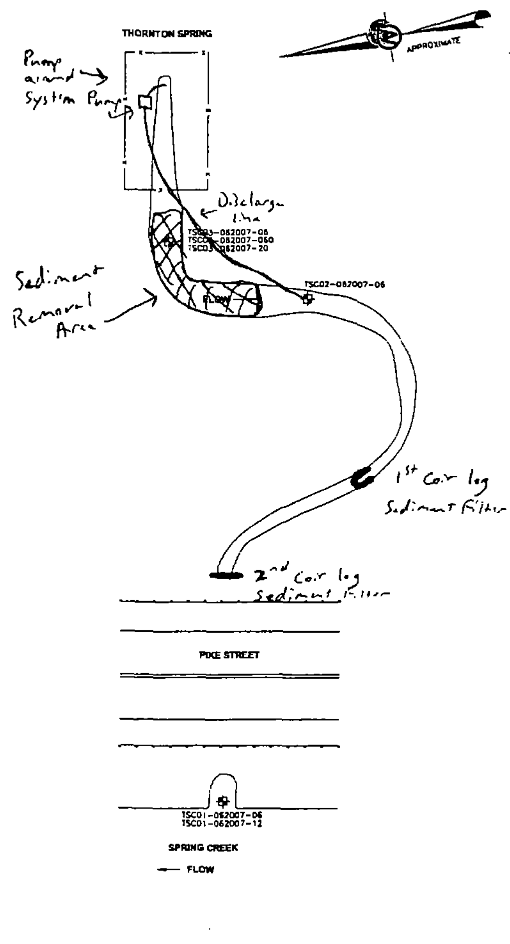
NOTES

1.) LAST TWO DIGITS OF THE SEDIMENT SAMPLE IDENTIFICATIONS INDICATE THE DEPTH THE SAMPLE WAS COLLECTED (i.e. TSC01-062007-06 WAS COLLECTED AT A DEPTH OF 6 INCHES).

REFERENCES

1) FIGURE BASED ON FIELD MEASUREMENTS COLLECTED ON JUNE 19, 2007.

6/16/08



THORNTON SPRING

SCALE 20 0 20 FEET

FIGURE 6

PROJECT No. 083-8333 | FILE No. 0938339005 | REV. 0 | SCALE AS SHOWN | DESIGN KM 07/18/07 | CADD AM 07/23/07 | CHECK | REVIEW

TITLE: FRESHWATER DRAINAGE DITCH AND THORNTON SPRING CHANNEL *DIMENSIONS*

PROJECT: RÜTGERS ORGANICS STATE COLLEGE, PENNSYLVANIA

REV | DATE | DES | REVISION DESCRIPTION | CADD | CHK | RVW

Golder Associates Philadelphia USA

6/17/08

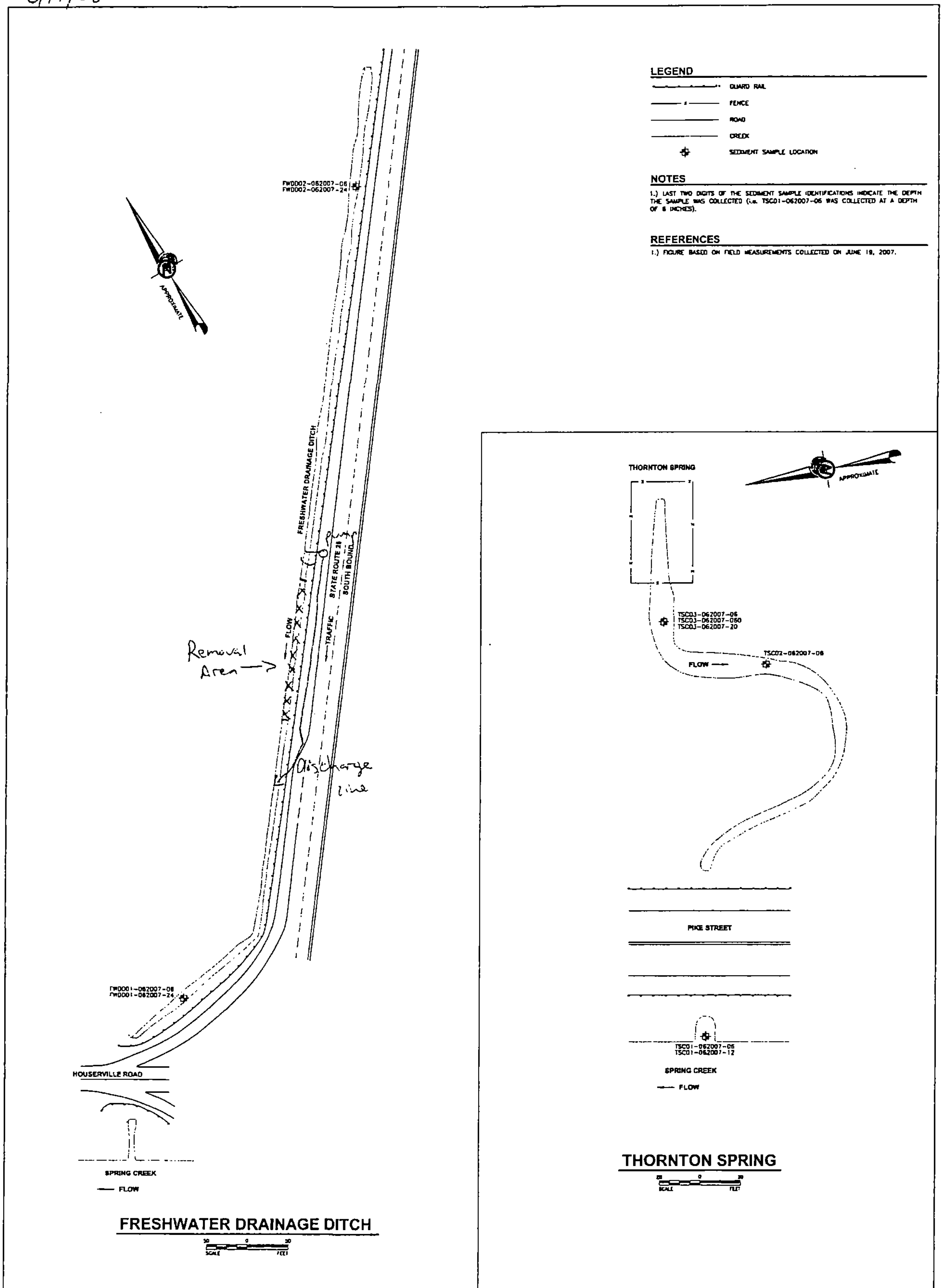


FIGURE 6

PROJECT No.		983-6333
FILE No.		9836333S005
REV. 0	SCALE	AS SHOWN
DESIGN	KM	07/18/07
CADD	AM	07/23/07
CHECK		
REVIEW		

TITLE

FRESHWATER DRAINAGE DITCH AND THORNTON SPRING CHANNEL DIMENSIONS

PROJECT

RÜTGERS ORGANICS
STATE COLLEGE,
PENNSYLVANIA

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW

Golder Associates
Philadelphia USA

AR100411

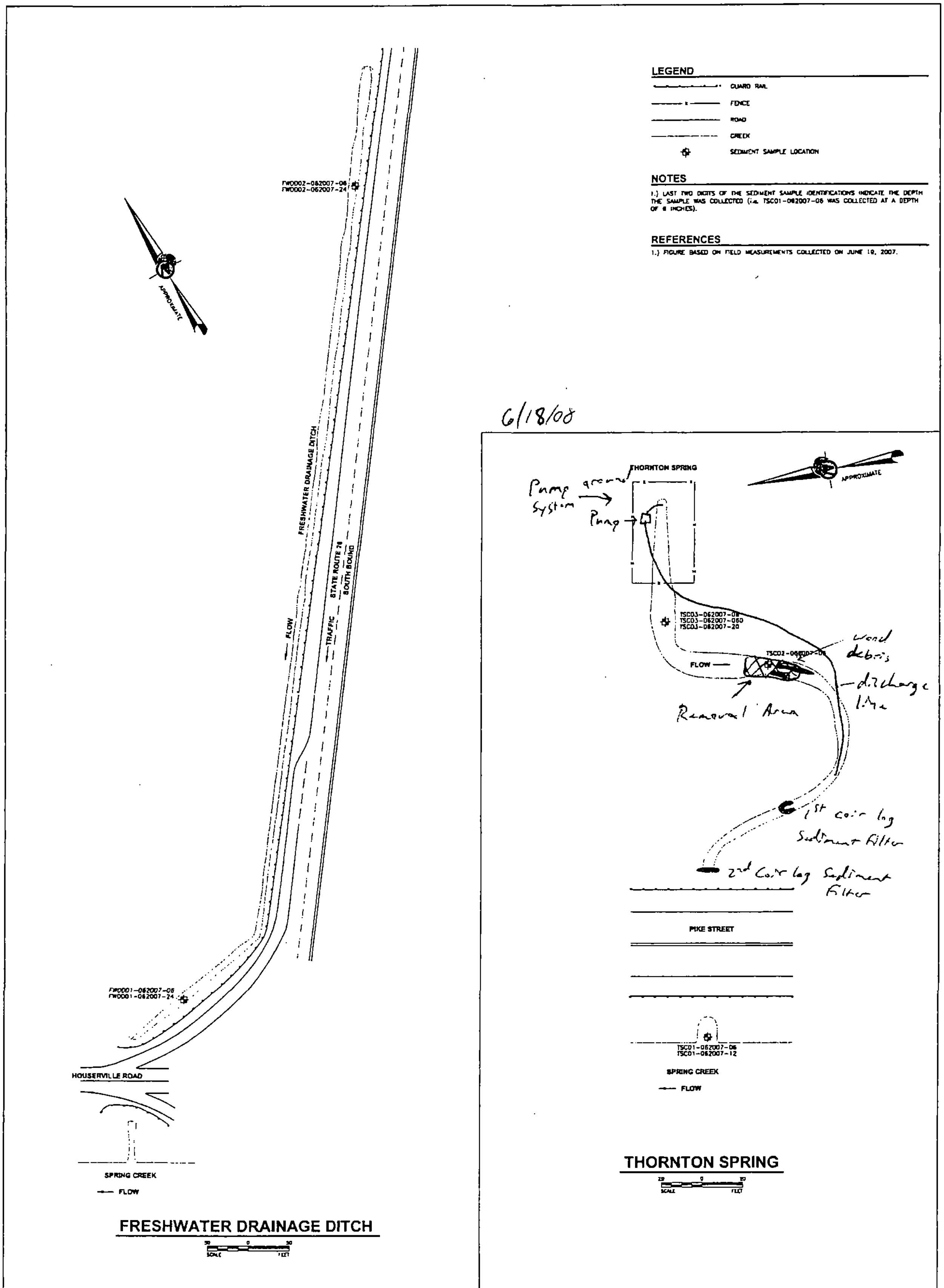
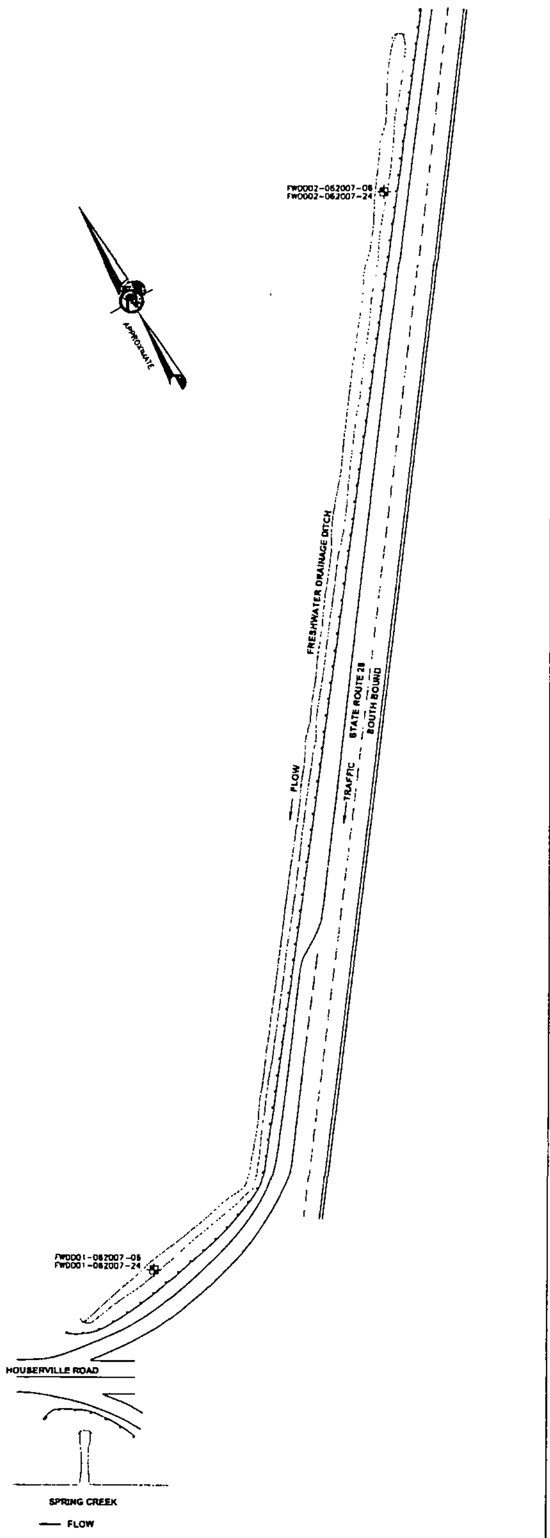


FIGURE 6	PROJECT No 983-6333 FILE No 98363335005 REV. 0 SCALE AS SHOWN DESIGN RJU 07/16/07 CADD AM 07/23/07 CHECK REVIEW	TITLE FRESHWATER DRAINAGE DITCH AND THORNTON SPRING CHANNEL DIMENSIONS	PROJECT RÜTGERS ORGANICS STATE COLLEGE, PENNSYLVANIA

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW

Golder Associates
Philadelphia USA

6/18/08



FRESHWATER DRAINAGE DITCH

LEGEND

- GUARD RAIL
- FENCE
- ROAD
- CREEK
- SEDIMENT SAMPLE LOCATION

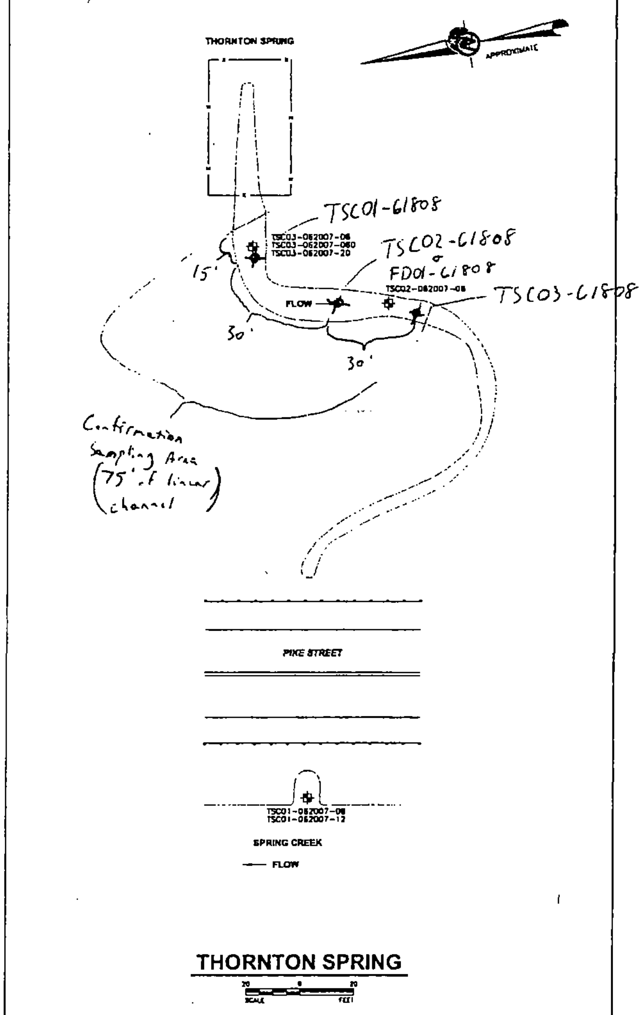
NOTES

1.) LAST TWO DIGITS OF THE SEDIMENT SAMPLE IDENTIFICATIONS INDICATE THE DEPTH THE SAMPLE WAS COLLECTED (i.e TSC01-062007-06 WAS COLLECTED AT A DEPTH OF 6 INCHES).

REFERENCES

1.) FIGURE BASED ON FIELD MEASUREMENTS COLLECTED ON JUNE 19, 2007.

6/18/08 Confirmation Sample locations



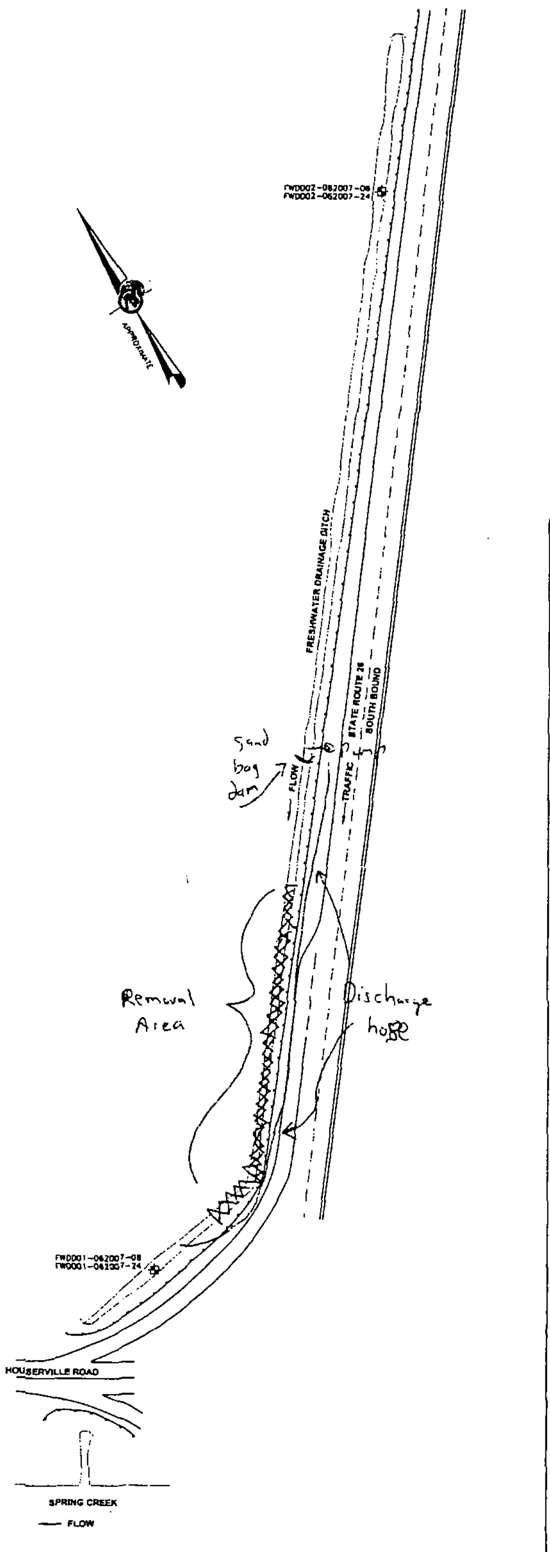
THORNTON SPRING

FIGURE 6	PROJECT No. 983-6333; FILE No. 9836333S005; REV. 0; SCALE AS SHOWN; DESIGN KM 07/18/07; CADD AM 07/25/07; CHECK; REVIEW
TITLE	FRESHWATER DRAINAGE DITCH AND THORNTON SPRING CHANNEL DIMENSIONS
PROJECT	RÜTGERS ORGANICS STATE COLLEGE, PENNSYLVANIA

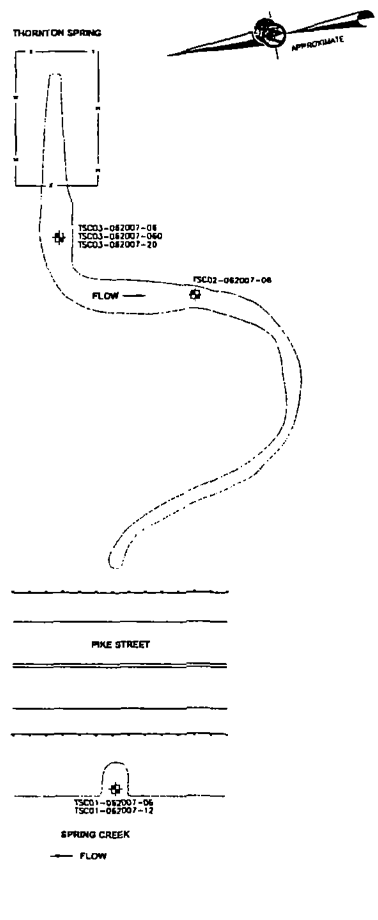
REV | DATE | DES | REVISION DESCRIPTION | CADD | CHK | RVW

Golder Associates Philadelphia, USA

6/19/08
~~6/18/08~~ KB



FRESHWATER DRAINAGE DITCH



THORNTON SPRING

LEGEND

- GUARD RAIL
- FENCE
- ROAD
- CREEK
- SEDIMENT SAMPLE LOCATION

NOTES

1.) LAST TWO DIGITS OF THE SEDIMENT SAMPLE IDENTIFICATIONS INDICATE THE DEPTH THE SAMPLE WAS COLLECTED (i.e. TSC01-062007-06 WAS COLLECTED AT A DEPTH OF 6 INCHES).

REFERENCES

1.) FIGURE BASED ON FIELD MEASUREMENTS COLLECTED ON JUNE 19, 2007.

FIGURE 6

PROJECT No.		983-6333
FILE No.		9836333C005
REV. 0	SCALE	AS SHOWN
DESIGN	KN	07/18/07
CADD	AW	07/23/07
CHECK		
REVIEW		

TITLE

FRESHWATER DRAINAGE DITCH AND THORNTON SPRING CHANNEL DIMENSIONS

PROJECT

RÜTGERS ORGANICS
STATE COLLEGE,
PENNSYLVANIA

REV | DATE | DES | REVISION DESCRIPTION | CADD | CHK | RVW

Golder Associates
Philadelphia USA

6/20/08

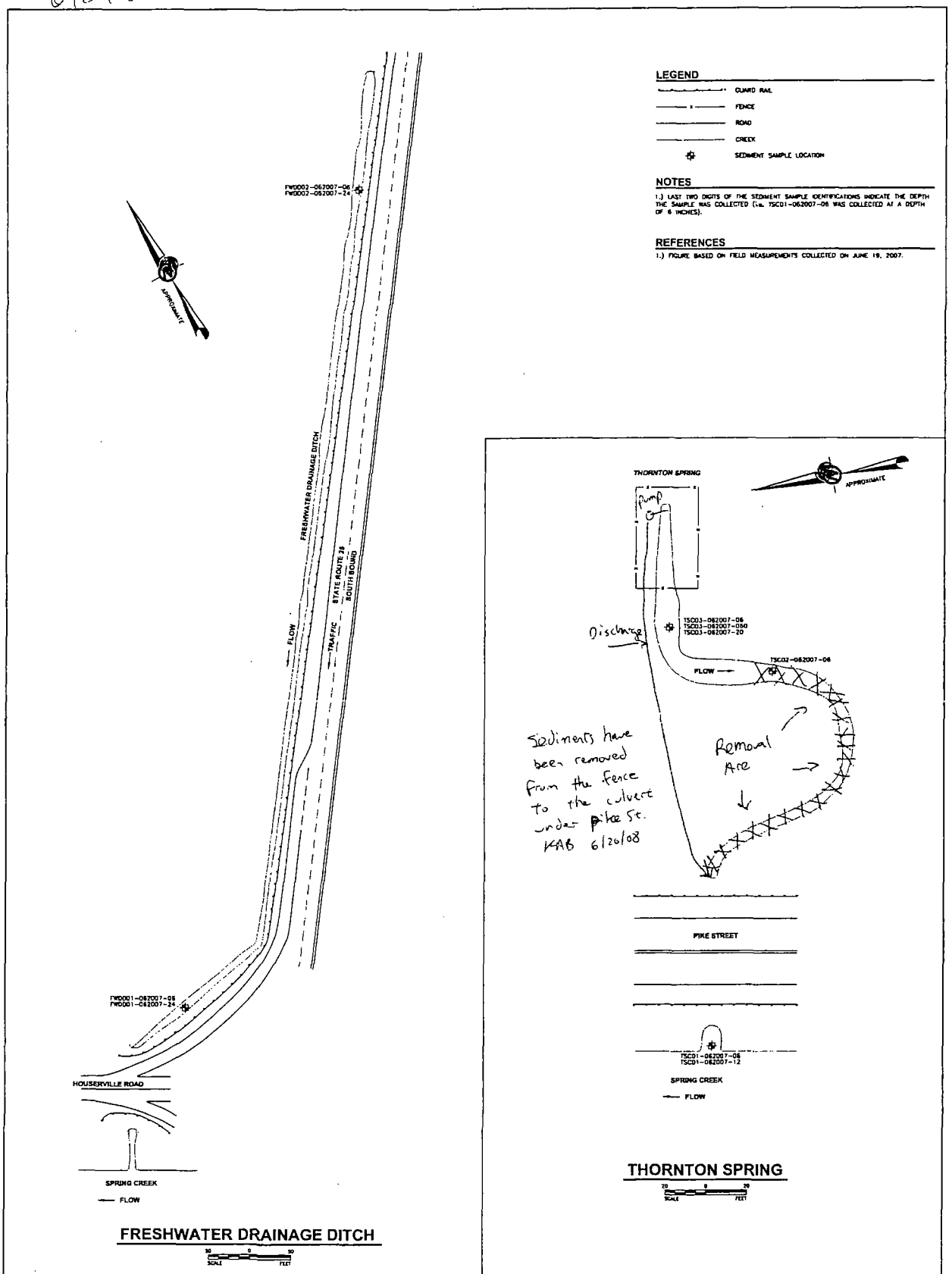


FIGURE 6

TITLE	FRESHWATER DRAINAGE DITCH AND THORNTON SPRING CHANNEL DIMENSIONS
PROJECT	RÜTGERS ORGANICS STATE COLLEGE, PENNSYLVANIA
PROJECT No.	883-6333
FILE No.	883633B000
REV.	0
SCALE	AS SHOWN
DESIGN	KM
DRAWN	KM
CHKD	
REVIEW	
DATE	07/16/07
	07/25/07

REV	DATE	DES	REVISION DESCRIPTION	CHKD	APVD

Golder Associates
Philadelphia USA

AR100415

Mon.
6-23-2006

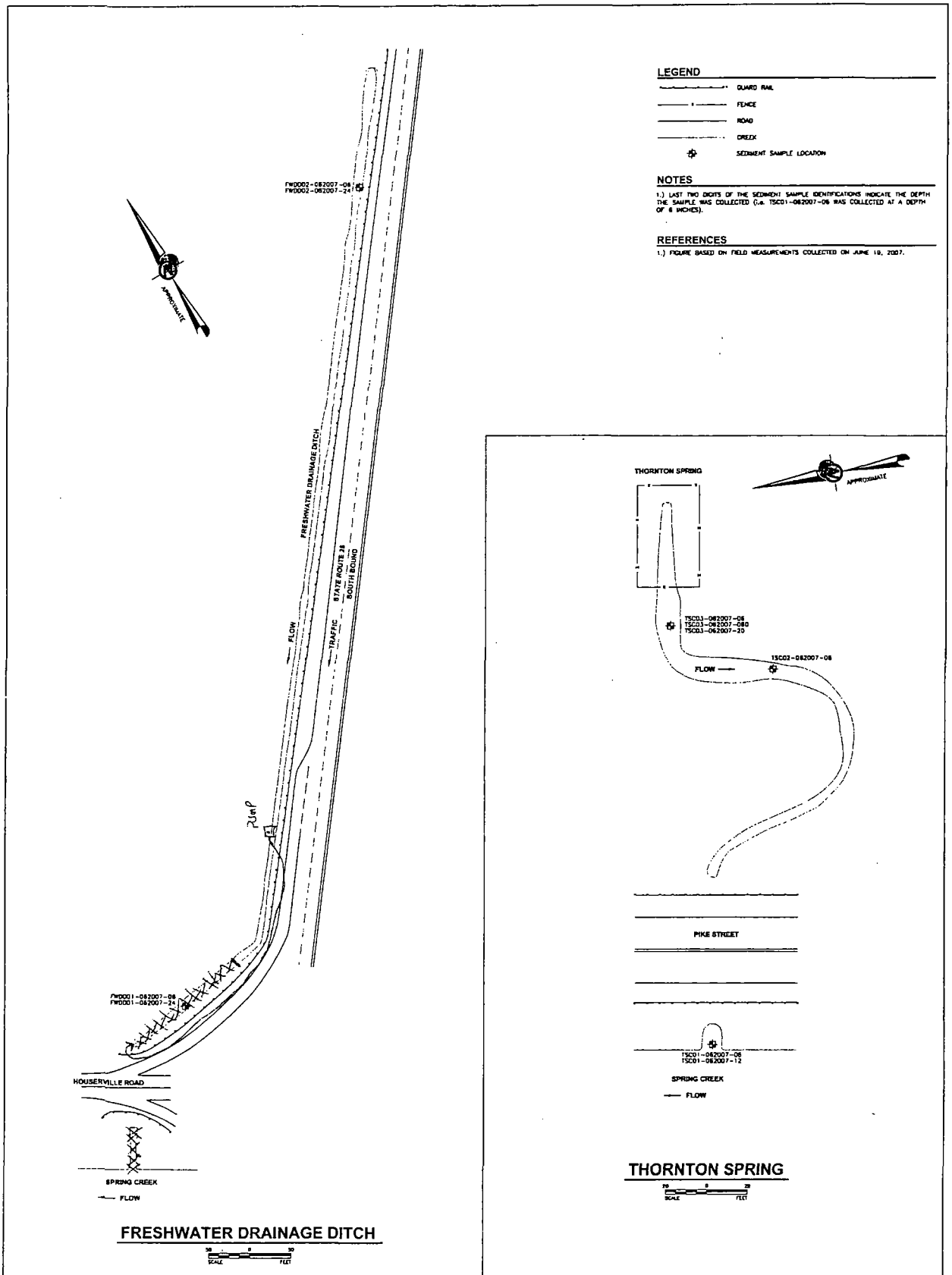


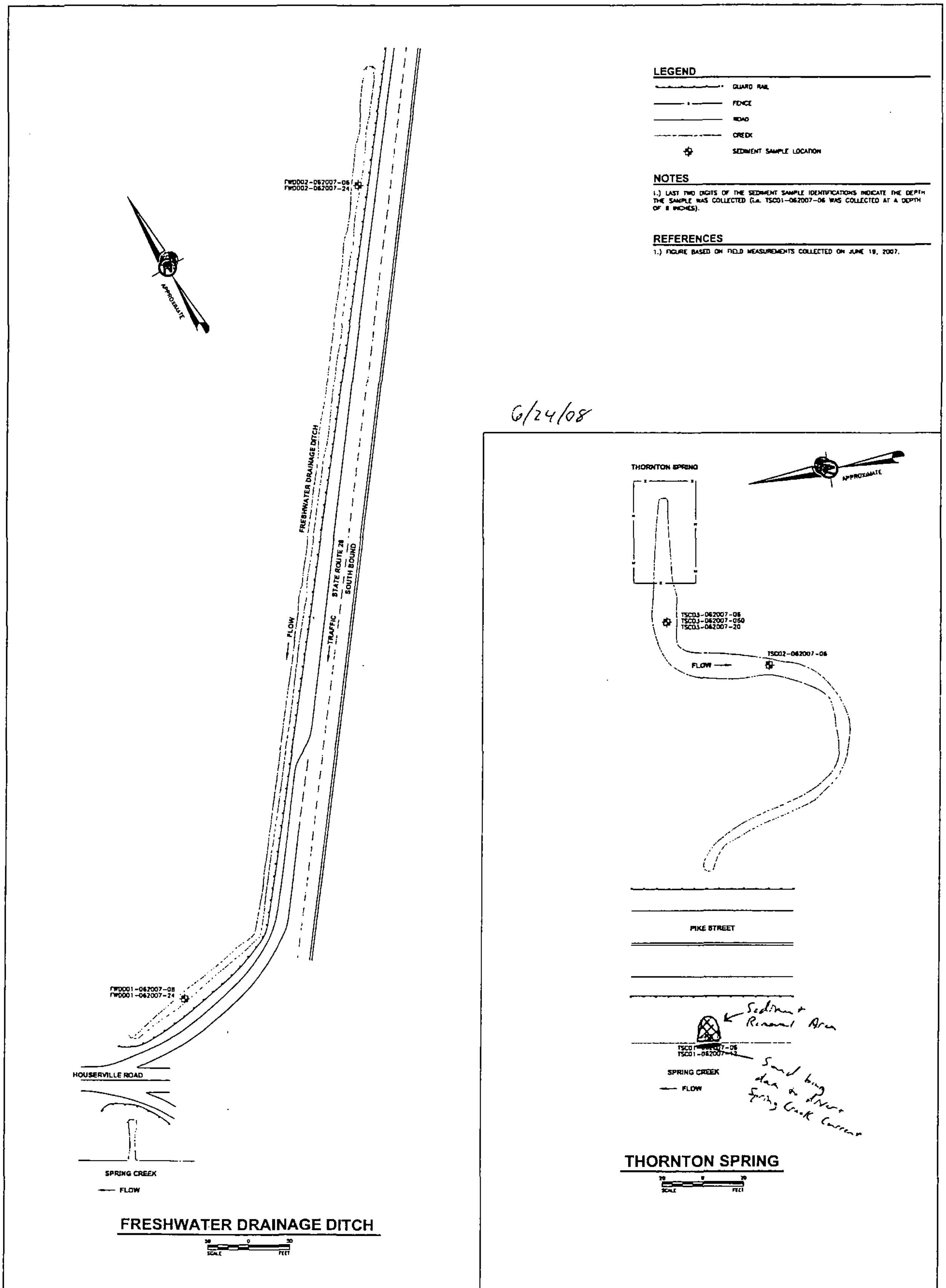
FIGURE 6

FRESHWATER DRAINAGE DITCH AND THORNTON SPRING CHANNEL DIMENSIONS

RÜTGERS ORGANICS
STATE COLLEGE,
PENNSYLVANIA

Golder Associates
Philadelphia USA

AR100416



PROJECT No.		863-6333
FILE No.		8636333S005
REV. 0	SCALE	AS SHOWN
DESIGN	KN	07/16/07
CADD	AM	07/23/07
CHECK		
REVIEW		

FIGURE 6

TITLE

FRESHWATER DRAINAGE DITCH AND THORNTON SPRING CHANNEL DIMENSIONS

PROJECT

RÜTGERS ORGANICS
STATE COLLEGE,
PENNSYLVANIA

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW

Golder Associates
Philadelphia USA

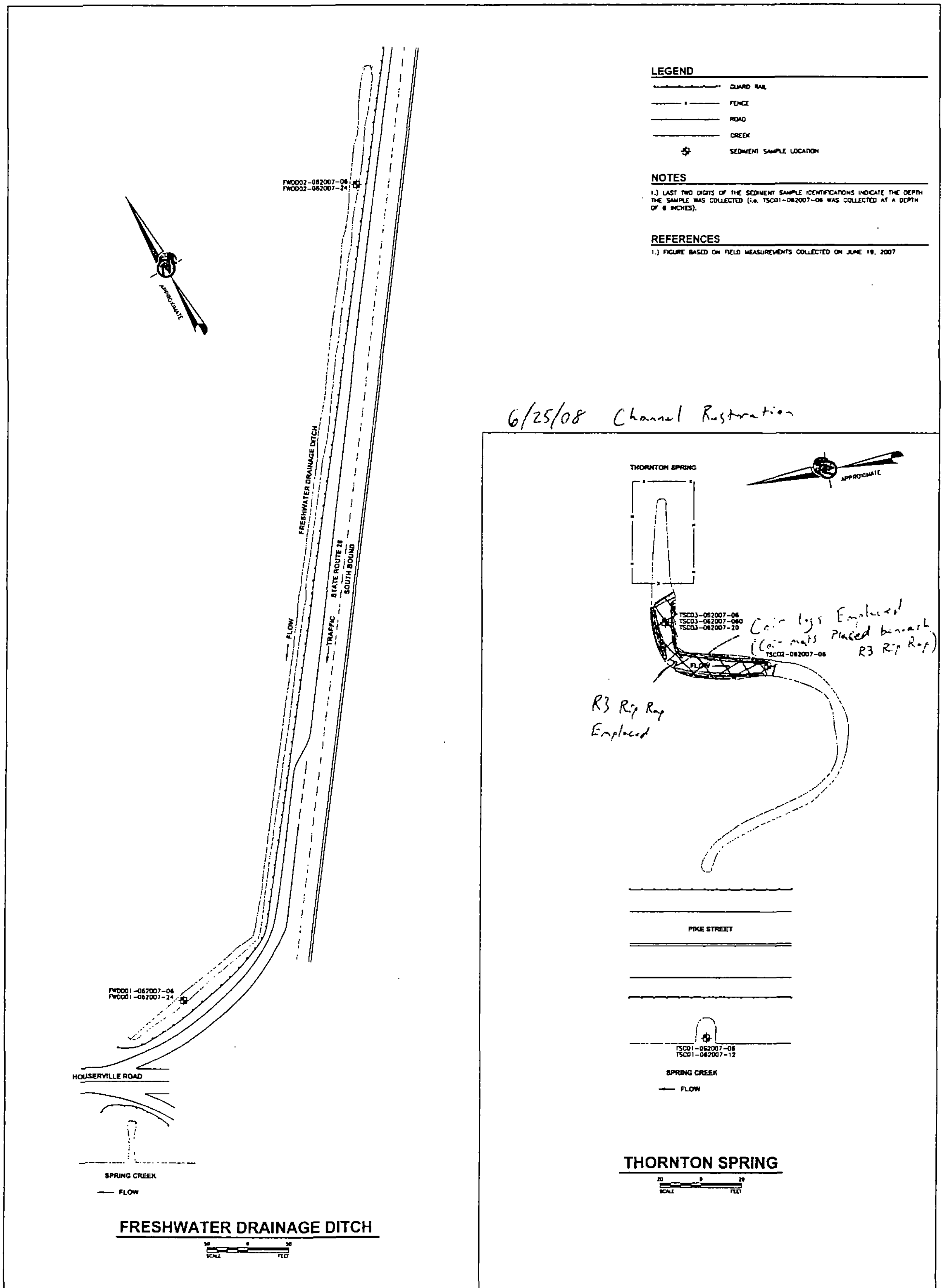


FIGURE 6

FRESHWATER DRAINAGE DITCH AND THORNTON SPRING CHANNEL DIMENSIONS

RÜTGERS ORGANICS
STATE COLLEGE,
PENNSYLVANIA

Golder Associates
Philadelphia USA

APPENDIX C

LABORATORY ANALYTICAL DATA PACKAGES

POST-EXCAVATION CONFIRMATORY SAMPLE LABORATORY DATA

Rutgers Organics Corporation

Client Sample ID: TSC01-61808

GC Semivolatiles

Lot-Sample #...:	A8F200197-001	Work Order #...:	KQA2F2AC	Matrix.....:	SO
Date Sampled...:	06/18/08 10:15	Date Received..:	06/20/08		
Prep Date.....:	07/23/08	Analysis Date..:	08/04/08		
Prep Batch #...:	8205097				
Dilution Factor:	1	Initial Wgt/Vol:	30.08 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	16	Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Kepone	190 B J	39	ug/kg
Mirex	3.5 J	3.9	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	92	(31 - 131)
Decachlorobiphenyl	90	(18 - 145)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated result. Result is less than RL.

Rutgers Organics Corporation

Client Sample ID: TSC02-61808

GC Semivolatiles

Lot-Sample #...:	A8F200197-002	**Work Order #...:**	KQA3N2AC	**Matrix.....:**	SO
Date Sampled...:	06/18/08 10:20	**Date Received..:**	06/20/08		
Prep Date.....:	07/23/08	**Analysis Date..:**	08/04/08		
Prep Batch #...:	8205097				
Dilution Factor:	2	**Initial Wgt/Vol:**	30.1 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	30	**Method.....:**	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Kepone	**580 ~~B~~ J**	**94**	**ug/kg**
Mirex	ND UJ	9.4	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	83	(31 - 131)
Decachlorobiphenyl	132	(18 - 145)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Rutgers Organics Corporation

Client Sample ID: TSC03-61808

GC Semivolatiles

Lot-Sample #...:	A8F200197-003	Work Order #...:	KQA3Q1AC	Matrix.....:	SO
Date Sampled...:	06/18/08 10:30	Date Received..:	06/20/08		
Prep Date.....:	06/24/08	Analysis Date..:	06/27/08		
Prep Batch #...:	8176348				
Dilution Factor:	2	Initial Wgt/Vol:	30.08 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	26	Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Kepone	930 PG K	89	ug/kg
Mirex	ND	8.9	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	111	(31 - 131)
Decachlorobiphenyl	189 *	(18 - 145)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Rutgers Organics Corporation

Client Sample ID: FD01-61808

GC Semivolatiles

Lot-Sample #...: A8F200197-004	Work Order #...: KQA3R2AC	Matrix.....: SO	
Date Sampled...: 06/18/08	Date Received..: 06/20/08		
Prep Date.....: 07/23/08	Analysis Date..: 08/04/08		
Prep Batch #...: 8205097			
Dilution Factor: 2	Initial Wgt/Vol: 30.16 g	Final Wgt/Vol..: 10 mL	
% Moisture.....: 28	Method.....: SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Kepone	**150 B**	**91**	**ug/kg**
Mirex	ND	9.1	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	44	(31 - 131)
Decachlorobiphenyl	43	(18 - 145)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

WASTE PILE CHARACTERIZATION SAMPLE LABORATORY DATA

Rutgers Organics Corporation

Client Sample ID: WP01-062508

GC/MS Volatiles

Lot-Sample #...: A8F270218-001 Work Order #...: KQQEJ1AC Matrix.....: SO
Date Sampled...: 06/25/08 13:20 Date Received..: 06/27/08
Prep Date.....: 07/07/08 Analysis Date..: 07/07/08
Prep Batch #...: 8190201
Dilution Factor: 1
% Moisture.....: 16 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	24	ug/kg
Benzene	ND	5.9	ug/kg
Bromodichloromethane	ND	5.9	ug/kg
Bromoform	ND	5.9	ug/kg
Bromomethane	ND	5.9	ug/kg
2-Butanone	ND	24	ug/kg
Carbon disulfide	**0.61 J**	**5.9**	**ug/kg**
Carbon tetrachloride	ND	5.9	ug/kg
Chlorobenzene	ND	5.9	ug/kg
Dibromochloromethane	ND	5.9	ug/kg
Chloroethane	ND	5.9	ug/kg
Chloroform	ND	5.9	ug/kg
Chloromethane	ND	5.9	ug/kg
1,2-Dichlorobenzene	ND	5.9	ug/kg
1,3-Dichlorobenzene	ND	5.9	ug/kg
1,4-Dichlorobenzene	ND	5.9	ug/kg
1,1-Dichloroethane	ND	5.9	ug/kg
1,2-Dichloroethane	ND	5.9	ug/kg
cis-1,2-Dichloroethene	**0.69 J**	**5.9**	**ug/kg**
trans-1,2-Dichloroethene	**0.92 J**	**5.9**	**ug/kg**
1,1-Dichloroethene	ND	5.9	ug/kg
1,2-Dichloropropane	ND	5.9	ug/kg
cis-1,3-Dichloropropene	ND	5.9	ug/kg
trans-1,3-Dichloropropene	ND	5.9	ug/kg
Ethylbenzene	ND	5.9	ug/kg
2-Hexanone	ND	24	ug/kg
Methylene chloride	ND	5.9	ug/kg
4-Methyl-2-pentanone	ND	24	ug/kg
Styrene	ND	5.9	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.9	ug/kg
Tetrachloroethene	ND	5.9	ug/kg
Toluene	ND	5.9	ug/kg
1,2,4-Trichloro-benzene	ND	5.9	ug/kg
1,1,1-Trichloroethane	ND	5.9	ug/kg
1,1,2-Trichloroethane	ND	5.9	ug/kg
Trichloroethene	ND	5.9	ug/kg
Vinyl chloride	ND	5.9	ug/kg

(Continued on next page)

Rutgers Organics Corporation

Client Sample ID: WP01-062508

GC/MS Volatiles

Lot-Sample #...: A8F270218-001 Work Order #...: KQQEJ1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Xylenes (total)	ND	12	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	85	(59 - 138)
1,2-Dichloroethane-d4	80	(61 - 130)
Toluene-d8	93	(60 - 143)
4-Bromofluorobenzene	122	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Rutgers Organics Corporation

Client Sample ID: WP01-062508

TCLP GC/MS Volatiles

Lot-Sample #...:	A8F270218-001	**Work Order #...:**	KQQEJ1AF	**Matrix.....:**	SO
Date Sampled...:	06/25/08 13:20	**Date Received..:**	06/27/08		
Leach Date.....:	07/02/08	**Prep Date.....:**	07/03/08	**Analysis Date..:**	07/03/08
Leach Batch #..:	P818404	**Prep Batch #...:**	8185353		
Dilution Factor:	1				
% Moisture.....:	16	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Butanone (MEK)	ND	0.25	mg/L
Benzene	ND	0.025	mg/L
Carbon tetrachloride	ND	0.025	mg/L
Chlorobenzene	ND	0.025	mg/L
Chloroform	ND	0.025	mg/L
1,2-Dichloroethane	ND	0.025	mg/L
1,1-Dichloroethylene	ND	0.070	mg/L
Tetrachloroethylene	ND	0.070	mg/L
Trichloroethylene	ND	0.050	mg/L
Vinyl chloride	ND	0.025	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	87	(86 - 125)
1,2-Dichloroethane-d4	90	(80 - 122)
Toluene-d8	99	(90 - 122)
4-Bromofluorobenzene	105	(84 - 125)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Rutgers Organics Corporation

Client Sample ID: WP01-062508

TCLP GC/MS Semivolatiles

Lot-Sample #...: A8F270218-001 Work Order #...: KQQEJ1AG Matrix.....: SO
Date Sampled...: 06/25/08 13:20 Date Received..: 06/27/08
Leach Date.....: 07/02/08 Prep Date.....: 07/03/08 Analysis Date..: 07/07/08
Leach Batch #..: P818413 Prep Batch #...: 8185028
Dilution Factor: 1
% Moisture.....: 16 Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
o-Cresol	ND	0.0040	mg/L
m-Cresol & p-Cresol	ND	0.040	mg/L
1,4-Dichlorobenzene	ND	0.0040	mg/L
2,4-Dinitrotoluene	ND	0.020	mg/L
Hexachlorobenzene	ND	0.020	mg/L
Hexachlorobutadiene	ND	0.020	mg/L
Hexachloroethane	ND	0.020	mg/L
Nitrobenzene	ND	0.0040	mg/L
Pentachlorophenol	ND	0.040	mg/L
Pyridine	ND	0.020	mg/L
2,4,5-Trichlorophenol	ND	0.020	mg/L
2,4,6-Trichlorophenol	ND	0.020	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	68	(29 - 111)
2-Fluorobiphenyl	58	(22 - 110)
Terphenyl-d14	88	(40 - 119)
Phenol-d5	54	(10 - 110)
2-Fluorophenol	55	(10 - 110)
2,4,6-Tribromophenol	64	(17 - 117)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Rutgers Organics Corporation

Client Sample ID: WP01-062508

TCLP GC Semivolatiles

Lot-Sample #...: A8F270218-001	Work Order #...: KQQEJ1AH	Matrix.....: SO	
Date Sampled...: 06/25/08 13:20	Date Received..: 06/27/08		
Leach Date.....: 07/02/08	Prep Date.....: 07/03/08	Analysis Date..: 07/07/08	
Leach Batch #..: P818413	Prep Batch #...: 8185029		
Dilution Factor: 1			
% Moisture.....: 16	Method.....: SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chlordane (technical)	ND	0.0050	mg/L
Endrin	ND	0.00050	mg/L
Heptachlor	ND	0.00050	mg/L
Heptachlor epoxide	ND	0.00050	mg/L
Lindane	ND	0.00050	mg/L
Methoxychlor	ND	0.0010	mg/L
Toxaphene	ND	0.020	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	115	(31 - 115)
Tetrachloro-m-xylene	101	(47 - 110)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Rutgers Organics Corporation

Client Sample ID: WP01-062508

TCLP GC Semivolatiles

Lot-Sample #...: A8F270218-001	Work Order #...: KQQEJ1AV	Matrix.....: SO	
Date Sampled...: 06/25/08 13:20	Date Received..: 06/27/08		
Leach Date.....: 07/02/08	Prep Date.....: 07/03/08	Analysis Date..: 07/08/08	
Leach Batch #..: P818413	Prep Batch #...: 8185025		
Dilution Factor: 1			
% Moisture.....: 16	Method.....: SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,4-D	ND UJ	0.50	mg/L
2,4,5-TP (Silvex)	ND	0.10	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	42	(37 - 116)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Rutgers Organics Corporation

Client Sample ID: WP01-062508

TCLP Metals

Lot-Sample #...: A8F270218-001 Matrix.....: SO
Date Sampled...: 06/25/08 13:20 Date Received..: 06/27/08
Leach Date.....: 07/02/08 Leach Batch #..: P818413

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 8185016						
Arsenic	ND	0.50	mg/L	SW846 6010B	07/03-07/07/08	KQQEJ1AJ
		Dilution Factor: 1				
Barium	ND	10.0	mg/L	SW846 6010B	07/03-07/07/08	KQQEJ1AK
		Dilution Factor: 1				
Cadmium	ND	0.10	mg/L	SW846 6010B	07/03-07/07/08	KQQEJ1AL
		Dilution Factor: 1				
Chromium	ND	0.50	mg/L	SW846 6010B	07/03-07/07/08	KQQEJ1AM
		Dilution Factor: 1				
Lead	ND	0.50	mg/L	SW846 6010B	07/03-07/07/08	KQQEJ1AN
		Dilution Factor: 1				
Selenium	ND	0.25	mg/L	SW846 6010B	07/03-07/07/08	KQQEJ1AP
		Dilution Factor: 1				
Silver	ND	0.50	mg/L	SW846 6010B	07/03-07/07/08	KQQEJ1AQ
		Dilution Factor: 1				
Mercury	ND	0.0020	mg/L	SW846 7470A	07/03-07/08/08	KQQEJ1AR
		Dilution Factor: 1				

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Rutgers Organics Corporation

Client Sample ID: WP01-062508

General Chemistry

Lot-Sample #...: A8F270218-001 Work Order #...: KQQEJ Matrix.....: SO
Date Sampled...: 06/25/08 13:20 Date Received..: 06/27/08
% Moisture.....: 16

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Corrosivity	8.0		No Units	SW846 9045C	06/27/08	8179399
	Dilution Factor: 1					
Cyanide, Total	ND	0.50	mg/kg	SW846 9012A	07/03/08	8185418
	Dilution Factor: 1					
Flashpoint	>180		deg F	SW846 1010	07/08/08	8190426
	Dilution Factor: 1					
Oil and Grease (Gravimetric)	ND	200	mg/kg	SW846 9071B-MOD H	07/10/08	8192479
	Dilution Factor: 1					
Paint Filter Test	NEG	0.10	%	SW846 9095A	07/09/08	8191111
	Dilution Factor: 1					
Percent Solids	84.2	10.0	%	MCAWW 160.3 MOD	07/02-07/03/08	8184449
	Dilution Factor: 1					
Total Extractable Organic Halogens	ND	200	mg/kg	SW846 9023	07/09/08	8191112
	Dilution Factor: 1					
Total Sulfide	ND	30.0	mg/kg	SW846 9030B/9034	06/30-07/01/08	8182010
	Dilution Factor: 1					

NOTE(S):

RL Reporting Limit
NEG Negative

Rutgers Organics Corporation

Client Sample ID: WP01-062508

GC Semivolatiles

Lot-Sample #...: A8F270218-001 Work Order #...: KQQEJ1A4 Matrix.....: SO
Date Sampled...: 06/25/08 13:20 Date Received..: 06/27/08
Prep Date.....: 07/03/08 Analysis Date..: 07/09/08
Prep Batch #...: 8185051
Dilution Factor: 1
% Moisture.....: 16 Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	33	ug/kg
Aroclor 1221	ND	33	ug/kg
Aroclor 1232	ND	33	ug/kg
Aroclor 1242	ND	33	ug/kg
Aroclor 1248	ND	33	ug/kg
Aroclor 1254	ND	33	ug/kg
Aroclor 1260	ND	33	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	114	(10 - 196)
Decachlorobiphenyl	164	(10 - 199)

Rutgers Organics Corporation

Client Sample ID: WP01-062508

GC Semivolatiles

Lot-Sample #...:	A8F270228-001	Work Order #...:	KQQHG1AA	Matrix.....:	SO
Date Sampled...:	06/25/08 13:20	Date Received..:	06/27/08		
Prep Date.....:	07/05/08	Analysis Date..:	07/11/08		
Prep Batch #...:	8186020				
Dilution Factor:	10	Initial Wgt/Vol:	30.2 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	16	Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Kepone	500 J	390	ug/kg
Mirex	72	39	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	107 DIL	(31 - 131)
Decachlorobiphenyl	139 DIL	(18 - 145)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

Rutgers Organics Corporation

Client Sample ID: WP02-062508

GC/MS Volatiles

Lot-Sample #...: A8F270218-002 Work Order #...: KQQF31AF Matrix.....: SO
Date Sampled...: 06/25/08 13:30 Date Received..: 06/27/08
Prep Date.....: 07/03/08 Analysis Date..: 07/03/08
Prep Batch #...: 8189246
Dilution Factor: 1
% Moisture.....: 10 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	22	ug/kg
Benzene	ND	5.6	ug/kg
Bromodichloromethane	ND	5.6	ug/kg
Bromoform	ND	5.6	ug/kg
Bromomethane	ND	5.6	ug/kg
2-Butanone	ND	22	ug/kg
Carbon disulfide	**0.59 J**	**5.6**	**ug/kg**
Carbon tetrachloride	ND	5.6	ug/kg
Chlorobenzene	ND	5.6	ug/kg
Dibromochloromethane	ND	5.6	ug/kg
Chloroethane	ND	5.6	ug/kg
Chloroform	ND	5.6	ug/kg
Chloromethane	ND	5.6	ug/kg
1,2-Dichlorobenzene	ND	5.6	ug/kg
1,3-Dichlorobenzene	ND	5.6	ug/kg
1,4-Dichlorobenzene	ND	5.6	ug/kg
1,1-Dichloroethane	ND	5.6	ug/kg
1,2-Dichloroethane	ND	5.6	ug/kg
cis-1,2-Dichloroethene	ND	5.6	ug/kg
trans-1,2-Dichloroethene	ND	5.6	ug/kg
1,1-Dichloroethene	ND	5.6	ug/kg
1,2-Dichloropropane	ND	5.6	ug/kg
cis-1,3-Dichloropropene	ND	5.6	ug/kg
trans-1,3-Dichloropropene	ND	5.6	ug/kg
Ethylbenzene	**1.1 ~~J,B~~ B**	**5.6**	**ug/kg**
2-Hexanone	ND	22	ug/kg
Methylene chloride	ND	5.6	ug/kg
4-Methyl-2-pentanone	ND	22	ug/kg
Styrene	**1.3 ~~J,B~~ B**	**5.6**	**ug/kg**
1,1,2,2-Tetrachloroethane	ND	5.6	ug/kg
Tetrachloroethene	ND	5.6	ug/kg
Toluene	ND	5.6	ug/kg
1,2,4-Trichloro-benzene	ND	5.6	ug/kg
1,1,1-Trichloroethane	ND	5.6	ug/kg
1,1,2-Trichloroethane	ND	5.6	ug/kg
Trichloroethene	ND	5.6	ug/kg
Vinyl chloride	ND	5.6	ug/kg

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Rutgers Organics Corporation

Client Sample ID: WP02-062508

GC/MS Volatiles

Lot-Sample #...: A8F270218-002 Work Order #...: KQQF31AF Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Xylenes (total)	3.5 ~~J~~ B	11	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	85	(59 - 138)
1,2-Dichloroethane-d4	75	(61 - 130)
Toluene-d8	93	(60 - 143)
4-Bromofluorobenzene	149	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Rutgers Organics Corporation

Client Sample ID: WP02-062508

TCLP GC/MS Volatiles

Lot-Sample #...:	A8F270218-002	Work Order #...:	KQQF31AJ	Matrix.....:	SO
Date Sampled...:	06/25/08 13:30	Date Received..:	06/27/08		
Leach Date.....:	07/02/08	Prep Date.....:	07/03/08	Analysis Date..:	07/03/08
Leach Batch #..:	P818404	Prep Batch #...:	8185353		
Dilution Factor:	1				
% Moisture.....:	10	Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Butanone (MEK)	ND	0.25	mg/L
Benzene	ND	0.025	mg/L
Carbon tetrachloride	ND	0.025	mg/L
Chlorobenzene	ND	0.025	mg/L
Chloroform	ND	0.025	mg/L
1,2-Dichloroethane	ND	0.025	mg/L
1,1-Dichloroethylene	ND	0.070	mg/L
Tetrachloroethylene	ND	0.070	mg/L
Trichloroethylene	ND	0.050	mg/L
Vinyl chloride	ND	0.025	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	87	(86 - 125)
1,2-Dichloroethane-d4	87	(80 - 122)
Toluene-d8	97	(90 - 122)
4-Bromofluorobenzene	102	(84 - 125)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Rutgers Organics Corporation

Client Sample ID: WP02-062508

TCLP GC/MS Semivolatiles

Lot-Sample #...: A8F270218-002	Work Order #...: KQQF31AK	Matrix.....: SO	
Date Sampled...: 06/25/08 13:30	Date Received..: 06/27/08		
Leach Date.....: 07/02/08	Prep Date.....: 07/03/08	Analysis Date..: 07/07/08	
Leach Batch #..: P818413	Prep Batch #...: 8185028		
Dilution Factor: 1			
% Moisture.....: 10	Method.....: SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
o-Cresol	ND	0.0040	mg/L
m-Cresol & p-Cresol	ND	0.040	mg/L
1,4-Dichlorobenzene	ND	0.0040	mg/L
2,4-Dinitrotoluene	ND	0.020	mg/L
Hexachlorobenzene	ND	0.020	mg/L
Hexachlorobutadiene	ND	0.020	mg/L
Hexachloroethane	ND	0.020	mg/L
Nitrobenzene	ND	0.0040	mg/L
Pentachlorophenol	ND	0.040	mg/L
Pyridine	ND	0.020	mg/L
2,4,5-Trichloro-phenol	ND	0.020	mg/L
2,4,6-Trichloro-phenol	ND	0.020	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	68	(29 - 111)
2-Fluorobiphenyl	61	(22 - 110)
Terphenyl-d14	90	(40 - 119)
Phenol-d5	59	(10 - 110)
2-Fluorophenol	62	(10 - 110)
2,4,6-Tribromophenol	72	(17 - 117)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Rutgers Organics Corporation

Client Sample ID: WP02-062508

TCLP GC Semivolatiles

Lot-Sample #...:	A8F270218-002	**Work Order #...:**	KQQF31AL	**Matrix.....:**	SO
Date Sampled...:	06/25/08 13:30	**Date Received..:**	06/27/08		
Leach Date.....:	07/02/08	**Prep Date.....:**	07/03/08	**Analysis Date..:**	07/07/08
Leach Batch #..:	P818413	**Prep Batch #...:**	8185029		
Dilution Factor:	1				
% Moisture.....:	10	**Method.....:**	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chlordane (technical)	ND	0.0050	mg/L
Endrin	ND	0.00050	mg/L
Heptachlor	ND	0.00050	mg/L
Heptachlor epoxide	ND	0.00050	mg/L
Lindane	ND	0.00050	mg/L
Methoxychlor	ND	0.0010	mg/L
Toxaphene	ND	0.020	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	101	(31 - 115)
Tetrachloro-m-xylene	105	(47 - 110)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Rutgers Organics Corporation

Client Sample ID: WP02-062508

TCLP GC Semivolatiles

Lot-Sample #...:	A8F270218-002	Work Order #...:	KQQF31A0	Matrix.....:	SO
Date Sampled...:	06/25/08 13:30	Date Received..:	06/27/08		
Leach Date.....:	07/02/08	Prep Date.....:	07/03/08	Analysis Date..:	07/08/08
Leach Batch #..:	P818413	Prep Batch #...:	8185025		
Dilution Factor:	1				
% Moisture.....:	10	Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2,4-D	ND UJ	0.50	mg/L
2,4,5-TP (Silvex)	ND	0.10	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	60	(37 - 116)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Rutgers Organics Corporation

Client Sample ID: WP02-062508

TCLP Metals

Lot-Sample #...: A8F270218-002 Matrix.....: SO
Date Sampled...: 06/25/08 13:30 Date Received..: 06/27/08
Leach Date.....: 07/02/08 Leach Batch #..: P818413

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 8185016						
Arsenic	ND	0.50	mg/L	SW846 6010B	07/03-07/07/08	KQQF31AM
		Dilution Factor: 1				
Barium	ND	10.0	mg/L	SW846 6010B	07/03-07/07/08	KQQF31AN
		Dilution Factor: 1				
Cadmium	ND	0.10	mg/L	SW846 6010B	07/03-07/07/08	KQQF31AP
		Dilution Factor: 1				
Chromium	ND	0.50	mg/L	SW846 6010B	07/03-07/07/08	KQQF31AQ
		Dilution Factor: 1				
Lead	ND	0.50	mg/L	SW846 6010B	07/03-07/07/08	KQQF31AR
		Dilution Factor: 1				
Selenium	ND	0.25	mg/L	SW846 6010B	07/03-07/07/08	KQQF31AT
		Dilution Factor: 1				
Silver	ND	0.50	mg/L	SW846 6010B	07/03-07/07/08	KQQF31AU
		Dilution Factor: 1				
Mercury	ND	0.0020	mg/L	SW846 7470A	07/03-07/08/08	KQQF31AV
		Dilution Factor: 1				

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Rutgers Organics Corporation

Client Sample ID: WP02-062508

General Chemistry

Lot-Sample #...: A8F270218-002 Work Order #...: KQQF3 Matrix.....: SO
Date Sampled...: 06/25/08 13:30 Date Received..: 06/27/08
% Moisture.....: 10

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Corrosivity	8.0		No Units	SW846 9045C	06/27/08	8179399
		Dilution Factor: 1				
Cyanide, Total	ND	0.50	mg/kg	SW846 9012A	07/03/08	8185418
		Dilution Factor: 1				
Flashpoint	>180		deg F	SW846 1010	07/08/08	8190426
		Dilution Factor: 1				
Oil and Grease (Gravimetric)	ND	200	mg/kg	SW846 9071B-MOD H	07/10/08	8192479
		Dilution Factor: 1				
Paint Filter Test	NEG	0.10	%	SW846 9095A	07/09/08	8191111
		Dilution Factor: 1				
Percent Solids	89.8	10.0	%	MCAWW 160.3 MOD	07/02-07/03/08	8184449
		Dilution Factor: 1				
Total Extractable Organic Halogens	ND	200	mg/kg	SW846 9023	07/09/08	8191112
		Dilution Factor: 1				
Total Sulfide	ND	30.0	mg/kg	SW846 9030B/9034	06/30-07/01/08	8182010
		Dilution Factor: 1				

NOTE(S):

RL Reporting Limit
NEG Negative

Rutgers Organics Corporation

Client Sample ID: WP02-062508

GC Semivolatiles

Lot-Sample #...: A8F270218-002 Work Order #...: KQQF31A3 Matrix.....: SO
Date Sampled...: 06/25/08 13:30 Date Received..: 06/27/08
Prep Date.....: 07/03/08 Analysis Date..: 07/09/08
Prep Batch #...: 8185051
Dilution Factor: 1
% Moisture.....: 10 Method.....: SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	33	ug/kg
Aroclor 1221	ND	33	ug/kg
Aroclor 1232	ND	33	ug/kg
Aroclor 1242	ND	33	ug/kg
Aroclor 1248	ND	33	ug/kg
Aroclor 1254	ND	33	ug/kg
Aroclor 1260	ND	33	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	88	(10 - 196)
Decachlorobiphenyl	132	(10 - 199)

Rutgers Organics Corporation

Client Sample ID: WP02-062508

GC Semivolatiles

Lot-Sample #...:	A8F270228-002	Work Order #...:	KQQHK1AA	Matrix.....:	SO
Date Sampled...:	06/25/08 13:30	Date Received..:	06/27/08		
Prep Date.....:	07/05/08	Analysis Date..:	07/11/08		
Prep Batch #...:	8186020				
Dilution Factor:	10	Initial Wgt/Vol:	30.16 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	10	Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Kepone	660 J	370	ug/kg
Mirex	88	37	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	112 DIL	(31 - 131)
Decachlorobiphenyl	145 DIL	(18 - 145)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

APPENDIX D

ANALYTICAL DATA VALIDATION REPORTS

APPENDIX D
DATA QUALITY ASSESSMENT

This report presents the findings of the data quality assessment performed on the analyses of environmental samples collected from the ROC State College Pennsylvania facility. The chemical data for samples collected at the Site were assessed to identify quality issues which could affect the use of the data for decision making purposes.

A total of three post-excavation sediment samples were collected for chemical analysis on June 18, 2008 from the sediments remaining in Thorton Spring Creek. In addition, one field duplicate, and one Matrix Spike/Matrix Spike Duplicate (MS/MSD) were submitted for Quality Control (QC) purposes. Information regarding the sample point identifications, sampling dates, analytical parameters, and QC samples are summarized in Table 1.

All samples were submitted to TestAmerica Inc. of North Canton, Ohio for analysis of mirex and kepone. The samples were analyzed following USEPA SW-846[1] Method 8081A *Organochlorine Pesticides by GC-ECD (December 1996).* The data were validated following USEPA Region III guidelines *Innovative Approaches to Data Validation, United States Environmental Protection Agency, Region III,* (June 1995), as applicable to the analytical methods. This document is referred to as the EPA Region III guidelines.

Kepone is a difficult analytical target. SW-846 Method 8081A states that "kepone extracted from samples or standards exposed to water or methanol may produce peaks with broad tails that elute later than the standard by up to 1 minute. This shift is presumably the result of the formation of a hemi-acetal from the ketone functionality." The laboratory case narrative highlights the difficulty of establishing consistent calibrations for kepone under SW-846 Method 8081A. The analytical method was chosen because the ECD detector is very sensitive for chlorinated compounds and allows detection and quantitiation of kepone at lower concentrations than the alternatives.

TestAmerica extracted the samples on June 24, 2008 and analyzed the samples on June 27, 2008. However, the continuing calibration associated with this analysis did not meet QC criteria, the relative percent difference between the two analytical columns did not meet QC criteria, and the

[1] USEPA SW-846 Test Methods for Evaluating Solid Waste accessed at URL http://www.epa.gov/epaoswer/hazwaste/test/main.htm

chromatograms showed tailing and interference. The laboratory re-extracted the samples on July 23, 2008 and analyzed the extracts on August 4, 2008 using a different instrument. While the latter extraction and analysis was performed out of holding time, the chromatography performed better. Using professional judgment, the results from the re-analysis are deemed preferable to the results from the primary analysis.

Chemical results for the samples collected at the Site were qualified on the basis of outlying precision or accuracy parameters, or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data during the data validation process. Only qualifications to the re-analysis results are included below. The deficiencies associated with the initial analysis are recorded in the data validation documentation.

B	The sample result has been negated due probable foreign contamination.
J	The sample quantification is estimated.
K	The sample quantification is estimated. The value reported may be biased high.
UJ	The analyte was not detected. The value reported is estimated.

In general, the data generated for the post-excavation samples met the QC criteria established in the respective analytical methods and EPA Region III data validation guidelines. The following bulleted items highlight qualifications to specific parameters. Although these qualifications were applied to some of the samples collected at the site, the qualifications may not have been required or applied to all samples collected. Table 3 summarizes all qualifications applied to the data, with applicable qualifier codes.

- Field sample results for kepone were negated (**B**) due to method blank contamination.
- Field sample results were qualified as estimated, biased high (**K**) due to surrogate recoveries above QC limits.
- Field sample results were qualified as estimated (**J**) because the extraction occurred after the expiration of the holding time.
- Field sample results were qualified as estimated (**J**) for field duplicate relative percent difference greater than the QC criteria.

Based on the data validations and data quality assessment, the analytical data for samples collected at the Site were determined to be acceptable (including estimated data) for their intended use. Generally acceptable levels of accuracy and precision, based on Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicates, field duplicate and surrogate recoveries, were achieved for the data. All analyses except the laboratory pH measurement were performed within holding time. In addition, the data completeness (i.e. the ratio of the amount of valid data obtained to the amount expected, including estimated (**J/K**) data but excluding **R** qualified data) was 100%, which met the data quality goal of 95% for this monitoring program.

Table 2
Data Qualifications
Centre County Kepone Site
State College, PA

Field ID	Analyte	New Result	New RL	Qualifier	Comments
all	all	-	-	J/UJ	analyzed after the technical holding time
FD01-61808	Kepone	-	-	B	Method blank contamination.
TSC03-61808	Kepone	-	-	K	Surrogate recovery above QC limits
TSC03-61808	Mirex	-	-	K	Surrogate recovery above QC limits
TSC02-61808	Kepone	-	-	J	Field duplicate RPD > 50%
FD01-61808	Kepone	-	-	J	Field duplicate RPD > 50%

Note:
J = Estimated results
K = Estimated, biased high
UJ = Estimated non-detect
B = Blank contamination
RL = Reporting limit
QC = Quality Control
RPD = Relative Percent Difference

APPENDIX D
DATA QUALITY ASSESSMENT – DISPOSAL CHARACTERIZATION SAMPLES

This report presents the findings of the data quality assessment performed on the analyses of environmental samples collected from the ROC State College Pennsylvania facility. The chemical data for samples collected at the Site were assessed to identify quality issues which could affect the use of the data for decision making purposes.

A total of two composite samples were collected from the excavated sediment waste piles for chemical analysis on June 25, 2008. Information regarding the sample point identifications, sampling dates, analytical parameters, and analytical methods are summarized in Table 1. All samples were submitted to TestAmerica Inc. of North Canton, Ohio for analysis of the parameters indicated in Table 1.

The mirex and kepone data were validated following USEPA Region III guidelines *Innovative Approaches to Data Validation, United States Environmental Protection Agency, Region III*, (June 1995), as applicable to the analytical methods. This document is referred to as the EPA Region III guidelines. The remaining analyses were reviewed for adherence to holding times, blank contamination, and deficiencies highlighted by the laboratory case narratives.

Kepone is a difficult analytical target. SW-846 Method 8081A states that "kepone extracted from samples or standards exposed to water or methanol may produce peaks with broad tails that elute later than the standard by up to 1 minute. This shift is presumably the result of the formation of a hemi-acetal from the ketone functionality." The laboratory case narrative highlights the difficulty of establishing consistent calibrations for kepone under SW-846 Method 8081A. The analytical method was chosen because the ECD detector is very sensitive for chlorinated compounds and allows detection and quantitiation of kepone at lower concentrations than the alternatives.

Chemical results for the samples collected at the Site were qualified on the basis of outlying precision or accuracy parameters, or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data during the data validation process.

B	The sample result has been negated due probable foreign contamination.
J	The sample quantification is estimated.
UJ	The analyte was not detected. The value reported is estimated.

In general, the data generated for the disposal samples met the QC criteria established in the respective analytical methods and EPA Region III data validation guidelines. The following bulleted items highlight qualifications to specific parameters. Although these qualifications were applied to some of the samples collected at the site, the qualifications may not have been required or applied to all samples collected. Table 2 summarizes all qualifications applied to the data, with applicable qualifier codes.

- Field sample results for ethylbenzene, styrene and xylenes were negated (**B**) due to method blank contamination.
- Non-detect field sample results for 2,4-D were qualified as estimated (**UJ**) because the analyte recovered below the laboratory QC Criteria in the Laboratory Control Sample (LCS).
- Field sample results for mirex were qualified as estimated (**J**) because the laboratory did not include mirex in the LCS nor analyze a matrix spike/matrix spike duplicate; however, the analysis was accompanied by an in-control LCS for non-target pesticide analytes.
- Field sample results for kepone were qualified as estimated (**J**) for relative percent difference between the analytical columns between 25% and 100%.

Based on the data validations and data quality assessment, the analytical data for samples collected at the Site were determined to be acceptable (including estimated data) for their intended use. Generally acceptable levels of accuracy and precision, based on Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicates, field duplicate and surrogate recoveries, were achieved for the data. All analyses except the laboratory pH measurement were performed within holding time. In addition, the data completeness (i.e. the ratio of the amount of valid data obtained to the amount expected, including estimated (**J/K**) data but excluding **R** qualified data) was 100%, which met the data quality goal of 95% for this monitoring program.

Table 2
Data Qualifications
Centre County Kepone Site
State College, PA

Field ID	Analyte	New Result	New RL	Qualifier	Comments
Sample Name	Analysis	Constituent(s)	Result	Qualifier	Reason
WP02-062508	Kepone	-	-	J	%D between columns >25% and < 100%
WP01-062508	Mirex	-	-	J	No LCS or MS/MSD analyzed
WP02-062508	Mirex	-	-	J	No LCS or MS/MSD analyzed
WP02-062508	ethylbenzene	-	-	B	Method blank contamination.
WP02-062508	styrene	-	-	B	Method blank contamination.
WP02-062508	xylenes	-	-	B	Method blank contamination.
All	2,4-D	-	-	UJ	LCS recovery below QC limits.

J = Estimated results
K = Estimated, biased high
UJ = Estimated non-detect
B = Blank contamination
RL = Reporting limit
QC = Quality Control
RPD = Relative Percent Difference
LCS = Laboratory Control Sample

APPENDIX E

NON-HAZARDOUS DISPOSAL DOCUMENTATION

USEPA Disposal Facility Approval Letter

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

August 25, 2008

Mr. Kevin McCullen
Golder Associates Inc.
200 Century Parkway, Suite C
Mt. Laurel, NJ 08054

RE: Centre County Kepone Site; Sediment Removal Action Disposal Plans

Dear Mr. McCullen:

This is in response to the Golder Associates letter of April 15, 2008, which presented RUTGERS Organics Corporation's (ROC) disposal plans for sediments from the OU2 Sediment Removal Action at the Centre County Kepone Site.

EPA has discussed ROC's plan to send the sediments from the lower Freshwater Drainage Ditch (FWDD) and Thornton Spring Channel to the Wayne Township Landfill (PADEP Waste Disposal Permit No. 100955) in McElhattan, Pennsylvania with PADEP. EPA has no objection with these plans.

Please notify me when the sediments will be disposed and the amount of sediments that were disposed Please include all paperwork related to disposal, including characterization results, in the Removal Action Report.

If you have questions, please contact me at (215) 814-3218.

Sincerely,

Frank Klanchar
Project Manager
Western PA and MD Remedial Branch (3HS22)

cc: Rainer Domalski (ROC)
Charles Lawrence (Golder)
Cheryl Sinclair (PADEP)

PADEP FORM U-CS

2540-PM-BWM0399 Rev. 4/2006

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

DEP USE ONLY
Date Received

FORM U-CS
REQUEST TO PROCESS OR DISPOSE OF CONTAMINATION SOIL
(OTHER THAN FUEL CONTAMINATION SOIL)

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided herein.

SECTION A. APPLICANT IDENTIFIER

A. Processing or Disposal Facility

1. Name of facility Wayne Township Landfill

   Address 264 Landfill Lane Zip 17748

   Municipality McElhattan County Clinton

   Telephone Number 570-769-7802

B. Generator of the Waste

1. Name of company RUTGERS Organics Corporation

   Mailing address 201 Struble Road, College Township, PA Zip 16801

   Location of site if different from mailing address

   Municipality College Township County Centre

2. If a subsidiary, name of parent co. N / A

3. Identification number

4. Company contact person

   Name Dr. Rainer Domalski Title President

   Telephone Number 814-239-9200

SECTION B. WASTE DESCRIPTION (Must be completed by generator)

Residual Waste Code

- ☐ 502 PCB-Containing Waste (Soil/Debris only)
- ☒ 506 Non-Petroleum Spill Residue/Contaminated Soil
- ☐ 507 Non-Virgin Petroleum Fuel Contaminated Soil/Debris

SECTION B. WASTE DESCRIPTION (Must be completed by generator) (continued)

A. General Properties

1. pH range 8 to 8 (based on analyses or knowledge)
2. Physical state:
   a. ☐ liquid waste (EPA Method 9095)
   b. ☒ solid (EPA Method 9095)
3. Identify the contaminant(s) found in the soil.

   Kepone and Mirex

4. Describe the source of the contamination.

   Wastewater run-off

5. Describe the type of facility where spill occurred. Indicate any products, raw materials, or wastes used, processed, treated, or stored in the vicinity of the spill or release.

   Kepone and Mirex production.

6. Current volume or weight of waste to be shipped to processing or disposal facility:

   200 _____ (cubic yards) or tons (circle one)

7. Is the waste a hazardous waste as defined in 40 CFR 261, as incorporated by reference at 25 Pa. Code 261.a.1?

   ☐ Yes ☒ No

8. Has the waste been delisted as a hazardous waste by DEP? ☐ Yes ☐ No ☒ N/A.
9. a. Has the waste been accepted for disposal/processing at another Pennsylvania facility? ☐ Yes ☒ No

   b. If yes, list the facility ID number(s).

10. a. Has an application for disposal/processing of the waste at another Pennsylvania facility been submitted?

    ☐ Yes ☒ No

    b. If yes, list the facility ID number(s).

SECTION B. WASTE DESCRIPTION (Must be completed by generator) (continued)

B. Chemical Analysis – Please attach the following:

1. A description of the waste sampling method, in accordance with the waste sampling plan as required in §271.611(a)(3) or §287.132(a)(3).

   On June 25, 2008, a Golder Associates geologist collected two composite samples from the waste pile for characterization. Each composite sample was comprised of material from three sub-locations (see attached copy of Page 87 of field book for hand drawn figure depicting locations). Sample WP01-062508 was collected at 13:20 and WP02-062508 at 13:30. Samples were sent to Test America in North Canton, Ohio for analysis of VOCs, TCLP (VOCs, SVOCs, Metals, and Pesticides/Herbicides), Ignitability, Total Cyanide, Total Sulfide, pH, Paint Filter, TOX, Mirex and Kepone following SW-846 analytical methodology, as shown in the analytical results provided in Section B.2.

2. The results of a detailed physical and chemical characterization of the waste and its leachate, as described in the instructions.

   See attached analysis

3. Provide a detailed explanation supporting use of generator knowledge in lieu of actual chemical analysis, if applicable.

   N / A

C. The substantiation for a confidentiality claim, as described in the instruction, if portions of the information you have submitted are confidential.

SECTION C. EVALUATION WITH WASTE ANALYSIS AND CLASSIFICATION PLAN (must be completed by facility operator)

* **SECTION D. CERTIFICATION OF DOCUMENTS BY GENERATOR**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Name of Responsible Official Dr. Rainer Domalski Title President & CEO

Signature Rainer Domalski Date 8/08/08

Taken, sworn, and subscribed before me, this

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
RICHARD E. SWOPE, NOTARY PUBLIC
COLLEGE TWP., CENTRE COUNTY
MY COMMISSION EXPIRES JAN. 30, 2011
Notary Seal

8th day of August A.D. 2008.

SECTION E. CERTIFICATION OF PROCESSING OR DISPOSAL FACILITY

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Name of Responsible

Official _____ Title _____

Signature _____ Date _____

Taken, sworn, and subscribed before me, this

Notary Seal

_____ day of _____ A.D._____

_____

_____

WASTE PILE SAMPLE LOCATIONS

6/25/08 (86) 963-6333

Weather Upper 50s a.m. 80s p.m.
overcast Partly Sunny

0655 Panther + K. McCallen on-site

0705 Panther moving Bobcat T320 down to TSC for stream restoration

0735 R3 stone (3-6") delivered to TSC site

0740 Panther Placing Coir matting in TSC. Matting will go under the stone

0800 Panther Began placing stone

1000 Finished Placing Stone. Began Placing coir logs along the banks

1100 Joe Hollshorander (Army Corps.) on-site. Joe is satisfied with stone placement + with were we are placing coir logs

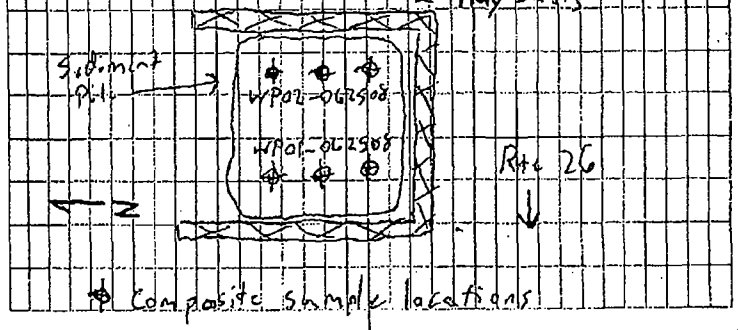
6/25/08 (87) 963-6333

1140 Joe Hollshorander off-site. Finished placing coir logs. We will cut off excess stakes sticking out of logs + clean up site.

1220 Finished cutting off stakes + cleaning up site. Waiting for a load of 3/4" stone to dress up the driveway @ 203 Pike St. which was used as the access to TSC

1230 Panther @ RIC site pumping off water from dewatering Pad + cleaning up site + packing equipment

1240 K. McCallen collecting composite samples for waste profile



BILL OF LADINGS

ENVIRONMENTAL PRODUCTS & SERVICES OF VERMONT, INC.

24-Hour Emergency Phone Number
1-800-843-8265

Please print or type

BILL OF LADING

1. Document No.: RUT 061608E
2. Page 1 of 1

3. Generator's Name and Mailing Address: RUTGERS ORGANICS CORP
201 STRUBLE RD
STATE COLLEGE PA 16801

4. Generator's Phone (814) 238-2424

Site Address:
RT 26 SOUTH
STATE COLLEGE PA 16801

5. Transporter 1 Company Name: ENVIRONMENTAL PROD & SER OF VT, INC

6.

A. State Transporter's ID

B. Transporter 1 Phone: (800) 843-8265

7. Transporter 2 Company Name

8.

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address:
RUTGERS ORGANICS CORP
201 STRUBLE RD
HM STATE COLLEGE PA 16801

10.

E. State Facility's ID

F. Facility's Phone: (814) 238-2424

GENERATOR

	11. Shipping Name	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a.	WASTE NON-RCRA SOLID, N.O.S. (SOIL CONTAMINATED WITH INSECTICIDE)	01	T T	20 YDS	P
b.					
c.					
d.					

G. Additional Descriptions for Materials Listed Above
a.
b.
c.
d.

H. Handling Codes for Material Listed Above
a. S02
b.
c.
d.

15. Special Handling Instructions and Additional Information
20 YARDS OF SOIL

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this document are not subject to federal manifest requirements.

Printed/Typed Name	Signature	Date Month	Day	Year
Ken McCabe				

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month	Day	Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the materials covered by this bill of lading except as noted in item 19.

Printed/Typed Name	Signature	Date Month	Day	Year

BILL OF LADING

ENVIRONMENTAL PRODUCTS & SERVICES OF VERMONT, INC.

24-Hour Emergency Phone Number 1-800-843-8265

Please print or type

BILL OF LADING

1. Document No. RUT 061608D
2. Page 1 of 1

3. Generator's Name and Mailing Address: RUTGERS ORGANICS CORP, 201 STRUBLE RD, STATE COLLEGE PA 16801

Site Address: RT 26 SOUTH, STATE COLLEGE PA 16801

4. Generator's Phone (814) 238-2424

5. Transporter 1 Company Name: ENVIRONMENTAL PROD & SER OF VT, INC
6.

A. State Transporter's ID

B. Transporter 1 Phone (800) 843-8265

7. Transporter 2 Company Name:
8.

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address: RUTGERS ORGANICS CORP, 201 STRUBLE RD, STATE COLLEGE PA 16801
10.

E. State Facility's ID

F. Facility's Phone (814) 238-2424

HM	11. Shipping Name	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
	a. WASTE NON-RCRA SOLID, N.O.S. (SOIL CONTAMINATED WITH INSECTICIDE)	01	T T	32,000	P
	b.				
	c.				
	d.				

GENERATOR

G. Additional Descriptions for Materials Listed Above

a. c.

b. d.

H. Handling Codes for Material Listed Above

a. S02 c.

b. d.

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this document are not subject to federal manifest requirements.

150 gallons of water [illegible]

Printed/Typed Name | Signature | Date: Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the materials covered by this bill of lading except as noted in item 19.

Printed/Typed Name | Signature | Date: Month Day Year

BILL OF LADING

ENVIRONMENTAL PRODUCTS & SERVICES OF VERMONT, INC.

24-Hour Emergency Phone Number
1-800-843-8265

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BILL OF LADING

1. Document No.: RUT 061608B
2. Page 1 of 1

3. Generator's Name and Mailing Address: RUTGERS ORGANICS CORP
201 STRUBLE RD
STATE COLLEGE PA 16801

4. Generator's Phone (814) 238-2424

Site Address:
RT 26 SOUTH
STATE COLLEGE PA 16801

5. Transporter 1 Company Name: ENVIRONMENTAL PROD & SER OF VT, INC

6.

A. State Transporter's ID

B. Transporter 1 Phone: (800) 843-8265

7. Transporter 2 Company Name

8.

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address:
RUTGERS ORGANICS CORP
201 STRUBLE RD
HM STATE COLLEGE PA 16801

10.

E. State Facility's ID

F. Facility's Phone: (814) 238-2424

GENERATOR

	11. Shipping Name	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a.	WASTE NON-RCRA SOLID, N.O.S. (SOIL CONTAMINATED WITH INSECTICIDE)	01	T T	2000	P
b.					
c.					
d.					

G. Additional Descriptions for Materials Listed Above

a.
b.
c.
d.

H. Handling Codes for Material Listed Above

a. S02
b.
c.
d.

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this document are not subject to federal manifest requirements.

Printed/Typed Name | Signature | Date: Month / Day / Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month / Day / Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month / Day / Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the materials covered by this bill of lading except as noted in item 19.

Printed/Typed Name | Signature | Date: Month / Day / Year

BILL OF LADING

ENVIRONMENTAL PRODUCTS & SERVICES OF VERMONT, INC.

24-Hour Emergency Phone Number
1-800-843-8265

Please print or type

BILL OF LADING

1. Document No.: RUT 061608C
2. Page 1 of 1

3. Generator's Name and Mailing Address: RUTGERS ORGANICS CORP
201 STRUBLE RD
STATE COLLEGE PA 16801

4. Generator's Phone: (814) 238-2424

Site Address:
RT 26 SOUTH
STATE COLLEGE PA 16801

5. Transporter 1 Company Name: ENVIRONMENTAL PROD & SER OF VT, INC

6.

A. State Transporter's ID: 7/C07 (VT)

B. Transporter 1 Phone: (800) 843-8265

7. Transporter 2 Company Name

8.

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address:
RUTGERS ORGANICS CORP
201 STRUBLE RD
HM STATE COLLEGE PA 16801

10.

E. State Facility's ID

F. Facility's Phone: (814) 238-2424

GENERATOR

	11. Shipping Name	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a.	WASTE NON-RCRA SOLID, N.O.S. (SOIL CONTAMINATED WITH INSECTICIDE)	01	T T	[illegible]	P
b.					
c.					
d.					

G. Additional Descriptions for Materials Listed Above

a.
b.
c.
d.

H. Handling Codes for Material Listed Above

a. S02
b.
c.
d.

15. Special Handling Instructions and Additional Information

[illegible]

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this document are not subject to federal manifest requirements.

Printed/Typed Name	Signature	Date: Month	Day	Year
[illegible]	[signature]			

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date: Month	Day	Year
[illegible]	[signature]			

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date: Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the materials covered by this bill of lading except as noted in item 19.

Printed/Typed Name	Signature	Date: Month	Day	Year

BILL OF LADING

ENVIRONMENTAL PRODUCTS & SERVICES OF VERMONT, INC.

24-Hour Emergency Phone Number 1-800-843-8265

Please print or type

BILL OF LADING

1. Document No.	RUT 061608A
2. Page 1 of	1
3. Generator's Name and Mailing Address	RUTGERS ORGANICS CORP 201 STRUBLE RD STATE COLLEGE PA 16801
Site Address	RT 26 SOUTH STATE COLLEGE PA 16801
4. Generator's Phone	(814) 238-2424
5. Transporter 1 Company Name	ENVIRONMENTAL PROD & SER OF VT, INC
6.	
A. State Transporter's ID	[illegible]
B. Transporter 1 Phone	(800) 843-8265
7. Transporter 2 Company Name	
8.	
C. State Transporter's ID	
D. Transporter 2 Phone	
9. Designated Facility Name and Site Address	RUTGERS ORGANICS CORP 201 STRUBLE RD STATE COLLEGE PA 16801
10.	
E. State Facility's ID	
F. Facility's Phone	(814) 238-2424

HM	11. Shipping Name	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
	a. WASTE NON-RCRA SOLID, N.O.S. (SOIL CONTAMINATED WITH INSECTICIDE)	01	T T	2,500	P
	b.				
	c.				
	d.				

G. Additional Descriptions for Materials Listed Above

a. c.

b. d.

H. Handling Codes for Material Listed Above

a. S02 c.

b. d.

15. Special Handling Instructions and Additional Information

[illegible handwriting]

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this document are not subject to federal manifest requirements.

Printed/Typed Name	Signature	Date Month	Day	Year
[illegible handwriting]	[signature]	[illegible]	[illegible]	[illegible]

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month	Day	Year
[illegible handwriting]	[signature]	[illegible]	[illegible]	[illegible]

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the materials covered by this bill of lading except as noted in item 19.

Printed/Typed Name	Signature	Date Month	Day	Year

BILL OF LADING

GENERATOR

ENVIRONMENTAL PRODUCTS & SERVICES OF VERMONT, INC.

24-Hour Emergency Phone Number
1-800-843-8265

Please print or type

BILL OF LADING

1. Document No.	RUT 060408D
2. Page 1 of	1
3. Generator's Name and Mailing Address	RUTGERS ORGANICS CORP 201 STRUBLE RD STATE COLLEGE PA 16801
Site Address	RT 26 SOUTH STATE COLLEGE PA 16801
4. Generator's Phone	(814) 238-2424
5. Transporter 1 Company Name	ENVIRONMENTAL PROD & SER OF VT, INC
6.	
A. State Transporter's ID	7 1C07 171
B. Transporter 1 Phone	(800) 843-8265
7. Transporter 2 Company Name	
8.	
C. State Transporter's ID	
D. Transporter 2 Phone	
9. Designated Facility Name and Site Address	RUTGERS ORGANICS CORP 201 STRUBLE RD STATE COLLEGE PA 16801
10.	
E. State Facility's ID	
F. Facility's Phone	(814) 238-2424

GENERATOR

HM	11. Shipping Name	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
	a. WASTE NON-RCRA SOLID, N.O.S. (SOIL CONTAMINATED WITH INSECTICIDE)	01	T T	14,000	P
	b.				
	c.				
	d.				

G. Additional Descriptions for Materials Listed Above

a. c.
b. d.

H. Handling Codes for Material Listed Above

a. S02 c.
b. d.

15. Special Handling Instructions and Additional Information

[illegible]

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this document are not subject to federal manifest requirements.

Printed/Typed Name	Signature	Date Month	Day	Year
[illegible handwriting]	[signature]	06	[illegible]	[illegible]

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month	Day	Year
[illegible]	[signature]	[illegible]		[illegible]

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the materials covered by this bill of lading except as noted in item 19.

Printed/Typed Name	Signature	Date Month	Day	Year

BILL OF LADING

AR100470

ENVIRONMENTAL PRODUCTS & SERVICES OF VERMONT, INC.

24-Hour Emergency Phone Number
1-800-843-8265

Please print or type

BILL OF LADING

1. Document No.: RUT 060408F
2. Page 1 of 1

3. Generator's Name and Mailing Address: RUTGERS ORGANICS CORP, 201 STRUBLE RD, STATE COLLEGE PA 16801

Site Address: RT 26 SOUTH, STATE COLLEGE PA 16801

4. Generator's Phone (814) 238-2424

5. Transporter 1 Company Name: ENVIRONMENTAL PROD & SER OF VT, INC
6.

A. State Transporter's ID: (VT)

B. Transporter 1 Phone: (800) 843-8265

7. Transporter 2 Company Name:
8.

C. State Transporter's ID:

D. Transporter 2 Phone:

9. Designated Facility Name and Site Address: RUTGERS ORGANICS CORP, 201 STRUBLE RD, STATE COLLEGE PA 16801
10.

E. State Facility's ID:

F. Facility's Phone: (814) 238-2424

HM	11. Shipping Name	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
	a. WASTE NON-RCRA SOLID, N.O.S. (SOIL CONTAMINATED WITH INSECTICIDE)	01	T T	22,000	P
	b.				
	c.				
	d.				

G. Additional Descriptions for Materials Listed Above
a.
b.
c.
d.

H. Handling Codes for Material Listed Above
a. S02
b.
c.
d.

15. Special Handling Instructions and Additional Information
1,000 gallons of ... 7 ... of ...

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this document are not subject to federal manifest requirements.

Printed/Typed Name: Kevin Barbour | Signature: [signature] | Date: Month / Day / Year

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Gary E Jones | Signature: [signature] | Date: Month / Day / Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: | Signature: | Date: Month / Day / Year

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the materials covered by this bill of lading except as noted in item 19.

Printed/Typed Name: | Signature: | Date: Month / Day / Year

GENERATOR — TRANSPORTER — FACILITY

BILL OF LADING

ENVIRONMENTAL PRODUCTS & SERVICES OF VERMONT, INC.

24-Hour Emergency Phone Number
1-800-843-8265

Please print or type

BILL OF LADING

1. Document No.: RUT 060408G
2. Page 1 of 1

3. Generator's Name and Mailing Address: RUTGERS ORGANICS CORP
201 STRUBLE RD
STATE COLLEGE PA 16801

4. Generator's Phone (814) 238-2424

Site Address:
RT 26 SOUTH
STATE COLLEGE PA 16801

5. Transporter 1 Company Name: ENVIRONMENTAL PROD & SER OF VT, INC

6.

A. State Transporter's ID: [illegible]

B. Transporter 1 Phone: (800) 843-8265

7. Transporter 2 Company Name:

8.

C. State Transporter's ID:

D. Transporter 2 Phone:

9. Designated Facility Name and Site Address:
RUTGERS ORGANICS CORP
201 STRUBLE RD
HM STATE COLLEGE PA 16801

10.

E. State Facility's ID:

F. Facility's Phone: (814) 238-2424

GENERATOR

	11. Shipping Name	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
	a. WASTE NON-RCRA SOLID, N.O.S. (SOIL CONTAMINATED WITH INSECTICIDE)	01	T T	16000	P
	b.				
	c.				
	d.				

G. Additional Descriptions for Materials Listed Above

a.

c.

b.

d.

H. Handling Codes for Material Listed Above

a. S02

c.

b.

d.

15. Special Handling Instructions and Additional Information

557 [illegible]

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this document are not subject to federal manifest requirements.

Printed/Typed Name	Signature	Date: Month	Day	Year
[illegible]	[signature]	06	11	06

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date: Month	Day	Year
[illegible]	[signature]	06	11	06

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date: Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the materials covered by this bill of lading except as noted in item 19.

Printed/Typed Name	Signature	Date: Month	Day	Year

BILL OF LADING

AR100472

SCALE TICKETS

Wayne Township Landfill
Innovative. Responsible. Committed to You.

Original tickets given to Dawn 9/29/08 BB

September 24, 2008

Mr. Brent Peckis
Panther Technologies, Inc.
220 Route 70 East, Ste. B
Medford, NJ 08055

RECEIVED
SEP 29 2008
BY:

Re: Rutgers Organics Project
PC Scale Tickets / Invoices

Dear Brent:

Included with this letter are the scale tickets / invoices and residual waste manifests for the Rutgers Organics Project. The statement for this project will be sent to you in October.

Please contact me if you have any questions concerning this project.

Sincerely,

Wayne Township Landfill

Phyllis J. Beury
Environmental Coordinator

XC: File

P.O. Box 209, McElhattan, PA 17748
Phone 570.769.6977 Toll Free 888.306.8781 Fax 570.769.7366
ccswa@waynetwplandfill.com
OWNED AND OPERATED BY THE CLINTON COUNTY SOLID WASTE AUTHORITY

#1

Wayne Township Landfill — PADEP Permit#100955 — Residual Waste Manifest — No. 26996

17.99 T

Generator Name: Rutgers Organics
Generator Location: Struble Road State College PA
Contact Name: Gary Davis — Phone# 814 777 2264 FAX# 814 238 1567
Profile: NA (three-letter code) — Carrier: LOV (three-letter code) — Truck#: 18
Customer/Charge To: 716 (three-digit number) — Origin: 14 (two-digit number)

WASTE	DESCRIPTION OF WASTE	PERCENTAGE
506	Chemical Contaminated Soil	100 %
	PO# 7431	
	Panther Tech Project	

Generator's Certification: I hereby certify that the above named material(s) is not hazardous waste as defined by CFR Part 261 or any applicable state ta, has been properly described and packaged and is proper condition for transportation according to applicable regulations, AND, if the waste is a treatment residue of a previously restricted hazaradous waste subject to the Landfill Disposal Restriction. I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer hazardous as defined by 40 CFR Part 261.

X Gary Davis — Generator's Signature of Certification / Title — X 9/23/08 Date

Jeff Fox — Transporter: Driver Signature — 0478 WH# and Annual Expiration Date — (570) 748-2760 Phone — 9/23/08 Date

Landfill: Waste Inspector Signature — Accepted — Rejected

Tim M — Weighmaster Signature — 0106750 License # — 9/23/08 Date — 9:36 Time (AM - PM)

769-6977

#2

Wayne Township Landfill — PADEP Permit#100955 — Residual Waste Manifest — No. 26997

15.71 T

Generator Name: Rutgers - Organics
Generator Location: Struble Road State College PA
Contact Name: Gary Davis — Phone# 814 777 2264 FAX# 814 238 1567
Profile: NA (three-letter code) — Carrier: (three-letter code) — Truck#:
Customer/Charge To: 716 (three-digit number) — Origin: 14 (two-digit number)

WASTE	DESCRIPTION OF WASTE	PERCENTAGE
506	Chemical Contaminated Soil	100 %
	PO# 7431	
	Panther Tech Project	

Generator's Certification: I hereby certify that the above named material(s) is not hazardous waste as defined by CFR Part 261 or any applicable state ta, has been properly described and packaged and is proper condition for transportation according to applicable regulations, AND, if the waste is a treatment residue of a previously restricted hazaradous waste subject to the Landfill Disposal Restriction. I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer hazardous as defined by 40 CFR Part 261.

X Gary Davis — Generator's Signature of Certification / Title — X 9/23/08 Date

RJ Conser #154 9/09 — Transporter: Driver Signature — WH# and Annual Expiration Date — 769-6977 Phone — 9/23/08 Date

RJ — Landfill: Waste Inspector Signature — Accepted — Rejected

Tim M — Weighmaster Signature — 0106750 License # — 9/23/08 Date — 7:42 Time (AM - PM)

AR100475

#3

Wayne Township Landfill PADEP Permit#100955 Residual Waste Manifest

No 26998

14.25T

Generator Name Rutgers Organics

Generator Location 241 Struble Road State College PA

Contact Name Gary Davis Phone# 8147772264 FAX# 814 238 1567

Profile NA (three-letter code) Carrier _____ (three-letter code) Truck# _____

Customer/Charge To 716 (three-digit number) Origin 14 (two-digit number)

WASTE	DESCRIPTION OF WASTE	PERCENTAGE
506	Chemical Contaminated Soil	100%
	PO# 7431	
	Panther Tech Project	

Generator's Certification: I hereby certify that the above named material(s) is not hazardous waste as defined by CFR Part 261 or any applicable state la, has been properly described and packaged and is proper condition for transportation according to applicable regulations, AND, if the waste is a treatment residue of a previously restricted hazaradous waste subject to the Landfill Disposal Restriction. I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer hazardous as defined by 40 CFR Part 261.

X Gary Davis — Generator's Signature of Certification / Title — Date X 9/23/08

Transporter Driver Signature — WH# and Annual Expiration Date — Phone — Date 9-23-08

Landfill: Waste Inspector Signature — Accepted — Rejected

Weighmaster Signature — License # 01675 — Date 9/23/08 — Time (AM - PM)

#4

Wayne Township Landfill PADEP Permit#100955 Residual Waste Manifest

No 26999

16.93T

Generator Name Rutgers Organics

Generator Location Struble Road State College PA

Contact Name Gary Davis Phone# 814-777-2264 FAX# 814-238-1567

Profile NA (three-letter code) Carrier _____ (three-letter code) Truck# _____

Customer/Charge To 716 (three-digit number) Origin 14 (two-digit number)

WASTE	DESCRIPTION OF WASTE	PERCENTAGE
506	Chemical Contaminated Soil	100%
	PO# 7431	
	Panther Tech Project	

Generator's Certification: I hereby certify that the above named material(s) is not hazardous waste as defined by CFR Part 261 or any applicable state la, has been properly described and packaged and is proper condition for transportation according to applicable regulations, AND, if the waste is a treatment residue of a previously restricted hazaradous waste subject to the Landfill Disposal Restriction. I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer hazardous as defined by 40 CFR Part 261.

X Gary Davis — Generator's Signature of Certification / Title — Date X 9/23/08

Transporter Driver Signature — WH# and Annual Expiration Date 1154 — Phone 570-769-6772 — Date 9-23-08

Landfill: Waste Inspector Signature — Accepted — Rejected 10:45

Weighmaster Signature — License # 01675 — Date 9/23/08 — Time (AM - PM)

#5

Wayne Township Landfill PADEP Permit#100955 Residual Waste Manifest

No 27000

17.81T

Generator Name Rutgers Organics
Generator Location Struble Road State College,
Contact Name Gary Davis Phone# 814 777 2264 FAX# 814 238 1567
Profile: NA (three-letter code) Carrier ____ (three-letter code) Truck# ____
Customer/Charge To 716 (three-digit number) Origin 14 (two-digit number)

WASTE	DESCRIPTION OF WASTE	PERCENTAGE
506	Chemical Contaminated Soil	100 %
	PO # 7431 Panther Tech Project	

Generator's Certification: I hereby certify that the above named material(s) is not hazardous waste as defined by CFR Part 261 or any applicable state ta, has been properly described and packaged and is proper condition for transportation according to applicable regulations, AND, if the waste is a treatment residue of a previously restricted hazaradous waste subject to the Landfill Disposal Restriction. I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer hazardous as defined by 40 CFR Part 281.

X Gary Davis — X 9/23/08
Generator's Signature of Certification / Title — Date

RJ Gansor — 1154 9/09 — 769-6977 — 9/23/08
Transporter: Driver Signature — WH# and Annual Expiration Date — Phone — Date

RJ — ✓ — 9/23/08
Landfill: Waste Inspector Signature — Accepted — Rejected

Weighmaster Signature — 06752 — 9/23/08 — Time (AM - PM)
License # — Date

#6

Wayne Township Landfill PADEP Permit#100955 Residual Waste Manifest

No 27258

15.20T

Generator Name Rutgers Organics
Generator Location Struble Road State College PA
Contact Name Gary Davis Phone# 814 777 2264 FAX# 814 238-1567
Profile NA (three-letter code) Carrier ____ (three-letter code) Truck# 18
Customer/Charge To 716 (three-digit number) Origin 14 (two-digit number)

WASTE	DESCRIPTION OF WASTE	PERCENTAGE
506	Chemical Contaminated Soil	100 %
	PO # 7431 Panther Tech Project	

Generator's Certification: I hereby certify that the above named material(s) is not hazardous waste as defined by CFR Part 261 or any applicable state ta, has been properly described and packaged and is proper condition for transportation according to applicable regulations, AND, if the waste is a treatment residue of a previously restricted hazaradous waste subject to the Landfill Disposal Restriction. I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer hazardous as defined by 40 CFR Part 281.

X Gary Davis — X 9/23/08
Generator's Signature of Certification / Title — Date

[signature] — ____ — ____ — 9-23-08
Transporter: Driver Signature — WH# and Annual Expiration Date — Phone — Date

[signature] — ✓ — 1:23
Landfill: Waste Inspector Signature — Accepted — Rejected

Weighmaster Signature — 06752 — 9/23/08 — Time (AM - PM)
License # — Date

#8

Wayne Township Landfill PADEP Permit#100955 Residual Waste Manifest

No 27259

8.59T

Generator Name Rutgers Organics

Generator Location 201 Struble Road State College PA

Contact Name Greg Davis Phone# 814 777 2264 FAX# 814 238 1567

Profile NA (three-letter code) Carrier LAV (three-letter code) Truck# 118

Customer/Charge To 7Hle (three-digit number) Origin 14 (two-digit number)

WASTE	DESCRIPTION OF WASTE	PERCENTAGE
501e	Chemical Contaminated Soil	100%
	PO# 7431	
	Panther Tank Project	

Generator's Certification: I hereby certify that the above named material(s) is not hazardous waste as defined by CFR Part 261 or any applicable state la, has been properly described and packaged and is proper condition for transportation according to applicable regulations, AND, if the waste is a treatment residue of a previously restricted hazaradous waste subject to the Landfill Disposal Restriction. I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer hazardous as defined by 40 CFR Part 261.

Generator's Signature or Certification / Title — Date 9/23/08

Transporter: Driver Signature — WH# and Annual Expiration Date 0427 — Phone (570) 745-3760 — Date 9/23/08

Landfill: Waste Inspector Signature — Accepted X — Rejected

Weighmaster Signature — License # A00750 — Date 9/23/08 — Time (AM - PM) 7:21

#7

Wayne Township Landfill PADEP Permit#100955 Residual Waste Manifest

No 27260

9.73T

Generator Name Rutgers, Organics

Generator Location Struble Road State College PA

Contact Name Greg Davis Phone# 814 777 2264 FAX# 814 238 1567

Profile NA (three-letter code) Carrier WTL (three-letter code) Truck# 15

Customer/Charge To 7Hle (three-digit number) Origin 14 (two-digit number)

WASTE	DESCRIPTION OF WASTE	PERCENTAGE
501e	Chemical contaminated soil	100 %
	PO# 7431	
	Panther Tank Project	

Generator's Certification: I hereby certify that the above named material(s) is not hazardous waste as defined by CFR Part 261 or any applicable state la, has been properly described and packaged and is proper condition for transportation according to applicable regulations, AND, if the waste is a treatment residue of a previously restricted hazaradous waste subject to the Landfill Disposal Restriction. I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer hazardous as defined by 40 CFR Part 261.

Generator's Signature of Certification / Title — Date 9/23/08

Transporter: Driver Signature — WH# and Annual Expiration Date 1154 — Phone 570-745-6975 — Date 9-23-08

Landfill: Waste Inspector Signature — Accepted X — Rejected

Weighmaster Signature — License # A00750 — Date 9/23/08 — Time (AM - PM) 1:42