TRICORE ENVIRONMENTAL, LLC

September 21, 2011

VIA USPS PRIORITY MAIL
WITH DELIVERY CONFIRMATION

Mr. Brian Bauer
Illinois Environmental Protection Agency
Bureau of Land #24
Leaking Underground Storage Tank Section
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

RE: LPC No. 0971855024 – Lake County
Wauconda/Shivam Energy, Inc.
399 West Liberty Street
IEMA Incident No. 903199
LUST TECHNICAL FILE

Dear Mr. Bauer:

TriCore Environmental, LLC, on behalf of Shivam Energy, Inc., is providing an original and one copy of an Illinois Environmental Protection Agency Leaking Underground Storage Tank Program Site Investigation Completion Report for the Illinois Emergency Management Agency incident number referenced above. Site investigation activities have been completed for soil and groundwater and are documented in this report.

If you should have any questions concerning this submittal or require additional information, please contact either of the undersigned at (630) 520-9973.

Sincerely,

Kim T. Miller, P.E.
Senior Project Manager

Shawn Rodeck, P.E.
President

cc: Mr. Rajani Patel, Shivam Energy, Inc., 399 W. Liberty St., Wauconda, Illinois 60084
Ms. Gwen Carey, 363 Bangs St., Wauconda, Illinois 60084

Attachment

1800 WEST HAWTHORNE LANE, SUITE P • WEST CHICAGO, IL • 60185
TELEPHONE: (630) 520-9973 • FACSIMILE: (630) 520-9976
WWW.TRICOREWEB.COM

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
SITE INVESTIGATION COMPLETION REPORT

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Lake County, Illinois 60084
IEMA Incident No. 903199
LPC No. 0971855024

Prepared for:

Mr. Rajani Patel
Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084

Prepared by:

TriCore Environmental, LLC
1800 West Hawthorne Lane, Suite P
West Chicago, Illinois 60185
Phone: (630) 520-9973
Fax: (630) 520-9976
www.tricoreweb.com

September 21, 2011

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APPENDICES

Illinois Environmental Protection Agency
Leaking Underground Storage Tank Program
Site Investigation Completion Report

A. Site Identification

IEMA Incident # (6- or 8-digit): 903199 IEPA LPC# (10-digit): 0971855024
Site Name: Shivam Energy, Inc.
Site Address (Not a P.O. Box): 399 West Liberty Street
City: Wauconda County: Lake ZIP Code: 60084

Leaking UST Technical File

B. Site Information

1. **Will the owner or operator seek reimbursement from the Underground Storage Tank Fund?** ☒ Yes ☐ No
2. **Has a Site Investigation Plan been approved?** ☒ Yes ☐ No
   Date(s) of approval letter(s): 6/15/09

C. Site Investigation Results

Provide the following:

1. **Site history with respect to the release;**

Release Information

On October 30, 1990, a release was reported to the (IESDA), now the Illinois Emergency Management Agency (IEMA), and incident number 903199 was assigned to the property as a result of the removal of two 6,000-gallon underground storage tanks (USTs). The amount released is unknown. The release information is according to reports prepared by previous consultants and provided to the Illinois Environmental Protection Agency (IEPA).

Stage 1 Site Investigation Activities

On December 27, 2008, TriCore Environmental, LLC (TriCore) received a call from Ms. Gwen Carey, owner of the residential property located directly north of the site along Bangs Street. Ms. Carey indicated that her son, Mr. Scott Carey, who owns the house directly north of her, had gasoline vapors present in his basement.

On December 29, 2008, TriCore met Ms. Carey at her house and then proceeded to her son's house. Upon arrival to Mr. Carey's house, the basement was inspected. No gasoline vapors were observed within Mr. Carey's basement; however, the basement was damp and humid. Water staining was also present on the concrete floor of the basement, indicating that the basement was not sealed to the outside. Ms. Carey indicated that she did not have any gasoline vapors present in her house. Please note that this was due to an operating vacuum blower located on site that is directly connected by subsurface piping to the backfill material surrounding the cleanout for the sanitary sewer line that services her house. The sanitary sewer line cleanout is located east of her house, in her front yard.

The vacuum blower contains a dilution valve that was partially open to the ambient air. The vacuum blower was installed in 1991 as part of the corrective action activities associated with IEMA incident number 892744, as well as IEMA incident number 903199. The blower has operated periodically from 1991 through March 9, 2006 and continuously since March 9, 2006. Mr. Carey's home is not connected to the vacuum blower.

After meeting with Ms. Carey, TriCore inspected the sump wells (S-1 through S-3) associated with the UST system and several of the monitoring wells near the UST system (RW-1 (04'), MP-3, MW-2, MW-6, MW-12S, MW-13, MW-26, and MW-27) by lowering a bailer into each of the wells. The locations of the wells are illustrated on Figure 1. A sheen of weathered free product was present in MW-27. No free product was present in any of the other wells that were inspected.

The sanitary sewer line servicing Ms. Carey's house runs through the backfill material surrounding her basement. The sanitary sewer line runs southeast from Ms. Carey's house and connects to the main that runs along Bangs Street. The sanitary sewer line servicing Mr. Carey's house was constructed similarly to Ms. Carey's. Since the dilution valve on the vacuum blower was partially open, on December 30, 2008, TriCore returned to the site and closed the dilution valve on the vacuum blower so that a greater vacuum would be applied to the backfill material surrounding the sanitary sewer line servicing Ms. Carey's house.

On December 31, 2008, TriCore returned to the site to regauge the wells and meet with Mr. Brian Bauer, Project Manager with the IEPA Leaking Underground Storage Tank Section, and Ms. Jackie D. Soccorso, Director of Environmental Quality with the Village of Wauconda. Upon arrival at the site, TriCore gauged S-1 through S-3, MW-2, MW-26, and MW-27 with an electronic oil/water interface meter equipped with an audible signal. The meter was washed using a distilled water and Simple Green® solution wash between each use. A combination of new and weathered free product was present in S-1 through S-3 and MW-27. No free product was present in MW-2 or MW-26.

TriCore, Mr. Bauer, and Ms. Soccorso then met with Ms. Carey and inspected her basement. A photoionization detector (PID) equipped with a 10.6 electron-volt (eV) lamp was used to screen a floor drain in her basement. A concentration of 0.0 parts per million (ppm) was measured. Mr. Carey's basement was then inspected. The PID was also used to screen a floor drain in his basement and a concentration of 0.0 ppm was measured. No gasoline vapors were noted in either residence.

On December 31, 2008, North Branch Environmental (North Branch) of Roselle, Illinois removed a total of 15 gallons of free product and 2,485 gallons of groundwater from S-1 through S-3 and MW-27 utilizing a vacuum truck. The free product and groundwater that were removed were transported off-site by North Branch for treatment and disposal at their facility.

On January 5 and 6, 2009, TriCore sampled all of the existing monitoring wells except for MW-2, MW-4, MW-9S, MW-24, MW-25, MW-27, RW-1 ('04), and MP-2 through MP-4 to assess the concentrations of the constituents of concern (COCs) in the groundwater. Monitoring wells MW-2, MW-4, and MW-9S could not be sampled due to

obstructions within the wells. Monitoring wells MW-24 and MW-25 were not accessible due to piles of snow and ice that were covering the wells. Monitoring well MW-27 was not sampled due to the presence of free product in the well. Monitoring wells RW-1 ('04) and MP-2 through MP-4 were not sampled since they are located adjacent to MP-1. The locations of the monitoring wells are illustrated on Figure 1.

Prior to sampling the wells, the depth to free product and/or depth to groundwater was measured in each well using an electronic oil/water interface meter equipped with an audible signal. The meter was washed using a distilled water and Simple Green® solution wash between each use. If free product was present in the well, it was removed using a dedicated disposable high-density polyethylene (HDPE) bailer. If no free product was present in the well, it was developed by removing approximately three to five well volumes using a dedicated, disposable HDPE bailer. The free product and purge water generated during the sampling activities were contained on site in 55-gallon drums. After the wells were allowed to recharge, groundwater samples were collected from each well using the dedicated, disposable HDPE bailer. Please note that if free product was present in a well, it was not sampled at this time. The samples were collected without headspace in laboratory-provided 40-milliliter (mL) glass vials containing hydrochloric acid as a preservative, labeled accordingly, packed in a cooler containing ice, and shipped under standard chain-of-custody protocol to Pace Analytical Services, Inc. (Pace) in Green Bay, Wisconsin for laboratory analysis. The groundwater samples were submitted for benzene, toluene, ethylbenzene, total xylenes (BTEX), and methyl tertiary-butyl ether (MTBE) analysis using United States Environmental Protection Agency (USEPA) Method 8021.

Analytical laboratory results revealed benzene concentrations above the Tier 1 groundwater remediation objectives (GROs) in MW-15, MW-16, MW-26, MP-1, and RW-1. Analytical laboratory results are summarized in Table 1 and illustrated on Figure 2. The groundwater flow direction is illustrated on Figure 3. Copies of the analytical laboratory reports and certification were provided in the Stage 2 and 3 Site Investigation Plan (SIP) dated April 14, 2009.

On February 2, 2009, TriCore oversaw the installation of 10 soil borings (SB-41 through SB-50) to a maximum depth of 16 feet below land surface (bls). The soil borings were installed to assess the concentrations of the COCs in the soil surrounding the UST system. Prior to performing the soil borings Lucky Locators, Inc. of Arlington Heights, Illinois was contracted to markout the on-site subsurface utilities. The locations of the soil borings and subsurface utilities are illustrated on Figure 1. The soil borings were then completed using the following drilling and sampling procedures.

Each boring was drilled and sampled to a maximum depth of 5 feet bls using a stainless steel hand auger to collect soil samples in 1.0-foot depth intervals. A hand auger was utilized to minimize the risk of damage to subsurface structures and utilities. The reduced risk of striking utility lines increased the safety factor for the drillers and the other on-site personnel.

The borings were then completed with a truck-mounted Geoprobe® using direct-push technology to advance the borings. Continuous soil samples were collected at 2.0-foot

intervals to the termination depth of each soil boring. The soil samples were collected within a disposable macro-core liner which was placed within a 2.125-inch inside diameter by 4.0-foot long macro-core sampler. To prevent cross contamination between soil borings and sampling intervals, all drilling and sampling equipment was decontaminated prior to each use using a distilled water and Liquinox® solution wash, followed by a distilled water rinse.

As soil samples were collected, the geology of the subsurface soil was described. Upon retrieval, a portion of each soil sample was immediately divided for field screening and laboratory analysis. Samples designated for field screening were placed in airtight plastic bags, allowed to volatilize and equilibrate, and then screened for the presence of volatile organic compounds using a PID equipped with a 10.6 eV lamp. The PID was field calibrated using isobutylene gas prior to use. From the other portion of each sample, two 5-gram samples were collected and placed in laboratory-provided 40-mL glass vials containing methanol as a preservative, and one 4-ounce (oz) sample was collected and placed in a laboratory-provided 4-oz plastic container. The samples were then labeled accordingly and packed in a cooler containing ice. The soil sample collected above the field-interpreted water table exhibiting the highest PID measurement from each five-foot interval was shipped under standard chain-of-custody protocol to Pace for BTEX and MTBE analysis using USEPA Method 8021. Please note that when the soil samples arrived at the laboratory, no methanol was present in the soil sample collected from SB-50 from 4 to 5 feet bls; therefore, this sample was not analyzed by the laboratory.

Analytical laboratory results revealed the following concentrations of the COCs above the Tier 1 soil remediation objectives (SROs): 1) benzene in SB-41 through SB-44 and SB-47 through SB-49; 2) toluene, ethylbenzene, and MTBE in SB-41, SB-44, and SB-49; and 3) total xylenes in SB-41, SB-43, SB-44, and SB-49. Analytical laboratory results are summarized in Table 2 and illustrated on Figure 4. Copies of the analytical laboratory reports and certification, and soil boring logs, were provided in the Stage 2 and 3 SIP dated April 14, 2009.

From January 5 through April 1, 2009, TriCore periodically gauged S-1 through S-3, MW-27, and RW-2. Free product was present in S-1 through S-3 and MW-27 during these dates. On January 9 and 27, March 9 and 13, and April 1, 2009, TriCore contracted North Branch to perform free product recovery events at the site. During these events, North Branch recovered a total of 59 gallons of free product and 11,841 gallons of groundwater from S-1 through S-3 and MW-27. On February 26, 2009, TriCore recovered approximately 0.01 gallons of free product and 3.99 gallons of groundwater from S-1 through S-3 and MW-27 using disposable, dedicated high density polyethylene (HDPE) bailers. The free product and groundwater recovered on this date were contained on site in a 55-gallon drum. Additional details regarding free product recovery have been provided to the IEPA in periodic Free Product Removal Plans and Reports.

Stage 2 and Stage 3 Site Investigation Activities

On April 6 and 7, 2011, TriCore installed 15 soil borings (SB-58 through SB-72) to depths ranging between 12 and 20 feet bls. These soil borings were installed as part of

the Stage 2 and Stage 3 site investigation activities proposed in the Stage 2 and Stage 3 SIP dated April 14, 2009 and approved by the IEPA in a letter dated June 15, 2009. The locations of these soil borings are illustrated on Figure 1.

A hand auger was utilized to collect continuous soil samples from the surface to a depth of approximately five feet below land surface (bls). Once the soil boring was completed to a depth of five feet bls, a truck-mounted Geoprobe® was utilized to collect soil samples to the termination of the soil boring.

As soil samples were collected, the geology of the subsurface soil was described. Then upon retrieval, a portion of each soil sample was immediately divided for field screening and laboratory analysis. Samples designated for field screening were placed in airtight plastic bags, allowed to volatilize and equilibrate, and then screened for the presence of volatile organic compounds (VOCs) using a PID equipped with a 10.6 eV lamp. The PID was field calibrated using isobutylene gas prior to use. The other portion of each sample was placed in laboratory-provided containers with no headspace, labeled accordingly, and packed in a cooler containing ice. From each boring, the soil sample exhibiting the highest PID measurement from above the field-interpreted water table was submitted for laboratory analysis. The soil samples were shipped under standard chain-of-custody protocol to Pace for BTEX and MTBE analysis using USEPA Method 5030/8021. Soil boring logs are provided in Appendix A.

Analytical laboratory results revealed benzene concentrations in SB-59 through SB-61 and SB-69, toluene and total xylenes concentrations in SB-60, and MTBE concentrations in SB-59, SB-60, and SB-71 above the Tier 1, Class I SROs. Analytical laboratory results are summarized in Table 2 and illustrated on Figures 4A and 4B. Copies of the analytical laboratory reports and certification are provided in Appendix B.

On April 14, 2011, TriCore gauged, developed, and sampled all on- and off-site monitoring wells not containing free product. Prior to sampling, the depth to water was gauged using an oil/water interface probe. Each well was then developed by removing three to five well volumes using a dedicated disposable HDPE bailer, unless the well was purged dry and did not recharge. If the well was purged dry, it was considered to be developed and was sampled after recharging. After the well recharged, groundwater samples were collected using the disposable HDPE bailer. Each sample was collected in laboratory-provided containers, labeled accordingly, packed in a cooler containing ice, and shipped under standard chain-of-custody protocol to Pace for BTEX and MTBE analysis using USEPA Method 8021.

Analytical laboratory results revealed benzene concentrations in MP-3, MW-13, MW-15, MW-16, MW-32, RW-1, and RW-4, toluene, ethylbenzene, and total xylenes concentrations in MP-3 and RW-4, and a MTBE concentration in RW-4 above the Tier 1, Class I GROs. Free product was present in monitoring wells MW-27, MW-29, MW-30, MW-31, RW-3, RW-5, and RW-6, and in sumps S-1 through S-3. Analytical laboratory results are summarized in Table 1 and illustrated on Figure 2. Copies of the analytical laboratory reports and certification are provided in Appendix C.

Various geochemical and geotechnical analyses were performed on selected soil samples collected at the site prior to December 2008. Results of these analyses are summarized in Table 3. Laboratory reports were provided in reports previous submitted to the IEPA.

2. Site description:

a. Area surrounding the site;

The site is currently an active gasoline retail station at the northwest corner of the intersection of West Liberty Street and Bangs Street in Wauconda, Lake County, Illinois. The site is located in the southwest quarter of the southeast quarter of Section 26, Township 44 North, Range 9 East, of the United States Geological Survey (USGS) 7.5 Minute Series Wauconda Quadrangle (Figure 5). The site is relatively flat, however, the topography dips significantly immediately north of the Site.

The surrounding land use consists of residential and commercial properties. North of the site are residential homes. East of the site, across Bangs Street, are commercial properties. South of the site, across Liberty Street, are commercial properties. West of the site, across Osage Street, are commercial properties. Site features include one single-story convenience store building, three dispenser islands, and two USTs. Site features are illustrated on Figure 1.

b. Local geology, hydrogeology, and hydrology;

According to Illinois State Geological Survey (ISGS) Circular No. 460, *Summary of the Geology of the Chicago Area,* the site is located in the Fox Lake Moraine of the Valparaiso Morainic System. The Fox Lake Moraine consists of silty, sandy, or gravelly till with local areas of silty clayey till, many lenses of poorly sorted gravel, and abundant small karnes.

According to ISGS Circular No. 532, *Potential for Contamination of Shallow Aquifers in Illinois*, Plate No. 1 "Potential for Contamination of Shallow Aquifers from Land Burial of Municipal Wastes," subsurface soils consist of "uniform, relatively impermeable silty or clayey till at least 50 feet thick with no evidence of interbedded sand and gravel."

According to the ISGS Illinois Map 14, Bedrock Geology of Illinois, bedrock found in the area of the site is of the Silurian System, including the Wilhelm Formation, the Elwood Dolomite, the Kanakakee Dolomite, the Joliet Dolomite, the Sugar Run Dolomite, and/or the Racine Dolomite.

Subsurface investigations indicate the site is underlain by interbedded clay, silt, and sand with traces of gravel within each lithology. Saturated soil conditions were observed as shallow as 4 feet bls. Soil boring logs for the April 2011 soil borings are provided in Appendix A. Boring logs for historical soil borings were provided to the IEPA in previous reports.

On September 24, 1997, Bradburne, Briller, and Johnson, LLC (BB&J) performed rising head slug tests on monitoring wells MW-4, MW-6, MW-14, and MW-16. The results indicated hydraulic conductivity values ranging from 6.61x10-3 centimeters per second (cm/s) in monitoring well MW-6 to 2.25x10-5 cm/s in monitoring well

MW-16. Additionally, a hydraulic gradient evaluation was performed utilizing the groundwater elevations obtained during the April 14, 2011 groundwater gauging and sampling event. Two separate gradients were calculated, due to the drastic variance in topography off-site to the north. This evaluation revealed a hydraulic gradient of 0.008 feet/foot on-site and 0.1093 feet/foot off-site. Hydraulic conductivity and hydraulic gradient evaluations are provided in Appendix D.

c. Local geography and topography;

The site itself is relatively flat but the topography dips significantly immediately north of the site.

d. Existing and potential migration pathways and exposure routes; and

Utilities including sanitary sewer and gas, run within the northern right-of-way of Bangs Street, adjacent to the southern boundary of the Site. Water and gas enters the site from Osage Street along the northern property boundary. Electric enters the site from Bangs Street along the southern property boundary. The locations of utilities and the potable water supply well are illustrated on Figure 1.

e. Current and projected post-remediation land use;

The site is currently an active gasoline retail station with a single-story convenience store building. There are currently no plans to utilize the property as anything else.

3. Site investigation results

a. Map(s) showing locations of all borings and groundwater monitoring wells completed as part of site investigation and the groundwater flow direction;

A map showing the locations of all of the soil borings and groundwater monitoring wells is illustrated on Figure 1. The groundwater flow direction is illustrated on Figure 3.

b. Map(s) showing the horizontal extent of soil and groundwater contamination exceeding the most stringent Tier 1 remediation objectives (ROs);

Maps showing the horizontal extent of the soil and groundwater contamination exceeding the Tier 1 remediation objectives are illustrated on Figures 4A/4B and 2, respectively.

c. Map cross-section(s) showing the horizontal and vertical extents of soil and groundwater contamination exceeding the most stringent Tier 1 ROs;

Cross-sections showing the horizontal and vertical extent of the soil and groundwater contamination are illustrated on Figures 6A and 6B.

d. Soil boring logs and monitoring well construction diagrams for all borings drilled and groundwater monitoring wells installed as part of site investigation;

Soil boring logs for soil borings completed in April 2011 are provided in Appendix A. Soil boring logs and monitoring well construction diagrams for historically completed soil borings and monitoring wells were provided to the IEPA in previous reports.

e. Analytical results, chain of custody forms, and laboratory certifications;

Copies of the analytical laboratory reports, chain of custody forms, and laboratory certifications for the soil and groundwater samples collected in April 2011 are provided in Appendices B and C. Historical data was provided to the IEPA in previous reports.

f. Table comparing analytical results to the most stringent Tier 1 ROs (include sample depth, date collected, and detection limits); and

Tables comparing the analytical laboratory results to the Tier 1 remediation objectives are provided as Tables 1 through 3.

g. Potable water supply well survey;

According to information provided by the ISGS Water Well Database, the IEPA Source Water Assessment and Protection (SWAP) Program database, and the Illinois State Water Survey (ISWS) Private Well Database, the Village of Wauconda has a community water supply well located 365 feet north of the Site, in Osage Park. The community water supply well has a wellhead protection area with a radius of 1,000 feet, which encompasses the Site. There is no regulated recharge area located within 2,500 feet of the Site.

The locations of the potable water wells are illustrated in the ISGS and IEPA information which was provided to the IEPA in the Stage 2 and Stage 3 SIP, which was previously provided to the IEPA. The location of the community water supply well is illustrated on Figure 1.

4. Conclusion that includes an assessment of the sufficiency of the data;

Analytical laboratory results indicate that BTEX and MTBE concentrations in the soil are delineated to the Tier 1 SROs for Class I groundwater on-site to the east and offsite to the north, south, and west. Concentrations of COCs in soil are delineated to the north on-site by soil borings SB-58 and SB-65. Concentrations of COCs in soil are delineated to the east off-site by soil boring SB-67. Concentrations of COCs in soil are delineated to the south off-site by soil boring SB-62. Concentrations of COCs in soil are delineated to the west on-site by soil boring SB-63 and off-site by soil boring SB-64.

Analytical laboratory results indicate that BTEX and MTBE concentrations in the groundwater are delineated to the Tier 1 GROs for Class I groundwater on-site to the south, and off-site to the north, east, and west. Concentrations of COCs in groundwater are delineated to the west on-site by monitoring wells MW-6 and MW-25, and off-site by monitoring well MW-24. Concentrations of COCs in groundwater are delineated to the north off-site by monitoring wells MW-12S, MW-12D, MW-11S, MW-11D, and MW-23. Concentrations of COCs in groundwater are delineated to the east on-site by monitoring wells RW-2 and MW-26, and off-site by monitoring wells MW-9S, MW-9D, MW-8S, and MW-8D. Concentrations of COCs in groundwater are delineated to the south on-site by monitoring wells RW-6, MW-6, and MW-26.

Analytical laboratory results are summarized in Tables 1 and 2 and are illustrated in Figures 2 and 4A of this report.

5. **Site map(s) meeting the requirements of 35 III. Adm. Code 734.440; and**

   Site maps meeting the requirements of 35 Illinois Administrative Code (IAC) Section 734.440 are provided in the figures section of this report.

6. **Budget forms of actual costs (documenting actual work performed during the previous stage).**

   Budget forms of actual costs are provided in Appendix E. An executed Owner/Operator and Licensed Professional Engineer/Geologist Budget Certification Form is provided in Appendix F. A copy of the Office of the State Fire Marshal Eligibility and Deductible Determination Letter is provided in Appendix G.

D. Signatures

All plans, budgets, and reports must be signed by the owner or operator and list the owner's or operator's full name, address, and telephone number.

UST Owner or Operator

Name: Shivam Energy, Inc.
Contact: Rajani Patel
Address: 399 West Liberty Street
City: Wauconda
State: Illinois
ZIP Code: 60084
Phone: (847) 526-3455
Signature: Rajani Patel
Date: June 10, 2011

Consultant

Company: TriCore Environmental, LLC
Contact: Kim T. Miller, P.E.
Address: 1800 W. Hawthorne Ln., Ste. P
City: West Chicago
State: Illinois
ZIP Code: 60185
Phone: (630) 520-9973
Signature: Kim T. Miller
Date: 9-13-11

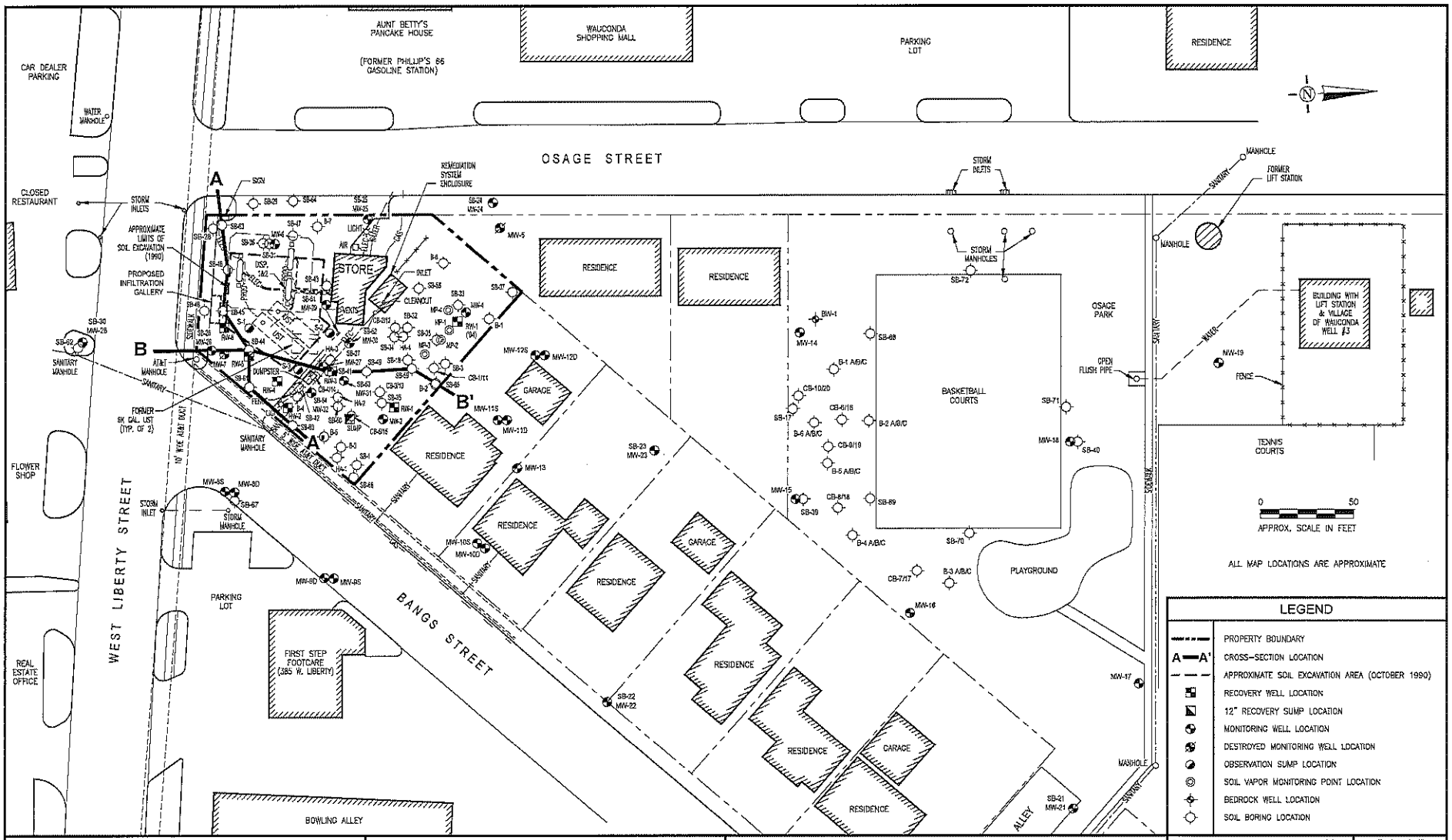
I certify under penalty of law that all activities that are the subject of this report were conducted under my supervision or were conducted under the supervision of another Licensed Professional Engineer or Licensed Professional Geologist and reviewed by me; that this report and all attachments were prepared under my supervision; that, to the best of my knowledge and belief, the work described in this report has been completed in accordance with the Environmental Protection Act [415 ILCS 5], 35 III. Adm. Code 734, and generally accepted standards and practices of my profession; and that the information presented is accurate and complete. I am aware there are significant penalties for submitting false statements or representations to the Illinois EPA, including but not limited to fines, imprisonment, or both as provided in Sections 44 and 57.17 of the Environmental Protection Act [415 ILCS 5/44 and 57.17].

Licensed Professional Engineer or Geologist

Name: Shawn Rodeck
Company: TriCore Environmental, LLC
Address: 1800 W. Hawthorne Ln, Ste. P
City: West Chicago
State: Illinois
ZIP Code: 60185
Phone: (630) 520-9973
III. Registration No.: 062-052879
License Expiration Date: 11/30/11
Signature: Shawn Rodeck
Date: 09/21/2011

L.P.E. or L.P.G. Seal

FIGURES



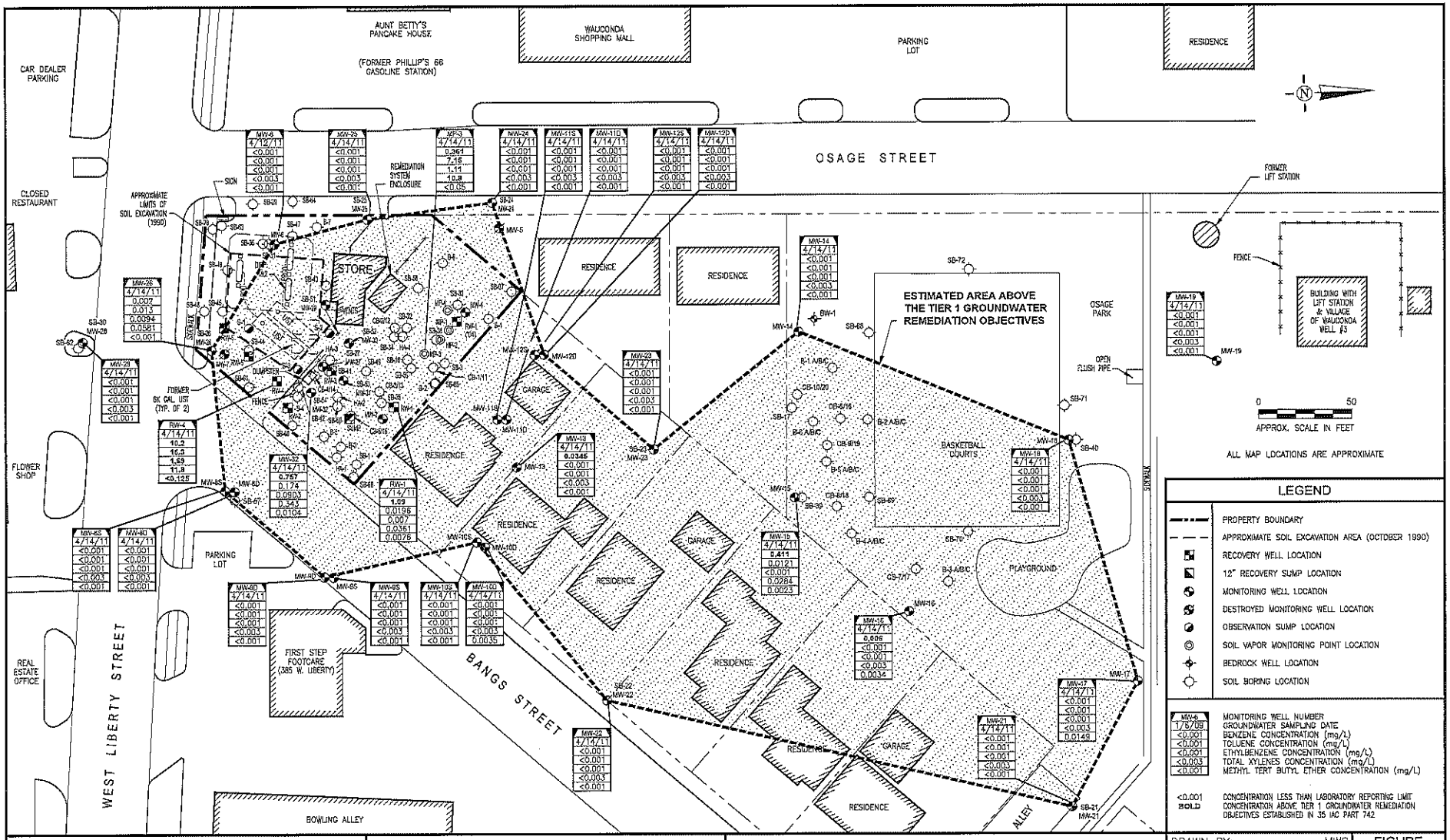
TriCore Environmental, LLC
1800 West Hawthorne Lane, Suite P
West Chicago, Illinois 60185
(630) 520-9973

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084

SITE MAP WITH
SOIL BORING AND MONITORING WELL LOCATIONS
SHIVAM ENERGY, INC.
399 WEST LIBERTY STREET
WAUCONDA, LAKE COUNTY, ILLINOIS 60084

DRAWN BY:	MWS
APPROVED BY:	SAR
SCALE:	1" = 50'
DATE:	9/19/11
DRAWING FILE:	0401SM11

FIGURE
1



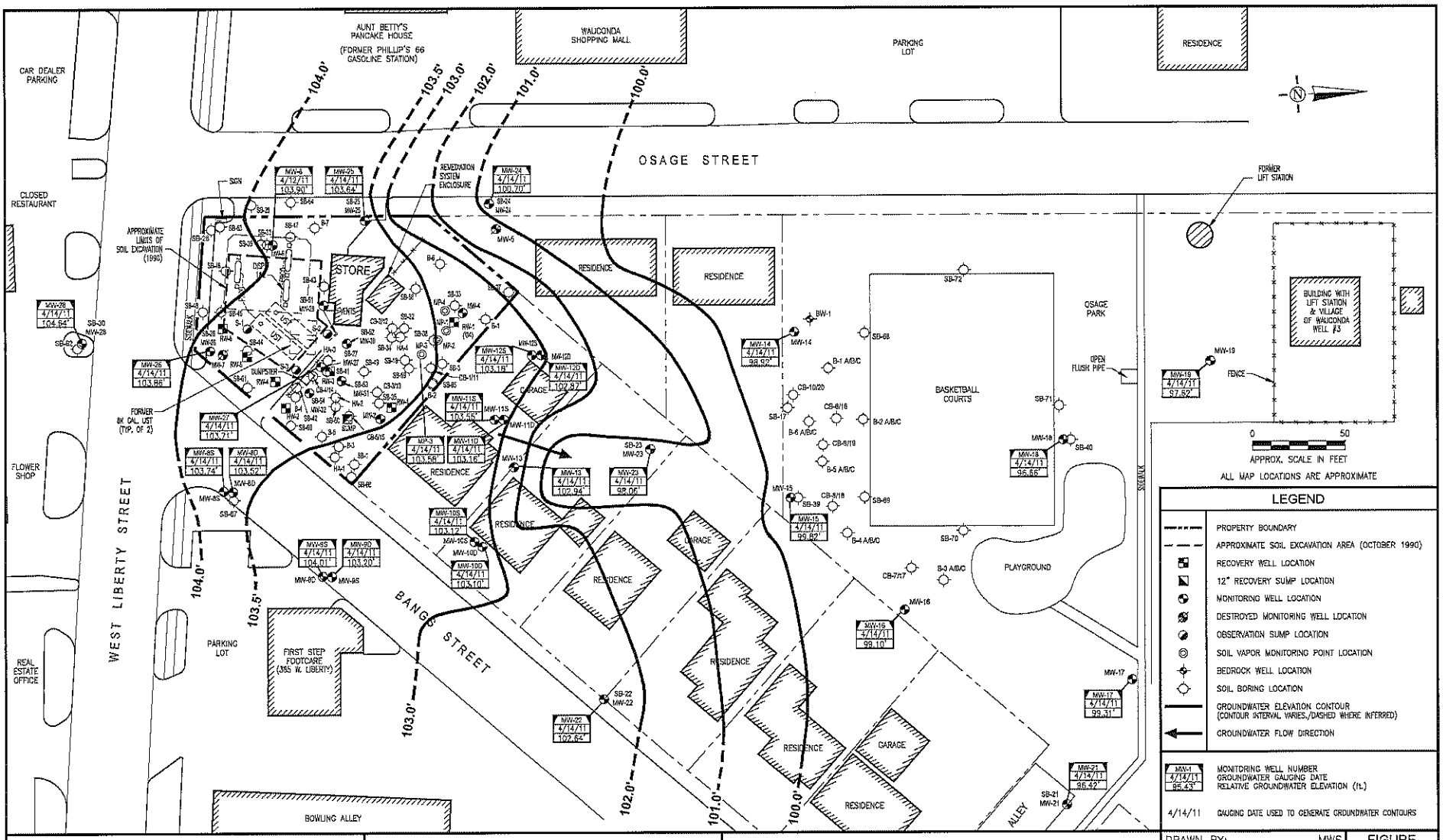
TriCore Environmental, LLC
1800 West Hawthorne Lane, Suite P
West Chicago, Illinois 60185
(630) 520-9973

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084

GROUNDWATER ANALYTICAL RESULTS MAP
SHIVAM ENERGY, INC.
399 WEST LIBERTY STREET
WAUCONDA, LAKE COUNTY, ILLINOIS 60084

DRAWN BY:	MWS
APPROVED BY:	SAR
SCALE:	1" = 50'
DATE:	9/19/11
DRAWING FILE:	0401GA4

FIGURE
2



TriCore Environmental, LLC
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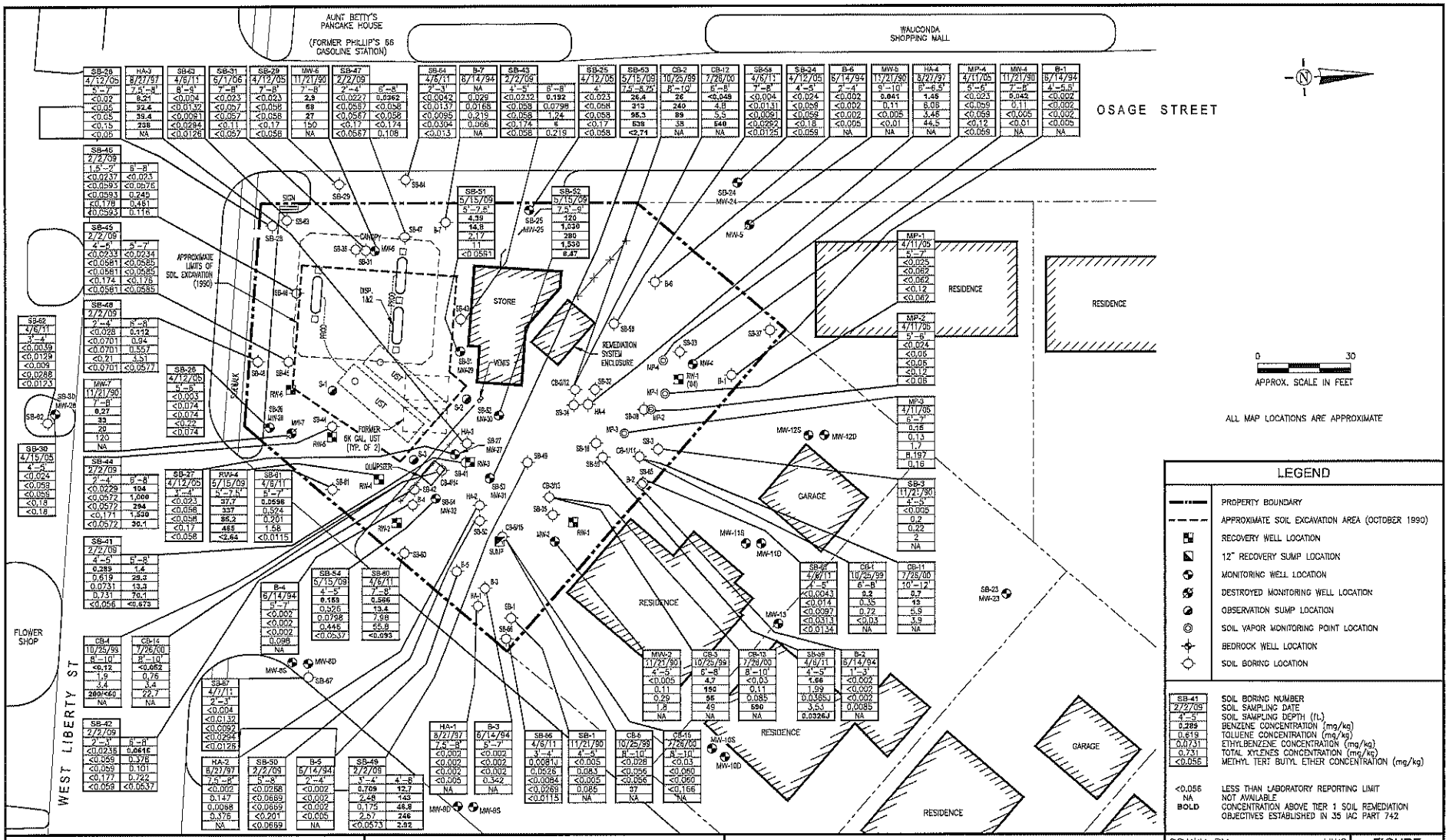
Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084

GROUNDWATER ELEVATION AND FLOW DIRECTION MAP
SHIVAM ENERGY, INC.
399 WEST LIBERTY STREET
WAUCONDA, LAKE COUNTY, ILLINOIS 60084

DRAWN BY:	MWS
APPROVED BY:	SAR
SCALE:	1" = 50'
DATE:	9/19/11
DRAWING FILE:	0401GE2

FIGURE
3



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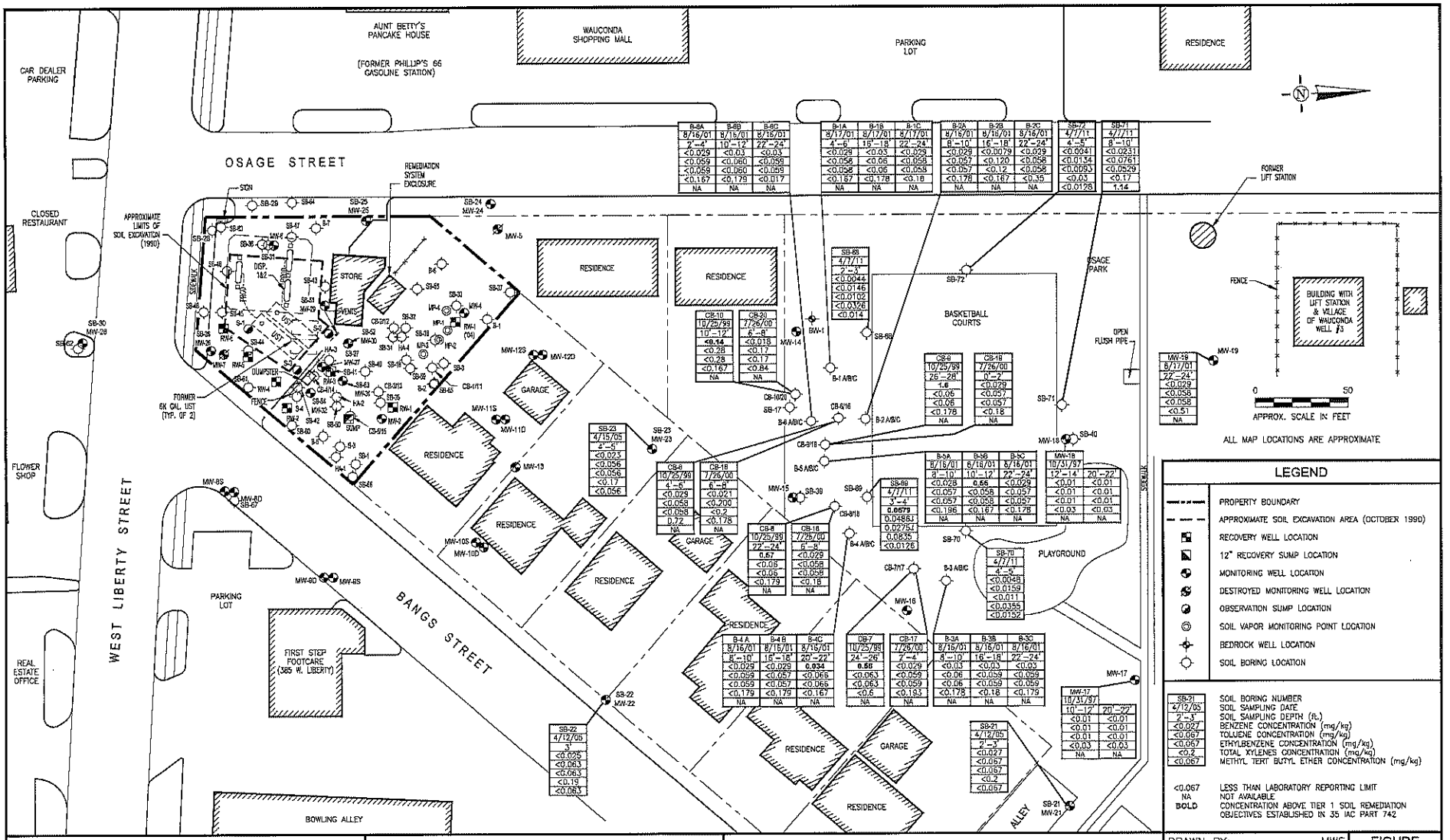
Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084

SOIL ANALYTICAL RESULTS MAP - ON-SITE AREA
SHIVAM ENERGY, INC.
399 WEST LIBERTY STREET
WAUCONDA, LAKE COUNTY, ILLINOIS 60084

DRAWN BY:	MWS
APPROVED BY:	SAR
SCALE:	1" = 30'
DATE:	9/19/11
DRAWING FILE:	0401SA5

FIGURE 4A



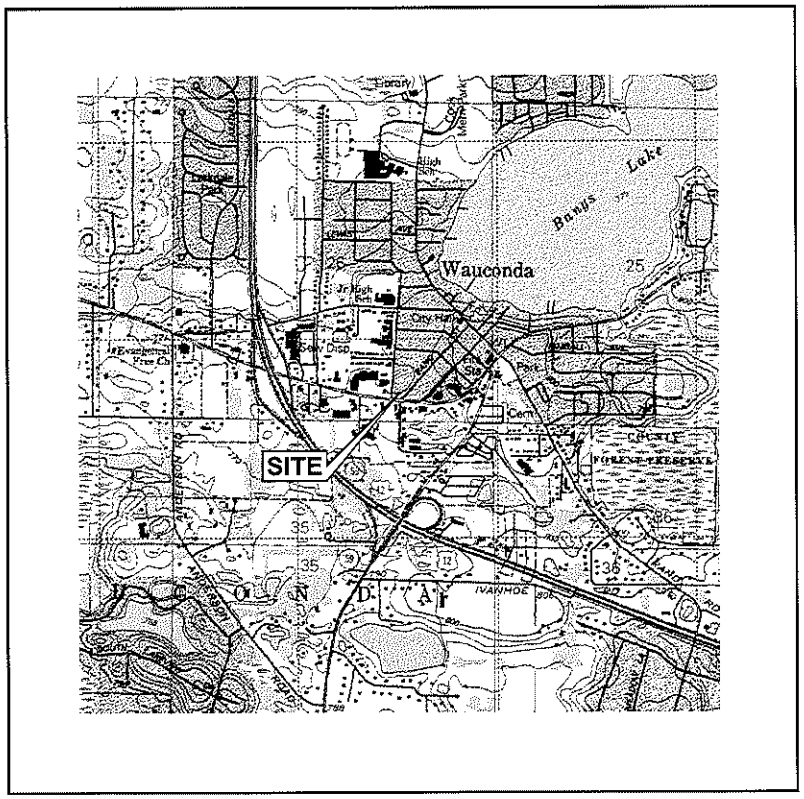
TriCore Environmental, LLC
1800 West Hawthorne Lane, Suite P
West Chicago, Illinois 60185
(630) 520-9973

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084

SOIL ANALYTICAL RESULTS MAP - OFF-SITE AREA
SHIVAM ENERGY, INC.
399 WEST LIBERTY STREET
WAUCONDA, LAKE COUNTY, ILLINOIS 60084

DRAWN BY:	MWS
APPROVED BY:	SAR
SCALE:	1" = 50'
DATE:	9/19/11
DRAWING FILE:	0401SA6

FIGURE 4B



U.S.G.S. TOPOGRAPHIC MAP

AERIAL PHOTO OF SURROUNDING AREA

1 0 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 .5 0 1 KILOMETER

SCALE 1:24000

WAUCONDA & BARRINGTON QUADRANGLES
LAKE COUNTY, ILLINOIS
7.5 MINUTE SERIES (TOPOGRAPHIC)

QUADRANGLE LOCATION

0 120 240

APPROXIMATE SCALE IN FEET

TriCore Environmental, LLC
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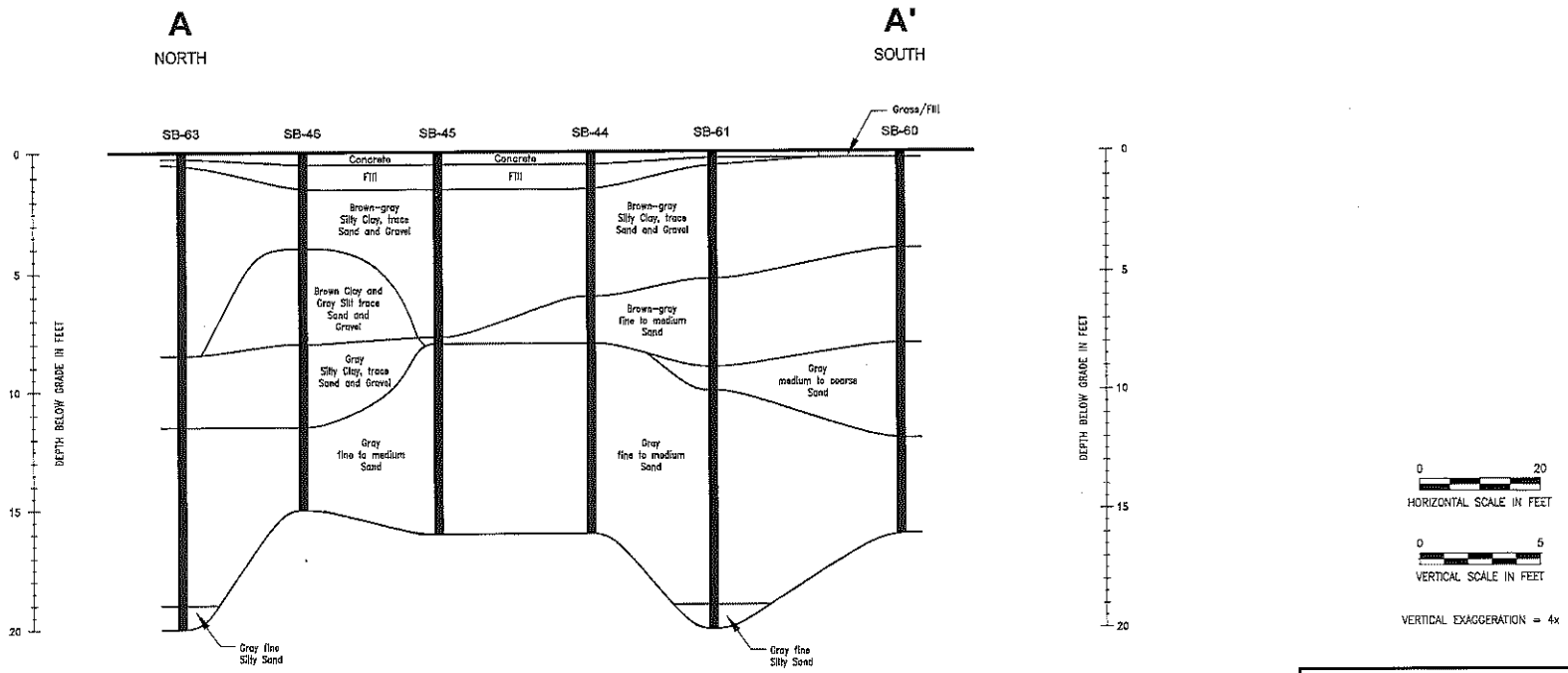
Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084

SITE LOCATION MAP
SHIVAM ENERGY, INC.
399 WEST LIBERTY STREET
WAUCONDA, LAKE COUNTY, ILLINOIS 60084

DRAWN BY:	MWS
APPROVED BY:	SAR
SCALE:	AS NOTED
DATE:	9/19/11
DRAWING FILE:	0401SL1B

FIGURE
5



LEGEND

SB — SOIL BORING NUMBER

GROUND SURFACE

CHANGE IN LITHOLOGY

SOIL BORING

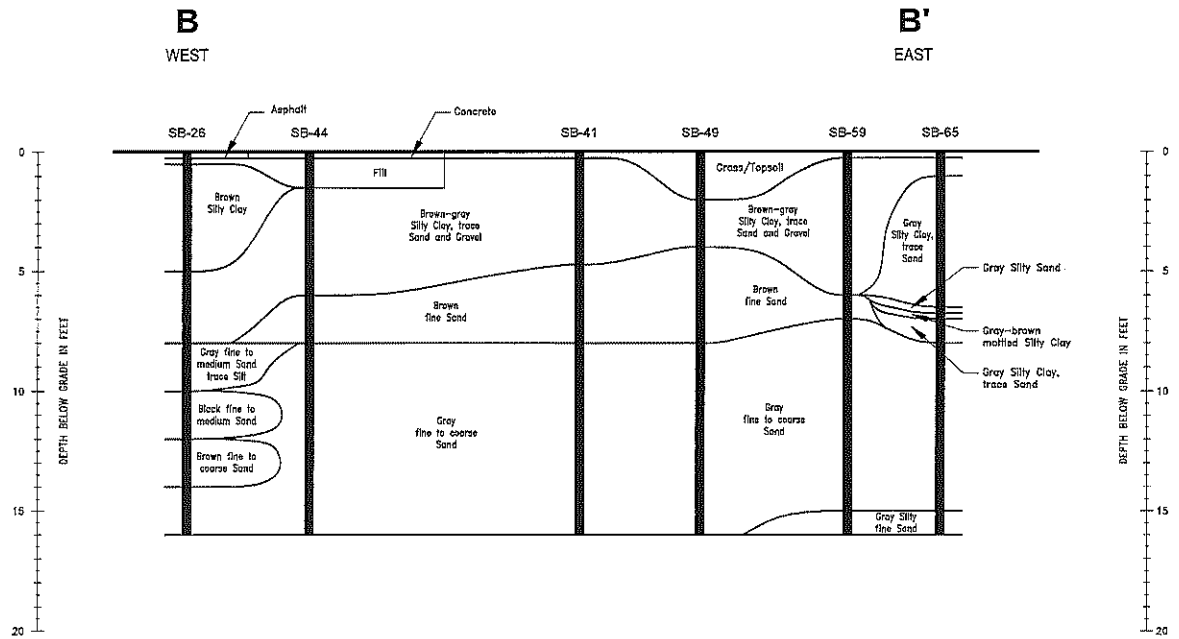
TriCore Environmental, LLC
1800 West Hawthorne Lane, Suite P
West Chicago, Illinois 60185
(630) 520-9973

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084

GEOLOGIC CROSS - SECTION, NORTH - SOUTH
SHIVAM ENERGY, INC.
399 WEST LIBERTY STREET
WAUCONDA, LAKE COUNTY, ILLINOIS 60084

DRAWN BY:	MWS
APPROVED BY:	SAR
SCALE:	AS INDICATED
DATE:	9/20/11
DRAWING FILE:	0401AA1

FIGURE
6A



0 20
HORIZONTAL SCALE IN FEET

0 5
VERTICAL SCALE IN FEET

VERTICAL EXAGGERATION = 4x

LEGEND

SB — SOIL BORING NUMBER
GROUND SURFACE
CHANGE IN LITHOLOGY
SOIL BORING

TriCore Environmental, LLC
1800 West Hawthorne Lane, Suite P
West Chicago, Illinois 60185
(630) 520-9973

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084

GEOLOGIC CROSS - SECTION, WEST - EAST
SHIVAM ENERGY, INC.
399 WEST LIBERTY STREET
WAUCONDA, LAKE COUNTY, ILLINOIS 60084

DRAWN BY:	MWS
APPROVED BY:	SAR
SCALE:	AS INDICATED
DATE:	9/20/11
DRAWING FILE:	0401BB1

FIGURE
6B

TABLES

Table 1
Groundwater Elevation and Analytical Results

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Lake County, Illinois 60084

Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
BW-1	19-Jan-93						BDL	BDL	BDL	BDL	
BW-1	17-Jun-93						<0.001	<0.001	<0.001	<0.001	
BW-1	11-Jan-93						<0.001	<0.001	<0.001	<0.001	
BW-1	27-Jun-94						<0.001	<0.001	<0.001	<0.003	
BW-1	16-Feb-95						<0.002	<0.002	<0.002	<0.005	
BW-1	28-Jul-95						<0.002	<0.002	<0.002	<0.005	
BW-1	22-Mar-96						<0.002	<0.002	<0.002	<0.005	
BW-1	11-Oct-01	99.08		27.34		71.74	<0.001	<0.001	<0.001	<0.003	
BW-1	14-Mar-02	99.08		25.56		73.52	<0.001	<0.001	<0.001	<0.003	
BW-1	6-Jun-02	99.08		30.36		68.72	<0.001	<0.001	<0.001	<0.003	
BW-1	30-Aug-02	99.08		28.25		70.83	<0.001	<0.001	<0.001	<0.003	
BW-1	6-Dec-02	99.08		26.61		72.47	<0.001	<0.001	<0.001	<0.003	
BW-1	6-May-04	99.08					Not able to open, manhole needs to be repaired				
MP-1	21-Apr-05	108.51		5.09		103.42	0.49	0.013	<0.0025	0.015	0.0096
MP-1	6-Jan-09	108.51					0.0301	0.0011	0.0021	<0.003	0.001
MP-2	21-Apr-05	108.72		5.31		103.41	0.23	0.0095	0.14	0.2	0.0077
MP-3	21-Apr-05	109.30		5.89		103.41	0.13	0.65	0.13	1.2	0.011
MP-3	29-Dec-08	109.30		5.17		104.13					
MP-3	22-Jun-10	109.30		5.71		103.59					
MP-3	30-Jun-10	109.30		5.68		103.62					
MP-3	6-Jul-10	109.30		5.62		103.68					
MP-3	13-Jul-10	109.30		5.67		103.63					
MP-3	20-Jul-10	109.30		5.64		103.66					
MP-3	27-Jul-10	109.30		5.60		103.70					
MP-3	18-Aug-10	109.30		5.63		103.67					
MP-3	24-Aug-10	109.30		5.78		103.52					
MP-3	31-Aug-10	109.30		5.82		103.48					
MP-3	21-Sep-10	109.30		5.65		103.65					
MP-3	30-Sep-10	109.30		5.63		103.67					
MP-3	12-Oct-10	109.30		5.65		103.65					
MP-3	3-Nov-10	109.30		5.58		103.72					
MP-3	15-Nov-10	109.30		5.65		103.65					
MP-3	2-Dec-10	109.30		5.71		103.59					
MP-3	10-Dec-11	109.30		5.65		103.65					
MP-3	5-Jan-11	109.30		6.63		102.67					
MP-3	14-Mar-11	109.30		5.64		103.66					
MP-3	14-Apr-11	109.30		5.72		103.58	0.361	7.15	1.11	10.8	<0.05
MP-4	21-Apr-05	109.33		5.89		103.44	0.24	0.014	<0.001	0.013	0.0061
MW-2	29-Nov-90		10.00	10.30	0.30						
MW-2	27-Jan-92		FP								
MW-2	19-Feb-92		FP								
MW-2	24-Aug-92		FP								
MW-2	19-Jan-93		FP								
MW-2	17-Jun-93	101.06		10.71		90.35	0.23	3.2	0.65	15	
MW-2	11-Nov-93	101.06		10.96		90.10	0.134	0.01	0.052	1.43	
MW-2	27-Jun-94	101.06	10.95	10.96	0.01	90.11					
MW-2	16-Feb-95	101.06		10.36		90.70	0.178	0.0313	0.447	0.3	
MW-2	28-Jul-95	101.06		10.13		90.93	0.257	0.117	0.139	0.808	
MW-2	22-Mar-96	101.06		11.14		89.92	0.1	0.154	0.331	3.93	
MW-2	17-Jun-96	101.06		9.33		91.73	0.0029	0.0041	0.0107	0.355	
MW-2	25-Sep-96	101.06		10.68		90.38	0.0154	0.0167	0.0546	0.584	
MW-2	24-Apr-97	101.06		9.89		91.17	1.11	3.1	0.71	5.76	
MW-2	17-Jun-97	101.06		9.88		91.18	2.57	3.85	0.487	5.53	
MW-2	27-Aug-97	101.06		10.48		90.58	0.116	0.519	0.534	7.45	
MW-2	5-Nov-97	113.61		10.75		102.86	0.076	0.02	0.31	2.4	
MW-2	27-Feb-98	113.61		10.23		103.38	0.17	0.029	0.074	0.73	
MW-2	10-Jun-98	113.61		10.08		103.53	0.0079	0.0011	0.0075	0.15	
MW-2	8-Oct-98	113.61		10.31		103.30	0.013	0.019	0.18	1.38	
MW-2	31-Mar-99	113.61		10.12		103.49	0.64	0.024	0.087	250/<5	
MW-2	9-Jun-99	113.61		10.00		103.61	0.77	0.22	0.075	0.62	
MW-2	2-Sep-99	113.61		10.60		103.01	0.086	0.0076	0.029	0.066	
MW-2	28-Oct-99	113.61		10.52		103.09	0.16	0.0025	0.016	0.041	
MW-2	23-Feb-00	113.61		10.32		103.29	0.55	0.019	0.27	0.861	
MW-2	24-May-00	113.61		9.77		103.84	0.09	0.11	0.11	1.37	
MW-2	15-Aug-00	113.61		10.21		103.40	0.36	0.13	0.054	0.41	
MW-2	9-Nov-00	113.61		10.03		103.58	0.14	0.099	0.12	0.96	
MW-2	11-Oct-01	113.61		10.24		103.37	0.027	0.036	0.02	0.142	
MW-2	14-Mar-02	113.61		9.85		103.76	0.083	0.012	0.13	0.72	
MW-2	6-Jun-02	113.61		9.62		103.99	0.1	0.052	0.32	3.08	
MW-2	30-Aug-02	113.61		10.16		103.45	0.017	0.0058	0.073	0.448	
MW-2	6-Dec-02	113.61		10.62		102.99	0.012	<0.001	0.003	0.0031/<0.001	

Table 1
Groundwater Elevation and Analytical Results

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Lake County, Illinois 60084

Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
MW-2	6-May-04	113.61		10.34		103.27	0.031	0.0014	0.0046	0.003	<0.01
MW-2	21-Apr-05	113.61		10.17		103.44	0.035	<0.001	0.0022	0.029	0.024
MW-2	31-Dec-08	113.61		9.58		104.03					
MW-2	5-Jan-09	113.61		9.84		103.77					
MW-2	6-Jan-09	113.61					Obstruction in well, not able to collect samples				
MW-2	18-Aug-09	113.61		6.33		107.28					
MW-2	1-Sep-09	113.61		10.13		103.48					
MW-2	22-Jun-10	113.61		10.05		103.56					
MW-2	30-Jun-10	113.61		10.01		103.60					
MW-2	6-Jul-10	113.61		10.15		103.46					
MW-2	13-Jul-10	113.61		10.16		103.45					
MW-2	20-Jul-10	113.61		10.61		103.00					
MW-2	27-Jul-10	113.61		10.14		103.47					
MW-2	18-Aug-10	113.61		10.20		103.41					
MW-2	24-Aug-10	113.61		10.10		103.51					
MW-2	31-Aug-10	113.61		10.08		103.53					
MW-2	21-Sep-10	113.61		10.06		103.55					
MW-2	30-Sep-10	113.61		10.05		103.56					
MW-2	12-Oct-10	113.61		10.02		103.59					
MW-2	3-Nov-10	113.61		9.95		103.66					
MW-2	15-Nov-10	113.61		9.97		103.64					
MW-2	2-Dec-10	113.61		9.95		103.66					
MW-2	10-Dec-10	113.61		9.85		103.76					
MW-2	22-Dec-10	113.61		9.20		104.41					
MW-2	27-Dec-10	113.61		9.83		103.78					
MW-4	28-Nov-90						3.5	0.33	0.27	1.1	
MW-4	27-Jan-92						3.1	0.065	0.072	4.147	
MW-4	24-Aug-92						0.14	0.024	0.19	0.49	
MW-4	19-Jan-93						0.26	0.006	BDL	0.021	
MW-4	17-Jun-93	98.97		8.22		90.75	0.015	<0.001	<0.001	0.005	
MW-4	11-Nov-93	98.97		8.58		90.39	<0.001	<0.001	<0.001	<0.001	
MW-4	27-Jun-94	98.97		8.65		90.32	0.154	0.0243	0.0081	0.0098	
MW-4	16-Feb-95	98.97		8.24		90.73	0.253	0.113	0.0845	0.202	
MW-4	28-Jul-95	98.97		8.06		90.91	0.179	0.0115	0.175	0.261	
MW-4	22-Mar-96	98.97		8.75		90.22	0.363	0.346	0.178	0.456	
MW-4	17-Jun-96	98.97		5.79		93.18	<0.002	<0.002	<0.002	<0.005	
MW-4	25-Sep-96	98.97		8.44		90.53	0.0032	<0.002	0.0052	0.0052	
MW-4	24-Apr-97	98.97		7.84		91.13	0.444	0.0255	0.0945	0.11	
MW-4	17-Jun-97	98.97		6.87		92.10	0.386	0.0359	0.125	0.273	
MW-4	27-Aug-97	98.97		8.23		90.74	0.0568	0.0321	0.128	0.322	
MW-4	5-Nov-97	111.44		8.54		102.90	0.037	0.0035	0.043	0.11	
MW-4	27-Feb-98	111.44		7.98		103.46	0.13	<0.005	<0.005	0.04	
MW-4	10-Jun-98	111.44		7.94		103.50	0.029	0.019	0.022	0.052	
MW-4	8-Oct-98	111.44		8.52		102.92	0.018	0.0024	0.033	0.1/<0.001	
MW-4	31-Mar-99	111.44		8.07		103.37	<0.001	<0.001	<0.001	<0.003	
MW-4	9-Jun-99	111.44		8.07		103.37	0.36	0.028	0.28	0.8228	
MW-4	2-Sep-99	111.44		9.50		101.94	0.18	0.017	0.28	1.1/<0.005	
MW-4	28-Oct-99	111.44		8.44		103.00	0.073	0.0046	0.095	0.360/<0.004	
MW-4	23-Feb-00	111.44		8.17		103.27	0.57	<0.005	0.042	0.061/<0.005	
MW-4	24-May-00	111.44		7.69		103.75	0.095	0.0057	0.01	0.0089/<0.001	
MW-4	15-Aug-00	111.44		8.10		103.34	0.36	0.022	0.13	0.140/<0.0025	
MW-4	9-Nov-00	111.44		7.97		103.47	0.16	<0.025	0.13	0.064/<0.005	
MW-4	11-Oct-01	111.44		8.11		103.33	0.039	0.005	0.03	0.013/<0.001	
MW-4	14-Mar-02	111.44		7.68		103.76	0.13	0.0049	<0.001	<0.003	
MW-4	6-Jun-02	111.44		7.35		104.09	0.013	<0.001	0.0058	0.0025/<0.001	
MW-4	30-Aug-02	111.44		8.05		103.39	0.14	0.013	0.035	0.031/<0.001	
MW-4	6-Dec-02	111.44		8.53		102.91	0.17	0.004	0.0016	0.016/<0.001	
MW-4	6-May-04	111.44					Obstruction in well, not able to collect samples				
MW-4	21-Apr-05	111.44		8.07		103.37	0.14	0.003	<0.001	0.0035	0.0011
MW-4	5-Jan-09	111.44		7.64		103.80					
MW-4	6-Jan-09	111.44					Obstruction in well, not able to collect samples				
MW-4	1-Sep-09	111.44		8.01		103.43					
MW-5	28-Nov-90						<0.005	<0.005	<0.005	<0.01	
MW-5	27-Jan-92						<0.002	<0.002	<0.002	<0.005	
MW-5	24-Aug-92						<0.002	<0.002	<0.002	<0.005	
MW-5	19-Jan-93						BDL	BDL	BDL	BDL	
MW-5	17-Jun-93	95.44		4.71		90.73	<0.001	<0.001	<0.001	<0.001	
MW-5	11-Nov-93	95.44		5.09		90.35	<0.001	<0.001	<0.001	<0.001	
MW-5	27-Jun-94	95.44		5.31		90.13	<0.001	<0.001	<0.001	<0.003	
MW-5	16-Feb-95	95.44		4.81		90.63	<0.002	<0.002	<0.002	<0.005	
MW-5	28-Jul-95	95.44		4.99		90.45	<0.0073	<0.002	<0.002	<0.005	

Table 1
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Shivam Energy, Inc.
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Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
MW-5	22-Mar-96	95.44		5.28		90.16	<0.002	<0.002	<0.002	<0.005	
MW-5	17-Jun-96	95.44		4.24		91.20	<0.002	<0.002	<0.002	<0.005	
MW-5	25-Sep-96	95.44		5.07		90.37	<0.002	<0.002	<0.002	<0.005	
MW-5	24-Apr-97	95.44		4.40		91.04	<0.002	<0.002	<0.002	<0.005	
MW-5	17-Jun-97	95.44		4.34		91.10	<0.002	<0.002	<0.002	<0.003	
MW-5	27-Aug-97	95.44		4.84		90.60	<0.002	<0.002	<0.002	<0.003	
MW-5	5-Nov-97	108.15		5.21		102.94	<0.001	<0.001	<0.01	<0.003	
MW-5	27-Feb-98	108.15		4.58		103.57	<0.001	<0.001	<0.001	<0.003	
MW-5	10-Jun-98	108.15		4.53		103.62	<0.001	<0.001	<0.001	<0.003	
MW-5	8-Oct-98	108.15		4.78		103.37	<0.001	<0.001	<0.001	<0.003	
MW-5	31-Mar-99	108.15		4.76		103.39	0.053	0.07	0.11	0.38	
MW-5	9-Jun-99	108.15		4.65		103.50	<0.001	<0.001	<0.001	<0.003	
MW-5	2-Sep-99	108.15		5.34		102.81	<0.001	<0.001	<0.001	<0.002	
MW-5	28-Oct-99	108.15		5.19		102.96	<0.001	<0.001	<0.001	<0.003	
MW-5	23-Feb-00	108.15		4.92		103.23					
MW-5	24-May-00	108.15		4.34		103.81	<0.001	<0.001	<0.001	<0.003	
MW-5	15-Aug-00	108.15		4.81		103.34	<0.001	<0.001	<0.001	<0.003	
MW-5	9-Nov-00	108.15		4.75		103.40	<0.001	<0.001	<0.001	<0.003	
MW-5	11-Oct-01	108.15		4.80		103.35	<0.001	<0.001	<0.001	<0.003	
MW-5	14-Mar-02	108.15		4.41		103.74	<0.001	<0.001	<0.001	<0.003	
MW-5	6-Jun-02	108.15		4.63		103.52	<0.001	<0.001	<0.001	<0.003	
MW-5	30-Aug-02	108.15		4.75		103.40	<0.001	<0.001	<0.001	<0.003	
MW-5	6-Dec-02	108.15		5.24		102.91	<0.001	<0.001	<0.001	<0.003	
MW-5	6-May-04						Well destroyed				
MW-6	28-Nov-90						<0.005	<0.005	<0.005	<0.01	
MW-6	19-Jan-93						BDL	BDL	BDL	BDL	
MW-6	17-Jun-93	98.46		7.07		91.39	<0.001	<0.001	<0.001	<0.001	
MW-6	11-Nov-93	98.46		7.63		90.83	<0.001	<0.001	<0.001	<0.001	
MW-6	27-Jun-94	98.46		7.57		90.89	<0.001	<0.001	<0.001	<0.003	
MW-6	16-Feb-95	98.46		7.41		91.05	<0.002	<0.002	<0.002	<0.005	
MW-6	28-Jul-95	98.46		7.11		91.35	0.0045	<0.002	<0.002	<0.005	
MW-6	22-Mar-96	98.46		7.89		90.57	<0.002	<0.002	<0.002	<0.005	
MW-6	17-Jun-96	98.46		6.11		92.35	<0.002	<0.002	<0.002	<0.005	
MW-6	25-Sep-96	98.46		7.59		90.87	<0.002	<0.002	<0.002	<0.005	
MW-6	24-Apr-97	98.46		6.87		91.59	<0.002	<0.002	<0.002	<0.005	
MW-6	17-Jun-97	98.46		6.81		91.65	<0.002	<0.002	<0.002	<0.005	
MW-6	27-Aug-97	98.46		7.34		91.12	<0.002	<0.002	<0.002	<0.005	
MW-6	5-Nov-97	111.06		7.74		103.32	<0.001	<0.001	<0.002	<0.003	
MW-6	27-Feb-98	111.06		7.03		104.03	<0.001	<0.001	<0.001	<0.003	
MW-6	10-Jun-98	111.06		6.97		104.09	<0.001	<0.001	<0.001	<0.003	
MW-6	8-Oct-98	111.06		7.28		103.78	<0.001	<0.001	<0.001	<0.003	
MW-6	31-Mar-99	111.06		7.14		103.92	<0.001	<0.001	<0.001	<0.003	
MW-6	9-Jun-99	111.06		6.95		104.11	<0.001	<0.001	<0.001	<0.003	
MW-6	2-Sep-99	111.06		7.71		103.35	<0.001	<0.001	<0.001	<0.002	
MW-6	28-Oct-99	111.06		7.64		103.42	<0.001	<0.001	<0.001	<0.002	
MW-6	23-Feb-00	111.06		7.42		103.64	<0.001	<0.001	<0.001	<0.003	
MW-6	24-May-00	111.06		6.68		104.38	<0.001	<0.001	<0.001	<0.003	
MW-6	15-Aug-00	111.06		7.25		103.81	0.58	3.1	0.55	2.49	
MW-6	9-Nov-00	111.06		7.11		103.95	0.069	1	0.35	2.3	
MW-6	11-Oct-01	111.06	Sheen	7.39	Sheen	103.67					
MW-6	14-Mar-02	111.06	Sheen	6.93	Sheen	104.13	0.0029	0.002	0.015	0.032	
MW-6	6-Jun-02	111.06	Sheen	6.70	Sheen	104.36	0.0017	0.0016	0.012	0.0256	
MW-6	30-Aug-02	111.06	Sheen	7.27	Sheen	103.79	0.0015	0.0011	0.1	0.0245	
MW-6	6-Dec-02	111.06	Sheen	7.83	Sheen	103.23	<0.001	<0.001	0.0041	0.0099	
MW-6	6-May-04	111.06	Sheen	7.45	Sheen	103.61	<0.001	<0.001	0.001	<0.003	<0.001
MW-6	21-Apr-05	111.06		7.26		103.80					
MW-6	22-Apr-05	111.06					<0.001	<0.001	<0.001	<0.003	<0.001
MW-6	29-Dec-08	111.06		6.67		104.39					
MW-6	5-Jan-09	111.06		7.06		104.00					
MW-6	6-Jan-09	111.06					<0.001	<0.001	<0.001	<0.003	<0.001
MW-6	1-Sep-09	111.06		7.27		103.79					
MW-6	22-Jun-10	111.06		7.13		103.93					
MW-6	30-Jun-10	111.06		7.12		103.94					
MW-6	6-Jul-10	111.06		7.10		103.96					
MW-6	13-Jul-10	111.06		7.09		103.97					
MW-6	20-Jul-10	111.06		7.42		103.64					
MW-6	27-Jul-10	111.06		7.08		103.98					
MW-6	18-Aug-10	111.06		7.11		103.95					
MW-6	24-Aug-10	111.06		7.25		103.81					
MW-6	31-Aug-10	111.06		7.24		103.82					
MW-6	21-Sep-10	111.06		7.30		103.76					

Table 1
Groundwater Elevation and Analytical Results

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Lake County, Illinois 60084

Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
MW-6	30-Sep-10	111.06		7.34		103.72					
MW-6	12-Oct-10	111.06		7.32		103.74					
MW-6	3-Nov-10	111.06		7.58		103.48					
MW-6	15-Nov-10	111.06		7.61		103.45					
MW-6	2-Dec-10	111.06		7.65		103.41					
MW-6	10-Dec-10	111.06		7.61		103.45					
MW-6	22-Dec-10	111.06		7.58		103.48					
MW-6	27-Dec-10	111.06		7.60		103.46					
MW-6	2-Mar-11	111.06		7.16		103.90					
MW-6	7-Mar-11	111.06		7.06		104.00					
MW-6	14-Apr-11	111.06		7.16		103.90	<0.001	<0.001	<0.001	<0.003	<0.001
MW-7	29-Nov-90		7.39	7.69	0.30						
MW-7	21-Apr-05						Well destroyed				
MW-8S	1-Apr-91	86.88		6.61		80.27	<0.005	<0.005	<0.005	<0.01	
MW-8S	27-Jan-92						<0.002	<0.003	<0.002	<0.01	
MW-8S	24-Aug-92						<0.002	<0.003	<0.002	<0.007	
MW-8S	17-Jun-93	98.29		7.56		90.73	<0.001	<0.001	<0.001	<0.001	
MW-8S	11-Nov-93	98.29		7.58		90.71	<0.001	<0.001	<0.001	<0.001	
MW-8S	27-Jun-94	98.29		7.46		90.83	<0.001	<0.001	<0.001	<0.003	
MW-8S	16-Feb-95	98.29		7.43		90.86	<0.002	<0.002	<0.002	<0.005	
MW-8S	28-Jul-95	98.29		7.14		91.15	<0.0034	<0.002	<0.002	<0.005	
MW-8S	22-Mar-96	98.29		7.73		90.56	<0.002	<0.002	<0.002	<0.005	
MW-8S	17-Jun-96	98.29		6.46		91.83	<0.002	<0.002	<0.002	<0.005	
MW-8S	25-Sep-96	98.29		7.49		90.80	<0.002	<0.002	<0.002	<0.005	
MW-8S	24-Apr-97	98.29		6.94		91.35	<0.002	<0.002	<0.002	<0.005	
MW-8S	17-Jun-97	98.29		6.86		91.43	<0.002	<0.002	<0.002	<0.005	
MW-8S	27-Aug-97	98.29		7.26		91.03	<0.002	<0.002	<0.002	<0.005	
MW-8S	5-Nov-97	110.89		7.62		103.27	<0.001	<0.001	<0.001	<0.003	
MW-8S	27-Feb-98	110.89		7.50		103.39	<0.001	<0.001	<0.001	<0.003	
MW-8S	10-Jun-98	110.89		6.95		103.94	<0.001	<0.001	<0.001	<0.001	
MW-8S	8-Oct-98	110.89		7.19		103.70	<0.001	<0.001	<0.001	<0.003	
MW-8S	31-Mar-99	110.89		7.12		103.77	<0.001	<0.001	<0.001	<0.003	
MW-8S	9-Jun-99	110.89		7.00		103.89	<0.001	<0.001	<0.001	<0.003	
MW-8S	2-Sep-99	110.89		7.61		103.28	<0.001	<0.001	<0.001	<0.002	
MW-8S	28-Oct-99	110.89		7.56		103.33	<0.001	<0.001	<0.001	<0.002	
MW-8S	23-Feb-00	110.89		7.48		103.41	<0.001	0.0024	<0.001	<0.0041	
MW-8S	24-May-00	110.89		6.77		104.12	<0.001	<0.001	<0.001	<0.003	
MW-8S	15-Aug-00	110.89		7.62		103.27	<0.001	<0.001	<0.001	<0.003	
MW-8S	9-Nov-00	110.89		7.20		103.69	<0.001	<0.001	<0.001	<0.003	
MW-8S	11-Oct-01	110.89		7.26		103.63	<0.001	<0.001	<0.001	<0.003	
MW-8S	14-Mar-02	110.89		6.91		103.98	<0.001	<0.001	<0.001	<0.003	
MW-8S	6-Jun-02	110.89		6.71		104.18	<0.001	<0.001	<0.001	<0.003	
MW-8S	30-Aug-02	110.89		7.18		103.71	<0.001	<0.001	<0.001	<0.003	
MW-8S	6-Dec-02	110.89		7.64		103.25	<0.001	<0.001	<0.001	<0.003	
MW-8S	6-May-04	110.89		7.39		103.50	<0.001	<0.001	<0.001	<0.003	<0.001
MW-8S	21-Apr-05	110.89		7.22		103.67					
MW-8S	22-Apr-05	110.89					<0.001	<0.001	<0.001	<0.003	<0.001
MW-8S	5-Jan-09	110.89		6.97		103.92					
MW-8S	6-Jan-09	110.89		7.00		103.89	<0.001	<0.001	<0.001	<0.003	<0.001
MW-8S	1-Sep-09	110.89		7.22		103.67					
MW-8S	14-Apr-11	110.89		7.15		103.74	<0.001	<0.001	<0.001	<0.003	<0.001
MW-8D	1-Apr-91	86.96		6.77		80.19	<0.005	<0.005	<0.005	<0.01	
MW-8D	27-Jan-92						<0.002	<0.002	<0.002	<0.005	
MW-8D	24-Aug-92						<0.002	<0.002	<0.002	<0.005	
MW-8D	11-Nov-93	98.31		7.50		90.81	<0.001	<0.001	<0.001	<0.001	
MW-8D	27-Jun-94	98.31		7.94		90.37	<0.001	<0.001	<0.001	<0.003	
MW-8D	16-Feb-95	98.31		7.80		90.51	<0.002	0.0039	<0.002	<0.005	
MW-8D	28-Jul-95	98.31		7.65		90.66	0.0023	<0.002	<0.002	0.0054	
MW-8D	22-Mar-96	98.31		8.06		90.25	<0.002	<0.002	<0.002	<0.005	
MW-8D	17-Jun-96	98.31		6.81		91.50	<0.002	<0.002	<0.002	<0.005	
MW-8D	25-Sep-96	98.31		7.55		90.76	<0.002	<0.002	<0.002	<0.005	
MW-8D	24-Apr-97	98.31		7.33		90.98	<0.002	<0.002	<0.002	<0.005	
MW-8D	17-Jun-97	98.31		7.32		90.99	<0.002	<0.002	<0.002	<0.005	
MW-8D	27-Aug-97	98.31		7.85		90.46	<0.002	<0.002	<0.002	<0.005	
MW-8D	5-Nov-97	111.03		8.06		102.97	<0.001	<0.001	<0.001	<0.003	
MW-8D	27-Feb-98	111.03		7.00		104.03	<0.001	<0.001	<0.001	<0.003	
MW-8D	10-Jun-98	111.03		7.36		103.67	<0.001	<0.001	<0.001	<0.003	
MW-8D	8-Oct-98	111.03		7.67		103.36	<0.001	<0.001	<0.001	<0.003	
MW-8D	31-Mar-99	111.03		7.40		103.63	<0.001	<0.001	<0.001	<0.003	
MW-8D	9-Jun-99	111.03		7.10		103.93	<0.001	<0.001	<0.001	<0.003	
MW-8D	2-Sep-99	111.03		8.02		103.01	<0.001	<0.001	<0.001	<0.002	

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Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
MW-8D	28-Oct-99	111.03		7.95		103.08	<0.001	<0.001	<0.001	<0.002	
MW-8D	23-Feb-00	111.03		7.92		103.11	<0.001	<0.001	<0.001	<0.003	
MW-8D	24-May-00	111.03		7.01		104.02	<0.001	<0.001	<0.001	<0.003	
MW-8D	15-Aug-00	111.03		7.62		103.41	<0.001	<0.001	<0.001	<0.003	
MW-8D	9-Nov-00	111.03		7.72		103.31	<0.001	<0.005	<0.001	<0.003	
MW-8D	11-Oct-01	111.03		7.67		103.36	<0.001	<0.001	<0.001	<0.003	
MW-8D	14-Mar-02	111.03		7.28		103.75	<0.001	<0.001	<0.001	<0.003	
MW-8D	6-Jun-02	111.03		7.04		103.99	<0.001	<0.001	<0.001	<0.003	
MW-8D	30-Aug-02	111.03		7.51		103.52	<0.001	<0.001	<0.001	<0.003	
MW-8D	6-Dec-02	111.03		8.00		103.03	<0.001	<0.001	<0.001	<0.003	
MW-8D	6-May-04	111.03		7.70		103.33	<0.001	<0.001	<0.001	<0.003	<0.001
MW-8D	21-Apr-05	111.03		7.53		103.50					
MW-8D	22-Apr-05	111.03					<0.001	<0.001	<0.001	<0.003	<0.001
MW-8D	5-Jan-09	111.03		7.14		103.89					
MW-8D	6-Jan-09	111.03					<0.001	<0.001	<0.001	<0.003	<0.001
MW-8D	1-Sep-09	111.03		7.43		103.60					
MW-8D	14-Apr-11	111.03		7.51		103.52	<0.001	<0.001	<0.001	<0.003	<0.001
MW-9S	1-Apr-91	86.00		6.12		79.88	<0.005	<0.005	<0.005	<0.01	
MW-9S	27-Jan-92						<0.002	<0.002	<0.002	<0.005	
MW-9S	24-Aug-92						<0.002	<0.002	<0.002	<0.005	
MW-9S	19-Jan-93						BDL	BDL	BDL	BDL	
MW-9S	17-Jun-93	97.42		6.79		90.63	<0.001	<0.001	<0.001	<0.001	
MW-9S	11-Nov-93	97.42		7.04		90.38	<0.001	<0.001	<0.001	<0.001	
MW-9S	27-Jun-94	97.42		7.03		90.39	<0.001	<0.001	<0.001	<0.003	
MW-9S	16-Feb-95	97.42		7.04		90.38	<0.002	<0.002	<0.002	<0.005	
MW-9S	28-Jul-95	97.42		6.82		90.60	<0.002	<0.002	<0.002	<0.005	
MW-9S	22-Mar-96	97.42		7.32		90.10	<0.002	<0.002	<0.002	<0.005	
MW-9S	17-Jun-96	97.42		6.35		91.07	<0.002	<0.002	<0.002	<0.005	
MW-9S	25-Sep-96	97.42		7.10		90.32	<0.002	<0.002	<0.002	<0.005	
MW-9S	24-Apr-97	97.42		6.72		90.70	<0.002	<0.002	<0.002	<0.005	
MW-9S	17-Jun-97	97.42		6.74		90.68	<0.002	<0.002	<0.002	<0.005	
MW-9S	27-Aug-97	97.42		6.90		90.52	<0.002	<0.002	<0.001	<0.005	
MW-9S	5-Nov-97	110.16		7.21		102.95	<0.001	<0.001	<0.001	<0.003	
MW-9S	27-Feb-98	110.16		6.86		103.30	<0.001	<0.001	<0.001	<0.003	
MW-9S	10-Jun-98	110.16		6.67		103.49	<0.001	<0.001	<0.001	<0.003	
MW-9S	8-Oct-98	110.16		6.83		103.33	<0.001	<0.001	<0.001	<0.003	
MW-9S	31-Mar-99	110.16		6.90		103.26	<0.001	<0.001	<0.001	<0.003	
MW-9S	9-Jun-99	110.16		6.76		103.40	<0.001	<0.001	<0.001	<0.003	
MW-9S	2-Sep-99	110.16		7.26		102.90	<0.001	<0.001	<0.001	<0.003	
MW-9S	28-Oct-99	110.16		7.20		102.96	<0.001	<0.001	<0.001	<0.003	
MW-9S	23-Feb-00	110.16		7.90		102.26	<0.001	<0.001	<0.001	<0.003	
MW-9S	24-May-00	110.16		6.64		103.52	<0.001	<0.001	<0.001	<0.003	
MW-9S	15-Aug-00	110.16		6.93		103.23	<0.001	<0.001	<0.001	<0.003	
MW-9S	9-Nov-00	110.16		6.75		103.41	<0.001	<0.005	<0.001	<0.003	
MW-9S	11-Oct-01	110.16		6.96		103.20	<0.001	<0.001	<0.001	<0.003	
MW-9S	14-Mar-02	110.16		6.73		103.43	<0.001	<0.001	<0.001	<0.003	
MW-9S	6-Jun-02	110.96		6.52		104.44	<0.001	<0.001	<0.001	<0.003	
MW-9S	30-Aug-02	110.96		6.92		104.04	<0.001	<0.001	<0.001	<0.003	
MW-9S	6-Dec-02	110.96		7.27		103.69	<0.001	<0.001	<0.001	<0.003	
MW-9S	6-May-04	110.96		7.12		103.84	<0.001	<0.001	<0.001	<0.003	<0.001
MW-9S	21-Apr-05	110.96		6.95		104.01					
MW-9S	22-Apr-05	110.96					<0.001	<0.001	<0.001	<0.003	<0.001
MW-9S	6-Jan-09	110.96					Obstruction in well, not able to gauge or collect samples				
MW-9S	1-Sep-09	110.96		6.96		104.00					
MW-9S	14-Apr-11	110.96		6.95		104.01	<0.001	<0.001	<0.001	<0.003	<0.001
MW-9D	1-Apr-91	86.06		6.26		79.80	<0.005	<0.005	<0.005	<0.01	
MW-9D	27-Jan-92						<0.002	<0.002	<0.002	<0.005	
MW-9D	24-Aug-92						<0.002	<0.002	<0.002	<0.005	
MW-9D	19-Jan-93										
MW-9D	17-Jun-93										
MW-9D	11-Nov-93	97.48		7.13		90.35	<0.001	<0.001	<0.001	<0.001	
MW-9D	27-Jun-94	97.48		7.13		90.35	<0.001	<0.001	<0.001	<0.003	
MW-9D	16-Feb-95	97.48		7.15		90.33	<0.002	<0.002	<0.002	<0.005	
MW-9D	28-Jul-95	97.48		6.92		90.56	<0.002	<0.002	<0.002	<0.005	
MW-9D	22-Mar-96	97.48		7.42		90.06	<0.002	<0.002	<0.002	<0.005	
MW-9D	17-Jun-96	97.48		6.44		91.04	<0.002	<0.002	<0.002	<0.005	
MW-9D	25-Sep-96	97.48		7.19		90.29	<0.002	<0.002	<0.002	<0.005	
MW-9D	24-Apr-97	97.48		6.84		90.64	<0.002	<0.002	<0.002	<0.005	
MW-9D	17-Jun-97	97.48		6.79		90.69	<0.002	<0.002	<0.002	<0.005	
MW-9D	27-Aug-97	97.48		7.02		90.46	<0.002	<0.002	<0.002	<0.005	
MW-9D	5-Nov-97	110.26		7.32		102.94	<0.001	<0.001	<0.001	<0.003	

Table 1
Groundwater Elevation and Analytical Results

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Lake County, Illinois 60084

Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
MW-9D	27-Feb-98	110.26		6.74		103.52	<0.001	<0.001	<0.001	<0.003	
MW-9D	10-Jun-98	110.26		6.79		103.47	<0.001	<0.001	<0.001	<0.003	
MW-9D	8-Oct-98	110.26		6.93		103.33	<0.001	<0.001	<0.001	<0.003	
MW-9D	31-Mar-99	110.26		7.01		103.25	<0.001	<0.001	<0.001	<0.003	
MW-9D	9-Jun-99	110.26		6.87		103.39	<0.001	<0.001	<0.001	<0.003	
MW-9D	2-Sep-99	110.26		7.41		102.85	<0.001	<0.001	<0.001	<0.003	
MW-9D	28-Oct-99	110.26		7.31		102.95	<0.001	<0.001	<0.001	<0.003	
MW-9D	23-Feb-00	110.26		7.10		103.16	<0.001	<0.001	<0.001	<0.003	
MW-9D	24-May-00	110.26		6.74		103.52	<0.001	<0.001	<0.001	<0.003	
MW-9D	15-Aug-00	110.26		7.07		103.19	<0.001	<0.001	<0.001	<0.003	
MW-9D	9-Nov-00	110.26		6.90		103.36	<0.001	<0.001	<0.001	<0.003	
MW-9D	11-Oct-01	110.26		7.05		103.21	<0.001	<0.001	<0.001	<0.003	
MW-9D	14-Mar-02	110.26		6.83		103.43	<0.001	<0.001	<0.001	<0.003	
MW-9D	6-Jun-02	110.26		6.62		103.64	<0.001	<0.001	<0.001	<0.003	
MW-9D	30-Aug-02	110.26		7.04		103.22	<0.001	<0.001	<0.001	<0.003	
MW-9D	6-Dec-02	110.26		7.38		102.88	<0.001	<0.001	<0.001	<0.003	
MW-9D	6-May-04	110.26		7.21		103.05	<0.001	<0.001	<0.001	<0.003	<0.001
MW-9D	21-Apr-05	110.26		7.04		103.22					
MW-9D	22-Apr-05	110.26					<0.001	<0.001	<0.001	<0.003	<0.001
MW-9D	5-Jan-09	110.26		6.91		103.35					
MW-9D	6-Jan-09	110.26					<0.001	<0.001	<0.001	<0.003	<0.001
MW-9D	1-Sep-09	110.26		7.05		103.21					
MW-9D	14-Apr-11	110.26		7.06		103.20	<0.001	<0.001	<0.001	<0.003	<0.001
MW-10S	1-Apr-91	85.93		5.28		80.65	<0.005	<0.005	<0.005	<0.010	
MW-10S	27-Jan-92						<0.002	<0.002	<0.002	<0.005	
MW-10S	24-Aug-92						<0.002	<0.002	<0.002	<0.005	
MW-10S	19-Jan-93						BDL	BDL	BDL	BDL	
MW-10S	17-Jun-93	96.38		5.91		90.47	<0.001	<0.001	<0.001	<0.001	
MW-10S	11-Nov-93	96.38		6.12		90.26	<0.001	<0.001	<0.001	<0.001	
MW-10S	27-Jun-94	96.38		6.11		90.27	<0.001	<0.001	<0.001	<0.003	
MW-10S	16-Feb-95	96.38		6.08		90.30	<0.002	<0.002	<0.002	<0.005	
MW-10S	28-Jul-95	96.38		5.84		90.54	<0.002	<0.002	<0.002	<0.005	
MW-10S	22-Mar-96	96.38		6.33		90.05	<0.002	<0.002	<0.002	<0.005	
MW-10S	17-Jun-96	96.38		5.26		91.12	<0.002	<0.002	<0.002	<0.005	
MW-10S	25-Sep-96	96.38		6.09		90.29	<0.002	<0.002	<0.002	<0.005	
MW-10S	24-Apr-97	96.38		5.73		90.65	<0.002	<0.002	<0.002	<0.005	
MW-10S	17-Jun-97	96.38		5.64		90.74	<0.002	<0.002	<0.002	<0.005	
MW-10S	27-Aug-97	96.38		5.90		90.48	0.0126	<0.002	<0.002	<0.005	
MW-10S	5-Nov-97	108.99		6.19		102.80	<0.001	<0.001	<0.001	<0.003	
MW-10S	27-Feb-98	108.99		5.77		103.22	<0.001	<0.001	<0.001	<0.003	
MW-10S	10-Jun-98	108.99		5.66		103.33	<0.001	<0.001	<0.001	<0.003	
MW-10S	8-Oct-98	108.99		5.83		103.16	<0.001	<0.001	<0.001	<0.003	
MW-10S	31-Mar-99	108.99		5.95		103.04	<0.001	<0.001	<0.001	<0.003	
MW-10S	9-Jun-99	108.99		5.76		103.23	<0.001	<0.001	<0.001	<0.003	
MW-10S	2-Sep-99	108.99		6.21		102.78	<0.001	<0.001	<0.001	<0.003	
MW-10S	28-Oct-99	108.99		6.30		102.69	<0.001	<0.001	<0.001	<0.003	
MW-10S	23-Feb-00	108.99		6.06		102.93	<0.001	<0.001	<0.001	<0.003	
MW-10S	24-May-00	108.99		5.68		103.31	<0.001	<0.001	<0.001	<0.003	
MW-10S	15-Aug-00	108.99		5.94		103.05	<0.001	<0.001	<0.001	<0.003	
MW-10S	9-Nov-00	108.99		5.90		103.09	<0.001	<0.005	<0.001	<0.003	
MW-10S	11-Oct-01	108.99		5.94		103.05	<0.001	<0.001	<0.001	<0.003	
MW-10S	14-Mar-02	108.99		5.79		103.20	<0.001	<0.001	<0.001	<0.003	
MW-10S	6-Jun-02	108.99		5.55		103.44	<0.001	<0.001	<0.001	<0.003	
MW-10S	30-Aug-02	108.99		5.91		103.08	<0.001	<0.001	<0.001	<0.003	
MW-10S	6-Dec-02	108.99		6.24		102.75	<0.001	<0.001	<0.001	<0.003	
MW-10S	6-May-04	108.99		6.15		102.84	<0.001	<0.001	<0.001	<0.003	<0.001
MW-10S	21-Apr-05	108.99		5.97		103.02					
MW-10S	22-Apr-05	108.99					<0.001	<0.001	<0.001	<0.003	<0.001
MW-10S	5-Jan-09	108.99		5.69		103.30					
MW-10S	6-Jan-09	108.99				108.99	<0.001	<0.001	<0.001	<0.003	<0.001
MW-10S	10-Jan-11	108.99		6.07		102.92					
MW-10S	14-Apr-11	108.99		5.87		103.12	<0.001	<0.001	<0.001	<0.003	<0.001
MW-10D	1-Apr-91	85.06		5.62		79.44	<0.005	<0.005	<0.005	<0.010	
MW-10D	27-Jan-92						0.005	<0.002	<0.002	<0.005	
MW-10D	24-Aug-92						<0.002	<0.002	<0.002	<0.005	
MW-10D	11-Nov-93	96.31		6.21		90.10	<0.001	<0.001	<0.001	<0.001	
MW-10D	27-Jun-94	96.31		6.23		90.08	<0.001	<0.001	<0.001	<0.003	
MW-10D	16-Feb-95	96.31		6.15		90.16	<0.002	<0.002	<0.002	<0.005	
MW-10D	28-Jul-95	96.31		5.90		90.41	<0.002	<0.002	<0.002	<0.005	
MW-10D	22-Mar-96	96.31		6.42		89.89	<0.002	<0.002	<0.002	<0.005	
MW-10D	17-Jun-96	96.31		5.27		91.04	<0.002	<0.002	<0.002	<0.005	

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Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
MW-10D	25-Sep-96	96.31		6.17		90.14	<0.002	<0.002	<0.002	<0.005	
MW-10D	24-Apr-97	96.31		5.77		90.54	<0.002	<0.002	<0.002	<0.005	
MW-10D	17-Jun-97	96.31		5.74		90.57	<0.002	<0.002	<0.002	<0.005	
MW-10D	27-Aug-97	96.31		6.83		89.48	<0.002	<0.002	<0.002	<0.005	
MW-10D	5-Nov-97	108.93		6.13		102.80	<0.001	<0.001	<0.001	<0.003	
MW-10D	27-Feb-98	108.93		5.71		103.22	<0.001	<0.001	<0.001	<0.003	
MW-10D	10-Jun-98	108.93		5.61		103.32	<0.001	<0.001	<0.001	<0.003	
MW-10D	8-Oct-98	108.93		6.79		102.14	<0.001	<0.001	<0.001	<0.003	
MW-10D	31-Mar-99	108.93		5.90		103.03	<0.001	<0.001	<0.001	<0.003	
MW-10D	9-Jun-99	108.93		5.81		103.12	<0.001	<0.001	<0.001	<0.003	
MW-10D	2-Sep-99	108.93		6.18		102.75	<0.001	<0.001	<0.001	<0.003	
MW-10D	28-Oct-99	108.93		6.18		102.75	<0.001	<0.001	<0.001	<0.003	
MW-10D	23-Feb-00	108.93		6.10		102.83	<0.001	<0.001	<0.001	<0.003	
MW-10D	24-May-00	108.93		5.55		103.38	<0.001	<0.001	<0.001	<0.003	
MW-10D	15-Aug-00	108.93		5.91		103.02	<0.001	<0.001	<0.001	<0.003	
MW-10D	9-Nov-00	108.93		5.80		103.13	<0.001	<0.005	<0.001	<0.003	
MW-10D	11-Oct-01	108.93		5.90		103.03	<0.001	<0.001	<0.001	<0.003	
MW-10D	14-Mar-02	108.93		5.74		103.19	<0.001	<0.001	<0.001	<0.003	
MW-10D	6-Jun-02	108.93		5.52		103.41	<0.001	<0.001	<0.001	<0.003	
MW-10D	30-Aug-02	108.93		5.85		103.08	<0.001	<0.001	<0.001	<0.003	
MW-10D	6-Dec-02	108.93		6.22		102.71	<0.001	<0.001	<0.001	<0.003	
MW-10D	6-May-04	108.93		6.09		102.84	<0.001	<0.001	<0.001	<0.003	0.0055
MW-10D	21-Apr-05	108.93		5.94		102.99					
MW-10D	22-Apr-05	108.93					<0.001	<0.001	<0.001	<0.003	0.0041
MW-10D	5-Jan-09	108.93		5.62		103.31					
MW-10D	6-Jan-09	108.93					<0.001	<0.001	<0.001	<0.003	<0.001
MW-10D	10-Jan-11	108.93		6.08		102.85					
MW-10D	14-Apr-11	108.93		5.83		103.10	<0.001	<0.001	<0.001	<0.003	0.0035
MW-11S	1-Apr-91	85.82		5.52		80.30	**0.15**	<0.005	<0.005	0.011	
MW-11S	27-Jan-92						**3.6**	0.021	0.18	4.491	
MW-11S	24-Aug-92						**0.006**	0.029	0.006	0.81	
MW-11S	19-Jan-93						**1.3**	0.007	0.03	0.1	
MW-11S	17-Jun-93	96.99		6.01		90.98	**0.14**	<0.001	<0.001	<0.001	
MW-11S	11-Nov-93	96.99		6.80		90.19	**1.35**	<0.001	<0.001	<0.001	
MW-11S	27-Jun-94	96.99		6.84		90.15	**0.785**	0.0094	0.173	0.282	
MW-11S	16-Feb-95	96.99		6.53		90.46	**1.55**	0.0248	0.163	0.239	
MW-11S	28-Jul-95	96.99		6.42		90.57	**0.954**	0.0545	0.316	0.29	
MW-11S	17-Jun-96	96.99		4.43		92.56	<0.002	<0.002	<0.002	<0.005	
MW-11S	25-Sep-96	96.99		6.77		90.22	**1.76**	0.0443	0.519	1.22	
MW-11S	24-Apr-97	96.99		6.12		90.87	**0.384**	0.0087	0.134	2.1	
MW-11S	17-Jun-97	96.99		6.11		90.88	**3.94**	**1.02**	**0.734**	2.06	
MW-11S	27-Aug-97	96.99		6.58		90.41	**1.79**	0.586	0.657	1.2	
MW-11S	5-Nov-97	109.54		6.85		102.69	1	0.05	0.37	0.023	
MW-11S	27-Feb-98	109.54		6.58		102.96	**0.19**	<0.005	0.033	0.11	
MW-11S	10-Jun-98	109.54		6.29		103.25	**0.8**	0.014	0.12	<0.001	
MW-11S	8-Oct-98	109.54		6.49		103.05	**0.91**	0.03	0.4	0.76	
MW-11S	31-Mar-99	109.54		6.42		103.12	**0.28**	<0.002	0.04	0.012/<0.002	
MW-11S	9-Jun-99	109.54		6.40		103.14	**3.7**	**6.7**	**0.73**	2.77	
MW-11S	2-Sep-99	109.54		7.16		102.38	**1.4**	0.029	0.43	1.34	
MW-11S	28-Oct-99	109.54		6.84		102.70	**0.78**	0.038	0.31	0.889	
MW-11S	23-Feb-00	109.54		6.25		103.29	0.0028	<0.001	<0.001	<0.003	
MW-11S	24-May-00	109.54		6.05		103.49	**0.018**	<0.001	0.0011	<0.003	
MW-11S	15-Aug-00	109.54		6.62		102.92	**1.3**	0.051	0.42	1.116	
MW-11S	9-Nov-00	109.54		6.35		103.19	**0.37**	<0.025	0.03	0.097/<0.005	
MW-11S	11-Oct-01	109.54		6.56		102.98	**0.78**	<0.021	0.44	0.95/<0.01	
MW-11S	14-Mar-02	109.54		5.89		103.65	**0.024**	<0.001	<0.001	<0.003	
MW-11S	6-Jun-02	109.54		5.43		104.11	**0.073**	0.0036	0.012	0.0077/<0.001	
MW-11S	30-Aug-02	109.54		6.52		103.02	**1.2**	0.051	0.55	0.86/<0.01	
MW-11S	6-Dec-02	109.54		6.88		102.66	**2.1**	0.045	0.67	0.26/<0.02	
MW-11S	6-May-04	109.54		6.59		102.95	**0.059**	<0.001	<0.001	<0.003	<0.001
MW-11S	21-Apr-05	109.54		6.38		103.16	**0.012**	<0.001	<0.001	<0.003	<0.001
MW-11S	6-Jan-09	109.54		5.65		103.89	<0.001	<0.001	<0.001	<0.003	<0.001
MW-11S	1-Sep-09	109.54		6.45		103.09					
MW-11S	10-Jan-11	109.54		6.63		102.91					
MW-11S	14-Apr-11	109.54		5.99		103.55	<0.001	<0.001	<0.001	<0.003	<0.001
MW-11D	1-Apr-91	85.90		6.57		79.33	<0.005	<0.005	<0.005	<0.01	
MW-11D	27-Jan-92						<0.002	<0.002	<0.002	<0.005	
MW-11D	24-Aug-92						<0.004	<0.002	<0.002	<0.005	
MW-11D	11-Nov-93	97.02		6.81		90.21	<0.001	<0.001	<0.001	<0.001	
MW-11D	27-Jun-94	97.02		6.95		90.07	**0.248**	0.0028	0.0637	0.135	
MW-11D	16-Feb-95	97.02		6.70		90.32	**0.433**	0.0058	0.0407	0.0446	

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Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
MW-11D	28-Jul-95	97.02		6.49		90.53	0.94	0.0386	0.219	0.215	
MW-11D	22-Mar-96	97.02		7.07		89.95	0.424	0.0075	0.0467	0.0191	
MW-11D	17-Jun-96	97.02		6.12		90.90	0.0482	<0.002	<0.002	<0.005	
MW-11D	25-Sep-96	97.02		6.89		90.13	0.392	0.0077	0.104	0.204	
MW-11D	24-Apr-97	97.02		6.31		90.71	0.339	0.131	0.0807	0.184	
MW-11D	17-Jun-97	97.02		6.32		90.70	1.56	0.368	0.278	0.956	
MW-11D	27-Aug-97	97.02		7.84		89.18	0.311	0.0167	0.0837	0.224	
MW-11D	5-Nov-97	109.58		7.13		102.45	0.17	0.0045	0.09	0.29	
MW-11D	27-Feb-98	109.58		6.23		103.35	0.024	<0.001	<0.001	<0.003	
MW-11D	10-Jun-98	109.58		6.52		103.06	0.02	<0.001	<0.001	<0.003	
MW-11D	8-Oct-98	109.58		6.76		102.82	0.12	0.004	0.038	0.044	
MW-11D	31-Mar-99	109.58		6.90		102.68	0.0034	<0.001	<0.001	<0.003	
MW-11D	9-Jun-99	109.58		6.64		102.94	0.75	1.4	0.14	0.53	
MW-11D	2-Sep-99	109.58		7.22		102.36	0.082	0.0048	0.037	0.1225	
MW-11D	28-Oct-99	109.58		7.10		102.48	0.077	0.0023	0.035	0.1	
MW-11D	23-Feb-00	109.58		6.91		102.67	0.16	0.0012	0.0098	0.1	
MW-11D	24-May-00	109.58		6.49		103.09	0.0011	<0.001	<0.001	<0.003	
MW-11D	15-Aug-00	109.58		7.04		102.54	0.014	<0.001	0.0053	0.011	
MW-11D	9-Nov-00	109.58		6.95		102.63	0.26	<0.012	0.027	0.059	
MW-11D	11-Oct-01	109.58		6.83		102.75	0.017	<0.001	0.0035	<0.003	
MW-11D	14-Mar-02	109.58		6.42		103.16	<0.001	<0.001	<0.001	<0.003	
MW-11D	6-Jun-02	109.58		6.33		103.25	<0.001	<0.001	<0.001	<0.003	
MW-11D	30-Aug-02	109.58		6.74		102.84	0.035	<0.001	0.0012	<0.003	
MW-11D	6-Dec-02	109.58		7.09		102.49	0.001	<0.001	<0.001	<0.003	
MW-11D	6-May-04	109.58		6.80		102.78	0.008	<0.001	<0.001	<0.003	0.0025
MW-11D	21-Apr-05	109.58		6.63		102.95	<0.001	<0.001	<0.001	<0.003	<0.001
MW-11D	6-Jan-09	109.58		6.26		103.32	<0.001	<0.001	<0.001	<0.003	0.0017
MW-11D	1-Sep-09	109.58		6.47		103.11					
MW-11D	10-Jan-11	109.58		6.76		102.82					
MW-11D	14-Apr-11	109.58		6.42		103.16	<0.001	<0.001	<0.001	<0.003	<0.001
MW-12S	1-Apr-91	81.23		2.21		79.02	1.8	0.14	0.11	0.4	
MW-12S	27-Jan-92						0.041	0.002	0.013	0.054	
MW-12S	24-Aug-92						0.2	0.002	0.004	0.005	
MW-12S	19-Jan-93						BDL	BDL	BDL	BDL	
MW-12S	17-Jun-93	92.64		2.60		90.04	0.003	<0.001	<0.001	<0.001	
MW-12S	11-Nov-93	92.64		2.45		90.19	<0.001	<0.001	<0.001	<0.001	
MW-12S	27-Jun-94	92.64		2.52		90.12	0.137	<0.001	<0.001	<0.003	
MW-12S	16-Feb-95	92.64		2.25		90.39	0.0902	<0.002	<0.002	<0.005	
MW-12S	28-Jul-95	92.64		2.10		90.54	0.0137	<0.002	<0.002	<0.005	
MW-12S	22-Mar-96	92.64		2.62		90.02	<0.002	<0.002	<0.002	<0.005	
MW-12S	17-Jun-96	92.64		1.50		91.14	<0.002	<0.002	<0.002	<0.005	
MW-12S	25-Sep-96	92.64		2.36		90.28	<0.002	<0.002	<0.002	<0.005	
MW-12S	24-Apr-97	92.64		1.89		90.75	<0.002	<0.002	<0.002	<0.005	
MW-12S	17-Jun-97	92.64		1.76		90.88	<0.002	<0.002	<0.002	<0.005	
MW-12S	27-Aug-97	92.64		2.24		90.40	<0.002	<0.002	<0.002	<0.005	
MW-12S	5-Nov-97	105.19		2.50		102.69	0.0026	<0.001	<0.001	<0.003	
MW-12S	27-Feb-98	105.19		2.56		102.63	<0.001	<0.001	<0.001	<0.003	
MW-12S	10-Jun-98	105.19		1.90		103.29	<0.001	<0.001	<0.001	<0.003	
MW-12S	8-Oct-98	105.19		2.17		103.02	<0.001	<0.001	<0.001	<0.003	
MW-12S	31-Mar-99	105.19		2.29		102.90	<0.001	<0.001	<0.001	<0.003	
MW-12S	9-Jun-99	105.19		2.13		103.06	0.07	<0.001	<0.001	<0.003	
MW-12S	2-Sep-99	105.19		3.75		101.44	<0.001	<0.001	<0.001	<0.002	
MW-12S	28-Oct-99	105.19		2.58		102.61	0.16	0.0045	0.0043	0.005	
MW-12S	23-Feb-00	105.19		2.33		102.86	0.054	0.0021	0.011	0.012	
MW-12S	24-May-00	105.19		1.92		103.27	0.13	0.0034	0.015	0.017	
MW-12S	15-Aug-00	105.19		2.23		102.96	0.24	0.016	0.053	0.059	
MW-12S	9-Nov-00	105.19		2.15		103.04	0.27	0.037	0.12	0.2133	
MW-12S	11-Oct-01	105.19		2.32		102.87	0.11	0.013	0.12	0.1224	
MW-12S	14-Mar-02	105.19		1.98		103.21	0.18	0.0075	0.041	0.121	
MW-12S	6-Jun-02	105.19		1.80		103.39	0.18	0.023	0.042	0.0061	
MW-12S	30-Aug-02	105.19		2.20		102.99	0.2	0.027	0.077	0.1817	
MW-12S	6-Dec-02	105.19		2.58		102.61	0.051	0.006	0.017	0.079	
MW-12S	6-May-04	105.19		2.40		102.79	0.043	0.0035	<0.001	0.022	0.0012
MW-12S	21-Apr-05	105.19		2.20		102.99	0.027	0.0014	<0.001	0.0097	0.0021
MW-12S	29-Dec-08	105.19		1.00		104.19					
MW-12S	5-Jan-09	105.19		1.84		103.35					
MW-12S	6-Jan-09	105.19					<0.001	<0.001	<0.001	<0.003	<0.001
MW-12S	1-Sep-09	105.19		2.16		103.03					
MW-12S	14-Apr-11	105.19		2.01		103.18	<0.001	<0.001	<0.001	<0.003	<0.001
MW-12D	1-Apr-91	81.36		2.21		79.15	0.074	<0.005	<0.005	<0.01	
MW-12D	27-Jan-92						<0.002	<0.002	<0.002	<0.005	

Table 1
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Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Lake County, Illinois 60084

Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
MW-12D	24-Aug-92						<0.002	<0.002	<0.002	<0.005	
MW-12D	11-Nov-93	92.79		2.57		90.22	<0.001	<0.001	<0.001	<0.001	
MW-12D	27-Jun-94	92.79		3.38		89.41	<0.001	<0.001	<0.001	<0.003	
MW-12D	16-Feb-95	92.79		2.85		89.94	<0.002	<0.002	<0.002	<0.005	
MW-12D	28-Jul-95	92.79		2.60		90.19	<0.002	<0.002	<0.002	<0.005	
MW-12D	22-Mar-96	92.79		3.15		89.64	<0.002	<0.002	<0.002	<0.005	
MW-12D	17-Jun-96	92.79		2.08		90.71	<0.002	<0.002	<0.002	<0.005	
MW-12D	25-Sep-96	92.79		2.93		89.86	<0.002	<0.002	<0.002	<0.005	
MW-12D	24-Apr-97	92.79		2.30		90.49	<0.002	<0.002	<0.002	<0.005	
MW-12D	17-Jun-97	92.79		2.29		90.50	<0.002	<0.002	<0.002	<0.005	
MW-12D	27-Aug-97	92.79		2.75		90.04	<0.002	<0.002	<0.002	<0.005	
MW-12D	5-Nov-97	105.34		3.13		102.21	<0.001	<0.001	<0.001	<0.003	
MW-12D	27-Feb-98	105.34		1.97		103.37	<0.001	<0.001	<0.001	<0.003	
MW-12D	10-Jun-98	105.34		2.47		102.87	<0.001	<0.001	<0.001	<0.003	
MW-12D	8-Oct-98	105.34		2.86		102.48	<0.001	<0.001	<0.001	<0.003	
MW-12D	31-Mar-99	105.34		2.77		102.57	<0.001	<0.001	<0.001	<0.003	
MW-12D	9-Jun-99	105.34		2.68		102.66	<0.001	<0.001	<0.001	<0.003	
MW-12D	2-Sep-99	105.34		3.31		102.03	<0.001	<0.001	<0.001	<0.002	
MW-12D	28-Oct-99	105.34		3.20		102.14	<0.001	<0.001	<0.001	<0.002	
MW-12D	23-Feb-00	105.34		3.00		102.34	<0.001	<0.001	<0.001	<0.003	
MW-12D	24-May-00	105.34		2.49		102.85	<0.001	<0.001	<0.001	<0.003	
MW-12D	15-Aug-00	105.34		2.82		102.52	<0.001	<0.001	<0.001	<0.003	
MW-12D	9-Nov-00	105.34		2.75		102.59	<0.001	<0.001	<0.001	<0.003	
MW-12D	11-Oct-01	105.34		2.82		102.52	<0.001	<0.001	<0.001	<0.003	
MW-12D	14-Mar-02	105.34		2.50		102.84	<0.001	<0.001	<0.001	<0.003	
MW-12D	6-Jun-02	105.34		2.34		103.00	<0.001	<0.001	<0.001	<0.003	
MW-12D	30-Aug-02	105.34		2.81		102.53	<0.001	<0.001	<0.001	<0.003	
MW-12D	6-Dec-02	105.34		3.20		102.14	<0.001	<0.001	<0.001	<0.003	
MW-12D	6-May-04	105.34		2.96		102.38	<0.001	<0.001	<0.001	<0.003	<0.001
MW-12D	21-Apr-05	105.34		3.73		101.61	<0.001	<0.001	<0.001	<0.03	<0.001
MW-12D	5-Jan-09	105.34		2.31		103.03					
MW-12D	6-Jan-09	105.34					<0.001	<0.001	<0.001	<0.003	<0.001
MW-12D	1-Sep-09	105.34		2.58		102.76					
MW-12D	14-Apr-11	105.34		2.47		102.87	<0.001	<0.001	<0.001	<0.003	<0.001
MW-13	1-Apr-91	85.19		5.24		79.95	**2.6**	0.3	0.19	0.56	
MW-13	19-Feb-92						**1.9**	0.01	0.14	0.72	
MW-13	24-Aug-92						**14**	**2.1**	**0.85**	**13**	
MW-13	19-Jan-93						**0.009**	BDL	BDL	0.005	
MW-13	17-Jun-93	96.50		6.00		90.50	<0.001	<0.001	<0.001	<0.001	
MW-13	11-Nov-93	96.50		6.28		90.22	**0.81**	0.054	0.346	4.56	
MW-13	27-Jun-94	96.50		6.29		90.21	**0.142**	0.0037	0.119	0.413	
MW-13	16-Feb-95	96.50		6.20		90.30	**0.0475**	<0.002	0.0202	0.129	
MW-13	28-Jul-95	96.50		6.01		90.49	**0.41**	0.0051	0.56	2.548	
MW-13	22-Mar-96	96.50		6.53		89.97	**0.212**	0.0092	0.0901	0.973	
MW-13	17-Jun-96	96.50		3.78		92.72	<0.002	<0.002	<0.002	<0.005	
MW-13	25-Sep-96	96.50		6.29		90.21	**0.109**	0.0261	**0.911**	9.6	
MW-13	24-Apr-97	96.50		5.80		90.70	<0.002	<0.002	<0.002	<0.005	
MW-13	17-Jun-97	96.50		5.59		90.91	**0.0195**	<0.002	0.0201	0.107	
MW-13	27-Aug-97	96.50		6.17		90.33	**1.4**	0.38	0.361	3.65	
MW-13	5-Nov-97	109.12		6.38		102.74	**0.16**	<0.025	0.67	5.8	
MW-13	27-Feb-98	109.12		5.51		103.61	<0.001	<0.001	<0.001	<0.003	
MW-13	10-Jun-98	109.12		5.78		103.34	**0.38**	<0.025	0.67	3.4	
MW-13	8-Oct-98	109.12		6.02		103.10	**<0.025**	<0.025	0.28	3.5	
MW-13	31-Mar-99	109.12		6.17		102.95	**0.027**	<0.0025	0.11	0.81	
MW-13	9-Jun-99	109.12		6.07		103.05	**0.008**	0.013	0.13	0.903.3	
MW-13	2-Sep-99	109.12		6.64		102.48	**0.23**	<0.025	0.12	0.72	
MW-13	28-Oct-99	109.12		6.45		102.67	**0.2**	<0.01	0.11	0.718	
MW-13	23-Feb-00	109.12		5.50		103.62					
MW-13	24-May-00	109.12		5.91		103.21	**0.0073**	<0.001	0.0019	0.021	
MW-13	15-Aug-00	109.12		6.24		102.88	**0.038**	<0.005	0.3	0.5453	
MW-13	9-Nov-00	109.12		6.08		103.04	<0.001	<0.005	0.0014	<0.003	
MW-13	11-Oct-01	109.12		6.21		102.91	**0.05**	0.0023	0.069	0.0122	
MW-13	14-Mar-02	109.12		5.89		103.23	<0.001	<0.001	<0.001	<0.003	
MW-13	6-Jun-02	109.12		5.06		104.06	**0.0077**	<0.001	0.009	<0.003	
MW-13	30-Aug-02	109.12		6.15		102.97	**0.013**	0.0018	0.03	0.0024	
MW-13	6-Dec-02	109.12		6.53		102.59	**0.044**	<0.01	0.085	<0.03	
MW-13	6-May-04	109.12		6.37		102.75	0.0039	<0.001	0.013	<0.003	<0.001
MW-13	21-Apr-05	109.12		6.27		102.85					
MW-13	22-Apr-05	109.12					**0.0077**	<0.001	0.039	0.013	<0.001
MW-13	29-Dec-08	109.12		5.00		104.12					
MW-13	5-Jan-09	109.12		5.88		103.24					

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Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
MW-13	6-Jan-09	109.12					<0.001	<0.001	<0.001	<0.003	<0.001
MW-13	14-Apr-11	109.12		6.18		102.94	**0.0345**	<0.001	<0.001	<0.003	<0.001
MW-14	27-Jan-92						<0.002	<0.002	<0.002	<0.005	
MW-14	24-Aug-92						<0.002	<0.002	<0.002	<0.005	
MW-14	19-Jan-93						BDL	BDL	BDL	BDL	
MW-14	17-Jun-93	89.62		0.00		89.62	<0.001	<0.001	<0.001	<0.001	
MW-14	11-Nov-93	89.62		0.00		89.62	<0.001	<0.001	<0.001	<0.001	
MW-14	27-Jun-94	89.62		0.00		89.62	<0.001	<0.001	<0.001	<0.003	
MW-14	16-Feb-95	89.62		0.00		89.62	<0.002	<0.002	<0.002	<0.005	
MW-14	28-Jul-95	89.62		0.00		89.62	<0.002	<0.002	<0.002	<0.005	
MW-14	17-Jun-96	89.62		0.03		89.59	<0.002	<0.002	<0.002	<0.005	
MW-14	25-Sep-96	89.62		0.05		89.57	<0.002	<0.002	<0.002	<0.005	
MW-14	24-Apr-97	89.62		0.00		89.62	<0.002	<0.002	<0.002	<0.005	
MW-14	17-Jun-97	89.62		0.00		89.62	<0.002	<0.002	<0.002	<0.005	
MW-14	27-Aug-97	89.62		0.00		89.62	<0.002	<0.002	<0.002	<0.005	
MW-14	5-Nov-97	99.46		0.79		98.67	<0.001	<0.001	<0.001	<0.003	
MW-14	27-Feb-98	99.46		0.00		99.46	<0.001	<0.001	<0.001	<0.003	
MW-14	10-Jun-98	99.46		0.00		99.46	<0.001	<0.001	<0.001	<0.003	
MW-14	8-Oct-98	99.46		0.09		99.37	<0.001	<0.001	<0.001	<0.003	
MW-14	31-Mar-99	99.46		0.00		99.46	<0.001	<0.001	<0.001	<0.003	
MW-14	9-Jun-99	99.46		0.00		99.46	<0.001	<0.001	<0.001	<0.003	
MW-14	2-Sep-99	99.46		0.19		99.27	<0.001	<0.001	<0.001	<0.003	
MW-14	28-Oct-99	99.46		0.00		99.46	<0.001	<0.001	<0.001	<0.003	
MW-14	23-Feb-00	99.46		0.00		99.46	<0.001	<0.001	<0.001	<0.003	
MW-14	24-May-00			0.00			<0.001	<0.001	<0.001	<0.003	
MW-14	15-Aug-00			0.00			<0.001	<0.001	<0.001	<0.003	
MW-14	9-Nov-00			0.00			<0.001	<0.001	<0.001	<0.003	
MW-14	11-Oct-01	99.16		0.02		99.14	<0.001	<0.001	<0.001	<0.003	
MW-14	14-Mar-02	99.16		0.02		99.14	<0.001	<0.001	<0.001	<0.003	
MW-14	6-Jun-02	99.16		0.00		99.16	<0.001	<0.001	<0.001	<0.003	
MW-14	30-Aug-02	99.16		0.00		99.16	<0.001	<0.001	<0.001	<0.003	
MW-14	6-Dec-02	99.16		0.00		99.16	<0.001	<0.001	<0.001	<0.003	
MW-14	6-May-04	99.16		0.00		99.16	<0.001	<0.001	<0.001	<0.003	<0.001
MW-14	21-Apr-05	99.16		0.00		99.16					
MW-14	22-Apr-05	99.16					<0.001	<0.001	<0.001	<0.003	<0.001
MW-14	5-Jan-09	99.16		0.30		98.86					
MW-14	6-Jan-09	99.16					<0.001	<0.001	<0.001	<0.003	<0.001
MW-14	14-Apr-11	99.16		0.24		98.92	<0.001	<0.001	<0.001	<0.003	<0.001
MW-15	27-Jan-92						0.005	<0.002	<0.002	<0.005	
MW-15	24-Aug-92						**0.03**	<0.002	<0.002	<0.005	
MW-15	19-Jan-93						**0.24**	BDL	BDL	BDL	
MW-15	17-Jun-93	88.40		0.00		88.40	**0.85**	<0.001	<0.001	<0.001	
MW-15	11-Nov-93	88.40		0.56		87.84	**1.03**	<0.001	<0.001	<0.001	
MW-15	27-Jun-94	88.40		0.50		87.90	**2.04**	<0.001	<0.001	<0.003	
MW-15	16-Feb-95	88.40		0.85		87.55	**1.82**	<0.002	<0.002	<0.005	
MW-15	28-Jul-95	88.40		0.20		88.20	**3.55**	<0.002	<0.002	<0.005	
MW-15	22-Mar-96	88.40		0.74		87.66	**10.5**	<0.002	<0.002	<0.005	
MW-15	17-Jun-96	88.40		0.00		88.40	**9.75**	<0.002	<0.002	<0.005	
MW-15	25-Sep-96	88.40		0.75		87.65	**7.6**	<0.002	<0.002	<0.005	
MW-15	24-Apr-97	88.40		0.16		88.24	**10.7**	0.0084	<0.002	<0.005	
MW-15	17-Jun-97	88.40		0.00		88.40	**9.59**	0.0381	<0.005	<0.005	
MW-15	27-Aug-97	88.40		0.40		88.00	**8.32**	<0.05	<0.05	<0.125	
MW-15	5-Nov-97	100.25		0.68		99.57	**8.2**	<0.05	<0.05	<0.15	
MW-15	27-Feb-98	100.25		0.22		100.03	**7.4**	<0.1	<0.1	<0.3	
MW-15	10-Jun-98	100.25		0.18		100.07	**6.9**	<0.1	<0.1	<0.3	
MW-15	8-Oct-98	100.25		0.43		99.82	**5.4**	<0.05	<0.05	<0.15	
MW-15	31-Mar-99	100.25		1.30		98.95	**4.6**	<0.025	<0.025	<0.075	
MW-15	9-Jun-99	100.25		1.20		99.05	**4.2**	0.032	<0.025	<0.075	
MW-15	2-Sep-99	100.25		1.55		98.70	**2.9**	0.036	0.034	0.079	
MW-15	28-Oct-99	100.25		1.44		98.81	**2.5**	0.049	0.078	0.165	
MW-15	23-Feb-00	100.25		0.90		99.35	**1.2**	0.045	0.091	0.2	
MW-15	24-May-00	100.25		0.71		99.54	**0.97**	0.034	0.11	0.255	
MW-15	15-Aug-00	100.25		0.86		99.39	**0.58**	0.024	0.12	0.264	
MW-15	9-Nov-00	100.25		0.75		99.50	**0.13**	0.0074	0.027	0.055	
MW-15	11-Oct-01	100.25		0.84		99.41	**0.2**	0.012	0.062	0.1125	
MW-15	14-Mar-02	100.25		0.62		99.63	**0.21**	0.011	0.055	0.0993	
MW-15	6-Jun-02	100.25		0.47		99.78	**0.17**	0.0055	0.033	0.0688	
MW-15	30-Aug-02	100.25		0.83		99.42	**0.22**	0.0073	0.04	0.0628	
MW-15	6-Dec-02	100.25		1.11		99.14	**0.24**	0.0062	0.031	0.0394	
MW-15	6-May-04	100.25		0.95		99.30	**0.12**	0.004	0.0023	0.0063	<0.001
MW-15	21-Apr-05	100.25		0.79		99.46					

Table 1
Groundwater Elevation and Analytical Results

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Lake County, Illinois 60084

Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
MW-15	22-Apr-05	100.25					0.076	0.0024	<0.001	0.0045	<0.001
MW-15	5-Jan-09	100.25		0.40		99.85					
MW-15	6-Jan-09	100.25					0.0739	0.004	<0.001	0.0135	0.004
MW-15	14-Apr-11	100.25		0.43		99.82	0.411	0.0121	<0.001	0.0284	0.0023
MW-16	27-Jan-92						<0.002	<0.002	<0.002	<0.005	
MW-16	24-Aug-92						<0.002	<0.002	<0.002	<0.005	
MW-16	19-Jan-93						BDL	BDL	BDL	BDL	
MW-16	17-Jun-93	91.82		2.23		89.59	<0.001	<0.001	<0.001	<0.001	
MW-16	11-Nov-93	91.82		2.47		89.35	<0.001	<0.001	<0.001	<0.001	
MW-16	27-Jun-94	91.82		2.59		89.23	<0.001	<0.001	<0.001	<0.003	
MW-16	16-Feb-95	91.82		2.60		89.22	0.0103	<0.002	<0.002	<0.005	
MW-16	28-Jul-95	91.82		2.44		89.38	0.182	<0.002	<0.002	<0.005	
MW-16	22-Mar-96	91.82		3.14		88.68	1.83	<0.002	<0.002	<0.005	
MW-16	17-Jun-96	91.82		1.63		90.19	2.08	<0.002	<0.002	<0.005	
MW-16	25-Sep-96	91.82		2.38		89.44	2.19	<0.002	<0.002	<0.005	
MW-16	24-Apr-97	91.82		7.95		83.87	3.53	<0.002	<0.002	<0.005	
MW-16	17-Jun-97	91.82		4.49		87.33	3.6	<0.002	<0.002	<0.005	
MW-16	27-Aug-97	91.82		5.51		86.31	4.17	0.219	<0.05	0.197	
MW-16	5-Nov-97	101.72		7.75		93.97	3.9	<0.025	<0.025	<0.075	
MW-16	27-Feb-98	101.72		6.28		95.44	4.2	<0.050	<0.05	<0.15	
MW-16	10-Jun-98	101.72		2.36		99.36	3.3	<0.050	<0.05	<0.15	
MW-16	8-Oct-98	101.72		2.55		99.17	5.1	<0.025	<0.025	<0.075	
MW-16	31-Mar-99	101.72		3.47		98.25	4	<0.025	<0.025	<0.075	
MW-16	9-Jun-99	101.72		3.30		98.42	4.6	<0.050	<0.05	<0.15	
MW-16	2-Sep-99	101.72		3.75		97.97	4.4	<0.050	<0.05	<0.1	
MW-16	28-Oct-99	101.72		3.50		98.22	4.4	<0.020	<0.02	<0.04	
MW-16	23-Feb-00	101.72		3.05		98.67	3.3	<0.025	<0.025	<0.075	
MW-16	24-May-00	101.72		2.91		98.81	2.6	<0.025	<0.025	<0.050	
MW-16	15-Aug-00	101.72		3.07		98.65	1.7	<0.010	<0.01	<0.03	
MW-16	9-Nov-00	101.72		3.11		98.61	1.5	<0.050	<0.01	<0.03	
MW-16	11-Oct-01	101.72		3.06		98.66	0.35	<0.050	<0.0025	<0.0075	
MW-16	14-Mar-02	101.72		2.75		98.97	0.017	<0.001	<0.001	<0.003	
MW-16	6-Jun-02	101.72		2.65		99.07	0.2	<0.002	<0.002	<0.006	
MW-16	30-Aug-02	101.72		2.97		98.75	0.13	<0.001	<0.001	<0.003	
MW-16	6-Dec-02	101.72		3.21		98.51	0.12	<0.001	<0.001	<0.003	
MW-16	6-May-04	101.72		3.07		98.65	0.049	<0.001	<0.001	<0.003	0.0034
MW-16	21-Apr-05	101.72		2.95		98.77					
MW-16	22-Apr-05	101.72					0.045	<0.001	<0.001	<0.003	0.0032
MW-16	5-Jan-09	101.72		2.58		99.14					
MW-16	6-Jan-09	101.72					0.0191	<0.001	<0.001	<0.003	<0.001
MW-16	14-Apr-11	101.72		2.62		99.10	0.006	<0.001	<0.001	<0.003	0.0034
MW-17	5-Nov-97	100.91		2.05		98.86	<0.001	<0.001	<0.001	<0.003	
MW-17	27-Feb-98	100.91		1.63		99.28	<0.001	<0.001	<0.001	<0.003	
MW-17	10-Jun-98	100.91		1.58		99.33	<0.001	<0.001	<0.001	<0.003	
MW-17	8-Oct-98	100.91		1.87		99.04	<0.001	<0.001	<0.001	<0.003	
MW-17	31-Mar-99	100.91		2.29		98.62	<0.001	<0.001	<0.001	<0.003	
MW-17	9-Jun-99	100.91		2.15		98.76	<0.001	<0.001	<0.001	<0.003	
MW-17	2-Sep-99	100.91		2.65		98.26	<0.001	<0.001	<0.001	<0.002	
MW-17	28-Oct-99	100.91		2.54		98.37	<0.001	<0.001	<0.001	<0.002	
MW-17	23-Feb-00	100.91		2.04		98.87	<0.001	<0.001	<0.001	<0.003	
MW-17	24-May-00	100.91		1.81		99.10	<0.001	<0.001	<0.001	<0.002	
MW-17	15-Aug-00	100.91		2.07		98.84	<0.001	<0.001	<0.001	<0.003	
MW-17	9-Nov-00	100.91		1.98		98.93	<0.001	<0.005	<0.001	<0.003	
MW-17	11-Oct-01	100.91		2.14		98.77	<0.001	<0.001	<0.001	<0.003	
MW-17	14-Mar-02	100.91		1.81		99.10	<0.001	<0.001	<0.001	<0.003	
MW-17	6-Jun-02	100.91		1.59		99.32	0.0024	<0.001	<0.001	<0.003	
MW-17	30-Aug-02	100.91		2.01		98.90	<0.001	<0.001	<0.001	<0.003	
MW-17	6-Dec-02	100.91		2.34		98.57	<0.001	<0.001	<0.001	<0.003	
MW-17	6-May-04	100.91		2.13		98.78	0.0011	<0.001	<0.001	<0.003	0.053
MW-17	21-Apr-05	100.91		1.99		98.92					
MW-17	22-Apr-05	100.91					0.0041	<0.001	<0.001	<0.003	0.057
MW-17	5-Jan-09	100.91		1.48		99.43					
MW-17	6-Jan-09	100.91					<0.001	<0.001	<0.001	<0.003	0.0128
MW-17	14-Apr-11	100.91		1.60		99.31	<0.001	<0.001	<0.001	<0.003	0.0149
MW-18	5-Nov-97	99.19		5.32		93.87	<0.001	<0.001	<0.001	<0.003	
MW-18	27-Feb-98	99.19		2.63		96.56	<0.001	<0.001	<0.001	<0.003	
MW-18	10-Jun-98	99.19		2.85		96.34	<0.001	<0.001	<0.001	<0.003	
MW-18	8-Oct-98	99.19		6.37		92.82	<0.001	<0.001	<0.001	<0.003	
MW-18	31-Mar-99	99.19		2.81		96.38	<0.001	<0.001	<0.001	<0.003	
MW-18	9-Jun-99	99.19		2.46		96.73	<0.001	<0.001	<0.001	<0.003	
MW-18	2-Sep-99	99.19		4.73		94.46	<0.001	<0.001	<0.001	<0.003	

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Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
MW-18	28-Oct-99	99.19		3.95		95.24	<0.001	<0.001	<0.001	<0.003	
MW-18	23-Feb-00	99.19		3.25		95.94	<0.001	<0.001	<0.001	<0.003	
MW-18	24-May-00	99.19		2.34		96.85	<0.001	<0.001	<0.001	<0.003	
MW-18	15-Aug-00	99.19		2.98		96.21	<0.001	<0.001	<0.001	<0.003	
MW-18	9-Nov-00	99.19		3.35		95.84	<0.001	<0.005	<0.001	<0.003	
MW-18	11-Oct-01	99.19		3.42		95.77	<0.001	<0.001	<0.001	<0.003	
MW-18	14-Mar-02	99.19		2.40		96.79	<0.001	<0.001	<0.001	<0.003	
MW-18	6-Jun-02	99.19		2.33		96.86	<0.001	<0.001	<0.001	<0.003	
MW-18	30-Aug-02	99.19		3.50		95.69	<0.001	<0.001	<0.001	<0.003	
MW-18	6-Dec-02	99.19		3.54		95.65	<0.001	<0.001	<0.001	<0.003	
MW-18	6-May-04	99.19		2.83		96.36	<0.001	<0.001	<0.001	<0.003	<0.001
MW-18	21-Apr-05	99.19		2.73		96.46					
MW-18	22-Apr-05	99.19					<0.001	<0.001	<0.001	<0.003	<0.001
MW-18	5-Jan-09	99.19		2.34		96.85					
MW-18	6-Jan-09	99.19					<0.001	<0.001	<0.001	<0.003	<0.001
MW-18	14-Apr-11	99.19		2.53		96.66	<0.001	<0.001	<0.001	<0.003	<0.001
MW-19	19-Oct-01	100.62		5.42		95.20	<0.001	<0.001	<0.001	<0.003	
MW-19	14-Mar-02	100.62		3.70		96.92	<0.001	<0.001	<0.001	<0.003	
MW-19	6-Jun-02	100.62		2.90		97.72	<0.001	<0.001	<0.001	<0.003	
MW-19	30-Aug-02	100.62		4.85		95.77	<0.001	<0.001	<0.001	<0.003	
MW-19	6-Dec-02	100.62		5.71		94.91	<0.001	<0.001	<0.001	<0.003	
MW-19	3-May-04	100.62		4.10		96.52	<0.001	<0.001	<0.001	<0.003	<0.001
MW-19	21-Apr-05	100.62		3.77		96.85					
MW-19	22-Apr-05	100.62					<0.001	<0.001	<0.001	<0.003	<0.001
MW-19	5-Jan-09	100.62		3.33		97.29					
MW-19	6-Jan-09	100.62					<0.001	<0.001	<0.001	<0.003	<0.001
MW-19	14-Apr-11	100.62		3.00		97.62	<0.001	<0.001	<0.001	<0.003	<0.001
MW-21	21-Apr-05	102.43		8.79		93.64					
MW-21	22-Apr-05	102.43					<0.001	<0.001	<0.001	<0.003	<0.001
MW-21	5-Jan-09	102.43		6.12		96.31					
MW-21	6-Jan-09	102.43					<0.001	<0.001	<0.001	<0.003	<0.001
MW-21	14-Apr-11	102.43		6.01		96.42	<0.001	<0.001	<0.001	<0.003	<0.001
MW-22	21-Apr-05	107.15		4.62		102.53					
MW-22	22-Apr-05	107.15					<0.001	<0.001	<0.001	<0.003	<0.001
MW-22	6-Jan-09	107.15		4.34		102.81	<0.001	<0.001	<0.001	<0.003	<0.001
MW-22	14-Apr-11	107.15		4.51		102.64	<0.001	<0.001	<0.001	<0.003	<0.001
MW-23	21-Apr-05	104.89		6.90		97.99					
MW-23	22-Apr-05	104.89					<0.001	<0.001	<0.001	<0.003	<0.001
MW-23	5-Jan-09	104.89		6.78		98.11					
MW-23	6-Jan-09	104.89					<0.001	<0.001	<0.001	<0.003	<0.001
MW-23	14-Apr-11	104.89		6.83		98.06	<0.001	<0.001	<0.001	<0.003	<0.001
MW-24	21-Apr-05	105.54		4.35		101.19	<0.001	<0.001	<0.001	<0.003	<0.001
MW-24	1-Sep-09	105.54					Destroyed				
MW-24	14-Apr-11	105.54		4.84		100.70	<0.001	<0.001	<0.001	<0.003	<0.001
MW-25	24-May-05	107.74		4.31		103.43	<0.001	<0.001	<0.001	<0.003	<0.001
MW-25	1-Sep-09	107.74		4.33		103.41					
MW-25	14-Apr-11	107.74		4.10		103.64	<0.001	<0.001	<0.001	<0.003	<0.001
MW-26	21-Apr-05	111.38		7.48		103.90					
MW-26	22-Apr-05	111.38					<0.001	<0.001	<0.001	<0.003	<0.001
MW-26	29-Dec-08	111.38		6.00		105.38					
MW-26	31-Dec-08	111.38		6.94		104.44					
MW-26	5-Jan-09	111.38		7.23		104.15					
MW-26	6-Jan-09	111.38					0.0403	0.0755	0.0048	0.0597	0.0017
MW-26	13-Mar-09	111.38		6.83		104.55					
MW-26	1-Apr-09	111.38		6.72		104.66					
MW-26	19-May-09	111.38		7.32		104.06					
MW-26	16-Jul-09	111.38	7.62	7.66	0.04	103.75					
MW-26	27-Jul-09	111.38	7.59	7.94	0.35	103.71					
MW-26	11-Aug-09	111.38	7.58	8.19	0.61	103.67					
MW-26	18-Aug-09	111.38	7.59	8.25	0.66	103.64					
MW-26	25-Aug-09	111.38	7.58	8.23	0.65	103.66					
MW-26	1-Sep-09	111.38	7.53	7.58	0.05	103.84					
MW-26	10-Sep-09	111.38	7.71	7.78	0.07	103.65					
MW-26	17-Sep-09	111.38	7.78	7.80	0.02	103.60					
MW-26	24-Sep-09	111.38	7.73	7.89	0.16	103.61					
MW-26	1-Oct-09	111.38		7.75		103.63					
MW-26	7-Oct-09	111.38	7.57	7.98	0.41	103.72					
MW-26	23-Oct-09	111.38		7.32		104.06					
MW-26	28-Oct-09	111.38		7.41		103.97					
MW-26	9-Nov-09	111.38	7.58	7.59	0.01	103.80					
MW-26	24-Nov-09	111.38	7.71	7.72	0.01	103.67					

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GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
MW-26	3-Dec-09	111.38	7.59	7.63	0.04	103.78					
MW-26	8-Dec-09	111.38	7.64	7.69	0.05	103.73					
MW-26	17-Dec-09	111.38	7.55	7.63	0.08	103.81					
MW-26	22-Dec-09	111.38	7.62	7.81	0.19	103.72					
MW-26	28-Dec-09	111.38		7.20		104.18					
MW-26	6-Jan-10	111.38		7.55		103.83					
MW-26	19-Jan-10	111.38		7.68		103.70					
MW-26	25-Jan-10	111.38		7.15		104.23					
MW-26	2-Feb-10	111.38		7.53		103.85					
MW-26	8-Feb-10	111.38		7.62		103.76					
MW-26	18-Mar-10	111.38		7.21		104.17					
MW-26	24-Mar-10	111.38		7.28		104.10					
MW-26	29-Mar-10	111.38		7.42		103.96					
MW-26	21-Apr-10	111.38		7.50		103.88					
MW-26	27-Apr-10	111.38		7.50		103.88					
MW-26	4-May-10	111.38		7.49		103.89					
MW-26	10-May-10	111.38		7.47		103.91					
MW-26	19-May-10	111.38		7.27		104.11					
MW-26	25-May-10	111.38		7.43		103.95					
MW-26	2-Jun-10	111.38		7.39		103.99					
MW-26	8-Jun-10	111.38		7.33		104.05					
MW-26	16-Jun-10	111.38		7.43		103.95					
MW-26	22-Jun-10	111.38		7.43		103.95					
MW-26	30-Jun-10	111.38		7.40		103.98					
MW-26	6-Jul-10	111.38		7.57		103.81					
MW-26	13-Jul-10	111.38	7.53	7.54	0.01	103.85					
MW-26	20-Jul-10	111.38		7.65		103.73					
MW-26	27-Jul-10	111.38	7.39	7.40	0.01	103.99					
MW-26	18-Aug-10	111.38		7.47		103.91					
MW-26	24-Aug-10	111.38	7.53	7.54	0.01	103.85					
MW-26	31-Aug-10	111.38		7.60		103.78					
MW-26	21-Sep-10	111.38	7.66	7.68	0.02	103.72					
MW-26	30-Sep-10	111.38	7.71	7.73	0.02	103.67					
MW-26	12-Oct-10	111.38	7.78	8.04	0.26	103.54					
MW-26	3-Nov-10	111.38	7.73	8.08	0.35	103.57					
MW-26	15-Nov-10	111.38	7.78	8.11	0.33	103.53					
MW-26	2-Dec-10	111.38	7.73	8.34	0.61	103.52					
MW-26	10-Dec-10	111.38	7.75	8.21	0.46	103.53					
MW-26	22-Dec-10	111.38	7.81	8.58	0.77	103.40					
MW-26	27-Dec-10	111.38	7.82	8.63	0.81	103.38					
MW-26	29-Dec-10	111.38	8.11	8.59	0.48	103.16					
MW-26	5-Jan-11	111.38	7.87	8.14	0.27	103.45					
MW-26	5-Jan-11^	111.38		8.02		103.36					
MW-26	13-Jan-11	111.38	8.04	8.06	0.02	103.34					
MW-26	13-Jan-11^	111.38		8.17		103.21					
MW-26	17-Jan-11	111.38	7.99	8.43	0.44	103.29					
MW-26	28-Jan-11	111.38	7.98	8.76	0.78	103.23					
MW-26	28-Jan-11^	111.38		8.48		102.90					
MW-26	7-Feb-11	111.38		8.05		103.33					
MW-26	22-Feb-11	111.38	Well unable to be located								
MW-26	2-Mar-11	111.38		7.52		103.86					
MW-26	7-Mar-11	111.38		7.50		103.88					
MW-26	14-Mar-11	111.38		7.45		103.93					
MW-26	21-Mar-11	111.38		7.10		104.28					
MW-26	28-Mar-11	111.38		7.39		103.99					
MW-26	5-Apr-11	111.38		7.52		103.86					
MW-26	12-Apr-11	111.38	7.42	7.43	0.01	103.95					
MW-26	14-Apr-11	111.38		7.52		103.86	0.002	0.013	0.0094	0.0581	<0.001
MW-26	19-Apr-11	111.38		7.15		104.23					
MW-26	26-Apr-11	111.38		6.93		104.45					
MW-26	5-May-11	111.38		7.38		104.00					
MW-26	11-May-11	111.38		7.54		103.84					
MW-26	17-May-11	111.38		7.55		103.83					
MW-26	23-May-11	111.38		7.20		104.18					
MW-26	2-Jun-11	111.38		7.30		104.08					
MW-26	27-Jun-11	111.38		7.58		103.80					
MW-26	6-Jul-11	111.38		7.72		103.66					
MW-26	18-Jul-11	111.38		7.83		103.55					
MW-26	26-Jul-11	111.38		7.52		103.86					
MW-26	2-Aug-11	111.38		7.51		103.87					
MW-26	9-Aug-11	111.38		7.44		103.94					

Table 1
Groundwater Elevation and Analytical Results

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Lake County, Illinois 60084

Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
MW-26	15-Aug-11	111.38		7.58		103.80					
MW-26	22-Aug-11	111.38		7.50		103.88					
MW-26	29-Aug-11	111.38		7.63		103.75					
MW-26	13-Sep-11	111.38		7.83		103.55					
MW-27	21-Apr-05	111.15		7.54		103.61	0.048	0.0095	0.15	0.68	0.016
MW-27	29-Dec-08	111.15	Sheen	6.83	Sheen	104.32					
MW-27	31-Dec-08	111.15	6.97	7.03	0.06	104.17					
MW-27	5-Jan-09	111.15	7.25	7.35	0.10	103.88					
MW-27	9-Jan-09	111.15	7.29	7.39	0.10	103.84					
MW-27	27-Jan-09	111.15	7.59	7.72	0.13	103.53					
MW-27	30-Jan-09	111.15	7.66	7.68	0.02	103.49					
MW-27	26-Feb-09	111.15	7.28	7.36	0.08	103.85					
MW-27	9-Mar-09	111.15		6.50		104.65					
MW-27	13-Mar-09	111.15	6.82	6.83	0.00	104.33					
MW-27	1-Apr-09	111.15		6.71		104.44					
MW-27	19-May-09	111.15	7.37	7.39	0.02	103.78					
MW-27	16-Jul-09	111.15	7.42	8.34	0.92	103.53					
MW-27	1-Sep-09	111.15	7.43	7.73	0.30	103.65					
MW-27	10-Sep-09	111.15	7.55	7.56	0.01	103.60					
MW-27	17-Sep-09	111.15	7.56	7.58	0.02	103.59					
MW-27	24-Sep-09	111.15		7.53		103.62					
MW-27	1-Oct-09	111.15		7.59		103.56					
MW-27	7-Oct-09	111.15	7.53	7.84	0.31	103.55					
MW-27	23-Oct-09	111.15	7.30	7.53	0.23	103.80					
MW-27	28-Oct-09	111.15	7.39	7.58	0.19	103.72					
MW-27	9-Nov-09	111.15	7.51	7.78	0.27	103.58					
MW-27	24-Nov-09	111.15	7.60	8.07	0.47	103.45					
MW-27	3-Dec-09	111.15	7.53	7.87	0.34	103.55					
MW-27	8-Dec-09	111.15	7.56	7.96	0.40	103.50					
MW-27	17-Dec-09	111.15	7.49	7.77	0.28	103.60					
MW-27	22-Dec-09	111.15	7.55	7.94	0.39	103.51					
MW-27	28-Dec-09	111.15		7.20		103.95					
MW-27	6-Jan-10	111.15	7.51	7.53	0.02	103.64					
MW-27	11-Jan-10	111.15		7.65		103.50					
MW-27	19-Jan-10	111.15	7.63	7.65	0.02	103.52					
MW-27	25-Jan-10	111.15		7.13		104.02					
MW-27	2-Feb-10	111.15	7.51	7.53	0.02	103.64					
MW-27	8-Feb-10	111.15	7.60	7.63	0.03	103.54					
MW-27	16-Feb-10	111.15	7.72	7.74	0.02	103.43					
MW-27	22-Feb-10	111.15	7.50	7.72	0.22	103.60					
MW-27	1-Mar-10	111.15		7.48		103.67					
MW-27	8-Mar-10	111.15	7.37	7.61	0.24	103.73					
MW-27	18-Mar-10	111.15		7.23		103.92					
MW-27	24-Mar-10	111.15		7.29		103.86					
MW-27	29-Mar-10	111.15	7.42	7.43	0.01	103.73					
MW-27	21-Apr-10	111.15	7.46	7.56	0.10	103.67					
MW-27	27-Apr-10	111.15	7.48	7.61	0.13	103.64					
MW-27	4-May-10	111.15	7.49	7.61	0.12	103.63					
MW-27	10-May-10	111.15	7.45	7.54	0.09	103.68					
MW-27	19-May-10	111.15	7.25	7.37	0.12	103.87					
MW-27	25-May-10	111.15	7.39	7.51	0.12	103.73					
MW-27	2-Jun-10	111.15	7.42	7.46	0.04	103.72					
MW-27	8-Jun-10	111.15	7.35	7.38	0.03	103.79					
MW-27	16-Jun-10	111.15	7.40	7.58	0.18	103.71					
MW-27	22-Jun-10	111.15	7.34	7.75	0.41	103.72					
MW-27	30-Jun-10	111.15	7.30	7.86	0.56	103.73					
MW-27	6-Jul-10	111.15		7.37		103.78					
MW-27	13-Jul-10	111.15	7.35	8.11	0.76	103.63					
MW-27	20-Jul-10	111.15	7.46	7.47	0.01	103.69					
MW-27	27-Jul-10	111.15	7.33	7.65	0.32	103.75					
MW-27	18-Aug-10	111.15	7.29	8.12	0.83	103.68					
MW-27	24-Aug-10	111.15	7.31	8.12	0.81	103.66					
MW-27	31-Aug-10	111.15	7.40	7.46	0.06	103.74					
MW-27	21-Sep-10	111.15		7.46		103.69					
MW-27	30-Sep-10	111.15		7.49		103.66					
MW-27	12-Oct-10	111.15	7.59	8.50	0.91	103.36					
MW-27	3-Nov-10	111.15	7.61	8.42	0.81	103.36					
MW-27	15-Nov-10	111.15	7.58	8.37	0.79	103.40					
MW-27	2-Dec-10	111.15	7.67	8.38	0.71	103.32					
MW-27	10-Dec-10	111.15	7.63	8.40	0.77	103.35					
MW-27	22-Dec-10	111.15	7.71	8.66	0.95	103.23					

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399 West Liberty Street
Wauconda, Lake County, Illinois 60084

Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
MW-27	27-Dec-10	111.15	7.74	8.63	0.89	103.21					
MW-27	29-Dec-10	111.15	8.36	8.59	0.23	102.74					
MW-27	5-Jan-11	111.15	7.64	8.22	0.58	103.38					
MW-27	5-Jan-11^	111.15	8.25	8.39	0.14	102.87					
MW-27	10-Jan-11	111.15		7.69		103.46					
MW-27	13-Jan-11	111.15	7.75	8.52	0.77	103.23					
MW-27	13-Jan-11^	111.15	8.12	8.13	0.01	103.03					
MW-27	17-Jan-11	111.15	7.74	8.63	0.89	103.21					
MW-27	28-Jan-11	111.15		7.79		103.36					
MW-27	28-Jan-11^	111.15	7.93	8.80	0.87	103.03					
MW-27	7-Feb-11	111.15		7.91		109.41					
MW-27	22-Feb-11	111.15	7.22	7.31	0.09	103.91					
MW-27	2-Mar-11	111.15	7.50	7.61	0.11	103.63					
MW-27	7-Mar-11	111.15	7.55	7.62	0.07	103.58					
MW-27	14-Mar-11	111.15	7.37	7.38	0.01	103.78					
MW-27	21-Mar-11	111.15	6.93	6.95	0.02	104.22					
MW-27	28-Mar-11	111.15		7.32		109.54					
MW-27	5-Apr-11	111.15	7.44	7.45	0.01	103.71					
MW-27	12-Apr-11	111.15	7.37	7.40	0.03	103.77					
MW-27	14-Apr-11	111.15	7.44	7.45	0.01	103.71					
MW-27	19-Apr-11	111.15		7.10		109.59					
MW-27	26-Apr-11	111.15		6.90		109.63					
MW-27	5-May-11	111.15		7.33		109.54					
MW-27	11-May-11	111.15		7.46		109.51					
MW-27	17-May-11	111.15		7.48		109.50					
MW-27	23-May-11	111.15		7.12		109.58					
MW-27	2-Jun-11	111.15		7.23		109.56					
MW-27	27-Jun-11	111.15	7.50	7.51	0.01	103.65					
MW-27	6-Jul-11	111.15	7.63	7.65	0.02	103.52					
MW-27	18-Jul-11	111.15	7.75	7.82	0.07	103.38					
MW-27	26-Jul-11	111.15	7.42	7.49	0.07	103.71					
MW-27	2-Aug-11	111.15	7.43	7.45	0.02	103.72					
MW-27	9-Aug-11	111.15		7.21		109.56					
MW-27	15-Aug-11	111.15	7.49	7.52	0.03	103.65					
MW-27	22-Aug-11	111.15		7.42		109.52					
MW-27	29-Aug-11	111.15	7.54	7.58	0.04	103.60					
MW-27	13-Sep-11	111.15	7.70	7.76	0.06	103.44					
MW-28	21-Apr-05	112.55		8.10		104.45					
MW-28	22-Apr-05	112.55					<0.001	<0.001	<0.001	<0.003	<0.001
MW-28	5-Jan-09	112.55		7.80		104.75					
MW-28	6-Jan-09	112.55					<0.001	<0.001	<0.001	<0.003	<0.001
MW-28	1-Sep-09	112.55		8.02		104.53					
MW-28	14-Apr-11	112.55		7.91		104.64	<0.001	<0.001	<0.001	<0.003	<0.001
MW-29	19-May-09		7.32	9.39	2.07						
MW-29	17-Jun-09		7.55	8.65	1.10						
MW-29	16-Jul-09		7.84	9.10	1.26						
MW-29	27-Jul-09		7.76	8.86	1.10						
MW-29	11-Aug-09		8.26	8.27	0.01						
MW-29	18-Aug-09		8.29	8.44	0.15						
MW-29	25-Aug-09		8.21	8.28	0.07						
MW-29	1-Sep-09		7.75	8.96	1.21						
MW-29	10-Sep-09		7.88	9.16	1.28						
MW-29	17-Sep-09		8.27	8.41	0.14						
MW-29	24-Sep-09		8.26	8.27	0.01						
MW-29	1-Oct-09			8.30							
MW-29	7-Oct-09		8.09	8.11	0.02						
MW-29	23-Oct-09		7.75	7.86	0.11						
MW-29	28-Oct-09		7.84	8.26	0.42						
MW-29	9-Nov-09		7.80	8.95	1.15						
MW-29	24-Nov-09		7.93	9.03	1.10						
MW-29	3-Dec-09		7.84	8.82	0.98						
MW-29	8-Dec-09		7.86	8.74	0.88						
MW-29	17-Dec-09		7.90	8.60	0.70						
MW-29	22-Dec-09		7.95	8.80	0.85						
MW-29	28-Dec-09		7.61	7.63	0.02						
MW-29	6-Jan-10		7.80	8.73	0.93						
MW-29	11-Jan-10		7.80	9.17	1.37						
MW-29	19-Jan-10		7.85	9.20	1.35						
MW-29	25-Jan-10		7.55	7.63	0.08						
MW-29	2-Feb-10		7.82	8.77	0.95						
MW-29	8-Feb-10		7.85	8.89	1.04						

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Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
MW-29	16-Feb-10		7.93	8.97	1.04						
MW-29	22-Feb-10		7.85	8.45	0.60						
MW-29	1-Mar-10		7.87	8.64	0.77						
MW-29	8-Mar-10		7.71	8.16	0.45						
MW-29	18-Mar-10		7.62	7.77	0.15						
MW-29	24-Mar-10		7.65	7.73	0.08						
MW-29	29-Mar-10		7.78	7.85	0.07						
MW-29	21-Apr-10		7.18	7.23	0.05						
MW-29	27-Apr-10		7.86	8.45	0.59						
MW-29	4-May-10		7.76	8.71	0.95						
MW-29	10-May-10		7.83	8.40	0.57						
MW-29	19-May-10		7.56	8.50	0.94						
MW-29	25-May-10		7.71	8.52	0.81						
MW-29	2-Jun-10		7.70	8.40	0.70						
MW-29	8-Jun-10		7.72	8.36	0.64						
MW-29	16-Jun-10		7.70	8.50	0.80						
MW-29	22-Jun-10		6.95	7.22	0.27						
MW-29	30-Jun-10		7.00	7.21	0.21						
MW-29	6-Jul-10		6.96	7.19	0.23						
MW-29	13-Jul-10		6.99	7.14	0.15						
MW-29	20-Jul-10		6.97	7.19	0.22						
MW-29	27-Jul-10		7.03	7.16	0.13						
MW-29	18-Aug-10		7.00	7.18	0.18						
MW-29	24-Aug-10		7.01	7.15	0.14						
MW-29	31-Aug-10		7.02	7.17	0.15						
MW-29	21-Sep-10		7.04	7.19	0.15						
MW-29	30-Sep-10		7.11	7.24	0.13						
MW-29	12-Oct-10		7.25	7.40	0.15						
MW-29	3-Nov-10		8.23	8.53	0.30						
MW-29	15-Nov-10		8.21	8.54	0.33						
MW-29	2-Dec-10		8.25	8.56	0.31						
MW-29	10-Dec-10		8.29	8.52	0.23						
MW-29	22-Dec-10		8.41	8.43	0.02						
MW-29	27-Dec-10		7.74	8.63	0.89						
MW-29	29-Dec-10		8.12	8.45	0.33						
MW-29	5-Jan-11		8.18	8.95	0.77						
MW-29	5-Jan-11^		8.68	8.71	0.03						
MW-29	13-Jan-11		8.45	8.72	0.27						
MW-29	13-Jan-11^		8.73	8.78	0.05						
MW-29	17-Jan-11		8.42	8.68	0.26						
MW-29	28-Jan-11		8.52	8.67	0.15						
MW-29	28-Jan-11^			8.90							
MW-29	7-Feb-11		8.64	8.72	0.08						
MW-29	22-Feb-11			7.72							
MW-29	2-Mar-11		7.85	7.99	0.14						
MW-29	7-Mar-11		7.78	7.86	0.08						
MW-29	14-Mar-11		7.70	8.29	0.59						
MW-29	21-Mar-11			7.34							
MW-29	28-Mar-11			7.65							
MW-29	5-Apr-11			7.60							
MW-29	12-Apr-11		7.61	8.74	1.13						
MW-29	14-Apr-11		7.68	8.77	1.09						
MW-29	19-Apr-11		8.21	8.40	0.19						
MW-29	26-Apr-11		7.19	7.50	0.31						
MW-29	5-May-11		7.63	8.34	0.71						
MW-29	11-May-11		7.70	8.81	1.11						
MW-29	17-May-11		7.93	8.24	0.31						
MW-29	23-May-11		7.58	7.63	0.05						
MW-29	2-Jun-11		7.57	8.25	0.68						
MW-29	27-Jun-11		7.68	9.02	1.34						
MW-29	6-Jul-11		7.55	7.96	0.41						
MW-29	18-Jul-11		8.06	9.12	1.06						
MW-29	26-Jul-11		7.79	8.55	0.76						
MW-29	2-Aug-11		7.73	8.53	0.80						
MW-29	9-Aug-11		7.72	8.46	0.74						
MW-29	15-Aug-11		7.92	8.13	0.21						
MW-29	22-Aug-11		7.84	8.16	0.32						
MW-29	29-Aug-11		7.85	8.67	0.82						
MW-29	13-Sep-11		8.15	8.60	0.45						
MW-30	19-May-09		7.46	7.54	0.08						
MW-30	17-Jun-09		7.29	8.19	0.90						

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GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
MW-30	16-Jul-09		7.54	8.55	1.01						
MW-30	25-Aug-09		7.66	8.54	0.88						
MW-30	1-Sep-09		7.58	7.91	0.33						
MW-30	10-Sep-09		7.65	8.52	0.87						
MW-30	17-Sep-09			7.68							
MW-30	24-Sep-09			7.69							
MW-30	1-Oct-09			7.72							
MW-30	7-Oct-09		7.64	7.65	0.01						
MW-30	23-Oct-09		7.41	7.64	0.23						
MW-30	28-Oct-09		7.54	7.71	0.17						
MW-30	9-Nov-09		7.67	7.83	0.16						
MW-30	24-Nov-09		7.81	7.95	0.14						
MW-30	3-Dec-09		7.70	7.93	0.23						
MW-30	8-Dec-09		7.71	7.80	0.09						
MW-30	17-Dec-09		7.63	7.72	0.09						
MW-30	22-Dec-09		7.73	8.00	0.27						
MW-30	28-Dec-09		7.27	7.33	0.06						
MW-30	6-Jan-10		7.63	7.74	0.11						
MW-30	11-Jan-10		7.73	7.83	0.10						
MW-30	19-Jan-10		7.77	7.82	0.05						
MW-30	25-Jan-10			7.23							
MW-30	2-Feb-10		7.63	7.68	0.05						
MW-30	8-Feb-10		7.72	7.88	0.16						
MW-30	16-Feb-10		7.78	7.82	0.04						
MW-30	22-Feb-10		7.67	7.70	0.03						
MW-30	1-Mar-10		7.67	7.70	0.03						
MW-30	8-Mar-10		7.54	7.57	0.03						
MW-30	18-Mar-10		7.32	7.35	0.03						
MW-30	24-Mar-10		7.40	7.46	0.06						
MW-30	29-Mar-10		7.52	7.57	0.05						
MW-30	21-Apr-10		7.60	7.72	0.12						
MW-30	27-Apr-10		7.62	7.73	0.11						
MW-30	4-May-10		7.61	7.72	0.11						
MW-30	10-May-10		7.57	7.67	0.10						
MW-30	19-May-10		7.37	7.46	0.09						
MW-30	25-May-10		7.53	7.60	0.07						
MW-30	2-Jun-10		7.53	7.60	0.07						
MW-30	8-Jun-10		7.45	7.54	0.09						
MW-30	16-Jun-10		7.54	7.62	0.08						
MW-30	22-Jun-10		7.41	8.03	0.62						
MW-30	30-Jun-10		7.37	8.18	0.81						
MW-30	6-Jul-10		7.49	7.51	0.02						
MW-30	13-Jul-10			7.51							
MW-30	20-Jul-10		7.60	8.38	0.78						
MW-30	27-Jul-10			7.45							
MW-30	18-Aug-10		7.37	8.30	0.93						
MW-30	24-Aug-10			7.40							
MW-30	31-Aug-10		7.45	7.51	0.06						
MW-30	21-Sep-10			7.52							
MW-30	30-Sep-10			7.60							
MW-30	12-Oct-10		7.58	8.71	1.13						
MW-30	3-Nov-10		7.69	8.59	0.90						
MW-30	15-Nov-10		7.50	8.43	0.93						
MW-30	2-Dec-10		7.74	8.59	0.85						
MW-30	10-Dec-10		7.71	8.55	0.84						
MW-30	22-Dec-10		7.90	8.89	0.99						
MW-30	27-Dec-10		7.84	8.82	0.98						
MW-30	29-Dec-10		7.97	8.48	0.51						
MW-30	5-Jan-11		7.74	8.40	0.66						
MW-30	5-Jan-11^		8.19	8.20	0.01						
MW-30	10-Jan-11			7.80							
MW-30	13-Jan-11		7.86	8.73	0.87						
MW-30	13-Jan-11^			8.29							
MW-30	17-Jan-11		7.88	8.84	0.96						
MW-30	28-Jan-11		7.91	8.95	1.04						
MW-30	28-Jan-11^		8.25	8.27	0.02						
MW-30	7-Feb-11		7.97	9.09	1.12						
MW-30	22-Feb-11		7.35	7.37	0.02						
MW-30	2-Mar-11		7.56	7.58	0.02						
MW-30	7-Mar-11		7.46	7.49	0.03						
MW-30	14-Mar-11		7.48	7.49	0.01						

Table 1
Groundwater Elevation and Analytical Results

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Lake County, Illinois 60084

Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
MW-30	21-Mar-11		6.99	7.00	0.01						
MW-30	28-Mar-11			7.43							
MW-30	5-Apr-11		7.56	7.58	0.02						
MW-30	12-Apr-11		7.49	7.51	0.02						
MW-30	14-Apr-11			7.55							
MW-30	19-Apr-11			7.20							
MW-30	26-Apr-11		Sheen	6.96	Sheen						
MW-30	5-May-11			7.44							
MW-30	11-May-11		7.58	7.60	0.02						
MW-30	17-May-11		7.61	7.63	0.02						
MW-30	23-May-11			7.23							
MW-30	2-Jun-11			7.33							
MW-30	27-Jun-11		7.62	7.64	0.02						
MW-30	6-Jul-11		7.76	7.78	0.02						
MW-30	18-Jul-11		7.91	7.93	0.02						
MW-30	26-Jul-11		7.57	7.59	0.02						
MW-30	2-Aug-11		7.55	7.57	0.02						
MW-30	9-Aug-11		7.50	7.53	0.03						
MW-30	15-Aug-11		7.62	7.64	0.02						
MW-30	22-Aug-11			7.54							
MW-30	29-Aug-11		7.66	7.69	0.03						
MW-30	13-Sep-11		7.84	7.89	0.05						
MW-31	19-May-09			7.36							
MW-31	17-Jun-09		7.36	7.86	0.50						
MW-31	16-Jul-09		7.80	7.82	0.02						
MW-31	27-Jul-09		7.83	7.87	0.04						
MW-31	11-Aug-09		7.87	7.90	0.03						
MW-31	18-Aug-09		7.66	8.32	0.66						
MW-31	25-Aug-09		7.71	8.03	0.32						
MW-31	1-Sep-09		7.54	7.87	0.33						
MW-31	10-Sep-09		7.66	8.03	0.37						
MW-31	17-Sep-09		7.81	7.86	0.05						
MW-31	24-Sep-09			7.83							
MW-31	1-Oct-09			7.81							
MW-31	7-Oct-09		7.70	7.71	0.01						
MW-31	23-Oct-09		8.02	8.03	0.01						
MW-31	28-Oct-09		7.69	7.73	0.04						
MW-31	9-Nov-09		7.75	7.96	0.21						
MW-31	24-Nov-09		7.80	7.81	0.01						
MW-31	3-Dec-09		7.83	7.94	0.11						
MW-31	8-Dec-09		7.81	7.90	0.09						
MW-31	17-Dec-09		7.67	7.69	0.02						
MW-31	22-Dec-09		7.80	8.13	0.33						
MW-31	28-Dec-09		7.95	8.03	0.08						
MW-31	6-Jan-10		7.47	7.57	0.10						
MW-31	11-Jan-10		7.40	7.50	0.10						
MW-31	19-Jan-10		7.41	7.50	0.09						
MW-31	25-Jan-10			7.23							
MW-31	2-Feb-10			7.65							
MW-31	8-Feb-10		7.61	7.88	0.27						
MW-31	16-Feb-10		7.77	7.97	0.20						
MW-31	22-Feb-10		7.56	7.91	0.35						
MW-31	1-Mar-10		7.54	7.82	0.28						
MW-31	8-Mar-10		7.46	7.68	0.22						
MW-31	18-Mar-10		7.28	7.36	0.08						
MW-31	24-Mar-10		7.30	7.36	0.06						
MW-31	29-Mar-10		7.32	7.37	0.05						
MW-31	21-Apr-10		7.40	7.49	0.09						
MW-31	27-Apr-10		7.54	7.63	0.09						
MW-31	4-May-10		7.41	7.43	0.02						
MW-31	10-May-10		7.39	7.43	0.04						
MW-31	19-May-10		7.43	7.75	0.32						
MW-31	2-Jun-10		7.20	7.22	0.02						
MW-31	8-Jun-10		7.21	7.23	0.02						
MW-31	16-Jun-10		7.19	7.21	0.02						
MW-31	22-Jun-10		6.22	6.24	0.02						
MW-31	30-Jun-10		6.21	6.23	0.02						
MW-31	6-Jul-10		6.22	6.24	0.02						
MW-31	13-Jul-10		6.21	6.23	0.02						
MW-31	20-Jul-10		6.22	6.24	0.02						
MW-31	27-Jul-10		6.24	6.26	0.02						

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399 West Liberty Street
Wauconda, Lake County, Illinois 60084

Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
MW-31	18-Aug-10		6.20	6.23	0.03						
MW-31	24-Aug-10		6.18	6.21	0.03						
MW-31	31-Aug-10		6.20	6.23	0.03						
MW-31	21-Sep-10		6.18	6.21	0.03						
MW-31	30-Sep-10		6.18	6.21	0.03						
MW-31	12-Oct-10		6.16	6.19	0.03						
MW-31	3-Nov-10		7.88	8.27	0.39						
MW-31	15-Nov-10		7.73	8.11	0.38						
MW-31	2-Dec-10		7.76	8.13	0.37						
MW-31	10-Dec-10		7.73	8.10	0.37						
MW-31	22-Dec-10			6.10							
MW-31	27-Dec-10			6.11							
MW-31	10-Jan-11			7.85							
MW-31	13-Jan-11		8.09	8.74	0.65						
MW-31	13-Jan-11^		8.10	8.12	0.02						
MW-31	17-Jan-11		8.02	8.51	0.49						
MW-31	28-Jan-11		7.92	8.63	0.71						
MW-31	28-Jan-11^		7.95	8.83	0.88						
MW-31	7-Feb-11		Unable to be located - buried under snow								
MW-31	22-Feb-11		6.67	6.69	0.02						
MW-31	2-Mar-11		7.77	7.80	0.03						
MW-31	7-Mar-11		7.68	7.71	0.03						
MW-31	14-Mar-11		7.40	7.58	0.18						
MW-31	21-Mar-11			7.05							
MW-31	28-Mar-11			6.32							
MW-31	5-Apr-11			6.30							
MW-31	12-Apr-11		7.56	7.60	0.04						
MW-31	14-Apr-11		7.85	7.89	0.04						
MW-31	19-Apr-11		7.74	7.76	0.02						
MW-31	26-Apr-11			6.98							
MW-31	5-May-11		7.00	7.76	0.76						
MW-31	11-May-11			6.96							
MW-31	17-May-11			6.98							
MW-31	23-May-11			6.96							
MW-31	2-Jun-11			7.30							
MW-31	27-Jun-11		7.49	7.91	0.42						
MW-31	6-Jul-11		7.64	7.89	0.25						
MW-31	18-Jul-11		7.78	7.81	0.03						
MW-31	26-Jul-11		7.51	7.60	0.09						
MW-31	2-Aug-11		7.54	7.61	0.07						
MW-31	9-Aug-11		7.43	7.54	0.11						
MW-31	15-Aug-11		7.51	7.53	0.02						
MW-31	22-Aug-11			7.41							
MW-31	29-Aug-11		7.51	7.52	0.01						
MW-31	13-Sep-11		7.64	7.68	0.04						
MW-32	19-May-09			7.43							
MW-32	16-Jul-09			7.69							
MW-32	25-Aug-09			7.72							
MW-32	1-Sep-09			7.58							
MW-32	10-Sep-09			7.74							
MW-32	17-Sep-09			7.81							
MW-32	24-Sep-09			7.78							
MW-32	1-Oct-09			7.83							
MW-32	7-Oct-09			7.67							
MW-32	23-Oct-09			7.43							
MW-32	22-Jun-10			7.49							
MW-32	30-Jun-10			7.48							
MW-32	6-Jul-10			7.58							
MW-32	13-Jul-10			7.57							
MW-32	20-Jul-10			7.67							
MW-32	27-Jul-10			7.45							
MW-32	18-Aug-10			7.52							
MW-32	24-Aug-10			7.56							
MW-32	31-Aug-10		7.67	7.69	0.02						
MW-32	21-Sep-10			7.68							
MW-32	30-Sep-10			7.54							
MW-32	12-Oct-10			7.83							
MW-32	3-Nov-10			7.82							
MW-32	15-Nov-10			7.91							
MW-32	2-Dec-10			7.84							
MW-32	10-Dec-10			7.81							

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Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
MW-32	22-Dec-10			7.92							
MW-32	27-Dec-10			7.96							
MW-32	10-Jan-11			7.88							
MW-32	2-Mar-11			7.51							
MW-32	14-Apr-11			7.51			0.757	0.174	0.0903	0.343	0.0104
RW-1	6-Jan-09						0.764	<0.005	0.0052	<0.015	0.0118
RW-1	19-May-09			6.10							
RW-1	25-Aug-09			6.39							
RW-1	1-Sep-09			6.22							
RW-1	10-Sep-09			6.35							
RW-1	17-Sep-09			6.38							
RW-1	24-Sep-09			6.35							
RW-1	1-Oct-09			6.40							
RW-1	7-Oct-09			6.27							
RW-1	23-Oct-09			6.03							
RW-1	10-Jan-11			6.49							
RW-1	14-Apr-11			6.12			1.09	0.0196	0.007	0.0361	0.0076
RW-1 ('04)	21-Apr-05	108.01		4.58		103.43	0.44	0.0097	0.028	0.11	0.01
RW-1 ('04)	29-Dec-08	108.01		2.42		105.59					
RW-1 ('04)	5-Jan-09	108.01		3.93		104.08					
RW-1 ('04)	10-Jan-11	108.01		5.35		102.66					
RW-2	1-Apr-09			9.40							
RW-2	19-May-09			9.70							
RW-2	16-Jul-09			9.72							
RW-2	18-Aug-09			9.72							
RW-2	25-Aug-09			9.73							
RW-2	1-Sep-09			9.72							
RW-2	10-Sep-09			9.72							
RW-2	17-Sep-09			9.73							
RW-2	24-Sep-09			9.74							
RW-2	1-Oct-09			9.73							
RW-2	7-Oct-09			9.72							
RW-2	23-Oct-09			9.72							
RW-2	22-Jun-10		9.72	9.73	0.01						
RW-2	30-Jun-10		9.72	9.73	0.01						
RW-2	6-Jul-10			9.73							
RW-2	13-Jul-10			9.72							
RW-2	20-Jul-10			9.73							
RW-2	27-Jul-10			9.72							
RW-2	18-Aug-10			9.72							
RW-2	24-Aug-10			9.72							
RW-2	31-Aug-10			9.74							
RW-2	21-Sep-10			9.78							
RW-2	30-Sep-10			9.76							
RW-2	12-Oct-10			9.72							
RW-2	3-Nov-10			9.73							
RW-2	15-Nov-10			9.81							
RW-2	2-Dec-10			9.75							
RW-2	10-Dec-10			9.80							
RW-2	22-Dec-10			9.20							
RW-2	27-Dec-10			9.75							
RW-2	29-Dec-10			9.76							
RW-2	5-Jan-11			9.75							
RW-2	10-Jan-11			9.71							
RW-2	2-Mar-11			9.76							
RW-2	14-Apr-11			9.72							
RW-3	19-May-09			7.20							
RW-3	17-Jun-09		7.20	7.34	0.14						
RW-3	16-Jul-09		7.52	7.53	0.01						
RW-3	27-Jul-09		7.50	7.52	0.02						
RW-3	18-Aug-09		7.58	7.59	0.01						
RW-3	25-Aug-09		7.55	7.57	0.02						
RW-3	1-Sep-09		7.34	7.47	0.13						
RW-3	10-Sep-09		7.71	7.72	0.01						
RW-3	17-Sep-09		7.70	7.71	0.01						
RW-3	24-Sep-09		7.58	7.60	0.02						
RW-3	1-Oct-09		7.69	7.70	0.01						
RW-3	7-Oct-09		7.48	7.49	0.01						
RW-3	23-Oct-09		7.43	7.46	0.03						
RW-3	28-Oct-09		7.38	7.39	0.01						
RW-3	9-Nov-09		7.53	7.55	0.02						

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Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
RW-3	24-Nov-09		7.55	7.56	0.01						
RW-3	3-Dec-09		7.40	7.42	0.02						
RW-3	8-Dec-09		7.42	7.45	0.03						
RW-3	17-Dec-09		7.42	7.51	0.09						
RW-3	22-Dec-09		7.65	7.80	0.15						
RW-3	28-Dec-09		7.16	7.19	0.03						
RW-3	6-Jan-10		7.58	7.65	0.07						
RW-3	11-Jan-10		7.50	7.55	0.05						
RW-3	19-Jan-10		7.52	7.54	0.02						
RW-3	25-Jan-10		6.98	6.99	0.01						
RW-3	2-Feb-10		7.86	7.89	0.03						
RW-3	8-Feb-10		7.45	7.48	0.03						
RW-3	16-Feb-10		7.56	7.57	0.01						
RW-3	22-Feb-10		7.52	7.54	0.02						
RW-3	1-Mar-10			7.40							
RW-3	8-Mar-10			7.52							
RW-3	18-Mar-10			7.07							
RW-3	24-Mar-10			7.12							
RW-3	29-Mar-10			7.14							
RW-3	21-Apr-10		7.59	7.60	0.01						
RW-3	27-Apr-10			7.36							
RW-3	4-May-10		7.34	7.37	0.03						
RW-3	10-May-10		7.35	7.39	0.04						
RW-3	19-May-10		7.40	7.44	0.04						
RW-3	25-May-10		6.03	6.12	0.09						
RW-3	2-Jun-10		6.05	6.15	0.10						
RW-3	8-Jun-10		6.00	6.10	0.10						
RW-3	16-Jun-10		6.02	6.12	0.10						
RW-3	22-Jun-10		6.06	6.09	0.03						
RW-3	30-Jun-10		6.05	6.08	0.03						
RW-3	6-Jul-10		6.05	6.08	0.03						
RW-3	13-Jul-10		6.01	6.04	0.03						
RW-3	20-Jul-10		6.04	6.06	0.02						
RW-3	27-Jul-10		6.07	6.09	0.02						
RW-3	18-Aug-10		7.49	7.50	0.01						
RW-3	24-Aug-10		7.50	7.51	0.01						
RW-3	31-Aug-10		7.48	7.49	0.01						
RW-3	21-Sep-10		7.51	7.52	0.01						
RW-3	30-Sep-10		7.49	7.51	0.02						
RW-3	12-Oct-10		7.54	7.56	0.02						
RW-3	3-Nov-10		7.53	8.03	0.50						
RW-3	15-Nov-10		7.65	8.12	0.47						
RW-3	2-Dec-10		7.02	7.08	0.06						
RW-3	10-Dec-10		7.06	7.13	0.07						
RW-3	22-Dec-10		8.05	8.08	0.03						
RW-3	27-Dec-10		8.03	8.07	0.04						
RW-3	29-Dec-10		8.04	8.08	0.04						
RW-3	5-Jan-11		7.69	8.19	0.50						
RW-3	5-Jan-11^		7.90	7.91	0.01						
RW-3	10-Jan-11			7.57							
RW-3	13-Jan-11		7.95	8.46	0.51						
RW-3	13-Jan-11^			8.00							
RW-3	17-Jan-11		7.60	7.90	0.30						
RW-3	28-Jan-11		7.69	8.34	0.65						
RW-3	28-Jan-11^		7.95	8.05	0.10						
RW-3	7-Feb-11			7.83							
RW-3	22-Feb-11		7.06	7.19	0.13						
RW-3	2-Mar-11		7.45	7.49	0.04						
RW-3	7-Mar-11		7.32	7.34	0.02						
RW-3	14-Mar-11		7.20	7.21	0.01						
RW-3	21-Mar-11			8.00							
RW-3	28-Mar-11			7.05							
RW-3	5-Apr-11			7.07							
RW-3	12-Apr-11		7.42	7.43	0.01						
RW-3	14-Apr-11		7.24	7.25	0.01						
RW-3	19-Apr-11			7.18							
RW-3	26-Apr-11		6.71	6.72	0.01						
RW-3	5-May-11		7.05	7.07	0.02						
RW-3	11-May-11		7.29	7.30	0.01						
RW-3	17-May-11			7.30							
RW-3	23-May-11			7.22							

Table 1
Groundwater Elevation and Analytical Results

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Lake County, Illinois 60084

Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
RW-3	2-Jun-11		7.04	7.05	0.01						
RW-3	27-Jun-11		7.32	7.34	0.02						
RW-3	6-Jul-11		7.46	7.50	0.04						
RW-3	18-Jul-11		7.82	7.83	0.01						
RW-3	26-Jul-11			7.43							
RW-3	2-Aug-11			7.20							
RW-3	9-Aug-11			7.30							
RW-3	15-Aug-11			7.35							
RW-3	22-Aug-11			7.38							
RW-3	29-Aug-11		7.49	7.50	0.01						
RW-3	13-Sep-11			7.90							
RW-4	19-May-09			7.36							
RW-4	17-Jun-09			7.37							
RW-4	16-Jul-09			7.63							
RW-4	11-Aug-09		7.53	7.57	0.04						
RW-4	18-Aug-09		7.70	7.71	0.01						
RW-4	25-Aug-09		7.70	7.71	0.01						
RW-4	1-Sep-09		7.51	7.53	0.02						
RW-4	10-Sep-09		7.68	7.70	0.02						
RW-4	17-Sep-09			7.76							
RW-4	24-Sep-09		7.68	7.70	0.02						
RW-4	1-Oct-09		7.73	7.74	0.01						
RW-4	7-Oct-09		7.58	7.60	0.02						
RW-4	23-Oct-09		7.35	7.40	0.05						
RW-4	28-Oct-09		7.39	7.50	0.11						
RW-4	9-Nov-09		7.55	7.56	0.01						
RW-4	24-Nov-09		7.65	7.83	0.18						
RW-4	3-Dec-09		7.58	7.70	0.12						
RW-4	8-Dec-09		7.60	7.74	0.14						
RW-4	17-Dec-09		7.55	7.63	0.08						
RW-4	22-Dec-09		7.61	7.75	0.14						
RW-4	28-Dec-09		7.16	7.27	0.11						
RW-4	6-Jan-10		7.50	7.60	0.10						
RW-4	11-Jan-10		7.58	7.71	0.13						
RW-4	19-Jan-10		7.62	7.73	0.11						
RW-4	25-Jan-10		7.14	7.21	0.07						
RW-4	2-Feb-10		7.48	7.60	0.12						
RW-4	8-Feb-10		7.56	7.74	0.18						
RW-4	16-Feb-10		7.60	7.80	0.20						
RW-4	22-Feb-10		7.50	7.63	0.13						
RW-4	1-Mar-10		7.51	7.61	0.10						
RW-4	8-Mar-10		7.38	7.45	0.07						
RW-4	18-Mar-10		7.18	7.30	0.12						
RW-4	24-Mar-10		7.26	7.38	0.12						
RW-4	29-Mar-10		7.34	7.49	0.15						
RW-4	21-Apr-10		7.42	7.61	0.19						
RW-4	27-Apr-10		7.43	7.60	0.17						
RW-4	4-May-10		7.43	7.60	0.17						
RW-4	10-May-10		7.41	7.56	0.15						
RW-4	19-May-10		7.25	7.37	0.12						
RW-4	25-May-10		7.35	7.49	0.14						
RW-4	2-Jun-10		7.35	7.52	0.17						
RW-4	8-Jun-10		7.31	7.43	0.12						
RW-4	16-Jun-10		7.37	7.54	0.17						
RW-4	22-Jun-10		7.36	7.53	0.17						
RW-4	30-Jun-10		7.36	7.52	0.16						
RW-4	6-Jul-10			7.48							
RW-4	13-Jul-10		7.45	7.68	0.23						
RW-4	20-Jul-10		7.54	7.82	0.28						
RW-4	27-Jul-10		7.33	7.51	0.18						
RW-4	18-Aug-10		7.38	7.68	0.30						
RW-4	24-Aug-10		7.43	7.75	0.32						
RW-4	31-Aug-10		7.53	7.92	0.39						
RW-4	21-Sep-10		7.54	7.92	0.38						
RW-4	30-Sep-10		7.53	7.61	0.08						
RW-4	12-Oct-10		7.68	8.06	0.38						
RW-4	3-Nov-10		7.68	8.10	0.42						
RW-4	15-Nov-10		7.72	8.08	0.36						
RW-4	2-Dec-10		7.65	8.35	0.70						
RW-4	10-Dec-10		7.62	8.33	0.71						
RW-4	22-Dec-10		7.75	8.62	0.87						

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Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
RW-4	27-Dec-10		7.73	8.63	0.90						
RW-4	29-Dec-10		8.37	8.65	0.28						
RW-4	5-Jan-11		7.59	8.32	0.73						
RW-4	5-Jan-11^		7.93	7.95	0.02						
RW-4	13-Jan-11		7.89	8.15	0.26						
RW-4	13-Jan-11^		7.99	8.02	0.03						
RW-4	17-Jan-11			7.93							
RW-4	28-Jan-11		7.83	8.68	0.85						
RW-4	28-Jan-11^			8.23							
RW-4	7-Feb-11		8.05	8.08	0.03						
RW-4	22-Feb-11			7.25							
RW-4	2-Mar-11		7.41	7.42	0.01						
RW-4	7-Mar-11		7.28	7.29	0.01						
RW-4	14-Mar-11			7.38							
RW-4	21-Mar-11		7.01	7.02	0.01						
RW-4	28-Mar-11			7.30							
RW-4	5-Apr-11		7.43	7.44	0.01						
RW-4	12-Apr-11			7.38							
RW-4	14-Apr-11			7.42			10.2	16.3	1.69	11.8	<0.125
RW-4	19-Apr-11			7.08							
RW-4	26-Apr-11			6.91							
RW-4	5-May-11			7.32							
RW-4	11-May-11			7.45							
RW-4	17-May-11			7.47							
RW-4	23-May-11			7.15							
RW-4	2-Jun-11			7.20							
RW-4	27-Jun-11		7.45	7.51	0.06						
RW-4	6-Jul-11		7.60	7.65	0.05						
RW-4	18-Jul-11		7.72	7.78	0.06						
RW-4	26-Jul-11		7.40	7.43	0.03						
RW-4	2-Aug-11		7.40	7.44	0.04						
RW-4	9-Aug-11		7.34	7.35	0.01						
RW-4	15-Aug-11		7.45	7.51	0.06						
RW-4	22-Aug-11			7.38							
RW-4	29-Aug-11			1.48							
RW-4	13-Sep-11		7.67	7.80	0.13						
RW-5	19-May-09		6.93	8.40	1.47						
RW-5	17-Jun-09		7.01	8.13	1.12						
RW-5	16-Jul-09			7.51							
RW-5	11-Aug-09		7.51	8.05	0.54						
RW-5	18-Aug-09		7.38	8.51	1.13						
RW-5	25-Aug-09		7.37	8.54	1.17						
RW-5	1-Sep-09		7.18	8.28	1.10						
RW-5	10-Sep-09		7.31	8.63	1.32						
RW-5	17-Sep-09		7.39	7.42	0.03						
RW-5	24-Sep-09		7.39	8.61	1.22						
RW-5	1-Oct-09		7.44	7.47	0.03						
RW-5	7-Oct-09			7.35							
RW-5	23-Oct-09		7.16	7.41	0.25						
RW-5	28-Oct-09		7.19	7.33	0.14						
RW-5	9-Nov-09		7.33	7.34	0.01						
RW-5	24-Nov-09		7.42	8.33	0.91						
RW-5	3-Dec-09		7.32	8.18	0.86						
RW-5	8-Dec-09		7.38	8.25	0.87						
RW-5	17-Dec-09		7.30	8.23	0.93						
RW-5	22-Dec-09		7.33	7.55	0.22						
RW-5	28-Dec-09		7.07	7.30	0.23						
RW-5	6-Jan-10		7.40	7.88	0.48						
RW-5	11-Jan-10		7.48	7.94	0.46						
RW-5	19-Jan-10		7.54	7.87	0.33						
RW-5	25-Jan-10		7.09	7.10	0.01						
RW-5	2-Feb-10		7.31	7.33	0.02						
RW-5	8-Feb-10		7.53	8.10	0.57						
RW-5	16-Feb-10		7.50	8.18	0.68						
RW-5	22-Feb-10		7.39	7.78	0.39						
RW-5	1-Mar-10		7.40	7.86	0.46						
RW-5	8-Mar-10		7.51	7.91	0.40						
RW-5	18-Mar-10		7.08	7.30	0.22						
RW-5	24-Mar-10		7.09	7.51	0.42						
RW-5	29-Mar-10		7.19	7.73	0.54						
RW-5	21-Apr-10		7.25	7.92	0.67						

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GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
RW-5	27-Apr-10		7.24	7.92	0.68						
RW-5	4-May-10		7.24	7.90	0.66						
RW-5	10-May-10		7.80	7.92	0.12						
RW-5	19-May-10		7.04	7.80	0.76						
RW-5	25-May-10		7.18	7.25	0.07						
RW-5	2-Jun-10		7.20	7.29	0.09						
RW-5	8-Jun-10		7.25	7.33	0.08						
RW-5	16-Jun-10		7.24	7.32	0.08						
RW-5	22-Jun-10			7.25							
RW-5	30-Jun-10			7.23							
RW-5	6-Jul-10			7.31							
RW-5	13-Jul-10			7.30							
RW-5	20-Jul-10			7.28							
RW-5	27-Jul-10			7.25							
RW-5	18-Aug-10			7.30							
RW-5	24-Aug-10			7.26							
RW-5	31-Aug-10			7.23							
RW-5	21-Sep-10			7.33							
RW-5	30-Sep-10			7.26							
RW-5	12-Oct-10		7.52	7.88	0.36						
RW-5	3-Nov-10		7.69	8.30	0.61						
RW-5	15-Nov-10		7.71	8.31	0.60						
RW-5	2-Dec-10		7.67	8.35	0.68						
RW-5	10-Dec-10		7.66	8.21	0.55						
RW-5	22-Dec-10		7.78	8.66	0.88						
RW-5	27-Dec-10		7.76	8.65	0.89						
RW-5	29-Dec-10		8.34	8.62	0.28						
RW-5	5-Jan-11		7.63	8.34	0.71						
RW-5	5-Jan-11^		7.90	7.93	0.03						
RW-5	13-Jan-11		7.71	8.54	0.83						
RW-5	13-Jan-11^			8.00							
RW-5	17-Jan-11		7.94	8.34	0.40						
RW-5	28-Jan-11		7.83	8.68	0.85						
RW-5	28-Jan-11^		8.21	8.23	0.02						
RW-5	7-Feb-11		7.90	7.92	0.02						
RW-5	22-Feb-11		7.25	7.26	0.01						
RW-5	2-Mar-11		7.49	7.51	0.02						
RW-5	7-Mar-11		7.50	7.52	0.02						
RW-5	14-Mar-11		7.29	7.30	0.01						
RW-5	21-Mar-11			6.69							
RW-5	28-Mar-11			7.17							
RW-5	5-Apr-11		7.05	7.07	0.02						
RW-5	12-Apr-11			7.40							
RW-5	14-Apr-11		7.42	7.43	0.01						
RW-5	19-Apr-11			7.38							
RW-5	26-Apr-11			6.81							
RW-5	5-May-11		7.21	7.26	0.05						
RW-5	11-May-11			7.82							
RW-5	17-May-11		7.39	7.47	0.08						
RW-5	23-May-11		7.22	7.27	0.05						
RW-5	2-Jun-11		7.18	7.22	0.04						
RW-5	27-Jun-11		7.43	7.60	0.17						
RW-5	6-Jul-11		7.65	7.67	0.02						
RW-5	18-Jul-11		7.48	8.33	0.85						
RW-5	26-Jul-11			7.29							
RW-5	2-Aug-11		7.28	7.58	0.30						
RW-5	9-Aug-11		7.25	7.41	0.16						
RW-5	15-Aug-11		7.32	7.68	0.36						
RW-5	22-Aug-11		7.27	7.47	0.20						
RW-5	29-Aug-11		7.36	7.78	0.42						
RW-5	13-Sep-11		7.47	8.22	0.75						
RW-6	19-May-09			7.05							
RW-6	16-Jul-09		7.25	7.83	0.58						
RW-6	27-Jul-09		7.28	7.92	0.64						
RW-6	11-Aug-09		7.31	8.04	0.73						
RW-6	18-Aug-09		7.40	8.02	0.62						
RW-6	25-Aug-09		7.33	8.02	0.69						
RW-6	1-Sep-09			7.32							
RW-6	10-Sep-09		7.43	7.70	0.27						
RW-6	17-Sep-09			7.63							
RW-6	24-Sep-09		7.57	7.60	0.03						

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Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
RW-6	1-Oct-09			7.61							
RW-6	7-Oct-09		7.45	7.46	0.01						
RW-6	23-Oct-09		7.41	7.42	0.01						
RW-6	28-Oct-09			7.22							
RW-6	9-Nov-09		7.33	7.42	0.09						
RW-6	24-Nov-09			7.51							
RW-6	3-Dec-09		7.34	7.38	0.04						
RW-6	8-Dec-09		7.54	7.59	0.05						
RW-6	17-Dec-09		7.31	7.40	0.09						
RW-6	22-Dec-09		7.42	7.55	0.13						
RW-6	6-Jan-10			7.23							
RW-6	11-Jan-10		7.40	7.42	0.02						
RW-6	19-Jan-10		7.41	7.42	0.01						
RW-6	25-Jan-10			6.87							
RW-6	2-Feb-10		7.25	7.28	0.03						
RW-6	8-Feb-10			7.34							
RW-6	16-Feb-10		7.39	7.40	0.01						
RW-6	22-Feb-10		7.25	7.30	0.05						
RW-6	1-Mar-10		7.25	7.31	0.06						
RW-6	8-Mar-10		7.11	7.17	0.06						
RW-6	18-Mar-10		6.92	6.98	0.06						
RW-6	24-Mar-10		6.95	7.01	0.06						
RW-6	29-Mar-10		7.01	7.07	0.06						
RW-6	21-Apr-10			7.28							
RW-6	27-Apr-10		7.25	7.26	0.01						
RW-6	4-May-10			7.30							
RW-6	10-May-10		7.20	7.21	0.01						
RW-6	19-May-10		6.96	7.04	0.08						
RW-6	25-May-10		7.12	7.20	0.08						
RW-6	2-Jun-10		7.10	7.15	0.05						
RW-6	8-Jun-10		7.03	7.13	0.10						
RW-6	16-Jun-10		7.15	7.20	0.05						
RW-6	22-Jun-10		7.13	7.19	0.06						
RW-6	30-Jun-10		7.11	7.17	0.06						
RW-6	6-Jul-10		7.25	7.37	0.12						
RW-6	13-Jul-10		7.24	7.33	0.09						
RW-6	20-Jul-10		7.37	7.46	0.09						
RW-6	27-Jul-10		7.09	7.19	0.10						
RW-6	18-Aug-10		7.16	7.34	0.18						
RW-6	24-Aug-10		7.19	7.33	0.14						
RW-6	31-Aug-10		7.30	7.67	0.37						
RW-6	21-Sep-10			7.32							
RW-6	30-Sep-10		7.35	7.72	0.37						
RW-6	12-Oct-10		7.45	8.02	0.57						
RW-6	3-Nov-10		7.43	8.08	0.65						
RW-6	15-Nov-10		7.50	8.12	0.62						
RW-6	2-Dec-10		7.50	8.09	0.59						
RW-6	10-Dec-10		7.42	8.04	0.62						
RW-6	22-Dec-10		7.60	8.20	0.60						
RW-6	27-Dec-10		7.64	8.22	0.58						
RW-6	29-Dec-10		8.18	8.20	0.02						
RW-6	5-Jan-11		7.42	7.97	0.55						
RW-6	5-Jan-11^		7.73	7.76	0.03						
RW-6	13-Jan-11		7.72	7.82	0.10						
RW-6	13-Jan-11^		7.93	7.95	0.02						
RW-6	17-Jan-11		7.27	7.85	0.58						
RW-6	28-Jan-11		7.81	7.96	0.15						
RW-6	28-Jan-11^		8.30	8.35	0.05						
RW-6	7-Feb-11			7.78							
RW-6	22-Feb-11		6.93	7.27	0.34						
RW-6	2-Mar-11		7.11	7.31	0.20						
RW-6	7-Mar-11		7.15	7.30	0.15						
RW-6	14-Mar-11		7.09	7.17	0.08						
RW-6	21-Mar-11		6.69	6.71	0.02						
RW-6	28-Mar-11		7.02	7.03	0.01						
RW-6	5-Apr-11		7.15	7.19	0.04						
RW-6	12-Apr-11		7.09	7.10	0.01						
RW-6	14-Apr-11		7.15	7.16	0.01						
RW-6	19-Apr-11			7.05							
RW-6	26-Apr-11		6.55	6.56	0.01						
RW-6	5-May-11		7.00	7.05	0.05						

Table 1
Groundwater Elevation and Analytical Results

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Lake County, Illinois 60084

Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
RW-6	11-May-11		7.20	7.23	0.03						
RW-6	17-May-11		7.19	7.23	0.04						
RW-6	23-May-11			6.82							
RW-6	2-Jun-11		6.91	6.98	0.07						
RW-6	27-Jun-11		7.23	7.26	0.03						
RW-6	6-Jul-11		7.38	7.41	0.03						
RW-6	18-Jul-11		Sheen	7.59	Sheen						
RW-6	26-Jul-11			7.24							
RW-6	2-Aug-11			7.53							
RW-6	9-Aug-11			7.14							
RW-6	15-Aug-11		7.31	7.35	0.04						
RW-6	22-Aug-11			7.23							
RW-6	29-Aug-11			7.31							
RW-6	13-Sep-11			7.50							
S-1	16-Jul-09		7.49	7.59	0.10						
S-1	27-Jul-09		7.46	7.54	0.08						
S-1	11-Aug-09		7.71	7.79	0.08						
S-1	18-Aug-09		7.61	7.72	0.11						
S-1	25-Aug-09		7.53	7.61	0.08						
S-1	1-Sep-09		7.01	7.05	0.04						
S-1	10-Sep-09		7.63	7.68	0.05						
S-1	17-Sep-09			7.86							
S-1	24-Sep-09		7.73	7.78	0.05						
S-1	1-Oct-09		7.87	7.89	0.02						
S-1	7-Oct-09		7.41	7.42	0.01						
S-1	23-Oct-09		6.79	6.81	0.02						
S-1	28-Oct-09		6.97	7.03	0.06						
S-1	9-Nov-09		7.33	7.38	0.05						
S-1	24-Nov-09		7.68	7.76	0.08						
S-1	3-Dec-09		7.40	7.46	0.06						
S-1	8-Dec-09		7.57	7.64	0.07						
S-1	17-Dec-09		7.31	7.39	0.08						
S-1	22-Dec-09		7.43	7.51	0.08						
S-1	28-Dec-09		6.52	6.59	0.07						
S-1	6-Jan-10		7.15	7.24	0.09						
S-1	11-Jan-10		7.38	7.45	0.07						
S-1	19-Jan-10		7.54	7.62	0.08						
S-1	25-Jan-10		7.01	7.04	0.03						
S-1	2-Feb-10		7.25	7.30	0.05						
S-1	8-Feb-10		7.37	7.42	0.05						
S-1	16-Feb-10		7.55	7.62	0.07						
S-1	22-Feb-10		7.43	7.47	0.04						
S-1	1-Mar-10		7.35	7.40	0.05						
S-1	8-Mar-10		7.45	7.49	0.04						
S-1	18-Mar-10		6.79	6.82	0.03						
S-1	24-Mar-10		6.75	6.79	0.04						
S-1	29-Mar-10		7.01	7.05	0.04						
S-1	21-Apr-10		7.45	7.51	0.06						
S-1	27-Apr-10		7.27	7.29	0.02						
S-1	4-May-10		7.27	7.30	0.03						
S-1	10-May-10		7.13	7.16	0.03						
S-1	19-May-10		6.58	6.65	0.07						
S-1	25-May-10		6.86	6.95	0.09						
S-1	2-Jun-10		6.95	7.04	0.09						
S-1	8-Jun-10		6.96	7.01	0.05						
S-1	16-Jun-10		7.02	7.06	0.04						
S-1	22-Jun-10		7.05	7.09	0.04						
S-1	30-Jun-10		7.05	7.09	0.04						
S-1	6-Jul-10		7.27	7.30	0.03						
S-1	13-Jul-10		7.27	7.35	0.08						
S-1	20-Jul-10		7.47	7.50	0.03						
S-1	27-Jul-10		6.95	7.00	0.05						
S-1	18-Aug-10		7.16	7.29	0.13						
S-1	24-Aug-10		7.29	7.41	0.12						
S-1	31-Aug-10		7.57	7.72	0.15						
S-1	21-Sep-10		7.58	7.61	0.03						
S-1	30-Sep-10		7.32	7.35	0.03						
S-1	12-Oct-10		7.87	8.19	0.32						
S-1	3-Nov-10		7.90	8.36	0.46						
S-1	15-Nov-10		7.93	8.35	0.42						
S-1	2-Dec-10		7.93	8.58	0.65						

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Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Lake County, Illinois 60084

Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
S-1	10-Dec-10		7.97	8.54	0.57						
S-1	22-Dec-10		7.90	8.48	0.58						
S-1	27-Dec-10		7.92	8.50	0.58						
S-1	5-Jan-11		7.58	8.00	0.42						
S-1	5-Jan-11^		9.56	9.63	0.07						
S-1	10-Jan-11		8.17	8.90	0.73						
S-1	13-Jan-11		8.22	8.96	0.74						
S-1	13-Jan-11^		9.00	9.02	0.02						
S-1	17-Jan-11		9.02	9.30	0.28						
S-1	28-Jan-11		8.44	8.75	0.31						
S-1	28-Jan-11^		10.32	10.40	0.08						
S-1	7-Feb-11		8.89	9.00	0.11						
S-1	22-Feb-11		7.85	7.91	0.06						
S-1	2-Mar-11		6.92	7.00	0.08						
S-1	7-Mar-11		6.99	7.04	0.05						
S-1	14-Mar-11		6.77	6.81	0.04						
S-1	21-Mar-11			6.57							
S-1	28-Mar-11		6.65	6.69	0.04						
S-1	5-Apr-11		6.94	6.97	0.03						
S-1	12-Apr-11		6.90	6.94	0.04						
S-1	14-Apr-11		6.97	7.02	0.05						
S-1	19-Apr-11		6.58	6.60	0.02						
S-1	26-Apr-11			6.28							
S-1	5-May-11		6.65	6.67	0.02						
S-1	11-May-11		6.92	6.94	0.02						
S-1	17-May-11		7.00	7.02	0.02						
S-1	23-May-11		6.99	7.00	0.01						
S-1	2-Jun-11		6.58	6.59	0.01						
S-1	27-Jun-11		7.08	7.10	0.02						
S-1	6-Jul-11		7.38	7.40	0.02						
S-1	18-Jul-11		7.71	7.74	0.03						
S-1	26-Jul-11		7.11	7.12	0.01						
S-1	2-Aug-11		7.03	7.05	0.02						
S-1	9-Aug-11		7.02	7.03	0.01						
S-1	15-Aug-11		7.15	7.17	0.02						
S-1	22-Aug-11		7.10	7.12	0.02						
S-1	29-Aug-11		7.13	7.14	0.01						
S-2	16-Jul-09		7.59	7.62	0.03						
S-2	27-Jul-09		7.56	7.64	0.08						
S-2	11-Aug-09		7.70	7.81	0.11						
S-2	18-Aug-09		7.68	7.80	0.12						
S-2	25-Aug-09		7.61	7.71	0.10						
S-2	1-Sep-09		7.00	7.01	0.01						
S-2	10-Sep-09		7.62	7.67	0.05						
S-2	17-Sep-09			7.85							
S-2	24-Sep-09		7.73	7.79	0.06						
S-2	1-Oct-09		7.89	7.91	0.02						
S-2	7-Oct-09		7.50	7.55	0.05						
S-2	23-Oct-09		6.86	6.87	0.01						
S-2	28-Oct-09		6.99	7.02	0.03						
S-2	9-Nov-09		7.41	7.47	0.06						
S-2	24-Nov-09		7.78	7.85	0.07						
S-2	3-Dec-09		7.49	7.54	0.05						
S-2	8-Dec-09		7.63	7.70	0.07						
S-2	17-Dec-09		7.39	7.45	0.06						
S-2	22-Dec-09		7.54	7.61	0.07						
S-2	28-Dec-09		6.61	6.65	0.04						
S-2	6-Jan-10		7.23	7.30	0.07						
S-2	11-Jan-10		7.47	7.52	0.05						
S-2	19-Jan-10		7.62	7.68	0.06						
S-2	25-Jan-10		7.08	7.10	0.02						
S-2	2-Feb-10		7.34	7.39	0.05						
S-2	8-Feb-10		7.45	7.52	0.07						
S-2	16-Feb-10		7.65	7.73	0.08						
S-2	22-Feb-10		7.52	7.55	0.03						
S-2	1-Mar-10		7.43	7.49	0.06						
S-2	8-Mar-10		7.51	7.57	0.06						
S-2	18-Mar-10		6.85	6.89	0.04						
S-2	24-Mar-10		6.85	6.88	0.03						
S-2	29-Mar-10		7.08	7.12	0.04						
S-2	21-Apr-10		7.37	7.41	0.04						

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Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
S-2	27-Apr-10		7.27	7.31	0.04						
S-2	4-May-10		7.36	7.39	0.03						
S-2	10-May-10		7.21	7.24	0.03						
S-2	19-May-10		6.67	6.71	0.04						
S-2	25-May-10		6.93	7.02	0.09						
S-2	2-Jun-10		7.00	7.10	0.10						
S-2	8-Jun-10		6.99	7.04	0.05						
S-2	16-Jun-10		7.09	7.12	0.03						
S-2	22-Jun-10		7.12	7.16	0.04						
S-2	30-Jun-10		7.13	7.17	0.04						
S-2	6-Jul-10		7.36	7.39	0.03						
S-2	13-Jul-10		7.35	7.43	0.08						
S-2	20-Jul-10		7.55	7.63	0.08						
S-2	27-Jul-10		7.03	7.09	0.06						
S-2	18-Aug-10		7.25	7.36	0.11						
S-2	24-Aug-10		7.37	7.49	0.12						
S-2	30-Aug-10		7.60	7.75	0.15						
S-2	21-Sep-10		7.67	7.86	0.19						
S-2	30-Sep-10		7.71	7.74	0.03						
S-2	12-Oct-10		7.95	8.26	0.31						
S-2	3-Nov-10		7.96	8.44	0.48						
S-2	15-Nov-10		7.93	8.42	0.49						
S-2	2-Dec-10		7.96	8.65	0.69						
S-2	10-Dec-10		8.02	8.63	0.61						
S-2	22-Dec-10		8.01	8.49	0.48						
S-2	27-Dec-10		8.03	8.60	0.57						
S-2	5-Jan-11		7.67	8.05	0.38						
S-2	5-Jan-11^		8.90	9.09	0.19						
S-2	10-Jan-11		8.25	8.97	0.72						
S-2	13-Jan-11		8.22	8.98	0.76						
S-2	13-Jan-11^			9.02							
S-2	17-Jan-11		9.09	9.39	0.30						
S-2	28-Jan-11		8.53	8.85	0.32						
S-2	28-Jan-11^		9.83	9.99	0.16						
S-2	7-Feb-11		8.94	9.05	0.11						
S-2	22-Feb-11		6.93	6.98	0.05						
S-2	2-Mar-11		7.00	7.06	0.06						
S-2	7-Mar-11		7.05	7.09	0.04						
S-2	14-Mar-11		6.85	6.89	0.04						
S-2	21-Mar-11			6.65							
S-2	28-Mar-11		6.74	6.77	0.03						
S-2	5-Apr-11		7.02	7.06	0.04						
S-2	12-Apr-11		6.98	7.02	0.04						
S-2	14-Apr-11		7.06	7.11	0.05						
S-2	19-Apr-11		6.60	6.61	0.01						
S-2	26-Apr-11			6.35							
S-2	5-May-11		6.73	6.76	0.03						
S-2	11-May-11		7.02	7.06	0.04						
S-2	17-May-11		7.03	7.05	0.02						
S-2	23-May-11		7.09	7.10	0.01						
S-2	2-Jun-11		6.56	6.58	0.02						
S-2	27-Jun-11		7.16	7.18	0.02						
S-2	6-Jul-11		7.45	7.49	0.04						
S-2	18-Jul-11		7.80	7.83	0.03						
S-2	26-Jul-11		7.18	7.19	0.01						
S-2	2-Aug-11		7.12	7.14	0.02						
S-2	9-Aug-11		7.10	7.12	0.02						
S-2	15-Aug-11		7.25	7.27	0.02						
S-2	22-Aug-11		7.18	7.20	0.02						
S-2	29-Aug-11		7.21	7.22	0.01						
S-3	27-Jul-09		7.56	7.59	0.03						
S-3	11-Aug-09		7.69	7.81	0.12						
S-3	18-Aug-09		7.69	7.80	0.11						
S-3	25-Aug-09		7.61	7.71	0.10						
S-3	1-Sep-09		7.03	7.08	0.05						
S-3	10-Sep-09		7.66	7.68	0.02						
S-3	17-Sep-09			7.88							
S-3	24-Sep-09		7.74	7.80	0.06						
S-3	1-Oct-09		7.88	7.89	0.01						
S-3	7-Oct-09		7.50	7.51	0.01						
S-3	23-Oct-09		6.26	6.27	0.01						

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GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
S-3	28-Oct-09		6.97	7.02	0.05						
S-3	9-Nov-09		7.40	7.45	0.05						
S-3	24-Nov-09		7.76	7.86	0.10						
S-3	3-Dec-09		7.49	7.55	0.06						
S-3	8-Dec-09		7.64	7.70	0.06						
S-3	17-Dec-09		7.39	7.47	0.08						
S-3	22-Dec-09		7.53	7.59	0.06						
S-3	28-Dec-09		6.61	6.67	0.06						
S-3	6-Jan-10		7.23	7.31	0.08						
S-3	11-Jan-10		7.47	7.54	0.07						
S-3	19-Jan-10		7.62	7.70	0.08						
S-3	25-Jan-10		7.08	7.11	0.03						
S-3	2-Feb-10		7.34	7.40	0.06						
S-3	8-Feb-10		7.45	7.52	0.07						
S-3	16-Feb-10		7.64	7.70	0.06						
S-3	22-Feb-10		7.52	7.54	0.02						
S-3	1-Mar-10		7.42	7.47	0.05						
S-3	8-Mar-10		7.51	7.57	0.06						
S-3	18-Mar-10		6.88	6.91	0.03						
S-3	24-Mar-10		6.83	6.87	0.04						
S-3	29-Mar-10		7.11	7.15	0.04						
S-3	21-Apr-10		7.37	7.42	0.05						
S-3	27-Apr-10		7.29	7.32	0.03						
S-3	4-May-10		7.37	7.40	0.03						
S-3	10-May-10		7.24	7.27	0.03						
S-3	19-May-10		6.67	6.72	0.05						
S-3	25-May-10		6.94	7.03	0.09						
S-3	2-Jun-10		7.01	7.11	0.10						
S-3	8-Jun-10		7.00	7.05	0.05						
S-3	16-Jun-10		7.09	7.13	0.04						
S-3	22-Jun-10		7.13	7.14	0.01						
S-3	30-Jun-10		7.12	7.16	0.04						
S-3	6-Jul-10		7.35	7.38	0.03						
S-3	13-Jul-10		7.34	7.42	0.08						
S-3	20-Jul-10		7.55	7.63	0.08						
S-3	27-Jul-10		7.03	7.09	0.06						
S-3	18-Aug-10		7.28	7.40	0.12						
S-3	24-Aug-10		7.38	7.50	0.12						
S-3	31-Aug-10		7.59	7.74	0.15						
S-3	21-Sep-10		7.68	7.85	0.17						
S-3	30-Sep-10		7.72	7.75	0.03						
S-3	12-Oct-10		7.95	8.24	0.29						
S-3	3-Nov-10		7.97	8.44	0.47						
S-3	15-Nov-10		7.96	8.42	0.46						
S-3	2-Dec-10		7.96	8.66	0.70						
S-3	10-Dec-10		8.03	8.64	0.61						
S-3	22-Dec-10		8.01	8.49	0.48						
S-3	27-Dec-10		8.03	8.60	0.57						
S-3	5-Jan-11		7.67	8.06	0.39						
S-3	5-Jan-11^		8.87	9.03	0.16						
S-3	10-Jan-11		8.25	8.98	0.73						
S-3	13-Jan-11		8.22	8.96	0.74						
S-3	13-Jan-11^		9.82	10.08	0.26						
S-3	17-Jan-11		9.10	9.39	0.29						
S-3	28-Jan-11		8.55	8.84	0.29						
S-3	28-Jan-11^		10.07	10.21	0.14						
S-3	7-Feb-11		8.96	9.07	0.11						
S-3	22-Feb-11		6.93	6.99	0.06						
S-3	2-Mar-11		7.02	7.06	0.04						
S-3	7-Mar-11		7.04	7.08	0.04						
S-3	14-Mar-11		6.85	6.90	0.05						
S-3	21-Mar-11		6.65	6.66	0.01						
S-3	28-Mar-11		6.74	6.78	0.04						
S-3	5-Apr-11		7.02	7.07	0.05						
S-3	12-Apr-11		6.98	7.02	0.04						
S-3	14-Apr-11		7.07	7.11	0.04						
S-3	19-Apr-11		6.59	6.60	0.01						
S-3	26-Apr-11			6.36							
S-3	5-May-11		6.74	6.78	0.04						
S-3	11-May-11		7.00	7.05	0.05						
S-3	17-May-11		7.03	7.06	0.03						

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Tier 1 Exposure Routes, COCs, and Groundwater Remediation Objectives							Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
GCGIER - Class I Groundwater							0.005	1	0.7	10	0.07
GCGIER - Class II Groundwater							0.025	2.5	1	10	0.07
Sample ID	Date Sampled	Reference Elevation (feet)	Static Depth to Free Product (feet below	Static Depth to Water (feet below	Free Product Thickness (feet)	Groundwater Elevation (feet)					
S-3	23-May-11		7.08	7.09	0.01						
S-3	2-Jun-11		6.56	6.58	0.02						
S-3	27-Jun-11		7.16	7.18	0.02						
S-3	6-Jul-11		7.46	7.50	0.04						
S-3	18-Jul-11		7.80	7.83	0.03						
S-3	26-Jul-11		7.18	7.19	0.01						
S-3	2-Aug-11		7.12	7.14	0.02						
S-3	9-Aug-11		7.10	7.12	0.02						
S-3	15-Aug-11		7.25	7.27	0.02						
S-3	22-Aug-11		7.18	7.20	0.02						
S-3	29-Aug-11		7.21	7.22	0.01						
SUMP	22-Jun-10			4.38							
SUMP	30-Jun-10			4.36							
SUMP	6-Jul-10			4.37							
SUMP	13-Jul-10			4.36							
SUMP	20-Jul-10			4.29							
SUMP	27-Jul-10			4.20							
SUMP	18-Aug-10			4.42							
SUMP	24-Aug-10			4.40							
SUMP	31-Aug-10			4.38							
SUMP	21-Sep-10			4.35							
SUMP	30-Sep-10			4.40							
SUMP	12-Oct-10			4.45							
SUMP	3-Nov-10			4.54							
SUMP	15-Nov-10			4.66							
SUMP	2-Dec-10			4.70							
SUMP	10-Dec-10			4.68							
SUMP	10-Jan-11			7.88							
SUMP	2-Mar-11			4.42							
SUMP	7-Mar-11			4.38							

Notes:

1) GCGIER = groundwater component of the groundwater ingestion exposure route; COCs = constituents of concern

2) mg/L = milligrams per Liter; TOC = top-of-casing

3) <0.005 = concentration less than the laboratory reporting limit

4) **Bold** = a concentration above the Tier 1 groundwater remediation objective(s) established in 35 Illinois Administrative Code Part 742

5) All groundwater samples were analyzed for methyl tertiary butyl ether (MTBE) and/or benzene, toluene, ethylbenzene, and total xylenes using United States Environmental Protection Agency Method 8020 or 8021

6) Shading = not available, not applicable, or not present; Sheen = a sheen of free product was present on the groundwater; BDL= concentration below the laboratory detection limit; FP = free product present

7) Groundwater elevations are relative to a site specific datum of 100 feet

8) ^ = Gauging performed after hi-vac pumpout

TABLE 2

Soil Analytical Results

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Lake County, Illinois 60084

Tier 1 Exposure Routes				COCs and Tier 1 Soil Remediation Objectives				
				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
SCGIER - Class I Groundwater				0.03	12	13	150	0.32
SCGIER - Class II Groundwater				0.17	29	19	150	0.32
Inhalation - Residential				0.8	650	400	320	8,800
Inhalation - Construction Worker				2.2	42	58	5.6	140
Ingestion - Residential				12	16,000	7,800	16,000	780
Ingestion - Construction Worker				2,300	410,000	20,000	41,000	2,000
Soil Saturation Limit				870	650	400	320	8,800
Sample ID	Date Sampled	Sample Depth (feet bls)	PID Reading (ppm)					
SB-1	21-Nov-90	4-5	20	<0.005	0.083	<0.005	0.085	
SB-2/MW-2	21-Nov-90	4-5	20	<0.005	0.11	0.29	1.8	
SB-3	21-Nov-90	4-5	>100	<0.005	0.2	0.22	2	
SB-4/MW-4	21-Nov-90	7-8	50	0.042	0.11	<0.005	<0.01	
SB-5/MW-5	21-Nov-90	9-10	0	0.041	0.11	<0.005	<0.01	
SB-6/MW-6	21-Nov-90	7-8	50	2.9	58	27	150	
SB-7/MW-7	21-Nov-90	7-8	200	0.27	33	20	120	
B-1	14-Jun-94	4-5.5	1	<0.002	<0.002	<0.002	<0.005	
B-2	14-Jun-94	1-3	10	<0.002	<0.002	<0.002	0.0085	
B-3	14-Jun-94	5-7	60	<0.002	<0.002	<0.002	0.342	
B-4	14-Jun-94	5-7	50	<0.002	<0.002	<0.002	0.098	
B-5	14-Jun-94	2-4	13	<0.002	<0.002	<0.002	<0.005	
B-6	14-Jun-94	2-4	500	<0.002	<0.002	<0.002	<0.005	
B-7	14-Jun-94			0.029	0.0168	0.219	0.066	
HA-1	27-Aug-97	7.5-8	0	<0.002	<0.002	<0.002	<0.005	
HA-2	27-Aug-97	7.5-8	12	<0.002	0.147	0.0068	0.376	
HA-3	27-Aug-97	7.5-8	212	8.21	92.4	39.4	238	
HA-4	27-Aug-97	6.0-6.5	284	1.45	6.06	3.46	44.5	
SB-19/MW-17	31-Oct-97	10-12	0	<0.01	<0.01	<0.01	<0.03	
SB-19/MW-17	31-Oct-97	20-22	0	<0.01	<0.01	<0.01	<0.03	
SB-20/MW-18	31-Oct-97	12-14	0	<0.01	<0.01	<0.01	<0.03	
SB-20/MW-18	31-Oct-97	20-22	0	<0.01	<0.01	<0.01	<0.03	
CB-1	25-Oct-99	6-8	104	0.2	0.35	0.72	<0.03	
CB-2	25-Oct-99	8-10	294	26	240	89	38	
CB-3	25-Oct-99	6-8	510	4.7	190	95	49	
CB-4	25-Oct-99	8-10	90	<0.12	1.9	3.4	200/<60	
CB-5	25-Oct-99	8-10	21.9	<0.028	<0.056	<0.056	37	
CB-6	25-Oct-99	4-6	6.6	<0.029	<0.058	<0.058	0.72	
CB-7	25-Oct-99	24-26	2.6	0.58	<0.063	<0.063	<0.6	
CB-8	25-Oct-99	22-24	6.3	0.57	<0.06	<0.06	<0.179	
CB-9	25-Oct-99	26-28	7.6	1.6	<0.06	<0.06	<0.178	
CB-10	25-Oct-99	10-12	2.6	<0.14	<0.28	<0.28	<0.167	
CB-11	26-Jul-00	10-12	321	0.7	13	5.9	3.9	
CB-12	26-Jul-00	6-8	553	<0.049	4.8	5.5	540	
CB-13	26-Jul-00	8-10	307	<0.03	0.11	0.085	590	
CB-14	26-Jul-00	8-10	514	<0.052	0.76	3.4	22.7	
CB-15	26-Jul-00	8-10	18	<0.03	<0.060	<0.060	<0.166	
CB-16	26-Jul-00	6-8	2.7	<0.021	<0.200	<0.2	<0.178	
CB-17	26-Jul-00	2-4	3.0	<0.029	<0.059	<0.059	<0.193	
CB-18	26-Jul-00	6-8	3.6	<0.029	<0.058	<0.058	<0.18	
CB-19	26-Jul-00	0-2	3.3	<0.029	<0.057	<0.057	<0.18	
CB-20	26-Jul-00	6-8	3.2	<0.018	<0.17	<0.17	<0.84	
MW-19	17-Aug-01	22-24		<0.029	<0.057	<0.057	<0.51	
B-1a	17-Aug-01	4-6		<0.029	<0.058	<0.058	<0.167	
B-1b	17-Aug-01	16-18		<0.03	<0.06	<0.06	<0.178	
B-1c	17-Aug-01	22-24		<0.029	<0.058	<0.058	<0.18	
B-2a	16-Aug-01	8-10		<0.029	<0.057	<0.057	<0.178	
B-2b	16-Aug-01	16-18		<0.0079	<0.120	<0.12	<0.167	
B-2c	16-Aug-01	22-24		<0.029	<0.058	<0.058	<0.35	

TABLE 2

Soil Analytical Results

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Lake County, Illinois 60084

Tier 1 Exposure Routes				COCs and Tier 1 Soil Remediation Objectives				
				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
SCGIER - Class I Groundwater				0.03	12	13	150	0.32
SCGIER - Class II Groundwater				0.17	29	19	150	0.32
Inhalation - Residential				0.8	650	400	320	8,800
Inhalation - Construction Worker				2.2	42	58	5.6	140
Ingestion - Residential				12	16,000	7,800	16,000	780
Ingestion - Construction Worker				2,300	410,000	20,000	41,000	2,000
Soil Saturation Limit				870	650	400	320	8,800
Sample ID	Date Sampled	Sample Depth (feet bls)	PID Reading (ppm)					
B-3a	16-Aug-01	8-10		<0.03	<0.06	<0.06	<0.178	
B-3b	16-Aug-01	16-18		<0.03	<0.059	<0.059	<0.18	
B-3c	16-Aug-01	22-24		<0.03	<0.059	<0.059	<0.179	
B-4a	16-Aug-01	8-10		<0.029	<0.059	<0.059	<0.179	
B-4b	16-Aug-01	16-18		<0.029	<0.057	<0.057	<0.179	
B-4c	16-Aug-01	20-22		**0.034**	<0.066	<0.066	<0.167	
B-5a	16-Aug-01	8-10		<0.028	<0.057	<0.057	<0.196	
B-5b	16-Aug-01	10-12		**0.55**	<0.058	<0.058	<0.167	
B-5c	16-Aug-01	22-24		<0.029	<0.057	<0.057	<0.178	
B-6a	16-Aug-01	2-4		<0.029	<0.059	<0.059	<0.167	
B-6b	16-Aug-01	16-18		<0.03	<0.060	<0.060	<0.179	
B-6c	16-Aug-01	20-22		<0.03	<0.059	<0.059	<0.017	
RW-1	11-Apr-05	4	1.3	<0.024	<0.059	<0.059	<0.12	<0.059
MP-1	11-Apr-05	5-7	0.8	<0.025	<0.062	<0.062	<0.12	<0.062
MP-2	11-Apr-05	5-6	0.7	<0.024	<0.06	<0.06	<0.12	<0.06
MP-3	11-Apr-05	6-7	238	**0.15**	0.13	1.7	**8.197**	0.16
MP-4	11-Apr-05	5-6	24.5	<0.023	<0.059	<0.059	<0.12	<0.059
SB-21/MW-21	12-Apr-05	2-3	5.1	<0.027	<0.067	<0.067	<0.2	<0.067
SB-22/MW-22	12-Apr-05	3	1.7	<0.025	<0.063	<0.063	<0.19	<0.063
SB-24/MW-24	12-Apr-05	4-5	0.9	<0.024	<0.059	<0.059	<0.18	<0.059
SB-25/MW-25	12-Apr-05	4	0.6	<0.023	<0.058	<0.058	<0.17	<0.058
SB-26/MW-26	12-Apr-05	5-6	5.3	<0.003	<0.074	<0.074	<0.22	<0.074
SB-27/MW-27	12-Apr-05	3-4	1.6	<0.023	<0.058	<0.058	<0.17	<0.058
SB-28	12-Apr-05	5-7	0.6	<0.02	<0.05	<0.05	<0.15	<0.05
SB-29	12-Apr-05	7-8	1.2	<0.023	<0.058	<0.058	<0.17	<0.058
SB-23/MW-23	15-Apr-05	4-5	1.3	<0.023	<0.056	<0.056	<0.17	<0.056
SB-30/MW-28	15-Apr-05	4-5	0.9	<0.024	<0.059	<0.059	<0.18	<0.18
SB-31	1-Jun-06	7-8	0.0	<0.023	<0.057	<0.057	<0.11	<0.057
SB-41	2-Feb-09	4-5	901	**0.289**	0.619	0.0731	0.731	<0.056
SB-41	2-Feb-09	5-8	>9,999	**1.4**	**29.3**	**13.3**	**70.1**	**<0.673**
SB-42	2-Feb-09	2-3	0.0	<0.0236	<0.059	<0.059	<0.177	<0.059
SB-42	2-Feb-09	6-8	629	**0.0616**	0.378	0.101	0.722	<0.0537
SB-43	2-Feb-09	4-5	33.7	<0.0232	<0.058	<0.058	<0.174	<0.058
SB-43	2-Feb-09	6-8	70.8	**0.192**	0.0798	1.24	**6**	0.219
SB-44	2-Feb-09	2-4	38.1	<0.0229	<0.0572	<0.0572	<0.171	<0.0572
SB-44	2-Feb-09	6-8	9,914	**104**	**1,000**	**294**	**1,530**	**30.1**
SB-45	2-Feb-09	4-5	7.8	<0.0233	<0.0581	<0.0581	<0.174	<0.0581
SB-45	2-Feb-09	5-7	16.0	<0.0234	<0.0585	<0.0585	<0.176	<0.0585
SB-46	2-Feb-09	1.5-2	11.4	<0.0237	<0.0593	<0.0593	<0.178	<0.0593
SB-46	2-Feb-09	6-8	314	<0.023	<0.0576	0.245	0.461	0.116
SB-47	2-Feb-09	2-4	0.6	<0.0227	<0.0567	<0.0567	<0.17	<0.0567
SB-47	2-Feb-09	6-8	6.8	**0.0362**	<0.058	<0.058	<0.174	0.108
SB-48	2-Feb-09	2-4	0.0	<0.028	<0.0701	<0.0701	<0.21	<0.0701
SB-48	2-Feb-09	6-8	>9,999	**0.112**	0.94	0.557	3.51	<0.0577
SB-49	2-Feb-09	3-4	63.7	**0.709**	2.48	0.175	2.57	<0.0573
SB-49	2-Feb-09	4-8	7,109	**12.7**	**143**	**46.8**	**246**	**2.92**
SB-50	2-Feb-09	5-8	8.5	<0.0268	<0.0669	<0.0669	<0.201	<0.0669
SB-51/MW-29	15-May-09	5-7.5	82.3	**4.39**	**14.8**	2.17	11	<0.0591
SB-52/MW-30	15-May-09	7.5-9	1,496	**120**	**1,030**	**280**	**1,530**	**8.47**

TABLE 2

Soil Analytical Results

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Lake County, Illinois 60084

Tier 1 Exposure Routes				COCs and Tier 1 Soil Remediation Objectives				
				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
SCGIER - Class I Groundwater				0.03	12	13	150	0.32
SCGIER - Class II Groundwater				0.17	29	19	150	0.32
Inhalation - Residential				0.8	650	400	320	8,800
Inhalation - Construction Worker				2.2	42	58	5.6	140
Ingestion - Residential				12	16,000	7,800	16,000	780
Ingestion - Construction Worker				2,300	410,000	20,000	41,000	2,000
Soil Saturation Limit				870	650	400	320	8,800
Sample ID	Date Sampled	Sample Depth (feet bls)	PID Reading (ppm)					
SB-53/MW-31	15-May-09	7.5-8.75	1,660	**26.4**	**313**	**95.3**	**538**	**<2.71**
SB-54/MW-32	15-May-09	4-5	261	**0.159**	0.526	0.0798	0.446	<0.0537
RW-4	15-May-09	5-7.5	1,890	**37.7**	**337**	**85.2**	**465**	**<2.64**
SB-58	6-Apr-11	7-8	2.9	<0.004	<0.0131	<0.0091	<0.0292	<0.0125
SB-59	6-Apr-11	4-5	79.8	**1.66**	1.99	0.0365J	3.53	**0.0326J**
SB-60	6-Apr-11	5-8	3865	**0.566**	**13.4**	7.98	**55.8**	**<0.093**
SB-61	6-Apr-11	5-7	1890	**0.0598**	0.524	0.201	1.58	<0.0115
SB-62	6-Apr-11	3-4	0.7	<0.0039	<0.0129	<0.009	<0.0288	<0.0123
SB-63	6-Apr-11	8-9	0.6	<0.004	<0.0132	<0.0091	<0.0294	<0.0126
SB-64	6-Apr-11	2-3	2.3	<0.0042	<0.0137	<0.0095	<0.0304	<0.013
SB-65	6-Apr-11	4-5	1.3	<0.0043	<0.014	<0.0097	<0.0313	<0.0134
SB-66	6-Apr-11	3-4	2.1	0.0081J	0.0526	<0.0084	<0.0269	<0.0115
SB-67	7-Apr-11	2-3	4.2	<0.004	<0.0132	<0.0092	<0.0294	<0.0126
SB-68	7-Apr-11	2-3	0.5	<0.0044	<0.0146	<0.0102	<0.0326	<0.014
SB-69	7-Apr-11	3-4	5.2	**0.0579**	0.0486J	0.0275J	0.0835	<0.0126
SB-70	7-Apr-11	4-5	0.5	<0.0048	<0.0159	<0.011	<0.0355	<0.0152
SB-71	7-Apr-11	8-10	636.5	<0.0231	<0.0761	<0.0529	<0.17	**1.14**
SB-72	7-Apr-11	4-5	0.7	<0.0041	<0.0134	<0.0093	<0.03	<0.0128

Notes:
1) SCGIER = soil component of the groundwater ingestion exposure route; PID = photoionization detector; COCs = constituents of concern
2) mg/kg = milligrams per kilogram; ppm = parts per million; bls = below land surface
3) <0.065 = concentration less than the laboratory reporting limit
4) **Bold** = a concentration above the Tier 1 soil remediation objective(s) established in 35 Illinois Administrative Code Part 742
5) All soil samples were analyzed for methyl tertiary butyl ether (MTBE) and/or benzene, toluene, ethylbenzene, and total xylenes using United States Environmental Protection Agency Method 8020 or 8021
6) Shading = not applicable or the soil sample location has been resampled

TABLE 3

Soil Geochemical and Geotechnical Results

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Lake County, Illinois 60084

				Geochemical and Geotechnical Parameters														
Sample ID	Date Sampled	Sample Depth (feet bls)	PID Reading (ppm)	Total Organic Carbon (mg/kg)	pH (---)	Reactive Cyanide (mg/kg)	Reactive Sulfide (mg/kg)	Grain Size Analysis (---)	Visual Soil Classification (---)	Total Porosity (%)	Moisture Content (%)	Dry Bulk Density (pcf)	Wet Bulk Density (pcf)	Specific Gravity (---)	TPH Gasoline Range Organics (mg/kg)	Chemical Oxygen Demand (mg/L)	Fraction of Organic Carbon (%)
MP-2	11-Apr-05	1-3	0.5	14,000													
MP-2	11-Apr-05	5-6	0.7	19,000													
MP-3	11-Apr-06	6-7	238		7.2												
SB-32	1-Jun-06	7-9.5	414			<0.025	<20										
SB-32	1-Jun-06	9.5-11	NA					97% Sand 3% Silt	Dark grayish brown, fine grained SAND (SP)	34.4	17.2	108.6	127.2	2.65			
SB-33	18-Jan-07	10-11	31												<12	3,200	
SB-34	18-Jan-07	8-10	1,333												16	1,700	
SB-35	18-Jan-07	8-10	118												<13	2,000	
SB-36	18-Jan-07	10-11	0.3							---					<12	5,900	
SB-37	18-Jan-07	6-8	0.4												<12	4,200	
SB-38	11-Dec-07	2-3	0.1														3.27
SB-38	11-Dec-07	3-4	0.1														0.777
SB-39	7-Aug-08	14.25-15.25	NA												<11.8	12,769.88	
SB-40	7-Aug-08	16-17	0												<11.8	15,320.15	

Notes:
1) PID = photoionization detector
2) bls = below land surface; mg/kg = milligrams per kilogram; mg/L = milligrams per Liter; ppm = parts per million; pcf = pounds per cubic foot; % = percent; --- = no specific units
3) <1.9 = concentration less than the laboratory reporting limit
4) The samples were analyzed for grain size analysis, visual soil classification, total porosity, moisture content, dry bulk density, wet bulk density, specific gravity, and fraction of organic carbon using American Society for Testing and Materials methods
5) The samples were analyzed for total organic carbon using United States Environmental Protection Agency (USEPA) Method 9060
6) The sample was analyzed for pH using USEPA Method 9045C
7) The sample was analyzed for reactive cyanide using USEPA Method 7.3.3.2
8) The sample was analyzed for reactive sulfide using USEPA Method 7.3.4.2
9) The samples were analyzed for total petroleum hydrocarbon (TPH) gasoline range organics using USEPA Method 8015
10) The samples were analyzed for chemical oxygen demand using USEPA Method 410.4
11) Shading = not applicable

APPENDIX A

SOIL BORING LOGS (APRIL 2011)

SB-58

TriCore Environmental, LLC

Drill Method:	Direct-push	Date Drilled:	April 6, 2011	Logged By:
Boring Dia:	2.125 Inches	DTW While Drilling:	8 Feet	Patrick Worrall

Sample	PID (ppm)	Completion	Depth (feet)	Lithology	Description
	NA			MH	Grass & topsoil
	2.2			CL	Dark gray & brownish gray silty CLAY, trace sand, stiff, moist
	1.6			CL	Brownish gray, mottled borwn silty CLAY, trace sand & gravel, stiff, moist
	1.3			CL	- semi-stiff
	0.8			CL	Brown, mottled brownish gray silty CLAY, trace sand & gravel, semi-stiff, moist
	0.9				Brown & gray silty CLAY, trace sand & gravel, stiff, moist
	1.1		5	CL	
	2.9 (lab)			CL	- gray
	16.8		10	SP	Gray medium-grained SAND, saturated, hydrocarbon odor
	1.2			SP	- no odor
	0.8		15	SM	Gray fine-grained silty SAND, saturated

Completion Notes:

Backfilled with hydrated bentonite from 16' to 0.5' bls. Capped with topsoil.

Site:
Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084
IEMA No.: 892744 and 903199
LPC No.: 0971855024

Project No.: 100018 Page 1

SB-59

TriCore Environmental, LLC

Drill Method:	Direct-push	Date Drilled:	April 6, 2011	Logged By:
Boring Dia:	2.125 Inches	DTW While Drilling:	5 Feet	Patrick Worrall

Sample	PID (ppm)	Completion	Depth (feet)	Lithology	Description
	NA			MH	Grass & topsoil
	0.7			CL	Grayish brown, mottled dark gray, silty CLAY, trace sand & gravel, semi-stiff, moist
	2.2				
	12.8			CL	- orange, mottled gray, hydrocarbon odor
	37.5				
	79.8 (lab)			CL	Brown, mottled gray silty CLAY, trace sand & gravel, stiff, moist hydrocarbon odor
			5	CL	- gray
				CL	- semi-stiff
	1,160			SP	Brown SAND, saturated, hydrocarbon odor
				SP	- gray
	2,206			SP	Gray, medium grained SAND, saturated, hydrocarbon odor
	1,679		10		
	15.8				
	26.5			SP	- no odor
	1.0		15	SM	Gray silty fine-grained sand, saturated

Completion Notes:

Backfilled with hydrated bentonite from 16' to 0.5' bls. Capped with topsoil.

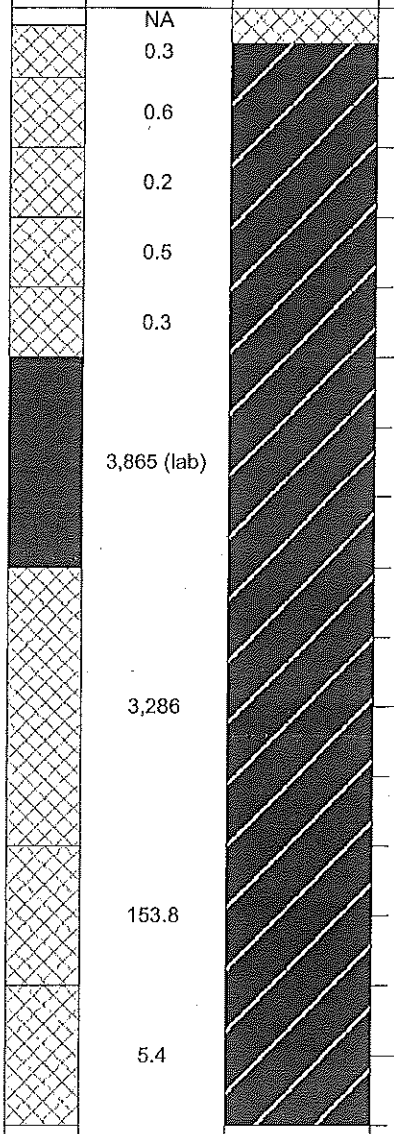
Site:
Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084
IEMA No.: 892744 and 903199
LPC No.: 0971855024

Project No.: 100018 Page 1

SB-60

TriCore Environmental, LLC

Drill Method:	Direct-push	Date Drilled:	April 6, 2011	Logged By:
Boring Dia:	2.125 Inches	DTW While Drilling:	8 Feet	Patrick Worrall



Sample	PID (ppm)	Depth (feet)	Lithology	Description
	NA		MH	Grass & topsoil
	0.3			Brown, mottled gray silty CLAY, trace sand & gravel, stiff, moist
	0.6		CL	
	0.2			
	0.5			
	0.3			Brown & gray SAND, moist
		5		
	3,865 (lab)		SP	
				Gray SAND, saturated
			SP	
	3,286	10	SP	- dark gray
			SP	- gray
	153.8			Gray medium-grained SAND, saturated
			SP	
	5.4	15		

Completion Notes:

Backfilled with hydrated bentonite from 16' to 0.5' bls. Capped with topsoil.

Site:
Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084
IEMA No.: 892744 and 903199
LPC No.: 0971855024

Project No.: 100018 Page 1

SB-61

TriCore Environmental, LLC

Drill Method:	Direct-push	Date Drilled:	April 6, 2011	Logged By:
Boring Dia:	2.125 Inches	DTW While Drilling:	7.5 Feet	Patrick Worrall

Sample	PID (ppm)	Completion	Depth (feet)	Lithology	Description
	NA			Concrete	Concrete
	0.6			GP	Fill material
	1.4			CL	Brown, mottled gray silty CLAY, trace sand & gravel, semi-stiff, moist
	0.7			CL	- stiff
	0.3			CL	- brown & gray, semi-stiff
	2.7			CL	- brown, mottled gray & dark gray, stiff
	1,890 (lab)		5	SP	Brown, medium-grained SAND, hydrocarbon odor
	1,431			SP	- gray, saturated
	1,849			SP	Gray, medium- and course-grained SAND, saturated, hydrocarbon odor
	106.7		10	SP	Gray, medium-grained SAND, saturated, hydrocarbon odor
	3.8			SP	- no odor
	0.7		15	SP	
	4.2			SP	
	12.8			SM	Gray, fine-grained silty SAND, saturated
			20		

Completion Notes:

Backfilled with hydrated bentonite from 20' to 0.5' bls. Capped with concrete.

Site:
Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084
IEMA No.: 892744 and 903199
LPC No.: 0971855024

Project No.: 100018 | Page 1

TriCore Environmental, LLC

SB-62

Drill Method:	Direct-push	Date Drilled:	April 6, 2011	Logged By:
Boring Dia:	2.125 Inches	DTW While Drilling:	4 Feet	Patrick Worrall

Sample	PID (ppm)	Completion	Depth (feet)	Lithology	Description
	NA			MH	Grass & topsoil
	0.6			CL	Gray, mottled brown silty CLAY, trace sand, semi-stiff, moist
	0.6			CL	- brown, mottled gray
	0.5			SP	Brown SAND, moist
	0.7 (lab)				
	0.6		5	CL	Brown & gray silty CLAY, trace sand, saturated
				CL	Gray, mottled brown silty CLAY, stiff, moist
	0.5			CL	Brownish gray, mottled gray & brown silty CLAY, stiff, moist
	0.4		10		- gray
	0.4			CL	
	0.4				
	0.2		15		

Completion Notes:

Backfilled with hydrated bentonite from 16' to 0.5' bls. Capped with topsoil.

Site:
Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084
IEMA No.: 892744 and 903199
LPC No.: 0971855024

Project No.: 100018

SB-63

TriCore Environmental, LLC

Drill Method:	Direct-push	Date Drilled:	April 6, 2011	Logged By:
Boring Dia:	2.125 Inches	DTW While Drilling:	11.5 Feet	Patrick Worrall

Sample	PID (ppm)	Completion	Depth (feet)	Lithology	Description
	NA			Concrete	Concrete
	0.2			CL	Fill material
	0.4			CL	Brown, mottled gray silty CLAY, trace sand & gravel, semi-stiff, moist
	0.5			CL	Brown, mottled gray, silty CLAY, SAND, & gravel, moist Brownish gray, mottled brown & gray silty CLAY, trace sand & gravel, soft, moist
	0.5			CL	- soft, wet
	0.5			CL	- brown, mottled gray
	0.5		5	CL	Brown, mottled gray silty CLAY, trace sand & gravel, stiff, moist
	0.5			CL	- brownish gray
	0.6 (lab)			CL	Gray silty CLAY, trace sand & gravel, semi-stiff, moist
	0.9		10	CL	
	0.6			SP	Gray, medium-grained SAND, saturated
	0.7			SP	
	0.9		15	SP	
	0.9			SP	
	0.8			SM	Gray, fine-grained silty SAND, saturated
			20		

Completion Notes:

Backfilled with hydrated bentonite from 20' to 0.5' bls. Capped with concrete.

Site:
Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084
IEMA No.: 892744 and 903199
LPC No.: 0971855024

Project No.: 100018 | Page 1

SB-64

TriCore Environmental, LLC	Drill Method: Direct-push	Date Drilled: April 6, 2011	Logged By:
	Boring Dia: 2.125 Inches	DTW While Drilling: 9 Feet	Patrick Worrall

Sample	PID (ppm)	Completion	Depth (feet)	Lithology	Description
	NA			Concrete	Concrete
				GP	Fill material
	1.3			GP	SAND & GRAVEL
	1.6			CL	Gray & brown silty CLAY, trace sand & gravel, semi-stiff, moist
	2.3 (lab)			CL	- gray, mottled brown, soft
	1.5			CL	- stiff
	1.3			CL	- brownish gray & brown, mottled gray
			5		
	NA				No recovery (pushing rock)
	1.6			CL	Brown, mottled gray silty CLAY trace sand & gravel, stiff, moist
				SP	Brown SAND, saturated
	1.3			CL	Gray, mottled brown silty CLAY, trace sand & gravel, semi-stiff
				CL	- gray, soft, saturated
			10		
	1.8			CL	Gray silty CLAY, trace sand, saturated, soft
	1.3			SP	Gray, medium-grained SAND, saturated

Completion Notes:

Backfilled with hydrated bentonite from 12' to 0.5' bls. Capped with concrete.

Site:
Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084
IEMA No.: 892744 and 903199
LPC No.: 0971855024

Project No.: 100018 | Page 1

SB-65

TriCore Environmental, LLC

Drill Method:	Direct-push	Date Drilled:	April 6, 2011	Logged By:
Boring Dia:	2.125 Inches	DTW While Drilling:	7 Feet	Patrick Worrall

Sample	PID (ppm)	Completion	Depth (feet)	Lithology	Description
	NA			MH	Grass & topsoil
	0.5			CL	Gray, mottled orange silty CLAY, trace sand & gravel, soft, moist
	0.7			CL	Gray silty CLAY, trace sand, semi-stiff, moist
	0.8			CL	- dark gray
	1.0			CL	- orangish brown, mottled gray
	1.3 (lab)		5	CL	- brown, mottled gray
	1.0			CL	- gray, mottled brown
				SM	Gray, silty SAND, wet
				CL	Gray, mottled brown silty CLAY, trace sand, semi-stiff, moist
	2.5			CL	Gray silty CLAY, trace sand, saturated
					Gray SAND, saturated, hydrocarbon odor
	29.9		10	SP	
	42.6				- no odor
	4.7			SP	
	0.5		15		
				SM	Gray silty fine-grained SAND, saturated

Completion Notes:

Backfilled with hydrated bentonite from 16' to 0.5' bls. Capped with topsoil.

Site:
Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084
IEMA No.: 892744 and 903199
LPC No.: 0971855024

Project No.: 100018

SB-66

TriCore Environmental, LLC

Drill Method:	Direct-push	Date Drilled:	April 6, 2011	Logged By:
Boring Dia:	2.125 Inches	DTW While Drilling:	7.75 Feet	Patrick Worrall

Sample	PID (ppm)	Completion	Depth (feet)	Lithology	Description
	NA			MH	Grass & topsoil
	0.5			CL	Brown & gray silty CLAY, trace sand & gravel, semi-stiff, moist
	0.8			CL	Tan, mottled gray silty CLAY, trace sand, stiff, moist
	1.1			CL	Brown & gray silty CLAY, trace sand, soft, moist
	2.1 (lab)			SP	Brown SAND, moist
	0.9		5	SP	- orangish brown & brown
	0.8				
	1.3		10	SP	Gray SAND, saturated
	0.5				

Completion Notes:

Backfilled with hydrated bentonite from 12' to 0.5' bls. Capped with topsoil.

Site:
Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084
IEMA No.: 892744 and 903199
LPC No.: 0971855024

Project No.: 100018 Page 1

SB-67

TriCore Environmental, LLC

Drill Method:	Direct-push	Date Drilled:	April 7, 2011	Logged By:
Boring Dia:	2.125 inches	DTW While Drilling:	8 Feet	Patrick Worrall

Sample	PID (ppm)	Completion	Depth (feet)	Lithology	Description
	NA			Asphalt	Asphalt
				GW	Fill material
	4.0			SC	Gray SAND, little gravel (fill material)
	1.8			CL	Brown, mottled gray silty CLAY, stiff
	4.2 (lab)			CL	- semi-stiff
	3.8				
	1.3			CL	- stiff
	NA		5		No recovery. Small amount of brown sand in sampler.
	2.3		10	SP	Gray SAND, saturated

Completion Notes:

Backfilled with hydrated bentonite from 12' to 0.5' bls. Capped with asphalt.

Site:
Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084
IEMA No.: 892744 and 903199
LPC No.: 0971855024

Project No.: 100018 | Page 1

SB-68

TriCore Environmental, LLC

Drill Method:	Direct-push	Date Drilled:	April 7, 2011	Logged By:
Boring Dia:	2.125 Inches	DTW While Drilling:	4 Feet	Patrick Worrall

Sample	PID (ppm)	Completion	Depth (feet)	Lithology	Description
	NA			MH	Grass & topsoil
	0.4			CL	Gray, mottled brown silty CLAY, some sand & gravel, semi-stiff, moist
	0.3			CL	Gray silty CLAY, soft, moist
	0.5 (lab)			CL	Dark gray silty CLAY, trace sand & gravel, soft, moist
	0.4			CL	Gray, mottled brown silty CLAY, trace sand, stiff
	0.4		5	CL	Dark gray silty CLAY, trace sand & gravel, soft, saturated
	0.6			CL	Gray silty CLAY, trace sand, gravel, & organic material, semi-stiff
				OH	Dark gray organic CLAY, soft, moist
	0.5		10	PT	Dark gray PEAT, soft, moist
	0.3			PT	- gray
	0.4		15		

Completion Notes:

Backfilled with hydrated bentonite from 16' to 0.5' bls. Capped with topsoil.

Site:
Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084
IEMA No.: 892744 and 903199
LPC No.: 0971855024

Project No.: 100018 | Page 1

SB-69

TriCore Environmental, LLC

Drill Method:	Direct-push	Date Drilled:	April 7, 2011	Logged By:
Boring Dia:	2.125 Inches	DTW While Drilling:	14 Feet	Patrick Worrall

Sample	PID (ppm)	Completion	Depth (feet)	Lithology	Description
	NA			MH	Grass & topsoil
	0.2			CL	Brown & gray silty CLAY, trace sand & gravel, stiff, moist
	0.2			CL	- semi-stiff
	1.5			CL	Gray silty CLAY, trace sand & gravel, stiff
	5.2 (lab)			CL	- semi-stiff, diesel odor
	1.0		5	CL	- soft
				OH	Dark gray organic CLAY, soft, moist
	0.6			PT	Dark gray PEAT, soft, moist
	0.3			PT	Gray, mottled brown PEAT, shells, soft moist
			10		
	0.3			PT	- brownish dark gray
	0.3			PT	- gray
	0.2		15	PT	- wet

Completion Notes:

Backfilled with hydrated bentonite from 16' to 0.5' bls. Capped with topsoil.

Site:
Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084
IEMA No.: 892744 and 903199
LPC No.: 0971855024

Project No.: 100018

SB-70

TriCore Environmental, LLC

Drill Method:	Direct-push	Date Drilled:	April 7, 2011	Logged By:
Boring Dia:	2.125 Inches	DTW While Drilling:	12 Feet	Patrick Worrall

Sample	PID (ppm)	Completion	Depth (feet)	Lithology	Description
	NA			MH	Grass & topsoil
	0.3			CL	Gray, mottled brown silty CLAY, little sand & gravel, stiff, moist
	0.2			CL	- trace sand & gravel
	0.3			CL	- semi-stiff
	0.3			OH	Dark gray organic CLAY, soft, moist
	0.5 (lab)			PT	Dark gray PEAT, soft, moist
			5		
	0.4			PT	Gray PEAT, soft, with shells
	0.3			PT	- no shells
			10		
	0.2			PT	
	0.2			CL	Gray silty CLAY, soft, saturated
			15		

Completion Notes:

Backfilled with hydrated bentonite from 16' to 0.5' bls. Capped with topsoil.

Site:
Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084
IEMA No.: 892744 and 903199
LPC No.: 0971855024

Project No.: 100018

SB-71

TriCore Environmental, LLC

Drill Method:	Direct-push	Date Drilled:	April 7, 2011	Logged By:
Boring Dia:	2.125 Inches	DTW While Drilling:	15 Feet	Patrick Worrall

Sample	PID (ppm)	Completion	Depth (feet)	Lithology	Description
	NA			MH	Grass & topsoil
	0.3			CL	Gray, mottled brown silty CLAY, little sand & gravel, semi-stiff, moist
	0.3				- trace sand & gravel, stiff
	0.3			CL	
	0.4				- soft
	1.3			CL	
			5	GP	GRAVEL, wet
	NA				No recovery
	636.5 (lab)			PT	Dark gray PEAT, soft
			10		
	385.2				Gray & brownish gray PEAT, with shells
	88.2			PT	
				PT	- no shells
	6.2		15	CL	Gray silty CLAY, soft, saturated

Completion Notes:

Backfilled with hydrated bentonite from 16' to 0.5' bls. Capped with topsoil.

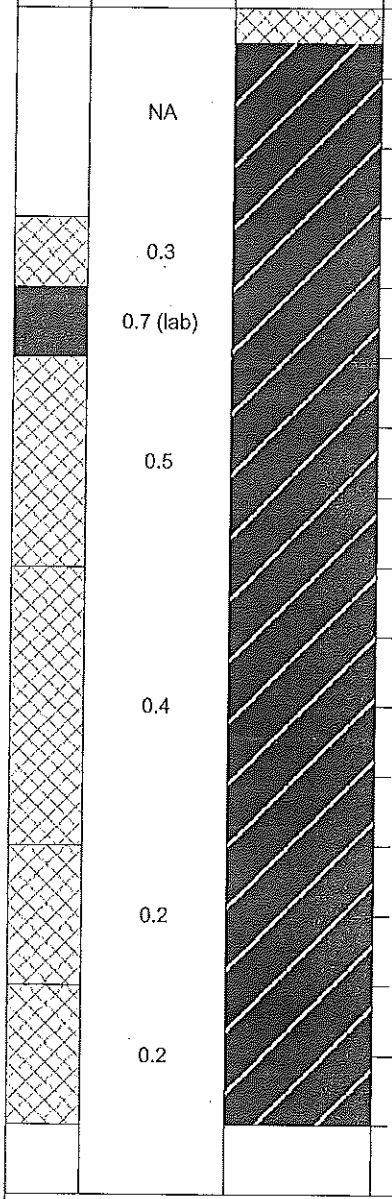
Site:
Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084
IEMA No.: 892744 and 903199
LPC No.: 0971855024

Project No.: 100018 | Page 1

SB-72

TriCore Environmental, LLC

Drill Method:	Direct-push	Date Drilled:	April 7, 2011	Logged By:
Boring Dia:	2.125 Inches	DTW While Drilling:	Feet	Patrick Worrall



Sample	PID (ppm)	Completion	Depth (feet)	Lithology	Description
				MH	Grass & topsoil
					Gravel & stone fill material
	NA			GW	
	0.3			CL	Brownish gray, mottled gray silty CLAY, trace sand & gravel, stiff, moist
	0.7 (lab)				- gray
			5	CL	
	0.5				
				OH	Black organic CLAY, soft, moist
	0.4		10	PT	Gray & brown PEAT, soft, moist
					- brownish gray
	0.2			PT	
	0.2		15		

Completion Notes:

Backfilled with hydrated bentonite from 16' to 0.5' bls. Capped with topsoil.

Site:
Shivam Energy, Inc.
399 West Liberty Street
Wauconda, Illinois 60084
IEMA No.: 892744 and 903199
LPC No.: 0971855024

Project No.: 100018 | Page 1

APPENDIX B

ANALYTICAL LABORATORY REPORTS AND CERTIFICATIONS – SOIL (APRIL 2011)

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

April 13, 2011

Kim Miller
TriCore Environmental, LLC.
1800 West Hawthorne Lane
Suite P
West Chicago, IL 60185

RE: Project: 100018 FORMER CLARK 646
Pace Project No.: 4044310

Dear Kim Miller:
Enclosed are the analytical results for sample(s) received by the laboratory on April 08, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Laurie Woelfel

Laurie Woelfel

laurie.woelfel@pacelabs.com
Project Manager

Enclosures

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 100018 FORMER CLARK 646
Pace Project No.: 4044310

Green Bay Certification IDs
1241 Bellevue Street, Green Bay, WI 54302
California Certification #: 09268CA
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 11888
New York Certification #: 11888
North Carolina Certification #: 503
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
US Dept of Agriculture #: S-76505
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 100018 FORMER CLARK 646
Pace Project No.: 4044310

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4044310001	SB-58 7-8	Solid	04/06/11 12:30	04/08/11 10:35
4044310002	SB-59 4-5	Solid	04/06/11 13:10	04/08/11 10:35
4044310003	SB-60 5-8	Solid	04/06/11 15:00	04/08/11 10:35
4044310004	SB-61 5-7	Solid	04/06/11 09:40	04/08/11 10:35
4044310005	SB-62 3-4	Solid	04/06/11 15:20	04/08/11 10:35
4044310006	SB-63 8-9	Solid	04/06/11 11:00	04/08/11 10:35
4044310007	SB-64 2-3	Solid	04/06/11 11:30	04/08/11 10:35
4044310008	SB-65 4-5	Solid	04/06/11 13:45	04/08/11 10:35
4044310009	SB-66 3-4	Solid	04/06/11 14:15	04/08/11 10:35
4044310010	SB-67 2-3	Solid	04/07/11 09:20	04/08/11 10:35
4044310011	SB-68 2-3	Solid	04/07/11 10:55	04/08/11 10:35
4044310012	SB-69 3-4	Solid	04/07/11 11:25	04/08/11 10:35
4044310013	SB-70 4-5	Solid	04/07/11 12:30	04/08/11 10:35
4044310014	SB-71 8-10	Solid	04/07/11 13:30	04/08/11 10:35
4044310015	SB-72 4-5	Solid	04/07/11 10:30	04/08/11 10:35

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 100018 FORMER CLARK 646
Pace Project No.: 4044310

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4044310001	SB-58 7-8	EPA 8021	PMS	6	PASI-G
		ASTM D2974-87	TJJ	1	PASI-G
4044310002	SB-59 4-5	EPA 8021	PMS	6	PASI-G
		ASTM D2974-87	TJJ	1	PASI-G
4044310003	SB-60 5-8	EPA 8021	PMS	6	PASI-G
		ASTM D2974-87	TJJ	1	PASI-G
4044310004	SB-61 5-7	EPA 8021	PMS	6	PASI-G
		ASTM D2974-87	TJJ	1	PASI-G
4044310005	SB-62 3-4	EPA 8021	PMS	6	PASI-G
		ASTM D2974-87	TJJ	1	PASI-G
4044310006	SB-63 8-9	EPA 8021	PMS	6	PASI-G
		ASTM D2974-87	TJJ	1	PASI-G
4044310007	SB-64 2-3	EPA 8021	PMS	6	PASI-G
		ASTM D2974-87	TJJ	1	PASI-G
4044310008	SB-65 4-5	EPA 8021	PMS	6	PASI-G
		ASTM D2974-87	TJJ	1	PASI-G
4044310009	SB-66 3-4	EPA 8021	PMS	6	PASI-G
		ASTM D2974-87	TJJ	1	PASI-G
4044310010	SB-67 2-3	EPA 8021	PMS	6	PASI-G
		ASTM D2974-87	TJJ	1	PASI-G
4044310011	SB-68 2-3	EPA 8021	PMS	6	PASI-G
		ASTM D2974-87	TJJ	1	PASI-G
4044310012	SB-69 3-4	EPA 8021	PMS	6	PASI-G
		ASTM D2974-87	TJJ	1	PASI-G
4044310013	SB-70 4-5	EPA 8021	PMS	6	PASI-G
		ASTM D2974-87	TJJ	1	PASI-G
4044310014	SB-71 8-10	EPA 8021	PMS	6	PASI-G
		ASTM D2974-87	TJJ	1	PASI-G
4044310015	SB-72 4-5	EPA 8021	PMS	6	PASI-G
		ASTM D2974-87	TJJ	1	PASI-G

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 100018 FORMER CLARK 646
Pace Project No.: 4044310

Sample: SB-58 7-8 **Lab ID: 4044310001** Collected: 04/06/11 12:30 Received: 04/08/11 10:35 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Med BTEX	Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil								
Benzene	**<4.0**	ug/kg	22.9	4.0	1	04/11/11 12:00	04/11/11 21:09	71-43-2	
Ethylbenzene	**<9.1**	ug/kg	57.2	9.1	1	04/11/11 12:00	04/11/11 21:09	100-41-4	
Methyl-tert-butyl ether	**<12.5**	ug/kg	57.2	12.5	1	04/11/11 12:00	04/11/11 21:09	1634-04-4	
Toluene	**<13.1**	ug/kg	57.2	13.1	1	04/11/11 12:00	04/11/11 21:09	108-88-3	
Xylene (Total)	**<29.2**	ug/kg	172	29.2	1	04/11/11 12:00	04/11/11 21:09	1330-20-7	
a,a,a-Trifluorotoluene (S)	95	%	60-141		1	04/11/11 12:00	04/11/11 21:09	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**12.6**	%	0.10	0.10	1		04/11/11 17:18		

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK 646
Pace Project No.: 4044310

Sample: SB-59 4-5 **Lab ID: 4044310002** Collected: 04/06/11 13:10 Received: 04/08/11 10:35 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Med BTEX	Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil								
Benzene	**1660**	ug/kg	24.0	4.2	1	04/11/11 12:00	04/12/11 02:42	71-43-2	
Ethylbenzene	**36.5J**	ug/kg	60.0	9.5	1	04/11/11 12:00	04/12/11 02:42	100-41-4	
Methyl-tert-butyl ether	**32.6J**	ug/kg	60.0	13.1	1	04/11/11 12:00	04/12/11 02:42	1634-04-4	
Toluene	**1990**	ug/kg	60.0	13.7	1	04/11/11 12:00	04/12/11 02:42	108-88-3	
Xylene (Total)	**3530**	ug/kg	180	30.6	1	04/11/11 12:00	04/12/11 02:42	1330-20-7	
a,a,a-Trifluorotoluene (S)	97	%	60-141		1	04/11/11 12:00	04/12/11 02:42	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.6**	%	0.10	0.10	1		04/11/11 17:18		

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK 646
Pace Project No.: 4044310

Sample: SB-60 5-8 **Lab ID: 4044310003** Collected: 04/06/11 15:00 Received: 04/08/11 10:35 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Med BTEX	Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil								
Benzene	**566**	ug/kg	170	29.7	8	04/11/11 12:00	04/12/11 02:17	71-43-2	
Ethylbenzene	**7980**	ug/kg	426	67.7	8	04/11/11 12:00	04/12/11 02:17	100-41-4	
Methyl-tert-butyl ether	**<93.0**	ug/kg	426	93.0	8	04/11/11 12:00	04/12/11 02:17	1634-04-4	
Toluene	**13400**	ug/kg	426	97.5	8	04/11/11 12:00	04/12/11 02:17	108-88-3	
Xylene (Total)	**55800**	ug/kg	1280	217	8	04/11/11 12:00	04/12/11 02:17	1330-20-7	
a,a,a-Trifluorotoluene (S)	124	%	60-141		8	04/11/11 12:00	04/12/11 02:17	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**6.0**	%	0.10	0.10	1		04/11/11 17:19		

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK 646
Pace Project No.: 4044310

Sample: SB-61 5-7 **Lab ID: 4044310004** Collected: 04/06/11 09:40 Received: 04/08/11 10:35 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Med BTEX	Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil								
Benzene	**59.8**	ug/kg	21.0	3.7	1	04/11/11 12:00	04/12/11 01:51	71-43-2	
Ethylbenzene	**201**	ug/kg	52.5	8.4	1	04/11/11 12:00	04/12/11 01:51	100-41-4	
Methyl-tert-butyl ether	**<11.5**	ug/kg	52.5	11.5	1	04/11/11 12:00	04/12/11 01:51	1634-04-4	
Toluene	**524**	ug/kg	52.5	12.0	1	04/11/11 12:00	04/12/11 01:51	108-88-3	
Xylene (Total)	**1580**	ug/kg	158	26.8	1	04/11/11 12:00	04/12/11 01:51	1330-20-7	
a,a,a-Trifluorotoluene (S)	87	%	60-141		1	04/11/11 12:00	04/12/11 01:51	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**4.8**	%	0.10	0.10	1		04/11/11 17:19		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK 646
Pace Project No.: 4044310

Sample: SB-62 3-4 **Lab ID: 4044310005** Collected: 04/06/11 15:20 Received: 04/08/11 10:35 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Med BTEX	Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil								
Benzene	**<3.9**	ug/kg	22.5	3.9	1	04/11/11 12:00	04/11/11 21:35	71-43-2	
Ethylbenzene	**<9.0**	ug/kg	56.3	9.0	1	04/11/11 12:00	04/11/11 21:35	100-41-4	
Methyl-tert-butyl ether	**<12.3**	ug/kg	56.3	12.3	1	04/11/11 12:00	04/11/11 21:35	1634-04-4	
Toluene	**<12.9**	ug/kg	56.3	12.9	1	04/11/11 12:00	04/11/11 21:35	108-88-3	
Xylene (Total)	**<28.8**	ug/kg	169	28.8	1	04/11/11 12:00	04/11/11 21:35	1330-20-7	
a,a,a-Trifluorotoluene (S)	93	%	60-141		1	04/11/11 12:00	04/11/11 21:35	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.2**	%	0.10	0.10	1		04/11/11 17:19		

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK 646
Pace Project No.: 4044310

Sample: SB-63 8-9 **Lab ID: 4044310006** Collected: 04/06/11 11:00 Received: 04/08/11 10:35 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Med BTEX	Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil								
Benzene	**<4.0**	ug/kg	23.0	4.0	1	04/11/11 12:00	04/11/11 22:00	71-43-2	
Ethylbenzene	**<9.1**	ug/kg	57.5	9.1	1	04/11/11 12:00	04/11/11 22:00	100-41-4	
Methyl-tert-butyl ether	**<12.6**	ug/kg	57.5	12.6	1	04/11/11 12:00	04/11/11 22:00	1634-04-4	
Toluene	**<13.2**	ug/kg	57.5	13.2	1	04/11/11 12:00	04/11/11 22:00	108-88-3	
Xylene (Total)	**<29.4**	ug/kg	173	29.4	1	04/11/11 12:00	04/11/11 22:00	1330-20-7	
a,a,a-Trifluorotoluene (S)	95	%	60-141		1	04/11/11 12:00	04/11/11 22:00	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.1**	%	0.10	0.10	1		04/11/11 17:19		

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK 646
Pace Project No.: 4044310

Sample: SB-64 2-3 **Lab ID: 4044310007** Collected: 04/06/11 11:30 Received: 04/08/11 10:35 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Med BTEX	Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil								
Benzene	**<4.2**	ug/kg	23.9	4.2	1	04/11/11 12:00	04/11/11 22:26	71-43-2	
Ethylbenzene	**<9.5**	ug/kg	59.6	9.5	1	04/11/11 12:00	04/11/11 22:26	100-41-4	
Methyl-tert-butyl ether	**<13.0**	ug/kg	59.6	13.0	1	04/11/11 12:00	04/11/11 22:26	1634-04-4	
Toluene	**<13.7**	ug/kg	59.6	13.7	1	04/11/11 12:00	04/11/11 22:26	108-88-3	
Xylene (Total)	**<30.4**	ug/kg	179	30.4	1	04/11/11 12:00	04/11/11 22:26	1330-20-7	
a,a,a-Trifluorotoluene (S)	93	%	60-141		1	04/11/11 12:00	04/11/11 22:26	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.2**	%	0.10	0.10	1		04/11/11 17:19		

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK 646
Pace Project No.: 4044310

Sample: SB-65 4-5 **Lab ID: 4044310008** Collected: 04/06/11 13:45 Received: 04/08/11 10:35 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Med BTEX	Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil								
Benzene	**<4.3**	ug/kg	24.5	4.3	1	04/11/11 12:00	04/11/11 22:52	71-43-2	
Ethylbenzene	**<9.7**	ug/kg	61.2	9.7	1	04/11/11 12:00	04/11/11 22:52	100-41-4	
Methyl-tert-butyl ether	**<13.4**	ug/kg	61.2	13.4	1	04/11/11 12:00	04/11/11 22:52	1634-04-4	
Toluene	**<14.0**	ug/kg	61.2	14.0	1	04/11/11 12:00	04/11/11 22:52	108-88-3	
Xylene (Total)	**<31.3**	ug/kg	184	31.3	1	04/11/11 12:00	04/11/11 22:52	1330-20-7	
a,a,a-Trifluorotoluene (S)	95	%	60-141		1	04/11/11 12:00	04/11/11 22:52	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.4**	%	0.10	0.10	1		04/11/11 17:19		

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK 646
Pace Project No.: 4044310

Sample: SB-66 3-4 **Lab ID: 4044310009** Collected: 04/06/11 14:15 Received: 04/08/11 10:35 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Med BTEX	Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil								
Benzene	**8.1J**	ug/kg	21.1	3.7	1	04/11/11 12:00	04/11/11 23:17	71-43-2	
Ethylbenzene	**<8.4**	ug/kg	52.6	8.4	1	04/11/11 12:00	04/11/11 23:17	100-41-4	
Methyl-tert-butyl ether	**<11.5**	ug/kg	52.6	11.5	1	04/11/11 12:00	04/11/11 23:17	1634-04-4	
Toluene	**52.6**	ug/kg	52.6	12.1	1	04/11/11 12:00	04/11/11 23:17	108-88-3	
Xylene (Total)	**<26.9**	ug/kg	158	26.9	1	04/11/11 12:00	04/11/11 23:17	1330-20-7	
a,a,a-Trifluorotoluene (S)	111	%	60-141		1	04/11/11 12:00	04/11/11 23:17	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**5.0**	%	0.10	0.10	1		04/11/11 17:19		

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK 646
Pace Project No.: 4044310

Sample: SB-67 2-3 **Lab ID: 4044310010** Collected: 04/07/11 09:20 Received: 04/08/11 10:35 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Med BTEX	Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil								
Benzene	**<4.0**	ug/kg	23.1	4.0	1	04/11/11 12:00	04/11/11 23:43	71-43-2	
Ethylbenzene	**<9.2**	ug/kg	57.7	9.2	1	04/11/11 12:00	04/11/11 23:43	100-41-4	
Methyl-tert-butyl ether	**<12.6**	ug/kg	57.7	12.6	1	04/11/11 12:00	04/11/11 23:43	1634-04-4	
Toluene	**<13.2**	ug/kg	57.7	13.2	1	04/11/11 12:00	04/11/11 23:43	108-88-3	
Xylene (Total)	**<29.4**	ug/kg	173	29.4	1	04/11/11 12:00	04/11/11 23:43	1330-20-7	
a,a,a-Trifluorotoluene (S)	91	%	60-141		1	04/11/11 12:00	04/11/11 23:43	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.3**	%	0.10	0.10	1		04/11/11 17:19		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK 646
Pace Project No.: 4044310

Sample: SB-68 2-3 **Lab ID: 4044310011** Collected: 04/07/11 10:55 Received: 04/08/11 10:35 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Med BTEX	Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil								
Benzene	**<4.4**	ug/kg	25.5	4.4	1	04/11/11 12:00	04/12/11 00:09	71-43-2	
Ethylbenzene	**<10.2**	ug/kg	63.9	10.2	1	04/11/11 12:00	04/12/11 00:09	100-41-4	
Methyl-tert-butyl ether	**<14.0**	ug/kg	63.9	14.0	1	04/11/11 12:00	04/12/11 00:09	1634-04-4	
Toluene	**<14.6**	ug/kg	63.9	14.6	1	04/11/11 12:00	04/12/11 00:09	108-88-3	
Xylene (Total)	**<32.6**	ug/kg	192	32.6	1	04/11/11 12:00	04/12/11 00:09	1330-20-7	
a,a,a-Trifluorotoluene (S)	79	%	60-141		1	04/11/11 12:00	04/12/11 00:09	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**21.7**	%	0.10	0.10	1		04/11/11 17:20		

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK 646
Pace Project No.: 4044310

Sample: SB-69 3-4 **Lab ID: 4044310012** Collected: 04/07/11 11:25 Received: 04/08/11 10:35 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Med BTEX	Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil								
Benzene	**57.9**	ug/kg	23.1	4.0	1	04/11/11 12:00	04/12/11 01:26	71-43-2	
Ethylbenzene	**27.5J**	ug/kg	57.7	9.2	1	04/11/11 12:00	04/12/11 01:26	100-41-4	
Methyl-tert-butyl ether	**<12.6**	ug/kg	57.7	12.6	1	04/11/11 12:00	04/12/11 01:26	1634-04-4	
Toluene	**48.6J**	ug/kg	57.7	13.2	1	04/11/11 12:00	04/12/11 01:26	108-88-3	
Xylene (Total)	**83.5J**	ug/kg	173	29.5	1	04/11/11 12:00	04/12/11 01:26	1330-20-7	
a,a,a-Trifluorotoluene (S)	95	%	60-141		1	04/11/11 12:00	04/12/11 01:26	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.4**	%	0.10	0.10	1		04/11/11 17:20		

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK 646
Pace Project No.: 4044310

Sample: SB-70 4-5 **Lab ID: 4044310013** Collected: 04/07/11 12:30 Received: 04/08/11 10:35 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Med BTEX	Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil								
Benzene	**<4.8**	ug/kg	27.8	4.8	1	04/11/11 12:00	04/12/11 00:34	71-43-2	
Ethylbenzene	**<11.0**	ug/kg	69.4	11.0	1	04/11/11 12:00	04/12/11 00:34	100-41-4	
Methyl-tert-butyl ether	**<15.2**	ug/kg	69.4	15.2	1	04/11/11 12:00	04/12/11 00:34	1634-04-4	
Toluene	**<15.9**	ug/kg	69.4	15.9	1	04/11/11 12:00	04/12/11 00:34	108-88-3	
Xylene (Total)	**<35.5**	ug/kg	208	35.5	1	04/11/11 12:00	04/12/11 00:34	1330-20-7	
a,a,a-Trifluorotoluene (S)	98	%	60-141		1	04/11/11 12:00	04/12/11 00:34	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**28.0**	%	0.10	0.10	1		04/11/11 17:20		

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK 646
Pace Project No.: 4044310

Sample: SB-71 8-10 **Lab ID: 4044310014** Collected: 04/07/11 13:30 Received: 04/08/11 10:35 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Med BTEX	Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil								
Benzene	**<23.1**	ug/kg	133	23.1	1	04/11/11 12:00	04/12/11 03:59	71-43-2	
Ethylbenzene	**<52.9**	ug/kg	332	52.9	1	04/11/11 12:00	04/12/11 03:59	100-41-4	
Methyl-tert-butyl ether	**1140**	ug/kg	332	72.6	1	04/11/11 12:00	04/12/11 03:59	1634-04-4	
Toluene	**<76.1**	ug/kg	332	76.1	1	04/11/11 12:00	04/12/11 03:59	108-88-3	
Xylene (Total)	**<170**	ug/kg	997	170	1	04/11/11 12:00	04/12/11 03:59	1330-20-7	
a,a,a-Trifluorotoluene (S)	57	%	60-141		1	04/11/11 12:00	04/12/11 03:59	98-08-8	1q
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**81.6**	%	0.10	0.10	1		04/11/11 17:20		

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK 646
Pace Project No.: 4044310

Sample: SB-72 4-5 **Lab ID: 4044310015** Collected: 04/07/11 10:30 Received: 04/08/11 10:35 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Med BTEX	Analytical Method: EPA 8021 Preparation Method: EPA 5030 Medium Soil								
Benzene	**<4.1**	ug/kg	23.5	4.1	1	04/11/11 12:00	04/12/11 04:25	71-43-2	
Ethylbenzene	**<9.3**	ug/kg	58.7	9.3	1	04/11/11 12:00	04/12/11 04:25	100-41-4	
Methyl-tert-butyl ether	**<12.8**	ug/kg	58.7	12.8	1	04/11/11 12:00	04/12/11 04:25	1634-04-4	
Toluene	**<13.4**	ug/kg	58.7	13.4	1	04/11/11 12:00	04/12/11 04:25	108-88-3	
Xylene (Total)	**<30.0**	ug/kg	176	30.0	1	04/11/11 12:00	04/12/11 04:25	1330-20-7	
a,a,a-Trifluorotoluene (S)	88	%	60-141		1	04/11/11 12:00	04/12/11 04:25	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.9**	%	0.10	0.10	1		04/11/11 17:20		

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QUALITY CONTROL DATA

Project: 100018 FORMER CLARK 646
Pace Project No.: 4044310

QC Batch: GCV/6486 Analysis Method: EPA 8021
QC Batch Method: EPA 5030 Medium Soil Analysis Description: 8021 Med Level Solid GCV
Associated Lab Samples: 4044310001, 4044310002, 4044310003, 4044310004, 4044310005, 4044310006, 4044310007, 4044310008, 4044310009, 4044310010, 4044310011, 4044310012, 4044310013, 4044310014, 4044310015

METHOD BLANK: 434421 Matrix: Solid
Associated Lab Samples: 4044310001, 4044310002, 4044310003, 4044310004, 4044310005, 4044310006, 4044310007, 4044310008, 4044310009, 4044310010, 4044310011, 4044310012, 4044310013, 4044310014, 4044310015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	<3.5	20.0	04/11/11 19:26	
Ethylbenzene	ug/kg	<8.0	50.0	04/11/11 19:26	
Methyl-tert-butyl ether	ug/kg	<10.9	50.0	04/11/11 19:26	
Toluene	ug/kg	<11.4	50.0	04/11/11 19:26	
Xylene (Total)	ug/kg	<25.5	150	04/11/11 19:26	
a,a,a-Trifluorotoluene (S)	%	102	60-141	04/11/11 19:26	

LABORATORY CONTROL SAMPLE & LCSD: 434422 434423

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/kg	1000	993	1070	99	107	78-120	8	20	
Ethylbenzene	ug/kg	1000	986	1060	99	106	80-120	7	20	
Methyl-tert-butyl ether	ug/kg	1000	1030	1120	103	112	80-120	8	20	
Toluene	ug/kg	1000	977	1050	98	105	80-120	7	20	
Xylene (Total)	ug/kg	3000	2960	3160	99	105	80-120	7	20	
a,a,a-Trifluorotoluene (S)	%				106	106	60-141			

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QUALITY CONTROL DATA

Project: 100018 FORMER CLARK 646
Pace Project No.: 4044310

QC Batch: PMST/5321 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 4044310001, 4044310002, 4044310003, 4044310004, 4044310005, 4044310006, 4044310007, 4044310008, 4044310009, 4044310010, 4044310011, 4044310012, 4044310013, 4044310014, 4044310015

SAMPLE DUPLICATE: 434358

Parameter	Units	4044356001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	4.8	4.5	6	10	

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QUALIFIERS

Project: 100018 FORMER CLARK 646
Pace Project No.: 4044310

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

BATCH QUALIFIERS

Batch: GCV/6487

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1q Surrogate recovery outside laboratory control limits due to matrix interferences. Sample matrix absorbed most of the methanol, insufficient volume left for re-analysis.

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Kim

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	TriCore Environmental
Branch/Location:	West Chicago, IL
Project Contact:	Kim Miller
Phone:	630-520-9973
Project Number:	100018
Project Name:	Former Clark 646
Project State:	Illinois
Sampled By (Print):	Patrick Worrall
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	Kim Miller
Mail To Company:	TriCore Environmental
Mail To Address:	1800 W. Hawthorne Ln Suite P West Chicago, IL 60185
Invoice To Contact:	Shawn Kodeck
Invoice To Company:	Same as above
Invoice To Address:	Same as above
Invoice To Phone:	630-520-9973

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, SL = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

PACE LAB #	CLIENT FIELD ID		COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: BTEX/MTBE	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	SB-58	7-8	4/6/11	1230	S	N	A,F	X		1-4oz jar 2-40ml vial	
002	SB-59	4-5		1310	S			X			
003	SB-60	5-8		1500	S			X			
004	SB-61	5-7		0940	S			X			
005	SB-62	3-4		1520	S			X			
006	SB-63	8-9		1100	S			X			
007	SB-64	2-3		1130	S			X			
008	SB-65	4-5		1345	S			X			
009	SB-66	3-4		1415	S			X			
010	SB-67	2-3	4/7/11	0920	S			X			
011	SB-68	2-3		1055	S			X			
012	SB-69	3-4		1125	S			X			
013	SB-70	4-5		1230	S			X			

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	K.m.miller@tricoreweb.com
Email #2:	
Telephone:	630-520-9973
Fax:	630-520-9976

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	4/7/11 1500		4/7/11 1500
	4/7/11 1700		4/7/11
	4/8/11 1035		4/8/11 1035

PACE Project No.: 4044810
Receipt Temp = 3 °C
Sample Receipt pH OK / Adjusted N/A
Cooler Custody Seal: Present / Not Present, Intact / Not Intact

C019a(27Jun2006)
Version 6.8, 05/14/08
ORIGINAL

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

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CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	Tri Core Environmental
Branch/Location:	West Chicago, IL
Project Contact:	Kim Miller
Phone:	630-520-9973
Project Number:	100018
Project Name:	Former Clark 646
Project State:	Illinois
Sampled By (Print):	Patrick Worrall
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	Kim Miller
Mail To Company:	Tri Core Environmental
Mail To Address:	1800 W. Hawthorne Ln Ste P West Chicago, IL 60185
Invoice To Contact:	Shawn Rodeck
Invoice To Company:	Same as above
Invoice To Address:	Same as above
Invoice To Phone:	630-520-9973

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
Sl = Sludge	WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analytes Requested: BTEX / MTBE	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
014	SB-71 8-10	4/7/11	1330	S	N	A,C	X		1-40mlVOA 2-40mlVF	
015	SB-72 4-5	4/7/11	1030	S			X			

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	kim.miller@tricoreweb.com
Email #2:	
Telephone:	630-520-9973
Fax:	630-520-9996

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	4/7/11 1500		4/7/11 1500
	4/7/11 1700		4/7/11 1700
US Logistics	4/8/11 1035		4/8/11 1035

PACE Project No. 4044310
Receipt Temp = 3 °C
Sample Receipt pH OK / Adjusted N/A
Cooler Custody Seal Present / Not Present Intact / Not Intact

C019a(27Jun2006)

Version 6.0 06/14/06

ORIGINAL

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Green Bay, WI 54302

Pace Analytical

Sample Condition Upon Receipt

Client Name: - In Love Project # 4044310

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☒ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None Other

Thermometer Used GUN

Type of Ice: Wet Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature _____

Biological Tissue is Frozen: ☐ yes ☐ no

Temp Blank Present: ☐ yes ☒ no

Optional
Proj. Due Date:
Proj. Name:

Temp should be above freezing to 6°C for all sample except Biota.
Biota Samples should be received ≤ 0°C.

Person examining contents:
Date: 4/8/11
Initials: AE

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☒No ☐N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: S		
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☐No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: LW **Date:** 4/8/11

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

APPENDIX C

ANALYTICAL LABORATORY REPORTS AND CERTIFICATIONS – GROUNDWATER (APRIL 2011)

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

April 21, 2011

Kim Miller
TriCore Environmental, LLC.
1800 West Hawthorne Lane
Suite P
West Chicago, IL 60185

RE: Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Dear Kim Miller:
Enclosed are the analytical results for sample(s) received by the laboratory on April 16, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Laurie Woelfel

Laurie Woelfel

laurie.woelfel@pacelabs.com
Project Manager

Enclosures

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Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Green Bay Certification IDs
1241 Bellevue Street, Green Bay, WI 54302
California Certification #: 09268CA
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 11888
New York Certification #: 11888
North Carolina Certification #: 503
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
US Dept of Agriculture #: S-76505
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444

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SAMPLE SUMMARY

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4044687001	MW-6	Water	04/14/11 14:40	04/16/11 08:15
4044687002	MW-8S	Water	04/14/11 15:25	04/16/11 08:15
4044687003	MW-8D	Water	04/14/11 15:23	04/16/11 08:15
4044687004	MW-9S	Water	04/14/11 15:30	04/16/11 08:15
4044687005	MW-9D	Water	04/14/11 15:32	04/16/11 08:15
4044687006	MW-10S	Water	04/14/11 15:40	04/16/11 08:15
4044687007	MW-10D	Water	04/14/11 15:43	04/16/11 08:15
4044687008	MW-11S	Water	04/14/11 15:50	04/16/11 08:15
4044687009	MW-11D	Water	04/14/11 15:52	04/16/11 08:15
4044687010	MW-12S	Water	04/14/11 15:50	04/16/11 08:15
4044687011	MW-12D	Water	04/14/11 15:52	04/16/11 08:15
4044687012	MW-13	Water	04/14/11 15:59	04/16/11 08:15
4044687013	MW-14	Water	04/14/11 14:50	04/16/11 08:15
4044687014	MW-18	Water	04/14/11 14:30	04/16/11 08:15
4044687015	MW-19	Water	04/14/11 14:35	04/16/11 08:15
4044687016	MW-21	Water	04/14/11 14:20	04/16/11 08:15
4044687017	MW-22	Water	04/14/11 14:13	04/16/11 08:15
4044687018	MW-23	Water	04/14/11 15:45	04/16/11 08:15
4044687019	MW-25	Water	04/14/11 14:35	04/16/11 08:15
4044687020	MW-17	Water	04/14/11 14:25	04/16/11 08:15
4044687021	MW-28	Water	04/14/11 15:10	04/16/11 08:15
4044687022	MW-16	Water	04/14/11 14:40	04/16/11 08:15
4044687023	MW-26	Water	04/14/11 14:50	04/16/11 08:15
4044687024	MW-15	Water	04/14/11 14:45	04/16/11 08:15
4044687025	MP-3	Water	04/14/11 15:10	04/16/11 08:15
4044687026	RW-1	Water	04/14/11 15:20	04/16/11 08:15
4044687027	MW-32	Water	04/14/11 14:58	04/16/11 08:15
4044687028	RW-4	Water	04/14/11 15:03	04/16/11 08:15
4044687029	MW-24	Water	04/14/11 14:30	04/16/11 08:15

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SAMPLE ANALYTE COUNT

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4044687001	MW-6	EPA 8021	PMS	6	PASI-G
4044687002	MW-8S	EPA 8021	PMS	6	PASI-G
4044687003	MW-8D	EPA 8021	PMS	6	PASI-G
4044687004	MW-9S	EPA 8021	PMS	6	PASI-G
4044687005	MW-9D	EPA 8021	PMS	6	PASI-G
4044687006	MW-10S	EPA 8021	PMS	6	PASI-G
4044687007	MW-10D	EPA 8021	PMS	6	PASI-G
4044687008	MW-11S	EPA 8021	PMS	6	PASI-G
4044687009	MW-11D	EPA 8021	PMS	6	PASI-G
4044687010	MW-12S	EPA 8021	PMS	6	PASI-G
4044687011	MW-12D	EPA 8021	PMS	6	PASI-G
4044687012	MW-13	EPA 8021	PMS	6	PASI-G
4044687013	MW-14	EPA 8021	PMS	6	PASI-G
4044687014	MW-18	EPA 8021	PMS	6	PASI-G
4044687015	MW-19	EPA 8021	PMS	6	PASI-G
4044687016	MW-21	EPA 8021	PMS	6	PASI-G
4044687017	MW-22	EPA 8021	PMS	6	PASI-G
4044687018	MW-23	EPA 8021	PMS	6	PASI-G
4044687019	MW-25	EPA 8021	PMS	6	PASI-G
4044687020	MW-17	EPA 8021	PMS	6	PASI-G
4044687021	MW-28	EPA 8021	PMS	6	PASI-G
4044687022	MW-16	EPA 8021	PMS	6	PASI-G
4044687023	MW-26	EPA 8021	PMS	6	PASI-G
4044687024	MW-15	EPA 8021	PMS	6	PASI-G
4044687025	MP-3	EPA 8021	PMS	6	PASI-G
4044687026	RW-1	EPA 8021	PMS	6	PASI-G
4044687027	MW-32	EPA 8021	PMS	6	PASI-G
4044687028	RW-4	EPA 8021	SES	6	PASI-G
4044687029	MW-24	EPA 8021	SES	6	PASI-G

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-6 **Lab ID: 4044687001** Collected: 04/14/11 14:40 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**<1.0**	ug/L	1.0	1		04/19/11 02:26	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/19/11 02:26	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	1		04/19/11 02:26	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/19/11 02:26	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/19/11 02:26	1330-20-7	
a,a,a-Trifluorotoluene (S)	102	%	80-120	1		04/19/11 02:26	98-08-8	

REPORT OF LABORATORY ANALYSIS

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(920)469-2436

ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-8S **Lab ID: 4044687002** Collected: 04/14/11 15:25 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**<1.0**	ug/L	1.0	1		04/19/11 02:52	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/19/11 02:52	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	1		04/19/11 02:52	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/19/11 02:52	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/19/11 02:52	1330-20-7	
a,a,a-Trifluorotoluene (S)	102	%	80-120	1		04/19/11 02:52	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-8D **Lab ID: 4044687003** Collected: 04/14/11 15:23 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**<1.0**	ug/L	1.0	1		04/19/11 03:17	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/19/11 03:17	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	1		04/19/11 03:17	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/19/11 03:17	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/19/11 03:17	1330-20-7	
a,a,a-Trifluorotoluene (S)	101	%	80-120	1		04/19/11 03:17	98-08-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-9S **Lab ID: 4044687004** Collected: 04/14/11 15:30 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**<1.0**	ug/L	1.0	1		04/18/11 20:27	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/18/11 20:27	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	1		04/18/11 20:27	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/18/11 20:27	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/18/11 20:27	1330-20-7	
a,a,a-Trifluorotoluene (S)	100	%	80-120	1		04/18/11 20:27	98-08-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-9D **Lab ID: 4044687005** Collected: 04/14/11 15:32 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**<1.0**	ug/L	1.0	1		04/18/11 20:53	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/18/11 20:53	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	1		04/18/11 20:53	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/18/11 20:53	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/18/11 20:53	1330-20-7	
a,a,a-Trifluorotoluene (S)	101	%	80-120	1		04/18/11 20:53	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-10S **Lab ID: 4044687006** Collected: 04/14/11 15:40 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**<1.0**	ug/L	1.0	1		04/18/11 21:19	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/18/11 21:19	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	1		04/18/11 21:19	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/18/11 21:19	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/18/11 21:19	1330-20-7	
a,a,a-Trifluorotoluene (S)	102	%	80-120	1		04/18/11 21:19	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-10D **Lab ID: 4044687007** Collected: 04/14/11 15:43 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**<1.0**	ug/L	1.0	1		04/18/11 21:44	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/18/11 21:44	100-41-4	
Methyl-tert-butyl ether	**3.5**	ug/L	1.0	1		04/18/11 21:44	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/18/11 21:44	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/18/11 21:44	1330-20-7	
a,a,a-Trifluorotoluene (S)	102	%	80-120	1		04/18/11 21:44	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-11S **Lab ID: 4044687008** Collected: 04/14/11 15:50 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**<1.0**	ug/L	1.0	1		04/19/11 13:41	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/19/11 13:41	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	1		04/19/11 13:41	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/19/11 13:41	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/19/11 13:41	1330-20-7	
a,a,a-Trifluorotoluene (S)	98	%	80-120	1		04/19/11 13:41	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-11D **Lab ID: 4044687009** Collected: 04/14/11 15:52 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**<1.0**	ug/L	1.0	1		04/19/11 14:07	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/19/11 14:07	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	1		04/19/11 14:07	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/19/11 14:07	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/19/11 14:07	1330-20-7	
a,a,a-Trifluorotoluene (S)	98	%	80-120	1		04/19/11 14:07	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-12S **Lab ID: 4044687010** Collected: 04/14/11 15:50 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**<1.0**	ug/L	1.0	1		04/19/11 14:33	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/19/11 14:33	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	1		04/19/11 14:33	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/19/11 14:33	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/19/11 14:33	1330-20-7	
a,a,a-Trifluorotoluene (S)	98	%	80-120	1		04/19/11 14:33	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-12D **Lab ID: 4044687011** Collected: 04/14/11 15:52 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**<1.0**	ug/L	1.0	1		04/19/11 14:59	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/19/11 14:59	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	1		04/19/11 14:59	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/19/11 14:59	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/19/11 14:59	1330-20-7	
a,a,a-Trifluorotoluene (S)	97	%	80-120	1		04/19/11 14:59	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-13 **Lab ID: 4044687012** Collected: 04/14/11 15:59 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**34.5**	ug/L	1.0	1		04/19/11 15:24	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/19/11 15:24	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	1		04/19/11 15:24	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/19/11 15:24	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/19/11 15:24	1330-20-7	
a,a,a-Trifluorotoluene (S)	96	%	80-120	1		04/19/11 15:24	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-14 **Lab ID: 4044687013** Collected: 04/14/11 14:50 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**<1.0**	ug/L	1.0	1		04/19/11 15:50	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/19/11 15:50	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	1		04/19/11 15:50	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/19/11 15:50	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/19/11 15:50	1330-20-7	
a,a,a-Trifluorotoluene (S)	97	%	80-120	1		04/19/11 15:50	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-18 **Lab ID: 4044687014** Collected: 04/14/11 14:30 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**<1.0**	ug/L	1.0	1		04/19/11 16:16	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/19/11 16:16	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	1		04/19/11 16:16	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/19/11 16:16	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/19/11 16:16	1330-20-7	
a,a,a-Trifluorotoluene (S)	98	%	80-120	1		04/19/11 16:16	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-19 **Lab ID: 4044687015** Collected: 04/14/11 14:35 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**<1.0**	ug/L	1.0	1		04/19/11 16:41	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/19/11 16:41	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	1		04/19/11 16:41	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/19/11 16:41	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/19/11 16:41	1330-20-7	
a,a,a-Trifluorotoluene (S)	97	%	80-120	1		04/19/11 16:41	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-21 **Lab ID: 4044687016** Collected: 04/14/11 14:20 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**<1.0**	ug/L	1.0	1		04/19/11 17:07	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/19/11 17:07	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	1		04/19/11 17:07	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/19/11 17:07	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/19/11 17:07	1330-20-7	
a,a,a-Trifluorotoluene (S)	97	%	80-120	1		04/19/11 17:07	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-22 **Lab ID: 4044687017** Collected: 04/14/11 14:13 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**<1.0**	ug/L	1.0	1		04/19/11 17:33	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/19/11 17:33	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	1		04/19/11 17:33	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/19/11 17:33	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/19/11 17:33	1330-20-7	
a,a,a-Trifluorotoluene (S)	96	%	80-120	1		04/19/11 17:33	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-23 **Lab ID: 4044687018** Collected: 04/14/11 15:45 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**<1.0**	ug/L	1.0	1		04/19/11 20:07	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/19/11 20:07	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	1		04/19/11 20:07	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/19/11 20:07	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/19/11 20:07	1330-20-7	
a,a,a-Trifluorotoluene (S)	98	%	80-120	1		04/19/11 20:07	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-25 **Lab ID: 4044687019** Collected: 04/14/11 14:35 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**<1.0**	ug/L	1.0	1		04/19/11 20:33	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/19/11 20:33	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	1		04/19/11 20:33	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/19/11 20:33	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/19/11 20:33	1330-20-7	
a,a,a-Trifluorotoluene (S)	97	%	80-120	1		04/19/11 20:33	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-17 **Lab ID: 4044687020** Collected: 04/14/11 14:25 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**<1.0**	ug/L	1.0	1		04/19/11 20:58	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/19/11 20:58	100-41-4	
Methyl-tert-butyl ether	**14.9**	ug/L	1.0	1		04/19/11 20:58	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/19/11 20:58	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/19/11 20:58	1330-20-7	
a,a,a-Trifluorotoluene (S)	98	%	80-120	1		04/19/11 20:58	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-28 **Lab ID: 4044687021** Collected: 04/14/11 15:10 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**<1.0**	ug/L	1.0	1		04/19/11 21:24	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/19/11 21:24	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	1		04/19/11 21:24	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/19/11 21:24	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/19/11 21:24	1330-20-7	
a,a,a-Trifluorotoluene (S)	97	%	80-120	1		04/19/11 21:24	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-16 **Lab ID: 4044687022** Collected: 04/14/11 14:40 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**6.0**	ug/L	1.0	1		04/19/11 21:50	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/19/11 21:50	100-41-4	
Methyl-tert-butyl ether	**3.4**	ug/L	1.0	1		04/19/11 21:50	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/19/11 21:50	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/19/11 21:50	1330-20-7	
a,a,a-Trifluorotoluene (S)	97	%	80-120	1		04/19/11 21:50	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-26 **Lab ID: 4044687023** Collected: 04/14/11 14:50 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**2.0**	ug/L	1.0	1		04/19/11 22:15	71-43-2	
Ethylbenzene	**9.4**	ug/L	1.0	1		04/19/11 22:15	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	1		04/19/11 22:15	1634-04-4	
Toluene	**13.0**	ug/L	1.0	1		04/19/11 22:15	108-88-3	
Xylene (Total)	**58.1**	ug/L	3.0	1		04/19/11 22:15	1330-20-7	
a,a,a-Trifluorotoluene (S)	100	%	80-120	1		04/19/11 22:15	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-15 **Lab ID: 4044687024** Collected: 04/14/11 14:45 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**411**	ug/L	1.0	1		04/19/11 22:41	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/19/11 22:41	100-41-4	
Methyl-tert-butyl ether	**2.3**	ug/L	1.0	1		04/19/11 22:41	1634-04-4	
Toluene	**12.1**	ug/L	1.0	1		04/19/11 22:41	108-88-3	
Xylene (Total)	**28.4**	ug/L	3.0	1		04/19/11 22:41	1330-20-7	
a,a,a-Trifluorotoluene (S)	96	%	80-120	1		04/19/11 22:41	98-08-8	

REPORT OF LABORATORY ANALYSIS

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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MP-3 **Lab ID: 4044687025** Collected: 04/14/11 15:10 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**361**	ug/L	50.0	50		04/19/11 23:07	71-43-2	
Ethylbenzene	**1110**	ug/L	50.0	50		04/19/11 23:07	100-41-4	
Methyl-tert-butyl ether	**<50.0**	ug/L	50.0	50		04/19/11 23:07	1634-04-4	
Toluene	**7150**	ug/L	50.0	50		04/19/11 23:07	108-88-3	
Xylene (Total)	**10800**	ug/L	150	50		04/19/11 23:07	1330-20-7	
a,a,a-Trifluorotoluene (S)	100	%	80-120	50		04/19/11 23:07	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: RW-1 **Lab ID: 4044687026** Collected: 04/14/11 15:20 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**1090**	ug/L	5.0	5		04/19/11 18:50	71-43-2	
Ethylbenzene	**7.0**	ug/L	5.0	5		04/19/11 18:50	100-41-4	
Methyl-tert-butyl ether	**7.6**	ug/L	5.0	5		04/19/11 18:50	1634-04-4	
Toluene	**19.6**	ug/L	5.0	5		04/19/11 18:50	108-88-3	
Xylene (Total)	**36.1**	ug/L	15.0	5		04/19/11 18:50	1330-20-7	
a,a,a-Trifluorotoluene (S)	93	%	80-120	5		04/19/11 18:50	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-32 **Lab ID: 4044687027** Collected: 04/14/11 14:58 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**757**	ug/L	2.5	2.5		04/19/11 23:32	71-43-2	
Ethylbenzene	**90.3**	ug/L	2.5	2.5		04/19/11 23:32	100-41-4	
Methyl-tert-butyl ether	**10.4**	ug/L	2.5	2.5		04/19/11 23:32	1634-04-4	
Toluene	**174**	ug/L	2.5	2.5		04/19/11 23:32	108-88-3	
Xylene (Total)	**343**	ug/L	7.5	2.5		04/19/11 23:32	1330-20-7	
a,a,a-Trifluorotoluene (S)	100	%	80-120	2.5		04/19/11 23:32	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: RW-4 **Lab ID: 4044687028** Collected: 04/14/11 15:03 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**10200**	ug/L	125	125		04/20/11 14:48	71-43-2	
Ethylbenzene	**1690**	ug/L	125	125		04/20/11 14:48	100-41-4	
Methyl-tert-butyl ether	**<125**	ug/L	125	125		04/20/11 14:48	1634-04-4	
Toluene	**16300**	ug/L	125	125		04/20/11 14:48	108-88-3	
Xylene (Total)	**11800**	ug/L	375	125		04/20/11 14:48	1330-20-7	
a,a,a-Trifluorotoluene (S)	98	%	80-120	125		04/20/11 14:48	98-08-8	

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ANALYTICAL RESULTS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

Sample: MW-24 **Lab ID: 4044687029** Collected: 04/14/11 14:30 Received: 04/16/11 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8021 GCV Short List	Analytical Method: EPA 8021							
Benzene	**<1.0**	ug/L	1.0	1		04/19/11 22:50	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		04/19/11 22:50	100-41-4	
Methyl-tert-butyl ether	**<1.0**	ug/L	1.0	1		04/19/11 22:50	1634-04-4	
Toluene	**<1.0**	ug/L	1.0	1		04/19/11 22:50	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		04/19/11 22:50	1330-20-7	
a,a,a-Trifluorotoluene (S)	102	%	80-120	1		04/19/11 22:50	98-08-8	

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

QC Batch: GCV/6528 Analysis Method: EPA 8021
QC Batch Method: EPA 8021 Analysis Description: 8021 GCV BTEX
Associated Lab Samples: 4044687001, 4044687002, 4044687003, 4044687004, 4044687005, 4044687006, 4044687007

METHOD BLANK: 438140 Matrix: Water
Associated Lab Samples: 4044687001, 4044687002, 4044687003, 4044687004, 4044687005, 4044687006, 4044687007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	<1.0	1.0	04/18/11 17:02	
Ethylbenzene	ug/L	<1.0	1.0	04/18/11 17:02	
Methyl-tert-butyl ether	ug/L	<1.0	1.0	04/18/11 17:02	
Toluene	ug/L	<1.0	1.0	04/18/11 17:02	
Xylene (Total)	ug/L	<3.0	3.0	04/18/11 17:02	
a,a,a-Trifluorotoluene (S)	%	102	80-120	04/18/11 17:02	

LABORATORY CONTROL SAMPLE & LCSD: 438141 438142

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/L	20	21.9	21.9	109	109	80-120	.1	20	
Ethylbenzene	ug/L	20	20.2	20.4	101	102	80-120	.8	20	
Methyl-tert-butyl ether	ug/L	20	22.3	22.4	111	112	80-120	.4	20	
Toluene	ug/L	20	21.1	21.0	105	105	80-120	.1	20	
Xylene (Total)	ug/L	60	60.2	60.8	100	101	80-120	1	20	
a,a,a-Trifluorotoluene (S)	%				103	101	80-120			

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QUALITY CONTROL DATA

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

QC Batch: GCV/6531 Analysis Method: EPA 8021
QC Batch Method: EPA 8021 Analysis Description: 8021 GCV BTEX

Associated Lab Samples: 4044687008, 4044687009, 4044687010, 4044687011, 4044687012, 4044687013, 4044687014, 4044687015, 4044687016, 4044687017, 4044687018, 4044687019, 4044687020, 4044687021, 4044687022, 4044687023, 4044687024, 4044687025, 4044687026, 4044687027

METHOD BLANK: 438315 Matrix: Water

Associated Lab Samples: 4044687008, 4044687009, 4044687010, 4044687011, 4044687012, 4044687013, 4044687014, 4044687015, 4044687016, 4044687017, 4044687018, 4044687019, 4044687020, 4044687021, 4044687022, 4044687023, 4044687024, 4044687025, 4044687026, 4044687027

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	<1.0	1.0	04/19/11 12:20	
Ethylbenzene	ug/L	<1.0	1.0	04/19/11 12:20	
Methyl-tert-butyl ether	ug/L	<1.0	1.0	04/19/11 12:20	
Toluene	ug/L	<1.0	1.0	04/19/11 12:20	
Xylene (Total)	ug/L	<3.0	3.0	04/19/11 12:20	
a,a,a-Trifluorotoluene (S)	%	98	80-120	04/19/11 12:20	

LABORATORY CONTROL SAMPLE & LCSD: 438316 438317

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/L	20	21.6	21.4	108	107	80-120	.8	20	
Ethylbenzene	ug/L	20	21.0	20.8	105	104	80-120	.8	20	
Methyl-tert-butyl ether	ug/L	20	20.7	20.6	103	103	80-120	.5	20	
Toluene	ug/L	20	21.0	20.9	105	104	80-120	.6	20	
Xylene (Total)	ug/L	60	63.1	62.2	105	104	80-120	1	20	
a,a,a-Trifluorotoluene (S)	%				98	98	80-120			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 438323 438324

Parameter	Units	4044687026 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	1090	100	100	1160	1180	65	85	23-177	2	20	
Ethylbenzene	ug/L	7.0	100	100	108	110	101	103	63-144	1	20	
Methyl-tert-butyl ether	ug/L	7.6	100	100	106	107	98	99	80-120	.9	20	
Toluene	ug/L	19.6	100	100	121	124	102	104	53-164	2	20	
Xylene (Total)	ug/L	36.1	300	300	337	342	100	102	41-166	1	20	
a,a,a-Trifluorotoluene (S)	%						93	93	80-120			

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QUALITY CONTROL DATA

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

QC Batch: GCV/6532
QC Batch Method: EPA 8021
Analysis Method: EPA 8021
Analysis Description: 8021 GCV BTEX
Associated Lab Samples: 4044687028, 4044687029

METHOD BLANK: 438318 Matrix: Water
Associated Lab Samples: 4044687028, 4044687029

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	<1.0	1.0	04/19/11 21:33	
Ethylbenzene	ug/L	<1.0	1.0	04/19/11 21:33	
Methyl-tert-butyl ether	ug/L	<1.0	1.0	04/19/11 21:33	
Toluene	ug/L	<1.0	1.0	04/19/11 21:33	
Xylene (Total)	ug/L	<3.0	3.0	04/19/11 21:33	
a,a,a-Trifluorotoluene (S)	%	103	80-120	04/19/11 21:33	

LABORATORY CONTROL SAMPLE & LCSD: 438319 438320

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	ug/L	20	21.0	20.9	105	104	80-120	.6	20	
Ethylbenzene	ug/L	20	20.8	20.6	104	103	80-120	1	20	
Methyl-tert-butyl ether	ug/L	20	20.5	20.3	102	101	80-120	.9	20	
Toluene	ug/L	20	20.8	20.6	104	103	80-120	1	20	
Xylene (Total)	ug/L	60	61.7	60.9	103	102	80-120	1	20	
a,a,a-Trifluorotoluene (S)	%				103	102	80-120			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 438855 438856

Parameter	Units	4044708004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	509	200	200	743	752	117	122	23-177	1	20	
Ethylbenzene	ug/L	939	200	200	1200	1220	130	142	63-144	2	20	
Methyl-tert-butyl ether	ug/L	<10.0	200	200	208	212	104	106	80-120	2	20	
Toluene	ug/L	19.4	200	200	242	244	111	112	53-164	.6	20	
Xylene (Total)	ug/L	799	600	600	1520	1550	120	124	41-166	2	20	
a,a,a-Trifluorotoluene (S)	%						100	101	80-120			

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QUALIFIERS

Project: 100018 FORMER CLARK #646
Pace Project No.: 4044687

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

BATCH QUALIFIERS

Batch: GCV/6528

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

4044687

This page can be completed online.

Illinois Environmental Protection Agency
Leaking Underground Storage Tank Program
Laboratory Certification for Chemical Analysis

A. Site Identification

IEMA Incident #: 892744, 903199 IEPA LPC# (10-digit): 0971855024

Site Name: Former Clark Retail Station #646

Site Address (Not a P.O. Box): 399 West Liberty Street

City: Wauconda County: Lake ZIP Code: 60084

B. Sample Collector

I certify that:

1. Appropriate sampling equipment/methods were utilized to obtain representative samples. (initial)
2. Chain-of-custody procedures were followed in the field. (initial)
3. Sample integrity was maintained by proper preservation. (initial)
4. All samples were properly labeled. (initial)

C. Laboratory Representative

I certify that:

1. Proper chain-of-custody procedures were followed as documented on the chain-of-custody forms (initial)
2. Sample integrity was maintained by proper preservation. (initial)
3. All samples were properly labeled. (initial)

4044687

This page can be completed online.

4. Quality assurance/quality control procedures were established and carried out. (initial)

5. Sample holding times were not exceeded. (initial)

6. SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analyses. (initial)

7. An accredited lab performed quantitative analysis using test methods identified in 35 IAC 186.180 (for samples collected on or after January 1, 2003). (initial)

D. Signatures

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sample Collector

Name: Randy Wilson

Title: Senior Technician

Company: TriCore Environmental, LLC

Address: 1800 West Hawthorne Lane, Suite P

City, State, ZIP: West Chicago, Illinois 60185

Phone: 630-520-9973

Signature: Randy Wilson

Date: 4-14-11

Laboratory Representative

Name: Laurie Woeffel

Title: Project Manager

Company: Test Analytical

Address: 1241 Bellevue St

City, State, ZIP: Green Bay WI 54311

Phone: 920469 2436

Signature: Laurie Woeffel

Date: 4/26/11

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www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

4044687

Section A — Required Client Information:

Company: TriCore Environmental, LLC	
Address: 1800 W. Hawthorne Lane, Suite P	
West Chicago, Illinois 60185	
Email To: kim.miller@tricoreweb.com	
Phone: 630-520-9973	Fax 630-520-9975
Requested Due Date/TAT: standard	

Section B — Required Project Information:

Report To: Kim T Miller	
Copy To:	
Purchase Order No.: 100018	
Project Name: Former Clark #646	
Project Number: 100018	

Section C — Invoice Information:

Attention: Shawn Rodeck	
Company Name: TriCore Environmental, LLC	
Address: 1800 W. Hawthorne Lane, Suite P	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

JBF

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☑ IL ☒ IN ☐ MI ☐ NC ☐ OH ☐ SC ☐ WI ☐ OTHER_____

Section D — Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes: MATRIX / CODE — DRINKING WATER: DW; WATER: WT; WASTE WATER: WW; PRODUCT: P; SOIL/SOLID: SL; OIL: OL; WIPE: WP; AIR: AR; TISSUE: TS; OTHER: OT

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	Requested Analysis: BTEX/MTBE 8021	Residual Chlorine (Y/N)	Pace Project No. / Lab I.D.
1	MW-6 001	WT	G			4-14-11	14:40		3				3					N	X	N	3-40mL
2	MW-8S 002	WT	G			4-14-11	15:25		3				3						X		
3	MW-8D 003	WT	G			4-14-11	15:23		3				3						X		
4	MW-9S 004	WT	G			4-14-11	15:30		3				3						X		
5	MW-9D 005	WT	G			4-14-11	15:32		3				3						X		
6	MW-10S 006	WT	G			4-14-11	15:40		3				3						X		
7	MW-10D 007	WT	G			4-14-11	15:43		3				3						X		
8	MW-11S 008	WT	G			4-14-11	15:50		3				3						X		
9	MW-11D 009	WT	G			4-14-11	15:52		3				3						X		
10	MW-12S 010	WT	G			4-14-11	15:50		3				3						X		
11	MW-12D 011	WT	G			4-14-11	15:52		3				3						X		
12	MW-13 012	WT	G			4-14-11	15:59		3				3						X		

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Randy Wilson TriCore	4-15-11	12:24		4/15/11	0004
	4/15/11	1700		4/15/11	
	4/14/11	815		4/15/11	815

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Randy Wilson

SIGNATURE of SAMPLER: Randy Wilson — DATE Signed (MM / DD / YY): 4-14-11

SAMPLE CONDITIONS

	Temp in °C	Received on ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N
		Y/N	Y/N	Y/N
		Y/N	Y/N	Y/N
2		Y/N	Y/N	Y/N
		Y/N	Y/N	Y/N

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

4044687

Section A — Required Client Information:

Company: TriCore Environmental, LLC	
Address: 1800 W. Hawthorne Lane, Suite P	
West Chicago, Illinois 60185	
Email To: kim.miller@tricoreweb.com	
Phone: 630-520-9973	Fax 630-520-9976
Requested Due Date/TAT: standard	

Section B — Required Project Information:

Report To: Kim T Miller	
Copy To:	
Purchase Order No.: 100018	
Project Name: Former Clark #646	
Project Number: 100018	

Section C — Invoice Information:

Attention: Shawn Rodeck	
Company Name: TriCore Environmental, LLC	
Address: 1800 W. Hawthorne Lane, Suite P	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☑ IL ☐ IN ☐ MI ☐ NC ☐ OH ☐ SC ☐ WI ☐ OTHER_____

Section D — Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes: MATRIX / CODE — DRINKING WATER / DW; WATER / WT; WASTE WATER / WW; PRODUCT / P; SOIL/SOLID / SL; OIL / OL; WIPE / WP; AIR / AR; TISSUE / TS; OTHER / OT

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	Requested Analysis: BTEX/MTBE 8021	Residual Chlorine (Y/N)	Pace Project No. / Lab I.D.
1	MW-14	WT	G			4-14-11	14:50		3				3					N	X	N	3-40mlC
2	MW-18	WT	G			4-14-11	14:30		3				3						X		
3	MW-19	WT	G			4-14-11	14:35		3				3						X		
4	MW-21	WT	G			4-14-11	14:20		3				3						X		
5	MW-22	WT	G			4-14-11	14:15		3				3						X		
6	MW-23	WT	G			4-14-11	15:45		3				3						X		
7	MW-25	WT	G			4-14-11	14:35		3				3						X		
8	MW-17	WT	G			4-14-11	14:25		3				3						X		
9	MW-28	WT	G			4-14-11	15:10		3				3						X		
10	MW-16	WT	G			4-14-11	14:40		3				3						X		
11	MW-2	WT	G						3				3						X		
12	MW-26	WT	G			4-14-11	1450		3				3						X		

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Randy Wilson TriCore	4-15-11	12:24		4/15/11	1224
	4/15/11	1700		4/15/11	
CS Logistics	4/16/11	815		4/16/11	815

SAMPLE CONDITIONS

Temp in °C	Received on Ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
2	(Y)N	(Y)N	(Y)N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Randy Wilson

SIGNATURE of SAMPLER: Randy Wilson — DATE Signed (MM / DD / YY): 4-14-11

Pace Analytical™
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

4044687

Section A — Required Client Information:

Company: TriCore Environmental, LLC	
Address: 1800 W. Hawthorne Lane, Suite P	
West Chicago, Illinois 60185	
Email To: kim.miller@tricoreweb.com	
Phone: 630-520-9973	Fax 630-520-9976
Requested Due Date/TAT: standard	

Section B — Required Project Information:

Report To: Kim T Miller	
Copy To:	
Purchase Order No.: 100018	
Project Name: Former Clark #646	
Project Number: 100018	

Section C — Invoice Information:

Attention: Shawn Rodeck	
Company Name: TriCore Environmental, LLC	
Address: 1800 W. Hawthorne Lane, Suite P	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☑ IL ☒ IN ☐ MI ☐ NC ☐ OH ☐ SC ☐ WI ☐ OTHER_____

Section D — Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis: BTEX/MTBE 8021	Residual Chlorine (Y/N)	Pace Project No. / Lab I.D.
1	MW-27	WT	G			4-14-11			3				3					X	N	
2	MW-15	WT	G			4-14-11	14:45		3				3					X		3-40mL
3	MP-3	WT	G			4-14-11	15:10		3				3					X		
4	MW-4	WT	G						3				3					X		
5	RW-1	WT	G			4-14-11	15:20		3				3					X		
6	MW-32	WT	G			4-14-11	14:58		3				3					X		
7	RW-2	WT	G						3				3					X		
8	MW-29	WT	G						3				3					X		
9	MW-30	WT	G						3				3					X		
10	MW-31	WT	G						3				3					X		
11	RW-9	WT	G						3				3					X		
12	RW-4	WT	G			4-14-11	15:03		3				3					X		

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Randy Wilson, TriCore	4-15-11	12:24		4/15/11	1224
CP Logistics	4/15/11	1700		4/15/11	
	4/16/11	815		4/16/11	815

SAMPLE CONDITIONS

Temp in °C	Received on Ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N
2	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Randy Wilson

SIGNATURE of SAMPLER: Randy Wilson — DATE Signed (MM / DD / YY): 4-14-11

Pace Analytical™
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

4044687

Section A — Required Client Information:

Company:	TriCore Environmental, LLC
Address:	1800 W. Hawthorne Lane, Suite P
	West Chicago, Illinois 60185
Email To:	kim.miller@tricoreweb.com
Phone: 630-520-9973	Fax 630-520-9976
Requested Due Date/TAT:	standard

Section B — Required Project Information:

Report To:	Kim T Miller
Copy To:	
Purchase Order No.:	100018
Project Name:	Former Clark #646
Project Number:	100018

Section C — Invoice Information:

Attention:	Shawn Rodeck
Company Name:	TriCore Environmental, LLC
Address:	1800 W. Hawthorne Lane, Suite P
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☑ IL ☐ IN ☐ MI ☐ NC ☐ OH ☐ SC ☐ WI ☐ OTHER_____

Section D — Required Client Information

Valid Matrix Codes: MATRIX / CODE — DRINKING WATER / DW; WATER / WT; WASTE WATER / WW; PRODUCT / P; SOIL/SOLID / SL; OIL / OL; WIPE / WP; AIR / AR; TISSUE / TS; OTHER / OT

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE)	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analyses Requested: BTEX/MTBE 8021	Residual Chlorine (Y/N)	Pace Project No. / Lab I.D.
1	~~RW-6~~	~~WT~~	~~G~~						3				3					X	N	120
2	~~RW-6~~	~~WT~~	~~G~~						3				3					X		121
3	~~S-1~~	~~WT~~	~~G~~						3				3					X		122
4	~~S-2~~	~~WT~~	~~G~~						3				3					X		123
5	~~S-3~~	~~WT~~	~~G~~						3				3					X		124
6	~~S-4~~	~~WT~~	~~G~~						3				3					X		125
7	MW-24	WT	G			4-14-11	14:30		3				3					X		3-40mL
8																				
9																				
10																				
11																				
12																				

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Randy Wilson TriCore	4-15-11	12:24		4/15/11	1224
	4/15/11	1710		4/15/11	
	4/16/11	805		4/16/11	805

SAMPLE CONDITIONS

Temp in °C	Received on Ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
2	(Y)N	(Y)N	(Y)N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Randy Wilson

SIGNATURE of SAMPLER: Randy Wilson — DATE Signed (MM/DD/YY): 4/14/11

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Pace Analytical

Sample Condition Upon Receipt

Client Name: Tricore Project # 4044687

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☑ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None Other

Thermometer Used 3B **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature 2° **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp Blank Present: ☑ yes ☐ no

Optional: Proj. Due Date: Proj. Name:

Person examining contents: Date: 4-18-11 Initials: C

Temp should be above freezing to 6°C for all sample except Biota.
Biota Samples should be received ≤ 0°C.

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☑Yes ☐No ☐N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☐No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☐Yes ☑No ☐N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: LW **Date:** 4/18/11

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

APPENDIX D

HYDRAULIC CONDUCTIVITY AND HYDRAULIC GRADIENT EVALUATIONS

Logarithmic Average of Hydraulic Conductivity

MW-4:	1.08×10^{-3} cm/sec	=	2.13×10^{-3} ft/min
MW-6:	6.61×10^{-3} cm/sec	=	1.30×10^{-2} ft/min
MW-14:	8.37×10^{-5} cm/sec	=	1.65×10^{-4} ft/min
MW-16:	2.25×10^{-5} cm/sec	=	4.42×10^{-5} ft/min

$\log_{(\text{average value})}$ = [log (2.13×10^{-3} ft/min) + log (1.30×10^{-2} ft/min) + log (1.65×10^{-4} ft/min) + log (4.42×10^{-5} ft/min)] / 4

$\log_{(\text{average value})}$ = -3.173

Average Value = inv. Log (-3.173) = $10^{-3.268}$ = 6.72×10^{-4} ft/min

$\log_{(\text{average value})}$ = [log (2.13×10^{-3} ft/min) + log (1.30×10^{-2} ft/min] / 4

$\log_{(\text{average value})}$ = -3.173

Average Value (Service Station Area) = inv. Log (-3.173) = $10^{-3.268}$ = 5.37×10^{-3} ft/min

$\log_{(\text{average value})}$ = [log (1.65×10^{-4} ft/min) + log (4.42×10^{-5} ft/min)] / 4

$\log_{(\text{average value})}$ = -3.173

Average Value (Osage Park) = inv. Log (-3.173) = $10^{-3.268}$ = 8.60×10^{-5} ft/min

Average Linear Ground-Water Flow Velocity

Darcy's Law: $v = Q / \eta a = v/\eta = -K\Delta H / \eta \Delta L = Ki/\eta_e$

ΔH = difference in hydraulic head
ΔL = distance between well openings
K = hydraulic conductivity
η = effective porosity (assume 0.20)
i = ($\Delta H / \Delta L$); from 8/27/97 potentiometric surface figure (MW-4 and MW-16)

$v = [6.72 \times 10^{-4}$ ft/min (average of all four wells)] x (5 ft/280 ft) / 0.2

$\bar{v} = 5.21 \times 10^{-5}$ ft/min = **31.74 ft/year (average for entire site)**

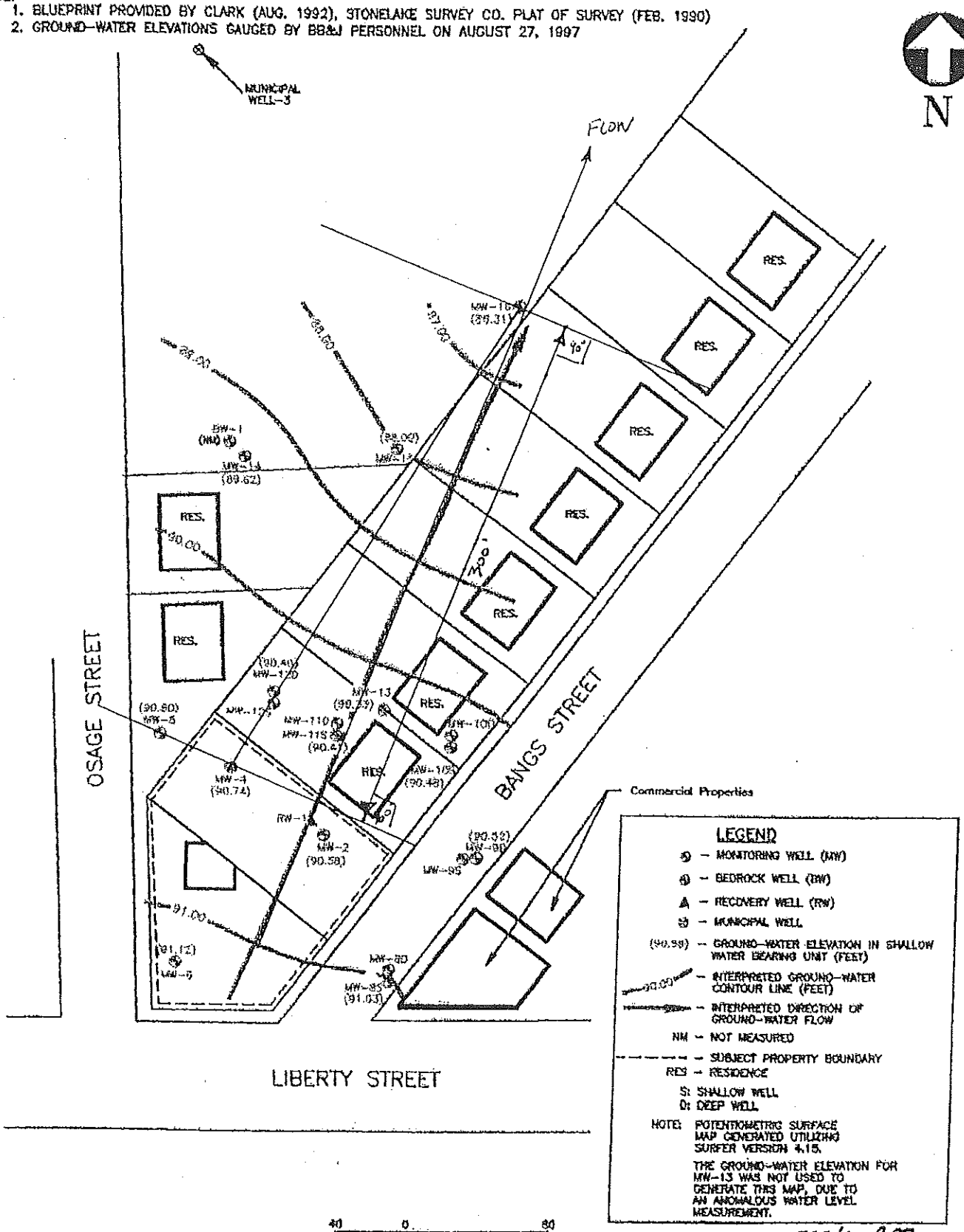
$v = [5.37 \times 10^{-3}$ ft/min (average of wells MW-4 and MW-6)] x (5 ft/280 ft) / 0.2

$\bar{v} = 4.16 \times 10^{-4}$ ft/min = **254.02 ft/year (adjusted average for flow in Service Station Area)**

$v = [8.60 \times 10^{-5}$ ft/min (average of wells MW-14 and MW-16)] x (5 ft/280 ft) / 0.2

$\bar{v} = 6.69 \times 10^{-6}$ ft/min = **4.07 ft/year (adjusted average for Osage Park)**

SOURCE:
1. BLUEPRINT PROVIDED BY CLARK (AUG. 1992), STONELAKE SURVEY CO. PLAT OF SURVEY (FEB. 1990)
2. GROUND-WATER ELEVATIONS GAUGED BY BB&J PERSONNEL ON AUGUST 27, 1997



Prepared/Date: SSS/10-8-97
Checked/Date: SGW/10-8-97

Clark Station No. 646
399 West Liberty Street
Wauconda, Illinois

Bradburne, Briller & Johnson, LLC
208 South LaSalle
Suite 1440
Chicago, IL 60604
(312) 726-8566 FAX (312) 726-8614

Ground-Water
Potentiometric Surface Map
August 27,1997

HYDRAULIC CONDUCTIVITY (BOUWER AND RICE METHOD)

Project No: C01-7-0011
Project Name: Clark Refining & Marketing, Inc.
Location: Station #646

Well No: MW-4
Slug-in/Slug-out: SLUG-OUT
Test Date: 9/24/97
Test By: DPO

Analyzed By: DPO
Analysis Date: 9/24/97

Data Checked By: PGO
Check Date: 10-13-97

Analysis Checked By: _____
Check Date: _____

Variable	Eng. Unit		S.I. Unit		Description
Yo =	0.910	ft	27.7	cm	Drawdown at time "0"
Yt =	0.074	ft	2.3	cm	Drawdown at time "t"
t =	4.00	min	240	sec	Time
SWL =	8.35	ft	254.5	cm	Static water level before slug test
TD =	17.15	ft	522.7	cm	Total depth of well
Le =	8.80	ft	268.2	cm	Length of screen (Le = Lw if SWL is within screen interval)
H =	21.65	ft	659.9	cm	Saturated aquifer thickness
Rw =	0.34	ft	10.4	cm	Radial distance between undisturbed aquifer and well center
Rc =	0.08	ft	2.5	cm	Actual casing inside radius
n =	0.20		0.20		Porosity of sand pack (n = "0" if SWL above screen interval)
Rc.t =	0.17	ft	5.2	cm	Theoretical casing radius (if SWL is within screen interval)
Lw =	8.80	ft	268.2	cm	Total depth of water in well
Le/Rw =	25.9		25.9		Function of dimensionless coefficients
A =	2.3		2.3		Dimensionless coefficient
B =	0.4		0.4		Dimensionless coefficient
C =	1.9		1.9		Dimensionless coefficient

If Lw < H	Ln(Re/Rw) =	2.090	K =	1.08E-03	cm/sec	K = 2.13E-03	ft/min
If Lw = H	Ln(Re/Rw) =	2.438	K =	1.26E-03	cm/sec	K = 2.49E-03	ft/min

HYDRAULIC CONDUCTIVITY = 1.08E-03 cm/sec

COMMENTS:

HYDRAULIC CONDUCTIVITY CALCULATION

Clark Refining & Marketing, Inc.

Station #646

PROJECT NUMBER C01-7-0011

MW-4

SLUG-OUT

BOUWER AND RICE METHOD

(1976, 1989)

VARIABLES

H =	659.9	cm	Saturated Aquifer Thickness
Rc =	2.5	cm	Radius of Well Casing
Rw =	10.4	cm	Radius of Well and Sand Pack
Le =	268.2	cm	Screen Length
Lw =	268.2	cm	Depth of Water to Bottom of Casing
Yo =	27.7	cm	Graph Variable
Yt =	2.3	cm	Graph Variable
t =	240	sec	Graph Variable
A =	2.3		Interpreted Constant
B =	0.4		Interpreted Constant

HYDRAULIC CONDUCTIVITY = 1.08E-03 cm/sec

Assumption: Saturated aquifer thickness measurement for hydraulic conductivity calculation is estimated at 30 feet below ground surface. Data taken from soil boring MW-8.

HYDRAULIC CONDUCTIVITY (BOUWER AND RICE METHOD)

Project No: C01-7-0011
Project Name: Clark Refining & Marketing, Inc.
Location: Station #646

Well No: MW-6
Slug-in/Slug-out: SLUG-OUT
Test Date: 9/24/97
Test By: DPO

Analyzed By: DPO
Analysis Date: 9/24/97

Data Checked By: PCO
Check Date: 11-13-97

Analysis Checked By:
Check Date:

Variable	Eng. Unit		S.I. Unit		Description
Yo =	0.670	ft	20.4	cm	Drawdown at time "0"
Yt =	0.022	ft	0.7	cm	Drawdown at time "t"
t =	1.00	min	60	sec	Time
SWL =	7.52	ft	229.2	cm	Static water level before slug test
TD =	14.68	ft	447.5	cm	Total depth of well
Le =	7.16	ft	218.2	cm	Length of sceen (Le=Lw if SWL is within screen interval)
H =	22.48	ft	685.2	cm	Saturated aquifer thickness
Rw =	0.34	ft	10.4	cm	Radial distance between undisturbed aquifer and well center
Rc =	0.08	ft	2.5	cm	Actual casing inside radius
n =	0.20		0.20		Porosity of sand pack (n = "0" if SWL above screen interval)
Rc.t =	0.17	ft	5.2	cm	Theoretical casing radius (if SWL is within screen interval)
Lw =	7.16	ft	218.2	cm	Total depth of water in well
Le/Rw =	21.1		21.1		Function of dimensionless coefficients
A =	2.2		2.2		Dimensionless coefficient
B =	0.3		0.3		Dimensionless coefficient
C =	1.7		1.7		Dimensionless coefficient

If Lw<H	Ln(Re/Rw) =	1.906	K = 6.61E-03	cm/sec	K = 1.30E-02 ft/min
If Lw=H	Ln(Re/Rw) =	2.267	K = 7.87E-03	cm/sec	K = 1.55E-02 ft/min

HYDRAULIC CONDUCTIVITY = 6.61E-03 cm/sec

COMMENTS:

HYDRAULIC CONDUCTIVITY CALCULATION

Clark Refining & Marketing, Inc.

Station #646

PROJECT NUMBER C01-7-0011

MW-6

SLUG-OUT

BOUWER AND RICE METHOD

(1976, 1989)

VARIABLES

H =	885.2	cm	Saturated Aquifer Thickness
Rc =	2.5	cm	Radius of Well Casing
Rw =	10.4	cm	Radius of Well and Sand Pack
Le =	218.2	cm	Screen Length
Lw =	218.2	cm	Depth of Water to Bottom of Casing
Yo =	20.4	cm	Graph Variable
Yt =	0.7	cm	Graph Variable
t =	60	sec	Graph Variable
A =	2.2		Interpreted Constant
B =	0.3		Interpreted Constant

HYDRAULIC CONDUCTIVITY = 6.61E-03 cm/sec

Assumption: Saturated aquifer thickness measurement for hydraulic conductivity calculation is estimated at 30 feet below ground surface. Data taken from soil boring MW-8.

HYDRAULIC CONDUCTIVITY (BOUWER AND RICE METHOD)

Project No: C01-7-0011
Project Name: Clark Refining & Marketing, Inc.
Location: Station #646

Well No: MW-14
Slug-in/Slug-out: SLUG-OUT
Test Date: 9/24/97
Test By: DPO

Analyzed By: DPO
Analysis Date: 9/24/97

Data Checked By: PLO
Check Date: 11-13-97

Analysis Checked By:
Check Date:

Variable	Eng. Unit		S.I. Unit		Description
Yo =	1.500	ft	45.7	cm	Drawdown at time "0"
Yt =	1.050	ft	32.0	cm	Drawdown at time "t"
t =	3.00	min	180	sec	Time
SWL =	0.53	ft	16.2	cm	Static water level before slug test
TD =	23.24	ft	708.4	cm	Total depth of well
Le =	4.80	ft	146.3	cm	Length of screen (Le=Lw if SWL is within screen interval)
H =	56.00	ft	1706.9	cm	Saturated aquifer thickness
Rw =	0.38	ft	11.4	cm	Radial distance between undisturbed aquifer and well center
Rc =	0.08	ft	2.5	cm	Actual casing inside radius
n =	0.00		0.00		Porosity of sand pack (n = "0" if SWL above screen interval)
Rc.t =	0.08	ft	2.5	cm	Theoretical casing radius (if SWL is within screen interval)
Lw =	22.71	ft	692.2	cm	Total depth of water in well
Le/Rw =	12.8		12.8		Function of dimensionless coefficients
A =	1.9		1.9		Dimensionless coefficient
B =	0.3		0.3		Dimensionless coefficient
C =	1.4		1.4		Dimensionless coefficient

If Lw<H	Ln(Re/Rw) =	1.930	K =	8.37E-05	cm/sec	K = 1.65E-04 ft/min
If Lw=H	Ln(Re/Rw) =	2.665	K =	1.15E-04	cm/sec	K = 2.27E-04 ft/min

HYDRAULIC CONDUCTIVITY = 8.37E-05 cm/sec

COMMENTS:

HYDRAULIC CONDUCTIVITY CALCULATION

Clark Refining & Marketing, Inc.

Station #646

PROJECT NUMBER C01-7-0011

MW-14

SLUG-OUT

BOUWER AND RICE METHOD

(1976, 1989)

VARIABLES

H =	1708.9	cm	Saturated Aquifer Thickness
Rc =	2.5	cm	Radius of Well Casing
Rw =	11.4	cm	Radius of Well and Sand Pack
Le =	146.3	cm	Screen Length
Lw =	692.2	cm	Depth of Water to Bottom of Casing
Yo =	45.7	cm	Graph Variable
Yt =	32.0	cm	Graph Variable
t =	180	sec	Graph Variable
A =	1.9		Interpreted Constant
B =	0.3		Interpreted Constant

HYDRAULIC CONDUCTIVITY = 8.37E-05 cm/sec

Assumption: Saturated aquifer thickness measurement for hydraulic conductivity calculation is estimated at 33 feet below ground surface. Data taken from well log for Osage Park monitoring well, Wauconda, IL.

HYDRAULIC CONDUCTIVITY (BOUWER AND RICE METHOD)

Project No: C01-7-0011
Project Name: Clark Refining & Marketing, Inc.
Location: Station #646

Well No: MW-16
Slug-In/Slug-out: SLUG-OUT
Test Date: 9/24/97
Test By: DPO

Analyzed By: DPO
Analysis Date: 9/24/97

Data Checked By: DPO
Check Date: 11-13-97

Analysis Checked By:
Check Date:

Variable	Eng. Unit		S.I. Unit		Description
Yo =	1.200	ft	36.6	cm	Drawdown at time "0"
Yt =	0.600	ft	18.3	cm	Drawdown at time "t"
t =	22.00	min	1320	sec	Time
SWL =	5.86	ft	178.6	cm	Static water level before slug test
TD =	22.86	ft	696.8	cm	Total depth of well
Le =	4.80	ft	146.3	cm	Length of screen (Le = Lw if SWL is within screen interval)
H =	27.14	ft	827.2	cm	Saturated aquifer thickness
Rw =	0.38	ft	11.4	cm	Radial distance between undisturbed aquifer and well center
Rc =	0.08	ft	2.5	cm	Actual casing inside radius
n =	0.00		0.00		Porosity of sand pack (n = "0" if SWL above screen interval)
Rc.t =	0.08	ft	2.5	cm	Theoretical casing radius (if SWL is within screen interval)
Lw =	17.00	ft	518.2	cm	Total depth of water in well
Le/Rw =	12.8		12.8		Function of dimensionless coefficients
A =	1.9		1.9		Dimensionless coefficient
B =	0.3		0.3		Dimensionless coefficient
C =	1.4		1.4		Dimensionless coefficient

If Lw<H	Ln(Re/Rw) =	1.955	K =	2.25E-05	cm/sec	K = 4.42E-05 ft/min
If Lw=H	Ln(Re/Rw) =	2.528	K =	2.90E-05	cm/sec	K = 5.71E-05 ft/min

HYDRAULIC CONDUCTIVITY = 2.25E-05 cm/sec

COMMENTS:

HYDRAULIC CONDUCTIVITY CALCULATION

Clark Refining & Marketing, Inc.

Station #646

PROJECT NUMBER C01-7-0011

MW-16

SLUG-OUT

BOUWER AND RICE METHOD

(1976, 1989)

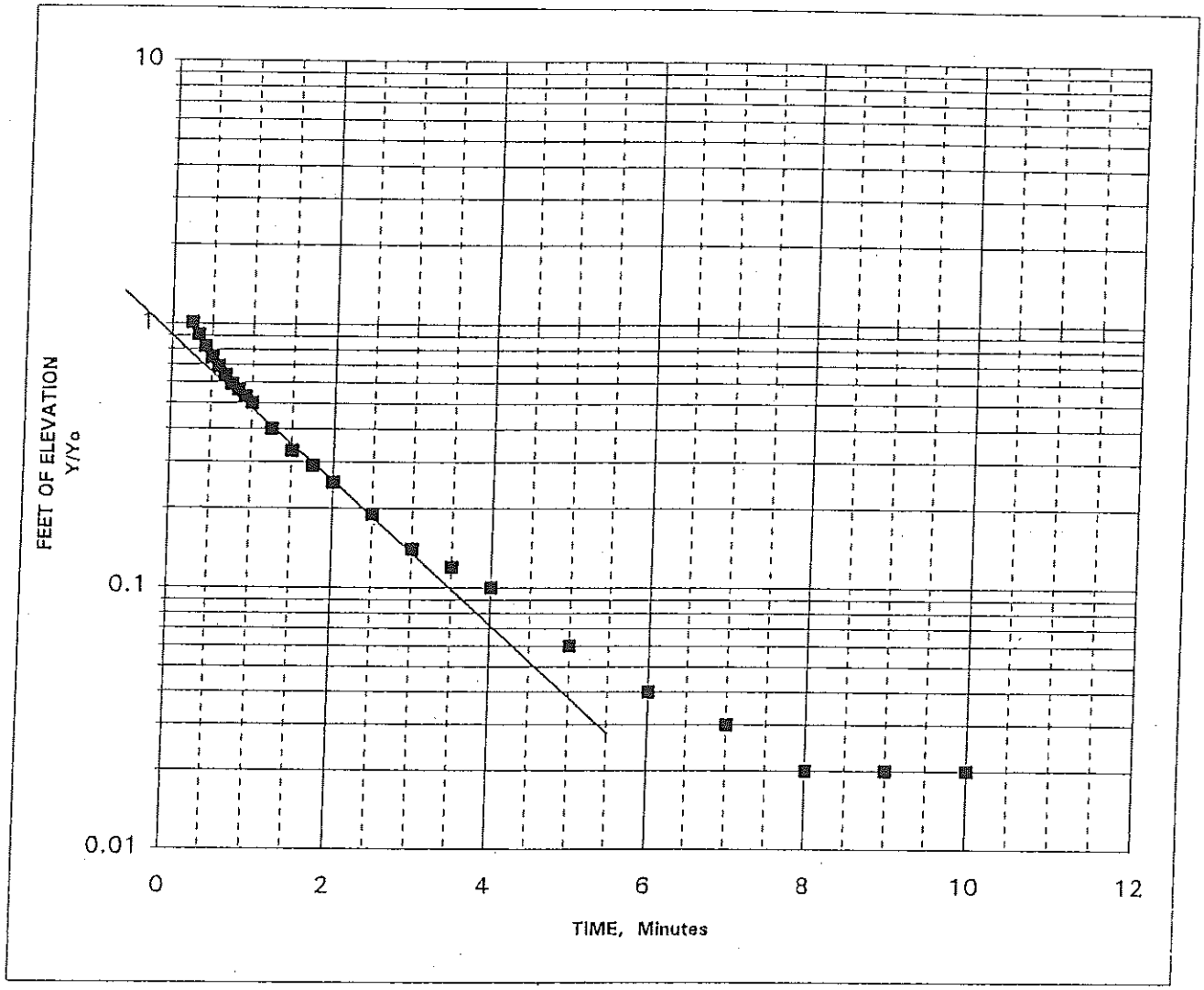
VARIABLES

H =	827.2	cm	Saturated Aquifer Thickness
Rc =	2.5	cm	Radius of Well Casing
Rw =	11.4	cm	Radius of Well and Sand Pack
La =	146.3	cm	Screen Length
Lw =	518.2	cm	Depth of Water to Bottom of Casing
Yo =	36.6	cm	Graph Variable
Yt =	18.3	cm	Graph Variable
t =	1320	sec	Graph Variable
A =	1.9		Interpreted Constant
B =	0.3		Interpreted Constant

HYDRAULIC CONDUCTIVITY = 2.25E-05 cm/sec

Assumption: Saturated aquifer thickness measurement for hydraulic conductivity calculation is estimated at 33 feet below ground surface. Data taken from well log for Osage Park monitoring well, Wauconda, IL.

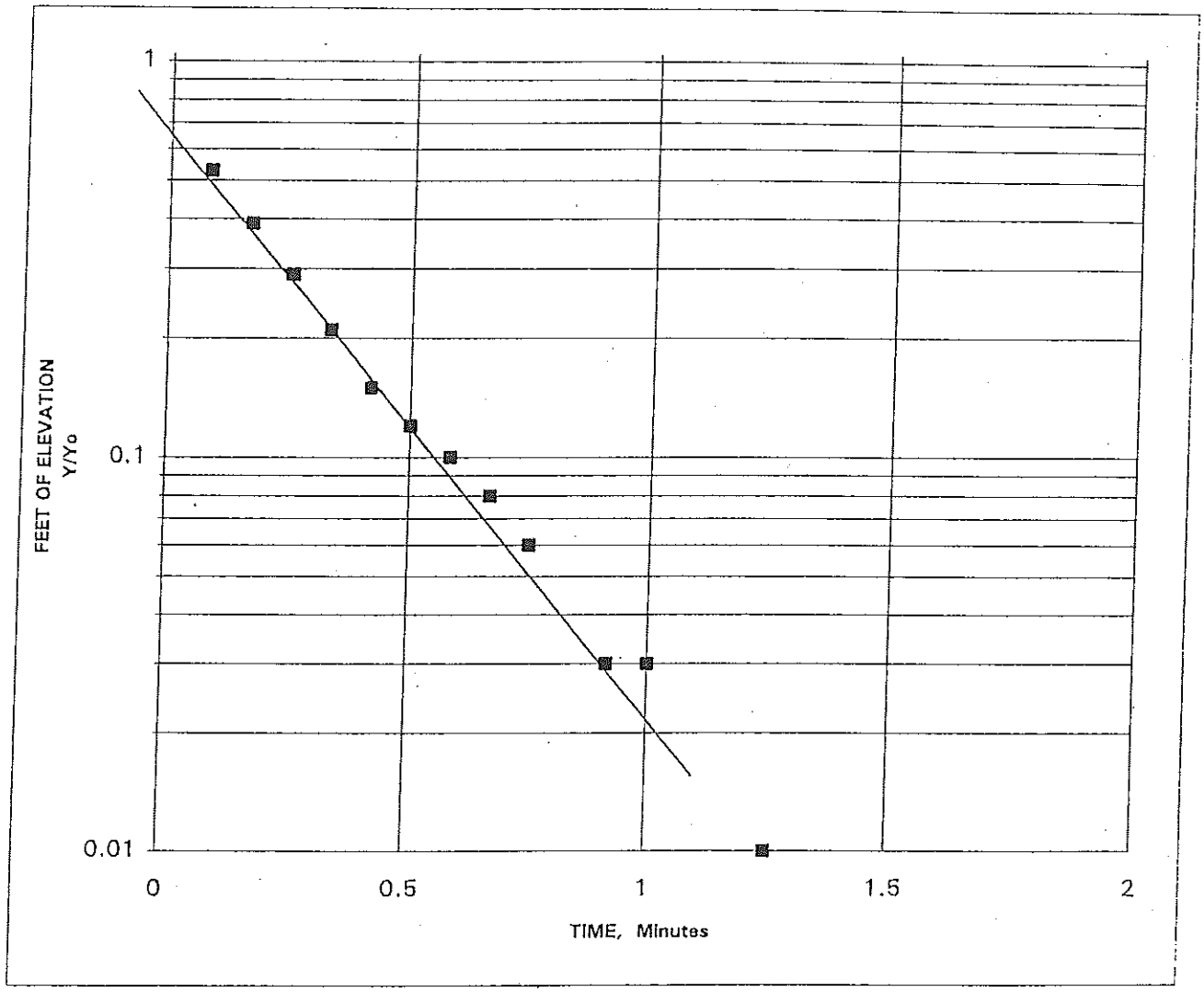
Figure 4: SLUG TEST DATA
Well MW-4
Slug Out



Time	Y
0	0.91
4	0.074

Prepared/Date:____/_____
Checked/Date:____/_____

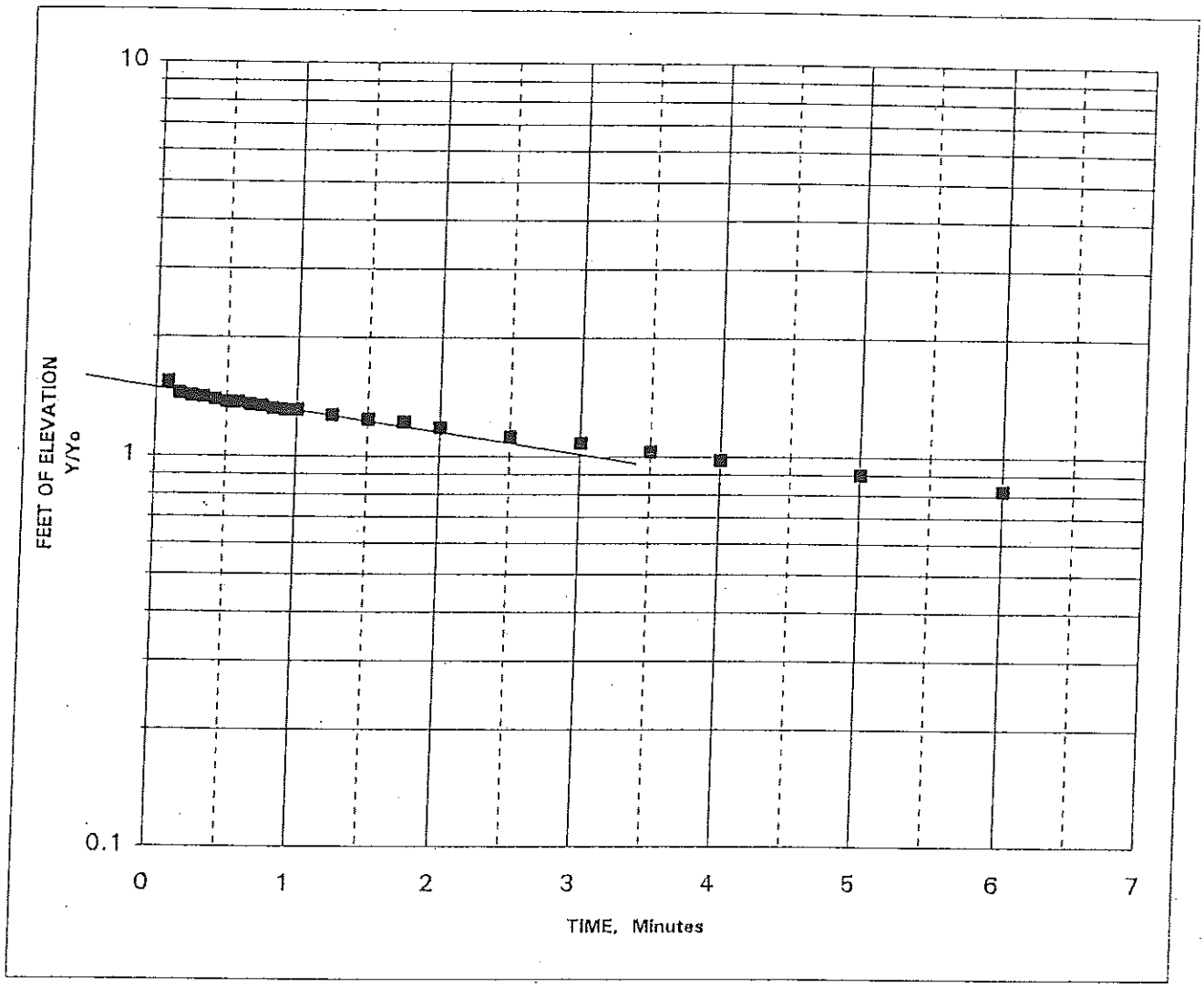
Figure 4: SLUG TEST DATA
Well MW-6
Slug Out



Time	Y
0	0.67
1	0.022

Prepared/Date:____/_____
Checked/Date:____/_____

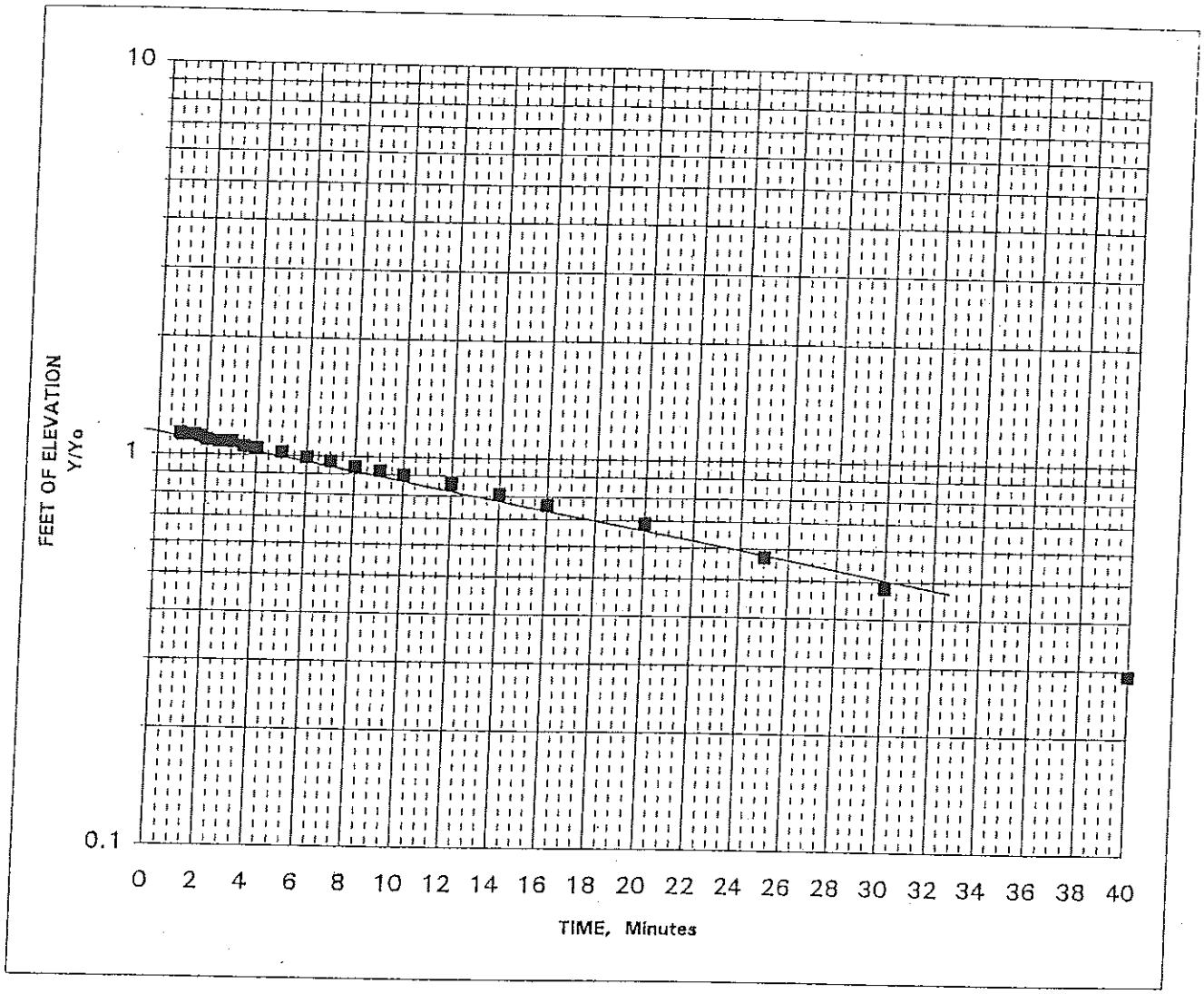
Figure 4: SLUG TEST DATA
Well MW-14
Slug Out



Time	Y
0	1.5
3	1.05

Prepared/Date: ____/_____
Checked/Date: ____/_____

Figure 4: SLUG TEST DATA
Well MW-16
Slug Out



Time	Y
0	1.2
22	0.6

Prepared/Date:____/_____
Checked/Date:____/_____

HYDRAULIC GRADIENT CALCULATION

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, McHenry, Illinois

Gauging Date: April 14, 2011
Wells Used: MW-6, MW-25, MW-26

The value for the hydraulic gradient was solved using site-specific groundwater elevation data and the distances between the wells selected.

Equation #1:

$$\left[\frac{(h_1 - h_2)}{(h_1 - h_3)}\right] = \left[\frac{x}{b}\right]$$

Where:

h_1	=	highest head selected (MW-6) (Table 3)	103.90	feet
h_2	=	intermediate head selected (MW-26) (Table 3)	103.86	feet
h_3	=	lowest head selected (MW-25) (Table 3)	103.64	feet
b	=	distance from h_3 to h_1 (Figure 1)	48.00	feet
x	=	distance from h_1, along b, at which the total head is h_2 (solved by Equation #1)	7.38	feet

Equation #2:

$$d = b - x$$

Where:

b	=	distance from h_3 to h_1 (Figure 1)	48.00	feet
x	=	distance from h_1, along b, at which the total head is h_2 (solved by Equation #1)	7.38	feet
d	=	distance from h_3, along b, at which the total head is h_2 (solved by Equation #2)	40.62	feet

The hydraulic gradient is then calculated using the following equation. Please see the attached sheets for the additional calculations required to calculate l.

Equation #3:

$$i = \left[\frac{(h_2 - h_3)}{l}\right]$$

Where:

l	=	distance from h_3 that is perpendicular to the equipotential line that is equal to h_2 (solved by Equation #7)	27.38	feet
i	=	hydraulic gradient (solved by Equation #3)	0.0080	feet/feet

ADDITIONAL CALCULATIONS REQUIRED TO CALCULATE THE HYDRAULIC GRADIENT

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, McHenry, Illinois

Wells Used: MW-6, MW-25, MW-26

By utilizing the Law of Cosines and the Law of Sines, l, the distance from h_3 that is perpendicular to the equipotential line that is equal to h_2, can be calculated.

Equation #4 (Law of Cosines): $$c^2 = a^2 + b^2 - 2ab\ (\cos\ C)$$

Equation #4 (Law of Cosines Revised): $$\cos\ C = \frac{a^2 + b^2 - c^2}{2ab}$$

Where:

a	=	distance from h_2 to h_3 (Figure 1)	102.00	feet
b	=	distance from h_1 to h_3 (Figure 1)	48.00	feet
c	=	distance from h_1 to h_2 (Figure 1)	63.00	feet
C	=	angle between h_2, h_3, and h_1 (solved by Equation #4)	26.82	degrees

By substituting d for b, the distance between h_2 and d can be calculated.

$$c_2{}^2 = a^2 + d^2 - 2ad\ (\cos\ C)$$

Equation #5 (Law of Cosines):

Where:

a	=	distance from h_2 to h_3 (Figure 1)	102.00	feet
d	=	distance from h_3, along b, at which the total head is equal to h_2 (solved by Equation #2)	40.62	feet
C	=	angle between h_2, h_3, and h_1 (solved by Equation #4)	26.82	degrees
c_2	=	distance from h_2 to d (solved by Equation #5), this is also the equipotential line equal to h_2	68.26	feet

ADDITIONAL CALCULATIONS REQUIRED TO CALCULATE THE HYDRAULIC GRADIENT

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, McHenry, Illinois

Wells Used: MW-6, MW-25, MW-26

By using Equation #5 above, the a

$$\cos A_2 = \frac{d^2 + c_2{}^2 - a^2}{2dc_2}$$

Equation #6 (Law of Cosines):

Where:

a	=	distance from h_2 to h_3 (Figure 1)	102.00	feet
d	=	distance from h_3, along b, at which the total head is equal to h_2 (solved by Equation #2)	40.62	feet
c_2	=	distance from h_2 to d (solved by Equation #5), this is also the equipotential line equal to h_2	68.26	feet
A_2	=	angle between h_2, d, and h_3 (solved by Equation #6)	137.61	degrees

By utilizing the Law of Sines, l c $\sin A_2 = l / d$ zed in Equation #3 to calculate the hydraulic gradient.

Equation #7 (Law of Sines): $l = \sin A_2 \bullet d$

Equation #7 (Law of Sines Revised):

Where:

d	=	distance from h_3, along b, at which the total head is equal to h_2 (solved by Equation #2)	40.62	feet
A_2	=	angle between h_2, d, and h_3 (solved by Equation #6)	137.61	degrees
l	=	distance from h_3 that is perpendicular to the equipotential line c_2 (solved by Equation #7)	27.38	feet

HYDRAULIC GRADIENT CALCULATION

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, McHenry, Illinois

Gauging Date: April 14, 2011
Wells Used: MW-12S, MW-13, MW-23

The value for the hydraulic gradient was solved using site-specific groundwater elevation data and the distances between the wells selected.

Equation #1:

$$\left[\frac{(h_1 - h_2)}{(h_1 - h_3)}\right] = \left[\frac{x}{b}\right]$$

Where:

h_1	=	highest head selected (MW-12S) (Table 3)	103.12	feet
h_2	=	intermediate head selected (MW-13) (Table 3)	102.94	feet
h_3	=	lowest head selected (MW-23) (Table 3)	98.06	feet
b	=	distance from h_3 to h_1 (Figure 1)	72.00	feet
x	=	distance from h_1, along b, at which the total head is h_2 *(solved by Equation #1)*	2.56	feet

Equation #2:

$$d = b - x$$

Where:

b	=	distance from h_3 to h_1 (Figure 1)	48.00	feet
x	=	distance from h_1, along b, at which the total head is h_2 *(solved by Equation #1)*	2.56	feet
d	=	distance from h_3, along b, at which the total head is h_2 *(solved by Equation #2)*	45.44	feet

The hydraulic gradient is then calculated using the following equation. Please see the attached sheets for the additional calculations required to calculate l.

Equation #3:

$$i = \left[\frac{(h_2 - h_3)}{l}\right]$$

Where:

l	=	distance from h_3 that is perpendicular to the equipotential line that is equal to h_2 (solved by Equation #7)	44.65	feet
i	=	hydraulic gradient (solved by Equation #3)	0.1093	feet/feet

ADDITIONAL CALCULATIONS REQUIRED TO CALCULATE THE HYDRAULIC GRADIENT

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, McHenry, Illinois

Wells Used: MW-12S, MW-13, MW-23

By utilizing the Law of Cosines and the Law of Sines, l, the distance from h_3 that is perpendicular to the equipotential line that is equal to h_2, can be calculated.

Equation #4 (Law of Cosines): $$c^2 = a^2 + b^2 - 2ab\ (\cos\ C)$$

Equation #4 (Law of Cosines Revised): $$\cos\ C = \frac{a^2 + b^2 - c^2}{2ab}$$

Where:

a	=	distance from h_2 to h_3 (Figure 1)	79.00	feet
b	=	distance from h_1 to h_3 (Figure 1)	72.00	feet
c	=	distance from h_1 to h_2 (Figure 1)	58.00	feet
C	=	angle between h_2, h_3, and h_1 (solved by Equation #4)	44.88	degrees

By substituting d for b, the distance between h_2 and d can be calculated.

Equation #5 (Law of Cosines): $$c_2^2 = a^2 + d^2 - 2ad\ (\cos\ C)$$

Where:

a	=	distance from h_2 to h_3 (Figure 1)	79.00	feet
d	=	distance from h_3, along b, at which the total head is equal to h_2 (solved by Equation #2)	45.44	feet
C	=	angle between h_2, h_3, and h_1 (solved by Equation #4)	44.88	degrees
c_2	=	distance from h_2 to d (solved by Equation #5), this is also the equipotential line equal to h_2	56.73	feet

ADDITIONAL CALCULATIONS REQUIRED TO CALCULATE THE HYDRAULIC GRADIENT

Shivam Energy, Inc.
399 West Liberty Street
Wauconda, McHenry, Illinois

Wells Used: MW-12S, MW-13, MW-23

By using Equation #5 above, the angle between h_2, d, and h_3 can be calculated.

Equation #6 (Law of Cosines): $$\cos A_2 = \frac{d^2 + c_2^2 - a^2}{2dc_2}$$

Where:

a	=	distance from h_2 to h_3 (Figure 1)	79.00	feet
d	=	distance from h_3, along b, at which the total head is equal to h_2 (solved by Equation #2)	45.44	feet
c_2	=	distance from h_2 to d (solved by Equation #5), this is also the equipotential line equal to h_2	56.73	feet
A_2	=	angle between h_2, d, and h_3 (solved by Equation #6)	100.71	degrees

By utilizing the Law of Sines, l can be calculated and utilized in Equation #3 to calculate the hydraulic gradient.

Equation #7 (Law of Sines): $$\sin A_2 = l / d$$

Equation #7 (Law of Sines Revised): $$l = \sin A_2 \bullet d$$

Where:

d	=	distance from h_3, along b, at which the total head is equal to h_2 (solved by Equation #2)	45.44	feet
A_2	=	angle between h_2, d, and h_3 (solved by Equation #6)	100.71	degrees
l	=	distance from h_3 that is perpendicular to the equipotential line c_2 (solved by Equation #7)	44.65	feet

APPENDIX E

BUDGET FORMS SHOWING ACTUAL STAGE 3 COSTS

General Information for the Budget and Billing Forms

LPC #: 0971855024 County: Lake

City: Wauconda Site Name: Shivam Energy, Inc.

Site Address: 399 West Liberty Street

IEMA Incident No.: 892744 903199

IEMA Notification Date: Dec 27, 1989 Oct 30, 1990

Date this form was prepared: 09/21/2011

This form is being submitted as a (check one, if applicable):

- ☒ Budget Proposal
- ☐ Budget Amendment (Budget amendments must include only the costs over the previous budget.)
- ☐ Billing Package

Please provide the name(s) and date(s) of report(s) documenting the costs requested:

Name(s): Stage 2/3 Plan SICR

Date(s): 04/20/2009 09/21/2011

This package is being submitted for the site activities indicated below:

35 Ill. Adm. Code 734:

- ☐ Early Action
- ☐ Free Product Removal after Early Action
- ☒ Site Investigation . . . . . Stage 1: ☐ Actual Costs Stage 2: ☒ Actual Stage 3: ☒ Actual
- ☐ Corrective Action

35 Ill. Adm. Code 732:

- ☐ Early Action
- ☐ Free Product Removal after Early Action
- ☐ Site Classification
- ☐ Low Priority Corrective Action
- ☐ High Priority Corrective Action

35 Ill. Adm. Code 731:

- ☐ Site Investigation
- ☐ Corrective Action

General Information for the Budget and Billing Forms

The following address will be used as the mailing address for checks and any final determination letters regarding payment from the Fund.

Pay to the order of: Shivam Energy, Inc.

Send in care of: Mr. Shawn Rodeck

Address: P.O. Box 825

City: Warrenville State: Illinois Zip: 60555-0825

The payee is the: Owner ☒ Operator ☒ (Check one or both.)

Rajani Patel

Signature of the owner or operator of the UST(s) (required)

If you have a change of address, click here to print off a W-9 Form.

Number of petroleum USTs in Illinois presently owned or operated by the owner or operator; any subsidiary, parent or joint stock company of the owner or operator; and any company owned by any parent, subsidiary or joint stock company of the owner or operator:

Fewer than 101: ☒ 101 or more: ☐

Number of USTs at the site: 4 (Number of USTs includes USTs presently at the site and USTs that have been removed.)

Number of incidents reported to IEMA for this site: 3

Incident Numbers assigned to the site due to releases from USTs: 892744 903199

Please list all tanks that have ever been located at the site and tanks that are presently located at the site.

Product Stored in UST	Size (gallons)	Did UST have a release?	Incident No.	Type of Release Tank Leak / Overfill / Piping Leak
Gasoline	6,000	Yes ☒ No ☐	892744	Tank Leak
(same UST as above)	6,000	Yes ☒ No ☐	903199	Tank Leak
Gasoline	6,000	Yes ☒ No ☐	892744	Tank Leak
(same UST as above)	6,000	Yes ☒ No ☐	903199	Tank Leak
Gasoline	10,000	Yes ☐ No ☒	NA	
Gasoline	10,000	Yes ☐ No ☒	NA	
		Yes ☐ No ☐		
		Yes ☐ No ☐		
		Yes ☐ No ☐		

Add More Rows | Undo Last Add

Budget Summary

Choose the applicable regulation: (•) 734 ( ) 732

734	Free Product	Stage 1 Site Investigation	Stage 2 Site Investigation	Stage 3 Site Investigation	Corrective Action
				Actual	
Drilling and Monitoring Well Costs Form	$	$	$	$ 3,060.72	$
Analytical Costs Form	$	$	$	$ 630.75	$
Remediation and Disposal Costs Form	$	$	$	$ 572.95	$
UST Removal and Abandonment Costs Form	$	$	$	$	$
Paving, Demolition, and Well Abandonment Costs Form	$	$	$	$	$
Consulting Personnel Costs Form	$	$	$	$ 17,606.64	$
Consultant's Materials Costs Form	$	$	$	$ 1,870.09	$
Handling Charges Form	Handling charges will be determined at the time a billing package is submitted to the Illinois EPA. The amount of allowable handling charges will be determined in accordance with the Handling Charges Form.				
Total	$	$	$	$ 23,741.15	$

Drilling and Monitoring Well Costs Form

1. Drilling

Number of Borings to Be Drilled	Type HSA/PUSH/ Injection	Depth (feet) of Each Boring	Total Feet Drilled	Reason for Drilling
3	PUSH	12.00	36.00	Soil Borings (SB-64, SB-66, SB-67)
5	PUSH	16.00	80.00	Soil Borings (SB-58 through SB-60, SB-62, SB-65, and SB-68)
2	PUSH	20.00	40.00	Soil Borings (SB-61, SB-63)

☐ Subpart H minimum payment amount applies.

	Total Feet	Rate per Foot ($)	Total Cost ($)
Total Feet via HSA:			
Total Feet via PUSH:	156.00	19.62	3,060.72
Total Feet for Injection via PUSH:			
		Total Drilling Costs:	3,060.72

2. Monitoring / Recovery Wells

Number of Wells	Type of Well HSA / PUSH / 4" or 6" Recovery / 8" Recovery	Diameter of Well (inches)	Depth of Well (feet)	Total Feet of Wells to Be Installed ($)

Well Installation	Total Feet	Rate per Foot ($)	Total Cost ($)
Total Feet via HSA:			
Total Feet via PUSH:			
Total Feet of 4" or 6" Recovery:			
Total Feet of 8" or Greater Recovery:			
		Total Well Costs:	

Total Drilling and Monitoring Well Costs:	$3,060.72

Analytical Costs Form

Laboratory Analysis	Number of Samples		Cost ($) per Analysis		Total per Parameter
Chemical Analysis					
BETX Soil with MTBE EPA 8260	10	X	35.00	=	$350.00
BETX Water with MTBE EPA 8260		X		=	
COD (Chemical Oxygen Demand)		X		=	
Corrosivity		X		=	
Flash Point or Ignitability Analysis EPA 1010	1	X	37.81	=	$37.81
Fraction Organic Carbon Content (f_{oc}) ASTM-D 2974-00		X		=	
Fat, Oil, & Grease (FOG)		X		=	
LUST Pollutants Soil - analysis must include volatile, base/ neutral, polynuclear aromatics and metals list in Section 732. Appendix B and 734.Appendix B		X		=	
Dissolved Oxygen (DO)		X		=	
Paint Filter (Free Liquids)	1	X	16.04	=	$16.04
PCB / Pesticides (combination)		X		=	
PCBs		X		=	
Pesticides		X		=	
pH	1	X	16.04	=	$16.04
Phenol		X		=	
Polynuclear Aromatics PNA, or PAH SOIL EPA 8270		X		=	
Polynuclear Aromatics PNA, or PAH WATER EPA 8270		X		=	
Reactivity		X		=	
SVOC - Soil (Semi-Volatile Organic Compounds)		X		=	
SVOC - Water (Semi-Volatile Organic Compounds)		X		=	
TKN (Total Kjeldahl) "nitrogen"		X		=	
TPH (Total Petroleum Hydrocarbons)		X		=	
VOC (Volatile Organic Compounds) - Soil (Non-Aqueous)		X		=	
VOC (Volatile Organic Compounds) - Water		X		=	
		X		=	
		X		=	
		X		=	
		X		=	
		X		=	
Geo-Technical Analysis					
Soil Bulk Density (p_b) ASTM D2937-94		X		=	
Ex-situ Hydraulic Conductivity / Permeability		X		=	
Moisture Content (w) ASTM D2216-92 / D4643-93		X		=	
Porosity		X		=	
Rock Hydraulic Conductivity Ex-situ		X		=	
Sieve / Particle Size Analysis ASTM D422-63 / D1140-54		X		=	
Soil Classification ASTM D2488-90 / D2487-90		X		=	
Soil Particle Density (p_s) ASTM D854-92		X		=	
		X		=	
		X		=	
		X		=	

Analytical Costs Form

Metals Analysis					
Soil preparation fee for Metals TCLP Soil (one fee per soil sample)	1	X	90.53	=	$90.53
Soil preparation fee for Metals Total Soil (one fee per soil sample)		X		=	
Water preparation fee for Metals Water (one fee per water sample)		X		=	
Arsenic TCLP Soil		X		=	
Arsenic Total Soil		X		=	
Arsenic Water		X		=	
Barium TCLP Soil		X		=	
Barium Total Soil		X		=	
Barium Water		X		=	
Cadmium TCLP Soil		X		=	
Cadmium Total Soil		X		=	
Cadmium Water		X		=	
Chromium TCLP Soil		X		=	
Chromium Total Soil		X		=	
Chromium Water		X		=	
Cyanide TCLP Soil		X		=	
Cyanide Total Soil		X		=	
Cyanide Water		X		=	
Iron TCLP Soil		X		=	
Iron Total Soil		X		=	
Iron Water		X		=	
Lead TCLP Soil	1	X	18.33	=	$18.33
Lead Total Soil		X		=	
Lead Water		X		=	
Mercury TCLP Soil		X		=	
Mercury Total Soil		X		=	
Mercury Water		X		=	
Selenium TCLP Soil		X		=	
Selenium Total Soil		X		=	
Selenium Water		X		=	
Silver TCLP Soil		X		=	
Silver Total Soil		X		=	
Silver Water		X		=	
Metals TCLP Soil (a combination of all metals) RCRA		X		=	
Metals Total Soil (a combination of all metals) RCRA		X		=	
Metals Water (a combination of all metals) RCRA		X		=	
		X		=	
		X		=	
Ice	1	X	2.00	=	$2.00
		X		=	
Other					
EnCore® Sampler, purge-and-trap sampler, or equivalent sampling device	10	X	10.00	=	$100.00
Sample Shipping per sampling event[1]		X		=	

[1]A sampling event, at a minimum, is all samples (soil and groundwater) collected in a calendar day.

Total Analytical Costs: $ 630.75

Remediation and Disposal Costs Form

A. Conventional Technology

Excavation, Transportation, and Disposal of contaminated soil and/or the 4-foot backfill material removal during early action activities:

Number of Cubic Yards	Cost per Cubic Yard ($)	Total Cost

Backfilling the Excavation:

Number of Cubic Yards	Cost per Cubic Yard ($)	Total Cost

Overburden Removal and Return:

Number of Cubic Yards	Cost per Cubic Yard ($)	Total Cost

B. Alternative Technology

Alternative Technology Selected:	
Number of Cubic Yards of Soil to Be Remediated	
Total Non-Consulting Personnel Costs Summary Sheet ($)	
Total Remediation Materials Costs Summary Sheet ($)	
Total Cost of the System	

Remediation and Disposal Costs Form

C. Groundwater Remediation and/or Free Product Removal System

Total Non-Consulting Personnel Costs Summary Sheet ($)	
Total Remediation Materials Costs Summary Sheet ($)	
Total Cost of the System	

D. Groundwater and/or Free Product Removal and Disposal

☐ Subpart H minimum payment amount applies.

Number of Gallons	Cost per Gallon ($)	Total Cost ($)

E. Drum Disposal

☒ Subpart H minimum payment amount applies.

Number of Drums of Solid Waste	Cost per Drum ($)	Total Cost ($)
1	286.48	286.48
Number of Drums of Liquid Waste	**Cost per Drum ($)**	**Total Cost ($)**
1	171.89	171.89
Total Drum Disposal Costs		572.95 *

* adjusted to reflect Subpart H minimum payment amount

Total Remediation and Disposal Costs:	$572.95

Consulting Personnel Costs Form

Employee Name	Personnel Title	Hours	Rate* ($)	Total Cost
Remediation Category	**Task**			
Marcos Czako	Project Manager	43.00	98.14	$4,220.02
Stage 3-Plan	Stage 2/3 Plan Prep, Off-site access, Project Management			
Shawn Rodeck	Senior Project Manager	6.75	109.05	$736.09
Stage 2-Plan	S2/3 Plan Prep			
Shawn Rodeck	Senior Prof. Engineer	2.00	141.76	$283.52
Stage 2-Plan	S2/3 plan review and certification			
Marcos Czako	Senior Acct. Technician	1.50	59.98	$89.97
Stage 2-Pay	Reimbursement prep			
Kimberly Henkel	Senior Admin. Assistant	2.50	47.64	$119.10
Stage 2-Plan	Copying and mailing of S2/3 plan documents			
Patrick Worrall	Geologist III	.25	95.96	$23.99
Stage 2-Plan	S2/3 plan prep			
Marcos Czako	Project Manager	2.25	100.11	$225.25
Stage 3-Plan	Off-site access			
Shawn Rodeck	Senior Project Manager	1.25	111.23	$139.04
Stage 3-Plan	Off-site access			
Environmental Graphics	Senior Draftperson/CAD	9.50	50.00	$475.00
Stage 2-Plan	Drafting of site maps			

Employee Name	Personnel Title	Hours	Rate* ($)	Total Cost
Remediation Category	**Task**			
Kimberly Henkel	Senior Admin. Assistant	1.75	50.05	$87.59
Stage 3-Plan	Off-site access			
Kimberly Henkel	Senior Acct. Technician	.50	61.18	$30.59
Stage 2-Pay	Reimbursement prep			
Shawn Rodeck	Senior Project Manager	1.25	113.46	$141.82
Stage 3-Plan	Off-site access			
Patrick Worrall	Geologist III	6.50	99.84	$648.96
Stage 3-Plan	Project management, off-site access			
Kimberly Henkel	Senior Acct. Technician	.50	62.40	$31.20
Stage 2-Pay	Actual Budget/Reimbursement prep			
Kim Miller	Senior Project Manager	7.25	113.46	$822.59
Stage 3-Plan	Project management			
Patrick Worrall	Geologist III	14.50	99.84	$1,447.63
Stage 3-Field	Field prep, installation of soil borings, collected soil samples			
Patrick Worrall	Senior Acct. Technician	.50	62.40	$31.20
Stage 3-Pay	Reimbursement prep			
Kim Miller	Engineer III	2.75	113.46	$312.01
SICR	SI completion report prep			

Employee Name	Personnel Title	Hours	Rate* ($)	Total Cost
Remediation Category	**Task**			
Shawn Rodeck	Senior Prof. Engineer	.75	147.49	$110.62
SICR	SICR Review			
Kim Miller	Engineer III	39.00	114.59	$4,469.01
SICR	SICR Preparation			
Patrick Worrall	Geologist III	3.00	100.84	$302.52
SICR	Boring Log Preparation, Off-Site Access			
Kimberly Henkel	Senior Acct. Technician	12.00	63.02	$756.24
Stage 3-Pay	Reimbursement Package and Actual Costs Budget Prep			
Shawn Rodeck	Senior Prof. Engineer	5.00	148.97	$744.85
SICR	SICR & Actual Costs Budget Review and Certification			
Shawn Rodeck	Senior Prof. Engineer	2.00	148.97	$297.94
Stage 3-Pay	Reimbursement Package Review			
Randy Wilson	Senior Technician	5.00	74.48	$372.40
Stage 3-Field	Waste Disposal			
Environmental Graphics - Mark Smith	Senior Draftperson/CAD	10.00	68.75	$687.50
SICR	Drafting of Maps, Figures and X-Sections			

*Refer to the applicable Maximum Payment Amounts document.

Total of Consulting Personnel Costs	**$17,606.64**

Consultant's Materials Costs Form

Materials, Equipment, or Field Purchase	Time or Amount Used	Rate ($)	Unit	Total Cost
Remediation Category	**Description/Justification**			
USPS - 2/25/09	1.00	5.40	each	$5.40
Stage 2-Plan	Document shipping			
USPS - 4/15/09	1.00	31.20	each	$31.20
Stage 2-Plan	Document shipping			
CNA Surety	1.00	100.00	each	$100.00
Stage 3-Plan	Bond to obtain permit from IDOT for drilling in right of way			
Village of Wauconda	1.00	1,100.00	each	$1,100.00
Stage 3-Plan	Permit fees for off-site access			
USPS - 2/12/10	1.00	1.05	each	$1.05
Stage 2-Plan	Document shipping			
Nitrile Gloves	50.00	.50	pair	$25.00
Stage 3-Field	Used to protect hands during soil sampling activities			
Truck	2.00	105.00	day	$210.00
Stage 3-Field	Used for consultant transportation to and from site			
Hand Auger	1.25	15.00	day	$18.75
Stage 3-Field	Used to collect soil samples and clear soil boring and well locations			
PID	1.25	95.00	day	$118.75
Stage 3-Field	Used to screen samples during soil boring installation activities			

Materials, Equipment, or Field Purchase		Time or Amount Used	Rate ($)	Unit	Total Cost
Remediation Category	**Description/Justification**				
Baggies		110.00	.35	each	$38.50
Stage 3-Field	Used to collect soil samples in for head space screening				
Distilled Water		1.00	2.00	bag	$2.00
Stage 3-Field	Used to decontaminate the equipment during gauging				
USPS		1.00	15.00	each	$15.00
SICR	Document shipping				
Highway Technologies		1.00	189.44	each	$189.44
Stage 3-Field	Materials used for site safety & road way blockage for drilling				
USPS		1.00	15.00	each	$15.00
Stage 3-Pay	Document Mailing				

Total of Consultant Materials Costs	$1,870.09

APPENDIX F

OWNER/OPERATOR AND LICENSED PROFESSIONAL ENGINEER/GEOLOGIST BUDGET CERTIFICATION FORM

Owner/Operator and Licensed Professional Engineer/Geologist Budget Certification Form

I hereby certify that I intend to seek payment from the UST Fund for costs incurred while performing corrective action activities for Leaking UST incident 903199 . I further certify that the costs set forth in this budget are for necessary activities and are reasonable and accurate to the best of my knowledge and belief. I also certify that the costs included in this budget are not for corrective action in excess of the minimum requirements of 415 ILCS 5/57, no costs are included in this budget that are not described in the corrective action plan, and no costs exceed Subpart H: Maximum Payment Amounts, Appendix D Sample Handling and Analysis amounts, and Appendix E Personnel Titles and Rates of 35 Ill. Adm. Code 732 or 734. I further certify that costs ineligible for payment from the Fund pursuant to 35 Ill. Adm. Code 732.606 or 734.630 are not included in the budget proposal or amendment. Such ineligible costs include but are not limited to:

Costs associated with ineligible tanks.
Costs associated with site restoration (e.g., pump islands, canopies).
Costs associated with utility replacement (e.g., sewers, electrical, telephone, etc.).
Costs incurred prior to IEMA notification.
Costs associated with planned tank pulls.
Legal fees or costs.
Costs incurred prior to July 28, 1989.
Costs associated with installation of new USTs or the repair of existing USTs.

Owner/Operator: Shivam Energy, Inc.

Authorized Representative: Rajani Patel Title: Owner

Signature: Rajani Patel Date: June/10/2011

Subscribed and sworn to before me the 10 day of June, 2011.

Sandra L Rodeck (Notary Public) Seal:

OFFICIAL SEAL
SANDRA L. RODECK
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 12-26-2011

In addition, I certify under penalty of law that all activities that are the subject of this plan, budget, or report were conducted under my supervision or were conducted under the supervision of another Licensed Professional Engineer or Licensed Professional Geologist and reviewed by me; that this plan, budget, or report and all attachments were prepared under my supervision; that, to the best of my knowledge and belief, the work described in the plan, budget, or report has been completed in accordance with the Environmental Protection Act [415 ILCS 5], 35 Ill. Adm. Code 732 or 734, and generally accepted standards and practices of my profession; and that the information presented is accurate and complete. I am aware there are significant penalties for submitting false statements or representations to the Illinois EPA, including but not limited to fines, imprisonment, or both as provided in Sections 44 and 57.17 of the Environmental Protection Act [415 ILCS 5/44 and 57.17].

L.P.E./L.P.G.: Shawn Rodeck L.P.E./L.P.G. Seal:

LICENSED PROFESSIONAL ENGINEER
SHAWN A. RODECK
062-052879
STATE OF ILLINOIS

L.P.E./L.P.G. Signature: Shawn Rodeck Date: 9-21-2011

Subscribed and sworn to before me the 21 day of September, 2011.

(Notary Public) Seal:

OFFICIAL SEAL
Kimberly A Henkel
Notary Public, State of Illinois
My Commission Expires 7/8/13

The Illinois EPA is authorized to require this information under 415 ILCS 5/1. Disclosure of this information is required. Failure to do so may result in the delay or denial of any budget or payment requested hereunder.

APPENDIX G

OSFM ELIGIBILITY AND DEDUCTIBLE DETERMINATION LETTER

Office of the Illinois
State Fire Marshal
"Partnering With the Fire Service to Protect Illinois"

CERTIFIED MAIL - RECEIPT REQUESTED #7008 2810 0000 2103 5290

April 28, 2009

Shivam Energy, Inc.
399 W. Liberty Street
Wauconda, IL 60084

In Re: Facility No. 2-010129
IEMA Incident No. 90-3199
Liberty Clark
399 Liberty Street
Wauconda, Lake Co., IL

Dear Applicant:

The Reimbursement Eligibility and Deductible Application received on April 24, 2009 for the above referenced occurrence has been reviewed. The following determinations have been made based upon this review.

You have filed an "Election to Proceed as Owner" and have received acceptance from the Illinois Environmental Protection Agency. It has been determined that you are eligible to seek payment of costs in excess of $10,000. The costs must be in response to the occurrence referenced above and associated with the following tanks:

Eligible Tanks

Tank 1 6,000 gallon Gasoline
Tank 2 6,000 gallon Gasoline

You must contact the Illinois Environmental Protection Agency to receive a packet of Agency billing forms for submitting your request for payment.

An owner or operator is eligible to access the Underground Storage Tank Fund if the eligibility requirements are satisfied:

1. Neither the owner nor the operator is the United States Government.

2. The tank does not contain fuel which is exempt from the Motor Fuel Tax Law.

3. The costs were incurred as a result of a confirmed release of any of the following substances:

"Fuel", as defined in Section 1.19 of the Motor Fuel Tax Law

Aviation fuel

Heating oil

Kerosene

Used oil, which has been refined from crude oil used in a motor vehicle, as defined in Section 1.3 of the Motor Fuel Tax Law.

4. The owner or operator registered the tank and paid all fees in accordance with the statutory and regulatory requirements of the Gasoline Storage Act.

5. The owner or operator notified the Illinois Emergency Management Agency of a confirmed release, the costs were incurred after the notification and the costs were a result of a release of a substance listed in this Section. Costs of corrective action or indemnification incurred before providing that notification shall not be eligible for payment.

6. The costs have not already been paid to the owner or operator under a private insurance policy, other written agreement, or court order.

7. The costs were associated with "corrective action".

This constitutes the final decision as it relates to your eligibility and deductibility. We reserve the right to change the deductible determination should additional information that would change the determination become available. An underground storage tank owner or operator may appeal the decision to the Illinois Pollution Control Board (Board), pursuant to Section 57.9 (c) (2). An owner or operator who seeks to appeal the decision shall file a petition for a hearing before the Board within 35 days of the date of mailing of the final decision, (35 Illinois Administrative Code 105.102(a) (2)).

For information regarding the filing of an appeal, please contact:

Dorothy Gunn, Clerk
Illinois Pollution Control Board
State of Illinois Center
100 West Randolph, Suite 11-500
Chicago, Illinois 60601
(312) 814-3620

The following tanks are also listed for this site:

Tank 3 10,000 gallon Gasoline
Tank 4 10,000 gallon Gasoline

Your application indicates that there has not been a release from these tanks under this incident number. You may be eligible to seek payment of corrective action costs associated with these tanks if it is determined that there has been a release from one or more of these tanks. Once it is determined that there has been a release from one or more of these tanks you may submit a separate application for an eligibility determination to seek corrective action costs associated with this/these tanks.

If you have any questions, please contact our Office at (217) 785-1020 or (217) 785-5878.

Sincerely,

Deanne Lock
Administrative Assistant
Division of Petroleum and Chemical Safety

cc: IEPA
Facility File