HERST & ASSOCIATES, INC.®

*Global Presence*
*Personal Attention*

Mr. Dan Wall
U. S. Environmental Protection Agency
Region VII
901 N 5th St
Kansas City, Kansas 66115

August 9, 2004

Dear Mr. Wall:

**Monthly Progress Report – July 2004,**
**West Lake (Bridgeton) Landfill, Operable Unit 2 RI/FS**

On behalf of Laidlaw Waste Systems, Inc. (Laidlaw), Herst & Associates, Inc. has prepared the following progress report in accordance with Section XIII, Paragraph 39 of the Administrative Order on Consent (Consent Order), EPA Docket No. VII-94-F-0025. The progress report describes activities conducted in July 2004.

## I. ACTIONS TAKEN TO COMPLY WITH THE CONSENT ORDER

A monthly progress report was submitted to EPA.

During an October 7, 2003 meeting, US EPA and the Missouri Department of Natural Resources (MDNR) requested groundwater sampling to provide updated data supplemental to the remedial investigation sampling previously conducted in 1997. In response to the request, a November 12, 2003 letter proposal was submitted, which described the wells to be sampled and the analyses to be performed. The November 12, 2003 letter indicated that the supplemental sampling would include landfill detection monitoring wells that are sampled on a semi-annual basis as part of the landfill's environmental compliance, plus selected additional alluvial wells near the boundary of Operable Unit 2. As described in the November 12 letter, two rounds of supplemental sampling were proposed. The first sampling event was proposed for November/December 2003, and the second sampling event was proposed for May/June 2004. The primary goals of the sampling events are to provide current groundwater quality data and to determine if current groundwater quality is similar to the results previously obtained during 1997 as part of the OU-2 remedial investigation.

The supplemental sampling was verbally approved by EPA on November 13. Based on a December 18, 2003 electronic mail message from you to Herst & Associates, Inc, the MDNR approved the supplemental sampling on or about December 18.

The first sampling round was completed on November 20 and 21, 2003 and the results summarized in the February 2004 Monthly Progress Report to the EPA. The second round of sampling occurred on May 10 through 12, 2004. Detection monitoring wells were sampled on May 11 and 12, 2004, consistent with the landfill's environmental compliance schedule that specifies semi-annual sampling in

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November and May of each year. Monitoring well designations include, from shallow to deep, "-AS" (alluvial), "-SS" (St. Louis Formation), and "-SD" (Salem Formation). For wells not part of landfill detection monitoring, five supplemental alluvial groundwater samples were collected over the period May 10 and 11, 2004. Figure 1 illustrates the locations of the wells included in the May/June 2004 sampling event.

*Detection Monitoring Wells*

Table 1 includes a comparison of May 2004 detection monitoring well results to data collected during the remedial investigation. Note that the analytical reporting limits for the remedial investigation in 1997 were in many cases significantly lowered compared to typical reporting limits, to provide data specific to risk assessment purposes. As described in the November 12, 2003 letter, standard laboratory detection limits were requested for the November/December 2003 and May/June 2004 sampling events. Given the goals of the supplemental sampling, which include ascertaining if the current groundwater quality is generally similar to the 1997 groundwater quality, changes in detection limits in 2003 and 2004 compared to 1997 do not affect the ability to draw meaningful conclusions.

The analytical laboratory data package for the May 2004 detection monitoring event has previously been forwarded to the MDNR – Solid Waste Division, and is therefore not reproduced as part of this submittal. As described above, remedial investigation data from February and May 1997, where available, are used as a basis for comparison. Selected detection monitoring wells were not sampled during February and May 1997 as part of the remedial investigation; for these wells, August and November 1997 data are used as a basis for comparison. Table 1 includes only those parameters that had a detectable concentration in at least one of the samples collected during the November 2003 and May 2004 events or the 1997 comparison events.

Only one well, PZ-114-AS, yielded detectable concentrations of volatile organic compounds in May 2004. PZ-114-AS has apparently been impacted by an off-site source. PM Resources, Inc. is located across St. Charles Rock Road to the north of Bridgeton Landfill and upgradient of PZ-114-AS. According to the document titled "RCRA Operation & Maintenance Groundwater Monitoring Field Audit Report (Report)" compiled by PM Resources, Inc. and submitted on March 12, 2003 to the MDNR-Air and Land Protection Division-Hazardous Waste Program, the site is currently conducting a Groundwater Compliance Monitoring Program as part of MDNR's agreement with the US EPA. According to the Report mentioned above, PM Resources is a facility that produces a wide variety of animal health care products including pharmaceuticals, medical feeds, rodenticides, sanitizers, cleaners, and pesticide products. The facility has been producing these types of products since 1970. In September 1994 the owner reportedly removed the catchment system. Upon removal of the system, it was revealed that a release of hazardous chemicals had occurred. The chemicals released from the catchment system included petroleum products such as benzene, toluene, ethylbenzene, and xylenes (BTEX) along with some of their volatile breakdown components. Contaminants of concern at the PM Resources, Inc. site are BTEX and volatile by-products involved with the removal of the catchment system and pesticides and herbicides that may have been released during the facility's production history. Chlorobenzene has been detected at elevated concentrations in groundwater beneath the PM Resources, Inc. property. The three VOCs detected in groundwater at PZ-114-AS (benzene, chlorobenzene, and 1,4-dichlorobenzene) appear related to the PM Resources, Inc. impacts.

Based on the lack of VOCs in other detection monitoring wells, the groundwater quality is generally similar or slightly improved compared to 1997 data that indicated sporadic, low-level VOC detections in selected wells.

For metals, Table 1 includes data for arsenic, iron, and manganese, which were identified as compounds of potential concern based on remedial investigation sampling. All arsenic results for the detection wells from May 2004 are below the federal drinking water Maximum Concentration Limit (MCL) of 0.05 mg/l. The 1997 arsenic results ranged from less than detection to 0.096 mg/l, excluding a probable outlier in PZ-109-SS. The May 2004 arsenic results range from less than detection to 0.047 mg/l. No wells yielded a detectable arsenic concentration that was higher in May 2004 than in either of the two 1997 comparison sampling events, although the typical detection monitoring reporting limit of 0.005 mg/l utilized in May 2004 is slightly higher than the 1997 reporting limit (0.002 mg/l). For iron, approximately 50% of the May 2004 results are slightly lower than at least one of the 1997 sample results and approximately 50% are slightly higher. The 1997 iron concentrations in the detection wells range from 0.087 mg/l to 40 mg/l, and the May 2004 concentrations range from 0.058 mg/l to 76 mg/l. For manganese, the May 2004 concentrations are lower than the 1997 results in 10 of 14 samples (approximately 70%). The 1997 manganese concentrations range from less than detection (<0.01 mg/l) to 87.6 mg/l. The May 2004 manganese concentrations range from less than detection (<0.005 mg/l) to 4.5 mg/l. Based on the metals results, the current groundwater quality is similar to the 1997 groundwater quality.

TDS results from May 2004 were lower than at least one of the 1997 results in 11 of 14 wells (approximately 80%). The TDS values in 1997 ranged from 340 mg/l to 1,510 mg/l. The May 2004 TDS values range from 340 mg/l to 1,400 mg/l. For chloride, the May 2004 results in 10 of the 14 wells (approximately 70%) are slightly lower than at least one of the 1997 results. The 1997 chloride results range from less than detection (<3 mg/l) to 296 mg/l, and the November 2003 results range from less than detection (<3 mg/l) to 400 mg/l. Both the 1997 and May 2004 results indicate that one well, PZ-114-AS, exceeds the secondary MCL for chloride of 250 mg/l. Fluoride results from May 2004 were lower than at least one of the 1997 results in 11 of 14 wells (approximately 80%). The 1997 fluoride results range from 0.32 mg/l to 2.3 mg/l, and the May 2004 results range from 0.37 mg/l to 2 mg/l.

Based on the above comparisons, the groundwater quality monitored by the landfill's detection wells is similar to the 1997 groundwater quality.

*Supplemental Alluvial Wells*

Attachment 1 provides the laboratory analytical data sheets and field sampling forms for the supplemental alluvial wells. Table 2 includes a comparison of May 2004 results for the supplemental alluvial wells to data collected during the remedial investigation, where available.

Of the five supplemental alluvial wells that were sampled, two (PZ-303-AI and PZ-303-AS) were not included in 1997 sampling. The remaining three alluvial wells do have 1997 data that can be used for comparison purposes. For VOCs with detectable concentrations, the May 2004 results were lower than or equal to at least one of the 1997 results in 7 out of 13 instances (approximately 50%). It should be noted that the May 2004 reporting limit was slightly higher than the 1997 reporting limit.

Four of the five supplemental alluvial wells exhibited non-detectable semi-volatile organic compounds (SVOC) in both May 2004 and 1997. Well PZ-303-AS exhibited low-level SVOCs in May 2004, and exhibited only two of the five SVOCs that had been detected in at least one of the two 1997 sampling events. No SVOCs were detected in May 2004 that had not been detected in 1997.

For the three metals (arsenic, iron, and manganese), May 2004 arsenic concentrations are slightly higher in one of the three wells that also have 1997 data; May 2004 iron concentrations are slightly higher in one of the three wells than in 1997; and, May 2004 manganese concentrations are slightly lower or equal to one of the 1997 results in all three wells. For the three inorganics (TDS, chloride, and fluoride), May 2004 TDS values are lower in one of three wells than in 1997; May 2004 chloride concentrations are lower in one of three wells than in 1997; and, May 2004 fluoride concentrations are lower in all three wells than in 1997. Overall, the metal and inorganic results indicate that May 2004 groundwater quality is comparable to 1997 groundwater quality.

*Summary*

Based on the detailed descriptions provided above, the current groundwater quality is similar to the groundwater quality data collected in 1997. Accordingly, the evaluation of remedial alternatives can confidently move forward using the available data.

## II. VALIDATED RESULTS RECEIVED

No validated data were received in July.

## III. WORK PLANNED DURING AUGUST AND SEPTEMBER 2004.

Preparation of the FS Report will continue in August.

## IV. MATERIAL PROBLEMS ENCOUNTERED OR ANTICIPATED MATERIAL DELAYS

No material problems or delays were encountered in July and none are anticipated for August or September.

If you have any questions or comments, please contact Mr. Doug Borro, the Respondent's designated Project Coordinator, or the undersigned.

Sincerely,

HERST & ASSOCIATES, INC.

Ward E. Herst, CPHG, CEM
Managing Director

cc: Michael Hockley, Esq. - Spencer Fane Britt & Browne
Tony Walker - Allied
Rod Bloese – Allied
Jill Bruss - Missouri Department of Natural Resources
Jacinta Douma – Bridgeton Landfill, LLC.
Paul Rosasco - Engineering Management Support, Inc.

# TABLES

## Table 1
## Detection Monitoring Network
## Groundwater Data Comparison, 1997 to May 2004

| | Compound | PZ-100-SD | | | | PZ-100-SS | | | | PZ-104-SD | | | | PZ-104-SS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | February 1997 | May 1997 | November 2003 | May 2004 | February 1997 | May 1997 | November 2003 | May 2004 | February 1997 | May 1997 | November 2003 | May 2004 | February 1997 | May 1997 | November 2003 | May 2004 |
| Volatiles | 1,2-cis-Dichloroethylene | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 |
| | 1,4-Dichlorobenzene | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 |
| | Benzene | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 |
| | Chlorobenzene | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 |
| | Xylenes (Total) | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | 0.002 | <0.005 | <0.005 |
| Metals | Arsenic, Total | 0.002 | 0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | 0.004 | <0.002 | <0.005 | <0.005 |
| | Iron, Total | 1.71 | 2.09 | 1.9 | 2.2 | 1.95 | 0.554 | 0.02 | 0.058 | 0.378 | 0.327 | 1.1 | 1.6 | 3.05 | 0.823 | 3.2 | 2.6 |
| | Manganese, Total | 0.277 | 0.332 | 0.1 | 0.12 | 0.75 | 0.045 | 0.0084 | 0.0097 | 0.14 | 0.104 | 0.074 | 0.074 | 0.057 | 0.064 | 0.033 | 0.038 |
| Inorganics | Chloride | 3 | <3 | <3 | <3 | 6 | 4 | 7 | 6.8 | 56 | 52 | 54 | 49 | 4 | 5 | 3.1 | 3 |
| | Fluoride | 2.02 | 2.2 | 2.1 | 1.9 | 0.9 | 0.87 | 0.76 | 0.66 | 0.77 | 0.88 | 1.1 | 0.89 | 0.71 | 0.81 | 0.85 | 0.75 |
| | Total Dissolved Solids (TDS) | 412 | 372 | 330 | 340 | 528 | 532 | 500 | 500 | 630 | 638 | 540 | 560 | 509 | 495 | 410 | 430 |

| | Compound | PZ-105-SS | | | | PZ-106-SD | | | | PZ-106-SS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | August 1997 | November 1997 | November 2003 | May 2004 | February 1997 | May 1997 | November 2003 | May 2004 | February 1997 | May 1997 | November 2003 | May 2004 |
| Volatiles | 1,2-cis-Dichloroethylene | <0.005 | <0.005 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 |
| | 1,4-Dichlorobenzene | <0.005 | <0.005 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 |
| | Benzene | <0.005 | <0.005 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | 3.1 | <0.005 | <0.005 |
| | Chlorobenzene | <0.005 | <0.005 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 |
| | Xylenes (Total) | <0.005 | <0.005 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 |
| Metals | Arsenic, Total | 0.003 | <0.005 | <0.005 | <0.005 | <0.002 | 0.002 | <0.005 | <0.005 | 0.005 | 0.004 | <0.005 | <0.005 |
| | Iron, Total | 6.47 | 4.85 | 8.1 | 1.2 | 0.087 | 0.133 | 0.14 | 2.1 | 0.188 | 0.279 | 1 | 0.22 |
| | Manganese, Total | 0.24 | 0.0412 | 0.051 | 0.016 | 0.283 | 0.257 | 0.026 | 0.44 | 0.025 | 0.017 | 0.27 | 0.013 |
| Inorganics | Chloride | 12 | 12.5 | 77 | 40 | 24 | 22 | 19 | 18 | 10 | 14 | 7.7 | 8.1 |
| | Fluoride | 0.87 | 0.868 | 0.78 | 0.74 | 0.9 | 1 | 1.2 | 0.97 | 1.86 | 2 | 2.1 | 1.9 |
| | Total Dissolved Solids (TDS) | 438 | 442 | 540 | 470 | 665 | 618 | 540 | 560 | 474 | 531 | 440 | 440 |

## Detection Monitoring Network (continued)
## Groundwater Data Comparison, 1997 to 2003

| | Compound | PZ-109-SS | | | | PZ-110-SS | | | | PZ-111-SD | | | | PZ-114-AS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | August 1997 | November 1997 | November 2003 | May 2004 | February 1997 | May 1997 | November 2003 | May 2004 | February 1997 | May 1997 | November 2003 | May 2004 | August 1997 | November 1997 | November 2003 | May 2004 |
| Volatiles | 1,2-cis-Dichloroethylene | <0.005 | <0.005 | <0.005 | <0.005 | <0.002 | 0.0024 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | 1,4-Dichlorobenzene | <0.005 | <0.005 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.005 | <0.005 | 0.014 | 0.018 |
| | Benzene | <0.005 | <0.005 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | 0.013 | <0.005 | <0.005 | <0.005 | <0.005 | 0.0061 | 0.0054 |
| | Chlorobenzene | <0.005 | <0.005 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | 0.007 | 0.0051 | 0.12 | 0.13 |
| | Xylenes (Total) | <0.005 | <0.005 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| Metals | Arsenic, Total | 0.008 | 5.83 | <0.005 | <0.005 | 0.003 | 0.003 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | 0.094 | 0.096 | 0.023 | 0.047 |
| | Iron, Total | 4.77 | 1.24 | 0.17 | 0.29 | 4.08 | 5.87 | 9 | 7 | 0.119 | 0.203 | 1.9 | 1.9 | 40 | 32.8 | 66 | 76 |
| | Manganese, Total | 0.12 | 0.0658 | 0.015 | 0.012 | 0.156 | 0.156 | 0.22 | 0.18 | 0.017 | 0.019 | 0.008 | 0.0092 | 77 | 87.6 | 6.5 | 4.5 |
| Inorganics | Chloride | 10 | 8.3 | 4 | 4.3 | 215 | 156 | 230 | 150 | 18 | 18 | 14 | 13 | 296 | 275 | 430 | 270 |
| | Fluoride | 1.81 | 1.8 | 2.2 | 2 | 0.43 | 0.58 | 0.4 | 0.4 | 1.2 | 2.3 | 2.1 | 1.9 | 0.32 | 0.337 | 0.26 | 0.4 |
| | Total Dissolved Solids (TDS) | 525 | 482 | 420 | 460 | 1,418 | 1,158 | 1,300 | 1,100 | 340 | 562 | 470 | 480 | 1,450 | 1,510 | 1,400 | 1,200 |

| | Compound | PZ-115-SS | | | | PZ-201A-SS | | | | PZ-205-SS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | August 1997 | November 1997 | November 2003 | May 2004 | February 1997 | May 1997 | November 2003 | May 2004 | August 1997 | November 1997 | November 2003 | May 2004 |
| Volatiles | 1,2-cis-Dichloroethylene | <0.005 | <0.005 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | 1,4-Dichlorobenzene | <0.005 | <0.005 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | Benzene | <0.005 | <0.005 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | Chlorobenzene | <0.005 | <0.005 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | Xylenes (Total) | <0.005 | <0.005 | <0.005 | <0.005 | <0.002 | 0.002 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| Metals | Arsenic, Total | <0.002 | <0.00455 | <0.005 | <0.005 | 0.003 | 0.004 | 0.0065 | <0.005 | <0.002 | 0.00525 | <0.005 | <0.005 |
| | Iron, Total | 0.84 | 1.08 | 0.98 | 1.1 | 2.75 | 3.97 | 1.7 | 0.29 | 1.06 | 6.26 | 1.1 | 0.43 |
| | Manganese, Total | <0.01 | 0.0087 | 0.067 | 0.061 | 0.305 | 0.528 | 0.15 | 0.12 | 0.02 | 0.101 | 0.0059 | <0.005 |
| Inorganics | Chloride | 71 | 67.8 | 340 | 400 | 4 | <3 | 3.1 | 3.1 | 14 | 17.4 | 30 | 28 |
| | Fluoride | 1.6 | 1.52 | 0.57 | 0.61 | 0.52 | 0.58 | 0.55 | 0.47 | 0.44 | 0.413 | 0.47 | 0.37 |
| | Total Dissolved Solids (TDS) | 693 | 588 | 1,000 | 1,400 | 548 | 525 | 460 | 480 | 481 | 459 | 510 | 510 |

All results presented in mg/L

*: Probable outlier not respresentative of arsenic in this well. Subsequent sampling results consistently yield arsenic concentrations of 0.008 mg/l or less.

Notes:

1) Wells PZ-105-SS, PZ-109-SS, PZ-114-AS, PZ-115-SS and PZ-205-SS were not part of the sampling events conducted in February and May 1997. August and November 1997 data are presented.

2) Analytes shown include only those parameters detected in at least one sample.

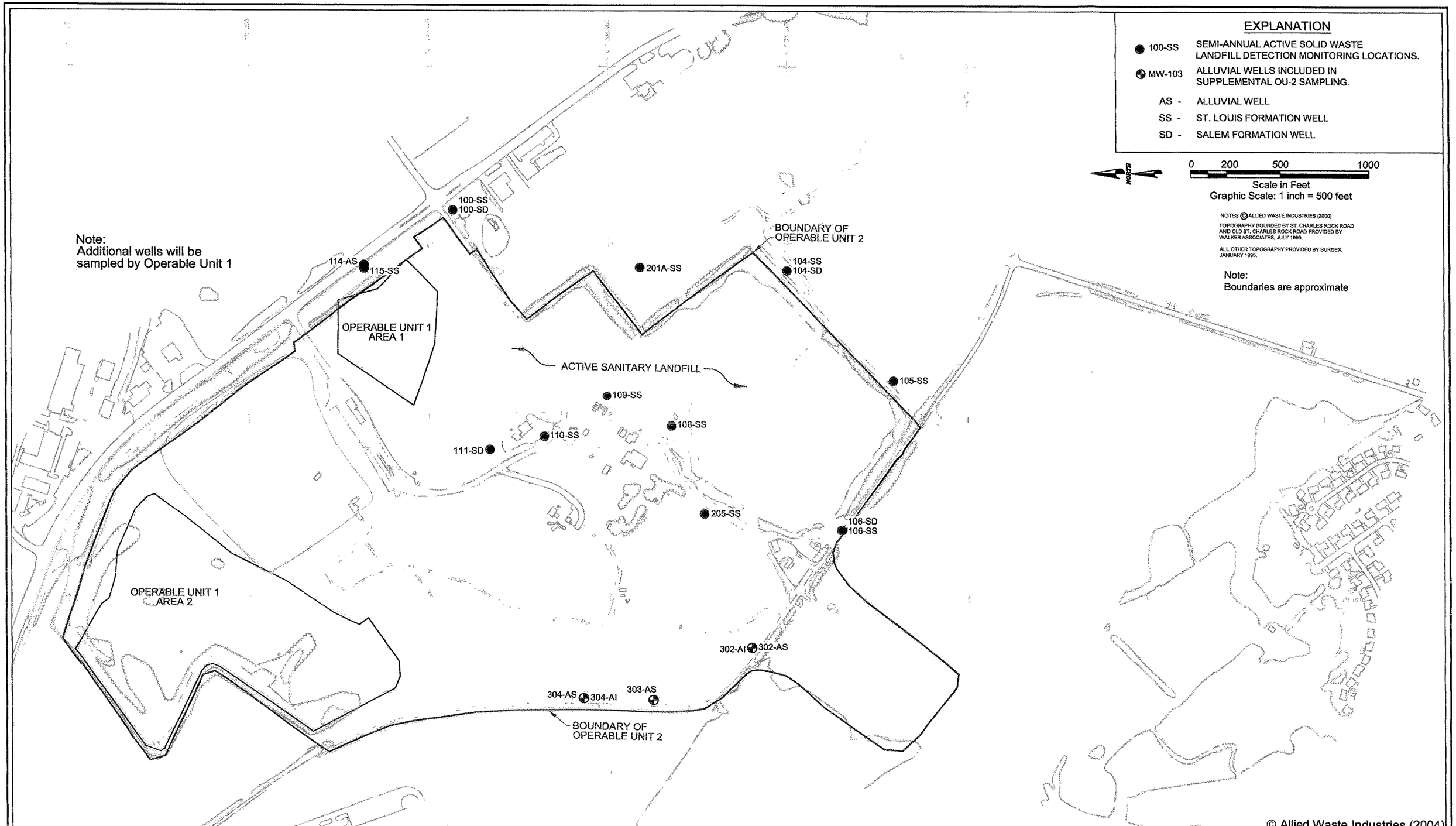
# Table 2
## Wells PZ-302-AS, PZ-302-AI, PZ-303-AS, PZ-304-AS, PZ-304-AI
## Groundwater Data Comparison

| | Compound | PZ-302-AI | | PZ-302-AS | | PZ-303-AS | | | | PZ-304-AI | | | | PZ-304-AS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | December 2003 | May 2004 | December 2003 | May 2004 | February 1997 | May 1997 | December 2003 | May 2004 | February 1997 | May 1997 | December 2003 | May 2004 | February 1997 | May 1997 | December 2003 | May 2004 |
| Volatiles | 1,1-Dichloroethane | <0.005 | <0.005 | <0.005 | <0.005 | <0.002 | 0.033 | <0.02 | <0.02 | <0.002 | <0.002 | <0.005 | <0.005 | 0.002 | <0.002 | <0.005 | <0.005 |
| | 1,1-Dichloroethylene | <0.005 | <0.005 | <0.005 | <0.005 | <0.002 | <0.002 | <0.02 | <0.02 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | 0.003 | <0.005 | <0.005 |
| | 1,2-cis-Dichloroethylene | <0.005 | <0.005 | <0.005 | <0.005 | 0.008 | 0.0081 | <0.02 | <0.02 | 0.011 | 0.013 | 0.014 | 0.010 | 0.006 | 0.0067 | <0.005 | <0.005 |
| | 1,2-Dichlorobenzene | <0.005 | <0.005 | <0.005 | <0.005 | <0.002 | 0.0038 | <0.02 | <0.02 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 |
| | 1,2-Dichloroethane | <0.005 | <0.005 | <0.005 | <0.005 | 0.002 | <0.002 | <0.02 | <0.02 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 |
| | 1,2-trans-Dichloroethylene | <0.005 | <0.005 | <0.005 | <0.005 | 0.002 | 0.0025 | <0.02 | <0.02 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 |
| | 1,4-Dichlorobenzene | <0.005 | <0.005 | <0.005 | <0.005 | <0.002 | 0.0034 | <0.02 | <0.02 | 0.003 | 0.0033 | <0.005 | <0.005 | 0.012 | 0.012 | 0.0058 | 0.0057 |
| | Acetone | <0.005 | <0.005 | <0.005 | <0.005 | 0.009 | <0.005 | <0.1 | <0.1 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | Benzene | <0.005 | <0.005 | 0.0051 | <0.005 | 0.078 | 0.078 | 0.054 | 0.051 | 0.01 | 0.011 | <0.005 | <0.005 | 0.005 | 0.0062 | 0.0053 | 0.0062 |
| | Chlorobenzene | <0.005 | <0.005 | 0.054 | 0.087 | <0.002 | <0.002 | <0.02 | <0.02 | <0.002 | <0.002 | <0.005 | <0.005 | 0.008 | 0.0087 | <0.005 | <0.005 |
| | Chloroethane | <0.005 | <0.005 | <0.005 | <0.005 | 0.013 | 0.011 | <0.02 | <0.02 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 |
| | Ethylbenzene | <0.005 | <0.005 | <0.005 | <0.005 | 0.120 | 0.113 | 0.056 | 0.071 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 |
| | Methyl Ethyl Ketone | <0.005 | <0.005 | <0.005 | <0.005 | 0.007 | <0.005 | <0.1 | <0.2 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | Gasoline Range Organics | <0.05 | <0.05 | 0.13 | 0.14 | 1.3 | 1.3 | 3.7 | 3.2 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| | Petroleum Hydrocarbons (Diesel) | <0.48 | <0.5 | <0.5 | <0.49 | 19 | 10 | 14 | 20 | 0.69 | 0.4 | 0.52 | 0.89 | 0.99 | 0.6 | 0.85 | 1.2 |
| | Styrene | <0.005 | <0.005 | <0.005 | <0.005 | 0.006 | <0.002 | <0.02 | <0.02 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 |
| | Toluene | <0.005 | <0.005 | <0.005 | <0.005 | 0.4 | 0.280 | 0.7 | 1.5 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 |
| | trans-1,3-Dichloropropylene | <0.005 | <0.005 | <0.005 | <0.005 | 0.008 | <0.002 | <0.02 | <0.02 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 |
| | Vinyl chloride | <0.001 | <0.001 | <0.001 | <0.001 | 0.012 | 0.026 | <0.02 | <0.02 | 0.01 | 0.0062 | 0.0053 | 0.0067 | 0.012 | 0.0076 | 0.0014 | 0.0014 |
| | Xylenes (Total) | <0.005 | <0.005 | <0.005 | <0.005 | 0.67 | 0.53 | 0.39 | 0.39 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.005 | <0.005 |
| Semivolatiles | 2,4-Dimethylphenol | <0.01 | <0.01 | <0.01 | <0.01 | 0.086 | 0.078 | 0.062 | <0.009 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| | 2-Methylnaphthalene | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.015 | 0.046 | 0.055 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| | 4-Methylphenol (p-Cresol) | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.016 | 0.015 | <0.009 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| | Naphthalene | <0.01 | <0.01 | <0.01 | <0.01 | 0.032 | 0.032 | 0.035 | 0.033 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| | o-Cresol | <0.01 | <0.01 | <0.01 | <0.01 | 0.022 | <0.01 | 0.031 | <0.009 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Metals | Arsenic, Total | <0.01 | <0.02 | 0.25 | 0.14 | 0.087 | 0.057 | 0.12 | 0.084 | 0.003 | 0.002 | <0.01 | <0.01 | 0.086 | 0.078 | 0.18 | 0.13 |
| | Iron, Total | 1.7 | 1.4 | 103 | 104 | 90.1 | 83.4 | 104 | 88.8 | 10.3 | 10.4 | 16.2 | 19.3 | 28.8 | 29.8 | 24.1 | 28.5 |
| | Manganese, Total | 0.19 | 0.19 | 3.7 | 10.1 | 2.34 | 1.82 | 2.2 | 1.8 | 1.8 | 1.82 | 1.6 | 1.8 | 0.434 | 0.438 | 0.12 | 0.14 |
| Inorganics | Chloride | 86.2 | 77.1 | 54.0 | 50.9 | 191 | 170 | 106 | 94.4 | 209 | 239 | 206 | 337 | 273 | 299 | 283 | 602 |
| | Fluoride | 0.27 | 0.35 | 0.40 | 0.60 | 0.33 | 0.37 | 0.18 | 0.18 | 0.45 | 0.54 | 0.28 | 0.40 | 0.73 | 0.66 | 0.52 | 0.65 |
| | Total Dissolved Solids (TDS) | 768 | 769 | 927 | 1,060 | 1,396 | 1,344 | 1,210 | 1,120 | 1,070 | 1,220 | 1,070 | 1,460 | 1,220 | 1,056 | 960 | 1,420 |

All results presented in mg/L

Notes:
1) The May 2004 data indicate detections of Cyclohexane at 0.022 mg/L, Methylcyclohexane at 0.05 mg/L, and bis (2-ethylhexyl) phthalate at 0.012 mg/L in PZ-303-AS.
These compounds were not analyzed in the February and May 1997 sampling events.
2) Wells PZ-302-AI and PZ-302-AS were not part of the sampling event conducted in February and May 1997.
3) Analytes shown include only those parameters detected in at least one sample.

# FIGURES




4630 South Highway 94
North Outer Road
St. Charles, Missouri 63304
Phone (636) 939-9111
Fax (636) 939-9757
HERST & ASSOCIATES, INC.

Westlake Landfill
Bridgeton, Missouri

**Figure 1**
Wells Included in Supplemental OU-2 Sampling

ATTACHMENT I

1\90

SEVERN TRENT STL

**STL Buffalo**
10 Hazelwood Drive, Suite 106
Amherst, NY 14228

Tel: 716 691 2600 Fax: 716 691 7991
www.stl-inc.com

# ANALYTICAL REPORT

Job#: A04-4441

STL Project#: NY0A862901
Site Name: ALLIED WASTE - WESTLAKE LANDFILL (MO)
Task: Westlake Landfill

*Mr. Ward Herst
Herst & Associates
4630 S. Hwy 94, N. Outer Rd.
St. Charles, MO 63304

STL Buffalo

Brian J. Fischer
Project Manager

05/27/2004

# STL Buffalo
# Current Certifications

| STATE | Program | Cert # / Lab ID |
|---|---|---|
| A2LA (ISO 17025) | SDWA, CWA, RCRA | 0732-01 |
| Arkansas | SDWA, CWA, RCRA, SOIL | 03-054-D/88-0686 |
| California | NELAP SDWA, CWA, RCRA | 01169CA |
| Canada | GENERAL | SCC 1007-15/10B |
| Connecticut | SDWA, CWA, RCRA, SOIL | PH-0568 |
| Florida | NELAP RCRA | E87672 |
| Georgia | SDWA | 956 |
| Illinois | NELAP SDWA, CWA, RCRA | 200003 |
| Iowa | SW/CS | 374 |
| Kansas | NELAP SDWA, CWA, RCRA | E-10187 |
| Kentucky | SDWA | 90029 |
| Kentucky UST | UST | 30 |
| Louisiana | NELAP CWA, RCRA | 2031 |
| Maine | SDWA, CWA | NY044 |
| Maryland | SDWA | 294 |
| Massachusetts | SDWA, CWA | M-NY044 |
| Michigan | SDWA | 9937 |
| Minnesota | CWA, RCRA | 036-999-337 |
| New Hampshire | NELAP SDWA, CWA | 233701 |
| New Jersey | SDWA, CWA, RCRA, CLP | NY455 |
| New York | NELAP, AIR, SDWA, CWA, RCRA | 10026 |
| North Carolina | CWA | 411 |
| North Dakota | SDWA, CWA, RCRA | R-176 |
| Oklahoma | CWA, RCRA | 9421 |
| Pennsylvania | Env. Lab Reg. | 68-281 |
| South Carolina | RCRA | 91013 |
| USDA | FOREIGN SOIL PERMIT | S-4650 |
| Virginia | SDWA | 278 |
| Washington | CWA | C254 |
| West Virginia | CWA | 252 |
| Wisconsin | CWA | 998310390 |
| Wyoming UST | UST | NA |

SAMPLE SUMMARY

| LAB SAMPLE ID | CLIENT SAMPLE ID | SAMPLED DATE | SAMPLED TIME | RECEIVED DATE | RECEIVED TIME |
|---|---|---|---|---|---|
| A4444101 | DUPLICATE @ PZ-303AS | 05/10/2004 | 17:00 | 05/12/2004 | 09:45 |
| A4444102 | EQUIP BLANK | 05/10/2004 | 19:15 | 05/12/2004 | 09:45 |
| A4444103 | FIELD BLANK@PZ-303AS | 05/10/2004 | 16:25 | 05/12/2004 | 09:45 |
| A4444104 | PZ-302-AI | 05/11/2004 | 15:30 | 05/12/2004 | 09:45 |
| A4444105 | PZ-302-AS | 05/10/2004 | 08:30 | 05/12/2004 | 09:45 |
| A4444106 | PZ-303-AS | 05/10/2004 | 16:55 | 05/12/2004 | 09:45 |
| A4444107 | PZ-304-AI | 05/10/2004 | 18:45 | 05/12/2004 | 09:45 |
| A4444108 | PZ-304-AS | 05/10/2004 | 18:00 | 05/12/2004 | 09:45 |
| A4444109 | TRIP BLANK | 05/10/2004 | | 05/12/2004 | 09:45 |

METHODS SUMMARY

Job#: A04-4441

STL Project#: NY0A862901
Site Name: ALLIED WASTE - WESTLAKE LANDFILL (MO)

| PARAMETER | ANALYTICAL METHOD |
|---|---|
| WESTLAKE - 8260 25ML- TCL VOLATILES - W(UNPRES) | SW8463 8260 |
| ALLIED - GASOLINE RANGE ORGANICS-8015B-W (UNPRES) | SW8463 8015 B |
| METHOD 8270 - TCL SEMI-VOLATILE ORGANICS | SW8463 8270 |
| ALLIED - DIESEL RANGE ORGANICS - METHOD 8015B - W | SW8463 8015B |
| Arsenic - Total | SW8463 6010 |
| Iron - Total | SW8463 6010 |
| Manganese - Total | SW8463 6010 |
| Chloride | SW8463 9056 |
| Fluoride | SW8463 9056 |
| Total Dissolved Solids | MCAWW 160.1 |

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes",EPA/600/4-79-020 (Mar 1983) with updates and supplements EPA/600/4-91-010 (Jun 1991), EPA/600/R-92-129 (Aug 1992) and EPA/600/R-93-100 (Aug 1993)

SW8463 "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

NON-CONFORMANCE SUMMARY

Job#: A04-4441

STL Project#: NY0A862901
Site Name: ALLIED WASTE - WESTLAKE LANDFILL (MO)

General Comments

The enclosed data have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual and Dissolved Oxygen analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A04-4441
Sample Cooler(s) were received at the following temperature(s); 3 @ 2.0 °C
Samples 01,04 and 06 contain unpreserved VOA volumes - 7 day hold time.

GC/MS Volatile Data

Volatile samples DUPLICATE @ PZ-303AS,PZ-302-AI, PZ-304-AS, and PZ-304-AI exhibited a pH of 7 at the time of analysis. The analysis was performed within 7 days of sampling, therefore there is no impact on data useability.

GC Volatile Data

For method 8015B, samples DUPLICATE @ PZ-303AS, PZ-302-AI, PZ-303-AS and PZ-304-AI exhibited a pH >2 at the time of analysis. The analysis was performed within 7 days of sampling, therefore there is no impact on data usability.

GC/MS Semivolatile Data

No deviations from protocol were encountered during the analytical procedures.

GC Extractable Data

The recovery of surrogate o-Terphenyl for samples DUPLICATE @ PZ-303AS and PZ-303-AS for Diesel Range Organics analysis is biased high and is outside of quality control limits due to matrix interference and dilution of the extract. All other surrogate recoveries for this batch are compliant with quality control limits; no corrective action is indicated.

Metals Data

No deviations from protocol were encountered during the analytical procedures.

Wet Chemistry Data

The field parameter measurements were supplied by a non-Nelac agent of the client.

********

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

Dilution Log w/Code Information
For Job A04-4441



| Client Sample ID | Lab Sample ID | Parameter (Inorganic)/Method (Organic) | Dilution | Code |
|---|---|---|---|---|
| DUPLICATE @ PZ-303AS | A4444101 | 8015 B | 20.00 | 008 |
| DUPLICATE @ PZ-303AS | A4444101 | 8015B | 5.00 | 008 |
| DUPLICATE @ PZ-303AS | A4444101 | 8260 | 20.00 | 008 |
| DUPLICATE @ PZ-303AS | A4444101DL | 8260 | 40.00 | 008 |
| DUPLICATE @ PZ-303AS | A4444101MS | 8015 B | 20.00 | 008 |
| DUPLICATE @ PZ-303AS | A4444101SD | 8015 B | 20.00 | 008 |
| PZ-302-AS | A4444105 | 8260 | 2.00 | 008 |
| PZ-302-ASDL | A4444105DL | 8260 | 4.00 | 008 |
| PZ-303-AS | A4444106 | 8015 B | 20.00 | 008 |
| PZ-303-AS | A4444106 | 8015B | 5.00 | 008 |
| PZ-303-AS | A4444106 | 8260 | 20.00 | 008 |
| PZ-303-ASDL | A4444106DL | 8260 | 50.00 | 008 |
| PZ-304-AI | A4444107 | Chloride | 5.00 | 008 |
| PZ-304-AS | A4444108 | Chloride | 10.00 | 008 |
| PZ-304-AS | A4444108 | Fluoride | 5.00 | 002 |

Dilution Code Definition:

002 - sample matrix effects
003 - excessive foaming
004 - high levels of non-target compounds
005 - sample matrix resulted in method non-compliance for an Internal Standard
006 - sample matrix resulted in method non-compliance for Surrogate
007 - nature of the TCLP matrix
008 - high concentration of target analyte(s)
009 - sample turbidity
010 - sample color
011 - insufficient volume for lower dilution
012 - sample viscosity
013 - other

# DATA COMMENT PAGE

## ORGANIC DATA QUALIFIERS

ND or U Indicates compound was analyzed for, but not detected at or above the reporting limit.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.

C This flag applies to pesticide results where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the associated blank, as well as in the sample.

E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.

D This flag identifies all compounds identified in an analysis at the secondary dilution factor.

N Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.

P This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the data page and flagged with a "P".

A This flag indicates that a TIC is a suspected aldol-condensation product.

1 Indicates coelution.

* Indicates analysis is not within the quality control limits.

## INORGANIC DATA QUALIFIERS

ND or U Indicates element was analyzed for, but not detected at or above the reporting limit.

J or B Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.

N Indicates spike sample recovery is not within the quality control limits.

K Indicates the post digestion spike recovery is not within the quality control limits.

S Indicates value determined by the Method of Standard Addition.

M Indicates duplicate injection results exceeded quality control limits.

W Post digestion spike for Furnace AA analysis is out of quality control limits (85-115%) while sample absorbance is less than 50% of spike absorbance.

E Indicates a value estimated or not reported due to the presence of interferences.

H Indicates analytical holding time exceedance. The value obtained should be considered an estimate.

* Indicates analysis is not within the quality control limits.

+ Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

# Sample Data Package

Date: 05/27/2004
Time: 15:36:06

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
WESTLAKE - 8260 25ML- TCL VOLATILES - W(UNPRES)

Rept: AN0326

| Client ID | | DUPLICATE @ PZ-303AS | | DUPLICATE @ PZ-303AS | | EQUIP BLANK | | FIELD BLANK@PZ-303AS | |
|---|---|---|---|---|---|---|---|---|---|
| Job No / Lab ID | | A04-4441 | A4444101 | A04-4441 | A4444101DL | A04-4441 | A4444102 | A04-4441 | A4444103 |
| Sample Date | | 05/10/2004 | | 05/10/2004 | | 05/10/2004 | | 05/10/2004 | |
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Acetone | UG/L | ND | 100 | ND | 200 | 26 | 5.0 | ND | 5.0 |
| Benzene | UG/L | 53 | 20 | 46 D | 40 | ND | 5.0 | ND | 5.0 |
| Bromodichloromethane | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| Bromoform | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| Bromomethane | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| 2-Butanone | UG/L | ND | 100 | ND | 200 | ND | 5.0 | ND | 5.0 |
| Carbon Disulfide | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| Carbon Tetrachloride | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| Chlorobenzene | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| Chloroethane | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| Chloroform | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| Chloromethane | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| Cyclohexane | UG/L | 20 | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| 1,2-Dibromoethane | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| Dibromochloromethane | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| 1,2-Dibromo-3-chloropropane | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| 1,2-Dichlorobenzene | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| 1,3-Dichlorobenzene | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| 1,4-Dichlorobenzene | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| Dichlorodifluoromethane | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| 1,1-Dichloroethane | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| 1,2-Dichloroethane | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| 1,1-Dichloroethene | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| cis-1,2-Dichloroethene | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| trans-1,2-Dichloroethene | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| 1,2-Dichloropropane | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| cis-1,3-Dichloropropene | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| trans-1,3-Dichloropropene | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| Ethylbenzene | UG/L | 49 | 20 | 54 D | 40 | ND | 5.0 | ND | 5.0 |
| 2-Hexanone | UG/L | ND | 100 | ND | 200 | ND | 5.0 | ND | 5.0 |
| Isopropylbenzene | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| Methyl acetate | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| Methylcyclohexane | UG/L | 34 | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| Methylene chloride | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| 4-Methyl-2-pentanone | UG/L | ND | 100 | ND | 200 | ND | 5.0 | ND | 5.0 |
| Methyl tert butyl ether | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| Styrene | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| 1,1,2,2-Tetrachloroethane | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| Tetrachloroethene | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| Toluene | UG/L | 940 E | 20 | 1100 D | 40 | 8.5 | 5.0 | ND | 5.0 |
| 1,2,4-Trichlorobenzene | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| 1,1,1-Trichloroethane | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| 1,1,2-Trichloroethane | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |

10\90

A = Not Applicable ND = Not Detected

STL Buffalo

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
WESTLAKE - 8260 25ML- TCL VOLATILES - W(UNPRES)



| Client ID | | DUPLICATE @ PZ-303AS | | DUPLICATE @ PZ-303AS | | EQUIP BLANK | | FIELD BLANK@PZ-303AS | |
|---|---|---|---|---|---|---|---|---|---|
| Job No / Lab ID | | A04-4441 | A4444101 | A04-4441 | A4444101DL | A04-4441 | A4444102 | A04-4441 | A4444103 |
| Sample Date | | 05/10/2004 | | 05/10/2004 | | 05/10/2004 | | 05/10/2004 | |
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| 1,1,2-Trichloro-1,2,2-trifluor | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| Trichlorofluoromethane | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| Trichloroethene | UG/L | ND | 20 | ND | 40 | ND | 5.0 | ND | 5.0 |
| Vinyl acetate | UG/L | ND | 100 | ND | 200 | ND | 5.0 | ND | 5.0 |
| Vinyl chloride | UG/L | ND | 20 | ND | 40 | ND | 1.0 | ND | 1.0 |
| Total Xylenes | UG/L | 280 | 60 | 310 D | 120 | ND | 5.0 | ND | 5.0 |
| IS/SURROGATE(S) | | | | | | | | | |
| Chlorobenzene-D5 | % | 87 | 50-200 | 87 | 50-200 | 96 | 50-200 | 95 | 50-200 |
| 1,4-Difluorobenzene | % | 87 | 50-200 | 87 | 50-200 | 98 | 50-200 | 100 | 50-200 |
| 1,4-Dichlorobenzene-D4 | % | 95 | 50-200 | 94 | 50-200 | 96 | 50-200 | 96 | 50-200 |
| Toluene-D8 | % | 98 | 76-116 | 96 | 76-116 | 99 | 76-116 | 100 | 76-116 |
| p-Bromofluorobenzene | % | 110 | 73-117 | 104 | 73-117 | 105 | 73-117 | 105 | 73-117 |
| 1,2-Dichloroethane-D4 | % | 112 | 72-143 | 105 | 72-143 | 106 | 72-143 | 105 | 72-143 |

11\90

NA = Not Applicable ND = Not Detected

Date: 05/27/2004
Time: 15:36:06

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
WESTLAKE - 8260 25ML- TCL VOLATILES - W(UNPRES)

Rept: AN0326

| Client ID | | PZ-302-AI | | PZ-302-AS | | PZ-302-ASDL | | PZ-303-AS | |
|---|---|---|---|---|---|---|---|---|---|
| Job No | Lab ID | A04-4441 | A4444104 | A04-4441 | A4444105 | A04-4441 | A4444105DL | A04-4441 | A4444106 |
| Sample Date | | 05/11/2004 | | 05/10/2004 | | 05/10/2004 | | 05/10/2004 | |
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Acetone | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 100 |
| Benzene | UG/L | ND | 5.0 | ND | 10 | ND | 20 | 51 | 20 |
| Bromodichloromethane | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| Bromoform | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| Bromomethane | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| 2-Butanone | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 100 |
| Carbon Disulfide | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| Carbon Tetrachloride | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| Chlorobenzene | UG/L | ND | 5.0 | 82 E | 10 | 87 D | 20 | ND | 20 |
| Chloroethane | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| Chloroform | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| Chloromethane | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| Cyclohexane | UG/L | ND | 5.0 | ND | 10 | ND | 20 | 22 | 20 |
| 1,2-Dibromoethane | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| Dibromochloromethane | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| 1,2-Dibromo-3-chloropropane | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| 1,2-Dichlorobenzene | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| 1,3-Dichlorobenzene | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| 1,4-Dichlorobenzene | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| Dichlorodifluoromethane | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| 1,1-Dichloroethane | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| 1,2-Dichloroethane | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| 1,1-Dichloroethene | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| cis-1,2-Dichloroethene | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| trans-1,2-Dichloroethene | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| 1,2-Dichloropropane | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| cis-1,3-Dichloropropene | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| trans-1,3-Dichloropropene | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| Ethylbenzene | UG/L | ND | 5.0 | ND | 10 | ND | 20 | 71 | 20 |
| 2-Hexanone | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 100 |
| Isopropylbenzene | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| Methyl acetate | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| Methylcyclohexane | UG/L | ND | 5.0 | ND | 10 | ND | 20 | 50 | 20 |
| Methylene chloride | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| 4-Methyl-2-pentanone | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 100 |
| Methyl tert butyl ether | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| Styrene | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| 1,1,2,2-Tetrachloroethane | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| Tetrachloroethene | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| Toluene | UG/L | ND | 5.0 | ND | 10 | ND | 20 | 1600 E | 20 |
| 1,2,4-Trichlorobenzene | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| 1,1,1-Trichloroethane | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| 1,1,2-Trichloroethane | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |

= Not Applicable ND = Not Detected

STL Buffalo

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
WESTLAKE - 8260 25ML- TCL VOLATILES - W(UNPRES)



| Client ID<br>Job No<br>Sample Date | Lab ID | PZ-302-AI<br>A04-4441<br>05/11/2004 | A4444104 | PZ-302-AS<br>A04-4441<br>05/10/2004 | A4444105 | PZ-302-ASDL<br>A04-4441<br>05/10/2004 | A4444105DL | PZ-303-AS<br>A04-4441<br>05/10/2004 | A4444106 |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| 1,1,2-Trichloro-1,2,2-trifluor | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| Trichlorofluoromethane | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| Trichloroethene | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 20 |
| Vinyl acetate | UG/L | ND | 5.0 | ND | 10 | ND | 20 | ND | 100 |
| Vinyl chloride | UG/L | ND | 1.0 | ND | 2.0 | ND | 4.0 | ND | 20 |
| Total Xylenes | UG/L | ND | 5.0 | ND | 10 | ND | 20 | 390 | 60 |
| ==IS/SURROGATE(S)== | | | | | | | | | |
| Chlorobenzene-D5 | % | 90 | 50-200 | 86 | 50-200 | 85 | 50-200 | 94 | 50-200 |
| 1,4-Difluorobenzene | % | 94 | 50-200 | 92 | 50-200 | 87 | 50-200 | 94 | 50-200 |
| 1,4-Dichlorobenzene-D4 | % | 91 | 50-200 | 92 | 50-200 | 91 | 50-200 | 99 | 50-200 |
| Toluene-D8 | % | 100 | 76-116 | 104 | 76-116 | 104 | 76-116 | 96 | 76-116 |
| p-Bromofluorobenzene | % | 106 | 73-117 | 112 | 73-117 | 110 | 73-117 | 109 | 73-117 |
| 1,2-Dichloroethane-D4 | % | 108 | 72-143 | 112 | 72-143 | 110 | 72-143 | 109 | 72-143 |

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NA = Not Applicable ND = Not Detected

Date: 05/27/2004
Time: 15:36:06

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
WESTLAKE - 8260 25ML- TCL VOLATILES - W(UNPRES)

Rept: AN0326

| Client ID | | PZ-303-ASDL | | PZ-304-AI | | PZ-304-AS | | | |
|---|---|---|---|---|---|---|---|---|---|
| Job No / Lab ID | | A04-4441 | A4444106DL | A04-4441 | A4444107 | A04-4441 | A4444108 | | |
| Sample Date | | 05/10/2004 | | 05/10/2004 | | 05/10/2004 | | | |
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Acetone | UG/L | ND | 250 | ND | 5.0 | ND | 5.0 | NA | |
| Benzene | UG/L | ND | 50 | ND | 5.0 | 6.2 | 5.0 | NA | |
| Bromodichloromethane | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| Bromoform | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| Bromomethane | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| 2-Butanone | UG/L | ND | 250 | ND | 5.0 | ND | 5.0 | NA | |
| Carbon Disulfide | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| Carbon Tetrachloride | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| Chlorobenzene | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| Chloroethane | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| Chloroform | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| Chloromethane | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| Cyclohexane | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| 1,2-Dibromoethane | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| Dibromochloromethane | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| 1,2-Dibromo-3-chloropropane | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| 1,2-Dichlorobenzene | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| 1,3-Dichlorobenzene | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| 1,4-Dichlorobenzene | UG/L | ND | 50 | ND | 5.0 | 5.7 | 5.0 | NA | |
| Dichlorodifluoromethane | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| 1,1-Dichloroethane | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| 1,2-Dichloroethane | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| 1,1-Dichloroethene | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| cis-1,2-Dichloroethene | UG/L | ND | 50 | 10 | 5.0 | ND | 5.0 | NA | |
| trans-1,2-Dichloroethene | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| 1,2-Dichloropropane | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| cis-1,3-Dichloropropene | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| trans-1,3-Dichloropropene | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| Ethylbenzene | UG/L | 64 D | 50 | ND | 5.0 | ND | 5.0 | NA | |
| 2-Hexanone | UG/L | ND | 250 | ND | 5.0 | ND | 5.0 | NA | |
| Isopropylbenzene | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| Methyl acetate | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| Methylcyclohexane | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| Methylene chloride | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| 4-Methyl-2-pentanone | UG/L | ND | 250 | ND | 5.0 | ND | 5.0 | NA | |
| Methyl tert butyl ether | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| Styrene | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| 1,1,2,2-Tetrachloroethane | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| Tetrachloroethene | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| Toluene | UG/L | 1500 D | 50 | ND | 5.0 | ND | 5.0 | NA | |
| 1,2,4-Trichlorobenzene | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| 1,1,1-Trichloroethane | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| 1,1,2-Trichloroethane | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |

A = Not Applicable ND = Not Detected

STL Buffalo

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ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
WESTLAKE - 8260 25ML- TCL VOLATILES - W(UNPRES)



| Client ID | | PZ-303-ASDL | | PZ-304-AI | | PZ-304-AS | | | |
|---|---|---|---|---|---|---|---|---|---|
| Job No | Lab ID | A04-4441 | A4444106DL | A04-4441 | A4444107 | A04-4441 | A4444108 | | |
| Sample Date | | 05/10/2004 | | 05/10/2004 | | 05/10/2004 | | | |
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| 1,1,2-Trichloro-1,2,2-trifluor | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| Trichlorofluoromethane | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| Trichloroethene | UG/L | ND | 50 | ND | 5.0 | ND | 5.0 | NA | |
| Vinyl acetate | UG/L | ND | 250 | ND | 5.0 | ND | 5.0 | NA | |
| Vinyl chloride | UG/L | ND | 50 | 6.7 | 1.0 | 1.4 | 1.0 | NA | |
| Total Xylenes | UG/L | 360 D | 150 | ND | 5.0 | ND | 5.0 | NA | |
| IS/SURROGATE(S) | | | | | | | | | |
| Chlorobenzene-D5 | % | 89 | 50-200 | 89 | 50-200 | 89 | 50-200 | NA | |
| 1,4-Difluorobenzene | % | 88 | 50-200 | 90 | 50-200 | 90 | 50-200 | NA | |
| 1,4-Dichlorobenzene-D4 | % | 95 | 50-200 | 92 | 50-200 | 93 | 50-200 | NA | |
| Toluene-D8 | % | 98 | 76-116 | 101 | 76-116 | 102 | 76-116 | NA | |
| p-Bromofluorobenzene | % | 104 | 73-117 | 105 | 73-117 | 108 | 73-117 | NA | |
| 1,2-Dichloroethane-D4 | % | 107 | 72-143 | 104 | 72-143 | 105 | 72-143 | NA | |

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:36:10

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
ALLIED - GASOLINE RANGE ORGANICS-8015B-W (UNPRES)

Rept: AN0326

| Client ID<br>Job No<br>Sample Date | Lab ID | DUPLICATE @ PZ-303AS<br>A04-4441<br>05/10/2004 | A4444101 | EQUIP BLANK<br>A04-4441<br>05/10/2004 | A4444102 | PZ-302-AI<br>A04-4441<br>05/11/2004 | A4444104 | PZ-302-AS<br>A04-4441<br>05/10/2004 | A4444105 |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Gasoline Range Organics | MG/L | 2.4 | 1.0 | ND | 0.050 | ND | 0.050 | 0.14 | 0.050 |
| SURROGATE(S) | | | | | | | | | |
| a,a,a-Trifluorotoluene | % | 112 | 71-138 | 111 | 71-138 | 111 | 71-138 | 111 | 71-138 |

| Client ID<br>Job No<br>Sample Date | Lab ID | PZ-303-AS<br>A04-4441<br>05/10/2004 | A4444106 | PZ-304-AI<br>A04-4441<br>05/10/2004 | A4444107 | PZ-304-AS<br>A04-4441<br>05/10/2004 | A4444108 | | |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Gasoline Range Organics | MG/L | 3.2 | 1.0 | ND | 0.050 | ND | 0.050 | NA | |
| SURROGATE(S) | | | | | | | | | |
| a,a,a-Trifluorotoluene | % | 111 | 71-138 | 108 | 71-138 | 109 | 71-138 | NA | |

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= Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:36:21

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Rept: AN0326

| Client ID | | DUPLICATE @ PZ-303AS | | EQUIP BLANK | | PZ-302-AI | | PZ-302-AS | |
|---|---|---|---|---|---|---|---|---|---|
| Job No / Lab ID | | A04-4441 | A4444101 | A04-4441 | A4444102 | A04-4441 | A4444104 | A04-4441 | A4444105 |
| Sample Date | | 05/10/2004 | | 05/10/2004 | | 05/11/2004 | | 05/10/2004 | |
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Phenol | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Bis(2-chloroethyl) ether | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| 2-Chlorophenol | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| 2-Methylphenol | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| 2,2'-Oxybis(1-Chloropropane) | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| 4-Methylphenol | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| N-Nitroso-Di-n-propylamine | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Hexachloroethane | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Nitrobenzene | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Isophorone | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| 2-Nitrophenol | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| 2,4-Dimethylphenol | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Bis(2-chloroethoxy) methane | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| 2,4-Dichlorophenol | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Naphthalene | UG/L | 22 | 9 | ND | 10 | ND | 10 | ND | 10 |
| 4-Chloroaniline | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Hexachlorobutadiene | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| 4-Chloro-3-methylphenol | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| 2-Methylnaphthalene | UG/L | 41 | 9 | ND | 10 | ND | 10 | ND | 10 |
| Hexachlorocyclopentadiene | UG/L | ND | 22 | ND | 23 | ND | 23 | ND | 23 |
| 2,4,6-Trichlorophenol | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| 2,4,5-Trichlorophenol | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| 2-Chloronaphthalene | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| 2-Nitroaniline | UG/L | ND | 47 | ND | 48 | ND | 48 | ND | 50 |
| Dimethyl phthalate | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Acenaphthylene | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| 3-Nitroaniline | UG/L | ND | 47 | ND | 48 | ND | 48 | ND | 50 |
| Acenaphthene | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| 2,4-Dinitrophenol | UG/L | ND | 47 | ND | 48 | ND | 48 | ND | 50 |
| 4-Nitrophenol | UG/L | ND | 47 | ND | 48 | ND | 48 | ND | 50 |
| Dibenzofuran | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| 2,4-Dinitrotoluene | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Diethyl phthalate | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| 4-Chlorophenyl phenyl ether | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Fluorene | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| 4-Nitroaniline | UG/L | ND | 47 | ND | 48 | ND | 48 | ND | 50 |
| 4,6-Dinitro-2-methylphenol | UG/L | ND | 47 | ND | 48 | ND | 48 | ND | 50 |
| N-nitrosodiphenylamine | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| 4-Bromophenyl phenyl ether | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Hexachlorobenzene | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Pentachlorophenol | UG/L | ND | 47 | ND | 48 | ND | 48 | ND | 50 |
| Phenanthrene | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Anthracene | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |

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NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:36:21

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Rept: AN0326

| Client ID<br>Job No<br>Sample Date | Lab ID | DUPLICATE @ PZ-303AS<br>A04-4441<br>05/10/2004 | A4444101 | EQUIP BLANK<br>A04-4441<br>05/10/2004 | A4444102 | PZ-302-AI<br>A04-4441<br>05/11/2004 | A4444104 | PZ-302-AS<br>A04-4441<br>05/10/2004 | A4444105 |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Di-n-butyl phthalate | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Fluoranthene | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Pyrene | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Butyl benzyl phthalate | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| 3,3'-Dichlorobenzidine | UG/L | ND | 19 | ND | 19 | ND | 19 | ND | 20 |
| Benzo(a)anthracene | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Chrysene | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Bis(2-ethylhexyl) phthalate | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Di-n-octyl phthalate | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Benzo(b)fluoranthene | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Benzo(k)fluoranthene | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Benzo(a)pyrene | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Indeno(1,2,3-cd)pyrene | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Dibenzo(a,h)anthracene | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| Benzo(ghi)perylene | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| 2,6-Dinitrotoluene | UG/L | ND | 9 | ND | 10 | ND | 10 | ND | 10 |
| ==IS/SURROGATE(S)== | | | | | | | | | |
| 1,4-Dichlorobenzene-D4 | % | 96 | 50-200 | 109 | 50-200 | 107 | 50-200 | 105 | 50-200 |
| Naphthalene-D8 | % | 93 | 50-200 | 111 | 50-200 | 107 | 50-200 | 104 | 50-200 |
| Acenaphthene-D10 | % | 93 | 50-200 | 112 | 50-200 | 110 | 50-200 | 106 | 50-200 |
| Phenanthrene-D10 | % | 87 | 50-200 | 111 | 50-200 | 104 | 50-200 | 99 | 50-200 |
| Chrysene-D12 | % | 94 | 50-200 | 97 | 50-200 | 101 | 50-200 | 110 | 50-200 |
| Perylene-D12 | % | 109 | 50-200 | 105 | 50-200 | 113 | 50-200 | 134 | 50-200 |
| Nitrobenzene-D5 | % | 88 | 34-121 | 80 | 34-121 | 86 | 34-121 | 84 | 34-121 |
| 2-Fluorobiphenyl | % | 87 | 42-126 | 84 | 42-126 | 86 | 42-126 | 86 | 42-126 |
| p-Terphenyl-d14 | % | 82 | 36-145 | 113 | 36-145 | 85 | 36-145 | 82 | 36-145 |
| Phenol-D5 | % | 31 | 10-110 | 30 | 10-110 | 32 | 10-110 | 33 | 10-110 |
| 2-Fluorophenol | % | 45 | 14-120 | 41 | 14-120 | 44 | 14-120 | 45 | 14-120 |
| 2,4,6-Tribromophenol | % | 103 | 42-158 | 96 | 42-158 | 101 | 42-158 | 101 | 42-158 |

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A = Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:36:21

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Rept: AN0326

| Client ID | | PZ-303-AS | | PZ-304-AI | | PZ-304-AS | | | |
|---|---|---|---|---|---|---|---|---|---|
| Job No / Lab ID | | A04-4441 | A4444106 | A04-4441 | A4444107 | A04-4441 | A4444108 | | |
| Sample Date | | 05/10/2004 | | 05/10/2004 | | 05/10/2004 | | | |
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Phenol | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Bis(2-chloroethyl) ether | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| 2-Chlorophenol | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| 2-Methylphenol | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| 2,2'-Oxybis(1-Chloropropane) | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| 4-Methylphenol | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| N-Nitroso-Di-n-propylamine | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Hexachloroethane | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Nitrobenzene | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Isophorone | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| 2-Nitrophenol | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| 2,4-Dimethylphenol | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Bis(2-chloroethoxy) methane | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| 2,4-Dichlorophenol | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Naphthalene | UG/L | 33 | 9 | ND | 10 | ND | 10 | NA | |
| 4-Chloroaniline | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Hexachlorobutadiene | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| 4-Chloro-3-methylphenol | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| 2-Methylnaphthalene | UG/L | 55 | 9 | ND | 10 | ND | 10 | NA | |
| Hexachlorocyclopentadiene | UG/L | ND | 22 | ND | 23 | ND | 23 | NA | |
| 2,4,6-Trichlorophenol | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| 2,4,5-Trichlorophenol | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| 2-Chloronaphthalene | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| 2-Nitroaniline | UG/L | ND | 47 | ND | 48 | ND | 48 | NA | |
| Dimethyl phthalate | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Acenaphthylene | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| 3-Nitroaniline | UG/L | ND | 47 | ND | 48 | ND | 48 | NA | |
| Acenaphthene | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| 2,4-Dinitrophenol | UG/L | ND | 47 | ND | 48 | ND | 48 | NA | |
| 4-Nitrophenol | UG/L | ND | 47 | ND | 48 | ND | 48 | NA | |
| Dibenzofuran | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| 2,4-Dinitrotoluene | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Diethyl phthalate | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| 4-Chlorophenyl phenyl ether | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Fluorene | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| 4-Nitroaniline | UG/L | ND | 47 | ND | 48 | ND | 48 | NA | |
| 4,6-Dinitro-2-methylphenol | UG/L | ND | 47 | ND | 48 | ND | 48 | NA | |
| N-nitrosodiphenylamine | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| 4-Bromophenyl phenyl ether | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Hexachlorobenzene | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Pentachlorophenol | UG/L | ND | 47 | ND | 48 | ND | 48 | NA | |
| Phenanthrene | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Anthracene | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:36:21

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Rept: AN0326

| Client ID | | PZ-303-AS | | PZ-304-AI | | PZ-304-AS | | | |
|---|---|---|---|---|---|---|---|---|---|
| Job No / Lab ID | | A04-4441 | A4444106 | A04-4441 | A4444107 | A04-4441 | A4444108 | | |
| Sample Date | | 05/10/2004 | | 05/10/2004 | | 05/10/2004 | | | |
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Di-n-butyl phthalate | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Fluoranthene | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Pyrene | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Butyl benzyl phthalate | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| 3,3'-Dichlorobenzidine | UG/L | ND | 19 | ND | 19 | ND | 19 | NA | |
| Benzo(a)anthracene | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Chrysene | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Bis(2-ethylhexyl) phthalate | UG/L | 12 | 9 | ND | 10 | ND | 10 | NA | |
| Di-n-octyl phthalate | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Benzo(b)fluoranthene | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Benzo(k)fluoranthene | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Benzo(a)pyrene | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Indeno(1,2,3-cd)pyrene | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Dibenzo(a,h)anthracene | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| Benzo(ghi)perylene | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| 2,6-Dinitrotoluene | UG/L | ND | 9 | ND | 10 | ND | 10 | NA | |
| ==IS/SURROGATE(S)== | | | | | | | | | |
| 1,4-Dichlorobenzene-D4 | % | 97 | 50-200 | 107 | 50-200 | 117 | 50-200 | NA | |
| Naphthalene-D8 | % | 93 | 50-200 | 102 | 50-200 | 116 | 50-200 | NA | |
| Acenaphthene-D10 | % | 89 | 50-200 | 104 | 50-200 | 119 | 50-200 | NA | |
| Phenanthrene-D10 | % | 91 | 50-200 | 96 | 50-200 | 105 | 50-200 | NA | |
| Chrysene-D12 | % | 101 | 50-200 | 97 | 50-200 | 105 | 50-200 | NA | |
| Perylene-D12 | % | 119 | 50-200 | 117 | 50-200 | 126 | 50-200 | NA | |
| Nitrobenzene-D5 | % | 94 | 34-121 | 85 | 34-121 | 86 | 34-121 | NA | |
| 2-Fluorobiphenyl | % | 97 | 42-126 | 87 | 42-126 | 85 | 42-126 | NA | |
| p-Terphenyl-d14 | % | 78 | 36-145 | 74 | 36-145 | 80 | 36-145 | NA | |
| Phenol-D5 | % | 37 | 10-110 | 32 | 10-110 | 31 | 10-110 | NA | |
| 2-Fluorophenol | % | 45 | 14-120 | 43 | 14-120 | 46 | 14-120 | NA | |
| 2,4,6-Tribromophenol | % | 100 | 42-158 | 108 | 42-158 | 105 | 42-158 | NA | |

20\90

= Not Applicable  ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:36:25

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
ALLIED - DIESEL RANGE ORGANICS - METHOD 8015B - W

Rept: AN0326

| Client ID<br>Job No<br>Sample Date | Lab ID | DUPLICATE @ PZ-303AS<br>A04-4441<br>05/10/2004 | A4444101 | EQUIP BLANK<br>A04-4441<br>05/10/2004 | A4444102 | PZ-302-AI<br>A04-4441<br>05/11/2004 | A4444104 | PZ-302-AS<br>A04-4441<br>05/10/2004 | A4444105 |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Diesel Range Organics | MG/L | 11 | 2.4 | ND | 0.48 | ND | 0.50 | ND | 0.49 |
| SURROGATE(S) | | | | | | | | | |
| o-Terphenyl | % | 205 * | 27-153 | 69 | 27-153 | 105 | 27-153 | 95 | 27-153 |

| Client ID<br>Job No<br>Sample Date | Lab ID | PZ-303-AS<br>A04-4441<br>05/10/2004 | A4444106 | PZ-304-AI<br>A04-4441<br>05/10/2004 | A4444107 | PZ-304-AS<br>A04-4441<br>05/10/2004 | A4444108 | | |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Diesel Range Organics | MG/L | 20 | 2.4 | 0.89 | 0.48 | 1.2 | 0.48 | NA | |
| SURROGATE(S) | | | | | | | | | |
| o-Terphenyl | % | 218 * | 27-153 | 128 | 27-153 | 133 | 27-153 | NA | |

21\90

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:36:27

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
WEST LAKE - TOTAL METALS (3) - W

Rept: AN0326

| Client ID | | DUPLICATE @ PZ-303AS | | EQUIP BLANK | | PZ-302-AI | | PZ-302-AS | |
|---|---|---|---|---|---|---|---|---|---|
| Job No / Lab ID | | A04-4441 | A4444101 | A04-4441 | A4444102 | A04-4441 | A4444104 | A04-4441 | A4444105 |
| Sample Date | | 05/10/2004 | | 05/10/2004 | | 05/11/2004 | | 05/10/2004 | |
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Arsenic - Total | MG/L | 0.085 | 0.010 | ND | 0.010 | ND | 0.010 | 0.14 | 0.010 |
| Iron - Total | MG/L | 90.3 | 0.050 | ND | 0.050 | 1.4 | 0.050 | 104 | 0.050 |
| Manganese - Total | MG/L | 1.8 | 0.0030 | ND | 0.0030 | 0.19 | 0.0030 | 10.1 | 0.0030 |

| Client ID | | PZ-303-AS | | PZ-304-AI | | PZ-304-AS | | | |
|---|---|---|---|---|---|---|---|---|---|
| Job No / Lab ID | | A04-4441 | A4444106 | A04-4441 | A4444107 | A04-4441 | A4444108 | | |
| Sample Date | | 05/10/2004 | | 05/10/2004 | | 05/10/2004 | | | |
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Arsenic - Total | MG/L | 0.084 | 0.010 | ND | 0.010 | 0.13 | 0.010 | NA | |
| Iron - Total | MG/L | 88.8 | 0.050 | 19.3 | 0.050 | 28.5 | 0.050 | NA | |
| Manganese - Total | MG/L | 1.8 | 0.0030 | 1.8 | 0.0030 | 0.14 | 0.0030 | NA | |

22\90

= Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:36:30

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
WET CHEMISTRY ANALYSIS

Rept: AN0326

| Client ID<br>Job No<br>Sample Date | Lab ID | DUPLICATE @ PZ-303AS<br>A04-4441<br>05/10/2004 | A4444101 | EQUIP BLANK<br>A04-4441<br>05/10/2004 | A4444102 | PZ-302-AI<br>A04-4441<br>05/11/2004 | A4444104 | PZ-302-AS<br>A04-4441<br>05/10/2004 | A4444105 |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Chloride | MG/L | 99.1 | 0.50 | ND | 0.50 | 77.1 | 0.50 | 50.9 | 0.50 |
| Fluoride | MG/L | 0.19 | 0.050 | ND | 0.050 | 0.35 | 0.050 | 0.60 | 0.050 |
| Total Dissolved Solids | MG/L | 1160 | 10 | ND | 10 | 769 | 10 | 1060 | 10 |
| Specific Conductance (25 C) (F | UMHOS/CM | NA | | NA | | 1253 | 0 | 1856 | 0 |
| Temperature, Field (°C) | °C | NA | | NA | | 15.4 | 0 | 15.8 | 0 |
| pH (Field) | S.U. | NA | | NA | | 6.70 | 0 | 7.60 | 0 |

| Client ID<br>Job No<br>Sample Date | Lab ID | PZ-303-AS<br>A04-4441<br>05/10/2004 | A4444106 | PZ-304-AI<br>A04-4441<br>05/10/2004 | A4444107 | PZ-304-AS<br>A04-4441<br>05/10/2004 | A4444108 | | |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Chloride | MG/L | 94.4 | 0.50 | 337 | 2.5 | 602 | 5.0 | NA | |
| Fluoride | MG/L | 0.18 | 0.050 | 0.40 | 0.050 | 0.65 | 0.25 | NA | |
| Specific Conductance (25 C) (F | UMHOS/CM | 1905 | 0 | 1507 | 0 | 2070 | 0 | NA | |
| Temperature, Field (°C) | °C | 15.7 | 0 | 17.1 | 0 | 17.3 | 0 | NA | |
| Total Dissolved Solids | MG/L | 1120 | 10 | 1460 | 10 | 1420 | 10 | NA | |
| pH (Field) | S.U. | 7.20 | 0 | 7.90 | 0 | 7.40 | 0 | NA | |

23\90

NA = Not Applicable ND = Not Detected

STL Buffalo

# Chronology and QC Summary Package

Date: 05/27/2004
Time: 15:36:43

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
WESTLAKE - 8260 25ML- TCL VOLATILES - W(UNPRES)

Rept: AN0326

| Client ID | | VBLK57 | | VBLK58 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Job No | Lab ID | A04-4441 | A4444115 | A04-4441 | A4444117 | | | | |
| Sample Date | | | | | | | | | |
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Acetone | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Benzene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Bromodichloromethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Bromoform | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Bromomethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 2-Butanone | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Carbon Disulfide | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Carbon Tetrachloride | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Chlorobenzene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Chloroethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Chloroform | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Chloromethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Cyclohexane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,2-Dibromoethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Dibromochloromethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,2-Dibromo-3-chloropropane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,2-Dichlorobenzene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,3-Dichlorobenzene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,4-Dichlorobenzene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Dichlorodifluoromethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,1-Dichloroethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,2-Dichloroethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,1-Dichloroethene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| cis-1,2-Dichloroethene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| trans-1,2-Dichloroethene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,2-Dichloropropane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| cis-1,3-Dichloropropene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| trans-1,3-Dichloropropene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Ethylbenzene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 2-Hexanone | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Isopropylbenzene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Methyl acetate | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Methylcyclohexane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Methylene chloride | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 4-Methyl-2-pentanone | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Methyl tert butyl ether | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Styrene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,1,2,2-Tetrachloroethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Tetrachloroethene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Toluene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,2,4-Trichlorobenzene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,1,1-Trichloroethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,1,2-Trichloroethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:36:43

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
WESTLAKE - 8260 25ML- TCL VOLATILES - W(UNPRES)

Rept: AN0326

| Client ID | | VBLK57 | | VBLK58 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Job No / Lab ID | | A04-4441 | A4444115 | A04-4441 | A4444117 | | | | |
| Sample Date | | | | | | | | | |
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| 1,1,2-Trichloro-1,2,2-trifluor | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Trichlorofluoromethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Trichloroethene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Vinyl acetate | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Vinyl chloride | UG/L | ND | 1.0 | ND | 1.0 | NA | | NA | |
| Total Xylenes | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| ==========IS/SURROGATE(S)========== | | | | | | | | | |
| Chlorobenzene-D5 | % | 102 | 50-200 | 94 | 50-200 | NA | | NA | |
| 1,4-Difluorobenzene | % | 104 | 50-200 | 96 | 50-200 | NA | | NA | |
| 1,4-Dichlorobenzene-D4 | % | 99 | 50-200 | 93 | 50-200 | NA | | NA | |
| Toluene-D8 | % | 98 | 76-116 | 99 | 76-116 | NA | | NA | |
| p-Bromofluorobenzene | % | 105 | 73-117 | 105 | 73-117 | NA | | NA | |
| 1,2-Dichloroethane-D4 | % | 100 | 72-143 | 98 | 72-143 | NA | | NA | |

26\90

A = Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:36:43

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
WESTLAKE - 8260 25ML- TCL VOLATILES - W(UNPRES)

Rept: AN0326

| Client ID | | MSB57 | | MSB58 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Job No / Lab ID | | A04-4441 | A4444116 | A04-4441 | A4444118 | | | | |
| Sample Date | | | | | | | | | |
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Acetone | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Benzene | UG/L | 8.9 | 5.0 | 8.6 | 5.0 | NA | | NA | |
| Bromodichloromethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Bromoform | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Bromomethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 2-Butanone | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Carbon Disulfide | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Carbon Tetrachloride | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Chlorobenzene | UG/L | 8.9 | 5.0 | 8.6 | 5.0 | NA | | NA | |
| Chloroethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Chloroform | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Chloromethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Cyclohexane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,2-Dibromoethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Dibromochloromethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,2-Dibromo-3-chloropropane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,2-Dichlorobenzene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,3-Dichlorobenzene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,4-Dichlorobenzene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Dichlorodifluoromethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,1-Dichloroethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,2-Dichloroethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,1-Dichloroethene | UG/L | 9.5 | 5.0 | 9.9 | 5.0 | NA | | NA | |
| cis-1,2-Dichloroethene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| trans-1,2-Dichloroethene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,2-Dichloropropane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| cis-1,3-Dichloropropene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| trans-1,3-Dichloropropene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Ethylbenzene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 2-Hexanone | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Isopropylbenzene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Methyl acetate | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Methylcyclohexane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Methylene chloride | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 4-Methyl-2-pentanone | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Methyl tert butyl ether | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Styrene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,1,2,2-Tetrachloroethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Tetrachloroethene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Toluene | UG/L | 9.3 | 5.0 | 9.1 | 5.0 | NA | | NA | |
| 1,2,4-Trichlorobenzene | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,1,1-Trichloroethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| 1,1,2-Trichloroethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |

27\90

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:36:43

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
WESTLAKE - 8260 25ML- TCL VOLATILES - W(UNPRES)

Rept: AN0326

| Client ID | | MSB57 | | MSB58 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Job No / Lab ID | | A04-4441 | A4444116 | A04-4441 | A4444118 | | | | |
| Sample Date | | | | | | | | | |
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| 1,1,2-Trichloro-1,2,2-trifluor | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Trichlorofluoromethane | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Trichloroethene | UG/L | 8.9 | 5.0 | 8.7 | 5.0 | NA | | NA | |
| Vinyl acetate | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| Vinyl chloride | UG/L | ND | 1.0 | ND | 1.0 | NA | | NA | |
| Total Xylenes | UG/L | ND | 5.0 | ND | 5.0 | NA | | NA | |
| ==IS/SURROGATE(S)== | | | | | | | | | |
| Chlorobenzene-D5 | % | 102 | 50-200 | 101 | 50-200 | NA | | NA | |
| 1,4-Difluorobenzene | % | 107 | 50-200 | 106 | 50-200 | NA | | NA | |
| 1,4-Dichlorobenzene-D4 | % | 100 | 50-200 | 95 | 50-200 | NA | | NA | |
| Toluene-D8 | % | 98 | 76-116 | 100 | 76-116 | NA | | NA | |
| p-Bromofluorobenzene | % | 109 | 73-117 | 104 | 73-117 | NA | | NA | |
| 1,2-Dichloroethane-D4 | % | 100 | 72-143 | 92 | 72-143 | NA | | NA | |

= Not Applicable ND = Not Detected

STL Buffalo

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
WESTLAKE - 8260 25ML- TCL VOLATILES - W(UNPRES)



| Client ID | | TRIP BLANK | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Job No | Lab ID | A04-4441 | A4444109 | | | | | | |
| Sample Date | | 05/10/2004 | | | | | | | |
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Acetone | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Benzene | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Bromodichloromethane | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Bromoform | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Bromomethane | UG/L | ND | 5.0 | NA | | NA | | NA | |
| 2-Butanone | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Carbon Disulfide | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Carbon Tetrachloride | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Chlorobenzene | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Chloroethane | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Chloroform | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Chloromethane | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Cyclohexane | UG/L | ND | 5.0 | NA | | NA | | NA | |
| 1,2-Dibromoethane | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Dibromochloromethane | UG/L | ND | 5.0 | NA | | NA | | NA | |
| 1,2-Dibromo-3-chloropropane | UG/L | ND | 5.0 | NA | | NA | | NA | |
| 1,2-Dichlorobenzene | UG/L | ND | 5.0 | NA | | NA | | NA | |
| 1,3-Dichlorobenzene | UG/L | ND | 5.0 | NA | | NA | | NA | |
| 1,4-Dichlorobenzene | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Dichlorodifluoromethane | UG/L | ND | 5.0 | NA | | NA | | NA | |
| 1,1-Dichloroethane | UG/L | ND | 5.0 | NA | | NA | | NA | |
| 1,2-Dichloroethane | UG/L | ND | 5.0 | NA | | NA | | NA | |
| 1,1-Dichloroethene | UG/L | ND | 5.0 | NA | | NA | | NA | |
| cis-1,2-Dichloroethene | UG/L | ND | 5.0 | NA | | NA | | NA | |
| trans-1,2-Dichloroethene | UG/L | ND | 5.0 | NA | | NA | | NA | |
| 1,2-Dichloropropane | UG/L | ND | 5.0 | NA | | NA | | NA | |
| cis-1,3-Dichloropropene | UG/L | ND | 5.0 | NA | | NA | | NA | |
| trans-1,3-Dichloropropene | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Ethylbenzene | UG/L | ND | 5.0 | NA | | NA | | NA | |
| 2-Hexanone | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Isopropylbenzene | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Methyl acetate | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Methylcyclohexane | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Methylene chloride | UG/L | ND | 5.0 | NA | | NA | | NA | |
| 4-Methyl-2-pentanone | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Methyl tert butyl ether | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Styrene | UG/L | ND | 5.0 | NA | | NA | | NA | |
| 1,1,2,2-Tetrachloroethane | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Tetrachloroethene | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Toluene | UG/L | ND | 5.0 | NA | | NA | | NA | |
| 1,2,4-Trichlorobenzene | UG/L | ND | 5.0 | NA | | NA | | NA | |
| 1,1,1-Trichloroethane | UG/L | ND | 5.0 | NA | | NA | | NA | |
| 1,1,2-Trichloroethane | UG/L | ND | 5.0 | NA | | NA | | NA | |

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:36:43

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
WESTLAKE - 8260 25ML- TCL VOLATILES - W(UNPRES)

Rept: AN0326

| Client ID | | TRIP BLANK | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Job No / Lab ID | | A04-4441 | A4444109 | | | | | | |
| Sample Date | | 05/10/2004 | | | | | | | |
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| 1,1,2-Trichloro-1,2,2-trifluor | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Trichlorofluoromethane | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Trichloroethene | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Vinyl acetate | UG/L | ND | 5.0 | NA | | NA | | NA | |
| Vinyl chloride | UG/L | ND | 1.0 | NA | | NA | | NA | |
| Total Xylenes | UG/L | ND | 5.0 | NA | | NA | | NA | |
| ==========IS/SURROGATE(S)========== | | | | | | | | | |
| Chlorobenzene-D5 | % | 98 | 50-200 | NA | | NA | | NA | |
| 1,4-Difluorobenzene | % | 101 | 50-200 | NA | | NA | | NA | |
| 1,4-Dichlorobenzene-D4 | % | 96 | 50-200 | NA | | NA | | NA | |
| Toluene-D8 | % | 99 | 76-116 | NA | | NA | | NA | |
| p-Bromofluorobenzene | % | 106 | 73-117 | NA | | NA | | NA | |
| 1,2-Dichloroethane-D4 | % | 103 | 72-143 | NA | | NA | | NA | |

30\90

= Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:36:47

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
ALLIED - GASOLINE RANGE ORGANICS-8015B-W (UNPRES)

Rept: AN0326

| Client ID<br>Job No<br>Sample Date | Lab ID | VBLK119<br>A04-4441 | A4444110 | VBLK133<br>A04-4441 | A4444112 | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Gasoline Range Organics | MG/L | ND | 0.050 | ND | 0.050 | NA | | NA | |
| SURROGATE(S) | | | | | | | | | |
| a,a,a-Trifluorotoluene | % | 112 | 71-138 | 108 | 71-138 | NA | | NA | |

31\90

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:36:47

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
ALLIED - GASOLINE RANGE ORGANICS-8015B-W (UNPRES)

Rept: AN0326

| Client ID<br>Job No<br>Sample Date | Lab ID | DUPLICATE @ PZ-303AS<br>A04-4441<br>05/10/2004 | A4444101MS | DUPLICATE @ PZ-303AS<br>A04-4441<br>05/10/2004 | A4444101SD | LCS<br>A04-4441 | A4444111 | LCS<br>A04-4441 | A4444113 |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Gasoline Range Organics | MG/L | 6.5 | 1.0 | 6.5 | 1.0 | 0.19 | 0.050 | 0.20 | 0.050 |
| SURROGATE(S) | | | | | | | | | |
| a,a,a-Trifluorotoluene | % | 114 | 71-138 | 113 | 71-138 | 114 | 71-138 | 110 | 71-138 |

| Client ID<br>Job No<br>Sample Date | Lab ID | LCSD<br>A04-4441 | A4444114 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Gasoline Range Organics | MG/L | 0.19 | 0.050 | NA | | NA | | NA | |
| SURROGATE(S) | | | | | | | | | |
| a,a,a-Trifluorotoluene | % | 110 | 71-138 | NA | | NA | | NA | |

32\90

= Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:36:57

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Rept: AN0326

| Client ID | | S Blank | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Job No | Lab ID | A04-4441 | A4B0975402 | | | | | | |
| Sample Date | | | | | | | | | |
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Phenol | UG/L | ND | 10 | NA | | NA | | NA | |
| Bis(2-chloroethyl) ether | UG/L | ND | 10 | NA | | NA | | NA | |
| 2-Chlorophenol | UG/L | ND | 10 | NA | | NA | | NA | |
| 2-Methylphenol | UG/L | ND | 10 | NA | | NA | | NA | |
| 2,2'-Oxybis(1-Chloropropane) | UG/L | ND | 10 | NA | | NA | | NA | |
| 4-Methylphenol | UG/L | ND | 10 | NA | | NA | | NA | |
| N-Nitroso-Di-n-propylamine | UG/L | ND | 10 | NA | | NA | | NA | |
| Hexachloroethane | UG/L | ND | 10 | NA | | NA | | NA | |
| Nitrobenzene | UG/L | ND | 10 | NA | | NA | | NA | |
| Isophorone | UG/L | ND | 10 | NA | | NA | | NA | |
| 2-Nitrophenol | UG/L | ND | 10 | NA | | NA | | NA | |
| 2,4-Dimethylphenol | UG/L | ND | 10 | NA | | NA | | NA | |
| Bis(2-chloroethoxy) methane | UG/L | ND | 10 | NA | | NA | | NA | |
| 2,4-Dichlorophenol | UG/L | ND | 10 | NA | | NA | | NA | |
| Naphthalene | UG/L | ND | 10 | NA | | NA | | NA | |
| 4-Chloroaniline | UG/L | ND | 10 | NA | | NA | | NA | |
| Hexachlorobutadiene | UG/L | ND | 10 | NA | | NA | | NA | |
| 4-Chloro-3-methylphenol | UG/L | ND | 10 | NA | | NA | | NA | |
| 2-Methylnaphthalene | UG/L | ND | 10 | NA | | NA | | NA | |
| Hexachlorocyclopentadiene | UG/L | ND | 24 | NA | | NA | | NA | |
| 2,4,6-Trichlorophenol | UG/L | ND | 10 | NA | | NA | | NA | |
| 2,4,5-Trichlorophenol | UG/L | ND | 10 | NA | | NA | | NA | |
| 2-Chloronaphthalene | UG/L | ND | 10 | NA | | NA | | NA | |
| 2-Nitroaniline | UG/L | ND | 50 | NA | | NA | | NA | |
| Dimethyl phthalate | UG/L | ND | 10 | NA | | NA | | NA | |
| Acenaphthylene | UG/L | ND | 10 | NA | | NA | | NA | |
| 3-Nitroaniline | UG/L | ND | 50 | NA | | NA | | NA | |
| Acenaphthene | UG/L | ND | 10 | NA | | NA | | NA | |
| 2,4-Dinitrophenol | UG/L | ND | 50 | NA | | NA | | NA | |
| 4-Nitrophenol | UG/L | ND | 50 | NA | | NA | | NA | |
| Dibenzofuran | UG/L | ND | 10 | NA | | NA | | NA | |
| 2,4-Dinitrotoluene | UG/L | ND | 10 | NA | | NA | | NA | |
| Diethyl phthalate | UG/L | ND | 10 | NA | | NA | | NA | |
| 4-Chlorophenyl phenyl ether | UG/L | ND | 10 | NA | | NA | | NA | |
| Fluorene | UG/L | ND | 10 | NA | | NA | | NA | |
| 4-Nitroaniline | UG/L | ND | 50 | NA | | NA | | NA | |
| 4,6-Dinitro-2-methylphenol | UG/L | ND | 50 | NA | | NA | | NA | |
| N-nitrosodiphenylamine | UG/L | ND | 10 | NA | | NA | | NA | |
| 4-Bromophenyl phenyl ether | UG/L | ND | 10 | NA | | NA | | NA | |
| Hexachlorobenzene | UG/L | ND | 10 | NA | | NA | | NA | |
| Pentachlorophenol | UG/L | ND | 50 | NA | | NA | | NA | |
| Phenanthrene | UG/L | ND | 10 | NA | | NA | | NA | |
| Anthracene | UG/L | ND | 10 | NA | | NA | | NA | |

33\90

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:36:57

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Rept: AN0326

| Client ID | | S Blank | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Job No | Lab ID | A04-4441 | A4B0975402 | | | | | | |
| Sample Date | | | | | | | | | |
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Di-n-butyl phthalate | UG/L | ND | 10 | NA | | NA | | NA | |
| Fluoranthene | UG/L | ND | 10 | NA | | NA | | NA | |
| Pyrene | UG/L | ND | 10 | NA | | NA | | NA | |
| Butyl benzyl phthalate | UG/L | ND | 10 | NA | | NA | | NA | |
| 3,3'-Dichlorobenzidine | UG/L | ND | 20 | NA | | NA | | NA | |
| Benzo(a)anthracene | UG/L | ND | 10 | NA | | NA | | NA | |
| Chrysene | UG/L | ND | 10 | NA | | NA | | NA | |
| Bis(2-ethylhexyl) phthalate | UG/L | ND | 10 | NA | | NA | | NA | |
| Di-n-octyl phthalate | UG/L | ND | 10 | NA | | NA | | NA | |
| Benzo(b)fluoranthene | UG/L | ND | 10 | NA | | NA | | NA | |
| Benzo(k)fluoranthene | UG/L | ND | 10 | NA | | NA | | NA | |
| Benzo(a)pyrene | UG/L | ND | 10 | NA | | NA | | NA | |
| Indeno(1,2,3-cd)pyrene | UG/L | ND | 10 | NA | | NA | | NA | |
| Dibenzo(a,h)anthracene | UG/L | ND | 10 | NA | | NA | | NA | |
| Benzo(ghi)perylene | UG/L | ND | 10 | NA | | NA | | NA | |
| 2,6-Dinitrotoluene | UG/L | ND | 10 | NA | | NA | | NA | |
| ==========IS/SURROGATE(S)========== | | | | | | | | | |
| 1,4-Dichlorobenzene-D4 | % | 114 | 50-200 | NA | | NA | | NA | |
| Naphthalene-D8 | % | 114 | 50-200 | NA | | NA | | NA | |
| Acenaphthene-D10 | % | 112 | 50-200 | NA | | NA | | NA | |
| Phenanthrene-D10 | % | 117 | 50-200 | NA | | NA | | NA | |
| Chrysene-D12 | % | 113 | 50-200 | NA | | NA | | NA | |
| Perylene-D12 | % | 132 | 50-200 | NA | | NA | | NA | |
| Nitrobenzene-D5 | % | 80 | 34-121 | NA | | NA | | NA | |
| 2-Fluorobiphenyl | % | 83 | 42-126 | NA | | NA | | NA | |
| o-Terphenyl-d14 | % | 102 | 36-145 | NA | | NA | | NA | |
| Phenol-D5 | % | 33 | 10-110 | NA | | NA | | NA | |
| 2-Fluorophenol | % | 46 | 14-120 | NA | | NA | | NA | |
| 2,4,6-Tribromophenol | % | 100 | 42-158 | NA | | NA | | NA | |

3490

= Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:36:57

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Rept: AN0326

| Client ID | | Matrix Spike Blank | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Job No | Lab ID | A04-4441 | A4B0975401 | | | | | | |
| Sample Date | | | | | | | | | |
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Phenol | UG/L | 33 | 10 | NA | | NA | | NA | |
| Bis(2-chloroethyl) ether | UG/L | 68 | 10 | NA | | NA | | NA | |
| 2-Chlorophenol | UG/L | 65 | 10 | NA | | NA | | NA | |
| 2-Methylphenol | UG/L | 69 | 10 | NA | | NA | | NA | |
| 2,2'-Oxybis(1-Chloropropane) | UG/L | 68 | 10 | NA | | NA | | NA | |
| 4-Methylphenol | UG/L | 62 | 10 | NA | | NA | | NA | |
| N-Nitroso-Di-n-propylamine | UG/L | 75 | 10 | NA | | NA | | NA | |
| Hexachloroethane | UG/L | 46 | 10 | NA | | NA | | NA | |
| Nitrobenzene | UG/L | 72 | 10 | NA | | NA | | NA | |
| Isophorone | UG/L | 81 | 10 | NA | | NA | | NA | |
| 2-Nitrophenol | UG/L | 73 | 10 | NA | | NA | | NA | |
| 2,4-Dimethylphenol | UG/L | 79 | 10 | NA | | NA | | NA | |
| Bis(2-chloroethoxy) methane | UG/L | 72 | 10 | NA | | NA | | NA | |
| 2,4-Dichlorophenol | UG/L | 78 | 10 | NA | | NA | | NA | |
| Naphthalene | UG/L | 68 | 10 | NA | | NA | | NA | |
| 4-Chloroaniline | UG/L | 85 | 10 | NA | | NA | | NA | |
| Hexachlorobutadiene | UG/L | 56 | 10 | NA | | NA | | NA | |
| 4-Chloro-3-methylphenol | UG/L | 90 | 10 | NA | | NA | | NA | |
| 2-Methylnaphthalene | UG/L | 74 | 10 | NA | | NA | | NA | |
| Hexachlorocyclopentadiene | UG/L | 39 | 24 | NA | | NA | | NA | |
| 2,4,6-Trichlorophenol | UG/L | 84 | 10 | NA | | NA | | NA | |
| 2,4,5-Trichlorophenol | UG/L | 86 | 10 | NA | | NA | | NA | |
| 2-Chloronaphthalene | UG/L | 73 | 10 | NA | | NA | | NA | |
| 2-Nitroaniline | UG/L | 89 | 50 | NA | | NA | | NA | |
| Dimethyl phthalate | UG/L | 86 | 10 | NA | | NA | | NA | |
| Acenaphthylene | UG/L | 81 | 10 | NA | | NA | | NA | |
| 3-Nitroaniline | UG/L | 92 | 50 | NA | | NA | | NA | |
| Acenaphthene | UG/L | 79 | 10 | NA | | NA | | NA | |
| 2,4-Dinitrophenol | UG/L | ND | 50 | NA | | NA | | NA | |
| 4-Nitrophenol | UG/L | ND | 50 | NA | | NA | | NA | |
| Dibenzofuran | UG/L | 82 | 10 | NA | | NA | | NA | |
| 2,4-Dinitrotoluene | UG/L | 85 | 10 | NA | | NA | | NA | |
| Diethyl phthalate | UG/L | 88 | 10 | NA | | NA | | NA | |
| 4-Chlorophenyl phenyl ether | UG/L | 87 | 10 | NA | | NA | | NA | |
| Fluorene | UG/L | 87 | 10 | NA | | NA | | NA | |
| 4-Nitroaniline | UG/L | 92 | 50 | NA | | NA | | NA | |
| 4,6-Dinitro-2-methylphenol | UG/L | ND | 50 | NA | | NA | | NA | |
| N-nitrosodiphenylamine | UG/L | 80 | 10 | NA | | NA | | NA | |
| 4-Bromophenyl phenyl ether | UG/L | 85 | 10 | NA | | NA | | NA | |
| Hexachlorobenzene | UG/L | 84 | 10 | NA | | NA | | NA | |
| Pentachlorophenol | UG/L | 100 | 50 | NA | | NA | | NA | |
| Phenanthrene | UG/L | 88 | 10 | NA | | NA | | NA | |
| Anthracene | UG/L | 85 | 10 | NA | | NA | | NA | |

35190

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:36:57

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Rept: AN0326

| Client ID | | Matrix Spike Blank | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Job No | Lab ID | A04-4441 | A4B0975401 | | | | | | |
| Sample Date | | | | | | | | | |
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Di-n-butyl phthalate | UG/L | 83 | 10 | NA | | NA | | NA | |
| Fluoranthene | UG/L | 88 | 10 | NA | | NA | | NA | |
| Pyrene | UG/L | 94 | 10 | NA | | NA | | NA | |
| Butyl benzyl phthalate | UG/L | 88 | 10 | NA | | NA | | NA | |
| 3,3'-Dichlorobenzidine | UG/L | 70 | 20 | NA | | NA | | NA | |
| Benzo(a)anthracene | UG/L | 90 | 10 | NA | | NA | | NA | |
| Chrysene | UG/L | 82 | 10 | NA | | NA | | NA | |
| Bis(2-ethylhexyl) phthalate | UG/L | 86 | 10 | NA | | NA | | NA | |
| Di-n-octyl phthalate | UG/L | 88 | 10 | NA | | NA | | NA | |
| Benzo(b)fluoranthene | UG/L | 82 | 10 | NA | | NA | | NA | |
| Benzo(k)fluoranthene | UG/L | 84 | 10 | NA | | NA | | NA | |
| Benzo(a)pyrene | UG/L | 84 | 10 | NA | | NA | | NA | |
| Indeno(1,2,3-cd)pyrene | UG/L | 90 | 10 | NA | | NA | | NA | |
| Dibenzo(a,h)anthracene | UG/L | 86 | 10 | NA | | NA | | NA | |
| Benzo(ghi)perylene | UG/L | 89 | 10 | NA | | NA | | NA | |
| 2,6-Dinitrotoluene | UG/L | 84 | 10 | NA | | NA | | NA | |
| ==IS/SURROGATE(S)== | | | | | | | | | |
| 1,4-Dichlorobenzene-D4 | % | 123 | 50-200 | NA | | NA | | NA | |
| Naphthalene-D8 | % | 124 | 50-200 | NA | | NA | | NA | |
| Acenaphthene-D10 | % | 122 | 50-200 | NA | | NA | | NA | |
| Phenanthrene-D10 | % | 124 | 50-200 | NA | | NA | | NA | |
| Chrysene-D12 | % | 124 | 50-200 | NA | | NA | | NA | |
| Perylene-D12 | % | 139 | 50-200 | NA | | NA | | NA | |
| Nitrobenzene-D5 | % | 72 | 34-121 | NA | | NA | | NA | |
| 2-Fluorobiphenyl | % | 69 | 42-126 | NA | | NA | | NA | |
| p-Terphenyl-d14 | % | 92 | 36-145 | NA | | NA | | NA | |
| Phenol-D5 | % | 30 | 10-110 | NA | | NA | | NA | |
| 2-Fluorophenol | % | 40 | 14-120 | NA | | NA | | NA | |
| 2,4,6-Tribromophenol | % | 86 | 42-158 | NA | | NA | | NA | |

36\90

A = Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:37:01

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
ALLIED - DIESEL RANGE ORGANICS - METHOD 8015B - W

Rept: AN0326

| Client ID<br>Job No<br>Sample Date | Lab ID | Method Blank<br>A04-4441 | A4B0974402 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Diesel Range Organics | MG/L | ND | 0.50 | NA | | NA | | NA | |
| SURROGATE(S) | | | | | | | | | |
| o-Terphenyl | % | 80 | 27-153 | NA | | NA | | NA | |

3790

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:37:01

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
ALLIED - DIESEL RANGE ORGANICS - METHOD 8015B - W

Rept: AN0326

| Client ID<br>Job No<br>Sample Date | Lab ID | Matrix Spike Blank<br>A04-4441 | A4B0974401 | PZ-302-AI<br>A04-4441<br>05/11/2004 | A4444104MS | PZ-302-AI<br>A04-4441<br>05/11/2004 | A4444104SD | | |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Diesel Range Organics | MG/L | 1.2 | 0.50 | 2.6 | 0.98 | 2.6 | 0.98 | NA | |
| SURROGATE(S) | | | | | | | | | |
| o-Terphenyl | % | 114 | 27-153 | 118 | 27-153 | 116 | 27-153 | NA | |

38\90

= Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:37:04

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
WEST LAKE - TOTAL METALS (3) - W

Rept: AN0326

| Client ID | | Method Blank | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Job No | Lab ID | A04-4441 | A4B0971902 | | | | | | |
| Sample Date | | | | | | | | | |
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Arsenic - Total | MG/L | ND | 0.010 | NA | | NA | | NA | |
| Manganese - Total | MG/L | ND | 0.0030 | NA | | NA | | NA | |
| Iron - Total | MG/L | ND | 0.050 | NA | | NA | | NA | |

39\90

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:37:04

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
WEST LAKE - TOTAL METALS (3) - W

Rept: AN0326

| Client ID | | LFB | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Job No | Lab ID | A04-4441 | A4B0971901 | | | | | | |
| Sample Date | | | | | | | | | |
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Iron - Total | MG/L | 0.36 | 0.050 | NA | | NA | | NA | |
| Arsenic - Total | MG/L | 0.20 | 0.010 | NA | | NA | | NA | |
| Manganese - Total | MG/L | 0.21 | 0.0030 | NA | | NA | | NA | |

40\90

= Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:37:07

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
WET CHEMISTRY ANALYSIS

Rept: AN0326

| Client ID<br>Job No<br>Sample Date | Lab ID | Method Blank<br>A04-4441 | A4B0973202 | Method Blank<br>A04-4441 | A4B0976302 | Method Blank<br>A04-4441 | A4B0990502 | | |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Chloride | MG/L | ND | 0.50 | NA | | ND | 0.50 | NA | |
| Total Dissolved Solids | MG/L | NA | | ND | 10 | NA | | NA | |
| Fluoride | MG/L | ND | 0.050 | NA | | NA | | NA | |

41\90

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 05/27/2004
Time: 15:37:07

ALLIED WASTE - WESTLAKE LANDFILL (MO)
Westlake Landfill
WET CHEMISTRY ANALYSIS

Rept: AN0326

| Client ID<br>Job No<br>Sample Date | Lab ID | LCS<br>A04-4441 | A4B0973201 | LCS<br>A04-4441 | A4B0976301 | LCS<br>A04-4441 | A4B0990501 | | |
|---|---|---|---|---|---|---|---|---|---|
| Analyte | Units | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit | Sample Value | Reporting Limit |
| Chloride | MG/L | 9.7 | 0.50 | NA | | 9.4 | 0.50 | NA | |
| Total Dissolved Solids | MG/L | NA | | 525 | 10 | NA | | NA | |
| Fluoride | MG/L | 1.0 | 0.050 | NA | | NA | | NA | |

42\90

= Not Applicable ND = Not Detected

STL Buffalo

Client Sample ID: VBLK57 MSB57
Lab Sample ID: A4444115 A4444116

| Analyte | Units of Measure | Concentration Blank Spike | Spike Amount | % Recovery Blank Spike | QC LIMITS |
|---|---|---|---|---|---|
| WESTLAKE - 8260 25ML- TCL VOLATILES - W( | | | | | |
| 1,1-Dichloroethene | UG/L | 9.52 | 10.0 | 95 | 65-138 |
| Trichloroethene | UG/L | 8.88 | 10.0 | 89 | 71-120 |
| Benzene | UG/L | 8.90 | 10.0 | 89 | 67-126 |
| Toluene | UG/L | 9.26 | 10.0 | 93 | 71-120 |
| Chlorobenzene | UG/L | 8.91 | 10.0 | 89 | 74-120 |

43\90

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

Client Sample ID: VBLK58 MSB58
Lab Sample ID: A4444117 A4444118

| Analyte | Units of Measure | Concentration Blank Spike | Spike Amount | % Recovery Blank Spike | QC LIMITS |
|---|---|---|---|---|---|
| WESTLAKE - 8260 25ML- TCL VOLATILES - W( | | | | | |
| 1,1-Dichloroethene | UG/L | 9.88 | 10.0 | 99 | 65-138 |
| Trichloroethene | UG/L | 8.67 | 10.0 | 87 | 71-120 |
| Benzene | UG/L | 8.58 | 10.0 | 86 | 67-126 |
| Toluene | UG/L | 9.14 | 10.0 | 91 | 71-120 |
| Chlorobenzene | UG/L | 8.64 | 10.0 | 86 | 74-120 |

44\90

Indicates Result is outside QC Limits
C = Not Calculated ND = Not Detected

Date : 05/27/2004 15:37:12
Job No: A04-4441

ALLIED WASTE INDUSTRIES
WESTLAKE LANDFILL
SAMPLE DATE 05/10/2004

Rept: AN0364

Client Sample ID: DUPLICATE @ PZ-303AS DUPLICATE @ PZ-303AS DUPLICATE @ PZ-303AS
Lab Sample ID: A4444101 A4444101MS A4444101SD

| Analyte | Units of Measure | Concentration | | | Spike Amount | | % Recovery | | | % RPD | QC LIMITS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample | Matrix Spike | Spike Duplicate | MS | MSD | MS | MSD | Avg | | RPD | REC. |
| ALLIED - GASOLINE RANGE ORGANICS-8015B-W | | | | | | | | | | | | |
| Gasoline Range Organics | MG/L | 2.39 | 6.47 | 6.49 | 4.00 | 4.00 | 102 | 102 | 102 | 0 | 30.0 | 62-126 |

45\90

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

STL Buffalo

Client Sample ID: VBLK119 LCS
Lab Sample ID: A4444110 A4444111

| Analyte | Units of Measure | Concentration Blank Spike | Spike Amount | % Recovery Blank Spike | QC LIMITS |
|---|---|---|---|---|---|
| ALLIED - GASOLINE RANGE ORGANICS-8015B-W | | | | | |
| Gasoline Range Organics | MG/L | 0.190 | 0.200 | 95 | 62-126 |



* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

Client Sample ID: VBLK133 LCS LCSD
Lab Sample ID: A4444112 A4444113 A4444114

| Analyte | Units of Measure | Concentration Spike Blank | Concentration Spike Blank Dup | Spike Amount SB | Spike Amount SBD | % Recovery SB | % Recovery SBD | % Recovery Avg | % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ALLIED - GASOLINE RANGE ORGANICS-8015B-W | | | | | | | | | | | |
| Gasoline Range Organics | MG/L | 0.196 | 0.193 | 0.200 | 0.200 | 98 | 97 | 98 | 1 | 30.0 | 62-126 |

4790

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

Client Sample ID: S Blank — Matrix Spike Blank
Lab Sample ID: A4B0975402 — A4B0975401

| Analyte | Units of Measure | Concentration Blank Spike | Spike Amount | % Recovery Blank Spike | QC LIMITS |
|---|---|---|---|---|---|
| METHOD 8270 - TCL SEMI-VOLATILE ORGANICS | | | | | |
| Acenaphthene | UG/L | 78.7 | 100 | 79 | 46-121 |
| Acenaphthylene | UG/L | 80.8 | 100 | 81 | 57-120 |
| Anthracene | UG/L | 84.8 | 100 | 85 | 50-126 |
| Benzo(a)anthracene | UG/L | 89.9 | 100 | 90 | 50-144 |
| Benzo(b)fluoranthene | UG/L | 82.2 | 100 | 82 | 40-158 |
| Benzo(k)fluoranthene | UG/L | 83.8 | 100 | 84 | 42-140 |
| Benzo(ghi)perylene | UG/L | 88.9 | 100 | 89 | 33-139 |
| Benzo(a)pyrene | UG/L | 84.1 | 100 | 84 | 50-140 |
| Bis(2-chloroethoxy) methane | UG/L | 72.4 | 100 | 72 | 35-120 |
| Bis(2-chloroethyl) ether | UG/L | 67.7 | 100 | 68 | 24-120 |
| 2,2'-Oxybis(1-Chloropropane) | UG/L | 68.1 | 100 | 68 | 24-120 |
| Bis(2-ethylhexyl) phthalate | UG/L | 86.3 | 100 | 85 | 29-171 |
| 4-Bromophenyl phenyl ether | UG/L | 84.7 | 100 | 85 | 46-134 |
| Butyl benzyl phthalate | UG/L | 87.7 | 100 | 88 | 46-147 |
| 4-Chloroaniline | UG/L | 84.6 | 100 | 85 | 38-120 |
| 4-Chloro-3-methylphenol | UG/L | 90.5 | 100 | 90 | 48-135 |
| 2-Chloronaphthalene | UG/L | 73.1 | 100 | 73 | 39-120 |
| 2-Chlorophenol | UG/L | 65.3 | 100 | 65 | 33-120 |
| 4-Chlorophenyl phenyl ether | UG/L | 86.8 | 100 | 87 | 47-128 |
| Chrysene | UG/L | 82.0 | 100 | 82 | 56-128 |
| Dibenzo(a,h)anthracene | UG/L | 85.8 | 100 | 86 | 45-125 |
| Dibenzofuran | UG/L | 81.9 | 100 | 82 | 46-120 |
| Di-n-butyl phthalate | UG/L | 83.4 | 100 | 83 | 68-136 |
| 3,3'-Dichlorobenzidine | UG/L | 69.5 | 100 | 70 | 37-154 |
| 2,4-Dichlorophenol | UG/L | 78.2 | 100 | 78 | 36-126 |
| Diethyl phthalate | UG/L | 88.2 | 100 | 88 | 48-143 |
| 2,4-Dimethylphenol | UG/L | 79.3 | 100 | 79 | 35-125 |
| Dimethyl phthalate | UG/L | 86.2 | 100 | 86 | 50-135 |
| 4,6-Dinitro-2-methylphenol | UG/L | 47.6 | 100 | 48 | 39-164 |
| 2,4-Dinitrophenol | UG/L | 32.5 | 100 | 32 | 15-155 |
| 2,4-Dinitrotoluene | UG/L | 84.9 | 100 | 85 | 49-135 |
| 2,6-Dinitrotoluene | UG/L | 83.7 | 100 | 84 | 53-142 |
| Di-n-octyl phthalate | UG/L | 87.6 | 100 | 88 | 49-156 |
| Fluoranthene | UG/L | 87.5 | 100 | 88 | 51-139 |
| Fluorene | UG/L | 87.3 | 100 | 87 | 49-130 |
| Hexachlorobenzene | UG/L | 83.9 | 100 | 84 | 44-139 |
| Hexachlorobutadiene | UG/L | 56.2 | 100 | 56 | 10-120 |
| Hexachlorocyclopentadiene | UG/L | 38.6 | 100 | 39 | 12-120 |
| Hexachloroethane | UG/L | 46.2 | 100 | 46 | 10-120 |
| Indeno(1,2,3-cd)pyrene | UG/L | 89.8 | 100 | 90 | 49-135 |
| Isophorone | UG/L | 80.6 | 100 | 81 | 24-121 |
| 2-Methylnaphthalene | UG/L | 73.7 | 100 | 74 | 44-120 |
| 2-Methylphenol | UG/L | 68.7 | 100 | 69 | 26-134 |

* Indicates Result is outside QC Limits
NC = Not Calculated  ND = Not Detected

Client Sample ID: S Blank — Matrix Spike Blank
Lab Sample ID: A4B0975402 — A4B0975401

| Analyte | Units of Measure | Concentration Blank Spike | Spike Amount | % Recovery Blank Spike | QC LIMITS |
|---|---|---|---|---|---|
| METHOD 8270 - TCL SEMI-VOLATILE ORGANICS | | | | | |
| 4-Methylphenol | UG/L | 61.9 | 100 | 62 | 35-125 |
| Naphthalene | UG/L | 68.5 | 100 | 68 | 38-120 |
| 2-Nitroaniline | UG/L | 89.4 | 100 | 89 | 52-139 |
| 3-Nitroaniline | UG/L | 92.2 | 100 | 92 | 65-140 |
| 4-Nitroaniline | UG/L | 92.0 | 100 | 92 | 59-147 |
| Nitrobenzene | UG/L | 71.8 | 100 | 72 | 34-128 |
| 2-Nitrophenol | UG/L | 73.2 | 100 | 73 | 41-120 |
| 4-Nitrophenol | UG/L | 41.8 | 100 | 42 | 7-120 |
| N-nitrosodiphenylamine | UG/L | 79.7 | 100 | 80 | 43-120 |
| N-Nitroso-Di-n-propylamine | UG/L | 75.2 | 100 | 75 | 36-124 |
| Pentachlorophenol | UG/L | 102 | 100 | 103 | 21-137 |
| Phenanthrene | UG/L | 87.5 | 100 | 88 | 54-136 |
| Phenol | UG/L | 33.4 | 100 | 33 | 13-149 |
| Pyrene | UG/L | 93.8 | 100 | 94 | 53-142 |
| 2,4,5-Trichlorophenol | UG/L | 86.3 | 100 | 86 | 52-139 |
| 2,4,6-Trichlorophenol | UG/L | 84.3 | 100 | 84 | 48-139 |



* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

Date : 05/27/2004 15:37:18
Job No: A04-4441

ALLIED WASTE INDUSTRIES
WESTLAKE LANDFILL
SAMPLE DATE 05/11/2004

Rept: AN0364

Client Sample ID: PZ-302-AI PZ-302-AI PZ-302-AI
Lab Sample ID: A4444104 A4444104MS A4444104SD

| Analyte | Units of Measure | Concentration | | | Spike Amount | | % Recovery | | | % RPD | QC LIMITS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample | Matrix Spike | Spike Duplicate | MS | MSD | MS | MSD | Avg | | RPD | REC. |
| ALLIED - DIESEL RANGE ORGANICS - METHOD | | | | | | | | | | | | |
| Diesel Range Organics | MG/L | 0 | 2.56 | 2.62 | 2.94 | 2.94 | 87 | 89 | 88 | 2 | 30.0 | 53-162 |

50\90

* Indicates Result is outside QC Limits
C = Not Calculated ND = Not Detected

STL Buffalo

Client Sample ID: Method Blank — Matrix Spike Blank
Lab Sample ID: A4B0974402 — A4B0974401

| Analyte | Units of Measure | Concentration Blank Spike | Concentration Spike Amount | % Recovery Blank Spike | QC LIMITS |
|---|---|---|---|---|---|
| ALLIED - DIESEL RANGE ORGANICS - METHOD<br>Diesel Range Organics | MG/L | 1.23 | 1.50 | 82 | 53-162 |

51\90

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

Date : 05/27/2004 15:37:21
Job No: A04-4441

ALLIED WASTE INDUSTRIES
WESTLAKE LANDFILL

Rept: AN0364

Client Sample ID: Method Blank LFB
Lab Sample ID: A4B0971902 A4B0971901

| Analyte | Units of Measure | Concentration Blank Spike | Spike Amount | % Recovery Blank Spike | QC LIMITS |
|---|---|---|---|---|---|
| WEST LAKE - TOTAL METALS (3) - W | | | | | |
| ALLIED - TOTAL ARSENIC - W | MG/L | 0.195 | 0.200 | 98 | 80-120 |
| ALLIED - TOTAL IRON - W | MG/L | 0.363 | 0.400 | 91 | 80-120 |
| ALLIED - TOTAL MANGANESE - W | MG/L | 0.209 | 0.200 | 104 | 80-120 |

52\90

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

STL Buffalo

Client Sample ID: Method Blank LCS
Lab Sample ID: A4B0973202 A4B0973201

| Analyte | Units of Measure | Concentration Blank Spike | Spike Amount | % Recovery Blank Spike | QC LIMITS |
|---|---|---|---|---|---|
| WET CHEMISTRY ANALYSIS | | | | | |
| ALLIED - 9056 CHLORIDE BY IC | MG/L | 9.73 | 10.0 | 95 | 90-110 |
| ALLIED - 9056 METHOD 9056 - FLUORIDE | MG/L | 1.05 | 1.00 | 105 | 90-110 |

53\90

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

Client Sample ID: Method Blank LCS
Lab Sample ID: A4B0976302 A4B0976301

| Analyte | Units of Measure | Concentration Blank Spike | Spike Amount | % Recovery Blank Spike | QC LIMITS |
|---|---|---|---|---|---|
| WET CHEMISTRY ANALYSIS | | | | | |
| ALLIED - METHOD 160.1 - TOTAL DISSOLVE | MG/L | 525.0 | 500.0 | 105 | 85-115 |

54\90

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

Client Sample ID: Method Blank LCS
Lab Sample ID: A4B0990502 A4B0990501

| Analyte | Units of Measure | Concentration Blank Spike | Spike Amount | % Recovery Blank Spike | QC LIMITS |
|---|---|---|---|---|---|
| WET CHEMISTRY ANALYSIS | | | | | |
| ALLIED - 9056 CHLORIDE BY IC | MG/L | 9.36 | 10.0 | 92 | 90-110 |

5590

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

WESTLAKE - 8260 25ML- TCL VOLATILES - W(UNPRES)

| Client Sample ID<br>Job No & Lab Sample ID | DUPLICATE @ PZ-303AS<br>A04-4441 A4444101 | DUPLICATE @ PZ-303AS<br>A04-4441 A4444101DL | EQUIP BLANK<br>A04-4441 A4444102 | FIELD BLANK@PZ-303AS<br>A04-4441 A4444103 | PZ-302-AI<br>A04-4441 A4444104 |
|---|---|---|---|---|---|
| Sample Date | 05/10/2004 17:00 | 05/10/2004 17:00 | 05/10/2004 19:15 | 05/10/2004 16:25 | 05/11/2004 15:30 |
| Received Date | 05/12/2004 09:45 | 05/12/2004 09:45 | 05/12/2004 09:45 | 05/12/2004 09:45 | 05/12/2004 09:45 |
| Extraction Date | | | | | |
| Analysis Date | 05/13/2004 20:40 | 05/14/2004 13:11 | 05/13/2004 21:14 | 05/13/2004 21:48 | 05/13/2004 22:22 |
| Extraction HT Met? | - | - | - | - | - |
| Analytical HT Met? | YES | YES | YES | YES | YES |
| Sample Matrix | WATER | WATER | WATER | WATER | WATER |
| Dilution Factor | 20.0 | 40.0 | 1.0 | 1.0 | 1.0 |
| Sample wt/vol | 0.025 LITERS | 0.025 LITERS | 0.025 LITERS | 0.025 LITERS | 0.025 LITERS |
| % Dry | | | | | |

5690

A = Not Applicable

WESTLAKE - 8260 25ML- TCL VOLATILES - W(UNPRES)

| Client Sample ID<br>Job No & Lab Sample ID | PZ-302-AS<br>A04-4441 A4444105 | PZ-302-ASDL<br>A04-4441 A4444105DL | PZ-303-AS<br>A04-4441 A4444106 | PZ-303-ASDL<br>A04-4441 A4444106DL | PZ-304-AI<br>A04-4441 A4444107 |
|---|---|---|---|---|---|
| Sample Date | 05/10/2004 08:30 | 05/10/2004 08:30 | 05/10/2004 16:55 | 05/10/2004 16:55 | 05/10/2004 18:45 |
| Received Date | 05/12/2004 09:45 | 05/12/2004 09:45 | 05/12/2004 09:45 | 05/12/2004 09:45 | 05/12/2004 09:45 |
| Extraction Date | | | | | |
| Analysis Date | 05/13/2004 22:56 | 05/14/2004 13:45 | 05/13/2004 23:29 | 05/14/2004 14:19 | 05/14/2004 14:53 |
| Extraction HT Met? | - | - | - | - | - |
| Analytical HT Met? | YES | YES | YES | YES | YES |
| Sample Matrix | WATER | WATER | WATER | WATER | WATER |
| Dilution Factor | 2.0 | 4.0 | 20.0 | 50.0 | 1.0 |
| Sample wt/vol | 0.025 LITERS | 0.025 LITERS | 0.025 LITERS | 0.025 LITERS | 0.025 LITERS |
| % Dry | | | | | |

5790

NA = Not Applicable

WESTLAKE - 8260 25ML- TCL VOLATILES - W(UNPRES)

| Client Sample ID | PZ-304-AS | | | | |
|---|---|---|---|---|---|
| Job No & Lab Sample ID | A04-4441 A4444108 | | | | |
| Sample Date | 05/10/2004 18:00 | | | | |
| Received Date | 05/12/2004 09:45 | | | | |
| Extraction Date | | | | | |
| Analysis Date | 05/14/2004 15:27 | | | | |
| Extraction HT Met? | - | | | | |
| Analytical HT Met? | YES | | | | |
| Sample Matrix | WATER | | | | |
| Dilution Factor | 1.0 | | | | |
| Sample wt/vol | 0.025 LITERS | | | | |
| % Dry | | | | | |

58190

A = Not Applicable

WESTLAKE - 8260 25ML- TCL VOLATILES - W(UNPRES)

| Client Sample ID<br>Job No & Lab Sample ID | TRIP BLANK<br>A04-4441 A4444109 | | | | |
|---|---|---|---|---|---|
| Sample Date | 05/10/2004 | | | | |
| Received Date | 05/12/2004 09:45 | | | | |
| Extraction Date | | | | | |
| Analysis Date | 05/13/2004 15:00 | | | | |
| Extraction HT Met? | - | | | | |
| Analytical HT Met? | YES | | | | |
| Sample Matrix | WATER | | | | |
| Dilution Factor | 1.0 | | | | |
| Sample wt/vol | 0.025 LITERS | | | | |
| % Dry | | | | | |

59190

WESTLAKE - 8260 25ML- TCL VOLATILES - W(UNPRES)

| Client Sample ID<br>Job No & Lab Sample ID | MSB57<br>A04-4441 A4444116 | MSB58<br>A04-4441 A4444118 | | | |
|---|---|---|---|---|---|
| Sample Date | | | | | |
| Received Date | | | | | |
| Extraction Date | | | | | |
| Analysis Date | 05/13/2004 13:51 | 05/14/2004 09:45 | | | |
| Extraction HT Met? | - | - | | | |
| Analytical HT Met? | - | - | | | |
| Sample Matrix | WATER | WATER | | | |
| Dilution Factor | 1.0 | 1.0 | | | |
| Sample wt/vol | 0.025 LITERS | 0.025 LITERS | | | |
| % Dry | | | | | |

60\90

. = Not Applicable

WESTLAKE - 8260 25ML- TCL VOLATILES - W(UNPRES)

| Client Sample ID<br>Job No & Lab Sample ID | VBLK57<br>A04-4441 A4444115 | VBLK58<br>A04-4441 A4444117 | | | |
|---|---|---|---|---|---|
| Sample Date | | | | | |
| Received Date | | | | | |
| Extraction Date | | | | | |
| Analysis Date | 05/13/2004 14:26 | 05/14/2004 10:20 | | | |
| Extraction HT Met? | - | - | | | |
| Analytical HT Met? | - | - | | | |
| Sample Matrix | WATER | WATER | | | |
| Dilution Factor | 1.0 | 1.0 | | | |
| Sample wt/vol | 0.025 LITERS | 0.025 LITERS | | | |
| % Dry | | | | | |

61\90

ALLIED - GASOLINE RANGE ORGANICS-8015B-W (UNPRES)

| Client Sample ID<br>Job No & Lab Sample ID | DUPLICATE @ PZ-303AS<br>A04-4441 A4444101 | EQUIP BLANK<br>A04-4441 A4444102 | PZ-302-AI<br>A04-4441 A4444104 | PZ-302-AS<br>A04-4441 A4444105 | PZ-303-AS<br>A04-4441 A4444106 |
|---|---|---|---|---|---|
| Sample Date | 05/10/2004 17:00 | 05/10/2004 19:15 | 05/11/2004 15:30 | 05/10/2004 08:30 | 05/10/2004 16:55 |
| Received Date | 05/12/2004 09:45 | 05/12/2004 09:45 | 05/12/2004 09:45 | 05/12/2004 09:45 | 05/12/2004 09:45 |
| Extraction Date | | | | | |
| Analysis Date | 05/13/2004 16:38 | 05/13/2004 18:08 | 05/13/2004 18:38 | 05/13/2004 19:07 | 05/13/2004 19:37 |
| Extraction HT Met? | - | - | - | - | - |
| Analytical HT Met? | YES | YES | YES | YES | YES |
| Sample Matrix | WATER | WATER | WATER | WATER | WATER |
| Dilution Factor | 20.0 | 1.0 | 1.0 | 1.0 | 20.0 |
| Sample wt/vol | 0.005 LITERS | 0.005 LITERS | 0.005 LITERS | 0.005 LITERS | 0.005 LITERS |
| % Dry | | | | | |

62\90

A = Not Applicable

ALLIED - GASOLINE RANGE ORGANICS-8015B-W (UNPRES)

| Client Sample ID<br>Job No & Lab Sample ID | PZ-304-AI<br>A04-4441 A4444107 | PZ-304-AS<br>A04-4441 A4444108 | | | |
|---|---|---|---|---|---|
| Sample Date | 05/10/2004 18:45 | 05/10/2004 18:00 | | | |
| Received Date | 05/12/2004 09:45 | 05/12/2004 09:45 | | | |
| Extraction Date | | | | | |
| Analysis Date | 05/14/2004 12:08 | 05/14/2004 12:39 | | | |
| Extraction HT Met? | - | - | | | |
| Analytical HT Met? | YES | YES | | | |
| Sample Matrix | WATER | WATER | | | |
| Dilution Factor | 1.0 | 1.0 | | | |
| Sample wt/vol | 0.005 LITERS | 0.005 LITERS | | | |
| % Dry | | | | | |

63\90

ALLIED - GASOLINE RANGE ORGANICS-8015B-W (UNPRES)

| Client Sample ID<br>Job No & Lab Sample ID | DUPLICATE @ PZ-303AS<br>A04-4441 A4444101MS | DUPLICATE @ PZ-303AS<br>A04-4441 A4444101SD | LCS<br>A04-4441 A4444111 | LCS<br>A04-4441 A4444113 | LCSD<br>A04-4441 A4444114 |
|---|---|---|---|---|---|
| Sample Date | 05/10/2004 17:00 | 05/10/2004 17:00 | | | |
| Received Date | 05/12/2004 09:45 | 05/12/2004 09:45 | | | |
| Extraction Date | | | | | |
| Analysis Date | 05/13/2004 17:08 | 05/13/2004 17:38 | 05/13/2004 14:55 | 05/14/2004 11:06 | 05/14/2004 11:37 |
| Extraction HT Met? | - | - | - | - | - |
| Analytical HT Met? | YES | YES | - | - | - |
| Sample Matrix | WATER | WATER | WATER | WATER | WATER |
| Dilution Factor | 20.0 | 20.0 | 1.0 | 1.0 | 1.0 |
| Sample wt/vol | 0.005 LITERS | 0.005 LITERS | 0.005 LITERS | 0.005 LITERS | 0.005 LITERS |
| % Dry | | | | | |

64\90

. = Not Applicable

ALLIED - GASOLINE RANGE ORGANICS-8015B-W (UNPRES)

| Client Sample ID<br>Job No & Lab Sample ID | VBLK119<br>A04-4441 A4444110 | VBLK133<br>A04-4441 A4444112 | | | |
|---|---|---|---|---|---|
| Sample Date | | | | | |
| Received Date | | | | | |
| Extraction Date | | | | | |
| Analysis Date | 05/13/2004 14:24 | 05/14/2004 10:35 | | | |
| Extraction HT Met? | - | - | | | |
| Analytical HT Met? | - | - | | | |
| Sample Matrix | WATER | WATER | | | |
| Dilution Factor | 1.0 | 1.0 | | | |
| Sample wt/vol | 0.005 LITERS | 0.005 LITERS | | | |
| % Dry | | | | | |

NA = Not Applicable

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

| Client Sample ID<br>Job No & Lab Sample ID | DUPLICATE @ PZ-303AS<br>A04-4441 A4444101 | EQUIP BLANK<br>A04-4441 A4444102 | PZ-302-AI<br>A04-4441 A4444104 | PZ-302-AS<br>A04-4441 A4444105 | PZ-303-AS<br>A04-4441 A4444106 |
|---|---|---|---|---|---|
| Sample Date | 05/10/2004 17:00 | 05/10/2004 19:15 | 05/11/2004 15:30 | 05/10/2004 08:30 | 05/10/2004 16:55 |
| Received Date | 05/12/2004 09:45 | 05/12/2004 09:45 | 05/12/2004 09:45 | 05/12/2004 09:45 | 05/12/2004 09:45 |
| Extraction Date | 05/14/2004 07:00 | 05/14/2004 07:00 | 05/14/2004 07:00 | 05/14/2004 07:00 | 05/14/2004 07:00 |
| Analysis Date | 05/17/2004 17:16 | 05/17/2004 17:43 | 05/17/2004 18:10 | 05/18/2004 09:14 | 05/18/2004 09:41 |
| Extraction HT Met? | YES | YES | YES | YES | YES |
| Analytical HT Met? | YES | YES | YES | YES | YES |
| Sample Matrix | WATER | WATER | WATER | WATER | WATER |
| Dilution Factor | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Sample wt/vol | 1.055 LITERS | 1.045 LITERS | 1.045 LITERS | 1.01 LITERS | 1.055 LITERS |
| % Dry | | | | | |

A = Not Applicable



0699

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

| Client Sample ID<br>Job No & Lab Sample ID | PZ-304-AI<br>A04-4441 A4444107 | PZ-304-AS<br>A04-4441 A4444108 | | | |
|---|---|---|---|---|---|
| Sample Date | 05/10/2004 18:45 | 05/10/2004 18:00 | | | |
| Received Date | 05/12/2004 09:45 | 05/12/2004 09:45 | | | |
| Extraction Date | 05/14/2004 07:00 | 05/14/2004 07:00 | | | |
| Analysis Date | 05/18/2004 10:08 | 05/18/2004 10:35 | | | |
| Extraction HT Met? | YES | YES | | | |
| Analytical HT Met? | YES | YES | | | |
| Sample Matrix | WATER | WATER | | | |
| Dilution Factor | 1.0 | 1.0 | | | |
| Sample wt/vol | 1.035 LITERS | 1.045 LITERS | | | |
| % Dry | | | | | |

6790

NA = Not Applicable

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

| Client Sample ID<br>Job No & Lab Sample ID | Matrix Spike Blank<br>A04-4441 A4B0975401 | | | | |
|---|---|---|---|---|---|
| Sample Date | | | | | |
| Received Date | | | | | |
| Extraction Date | 05/14/2004 07:00 | | | | |
| Analysis Date | 05/15/2004 22:33 | | | | |
| Extraction HT Met? | - | | | | |
| Analytical HT Met? | - | | | | |
| Sample Matrix | WATER | | | | |
| Dilution Factor | 1.0 | | | | |
| Sample wt/vol | 1.0 LITERS | | | | |
| % Dry | | | | | |

06190

A = Not Applicable

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

| Client Sample ID<br>Job No & Lab Sample ID | S Blank<br>A04-4441 A4B0975402 | | | | |
|---|---|---|---|---|---|
| Sample Date | | | | | |
| Received Date | | | | | |
| Extraction Date | 05/14/2004 07:00 | | | | |
| Analysis Date | 05/15/2004 23:00 | | | | |
| Extraction HT Met? | - | | | | |
| Analytical HT Met? | - | | | | |
| Sample Matrix | WATER | | | | |
| Dilution Factor | 1.0 | | | | |
| Sample wt/vol | 1.0 LITERS | | | | |
| % Dry | | | | | |

NA = Not Applicable

ALLIED - DIESEL RANGE ORGANICS - METHOD 8015B - W

| Client Sample ID<br>Job No & Lab Sample ID | DUPLICATE @ PZ-303AS<br>A04-4441 A4444101 | EQUIP BLANK<br>A04-4441 A4444102 | PZ-302-AI<br>A04-4441 A4444104 | PZ-302-AS<br>A04-4441 A4444105 | PZ-303-AS<br>A04-4441 A4444106 |
|---|---|---|---|---|---|
| Sample Date | 05/10/2004 17:00 | 05/10/2004 19:15 | 05/11/2004 15:30 | 05/10/2004 08:30 | 05/10/2004 16:55 |
| Received Date | 05/12/2004 09:45 | 05/12/2004 09:45 | 05/12/2004 09:45 | 05/12/2004 09:45 | 05/12/2004 09:45 |
| Extraction Date | 05/14/2004 07:00 | 05/14/2004 07:00 | 05/14/2004 07:00 | 05/14/2004 07:00 | 05/14/2004 07:00 |
| Analysis Date | 05/18/2004 15:07 | 05/18/2004 10:03 | 05/18/2004 10:57 | 05/18/2004 12:21 | 05/18/2004 15:35 |
| Extraction HT Met? | YES | YES | YES | YES | YES |
| Analytical HT Met? | YES | YES | YES | YES | YES |
| Sample Matrix | WATER | WATER | WATER | WATER | WATER |
| Dilution Factor | 5.0 | 1.0 | 1.0 | 1.0 | 5.0 |
| Sample wt/vol | 1.03 LITERS | 1.045 LITERS | 1.0 LITERS | 1.025 LITERS | 1.055 LITERS |
| % Dry | | | | | |

70\90

A = Not Applicable

ALLIED - DIESEL RANGE ORGANICS - METHOD 8015B - W

| Client Sample ID<br>Job No & Lab Sample ID | PZ-304-AI<br>A04-4441 A4444107 | PZ-304-AS<br>A04-4441 A4444108 | | | |
|---|---|---|---|---|---|
| Sample Date | 05/10/2004 18:45 | 05/10/2004 18:00 | | | |
| Received Date | 05/12/2004 09:45 | 05/12/2004 09:45 | | | |
| Extraction Date | 05/14/2004 07:00 | 05/14/2004 07:00 | | | |
| Analysis Date | 05/18/2004 13:16 | 05/18/2004 14:39 | | | |
| Extraction HT Met? | YES | YES | | | |
| Analytical HT Met? | YES | YES | | | |
| Sample Matrix | WATER | WATER | | | |
| Dilution Factor | 1.0 | 1.0 | | | |
| Sample wt/vol | 1.045 LITERS | 1.04 LITERS | | | |
| % Dry | | | | | |

71\90

ALLIED - DIESEL RANGE ORGANICS - METHOD 8015B - W

| Client Sample ID<br>Job No & Lab Sample ID | Matrix Spike Blank<br>A04-4441 A4B0974401 | PZ-302-AI<br>A04-4441 A4444104MS | PZ-302-AI<br>A04-4441 A4444104SD | | |
|---|---|---|---|---|---|
| Sample Date | | 05/11/2004 15:30 | 05/11/2004 15:30 | | |
| Received Date | | 05/12/2004 09:45 | 05/12/2004 09:45 | | |
| Extraction Date | 05/14/2004 07:00 | 05/14/2004 07:00 | 05/14/2004 07:00 | | |
| Analysis Date | 05/18/2004 08:39 | 05/18/2004 11:25 | 05/18/2004 11:53 | | |
| Extraction HT Met? | - | YES | YES | | |
| Analytical HT Met? | - | YES | YES | | |
| Sample Matrix | WATER | WATER | WATER | | |
| Dilution Factor | 1.0 | 1.0 | 1.0 | | |
| Sample wt/vol | 1.0 LITERS | 0.51 LITERS | 0.51 LITERS | | |
| % Dry | | | | | |

72\90

A = Not Applicable

ALLIED - DIESEL RANGE ORGANICS - METHOD 8015B - W

| Client Sample ID<br>Job No & Lab Sample ID | Method Blank<br>A04-4441 A4B0974402 | | | | |
|---|---|---|---|---|---|
| Sample Date | | | | | |
| Received Date | | | | | |
| Extraction Date | 05/14/2004 07:00 | | | | |
| Analysis Date | 05/18/2004 09:07 | | | | |
| Extraction HT Met? | - | | | | |
| Analytical HT Met? | - | | | | |
| Sample Matrix | WATER | | | | |
| Dilution Factor | 1.0 | | | | |
| Sample wt/vol | 1.0 LITERS | | | | |
| % Dry | | | | | |

73\90

NA = Not Applicable

Date: 05/27/2004 15:37:38
Jobno: A04-4441

ALLIED WASTE INDUSTRIES
SAMPLE CHRONOLOGY

Rept: AN0369

| Lab ID | Sample ID | Units | Analyte | Method | Dilution Factor | Sample Date | Receive Date | TCLP Date | THT | Analysis Date | AHT | Matrix |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A4444101 | DUPLICATE @ PZ-303AS | MG/L | Arsenic - Total | 6010 | 1.00 | 05/10/2004 17:00 | 05/12 09:45 | NA | NA | 05/15 00:43 | Yes | WATER |
| | | MG/L | Iron - Total | 6010 | 1.00 | 05/10/2004 17:00 | 05/12 09:45 | NA | NA | 05/15 00:43 | Yes | WATER |
| | | MG/L | Manganese - Total | 6010 | 1.00 | 05/10/2004 17:00 | 05/12 09:45 | NA | NA | 05/15 00:43 | Yes | WATER |
| A4444102 | EQUIP BLANK | MG/L | Arsenic - Total | 6010 | 1.00 | 05/10/2004 19:15 | 05/12 09:45 | NA | NA | 05/15 00:48 | Yes | WATER |
| | | MG/L | Iron - Total | 6010 | 1.00 | 05/10/2004 19:15 | 05/12 09:45 | NA | NA | 05/15 00:48 | Yes | WATER |
| | | MG/L | Manganese - Total | 6010 | 1.00 | 05/10/2004 19:15 | 05/12 09:45 | NA | NA | 05/15 00:48 | Yes | WATER |
| A4444104 | PZ-302-AI | MG/L | Arsenic - Total | 6010 | 1.00 | 05/11/2004 15:30 | 05/12 09:45 | NA | NA | 05/15 00:53 | Yes | WATER |
| | | MG/L | Iron - Total | 6010 | 1.00 | 05/11/2004 15:30 | 05/12 09:45 | NA | NA | 05/15 00:53 | Yes | WATER |
| | | MG/L | Manganese - Total | 6010 | 1.00 | 05/11/2004 15:30 | 05/12 09:45 | NA | NA | 05/15 00:53 | Yes | WATER |
| A4444105 | PZ-302-AS | MG/L | Arsenic - Total | 6010 | 1.00 | 05/10/2004 08:30 | 05/12 09:45 | NA | NA | 05/15 00:58 | Yes | WATER |
| | | MG/L | Iron - Total | 6010 | 1.00 | 05/10/2004 08:30 | 05/12 09:45 | NA | NA | 05/15 00:58 | Yes | WATER |
| | | MG/L | Manganese - Total | 6010 | 1.00 | 05/10/2004 08:30 | 05/12 09:45 | NA | NA | 05/15 00:58 | Yes | WATER |
| A4444106 | PZ-303-AS | MG/L | Arsenic - Total | 6010 | 1.00 | 05/10/2004 16:55 | 05/12 09:45 | NA | NA | 05/15 01:02 | Yes | WATER |
| | | MG/L | Iron - Total | 6010 | 1.00 | 05/10/2004 16:55 | 05/12 09:45 | NA | NA | 05/15 01:02 | Yes | WATER |
| | | MG/L | Manganese - Total | 6010 | 1.00 | 05/10/2004 16:55 | 05/12 09:45 | NA | NA | 05/15 01:02 | Yes | WATER |
| A4444107 | PZ-304-AI | MG/L | Arsenic - Total | 6010 | 1.00 | 05/10/2004 18:45 | 05/12 09:45 | NA | NA | 05/15 01:07 | Yes | WATER |
| | | MG/L | Iron - Total | 6010 | 1.00 | 05/10/2004 18:45 | 05/12 09:45 | NA | NA | 05/15 01:07 | Yes | WATER |
| | | MG/L | Manganese - Total | 6010 | 1.00 | 05/10/2004 18:45 | 05/12 09:45 | NA | NA | 05/15 01:07 | Yes | WATER |
| A4444108 | PZ-304-AS | MG/L | Arsenic - Total | 6010 | 1.00 | 05/10/2004 18:00 | 05/12 09:45 | NA | NA | 05/15 01:12 | Yes | WATER |
| | | MG/L | Iron - Total | 6010 | 1.00 | 05/10/2004 18:00 | 05/12 09:45 | NA | NA | 05/15 01:12 | Yes | WATER |
| | | MG/L | Manganese - Total | 6010 | 1.00 | 05/10/2004 18:00 | 05/12 09:45 | NA | NA | 05/15 01:12 | Yes | WATER |

T = Analysis Holding Time Met
T = TCLP Holding Time Met
= Not Applicable

STL Buffalo

74\90

Date: 05/27/2004 15:37:38
Jobno: A04-4441

ALLIED WASTE INDUSTRIES
QC CHRONOLOGY

Rept: AN0369

| Lab ID | Sample ID | Units | Analyte | Method | Dilution Factor | Sample Date | Receive Date | TCLP Date | THT | Analysis Date | AHT | Matrix |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A4B0971902 | Method Blank | MG/L | Arsenic - Total | 6010 | 1.00 | - | - 09:45 | NA | NA | 05/14 23:14 | Yes | WATER |
| | | MG/L | Iron - Total | 6010 | 1.00 | - | - 09:45 | NA | NA | 05/14 23:14 | Yes | WATER |
| | | MG/L | Manganese - Total | 6010 | 1.00 | - | - 09:45 | NA | NA | 05/18 15:19 | Yes | WATER |
| A4B0971901 | LFB | MG/L | Arsenic - Total | 6010 | 1.00 | - | - 09:45 | NA | NA | 05/14 23:19 | Yes | WATER |
| | | MG/L | Iron - Total | 6010 | 1.00 | - | - 09:45 | NA | NA | 05/14 23:19 | Yes | WATER |
| | | MG/L | Manganese - Total | 6010 | 1.00 | - | - 09:45 | NA | NA | 05/17 13:42 | Yes | WATER |

75\90

AHT = Analysis Holding Time Met
THT = TCLP Holding Time Met
NA = Not Applicable

STL Buffalo

Date: 05/27/2004 15:37:41
Jobno: A04-4441

ALLIED WASTE INDUSTRIES
SAMPLE CHRONOLOGY

Rept: AN0369

| Lab ID | Sample ID | Units | Analyte | Method | Dilution Factor | Sample Date | Receive Date | TCLP Date | THT | Analysis Date | AHT | Matrix |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A4444101 | DUPLICATE @ PZ-303AS | MG/L | Total Dissolved Solids | 160.1 | 1.00 | 05/10/2004 17:00 | 05/12 09:45 | NA | NA | 05/13 20:00 | Yes | WATER |
| | | MG/L | Chloride | 9056 | 1.00 | 05/10/2004 17:00 | 05/12 09:45 | NA | NA | 05/13 10:35 | Yes | WATER |
| | | MG/L | Fluoride | 9056 | 1.00 | 05/10/2004 17:00 | 05/12 09:45 | NA | NA | 05/13 10:35 | Yes | WATER |
| A4444102 | EQUIP BLANK | MG/L | Total Dissolved Solids | 160.1 | 1.00 | 05/10/2004 19:15 | 05/12 09:45 | NA | NA | 05/13 20:00 | Yes | WATER |
| | | MG/L | Chloride | 9056 | 1.00 | 05/10/2004 19:15 | 05/12 09:45 | NA | NA | 05/13 10:35 | Yes | WATER |
| | | MG/L | Fluoride | 9056 | 1.00 | 05/10/2004 19:15 | 05/12 09:45 | NA | NA | 05/13 10:35 | Yes | WATER |
| A4444104 | PZ-302-AI | MG/L | Total Dissolved Solids | 160.1 | 1.00 | 05/11/2004 15:30 | 05/12 09:45 | NA | NA | 05/13 20:00 | Yes | WATER |
| | | MG/L | Chloride | 9056 | 1.00 | 05/11/2004 15:30 | 05/12 09:45 | NA | NA | 05/13 10:35 | Yes | WATER |
| | | MG/L | Fluoride | 9056 | 1.00 | 05/11/2004 15:30 | 05/12 09:45 | NA | NA | 05/13 10:35 | Yes | WATER |
| | | UMHOS/CM | Specific Conductance (25 C) (Field) | 120.1 | 1.00 | 05/11/2004 15:30 | 05/12 09:45 | NA | NA | 05/11 | Yes | WATER |
| | | S.U. | pH (Field) | 150.1 | 1.00 | 05/11/2004 15:30 | 05/12 09:45 | NA | NA | 05/11 | Yes | WATER |
| | | °C | Temperature, Field (°C) | TEMP | 1.00 | 05/11/2004 15:30 | 05/12 09:45 | NA | NA | 05/11 | Yes | WATER |
| A4444105 | PZ-302-AS | MG/L | Total Dissolved Solids | 160.1 | 1.00 | 05/10/2004 08:30 | 05/12 09:45 | NA | NA | 05/13 20:00 | Yes | WATER |
| | | MG/L | Chloride | 9056 | 1.00 | 05/10/2004 08:30 | 05/12 09:45 | NA | NA | 05/13 10:35 | Yes | WATER |
| | | MG/L | Fluoride | 9056 | 1.00 | 05/10/2004 08:30 | 05/12 09:45 | NA | NA | 05/13 10:35 | Yes | WATER |
| | | UMHOS/CM | Specific Conductance (25 C) (Field) | 120.1 | 1.00 | 05/10/2004 08:30 | 05/12 09:45 | NA | NA | 05/10 | Yes | WATER |
| | | S.U. | pH (Field) | 150.1 | 1.00 | 05/10/2004 08:30 | 05/12 09:45 | NA | NA | 05/10 | Yes | WATER |
| | | °C | Temperature, Field (°C) | TEMP | 1.00 | 05/10/2004 08:30 | 05/12 09:45 | NA | NA | 05/10 | Yes | WATER |
| A4444106 | PZ-303-AS | MG/L | Total Dissolved Solids | 160.1 | 1.00 | 05/10/2004 16:55 | 05/12 09:45 | NA | NA | 05/13 20:00 | Yes | WATER |
| | | MG/L | Chloride | 9056 | 1.00 | 05/10/2004 16:55 | 05/12 09:45 | NA | NA | 05/13 10:35 | Yes | WATER |
| | | MG/L | Fluoride | 9056 | 1.00 | 05/10/2004 16:55 | 05/12 09:45 | NA | NA | 05/13 10:35 | Yes | WATER |
| | | UMHOS/CM | Specific Conductance (25 C) (Field) | 120.1 | 1.00 | 05/10/2004 16:55 | 05/12 09:45 | NA | NA | 05/10 | Yes | WATER |
| | | S.U. | pH (Field) | 150.1 | 1.00 | 05/10/2004 16:55 | 05/12 09:45 | NA | NA | 05/10 | Yes | WATER |
| | | °C | Temperature, Field (°C) | TEMP | 1.00 | 05/10/2004 16:55 | 05/12 09:45 | NA | NA | 05/10 | Yes | WATER |
| A4444107 | PZ-304-AI | MG/L | Total Dissolved Solids | 160.1 | 1.00 | 05/10/2004 18:45 | 05/12 09:45 | NA | NA | 05/13 20:00 | Yes | WATER |
| | | MG/L | Chloride | 9056 | 5.00 | 05/10/2004 18:45 | 05/12 09:45 | NA | NA | 05/13 10:35 | Yes | WATER |
| | | MG/L | Fluoride | 9056 | 1.00 | 05/10/2004 18:45 | 05/12 09:45 | NA | NA | 05/13 10:35 | Yes | WATER |
| | | UMHOS/CM | Specific Conductance (25 C) (Field) | 120.1 | 1.00 | 05/10/2004 18:45 | 05/12 09:45 | NA | NA | 05/10 | Yes | WATER |
| | | S.U. | pH (Field) | 150.1 | 1.00 | 05/10/2004 18:45 | 05/12 09:45 | NA | NA | 05/10 | Yes | WATER |
| | | °C | Temperature, Field (°C) | TEMP | 1.00 | 05/10/2004 18:45 | 05/12 09:45 | NA | NA | 05/10 | Yes | WATER |
| A4444108 | PZ-304-AS | MG/L | Total Dissolved Solids | 160.1 | 1.00 | 05/10/2004 18:00 | 05/12 09:45 | NA | NA | 05/13 20:00 | Yes | WATER |
| | | MG/L | Chloride | 9056 | 10.00 | 05/10/2004 18:00 | 05/12 09:45 | NA | NA | 05/17 14:22 | Yes | WATER |
| | | MG/L | Fluoride | 9056 | 5.00 | 05/10/2004 18:00 | 05/12 09:45 | NA | NA | 05/13 10:35 | Yes | WATER |
| | | UMHOS/CM | Specific Conductance (25 C) (Field) | 120.1 | 1.00 | 05/10/2004 18:00 | 05/12 09:45 | NA | NA | 05/10 | Yes | WATER |
| | | S.U. | pH (Field) | 150.1 | 1.00 | 05/10/2004 18:00 | 05/12 09:45 | NA | NA | 05/10 | Yes | WATER |
| | | °C | Temperature, Field (°C) | TEMP | 1.00 | 05/10/2004 18:00 | 05/12 09:45 | NA | NA | 05/10 | Yes | WATER |

76\90

T = Analysis Holding Time Met
T = TCLP Holding Time Met
= Not Applicable

STL Buffalo

# Chain of Custody Record

SEVERN TRENT **STL**

**Severn Trent Laboratories, Inc.**

STL-4124 (0901)

| | | | |
|---|---|---|---|
| Client: West Lake OV-2 c/o Herst & Associates | Project Manager: Ward E. Herst | Date: 5-11-2004 | Chain of Custody Number: 137239 |
| Address: 4630 S. Hwy 94 - N. Outer Road | Telephone Number (Area Code)/Fax Number: 636-939-9111 / 636-939-9757 | Lab Number: | Page 1 of 1 |
| City: St. Charles; State: MO; Zip Code: 63304 | Site Contact: | Lab Contact: Brian J. Fischer | |
| Project Name and Location (State): West Lake OV-2 Bridgeton, Missouri | Carrier/Waybill Number: Federal Express (see below) | | |
| Contract/Purchase Order/Quote No.: West Lake OV-2 | | | |

Analysis (Attach list if more space is needed): 8260 VOC; 8270 SVOC; 8015 Gasoline Range Organics; 8015B Diesel Range Organics; 6010 ICP Metals; TDS

| Sample I.D. No. and Description (Containers for each sample may be combined on one line) | Date | Time | Matrix: Air | Aqueous | Sed. | Soil | PT | Containers & Preservatives: Unpres | H2SO4 | HNO3 | HCl | NaOH | ZnAc/NaOH | 8260 VOC | 8270 SVOC | 8015 Gasoline Range Organics | 8015B Diesel Range Organics | 6010 ICP Metals | TDS | Special Instructions/ Conditions of Receipt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PZ-302AI | 5-10-04 | 1530 | | X | | | | 3 | 2 | 1 | 6* | | | X | X | X | X | X | X | VOA's effervesced - sent unpres. *7 day hold |
| Field Blank @ PZ-303AS | 5-10-04 | 1625 | | | | | X | | | | 4 | | | X | | | | | | |
| PZ-303AS | 5-10-04 | 1655 | | X | | | | 3 | 2 | 1 | 6* | | | X | X | X | X | X | X | VOA's effervesced - sent unpres. *7 day hold |
| Duplicate @ PZ-303AS | 5-10-04 | 1700 | | X | | | | 3 | 2 | 1 | 6* | | | X | X | X | X | X | X | VOA's effervesced - sent unpres. *7 day hold |
| PZ-304AS | 5-10-04 | 1800 | | X | | | | 3 | 2 | 1 | 6 | | | X | X | X | X | X | X | |
| PZ-304AI | 5-10-04 | 1845 | | X | | | | 3 | 2 | 1 | 6 | | | X | X | X | X | X | X | |
| Equipment Blank | 5-10-04 | 1915 | | | | | X | 3 | 2 | 1 | 6 | | | X | X | X | X | X | X | Taken on water level probe |
| PZ-302AS | 5-11-04 | 0830 | | X | | | | 3 | 2 | 1 | 6 | | | X | X | X | X | X | X | |
| TRIP Blank | | | | | | | X | | | | 2 | | | X | | | | | | |

Possible Hazard Identification: ☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☑ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify):

| | Date | Time | | Date | Time |
|---|---|---|---|---|---|
| 1. Relinquished By: [signature] | 5-11-04 | 2000 | 1. Received By: FedEx 8452-2460-1356 / 8467-7066-2243 | | |
| 2. Relinquished By: | | | 2. Received By: 8452-2460-1220 [signature] SR-[signature] | 05/12/04 | 0945 |
| 3. Relinquished By: | | | 3. Received By: | | |

Comments: 3@2.0°C

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

79190

# Field Data

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*Personal Attention*

# FIELD INFORMATION LOG Part 1

Facility: Westlake Landfill (OU-2)

Location: Bridgeton, Missouri

Sample Matrix: Groundwater

Sample Point ID: PZ-302-AI

Sampler(s): Jonathan Wilkinson
Brett Dougherty Shank

Top of Casing (ft, msl) 451.15

PURGE INFORMATION:

Method of Well Purge: Disposible Polyethylene Bailer

Date/Time Initiated: 5-10-2004 1504

Initial Water Level (feet): 21.39

Initial Water Level Previous Event (feet): 23.06

Ground Water Elevation (ft, msl): 429.76

Ground Water Elevation Previous Event (ft, msl): 428.09

Well Total Depth (feet): 44.16

Well Total Depth Previous Event (feet): 44.16

Dedicated Equipment: Yes ____ No X

Casing Diameter (inches): 2"

One Casing Volume (gal): 3.7 gal 3 vol = 11.13 gal

One Casing Volume Previous Event (gal): 3.44

Total Volume Purged (gal): 12 gallons

Purged Dry?: Yes ____ No ✓

Water Level after Purge (feet): 21.35

Date/Time Completed: 5/10/2004 1523

PURGE DATA:

| Time | Purge Rate (gpm / Hz) | Cumulative Volume (gal) | Temp (°C) | pH (std units) | Conductivity (uS = umhos/cm) | Turbidity (NTU) | Other | Notes |
|---|---|---|---|---|---|---|---|---|
| 1508 | – | 2.0 | 15.7 | 6.9 | 1209 | 29.3 | – | Clear w/black flakes |
| 1512 | – | 4.0 | 16.7 | 6.8 | 1249 | 10.12 | – | " " " " |
| 1516 | – | 6.0 | 16.1 | 6.8 | 1235 | 7.46 | – | " " " " |
| 1518 | – | 8.0 | 15.8 | 6.8 | 1239 | 7.63 | – | Clear |
| 1520 | – | 10.0 | 15.7 | 6.8 | 1215 | 4.36 | – | " |
| 1523 | – | 12.0 | 15.4 | 6.7 | 1253 | 4.52 | – | " |
| | | | | | | | | |
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# FIELD INFORMATION LOG Part 2

SAMPLING INFORMATION:

Sample Point ID: PZ-302-AI

Sampling Method: Disposible Polyethylene Bailer

Dedicated: Yes ____ No X

Water Level @ Sampling (ft): 21.35

Well Collection Sequence #: 1 of 5

Parameters: Annual: ____ Semi-Annual: ____ Quarterly: ____ Monthly: ____ Other: ✓

SAMPLE DATA:

| Time & Date | Sample Rate | Temp (°C) | pH (std units) | Conductivity (uS = umhos/cm) | Turbidity (NTU) | Other | Notes |
|---|---|---|---|---|---|---|---|
| 5/10/2004 1530 | VOC: – Other: – | 15.4 | 6.7 | 1253 | 4.52 | – | Clear |

INSTRUMENT CALIBRATION DATA:

Beginning of day: (time) 1420

End of day: (time) 1900

Turbidity Serial #: Lamotte 2020 #00053

pH Serial #: pH Testr 2 Waterproof #00452

Conductivity Serial #: TDS Testr 20 #03395

| Purging Event | | | Sampling Event | | |
|---|---|---|---|---|---|
| Beginning of day | End of day | | Beginning of day | End of day | |
| 9.99 | | NTU std= 10.0 | | 9.88 | NTU std= 10.0 |
| 1422 | | uS std= 1413 | | 1298 | uS std= 1413 |
| 4.0 | | pH std = 4.0 | | 4.2 | pH std = 4.0 |
| 7.0 | | pH std = 7.0 | | 6.9 | pH std = 7.0 |
| 10.0 | | pH std = 10.0 | | 9.7 | pH std = 10.0 |

Other Calibration:

GENERAL INFORMATION:

Weather Conditions @ Sampling: P. Cloudy, Lt. Breeze, 85°F

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

Collect 6x40 mL Neat glass; 2x1L Neat glass; 2x1L $H_2SO_4$ glass; 1x 8 oz $HNO_3$ Plastic; 1x 16 oz Neat plastic; lock up well.
* VOAs effervesced, sent unpreserved *

Date: 5-10-2004 By: Brad D. Shank Staff Hydrologist

Company: Herst & Associates, Inc.

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# FIELD INFORMATION LOG Part 1

Facility: Westlake Landfill (OU-2)

Location: Bridgeton, Missouri

Sample Matrix: Groundwater

Sample Point ID: PZ-302-AS

Sampler(s): Jonathan Wilkinson
Brett Dougherty Shank

Top of Casing (ft, msl) 451.42

PURGE INFORMATION:

Method of Well Purge: Disposible Polyethylene Bailer

Dedicated Equipment: Yes ____ No X

Date/Time Initiated: 5-10-04 1447

Casing Diameter (inches): 2"

Initial Water Level (feet): 21.56

One Casing Volume (gal): 0.47 gal × 3 = 1.41 gal

Initial Water Level Previous Event (feet): 23.29

One Casing Volume Previous Event (gal): 0.19

Ground Water Elevation (ft, msl): 429.86

Total Volume Purged (gal): ~0.75 gallons

Ground Water Elevation Previous Event (ft, msl): 428.13

Purged Dry?: Yes ✓ No ____

Well Total Depth (feet): 24.46

Water Level after Purge (feet): Dry @ bottom of well

Well Total Depth Previous Event (feet): 24.44

Date/Time Completed: 5-10-04 1454

PURGE DATA:

| Time | Purge Rate (gpm / Hz) | Cumulative Volume (gal) | Temp (°C) | pH (std units) | Conductivity (uS = umhos/cm) | Turbidity (NTU) | Other | Notes |
|---|---|---|---|---|---|---|---|---|
| 1449 | – | ~0.25 | 15.6 | 6.4 | 1725 | 6.56 | – | clear |
| 1451 | – | ~0.50 | 15.4 | 6.3 | 1882 | 30.8 | – | clear |
| 1453 | – | ~0.75 | 16.3 | 6.2 | 1844 | 114 | – | clear |
| | | Purged dry @ ~0.75 gallons – Allow to recharge | | | | | | |

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# FIELD INFORMATION LOG Part 2

SAMPLING INFORMATION:

Sample Point ID: PZ-302-AS

Sampling Method: Disposible Polyethylene Bailer

Dedicated: Yes ____ No X

Water Level @ Sampling (ft): 21.59

Well Collection Sequence #: 5 of 5

Parameters: Annual: ____ Semi-Annual: ____ Quarterly: ____ Monthly: ____ Other: ✓

SAMPLE DATA:

| Time & Date | Sample Rate | Temp (°C) | pH (std units) | Conductivity (uS = umhos/cm) | Turbidity (NTU) | Other | Notes |
|---|---|---|---|---|---|---|---|
| 5-11-04 ~~10-5-04~~ 0830 | VOC: – Other: – | 15.8 | 7.6 | 1856 | 180 | – | cloudy |

INSTRUMENT CALIBRATION DATA:

Beginning of day: (time) 5-10-04 1420 / 5-11-04 0800

End of day: (time) 1900

Turbidity Serial #: Lamotte 2020 #00053 #00452

pH Serial #: pH Testr 2 Waterproof

Conductivity Serial #: TDS Testr 20 #03395

| Purging Event Beginning of day | Purging Event End of day | | Sampling Event Beginning of day | Sampling Event End of day | |
|---|---|---|---|---|---|
| 9.99 | 9.88 | NTU std= 10.0 | 10.01 | | NTU std= 10.0 |
| 1422 | 1298 | uS std= 1413 | 1417 | | uS std= 1413 |
| 4.0 | 4.2 | pH std = 4.0 | 4.0 | | pH std = 4.0 |
| 7.0 | 6.9 | pH std = 7.0 | 7.0 | | pH std = 7.0 |
| 10.0 | 9.7 | pH std = 10.0 | 9.8 | | pH std = 10.0 |

Other Calibration: ____

GENERAL INFORMATION:

Weather Conditions @ Sampling: Sunny, 75°F

Sample Characteristics: cloudy

COMMENTS AND OBSERVATIONS:

Collect 6x40ml HCl VOA, 1x1L gl $H_2SO_4$, 1x 8oz $HNO_3$, 1 x 16oz Nat @ 0830
Well went dry @ sampling - will return to get 2x1L gl Nat
well exhibits 'slower' recharge than other alluvial wells

Date: 5-11-2004 By: Brett D. Stanek Staff Hydrologist

Company: Herst & Associates, Inc.

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# FIELD INFORMATION LOG Part 1

Facility: Westlake Landfill (OU-2)

Location: Bridgeton, Missouri

Sample Matrix: Groundwater

Sample Point ID: PZ-303-AS

Sampler(s): Jonathan Wilkinson
Brett Dougherty Shank

Top of Casing (ft, msl) 453.18

PURGE INFORMATION:

Method of Well Purge: Disposible Polyethylene Bailer

Date/Time Initiated: 5-10-04 1628

Initial Water Level (feet): 23.42

Initial Water Level Previous Event (feet): 25.19

Ground Water Elevation (ft, msl): 429.76

Ground Water Elevation Previous Event (ft, msl): 427.99

Well Total Depth (feet): 28.20

Well Total Depth Previous Event (feet): 28.02

Dedicated Equipment: Yes ____ No X

Casing Diameter (inches): 2"

One Casing Volume (gal): 0.78 gal x 4 vol = 3.1 gallons

One Casing Volume Previous Event (gal): 0.46

Total Volume Purged (gal): 3.5 gallons

Purged Dry?: Yes ____ No ✓

Water Level after Purge (feet): 23.43

Date/Time Completed: 5-10-04 1650

PURGE DATA:

| Time | Purge Rate (gpm / Hz) | Cumulative Volume (gal) | Temp (°C) | pH (std units) | Conductivity (uS = umhos/cm) | Turbidity (NTU) | Other | Notes |
|---|---|---|---|---|---|---|---|---|
| 1631 | — | ~0.5 | 15.8 | 7.4 | 1773 | 21.8 | - clear, oily sheen, chemical odor | |
| 1634 | — | ~1.0 | 16.1 | 7.4 | 1902 | 26.7 | - dark gray, oily sheen, chemical odor | |
| 1637 | — | ~1.5 | 16.1 | 7.3 | 1911 | 38.5 | - " | " " |
| 1640 | — | ~2.0 | 15.6 | 7.3 | 1921 | 34.2 | - gray, oily sheen, chemical odor | |
| 1643 | — | ~2.5 | 15.7 | 7.2 | 1926 | 43.2 | - " | " " |
| 1646 | — | ~3.0 | 15.8 | 7.2 | 1907 | 43.7 | - " | " " |
| 1650 | | ~3.5 | 15.7 | 7.2 | 1905 | 40.6 | - " | " " |
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# FIELD INFORMATION LOG Part 2

SAMPLING INFORMATION:

Sample Point ID: PZ-303-AS

Sampling Method: Disposible Polyethylene Bailer

Dedicated: Yes _____ No X

Water Level @ Sampling (ft): 23.43

Well Collection Sequence #: 2 of 5

Parameters: Annual: ___ Semi-Annual: ___ Quarterly: ___ Monthly: ___ Other: ✓

SAMPLE DATA:

| Time & Date | Sample Rate | Temp (°C) | pH (std units) | Conductivity (uS = umhos/cm) | Turbidity (NTU) | Other | Notes |
|---|---|---|---|---|---|---|---|
| 5-10-04 1655 | VOC: – Other: – | 15.7 | 7.2 | 1905 | 40.6 | gray, oily sheen, chemical odor | |

INSTRUMENT CALIBRATION DATA:

Beginning of day: (time) 1420

End of day: (time) 1900

Turbidity Serial #: Lamotte 2020 #00053

pH Serial #: pH Testr 2 Waterproof #00452

Conductivity Serial #: TDS Testr 20 #03395

| Purging Event | | | Sampling Event | | |
|---|---|---|---|---|---|
| Beginning of day | End of day | | Beginning of day | End of day | |
| 9.99 | | NTU std= 10.0 | | 9.88 | NTU std= 10.0 |
| 1422 | | uS std= 1413 | | 1298 | uS std= 1413 |
| 4.0 | | pH std = 4.0 | | 4.2 | pH std = 4.0 |
| 7.0 | | pH std = 7.0 | | 6.9 | pH std = 7.0 |
| 10.0 | | pH std = 10.0 | | 9.7 | pH std = 10.0 |

Other Calibration:

GENERAL INFORMATION:

Weather Conditions @ Sampling: Overcast, Slight wind, 85°F

Sample Characteristics: gray, oily sheen, chemical odor

COMMENTS AND OBSERVATIONS:

Collect field Blank (@ PZ303AS) 1625 4x40 ml HCl VOA's only
Collect 4x40 ml VOA, 2x1Lg1 Neat, 2x1Lg1 $H_2SO_4$, 1x160z pl Neat, 1x80z $HNO_3$, VOA's effervesced - sent unpreserved
Collect Duplicate @ PZ303AS (12 Bottles - Same bottles as sample) 1700
Lock up well

Date: 5-10-04 By: Brett D. Skenk Staff Hydrologist

Company: Herst & Associates, Inc. Brett D. Skenk

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# FIELD INFORMATION LOG Part 1

Facility: Westlake Landfill (OU-2)

Location: Bridgeton, Missouri

Sample Matrix: Groundwater

Sample Point ID: PZ-304-AI

Sampler(s): Jonathan Wilkinson
Brett Dougherty Shank

Top of Casing (ft, msl) 454.02

PURGE INFORMATION:

Method of Well Purge: Disposible Polyethylene Bailer

Dedicated Equipment: Yes ____ No X

Date/Time Initiated: 5-10-04 1820

Casing Diameter (inches): 2"

Initial Water Level (feet): 24.33

One Casing Volume (gal): 4.53gal x 3vol = 13.6 gallons

Initial Water Level Previous Event (feet): 26.09

One Casing Volume Previous Event (gal): 4.24

Ground Water Elevation (ft, msl): 429.69

Total Volume Purged (gal): 14.0 gallons

Ground Water Elevation Previous Event (ft, msl): N/A

Purged Dry?: Yes ____ No ✓

Well Total Depth (feet): 52.11

Water Level after Purge (feet): 24.34

Well Total Depth Previous Event (feet): 52.08

Date/Time Completed: 5-10-04 1842

PURGE DATA:

| Time | Purge Rate (gpm / Hz) | Cumulative Volume (gal) | Temp (°C) | pH (std units) | Conductivity (uS = umhos/cm) | Turbidity (NTU) | Other | Notes |
|---|---|---|---|---|---|---|---|---|
| 1825 | – | ~2.25 | 17.6 | 7.9 | 1067 | 33.6 | – | Brown tint |
| 1827 | – | ~4.5 | 16.9 | 7.9 | 1447 | 40.4 | – | Brown tint |
| 1831 | – | ~7.0 | 17.2 | 7.9 | 1512 | 16.3 | – | gray, oily sheen |
| 1832 | – | ~8.5 | 17.6 | 7.9 | 1508 | 8.66 | – | " " |
| 1835 | – | 10.0 | 17.4 | 7.9 | 1526 | 6.98 | – | clear |
| 1838 | – | 12.0 | 17.1 | 7.9 | 1498 | 6.71 | – | clear |
| 1842 | – | 14.0 | 17.1 | 7.9 | 1507 | 5.84 | – | clear |
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# FIELD INFORMATION LOG Part 2

SAMPLING INFORMATION:

Sample Point ID: PZ-304-AI

Sampling Method: Disposible Polyethylene Bailer

Dedicated: Yes ____ No X

Water Level @ Sampling (ft): 24.34

Well Collection Sequence #: 4 of 5

Parameters: Annual: ____ Semi-Annual: ____ Quarterly: ____ Monthly: ____ Other: ✓

SAMPLE DATA:

| Time & Date | Sample Rate | Temp (°C) | pH (std units) | Conductivity (uS = umhos/cm) | Turbidity (NTU) | Other | Notes |
|---|---|---|---|---|---|---|---|
| 5-10-04 1845 | VOC: – Other: – | 17.1 | 7.9 | 1507 | 5.84 | – | clear |

INSTRUMENT CALIBRATION DATA:

Beginning of day: (time) 1420

End of day: (time) 1900

Turbidity Serial #: Lamotte 2020 #00053 #00452

pH Serial #: pH Testr 2 Waterproof

Conductivity Serial #: TDS Testr 20 #03395

| Purging Event | | | Sampling Event | | |
|---|---|---|---|---|---|
| Beginning of day | End of day | | Beginning of day | End of day | |
| 9.99 | | NTU std= 10.0 | | 9.88 | NTU std= 10.0 |
| 1422 | | uS std= 1413 | | 1298 | uS std= 1413 |
| 4.0 | | pH std = 4.0 | | 4.2 | pH std = 4.0 |
| 7.0 | | pH std = 7.0 | | 6.9 | pH std = 7.0 |
| 10.0 | | pH std = 10.0 | | 9.7 | pH std = 10.0 |

Other Calibration:

GENERAL INFORMATION:

Weather Conditions @ Sampling: Sunny, 75°F

Sample Characteristics: clear

COMMENTS AND OBSERVATIONS:

Collect 6x40ml HCl VOA, 2x1Lgl Neat, 2x1L gl $H_2SO_4$, 1x16oz Neat, 1x8oz $HNO_3$
Lock up well
Equipment Blank taken on W.L. probe 1915 (Full suite)

Date: 5-10-04 By: Brett D. Shank Staff Hydrologist

Company: Herst & Associates, Inc.

HERST & ASSOCIATES, INC. ®

*Global Presence*
*Personal Attention*

# FIELD INFORMATION LOG Part 1

Facility: Westlake Landfill (OU-2)

Location: Bridgeton, Missouri

Sample Matrix: Groundwater

Sample Point ID: PZ-304-AS

Sampler(s): Jonathan Wilkinson
Brett Dougherty Shank

Top of Casing (ft, msl) 453.71

PURGE INFORMATION:

Method of Well Purge: Disposible Polyethylene Bailer

Dedicated Equipment: Yes ____ No X

Date/Time Initiated: 5-10-04 1744

Casing Diameter (inches): 2"

Initial Water Level (feet): 24.06

One Casing Volume (gal): 0.84 gal x 3 vol = 2.5 gallons

Initial Water Level Previous Event (feet): 25.79

One Casing Volume Previous Event (gal): 0.55

Ground Water Elevation (ft, msl): 429.65

Total Volume Purged (gal): 3 gallons

Ground Water Elevation Previous Event (ft, msl): 427.92

Purged Dry?: Yes ____ No ✓

Well Total Depth (feet): 29.22

Water Level after Purge (feet): 24.03

Well Total Depth Previous Event (feet): 29.16

Date/Time Completed: 5/10/2004 1758

PURGE DATA:

| Time | Purge Rate (gpm / Hz) | Cumulative Volume (gal) | Temp (°C) | pH (std units) | Conductivity (uS = umhos/cm) | Turbidity (NTU) | Other | Notes |
|---|---|---|---|---|---|---|---|---|
| 1740 | – | 0.5 | 18.2 | 7.6 | 2300 | 18.3 | – | Clear |
| 1749 | – | 1.0 | 17.7 | 7.4 | 1793 | 13.6 | – | " |
| 1751 | – | 1.5 | 17.4 | 7.3 | 1767 | 8.85 | – | " |
| 1752 | – | 2.0 | 18.1 | 7.4 | 1756 | 14.2 | – | " |
| 1754 | – | 2.5 | 18.2 | 7.4 | 1708 | 8.88 | – | " |
| 1757 | – | 3.0 | 17.3 | 7.4 | 2070 | 17.9 | – | " |
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# FIELD INFORMATION LOG Part 2

SAMPLING INFORMATION:

Sample Point ID: PZ-304-AS

Sampling Method: Disposible Polyethylene Bailer

Dedicated: Yes ____ No X

Water Level @ Sampling (ft): 24.03

Well Collection Sequence #: 3 of 5

Parameters: Annual: ____ Semi-Annual: ____ Quarterly: ____ Monthly: ____ Other: ✓

SAMPLE DATA:

| Time & Date | Sample Rate | Temp (°C) | pH (std units) | Conductivity (uS = umhos/cm) | Turbidity (NTU) | Other | Notes |
|---|---|---|---|---|---|---|---|
| Sunday 1800 | VOC: – <br> Other: – | 17.3 | 7.4 | 2070 | 17.9 | — | clear |

INSTRUMENT CALIBRATION DATA:

Beginning of day: (time) 1420

End of day: (time) 1900

Turbidity Serial #: Lamotte 2020 #00053

pH Serial #: pH Testr 2 Waterproof #00452

Conductivity Serial #: TDS Testr 20 #03395

| Purging Event | | | Sampling Event | | |
|---|---|---|---|---|---|
| Beginning of day | End of day | | Beginning of day | End of day | |
| 9.99 | | NTU std= 10.0 | | 9.88 | NTU std= 10.0 |
| 1422 | | uS std= 1413 | | 1298 | uS std= 1413 |
| 4.0 | | pH std = 4.0 | | 4.2 | pH std = 4.0 |
| 7.0 | | pH std = 7.0 | | 6.9 | pH std = 7.0 |
| 10.0 | | pH std = 10.0 | | 9.7 | pH std = 10.0 |

Other Calibration: ____

GENERAL INFORMATION:

Weather Conditions @ Sampling: Sunny, 85°F

Sample Characteristics: clear

COMMENTS AND OBSERVATIONS:

Collect 6x40ml HCl VOA, 2x1Lg1 Neat, 2x1Lg1 $H_2SO_4$, 1x16oz pl Neat, 1x8oz $HNO_3$ locked

Date: 5-10-2004 By: Brett D. Shank Staff Hydrologist

Company: Herst & Associates, Inc.

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