All Closure Phase Submittals

REMEDIAL ACTION CLOSURE PHASE REPORT

SOILS OPERABLE UNIT, OU-2/SOILS NORTH CAVALCADE STREET SUPERFUND SITE

Prepared for the
Natural Resource Conservation Commission

Prepared by
IT Corporation

IT Project No. 448373
JUNE 2000

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REMEDIAL ACTION CLOSURE PHASE REPORT
SOILS OPERABLE UNIT, OU-2/SOILS

NORTH CAVALCADE STREET SUPERFUND SITE
HOUSTON, TEXAS

Prepared for
TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Prepared by
IT Corporation
Austin, Texas

IT Project No. 448373
June 2000

IN COOPERATION WITH THE
Texas Natural Resource Conservation Commission
and
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1.0 Introduction

This Remedial Action **Closure Phase** Report documents completion of closure activities for the Soils Operable Unit (OU-2/Soils) at the North Cavalcade Street Superfund Site. This report amends the Remedial Action Construction Phase Report and the Remedial Action Treatment Phase Report to document the closure activities performed. This Remedial Action **Closure Phase** Report is prepared in fulfillment of Task 8 of the Contract Scope of Work.

The ROD (Record of Decision), issued by the United States Environmental Protection Agency (USEPA) in 1988, specified on-site treatment for contaminated surficial soils and treatment of recovered groundwater using oil/water separation and activated carbon adsorption. In December 1989, the Remedial Design was initiated to address both soil and groundwater contamination. Separate design packages were prepared for soil and groundwater contamination (referred to as Soil Operable Unit and Groundwater Operable Unit, respectively). The Remedial Action was initiated for the Groundwater Operable Unit in 1992. The action levels specified for carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) concentration in soil that were specified in the ROD were revised in 1993 from 1 to 30 parts per million (ppm). In 1994, the TNRCC awarded a contract to IT Corporation (IT) to revise and conclude the remedial design for the Soil Operable Unit which had been partially completed by a previous design firm.

In May 1995, the TNRCC awarded a contract to Eagle Construction and Environmental Services ("Contractor" or "Eagle") to perform the Soils Operable Unit Remedial Action. IT Corporation ("Engineer" or "IT") is under contract with the TNRCC to provide Remedial Action Engineering Services. The Contractor is responsible for achieving the established cleanup goals for cPAHs and benzene in accordance with the performance-based Contract Documents (IT Corporation, May 1995).

On April 18, 1996, representatives of IT, the Texas Natural Resource Conservation Commission (TNRCC) and the U. S. Environmental Protection Agency (EPA) completed an inspection of the construction performed by Eagle. On June 3, 1996 it was determined that Eagle had constructed the facilities in accordance with remedial design (RD) plans and specifications. Construction activities at the North Cavalcade Street Superfund Site were completed in accordance with *Procedures for Completion and Deletion of National Priorities List Sites and Update* (OSWER

Directive 9320.2-3C). The TNRCC and EPA inaugurated the inspection activities essential for site completion and achieving performance standards.

The Treatment Phase was initiated June 4, 1996 and continued 808 days, until August 21, 1998. Although the treatment objectives had not been achieved, the Contractor requested the Contract be terminated for convenience on August 7, 1998. Work was suspended except for site security as of August 27, 1998.

The Contract was amended to include a modified closure phase that provided for the contaminated soil to be placed in the treatment cells and covered with a liner, pending determination by the TNRCC and EPA of final disposition. TNRCC notice to proceed with the modified Closure Phase activities was effective March 1, 1999. The Remedial Action Contract ended November 18, 1999. The final Remedial Action Contract invoice for retainage was submitted for payment December 28, 1999.

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2.0 Summary of Site Conditions

2.1 Project Background

The North Cavalcade Street Superfund Site was an abandoned wood treating facility located in northeast Houston, Texas approximately one mile southwest of the intersection of Interstate Loop 610 and U.S. Route 59 (Figure 2-1). The Site is approximately 21 acres bounded by Loop 610 to the north, Cavalcade Street to the south, and the Missouri Pacific railroad lines to the east and west.

The Site is generally flat and is drained by three stormwater drainage ditches, two of which flank the Site on the east and west sides. A third ditch bisects the Site into northern and southern sections. The third ditch drains into a larger flood control ditch which discharges into Hunting Bayou, a tributary of the Houston Ship Channel. The surrounding areas are residential, commercial, and industrial properties. The nearest residential area is directly to the west. Commercial properties are located along neighborhood thoroughfares adjacent to the site.

The presence of contamination at the North Cavalcade site was discovered in 1983 during the course of a geotechnical investigation for a proposed Houston Metropolitan Transit Authority terminal facility. In 1984 the Site was recommended for inclusion on the Superfund National Priority List, which was officially promulgated in June 1986. In August 1985, EPA initiated the Remedial Investigation/Feasibility Study (RI/FS) process. The RI results indicated that polynuclear aromatic hydrocarbons (PAHs), benzene, toluene, and xylene from previous wood treating operations were present in the surficial soils at the Site and in the water table aquifer beneath the Site. The Record of Decision (ROD), issued by the EPA in 1988, specified on site biological treatment for contaminated surficial soils and treatment of recovered groundwater using oil/water separation and activated carbon absorption.

In December of 1989, the Remedial Design was initiated to address both soil and groundwater contamination. Separate design packages were prepared for soil and groundwater contamination, referred to as the Soil Operable Unit (OU-2/Soils) and the Groundwater Operable Unit (OU-1/ Groundwater), respectively. The Remedial Action was initiated for the Groundwater Operable Unit in 1992.

The Soil Operable Unit consists of approximately 11,000 cubic yards of contaminated soil stockpiled in a HDPE-lined cell on the northern section of the Site and excavated from a drainage ditch on the east side of the site as part of the remedial action. In December 1992, a Biotreatment Field Demonstration Study was completed by Ebasco, Services. In 1993, the action levels specified in the ROD for cPAH concentration in soil were revised from 1 to 30 parts per million (ppm). In 1994, the TNRCC awarded a contract to IT to revise and conclude the remedial design for the Soil Operable Unit which had been partially completed by a previous design firm. The final contract documents were submitted to TNRCC in October, 1994. The remedial action contract was awarded to Eagle Construction and Environmental Services, Inc. of Eastland, Texas on April 7, 1995. A chronology of events related to the Soil Operable Unit is provided in Table 2-1.

2.2 Remedial Action Activities

Site remediation was to be accomplished under the remedial action contract awarded to Eagle Construction through execution of three contract phases: Construction Phase, Treatment Phase, and Closure Phase. The Construction Phase consisted of constructing the facilities necessary for performing bioremediation of the contaminated soils. The Treatment Phase consists of treating the soil using the constructed facilities. The original Closure Phase consisted of the removal of the constructed facilities and final site restoration. The modified Closure Phase consisted of the removal of the constructed facilities, temporary stockpiling of the soil in the treatment cell, installation of a synthetic liner cover, and site restoration.

2.2.1 Remedial Action Construction Phase Activities

The Contract Documents were structured as performance specifications whereby the Contractor is completely responsible for achievement of the cleanup standards (see Section 01010, Summary of Work, Part 1.02C for example). The Contract Documents provide minimum performance and design requirements for three basic types of bioremediation processes, and allow the consideration of a bioremediation process different than these three processes (see Section 01010, Part 1.02C).

The Remedial Action Contractor elected to use a landfarming approach for soil bioremediation whereby covered and uncovered biotreatment cells would be constructed where soil could be aerated and maintained under conditions favorable for bioremediation. Major activities conducted during the Construction Phase included the following:

- Preparation of submittals which included the Contractor's bioremediation approach and a description of the specific facilities to be constructed
- Construction of a 45,704 square foot covered bioremediation treatment cell, and 20,000 square foot uncovered bioremediation cell
- Excavation of approximately 3,500 (measured in-place) cubic yards of creosote contaminated soil from a drainage ditch on the east side of the site (East Drainage Ditch)
- Loading the initial batch of soil into the treatment cells and demonstrating maintenance of proper conditions for bioremediation for a 30 day period.

The Remedial Action Contractor monitored air quality during construction activities in the workspace areas in accordance with the approved Health & Safety Plan. Air quality leaving the site was also monitored continuously using automatic monitoring equipment.

2.2.2 Remedial Action Treatment Phase Activities

Substantial completion of the Construction Phase was achieved by the Contractor on June 4, 1996, which was also the start of the Treatment Phase. The Contract originally provided for 1,095 calendar days for treatment. As of the end of the Treatment Phase, 808 days had elapsed. Although the treatment objectives had not been achieved, the Contractor requested the Contract be terminated for convenience on August 7, 1998. Treatment activities were suspended, except for site security, as of August 21, 1998.

As part of the Construction Phase, in April, 1996, approximately 3,600 yd^3 of soil were initially loaded into the covered and uncovered treatment cells to be operated as a conventional landfarm. The volume of soil within the treatment cells was based on the minimum half-life specified in the Contract Documents (170 days)[1] and an assumed initial cPAH concentration of 112 mg/kg for the East Ditch soil, and 55 mg/kg in the soil stockpile[2].

[1] As per Construction Specification 02820, 1.05 D and Table 1 of same, cell sizing to be based on ½ life 50% greater than minimum ½ life in presented in Table 1.

[2] As per Contractor Submittal 02820-1E, Amended Bioremediation Work Plan, Table 4, Sample LTU Sizing Calculation Sheet.

In late September 1996, the Contractor elected to change the operational method and constructed six windrows in the covered treatment cell and six windrows in the uncovered treatment cell. The purpose of the windrowing was to enhance biodegradation by increased mixing and aeration of the soil. Increased mixing allowed for more even distribution of moisture and nutrients as well as reducing clumping thereby providing a greater surface area for microbial contact (Contractor Submittal 02820-1E). This change in the method of operation resulted in a reduction in the soil volume under treatment from approximately 3,600 yd^3 under the landfarm method to approximately 2,000 yd^3 under the windrow method, or about 55% of the original volume under treatment. The windrows are on top of a layer of soil which consists of the portion of the soil initially loaded in the treatment cells and not incorporated into the windrows (approximately 1,600 yd^3). The Engineer returned the Contractor's submittal for modification of the operational method marked "Revise and Resubmit" as the volume of soil under treatment was not in compliance with the minimum requirements of the Contract Documents. With the reduced volume of soil under treatment, the Contractor would not achieve cleanup within the time remaining in the Treatment Phase if cPAH degradation proceeded in accordance with the minimum design half-life and initial cPAH concentrations were as assumed for design purposes. The Contractor stated that, while they did not have the proper volume of soil under treatment for compliance with the Contract Documents, they were not comfortable increasing the volume if the soil is not treatable or until they have a sound approach demonstrated to meet the cleanup criteria.

Past studies indicate that enzymes and bacterial cultures transform aliphatic and aromatic hydrocarbons into fatty acids that are more easily assimilated by microorganisms, thereby increasing the rate of biodegradation. Proprietary processes utilizing these mechanisms are available from a number of vendors. In February, 1997, the Contractor retained ETEC, who applied extracted enzymes and bacterial cultures to the soil in an effort to speed the degradation process. Quarterly sampling data did not indicate that the ETEC process reduced the degradation half life.

From May 1997 through June 1998, the Contractor performed several treatability studies with various vendors including; Suntide, Inc., X-19 Biological Products, BioTek, GT Environmental Technology, and CDE Resources. The purpose of these treatability studies was to identify a mechanism to enhance the biodegradation. As of June 1998, the treatability studies either did not show a significant decrease in cPAH concentration, or the process was not identifiable as biodegradation.

Quarterly sampling data indicate that cPAH concentration is still considerably above the 30 mg/kg cleanup standard, and there has been little change in the cPAH for more than two years.

Data Review

Monitoring data, consisting primarily of quarterly samples for PAH compounds, nutrients and bacteriological parameters, were collected as required by the Contract Documents since the Treatment Phase began in June, 1996. Analysis for benzene and PAH compounds provides an indicator as to whether the remediation action levels have been reached. Analysis for ammoniacal-nitrogen, moisture content, orthophosphate indicate whether the nutrient and moisture conditions are within ranges conducive to bacteria growth. When analyses indicate that any biological parameters are not within the specified maintenance ranges, conditions are not optimal for bacteriological growth and therefore not optimal for bioremediation. Analysis for bacteriological population counts indicates whether there is sufficient bacteria present to perform biodegradation. Optimum ranges for nutrients and bacteriological parameters are specified by the Contract Documents. The data and respective action levels and specified maintenance rages are summarized in the attached Table 2-2. The data are summarized as follows:

- Benzene has not been detected in any of the contaminated soil samples collected to date, and the detection limit is below the cleanup standard of 40 µg/kg.

- Total cPAH concentrations have decreased from an average of about 114 mg/kg in April, 1996 to approximately 84 mg/kg in August 1996 (average of covered and uncovered treatment cell data). Following August, 1996, the data indicate only small decreases in the total cPAH concentration. There is very little difference between the initial and final cPAH concentrations in the covered and uncovered treatment cells both initially and after treatment.

- With some exceptions, the average ammoniacal-nitrogen, and moisture content were generally within or close to the specified maintenance range. Orthophosphate concentrations were generally less than the specified maintenance range. Other parameters were within their specified maintenance range.

- Bacteriological counts (specific degraders and total heterotrophs) were generally above the minimum required.

- The PAH data also indicated that naphthalene is no longer present in the soil and had decreased from the initial sampling in April, 1996, when two of the eleven samples collected samples were above the currently used detection limits of 4.0 µg/kg (4.9 and 9.0 µg/kg). The absence of naphthalene in the soil indicates that the more readily utilized carbon sources have been consumed.

Performance Assessment

The data summarized in Table 2-2 indicates some degradation during the first 4 months of treatment. However, after August, 1996, the total cPAH concentrations do not appear to change significantly for the remainder of the Treatment Phase. The data indicate that about a 30 to 40 percent reduction in cPAH concentrations has occurred, although the data are highly variable.

These data and other data submitted with the monthly biotreatment reports indicate that, at least within the covered treatment cell, conditions were generally maintained within appropriate ranges with respect to the specified monitoring parameters during the period following the conversion to the windrow system (after September, 1996). The data indicate that the Contractor generally stayed within the minimum monitoring requirements of the Contract Documents.

Land treatment systems operated in a similar manner to the North Cavalcade site have typically achieved about a 50 percent reduction of cPAH compounds[3] [4]. Removals of cPAH compounds higher than 50 percent have been reported with more aggressive land treatment methods (e.g. with additives) or other bioremediation methods, such as bioslurry[4]. With an initial cPAH concentration over 100 mg/kg, a 50 percent removal of cPAH would not result in a concentration below the cleanup standard of 30 mg/kg. To achieve the cleanup standard with the less aggressive treatment methods initially implemented by the Contractor would be difficult. The Contractor did try two significant but apparently unsuccessful process modifications during the Treatment Phase.

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[3] Cookson, J.T. Jr., 1995, "Bioremediation Engineering Design and Application"

[4] IT Corporation, Feb 1995, Letter report regarding Literature Search.

The Contract Documents also have provisions for material preprocessing (see Section 02820, Part 3.03). The specification requires the segregation of material larger than 1-inch, and allows for the separation and off-site disposal of undersized material containing high concentrations of creosote-base materials (weathered tar beads and small creosote balls). While some gross screening of oversized materials occurred prior to loading material into the treatment beds, the Contractor did not choose to remove more heavily contaminated undersized material. The Contractor also did not blend the more heavily contaminated soil with the considerable volume of less contaminated soil.

2.2.3 Remedial Action Closure Phase Activities

The Contractor requested the Contract be terminated for convenience on August 7, 1998. Treatment activities were suspended, except for site security, as of August 21, 1998. The Contract was amended to include a modified closure phase that provided for the contaminated soil to be placed in the treatment cells and covered with a liner, pending determination by the TNRCC and EPA of final disposition. The modified closure activities included:

- Building over Covered Bio-Cell to be razed,
- Existing geomembrane liners from stockpile and process area to be cut up and placed in Covered Bio-Cell,
- Cover and seal Covered Bio-Cell with 30 mil liner.

Notice to proceed with modified Closure Phase activities was effective March 1, 1999. A final walk through was performed August 24, 1999. Final punchlist activities were completed in November 1999. Final submittals were approved December 27, 1999.

3.0 Demonstration of Remedial Activity Quality Assurance and Quality Control

3.1 Methodology

Activities at the Site were consistent with the ROD, the Remedial Design and Remedial Action (RA) statements of work issued for engineering design and construction oversight, and the Contract Documents for Construction and Operation by the RA Contractor. Work conducted for the Remedial Design included a Quality Assurance Project Plan (QAPP, IT, 1995) which incorporated all EPA and State quality assurance and quality control (QA/QC) procedures and protocol. EPA analytical methods were used for all sampling conducted at the site during the Remedial Design.

Six Data Quality Objectives (DQOs) were established for the North Cavalcade Remedial Action project (QAPP, IT, 1995). DQOs are the full set of performance constraints needed to design a data collection effort, including a specified level of uncertainty that a data user is willing to accept in results derived from environmental data. DQOs are defined to ensure that the appropriate type, amount, and quality of data are collected to resolve project issues and to draw scientifically defensible conclusions from the data. Specifically, the DQOs for the North Cavalcade project are to verify that:

- On-site biological treatment of contaminated soils reduces the concentrations of benzene and cPAHs to below the cleanup levels of 0.04 mg/kg and 30 mg/kg, respectively,
- Conditions are maintained in the biotreatment system for optimal performance throughout the Treatment Phase,
- Backfill soil does not contain benzene or cPAHs at concentrations greater than the cleanup levels,
- Material transported off site for disposal as non-hazardous waste meets criteria for non-hazardous waste disposal
- Stormwater, or other potentially contaminated waters, meet the criteria for discharge, as specified in Section 11820 of the Contract Documents, and

- Air emissions from the site do not exceed action levels specified in Section 01650 of the Contract Documents.

The verification of soil cleanup was to have been performed in accordance with Section 02820 of the Contract Documents. Because the cleanup criteria was not achieved and the Contract terminated, no verification sampling was performed.

3.2 Demonstration of Results

After 808 days of treatment, the Contractor was unable to demonstrate that the remedial action levels had been achieved. On August 7, 1998, the Contractor requested the Contract be terminated for convenience.

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4.0 Schedule of Remedial Activities

4.1 Construction Phase

The planned duration for the Construction Phase was 270 days. The actual duration of the Construction Phase was 383 days. A summary of the Planned versus Actual Schedule for individual Construction Phase activities is provided in Table 4-1. Planned dates for individual Construction Phase activities were provided by the RA Contractor.

4.2 Treatment Phase

As shown on Table 4-1, the planned duration of the Treatment Phase was 1095 days. Due to the delay in completion of the Construction Phase, the Treatment Phase started on June 4, 1996 rather than February 11, 1996, which is 113 days later than planned. The time for completion of the Treatment Phase was extended by 60 days in (Change Order Number 9) to allow the Contractor to perform Vendor Studies designed to identify methods to enhance the bioremediation. As of August 21, 1998, when treatment activities were ceased, 808 days of treatment had elapsed.

4.3 Closure Phase

The original planned duration of the Closure Phase was 120 days. Modified closure phase activities were begun on March 1, 1999. The Remedial Action Contract ended November 18, 1999.

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5.0 Contract Summary

5.1 Engineering Contract

Scope of Work

The Scope of Services, Exhibit A to the Remedial Action Engineering Services' Contract stated that the engineer shall assist the TNRCC with the implementation and construction of the Remedial Design during bid solicitation and contracting, general administration of the Remedial Action, resident inspection, engineering, and other special services. The Engineering Services were subdivided into 10 major task descriptions, which are summarized in Table 5-1.

Contract Amendments

There were two Contract Amendments to the original Engineering Contract Scope of Work. Contract Amendment No. 1, which was approved on March 25, 1995, applied to Task 10 - Special Services. The amendment included additional Site visits by the Engineer which were necessary for soil sampling oversight and supervision as well as observation of the Construction Contractor's operations during unloading and staging of components for a structural metal building at the Site. This amendment also included the performance of additional engineering analyses and consultation services to assist the TNRCC with a contracting strategy to address Construction Contractor questions concerning the average concentrations of contaminants at the Site.

Contract Amendment No. 2, which was approved on May 1, 1996, applied to Task 2 - Procurement Services and Task 10 - Special Services. The engineering services provided under Task 2 were expanded due to extension of time frames and the performance of additional work beyond what was specified in the original task budget in both pre-bid and post-bid activities. The engineering services provided under Task 10 were also expanded to include the revision of the Scope of Work due to delay by the Construction Contractor, the performance of advisory consultation in an effort to assist the Construction Contractor with technical difficulties during the preparation and correction of submittal documents, and the performance of additional field observation, inspection services, and documentation during the Construction Phase of the project.

Contract Amendment No. 3, which was submitted to the TNRCC on August 27, 1999 modified the Contract Time. The amended contract end date is August 21, 2001. Contract Amendment No. 3 did not include an amended Contract Price or Scope.

Cost Summary

The amended total Contract Amount for the Engineering Contract is $1,135,497.32. This included the original Engineering Contract executed October 6, 1994 in the amount of $794,184.88, Contract Amendment No. 1 in the amount of $14,746.17, Contract Amendment No. 2 in the amount of $326,566.27, Contract Amendment No. 3 in the amount of $0.00. A summary of the amended contract amounts is provided in Table 5-2.

5.2 Remedial Action Contract

Scope of Work

Details of the scope of work for the Remedial Action Construction and Operation Contract are provided in the Contract Documents for Construction and Operation of the Soils Operable Unit, Remedial Action (IT, 1994). In summary, it was stated that the Contractor shall be responsible for the installation, operation, and closure of a bioremediation system to treat contaminated soils at the OU-2/Soils. The Remedial Action Contract was a performance-based agreement for providing successful biological treatment of carcinogenic polycyclic aromatic hydrocarbons and benzene contaminated soils. The work was divided into three stages, the Construction Phase, the Treatment Phase, and the Closure Phase. The Construction Phase, consists of construction of facilities equipped for the bioremediation system. The Treatment Phase, consists of biological treatment of the contaminated soil. The Closure Phase, consists of removal and disposal or recycling of system components, and restoration of the site.

Change Orders and Cost Summary

The award of the RA contract on May 17, 1995 was in the amount of $2,293,991.20, with $189,998.00 in alternate bid items, resulting in a contract total of $2,483,989.20.

TNRCC has approved eleven Change Orders (CO# 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and 12) submitted by the RA Contractor as of the completion of the modified Closure Phase (September 1999). Approved Change Orders 1, 2, 3, 4, 5, 7, 8, 10, and 12 resulted in a total increase to the Contract in the amount of $59,348.01. Change Order 6, allowed a $2,386.95 expenditure under alternate bid item #13b, and did not result in an increase in the contract amount. The total amended

contract amount through the Closure Phase (including approved Change Orders) is $2,543,337.21. A summary of the amended contract amounts is provided in Table 5-3.

6.0 Inspection Summary

6.1 Construction Phase

On April 17, 1996 the Engineer conducted an inspection of the site facilities and documents to determine if the RA Contractor had achieved Substantial Completion of the Construction Phase. Based on the inspection it was determined that the work was not substantially complete, and the following deficiencies were noted:

1. The 30-day startup operation must be concluded in accordance with Section 02820, Part 3.05A for the full demonstration period. Loading of the entire treatment system was accomplished effective April 8, 1996.

2. The topsoil stockpile outside the fence on the north end of the Site must be moved inside of the fenced area, and this work should be done prior to required hydroseeding.

3. Hydroseeding of all disturbed areas must be performed as required, and the Contractor must provide adequate watering systems to demonstrate efforts toward positive seed germination results.

4. The Contractor must demonstrate that proper measures are being taken to meet the requirement for capture of the 100-year rainfall within the soil processing area. Based on preliminary calculations, the current invert elevation of the overflow pipe would permit such capture only if approximately 10% of the area inside the berm is occupied. It appears that 30% of the area of the soil processing impoundment is occupied by soil, rubble, or equipment.

5. The spill cleanup must be completed in the area outside the fence.

6. The final As-Built Drawings must be submitted and approved by the Engineer.

7. Minor finished soil grading at the south end of the East Ditch excavation must be completed.

8. The soil lodged against the silt fence around the site must be removed.

9. Rubble scattered in the area of the treated water storage must be removed.

10. A leak in the water delivery system underneath the roof on the west side of the covered cell must be repaired.

11. The Certificate of Inspection by a qualified electrician licensed to do electrical work in the City of Houston must be submitted to the Engineer.

12. The drums of PPE must be properly disposed in accordance with the requirements of the Contract Documents.

13. Certificates of Analyses for chemical additives, landscaping certification, and MSDS for chemicals and fertilizers, final construction survey data, amendment to Health and Safety Plan, all Construction Phase Submittals, photographs and negatives, and project Record Documents (Section 01720) must be submitted to the Engineer.

During the time period between April 18, 1996 and June 2, 1996, the Engineer's on-site representative verified that the above listed deficiencies were corrected. On June 3, 1996 the Engineer issued the Certificate of Substantial Completion for the Construction Phase of the Remedial Action Contract.

6.2 Treatment Phase

The Contractor requested the Contract be terminated for convenience on August 7, 1998. Work was suspended except for site security as of August 27, 1998. As a result of contract termination, Substantial Completion of the Treatment Phase was not achieved.

6.3 Closure Phase

On August 24, 1999 the Engineer, TNRCC, and EPA conducted an inspection of the site facilities and documents to determine if the RA Contractor had achieved Substantial Completion of the modified Closure Phase. Based on the inspection it was determined that the work was not substantially complete, and the following deficiencies were noted:

- Final grading: Soil was pushed up against the silt fence along the west fence and other places. This soil was to be removed and spread over the site.

- Seeding: The area graded on the south side of the capped area was to be seeded.

- Pick up trash and debris: Large pieces of liner material laying around the site were to be removed and disposed.

- Repair of vent pipe: The vent pipe near the north-west corner of the cap had been broken off or cut. This vent pipe was to be extended to the height of the other vent pipes and capped.

- Site security: All locks are to be replaced with locks which can be opened with a single key. At the time of the walk-through, the lock at the gate on N. Cavalcade was keyed differently. The lock at the far north gate was keyed differently, and the gate was open. The gate between the N. Cavalcade Groundwater site and the OU-2 soils site was open, with no lock evident. There was no lock on the electrical panel facing west. The far north gate should be locked with a chain, similar to the other gates to prevent forced entry.

During the time period between August 24, 1999 and November 4, 1999, the Engineer's inspector verified that the above listed deficiencies were corrected. On November 18, 1999 the Remedial Action Contract expired.

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7.0 References

Cookson, J.T. Jr., **Bioremediation Engineering Design and Application**, 1995.

Eagle Construction & Environmental Services, Inc., **Contractor Submittal 02820-1E, Amended Bioremediation Work Plan**, January 21, 1997.

Eagle Construction & Environmental Services, Inc., **Treatability Study Progress Report Update**, June 23, 1998.

IT Corporation, **Contract Documents for Construction & Operation of the Soils Operable Unit, Remedial Action, North Cavalcade Street Superfund Site**, IT Project No. 448373, February 1995.

IT Corporation, **Letter Report Regarding Literature Search,** IT Project No. 448373, February 1995.

IT Corporation, **Project Work Plan Remedial Action Engineering Services North Cavalcade Street Superfund Site**, IT Project No. 448373, January 1995.

IT Corporation, **Quality Assurance Project Plan Remedial Action Engineering Services**, IT Project No. 448373, August 1995.

IT Corporation, **Letter to TNRCC regarding Review of Remediation Progress,** IT Project No. 448373, February 3, 1998.

TABLES

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Table 2-1
Chronology of Events

Remedial Action Closure Phase Report
Soils Operable Unit, OU-2/Soils
North Cavalcade Street Superfund Site

Activity	Date
Record of Decision, Declaration Issued	June 28, 1988
Soil Cleanup Level Changed to ≤ 30 ppm cPAH	April 26, 1993
IT Remedial Design (RD) Contract executed	February 28, 1994
RD Work Plan issued	March 21, 1994
Design Concept Memorandum issued	April 12, 1994
80% Design Completed	April 25, 1994
RD Health & Safety Plan issued	April 29, 1994
Pre-Final Design completed	May 20, 1994
RD Sampling & Analysis Plan complete	May 25, 1994
Final Design completed	June 6, 1994
Final Design revision completed	August 10, 1994
RD Sampling & Analysis Report complete	September 16, 1994
Final Design issued for bid	October 17, 1994
Remedial Action (RA) Work Plan issued	January 25, 1995
RA QAPP issued	September 15, 1995
RA Contract Bid Opening	March 13, 1995
R A Contract Notice of Award	April 7, 1995
RA Contract Notice to Proceed	May 17, 1995

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Table 2-1
Chronology of Events

Remedial Action Closure Phase Report
Soils Operable Unit, OU-2/Soils
North Cavalcade Street Superfund Site

Activity	Date
Notification to begin RA Construction	November 10, 1995
Certificate of Substantial Completion, Construction Phase	June 3, 1996
Notice to Proceed with Treatment Phase	June 4, 1996
Contractor Modifies Treatment to Windrow Approach	September 1998
Contractor Performs Treatability Studies	February 1997 through June 1998
Suspension of Treatment	August 21, 1998
Notice to Proceed with Closure Phase	February 24, 1999
Substantial Completion, Closure Phase	November 4, 1999
Remedial Action Contract End	November 18, 1999

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Table 2-2
Summary of Quarterly Monitoring Data

Remedial Action Closure Phase Report
Soils Operable Unit, OU-2/Soils
North Cavalcade Street Superfund Site

Parameter	Cleanup Std./ Maint. Range	March to May 1996[1]		Aug. 15, 1996		Nov. 14, 1996		Mar. 6. 1997		Jun. 5, 1997		Jan. 7, 1998		May 7, 1998	
		Range	Avg.	Range	Avg.	Range	Avg.	Range	Avg.	Range	Avg.	Range	Avg.	Range	Avg.
COVERED TREATMENT CELL:															
Benzene (ug/kg)	40	<50	<50	<25	<25	<25	<25	<5	<5	<5	<5	<5	<5	<5	<5
cPAH (total) (mg/kg)	30	57 - 166	114	38 - 124	84	69 - 104	82	103 - 117	109	36 - 81	59	28 - 120	88	56 - 135	97
TOC (mg/kg)	None	8,970 - 12,890	10,440	NA	NA	7,600 - 12,000	8,720	7,500 - 8,700	8,114	2,000 - 15,000	10,967	7,200 - 12,000	8,267	6499 - 7151	6853
Ammonia-N (mg/kg)	770 to 1,095[2]	137 - 411	316	NA	NA	930 - 1,300	1,058	900 - 1,700	1,285	880 - 1,100	945	390 - 1,600	1,097	310 - 500	400
Orthophosphate (mg/kg)	77 to 110[2]	<50	<50	NA	NA	<50	<50	<5.0 - 5.4	5.1	27 - 67	41	19 - 150	52	5.6 - 3.3	17.4
Moisture Content (%)	10 to 20	6.2 - 10.3	8.9	NA	NA	6.6 - 10.9	7.9	6.3 - 8.5	7.5	10.7 - 13.6	12.5	5.7 - 10.3	8.2	10.3 - 14.2	11.65
pH	6 to 8	7.4 - 7.7	7.5	NA	NA	7.0 - 7.4	7.2	7.0 - 7.3	7.2	6.4 - 7.2	6.9	5.6 - 6.9	6.3	6.08 - 7.1	6.47
Specific degraders (cfu/g)	$>1.0x10^4$	$1.2x10^3$ - $2.4x10^4$	$1.2x10^4$	NA	NA	$9.5x10^4$ - $1.4x10^5$	$1.2x10^5$	$1.7x10^4$ - $4.9x10^4$	$2.5x10^4$	$2.7x10^3$ - $1.2x10^6$	$6.0x10^5$	NA	NA	$4.0x10^3$ - $15x10^3$	$8x10^3$
Total heterotrophs (cfu/g)	$>1.0x10^3$	$2.0x10^6$ - $3.0x10^6$	$2.7x10^6$	NA	NA	$1.2x10^5$ - $7.7x10^5$	$4.4x10^5$	$2.0x10^4$ - $1.8x10^5$	$7.3x10^4$	$5.6x10^5$ - $2.5x10^6$	$1.2x10^6$	NA	NA	$1.9x10^5$ - $9.4x10^5$	$5.0x10^5$

Notes:

1) Ranges and Averages are based on the average concentrations from multiple sampling events during March, April, and May 1996.

2) Quarterly Monitoring Data summarized from Contractor Monthly Bioremediation Reports (Submittals 02820-1-1 through 02820-1-25).

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Table 2-2
Summary of Quarterly Monitoring Data

Remedial Action Closure Phase Report
Soils Operable Unit, OU-2/Soils
North Cavalcade Street Superfund Site

Parameter	Cleanup Std./ Maint. Range	March to May 1996[1]		Aug. 15, 1996		Nov. 14, 1996		Mar. 6. 1997		Jun. 5, 1997		Jan. 7, 1998		May 7, 1998	
		Range	Avg.	Range	Avg.	Range	Avg.	Range	Avg.	Range	Avg.	Range	Avg.	Range	Avg.
UNCOVERED TREATMENT CELL:															
Benzene (ug/kg)	40	<50	<50	<25	<25	<25	<25	<5	<5	<5	<5	<5	<5	<5	<5
cPAH (total) (mg/kg)	30	95 - 139	120	51 - 113	81	48 - 59	53	60 - 138	105	65 - 89	75	55 - 81	69	60 - 111	75
TOC (mg/kg)	None	9,380 - 10,940	9,910	NA	NA	8,500 - 8,600	8,550	6,800 - 9,100	7,900	9,000 - 9,400	9,133	7,500 - 7,800	7,700	5597 - 7739	6793
Ammonia-N (mg/kg)	770 to 1,095[2]	98 - 264	200	NA	NA	680 - 800	740	490 - 670	567	520 - 960	707	660 - 1,600	1,087	610 - 900	775
Orthophosphate (mg/kg)	77 to 110[2]	<50	<50	NA	NA	<50	<50	<5	<5	27 - 81	47	7 - 10	9	30 - 220	106
Moisture Content (%)	10 to 20	1.6 - 12.4	7.8	NA	NA	8.6 - 13.7	11.2	8.8 - 15	11.0	10.1 - 16.0	13	12.5 - 14.6	13.7	6 - 13.9	1.05
pH	6 to 8	7.3 - 7.5	7.5	NA	NA	6.7 - 6.8	6.8	6.2 - 6.7	6.4	6.4 - 7.3	6.9	6.5 - 7.0	6.6	5.83 - 6.77	6.32
Specific degraders (cfu/g)	>1.0x10^4	8.2x10^3 - 1.7x10^4	7.2x10^3	NA	NA	1.1x10^5 - 1.3x10^5	1.2x10^5	1.9x10^4 - 4.0x10^4	3x10^4	4.6x10^4- 4.4x10^5	2.8x10^5	NA	NA	2x10^3 - 1.4x10^4	6.4x10^4
Total heterotrophs (cfu/g)	>1.0x10^5	2.2x10^5 - 2.5x10^6	1.8x10^6	NA	NA	3.8x10^5 - 8.1x10^5	6.0x10^5	9.0x10^3 - 6.3x10^4	2.7x10^4	4.5x10^3- 1.1x10^6	8.1x10^4	NA	NA	7.4x10^5 - 2.0x10^6	1.4x10^6

Notes:

1) Ranges and Averages are based on the average concentrations from multiple sampling events during March, April, and May 1996.

2) Quarterly Monitoring Data summarized from Contractor Monthly Bioremediation Reports (Submittals 02820-1-1 through 02820-1-25).

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Table 4-1
Construction Phase Schedule Summary Planned vs. Actual

Remedial Action Closure Phase Report
Soils Operable Unit, OU-2/Soils
North Cavalcade Street Superfund Site

Task Name	Task Start		Task Finish		Task Duration	
	Planned	Actual	Planned	Actual	Planned	Actual
Construction Phase	**17 May 95**	**17 May 95**	**10 Feb 96**	**3 June 96**	**270d**	**383d**
Mobilization	16 Oct 95	16 Oct 95	28 Oct 95	09 Jan 96	13d	86d
Security Implementation	16 Oct 95	16 Oct 95	10 Feb 96	02 May 96	118d	200d
Health & Safety	16 Oct 95	16 Oct 95	10 Feb 96	12 May 96	118d	210d
Surveying	23 Oct 95	22 Oct 95	10 Feb 96	01 Apr 96	111d	163d
Water Treatment System	23 Oct 95	10 Nov 95	22 Nov 95	05 Apr 96	31d	148d
Environmental Protection	20 Oct 95	20 Oct 95	10 Feb 96	19 Apr 96	114d	183d
Install Bioremediation Systems	23 Oct 95	14 Nov 95	10 Feb 96	16 Apr 96	111d	155d
Fencing	23 Oct 95	03 Nov 95	10 Feb 96	19 Apr 96	111d	169d
Road Extensions	23 Oct 95	28 Nov 95	20 Nov 95	31 Jan 96	29d	65d
Excavate/Stockpile Soils	15 Nov 95	11 Dec 95	16 Jan 96	01 Apr 96	63d	113d
Disposal of Rubble (Roll-Off Boxes)	19 Nov 95	17 Jan 96	01 Jan 96	31 Jan 96	44d	15d
Disposal of Rubble	18 Nov 95	30 Oct 95	31 Dec 95	16 Feb 96	44d	110d
Treatment Phase[1]	11 Feb 96	4 June 96	10 Feb 99	21 Aug 98	1095 d	808 d
Closure Phase[1]	11 Feb 99	3 Mar 99	8 Nov 99	11 Nov 99	120 d	262 d

Notes: [1]The Planned Task Start and Task Finish dates for the Construction, Treatment and Closure Phases were calculated using May 17, 1995 as the start date and the specified duration for each phase from the Construction and Operation Contract.

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Table 5-1
Engineering Contract Task Descriptions

Remedial Action Closure Phase Report
Soils Operable Unit, OU-2/Soils
North Cavalcade Street Superfund Site

TASK 1 - PRE-PROCUREMENT ACTIVITIES • Revisions to Contract Documents	TASK 6 - QUALITY ASSURANCE • DQO Development • Draft QAPP • Final QAPP • Audit of Contractor Laboratory
TASK 2 - PROCUREMENT SERVICES • SOQ Evaluation and Assistance • Preparation and Issuance of Addenda • Bid Receipt and Evaluation • Contract Execution Assistance	TASK 7 - VERIFICATION SAMPLING • Excavation Sampling • Water Sampling • Air Sampling • Treatment Verification
TASK 3 - REMEDIAL ACTION ADMINISTRATION • General Contract Administration • Engineer's Site Visits • Reviews and Approvals of Contractor Submittals • Pay Requests Processing	TASK 8 - REMEDIAL ACTION REPORTS • Remedial Action Construction Report • Remedial Action Completion Report
TASK 4 - RESIDENT PROJECT REPRESENTATION	TASK 9 - PROJECT MANAGEMENT • Update of Project Work Plan • Cost and Schedule Tracking • Staff Coordination • Monthly Progress Report • Records/File Maintenance
TASK 5 - SCHEDULED MEETINGS • Pre-Bid Conference and Site Walk • Bid Letting • Project Kickoff Meeting • Pre-Construction Conference • Progress Meetings • Community Relations Meetings	TASK 10 - SPECIAL SERVICES

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Table 5-2
Summary of Engineering Contract

Remedial Action Closure Phase Report
Soils Operable Unit, OU-2/Soils
North Cavalcade Street Superfund Site

Task No.	Description	Original Contract	Approved Change Order #1	Approved Change Order #2	Change Order #3	Total
01	Revisions to Plans and Specs	$5,061.00				$5,061.00
02	Contractor Procurement Services	$11,281.88		$45,397.44		$56,679.32
03	RA Administration	$223,454.00				$223,454.00
04	Resident Project Representation	$177,256.00				$177,256.00
05	Project Meetings	$59,685.00				$59,685.00
06	Quality Assurance	$10,810.00				$10,810.00
07	Sampling and Analysis	$138,399.00				$138,399.00
08	RA Reports	$12,274.00				$12,274.00
09	Project Management	$95,964.00				$95,964.00
10	Special Services	$0.00	$13,882.77	$262,032.23		$275,915.00
	Fee	$60,000.00	$863.40	$19,136.60		$80,000.00
	Subtotal	**$794,184.88**	**$14,746.17**	**$326,566.27**	**$0.00**	**$1,135,497.32**

Contract Schedule		Duration	Contract End Date
Construction Phase		270	
Treatment Phase		1095	
Closure Phase		120	
	Change Order 1		
	Change Order 2	90	
	Change Order 3	120	
Total Duration:		**1695**	**8-31-2001**

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Table 5-3
Summary of Remedial Action Contract

Remedial Action Closure Phase Report
Soils Operable Unit, OU-2/Soils
North Cavalcade Street Superfund Site

	Original Contract	Approved Change Orders	Duration	Amended Contract
Construction Phase			270	
Original Contract, Line Items 1 through 14	$917,924.00			
Change Order 1		-$1,800.00	0	
Treatment Phase			1095	
Original Contract, Line Items 15 through 21	$1,204,011.00			
Change Order 2		$800.00	1	
Change Order 3		$7,300.00	3	
Change Order 4		$18,332.00	0	
Change Order 5		$0.00	0	
Change Order 7		$5,100.00	0	
Closure Phase			120	
Original Contract, Line Items 22 through 28	$172,056.20			
Change Order 8		$12,629.01		
Change Order 10		$16,987.00	0	
Change Order 12		$0.00	30	
Subtotals, Line Items 1 through 28	**$2,293,991.20**	**$59,348.01**	**1519**	**$2,353,339.21**
Alternate Bid Items	$189,998.00			
Totals with Alternate Bid Items	**$2,483,989.20**	**$59,348.01**		**$2,543,337.21**
Change Order 6, Alt Bid Item 13b[1]		**$2,386.95**		
Totals	**$2,483,989.20**	**$61,734.96**	**$0.00**	**$2,543,337.21**

Notes: [1]Change Order 6 authorized use of alternate bid item, without modifying the total contract amount.

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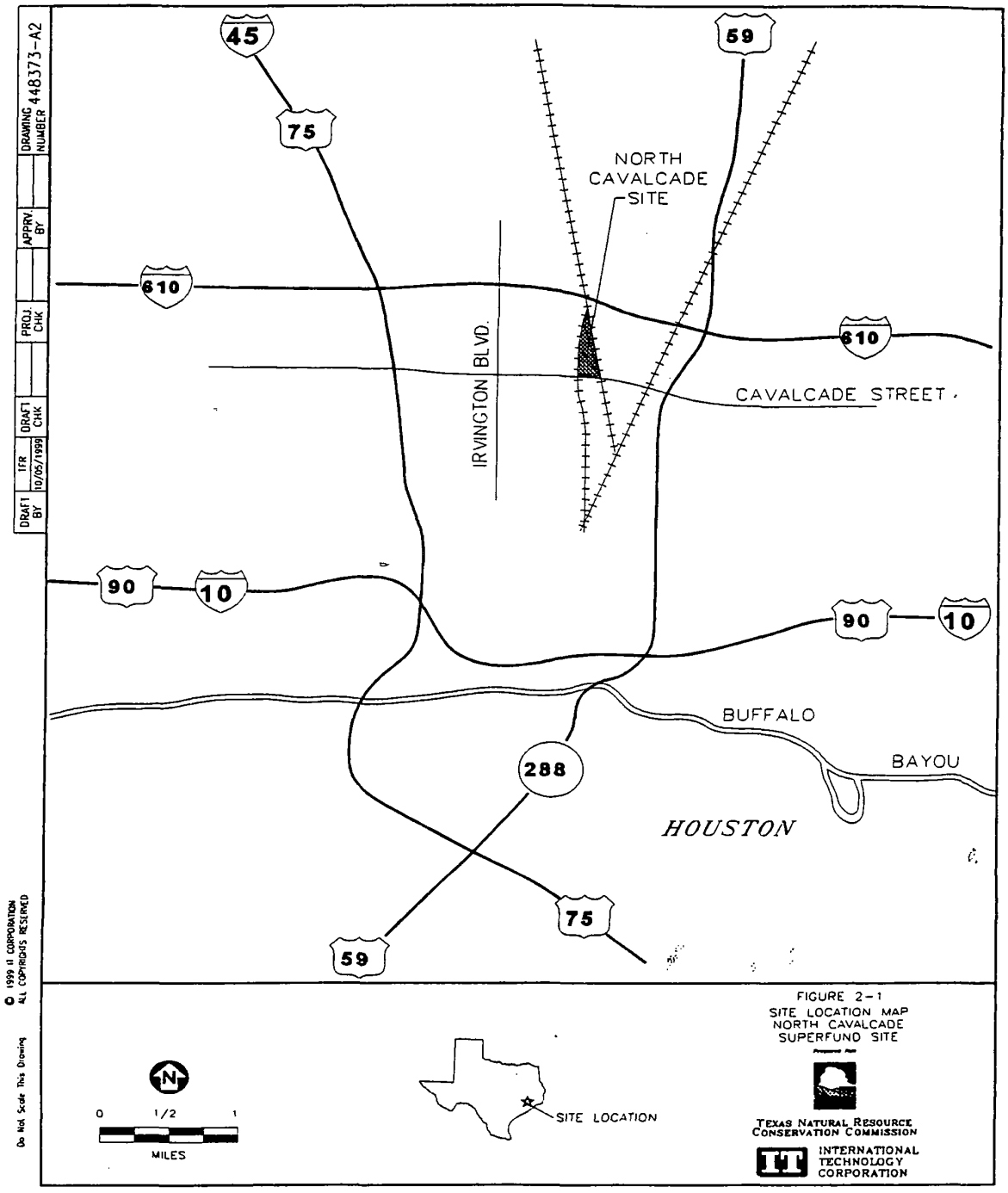
FIGURES


DRAWING NUMBER 448373-A2
APPRV. BY
PROJ. CHK
DRAFT CHK
ITR 10/05/1999
DRAFT BY
45
75
59
610
610
NORTH CAVALCADE SITE
IRVINGTON BLVD.
CAVALCADE STREET
90
10
90
10
BUFFALO BAYOU
288
HOUSTON
75
59
© 1999 IT CORPORATION ALL COPYRIGHTS RESERVED
Do Not Scale This Drawing
0 1/2 1
MILES
SITE LOCATION
FIGURE 2-1
SITE LOCATION MAP
NORTH CAVALCADE
SUPERFUND SITE
TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
INTERNATIONAL TECHNOLOGY CORPORATION

APPENDIX A

PROJECT SUBMITTAL REGISTER

Project Title: North Cavalcade
Contractor: Eagle

IT Project No. 448373 (003.03.000)
Date:
Revision No. 0 03/06/00

Submittal Number	Submittal Description	Date of Eagle Submittal	Date Rec.	* Action	Comments
	CLOSURE PHASE				
00000-00	COMBINED CLOSURE SUBMITTALS				Document Included Various Submittals
01050-1	Survey Records	8/16/99	08/16/99	RR	Verbal comments sent 8-17-99, Written follow-up sent 8-30-99
01050-1A	Survey Records	10/8/99	10/08/99	RR	Needs Surveyor's seal show leachate collection piping
01050-1B	Survey Records	11/18/99	11/22/99	A	
01065-1	Health and Safety Report	8/25/99	08/25/99	AC	Additional Info requested, see Memo to Eagle 9-15-99
01065-1A	Health and Safety Report	10/8/99	10/08/99	A	
01200-1-1	Project Meeting Audio Tapes, meeting date 3-4-99	3/22/99	03/22/99	NR	No Formal Review Required
01200-1-2	Project Meeting Audio Tapes, meeting date 3-11-99	3/22/99	03/22/99	NR	No Formal Review Required
01200-1-3	Project Meeting Audio Tapes, meeting date 3-25-99	4/13/99	03/22/99	NR	No Formal Review Required (no tape submitted, recorder malfunction)
01200-1-4	Project Meeting Audio Tapes, meeting date 4-1-99	4/13/99	03/22/99	NR	No Formal Review Required
01200-1-5	Project Meeting Audio Tapes, meeting date 7-8-99	7/16/99	07/16/99	NR	No Formal Review Required
01200-2-1	Project Meeting Minutes, meeting date 3-4-99	3/22/99	03/22/99	NR	No Formal Review Required
01200-2-2	Project Meeting Minutes, meeting date 3-11-99	3/22/99	03/22/99	NR	No Formal Review Required
01200-2-3	Project Meeting Minutes, meeting date 3-25-99	4/13/99	03/22/99	NR	No Formal Review Required
01200-2-4	Project Meeting Minutes, meeting date 4-1-99	4/13/99	03/22/99	NR	No Formal Review Required
01200-2-5	meeting date 7-8-99	7/16/99	07/16/99	NR	No Formal Review Required
01300-1	Submittal Register	8/25/99	08/25/99	NSR	Waived as Not Applicable to Modified Closure
01310-1	Progress Schedule			A	**See Submittal 02820-1**
01380-1	Progress Photographs			A	Approved as submitted, **Large Format Aerial Photo - not included in Closure Report**
01400-1	Closure Phase Quality Control Forms	8/25/99	8/25/99	NSR	Waived as Not Applicable to Modified Closure

PROJECT SUBMITTAL REGISTER

IT Project No. 448373 (003.03.000)

Project Title: North Cavalcade
Date:
Contractor: Eagle
Revision No. 0 03/06/00

Submittal Number	Submittal Description	Date of Eagle Submittal	Date Rec.	* Action	Comments
01400-2	Closure Phase Testing Results	8/25/99	8/25/99	A	Waived as Not Applicable to Modified Closure, Liner Weld Testing Only
01420-1	Chemical Quality Control Weekly Reports	8/25/99	8/25/99	NSR	Waived as Not Applicable to Modified Closure
01420-2	Chemical Quality Control Issues	8/25/99	8/25/99	A	**See Submittal 00000-00**
01420-3	Closure Phase Final Chemical Quality Control Report	8/25/99	8/25/99	NSR	Waived as Not Applicable to Modified Closure
01540-1	Closure Phase Site Security Plan			A	**See Submittal 02820-1**
01540-2	Daily Security Log	8/25/99	8/25/99	A	**See Submittal 00000-00**
01560-1	Air Contaminant Release Report	8/25/99	8/25/99	A	**See Submittal 00000-00**
01564-1	Spill Notification	8/25/99	8/25/99	A	**See Submittal 00000-00**
01564-2	Spill Release Incident Report	8/25/99	8/25/99	A	**See Submittal 00000-00**
01640-1	Sampling Analytical Results	8/25/99	8/25/99	NSR	Waived as Not Applicable to Modified Closure
01640-2	Waste Manifests	8/25/99	8/25/99	NSR	Waived as Not Applicable to Modified Closure
01650-1	Audit Results	8/25/99	8/25/99	A	**See Submittal 00000-00**
01650-2	Air Monitoring Data	8/25/99	8/25/99	A	**See Submittal 00000-00**
01700-1	Closure Phase Substantial Completion Notice	8/25/99	8/25/99	RR	Letter referred to Final completion, to be resubmitted
01700-1A	Closure Phase Substantial Completion Notice	10/8/99	8/25/99	A	Approved upon completion of punchlist items
01700-2	Closure Phase Final Completion Notice	8/25/99	8/25/99	A	**See Submittal 00000-00**
01700-3	Closure Phase Evidence of Payment & Release of Liens	10/8/99	10/08/99	A	Submitted with final application for payment
01700-4	Closure Phase Final Adjustment of Accounts	10/8/99	10/08/99	RR	numbers wrong, CO# 10 not included
01700-4A	Closure Phase Final Adjustment of Accounts	11/18/99	11/22/99	RR	numbers wrong, CO# 10 not included
01700-4B	Closure Phase Final Adjustment of Accounts	12/16/99	12/27/99	A	
01700-5	Closure Phase Final Application for Payment	9/23/99	09/23/99	RR	Need final adjustment of accounts, invoice for retainage not to be approved until after approval of all submittals, release of liens etc. See letter 9-28-99 to Eagle

PROJECT SUBMITTAL REGISTER

IT Project No. 448373 (003.03.000)

Project Title: North Cavalcade
Date:
Contractor: Eagle
Revision No. 0 03/06/00

Submittal Number	Submittal Description	Date of Eagle Submittal	Date Rec.	* Action	Comments
01700-5A	Closure Phase Final Application for Payment (resubmitted w/o change)	10/8/99	10/08/99	RR	Need final adjustment of accounts, invoice for retainage not to be approved until after approval of all submittals, release of liens etc.
01700-5B	Closure Phase Final Application for Payment (invoice 9504R) (resubmitted w/o change)	11/19/99	11/22/99	RR	**invoice for retainage not to be approved until after approval of all submittals, release of liens etc.**
01700-5C	Closure Phase Final Application for Payment (invoice 9504R), (resubmitted w/o change)	11/19/99	12/27/99	A	
01720-1	Closure Phase Record Documents	8/25/99	8/25/99	AC	**See Submittal 00000-00**
01720-1A	Closure Phase Record Documents	10/8/99	8/25/99	A	(was revised as per memo)
01725-1	As-Built Drawings			RR	Verbal comments sent 8-17-99, Written follow-up sent 8-30-99
01725-1A	As-Built Drawings	10/8/99	10/08/99	RR	Needs second x-section, layout of leachate piping
01725-1B	As-Built Drawings, E/W Cross Section	11/18/99	11/22/99	A	
01725-2	As-Built Drawings, N/S Cross Section	11/18/99	11/22/99	A	
01725-3	As-Built Drawings, Plan View	11/18/99	11/22/99	A	
02590-1 ("02820-2")	Closure Phase Liner Submittal	8/25/99	8/25/99	RR	Need to submit field seam testing
02590-1A	Closure Phase Liner Submittal	11/11/99	11/22/99	A	
02580-1	Geotextile Disposal Plan			NSR	Waived as Not Applicable to Modified Closure
02590-1	Geomembrane Disposal Plan			NSR	Waived as Not Applicable to Modified Closure
02674-1	Drilling Subcontractor Qualification Package	8/25/99	8/25/99	NSR	Waived as Not Applicable to Modified Closure
02674-2	Well Abandonment Field Inspection Certificates	8/25/99	8/25/99	NSR	Waived as Not Applicable to Modified Closure
02674-3	Well Abandonment Completion Certification	8/25/99	8/25/99	NSR	Waived as Not Applicable to Modified Closure
02674-4	State of Texas Well Report	8/25/99	8/25/99	NSR	Waived as Not Applicable to Modified Closure
02820-1	Closure Plan	3/4/99	03/04/99	AC	
02820-2	Manifests	8/25/99	8/25/99	NSR	Waived as Not Applicable to Modified Closure
02900-1	Completion Certification	8/25/99	8/25/99	AC	**See Submittal 00000-00**
03000-1	Laboratory Test Reports	8/25/99	8/25/99	NSR	Waived as Not Applicable to Modified Closure
03000-2	Concrete Disposal Plan			NSR	**See Submittal 02820-1**
11820-1	Water Treatment System Closure Plan			NSR	Waived as Not Applicable to Modified Closure

PROJECT SUBMITTAL REGISTER

Project Title: North Cavalcade
Contractor: Eagle

IT Project No. 448373 (003.03.000)
Date:
Revision No. 0 03/06/00

Submittal Number	Submittal Description	Date of Eagle Submittal	Date Rec.	* Action	Comments
11820-2	Water Treatment System Disposal Documents	10/8/99		A	
* A = Approved; AC = Approved as Corrected; RR = Revise and Resubmit; NA = Not Approved; NR = Not Required					
*** AN = As Needed; AT = After Task; NSR = No Submittal Required; P = Periodic					

Submittal
"0000000"

CLOSURE PHASE SUBMITTALS
SOILS OPERABLE UNIT
NORTH CAVALCADE SUPERFUND SITE
IT PROJECT NO. 448373

AUGUST 2, 1999

Prepared for:

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
Austin, Texas

Prepared by:

EAGLE CONSTRUCTION AND ENVIRONMENTAL SERVICES, INC.
P.O. Box 872
Eastland, Texas 76448

APPROVAL

I. Introduction

This submittal is a compilation of the remaining Closure Phase Submittals as required by the contract documents. Submittals not referenced herein have been previously submitted under separate cover.

II. Submittals

1. Submittal No. 01065-1; Health & Safety Report

Approved

There have been no accidents, injuries or other incidents during the Closure Phase of this project. Modified Level C PPE was worn during soil movement activities. Level D PPE was worn thereafter. Air Monitoring was performed and the results are presented in Submittal No. 01650-2.

Approved 2. Submittal No. 01400-1; Closure Phase Quality Control Forms

This submittal is not applicable to the scope of work as modified in the Closure Phase.

App 3. Submittal No. 01400-2; Closure Phase Testing Results

The destructive weld tests results are enclosed herewith as Appendix "A".

App 4. Submittal No. 01540-2; Daily Security Log

During the Closure Phase, several minor incidents concerning security occurred. Eagle's lock on the front gate was cut and its chain which secured the front gate was placed in the outer mailbox. At some time during the extended period of no activity during the Closure Phase, one or more trespassers broke into Eagle's office trailer. There were no other known security incidents during this phase of the project.

App 5. Submittal No. 01560-1; Air Contaminant Release Report

No release of any air contaminants occurred during this phase of the project. The air monitoring results are presented in Submittal No. 01650-2.

App 6. Submittal No. 01564-1; Spill Notification

No spill occurred during this phase of the project.

App 7. Submittal No. 01564-2; Spill Release Incident Report

No release occurred during this phase of the project.

8. Submittal No. 01650-1; Audit Results

App

This submittal is not applicable to the modified scope of work that occurred during the Closure Phase. The air monitoring results are presented in Submittal No. 01650-2.

9. Submittal No. 01650-2; Air Monitoring Data

App

Air Monitoring was conducted during the periods of soil movement during the Closure Phase. The air monitoring results are enclosed herewith as Appendix "B".

10. Submittal No. 01700-1; Closure Phase Substantial Completion Notice

App

See Appendix "C".

11. Submittal No. 01700-2; Closure Phase Final Completion Notice

App

See Appendix "D".

12. Submittal No. 01720-1; Closure Phase Record Documents

App

As mutually agreed by the TNRCC, IT, and Eagle, Eagle will store all of the contract record documents in its La Porte facility until notified by the TNRCC. Upon notice, Eagle will transport the documents to the North Cavalcade Street Superfund site and give possession to a TNRCC representative.

13. Submittal No. 01300-1; Submittal Register

App

This submittal is not applicable to the modified scope of work that occurred during the Closure Phase.

14. Submittal No. 01420-1; Chemical Quality Control Weekly Reports

App

This submittal is not applicable to the modified scope of work that occurred during the Closure Phase.

15. Submittal No. 01420-2; Chemical Quality Control Issues

App

There are no chemical quality control issues that arose during the Closure Phase.

16. Submittal No. 01420-3; Closure Phase Final Chemical Quality Control Report

App

This submittal is not applicable to the modified scope of work that occurred during the Closure Phase.

17. Submittal No. 01640-1; Sampling Analytical Results

App

This submittal is not applicable to the modified scope of work that occurred during the Closure phase.

18. Submittal No. 01640-2; Waste Manifests

App

This submittal is not applicable to the modified scope of work that occurred during the Closure Phase.

19. Submittal No. 02674-1; Drilling Subcontractor Qualification Package

App

This submittal is not applicable to the modified scope of work that occurred during the Closure Phase.

20. Submittal No. 02674-2; Well Abandonment Field Inspection Certificates

App

This submittal is not applicable to the modified scope of work that occurred during the Closure Phase.

21. Submittal No. 02674-3; Well Abandonment Completion Certification

App

This submittal is not applicable to the modified scope of work that occurred during the Closure Phase.

22. Submittal No. 02674-4; State of Texas Well Report

App

This submittal is not applicable to the modified scope of work that occurred during the Closure Phase.

23. Submittal No. 02820-2; Manifests

App

This submittal is not applicable to the modified scope of work that occurred during the Closure Phase.

24. Submittal No. 02900-1; Completion Certification

App

The site was seeded with bermuda and rye grass in the bare areas on August 5th, 1999.

25. Submittal No. 03000-1; Laboratory Test Reports

App

This submittal is not applicable to the modified scope of work that occurred during the Closure Phase.

Eagle C[illegible]ruction
North Calvacade Superfund Site
30 mil HDPE

SAMPLE	Specimen Number	SHEAR TEST Strength #/in Width	SHEAR TEST Failure Mode	PEEL TEST Strength #/in Width	PEEL TEST Failure Mode
DS1	1	82	FTB	63	FTB
	2	78	FTB	65	FTB
	3	85	FTB	59	FTB
	4	83	FTB	62	FTB
	5	87	FTB	61	FTB

All Samples Pass.

Tested By _____
Al Florez, In-Line Plastics

FTB - Film Tear Bond

APPENDIX "A"

Date: 3-2-94	Weather:	Temp: 91	F	Round: 1	
IH: LARRY HOWARD		Humidity: 90	%	Day: TUESDAY	
		Wind: VARIABLE @ 7	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ GN308	
	PARTICULATE	TSI	DUST TRAK	012493	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GN308	ISOBUTANE	49931	1000 PPM	03/00
	21203	N/A	N/A	N/A	EXP. DATE: 7/96

Sample #	Time	Particulate	FID	Comment
BACKGROUND				
1	10:29	.058 MG/M^3		UNABLE TO GET FID READING - OUT OF CALIBRATION

ADDENDUM "A"

Date: 3-2-99	Weather: Temp: 69 F		Round: 1
IH: LARRY HOWARD	Humidity: 40 %		Day: TUESDAY
	Wind: VARIABLE @ 7 mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ GN309	
	PARTICULATE	TSI	8530 DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GN309	METHANE	99131	1000 PPM	0:00
	21243	N/A	N/A	N/A	EXP. DATE - 7/99

Sample #	Time	Particulate	FID	Comment
1	10:01	.002 mg/m³		FID OUT OF CALIBRATION FOR READINGS 1-21.
2	10:04	0.0 mg/m³		CALIBRATED FOR HIGH RANGE INSTEAD OF LOW RANGE.
3	10:06	.003 mg/m³		
4	10:09	.003 mg/m³		
5	10:15	0.0 mg/m³		
6	10:17	.002 mg/m³		
7	10:27	.003 mg/m³		
8	10:29	.002 mg/m³		
9	10:38 (M)	.003 mg/m³		
10	10:38	.002 mg/m³		
11	10:54	.003 mg/m³		
12	10:58	0.0 mg/m³		
13	10:58 (M)	.002 mg/m³		
14	10:02	.002 mg/m³		
15	10:04	.003 mg/m³		
16	10:08	.004 mg/m³		
17	10:10	0.0 mg/m³		
18	10:13	.002 mg/m³		TRAIN COMING BY ON WEST SIDE.
19	10:58	0.0 mg/m³		
20	11:00	.003 mg/m³		
21	11:02	0.0 mg/m³ (M)		

Date: 3-2-99	Weather: Temp: N/A F	Round: 1
IH: LARRY HOWARD	Humidity: N/A %	Day: TUESDAY
	Wind: W @ N/A mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ GH308	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GH308	METHANE	49931	1000 PPM	03/00
	21243	N/A	N/A	N/A	PM DUE: 7/99

Sample #	Time	Particulate	FID	Comment
BACKGROUND				
8	1111		0.0 PPM	USING PARTICULATE ON ROUND 1.

Date: 7-2-99	Weather:	Temp: N/A	F	Round: 2	
IH: LARRY HOWARD		Humidity: N/A	%	Day: TUESDAY	
		Wind: W @ N/A	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	C2 GH308	
	PARTICULATE	TSI	1530 DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	C2 GH308	METHANE	991931	1000 PPM	03/00
	21243	N/A	N/A	N/A	EXP. DATE - 1/00

Sample #	Time	Particulate	FID	Comment
1	1:00	.007 mg/m³	0.0 ppm	(SM) BEGIN EQUIPMENT RUNNING IN TRAILER (N)
2	1:01	.001 mg/m³	0.0 ppm	PLUS 1ST 2 DURING READING. (N)
3	1:02	.005 mg/m³	0.0 ppm	(N) NUMBER OF AIR SAMPLES ID - 21.
4	1:04	.027 mg/m³	2.0 ppm	
5	1:06	.007 mg/m³	2.0 ppm	
6	1:08	.024 mg/m³	0.0 ppm	
7	1:09	.020 mg/m³	0.0 ppm	
8	1:11	.023 mg/m³	0.0 ppm	
9	1:13	.012 mg/m³	0.0 ppm	
10	1:14	.024 mg/m³	0.0 ppm	
11	1:15	.157 mg/m³	0.0 ppm	
12	1:17	.021 mg/m³	1.7 ppm	FID OUT OF CALIBRATION FOR READINGS 1-21.
13	1:18	.018 mg/m³	9.2 ppm	CALIBRATED FOR HIGH RANGE INSTEAD OF LOW RANGE.
14	1:20	.019 mg/m³	4.2 ppm	
15	1:21	.005 mg/m³	5.0 (M) ppm	
16	1:22	.020 mg/m³	5.7 ppm	
17	1:23	.007 mg/m³	7.5 ppm	
18	1:25	.030 mg/m³	9.3 ppm	
19	1:27	.030 mg/m³	11.6 ppm	
20	1:28	.023 mg/m³	11.8 ppm	
21	1:30	.013 mg/m³	11.9 ppm	

Date: 3-2-99	Weather:	Temp: 81	F	Round: 3	
IH: LARRY HOUSTON		Humidity: 71	%	Day: TUESDAY	
		Wind: SW @ 10	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ 6N308	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ 6N308	METHANE	49931	1000 PPM	03/00
	21243	N/A	N/A	N/A	EXP. DATE 7/99

Sample #	Time	Particulate	FID	Comment
1	3:01	.010 mg/m³	0.0 PPM	HEAVY EQUIPMENT RUNNING IN TREATMENT (CA)
2	3:02	.024 mg/m³	0.0 PPM	CELLS 1 & 2 DURING READINGS OF AIR
3	3:03	.007 mg/m³	0.0 PPM	SAMPLING SITES 1-21.
4	3:04	.011 mg/m³	0.0 PPM	
5	3:05	.001 mg/m³	0.0 PPM	
6	3:07	.057 mg/m³	0.0 PPM	
7	3:26	.016 mg/m³	13.5 PPM	FID OUT OF CALIBRATION FOR READINGS 1-21.
8	3:28	.009 mg/m³	19.7 PPM	CALIBRATED FOR HIGH RANGE INSTEAD OF LOW RANGE.
9	3:29	.002 mg/m³	21.2 PPM	
10	3:30	.057 mg/m³	22.2 PPM	
11	3:32	.052 mg/m³	21.4 PPM	
12	3:33	0.0 mg/m³	23.6 PPM	
13	3:35	.001 mg/m³	23.9 PPM	
14	3:36	.011 mg/m³	20.7 PPM	
15	3:37	.006 mg/m³	20.2 PPM	
16	3:38	.005 mg/m³	21.7 PPM	
17	3:41	.004 mg/m³	18.1 PPM	
18	3:42	.003 mg/m³	26.5 PPM	
19	3:41	.007 mg/m³	22.4 PPM	
20	3:43	.000 mg/m³	16.7 PPM	
21	3:41	.016 mg/m³	18.8 PPM	

Date: 3-2-99	Weather:	Temp: 77	F	Round: 4	
IH: LARRY HOWARD		Humidity: 71	%	Day: TUESDAY	
		Wind: SW @ 16	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	C7 GH305	
	PARTICULATE	TSI	DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	C7 GH305	METHANE	49931	100.0 PPM	95/100
	21243	N/A	n/a	N/A	EXP DATE: 7/99

Sample #	Time	Particulate	FID	Comment
1	4:45	.035 mg/m³	0.0 ppm	FID OUT OF CALIBRATION FOR READINGS 1-21.
2	4:47	.013 mg/m³	0.0 ppm	CALIBRATED FOR HIGH RANGE INSTEAD OF LOW RANGE.
3	4:48	.024 mg/m³	0.0 ppm	
4	4:49	.025 mg/m³	0.0 ppm	
5	4:50	.026 mg/m³	0.0 ppm	
6	4:51	.021 mg/m³	0.0 ppm	
7	4:52	.027 mg/m³	0.0 ppm	
8	4:53	.028 mg/m³	0.0 ppm	
9	4:55	.029 mg/m³	0.0 ppm	
10	4:56	.029 mg/m³	0.0 ppm	
11	4:57	.030 mg/m³	0.0 ppm	
12	4:58	.026 mg/m³	0.3 ppm	
13	4:59	.029 mg/m³	0.5 ppm	
14	5:00	.033 mg/m³	1.6 ppm	
15	5:01	.038 mg/m³	2.6 ppm	
16	5:02	.042 mg/m³	3.9 ppm	
17	5:05	.045 mg/m³	2.1 ppm	
18	5:06	.044 mg/m³	2.9 ppm	~~FID OUT OF CALIBRATION.~~
19	5:06	.022 mg/m³	1.6 ppm	
20	5:07	.046 mg/m³	7.0 ppm	
21	5:08	.085 mg/m³	6.7 ppm	

Date: 3-3-99	Weather: Temp: 52 F	Round: BACKGROUND
IH: LARRY HOWARD	Humidity: 50 %	Day: WEDNESDAY
	Wind: VARIABLE @ 14 mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ GH308	
	PARTICULATE	TSI	DUST TRAK 8500	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GH308	METHANE	47931	1000 PPM	03/00
	21243	N/A	N/A	N/A	EXP. DATE - 7/99

Sample #	Time	Particulate	FID	Comment
BACKGROUND				
7	7:22	.019 mg/m^3	0.0 ppm	

Date: 3-3-99	Weather:	Temp: 52	F	Round: 1	
IH: LARRY HOWARD		Humidity: 50	%	Day: WEDNESDAY	
		Wind: VARIABLE @ 14	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICROFID	CZ GH308	
	PARTICULATE	TSI	DUSTTRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GH308	METHANE	49931	1000 PPM	03/00
	21243	N/A	N/A	N/A	CAL. DATE - 7/99

Sample #	Time	Particulate	FID	Comment
1	7:15	0.0 mg/m³	0.0 ppm	FID OUT OF CALIBRATION FOR READINGS 1-21.
2	7:16	0.0 mg/m³	0.0 ppm	CALIBRATED FOR HIGH RANGE INSTEAD OF LOW RANGE.
3	7:17	.004 mg/m³	0.0 ppm	
4	7:18	.002 mg/m³	0.0 ppm	
5	7:20	0.0 mg/m³	0.0 ppm	
6	7:21	0.0 mg/m³	0.0 ppm	
7	7:22	0.0 mg/m³	0.0 ppm	
8	7:24	0.0 mg/m³	0.0 ppm	
9	7:26	.023 mg/m³	0.0 ppm	
10	7:27	.005 mg/m³	0.0 ppm	
11	7:28	.029 mg/m³	0.0 ppm	
12	7:29	.010 mg/m³	0.0 ppm	
13	7:30	0.0 mg/m³	0.0 ppm	
14	7:32	.007 mg/m³	0.2 ppm	
15	7:33	.022 mg/m³	1.1 ppm	FID OUT OF CALIBRATION.
16	7:34	.008 mg/m³	3.6 ppm	
17	7:35	.003 mg/m³	4.7 ppm	
18	7:37	.003 mg/m³	8.2 ppm	
19	7:39	.014 mg/m³	11.4 ppm	
20	7:40	0.0 mg/m³	13.9 ppm	
21	7:41	.007 mg/m³	14.5 ppm	

Date: 3-3-99	Weather:	Temp: 55	F	Round: 2	
IH: LARRY HOWARD		Humidity: 32	%	Day: WEDNESDAY	
		Wind: NW @ 15	mph GUST 20 MPH		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICROFID	CZ GH308	
	PARTICULATE	TSI	DUSTTRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GH308	METHANE	49931	1000 ppm	03/00
	21243	N/A	N/A	N/A	EXP. DATE - 7/99

Sample #	Time	Particulate	FID	Comment
1	10:13	0.0 mg/m³		REVERIFY FID ON NEXT PAGE.
2	10:16	0.0 mg/m³		
3	10:18	.009 mg/m³		
4	10:21	0.0 mg/m³		
5	10:23	0.0 mg/m³		
6	10:24	0.0 mg/m³		
7	10:29	0.0 mg/m³		
8	10:32	0.0 mg/m³		
9	10:35	0.0 mg/m³		
10	10:37	.005 mg/m³		
11	10:39	0.0 mg/m³		
12	10:42	0.0 mg/m³		
13	10:46	.023 mg/m³		
14	10:49	0.0 mg/m³		
15	10:50	0.0 mg/m³		
16	10:52	0.0 mg/m³		
17	10:54	0.0 mg/m³		
18	10:57	.005 mg/m³		
19	10:59	.001 mg/m³		
20	11:01	0.0 mg/m³		
21	11:03	0.0 mg/m³		

COMBINE 3+4

Date: 3-3-99	Weather:	Temp: 55	F	Round: 2	
IH: LARRY HOWARD		Humidity: 32	%	Day: WEDNESDAY	
		Wind: NW @ 15	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ GH308	
	PARTICULATE	TSI	DUSTTRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GH308	METHANE	499131	1000 PPM	03/00
	21243	N/A	N/A	N/A	EXP. DATE - 7/99

Sample #	Time	Particulate	FID	Comment
1	10:13		1.9	FID OUT OF CALIBRATION FOR READINGS 1-21.
2	10:15		4.7	CALIBRATED FOR HIGH RANGE INSTEAD OF LOW RANGE.
3	10:18		3.7	
4	10:21		4.9	
5	10:27		4.8	
6	10:28		5.8	
7	10:29		5.2	
8	11:15		0.0	~~RECALIBRATED FID - CHANGE OF TIME DATE.~~
9	11:17		0.0	
10	11:19		0.0	
11	11:21		0.0	
12	11:23		0.0	
13	11:25		0.0	
14	11:27		0.0	
15	11:29		0.0	
16	11:31		.5	
17	11:33		1.0	
18	N/A		N/A	READING DETECTOR COOLING DOWN
19	N/A		N/A	READING DETECTOR COOLING DOWN
20	N/A		N/A	READING DETECTOR COOLING DOWN
21	N/A		N/A	READING DETECTOR COOLING DOWN

Date: 3-3-99	Weather:	Temp: 63	F	Round: 3	
IH: LARRY NOWARD		Humidity: 32	%	Day: WEDNESDAY	
		Wind: NW @ 3	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ GH308	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GH308	METHANE	49131	1000 PPM	03/00
	21243	N/A	N/A	N/A	EXP. DATE - 7/99

Sample #	Time	Particulate	FID	Comment
1	1:02	0.0 mg/m³	0.0 PPM	FID OUT OF CALIBRATION FOR READINGS 1-21.
2	1:04	0.0 mg/m³	1.7 PPM	CALIBRATED FOR HIGH RANGE INSTEAD OF LOW RANGE.
3	2:17	0.0 mg/m³	0.0 PPM	~~READINGS DUE TO ORDER OF TANK DIFFERENCE~~
4	2:19	0.0 mg/m³	0.2 PPM	
5	2:21	0.0 mg/m³	1.9 PPM	
6	2:23	0.0 mg/m³	0.8 PPM	
7	2:39	0.0 mg/m³	0.0 PPM	
8	2:41	0.0 mg/m³	0.0 PPM	
9	2:43	0.0 mg/m³	0.0 PPM	
10	2:45	0.0 mg/m³	0.0 PPM	
11	2:47	0.0 mg/m³	0.0 PPM	TRAIN COME BY ON EAST SIDE
12	2:49	0.0 mg/m³	0.0 PPM	
13	2:51	0.0 mg/m³	0.0 PPM	
14	2:53	0.0 mg/m³	4.9 PPM	TRAIN COME BY ON EAST SIDE ~~READINGS DUE TO ORDER OF TANK DIFFERENCE~~
15	3:17	.014 mg/m³	0.0 PPM	~~TRAIN COME BY ON EAST SIDE~~
16	3:19	0.0 mg/m³	0.0 PPM	
17	3:21	0.0 mg/m³	0.0 PPM	
18	3:23	0.0 mg/m³	0.0 PPM	
19	3:25	0.0 mg/m³	0.0 PPM	
20	3:27	0.0 mg/m³	0.0 PPM	
21	3:29	0.0 mg/m³	0.0 PPM	

Date: 5-3-99	**Weather:** **Temp:** 68 F	**Round:** 4
IH: LARRY HOWARD	**Humidity:** 18 %	**Day:** WEDNESDAY
	Wind: NW @ 10 mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	microFID	CZ 6N308	
	PARTICULATE	TSI	DUSTTRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ 6N308	METHANE	49931	1000 PPM	03/00
	21243	N/A	N/A	N/A	EXP DATE: 7/99

Sample #	Time	Particulate	FID	Comment
1	4:49	0.0 mg/m^3	0.0 PPM	FID OUT OF CALIBRATION FOR READINGS 1-21.
2	4:51	0.0 mg/m^3	0.0 PPM	CALIBRATED FOR HIGH RANGE INSTEAD OF LOW RANGE.
3	4:53	0.0 mg/m^3	0.0 PPM	
4	4:55	0.0 mg/m^3	0.0 PPM	
5	4:57	0.0 mg/m^3	0.0 PPM	
6	4:59	0.0 mg/m^3	0.0 PPM	
7	5:01	.061 mg/m^3	0.0 PPM	
8	5:03	.102 mg/m^3	0.0 PPM	
9	5:05	0.0 mg/m^3	0.0 PPM	
10	5:07	0.0 mg/m^3	0.0 PPM	
11	5:09	0.0 mg/m^3	0.0 PPM	
12	5:11	0.0 mg/m^3	0.0 PPM	
13	5:13	0.0 mg/m^3	0.0 PPM	
14	5:15	0.0 mg/m^3	0.0 PPM	
15	5:17	0.0 mg/m^3	0.0 PPM	
16	5:19	0.0 mg/m^3	0.0 PPM	
17	5:21	0.0 mg/m^3	0.0 PPM	
18	5:23	0.0 mg/m^3	0.0 PPM	
19	5:25	.036 mg/m^3	0.0 PPM	
20	5:27	.004 mg/m^3	0.0 PPM	
21	5:29	0.0 mg/m^3		

Date: 3-4-99	Weather:	Temp: 54	F	Round: BACKGROUND
IH: LARRY HOWARD		Humidity: 86	%	Day: THURSDAY
		Wind: E @ 3	mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICROFID	CZ 6H308	
	PARTICULATE	TSI	DUST TRAK 8530	21213	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ 6H308	METHANE	49931	1000 PPM	03/00
	21213	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	FID	Comment
BACKGROUND				
5	7:38	.031 mg/m^3	0.0 PPM	

Date: 3-4-99	Weather: Temp: 54 F	Round: 1
IH: LARRY HOWARD	Humidity: 86 %	Day: THURSDAY
	Wind: E @ 3 mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	microFID	CZ GH308	
	PARTICULATE	TSI	8520 DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GH308	ISOBUTANE	49931	1000 ppm	03/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	FID	Comment
1	7:41	0.000 mg/m³	0.0 ppm	FID CALIBRATED WRONG. RESULTS FOR FID
2	7:43	0.000 mg/m³	0.0 ppm	ARE INACCURATE. SAMPLE SCRS 1-21.
3	7:45	0.013 mg/m³	0.0 ppm	CALIBRATED FOR HIGH RANGE INSTEAD OF LOW RANGE.
4	7:47	0.021 mg/m³	0.0 ppm	TRAIN COME BY ON EAST SIDE.
5	7:50	0.014 mg/m³	0.0 ppm	
6	7:52	0.000 mg/m³	0.0 ppm	
7	7:54	0.000 mg/m³	0.0 ppm	
8	7:56	0.000 mg/m³	0.0 ppm	
9	8:29	0.000 mg/m³	1.6 ppm	
10	8:31	0.004 mg/m³	4.6 ppm	
11	8:33	0.010 mg/m³	4.7 ppm	
12	8:35	0.022 mg/m³	9.6 ppm	
13	8:37	0.003 mg/m³	6.9 ppm	
14	8:40	0.000 mg/m³	10.4 ppm	
15	8:42	0.027 mg/m³	16.3 ppm	
16	8:44	0.051 mg/m³	19.6 ppm	
17	8:46	0.007 mg/m³	18.8 ppm	
18	8:48	0.022 mg/m³	22.7 ppm	
19	8:50	0.017 mg/m³	25.4 ppm	
20	8:52	0.020 mg/m³	27.7 ppm	
21	8:54	0.013 mg/m³	30.2 ppm	

Date: 3-4-99	Weather: Temp: 66 F	Round: 2
IH: LARRY NOWARD	Humidity: 56 %	Day: THURSDAY
	Wind: SE @ 18 mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ GN308	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GN308	METHANE	49931	1000 PPM	03/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	FID	Comment
1	10:56	0.000 mg/m³	0.8 PPM	HEAVY EQUIPMENT OPERATING IN TREATMENT
2	10:58	0.000 mg/m³	0.9 PPM	CELLS 1+2 WHILE TAKING READING OF AIR
3	11:00	0.013 mg/m³	0.6 PPM	SAMPLING SITES 1-21.
4	11:02	0.000 mg/m³	0.8 PPM	
5	11:04	0.000 mg/m³	0.9 PPM	
6	11:08	0.000 mg/m³	1.0 PPM	
7	11:10	0.000 mg/m³	0.9 PPM	
8	11:12	0.000 mg/m³	1.0 PPM	
9	11:14	0.000 mg/m³	0.9 PPM	
10	11:16	0.000 mg/m³	1.0 PPM	
11	11:18	0.000 mg/m³	1.1 PPM	
12	11:21	0.000 mg/m³	1.5 PPM	
13	11:23	0.013 mg/m³	1.6 PPM	
14	11:24	0.000 mg/m³	1.4 PPM	
15	11:26	0.000 mg/m³	1.1 PPM	
16	11:28	0.000 mg/m³	1.0 PPM	
17	11:30	0.000 mg/m³	0.6 PPM	
18	11:32	0.000 mg/m³	0.5 PPM	
19	11:34	0.000 mg/m³	0.3 PPM	
20	11:36	0.000 mg/m³	0.7 PPM	
21	11:38	0.011 mg/m³	0.9 PPM	

Date: 3-4-99	Weather:	Temp: 68	F	Round: 3	
IH: LARRY HOWARD		Humidity: 57	%	Day: THURSDAY	
		Wind: SE @ 22	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID 8520	MZ 041308	
	PARTICULATE	TSI	DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ 041308	METHANE	49931	1000 PPM	03/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	FID	Comment
1	1:10	0.000 mg/m³	0.0 ppm	HEAVY EQUIPMENT OPERATING IN TREATMENT CELLS
2	1:12	0.000 mg/m³	0.0 ppm	#2 WHILE TAKING READING FOR AIR SAMPLING
3	1:14	0.000 mg/m³	0.0 ppm	SITES 1-21.
4	1:16	0.000 mg/m³	0.0 ppm	
5	1:19	0.000 mg/m³	0.2 ppm	
6	1:21	0.000 mg/m³	0.5 ppm	
7	1:24	0.000 mg/m³	1.0 ppm	
8	1:26	0.000 mg/m³	0.8 ppm	
9	1:29	0.000 mg/m³	0.8 ppm	
10	1:31	0.000 mg/m³	0.9 ppm	
11	1:33	0.000 mg/m³	1.3 ppm	
12	1:36	0.000 mg/m³	1.4 ppm	
13	1:38	0.000 mg/m³	2.2 ppm	
14	1:40	0.000 mg/m³	2.4 ppm	
15	1:43	0.000 mg/m³	2.2 ppm	
16	1:44	0.000 mg/m³	1.7 ppm	
17	1:46	0.000 mg/m³	1.9 ppm	
18	1:48	0.000 mg/m³	1.2 ppm	
19	1:50	0.000 mg/m³	0.8 ppm	
20	1:52	0.000 mg/m³	0.5 ppm	
21	1:55	0.145 mg/m³	0.5 ppm	

Date: 3-4-99	Weather:	Temp: 68	F	Round: 4	
IH: LORRI HOWARD		Humidity: 61	%	Day: THURSDAY	
		Wind: SE @ 17	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ 64308	
	PARTICULATE		DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ 64308	METHANE	49931	1000 PPM	03/00
	21343	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	FID	Comment
1	3:26	0.019 mg/m³	0.0 ppm	HEAVY EQUIPMENT OPERATING IN TREATMENT CELLS
2	3:28	0.007 mg/m³	0.0 ppm	1 & 2 WHILE TAKING READINGS FROM AIR SAMPLING
3	3:30	0.000 mg/m³	0.0 ppm	SITES 1-21.
4	3:32	0.000 mg/m³	0.1 ppm	
5	3:35	0.000 mg/m³	0.7 ppm	
6	3:37	0.000 mg/m³	1.1 ppm (H)	
7	3:39	0.000 mg/m³	0.9 ppm	
8	3:41	0.000 mg/m³	0.5 ppm	
9	3:44	0.000 mg/m³	0.7 ppm	
10	3:46	0.000 mg/m³	1.1 ppm	
11	3:48	0.000 mg/m³	1.3 ppm	
12	3:50	0.000 mg/m³	1.4 ppm	
13	3:52	0.000 mg/m³	1.6 ppm	
14	3:54 (M)	0.000 mg/m³	1.5 ppm	
15	3:56	0.000 mg/m³	1.2 ppm	
16 (M)	3:58	0.000 mg/m³	0.7 ppm	
17	4:00	0.000 mg/m³	0.5 ppm	
18	4:03	0.000 mg/m³	0.0 ppm	
19	4:05	0.000 mg/m³	0.0 ppm	
20	4:07	0.000 mg/m³	0.0 ppm	
21	4:09	0.025 mg/m³	0.0 ppm	

Date: 3-4-99	Weather:	Temp: N/A	F	Round: 5	
IH: LARRY NAVARRO		Humidity: N/A	%	Day: THURSDAY	
		Wind: N/A @ N/A mph		(4) NO PNOEF	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ 6H308	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ 6H308	METHANE	49931	1000 ppm	03/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	FID	Comment
1	5:00	0.000 mg/m^3	0.0 ppm	
2	5:02	0.000 mg/m^3	0.0 ppm	
3	5:04	0.000 mg/m^3	0.0 ppm	
4	5:06	0.000 mg/m^3	0.0 ppm	
5	5:09	0.000 mg/m^3	0.0 ppm	
6	5:11	0.000 mg/m^3	0.0 ppm	
7	5:13	0.000 mg/m^3	0.0 ppm	
8	5:15	0.000 mg/m^3	0.0 ppm	
9	5:18	0.000 mg/m^3	0.0 ppm	
10	5:20	0.000 mg/m^3	0.0 ppm	
11	5:22	0.000 mg/m^3	0.0 ppm	
12	5:24	0.000 mg/m^3	0.0 ppm	
13	5:26	0.000 mg/m^3	0.0 ppm	
14	5:28	0.000 mg/m^3	0.0 ppm	
15	5:30	0.000 mg/m^3	0.0 ppm	
16	5:32	0.000 mg/m^3	0.0 ppm	
17	5:34	0.000 mg/m^3	0.0 ppm	
18	5:36	0.000 mg/m^3	0.0 ppm	
19	5:38	0.000 mg/m^3	0.0 ppm	
20	5:40	0.000 mg/m^3	0.0 ppm	
21	5:42	0.000 mg/m^3	0.0 ppm	

Date: 3-5-99	Weather:	Temp: 66	F	Round: BACKGROUND
IH: LAURA HOWARD		Humidity: 90	%	Day: FRIDAY
		Wind: SE @ 7	mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ GH308	
	PARTICULATE	TSI	8520 DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GH308	METHANE	LM931	1000 PPM	03/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	FID	Comment
BACKGROUND				
3	7:24	0.032 mg/m³	0.0 PPM	

Date: 3-5-99	Weather:	Temp: 66	F	Round: 1	
IH: LARRY HOWARD		Humidity: 90	%	Day: FRIDAY	
		Wind: SE @ 7	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ GH309	
	PARTICULATE	TSI	8520 DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GH309	METHANE	49931	1000 ppm	03/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	FID	Comment
1	7:29	0.000 mg/m³	0.0 ppm	
2	7:31	0.000 mg/m³	0.0 ppm	
3	7:33	0.000 mg/m³	0.0 ppm	
4	7:35	0.005 mg/m³	0.0 ppm	
5	7:38	0.003 mg/m³	0.0 ppm	
6	7:40	0.233 mg/m³	0.0 ppm	
7	7:42	0.000 mg/m³	0.0 ppm	
8	7:44	0.000 mg/m³	0.0 ppm	
9	7:47	0.000 mg/m³	0.0 ppm	
10	7:49	0.000 mg/m³	0.0 ppm	
11	7:51	0.000 mg/m³	0.0 ppm	
12	7:53	0.000 mg/m³	0.0 ppm	
13	7:55	0.000 mg/m³	0.0 ppm	
14	7:57	0.000 mg/m³	0.0 ppm	
15	7:59	0.000 mg/m³	0.0 ppm	
16	8:01	0.000 mg/m³	0.0 ppm	
17	8:03	0.001 mg/m³	0.0 ppm	
18	8:06	0.000 mg/m³	0.0 ppm	
19	8:08	0.000 mg/m³	0.0 ppm	
20	8:10	0.001 mg/m³	0.0 ppm	
21	8:12	0.000 mg/m³	0.0 ppm	

Date: 3-5-99	Weather:	Temp: 70	F	Round: 2	
IH: LARRY HOWARD		Humidity: 84	%	Day: FRIDAY	
		Wind: S @ 14	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	micro FID	CZ GH308	
	PARTICULATE	TSI	DUST TRAK 8530	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GH308	METHANE	49931	1000 ppm	03/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	FID	Comment
1	10:45	0.007 mg/m^3	0.0 ppm	HEAVY EQUIPMENT OPERATING IN TREATMENT CELLS
2	10:47	0.030 mg/m^3	0.0 ppm	1+2 DURING READINGS OF AIR SAMPLING SITE
3	10:49	0.000 mg/m^3	0.0 ppm	1-21.
4	10:51	0.000 mg/m^3	0.0 ppm	
5	10:54	0.012 mg/m^3	0.0 ppm	
6	10:56	0.002 mg/m^3	0.0 ppm	
7	10:58	0.003 mg/m^3	0.0 ppm	TRAIN COME BY ON EAST SIDE.
8	11:00	0.015 mg/m^3	0.0 ppm	
9	11:03	0.058 mg/m^3	0.0 ppm	
10	11:05	0.000 mg/m^3	0.0 ppm	
11	11:07	0.000 mg/m^3	0.0 ppm	
12	11:09	0.006 mg/m^3	0.0 ppm	
13	11:11	0.013 mg/m^3	0.0 ppm	
14	11:13	0.033 mg/m^3	0.0 ppm	
15	11:15	0.029 mg/m^3	0.0 ppm	
16	11:17	0.013 mg/m^3	0.0 ppm	
17	11:19	0.088 mg/m^3	0.0 ppm	
18	11:22	0.000 mg/m^3	0.0 ppm	
19	11:24	0.015 mg/m^3	0.0 ppm	
20	11:26	0.001 mg/m^3	0.0 ppm	
21	11:28	0.000 mg/m^3	0.0 ppm	

Date: 3-5-99	Weather:	Temp: 71	F	Round: 3	
IH: LARRY HOWARD		Humidity: 81	%	Day: FRIDAY	
		Wind: S @ 15	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ GN308	
	PARTICULATE	TSI	DUSTTRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GN308	METHANE	49031	1000 PPM	03/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	FID	Comment
1	1:39	0.003 mg/m³	0.0 ppm	HEAVY EQUIPMENT OPERATIONS IN TREATMENT CELLS
2	1:41	0.000 mg/m³	0.0 ppm	1 & 2 WHILE TAKING READINGS FOR AIR SAMPLING
3	1:43	0.000 mg/m³	0.0 ppm	SITES 1-21.
4	1:45	0.000 mg/m³	0.0 ppm	
5	1:48	0.000 mg/m³	0.0 ppm	
6	1:50	0.000 mg/m³	0.0 ppm	
7	1:52	0.000 mg/m³	0.0 ppm	
8	1:54	0.006 mg/m³	0.0 ppm	
9	1:57	0.000 mg/m³	0.0 ppm	
10	1:59	0.000 mg/m³	0.0 ppm	
11	2:01	0.000 mg/m³	0.0 ppm	
12	2:03	0.001 mg/m³	0.0 ppm	
13	2:05	0.000 mg/m³	0.0 ppm	
14	2:07	0.000 mg/m³	0.0 ppm	
15	2:09	0.000 mg/m³	0.0 ppm	
16	2:11	0.000 mg/m³	0.0 ppm	
17	2:13	0.000 mg/m³	0.0 ppm	
18	2:16	0.000 mg/m³	0.0 ppm	
19	2:18	0.000 mg/m³	0.0 ppm	
20	2:20	0.002 mg/m³	0.0 ppm	
21	2:22	0.000 mg/m³	0.0 ppm	

Date: 9-5-99	Weather:	Temp: 73	F	Round: 4	
IH: LARRY HOWARD		Humidity: 76	%	Day: FRIDAY	
		Wind: S @ 10	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ GN309	
	PARTICULATE	TSI	DUST TRAK 8520	21243	
	PID	RAE SYSTEMS INC	MINIRAE	102618 100 PPM (LH)	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GN309	METHANE	49931	1000 PPM	03/00
	21243	N/A	N/A	N/A	EXP DATE: 7/99
	102618	ISOBUTYLENE		100 PPM	12/99

Sample #	Time	Particulate	FID	PID	Comment
1	5:11	0.000 mg/m³	0.0 ppm	0.0 ppm	(LH)
2	5:13	0.006 mg/m³	0.0 ppm	0.0 ppm	
3	5:15	0.000 mg/m³	0.0 ppm	0.0 ppm	
4	5:17 (LH)	0.025 mg/m³	0.0 ppm	0.0 ppm	
5	5:20	0.005 mg/m³	0.0 ppm	0.0 ppm	
6	5:22	0.009 mg/m³	0.0 ppm	0.0 ppm	
7	5:24	0.007 mg/m³	0.0 ppm	0.0 ppm	
8	5:26	0.008 mg/m³	0.0 ppm	0.0 ppm	
9	5:29	0.006 mg/m³	0.0 ppm	0.0 ppm	
10	5:31	0.017 mg/m³	0.0 ppm	0.0 ppm	
11	5:33	0.000 mg/m³	0.0 ppm	0.0 ppm	
12	5:35	0.081 mg/m³	0.0 ppm	0.0 ppm	
13	5:37	0.000 mg/m³	0.0 ppm	0.0 ppm	
14	5:39	0.013 mg/m³	0.0 ppm	0.0 ppm	
15	5:41	0.000 mg/m³	0.0 ppm	0.0 ppm	
16	5:43	0.003 mg/m³	0.0 ppm	0.0 ppm	
17	5:45 (LH)	0.009 mg/m³	0.0 ppm	0.0 ppm	
18	5:56	0.002 mg/m³	0.0 ppm	0.0 ppm	
19	5:58	0.000 mg/m³	0.0 ppm	0.0 ppm	
20	6:00	0.012 mg/m³	0.0 ppm	0.0 ppm	
21	6:02	0.000 mg/m³	0.0 ppm	0.0 ppm	

EAGLE

Industrial Hygiene (DRI) Data Sheet

Date: 3-6-99	**Weather:** **Temp:** 64 F		**Round:** BACKGROUND
IH: LARRY HOWARD	**Humidity:** 100 %		**Day:** SATURDAY
	Wind: E @ 3 mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ 64308	
	PARTICULATE	TSI	DUST TRAK 8520	21243	
	PID	RAE SYSTEMS INC.	MINI RAE	102618	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ 64308	METHANE	990131	1000 ppm	03/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99
	102618	ISOBUTYLENE		100 ppm	12/99

Sample #	Time	Particulate	FID	PID	Comment
BACKGROUND					
5	8:11	0.050 mg/m³	0.0 ppm	0.0 ppm (TIP)	

EAGLE

Industrial Hygiene (DRI) Data Sheet

Date: 3-6-99	Weather:	Temp: 64	F	Round: 1	
IH: LARRY NOWARD		Humidity: 100	%	Day: SATURDAY	
		Wind: E @ 3	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ 64308	
	PARTICULATE	TSI	DUST TRAK 8520	21248	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ 64308	METHANE	49931	1000 ppm	09/00
	21248	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	FID	Comment
1	8:15	0.008 mg/m³	0.0 ppm	
2	8:17	0.000 mg/m³	0.2 ppm	
3	8:22	0.056 mg/m³	0.7 ppm	TRAIN COME BY ON WEST SIDE
4	8:24	0.000 mg/m³	0.8 ppm	
5	8:26	0.005 mg/m³	0.7 ppm	
6	8:28	0.001 mg/m³	0.7 ppm	
7	8:30	0.000 mg/m³	0.5 ppm	
8	8:32	0.001 mg/m³	0.6 ppm	
9	8:35	0.000 mg/m³	0.6 ppm	
10	8:37	0.000 mg/m³	0.5 ppm	
11	8:39	0.000 mg/m³	0.4 ppm	
12	8:41	0.000 mg/m³	0.6 ppm	
13	8:43	0.000 mg/m³	0.6 ppm	
14	8:45	0.000 mg/m³	0.6 ppm	
15	8:47	0.000 mg/m³	0.5 ppm	
16	8:49	0.000 mg/m³	0.8 ppm	
17	8:51	0.000 mg/m³	0.2 ppm	
18	8:54	0.001 mg/m³	0.1 ppm	
19	8:56	0.000 mg/m³	0.0 ppm	
20	8:58	0.000 mg/m³	0.0 ppm	
21	9:00	0.000 mg/m³	0.0 ppm	

Date: 3-6-99	**Weather:**	**Temp:** 75	F	**Round:** 2
IH: LARRY NOWARD		**Humidity:** 74	%	**Day:** SATURDAY
		Wind: VARIABLE @ 5	mph	

Direct Read Instrument(s):	**Type**	**Mfr**	**Model#**	**Serial #**	**NOTE**
	FID	PHOTOVAC	MICRO FID	CZ GN308	
	PARTICULATE	TSI	DUSTRAK	31243	
	PID	RAE SYSTEMS	MINI RAE	102618	

Calibration Data:	**DRI Serial #**	**Span Gas**	**Lot #**	**Obs Res**	**NOTE**
	CZ GN308	METHANE	419931	1000 ppm	05/00
	21243	n/a	n/a	n/a	EXP. DATE: 7/99
	102612	ISOBUTYLENE		100 ppm	12/99

Sample #	**Time**	**Particulate**	**FID**	**PID**	**Comment**
1	10:55	0.000	0.2	0.0	HEAVY EQUIPMENT OPERATION IN
2	11:00	0.007	0.7	0.0	PROCESS CELL AND COVERED PILE
3	11:02	0.030	0.9	0.0	CELL DURING TAKING AIR SAMPLES
4	11:04	0.024	1.4	0.0	AT SITE 1-21. FID ~~AUTO ZERO~~
5	11:07	0.026	2.0	0.0	OUT OF CALIBRATION. DID NOT
6	11:09	0.033	2.3	0.0	COME BACK DOWN TO ZERO
7	11:47	0.093	0.3	0.0	METER READINGS WERE TAKEN.
8	11:49	0.050	1.0	0.0	RECALIBRATED AND PRODUCED
9	11:52	0.054	1.6	0.0	A FOUR POINT CHECK ON PROCESS
10	11:54	0.004	2.1	0.0	CELL. NO STEADY READINGS WERE
11	11:56	0.000	2.7	0.0	~~TAKEN~~ OBSERVED.
12	11:58	0.000	3.3	0.0	TOOK LUNCH BETWEEN SITES
13	12:00	0.000	3.6	0.0	6 & 7.
14	12:02	0.002	3.8	0.0	
15	12:04	0.000	4.1	0.0	
16	12:06	0.003	4.1	0.0	
17	12:08	0.001	4.3	0.0	
18	12:10	0.001	4.9	0.0	
19	12:12	0.114	5.6	0.0	
20	12:14	0.002	5.7	0.0	D'
21	12:16	0.001	5.9	0.0	DUMP TRUCK GO SITTING NEXT TO SITE 21

Date: 3-8-99	Weather:	Temp: 68	F	Round: BACKGROUND & 1
IH: LARRY HOWARD		Humidity: 90	%	Day: MONDAY
		Wind: SE @ 10	mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PARTICULATE ↗	PHOTOVAC	MICRO FID	CZ GN308	
	FID ↘	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GN308	METHANE	47931	1000 ppm	03/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	FID	Comment
BACKGROUND 3	9:19	0.014 mg/m³		
1	9:37	0.000 mg/m³		HEAVY EQUIPMENT OPERATING IN CONCRETE AIR
2	9:39	0.000 mg/m³		CELL, PROCESS CELL AND TREATMENT CELL 1
3	9:41	0.000 mg/m³		WHILE TAKING READINGS FOR AIR SAMPLING
4	9:43	0.000 mg/m³		SITES 1-21.
5	9:45	0.000 mg/m³		HYDROGEN FLAME IN FID WOULD NOT IGNITE
6	9:47	0.000 mg/m³		NO READINGS TAKEN. WSI WAS INFORMED TO
7	9:49	0.000 mg/m³		BRING ANOTHER FID OUT AT 9:20 PHOTOVAC FID
8	9:51	0.000 mg/m³		OFF SITE AT 10:15 STILL WAITING FOR FOXBORO
9	9:54	0.000 mg/m³		FID.
10	9:56	0.000 mg/m³		
11	9:58	0.000 mg/m³		
12	10:00	0.000 mg/m³		
13	10:02	0.005 mg/m³		TRAIN COME BY ON WEST EAST SIDE.
14	10:04	0.000 mg/m³		
15	10:07	0.008 mg/m³		
16	10:09	0.000 mg/m³		
17	10:11	0.014 mg/m³		
18	10:13	0.002 mg/m³		
19	10:15	0.001 mg/m³		
20	10:17	0.000 mg/m³		
21	10:19	0.047 mg/m³		

Date: 3-8-99	Weather: Temp: 68 F	Round: 1
IH: LARZA HOWARD	Humidity: 90 %	Day: MONDAY
	Wind: SE @ 10 mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	✓				

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE

Sample #	Time	Particulate	FID	Comment
22	9:22	0.000		FID WILL NOT START CALLED LISA BRINK ANOTHER
23	9:24	0.001		FID TIME IS 9:20 MONDAY 3-8-99.
24	9:26	0.002		HEADUP EQUIPMENT OPERATING IN CAISSON PILE CELL
25	9:28	0.000		TREATMENT CELL 1 AND ~~CELL~~ PROCESS CELL.
				READINGS ARE TAKEN IN 1 MINUTE INTERVALS

Date: 3-8-99	Weather:	Temp: 75	F	Round: 2	
IH: LARRY MAYNARD		Humidity: 69	%	Day: MONDAY	
		Wind: E @ 18 mph	GUSTING 36		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	FOXBORO	OVA 128 GC	AS1855	
	PARTICULATE	TSI	(M) DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	AS1855	METHANE	499731	1000 PPM (W)	03/00
	21243	N/A	N/A	N/A	SUP. DATE: 7/99

Sample #	Time	Particulate	FID	Comment
1	11:57	0.000 mg/m³	0.0 PPM	WASTE EQUIPMENT OPERATIONS IN COVERED PILE
2	11:59	0.000 mg/m³	0.0 PPM	CELL, PROCESS CELL, AND TREATMENT CELL 1
3	12:01	0.000 (LW) mg/m³	0.0 PPM	WHILE TAKING READINGS FROM AIR SAMPLING
4	12:03	0.004 (A) mg/m³	0.0 PPM	SITES 1-25.
5	12:06	0.004 (LW) mg/m³	0.0 PPM	
6	12:08	0.000 mg/m³	0.0 PPM	
7	12:20	0.000 mg/m³	0.0 PPM	
8	12:22	0.000 mg/m³	0.0 PPM	
9	12:25	0.000 mg/m³	0.0 PPM	
10	12:27	0.002 mg/m³	0.0 PPM	
11	12:29	0.002 mg/m³	0.0 PPM	
12	12:31	0.000 mg/m³	0.0 PPM	
13	12:33	0.000 mg/m³	0.0 PPM	
14	12:35	0.000 mg/m³	0.0 PPM	
15	12:37	0.000 mg/m³	0.0 PPM	
16	12:39	0.000 mg/m³	0.0 PPM	
17	12:41	0.000 mg/m³	0.0 PPM	
18	12:44	0.000 mg/m³	0.0 PPM	
19	12:47	0.000 mg/m³	0.0 PPM	
20	12:49	0.000 mg/m³	N/A	FID BATTERY DEAD.
21	12:51	0.000 mg/m³	N/A	FID BATTERY DEAD.
22	13:10	0.000 mg/m³	0.0 PPM	
23	13:12	0.000 mg/m³	0.0 PPM	
24	13:14	0.000 mg/m³	0.0 PPM	
25	13:16	0.004 mg/m³	0.0 PPM	

Date: 3-8-99	Weather: Temp: 76 F	Round: 3
IH: LARRY HOWARD	Humidity: 66 %	Day: MONDAY
	Wind: S @ 20 mph GUSTING 29	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PARTICULATE	TSI	8520 DUST TRACK	21243	
	FID	PHOTOVAC	MICROFID	C.Z GN308	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	C2 GN308	METHANE	49931	1000 PPM	03/00
	21243	N/A	N/A	N/A	EXP DATE: 7/99

Sample #	Time	Particulate	FID	Comment
1	2:45	0.000 mg/m³	0.6 ppm	HEAVY EQUIPMENT OPERATING IN COVERED PILE
2	2:47	0.000 mg/m³	0.7 ppm	CELL, PROCESS CELL AND TREATMENT CELL 1 WHILE
3	2:49	0.000 mg/m³	0.5 ppm	TAKING READINGS FOR AIR SAMPLING SITES 1-25.
4	2:51	0.005 mg/m³	0.9 ppm	
5	2:53	0.000 mg/m³	0.7 ppm	
6	2:55	0.000 mg/m³	1.0 ppm	
7	3:05	0.005 mg/m³	0.9 ppm	
8	3:05	0.015 mg/m³	1.4 ppm	
9	3:11	0.005 mg/m³	1.0 ppm	
10	3:13	0.007 mg/m³	1.0 ppm	
11	3:15	0.015 mg/m³	0.9 ppm	
12	3:17	0.010 mg/m³	0.8 ppm	
13	3:19	0.010 mg/m³	0.6 ppm	
14	3:21	0.000 mg/m³	0.8 ppm	
15	3:23	0.000 mg/m³	0.9 ppm	
16	3:25	0.000 mg/m³	1.0 ppm	
17	3:27	0.000 mg/m³	1.1 ppm	
18	3:30	0.001 mg/m³	1.0 ppm	
19	3:32	0.000 mg/m³	1.0 ppm	
20	3:34	0.001 mg/m³	1.0 ppm	
21	3:36	0.000 mg/m³	1.1 ppm	
22	2:166	0.000 mg/m³	1.3 ppm	
23	3:38	0.000 mg/m³	0.9 ppm	
24	3:00	0.004 mg/m³	0.7 ppm	
25	3:02	0.000 mg/m³	0.6 ppm	

Date: 3-9-99	Weather:	Temp: 66	F	Round: BACKGROUND
IH: LARRY HOWARD		Humidity: 100	%	Day: TUESDAY
		Wind: N @ 8	mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICROFID	CZ GH308	
	PARTICULATE	TSI	DUSTTRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GH308	METHANE	499131	1000 ppm	03/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	FID	Comment
BACKGROUND				
13	8:03	0.021 mg/m^3	0.0 ppm	

Date: 3-9-99	Weather:	Temp: 66	F	Round: 1	
IH: LARRY HOWARD		Humidity: 100	%	Day: TUESDAY	
		Wind: N @ 8	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ GH3058	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GH308	ISOBUTANE	LD931	10X10 PPM	103/100
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	FID	Comment
1	8:37	0.000 mg/m^3	0.0 ppm	TOOK READINGS AT AIR SAMPLING SITES 6, 19-25
2	8:39	0.000 mg/m^3	0.0 ppm	FIRST SO HEAVY EQUIPMENT CAN OPERATE IN
3	8:41	0.038 mg/m^3	0.0 ppm	COVERED PILE CELL AND PROCESS CELL.
4	8:43	0.000 mg/m^3	0.0 ppm	HEAVY EQUIPMENT OPERATIONS IN [redacted] PROCESS CELL
5	8:45	0.000 mg/m^3	0.0 ppm	COVERED PILE CELL, AND TREATMENT CELL 1 WHILE
6	8:23	0.000 mg/m^3	0.0 ppm	TAKING READINGS FOR AIR SAMPLING SITES 1-5, 7-18
7	8:47	0.000 mg/m^3	0.0 ppm	
8	8:50	0.000 mg/m^3	0.0 ppm	
9	8:53	0.000 mg/m^3	0.0 ppm	
10	8:55	0.000 mg/m^3	0.0 ppm	
11	8:57	0.000 mg/m^3	0.0 ppm	
12	8:59	0.000 mg/m^3	0.0 ppm	
13	9:01	0.000 mg/m^3	0.0 ppm	
14	9:03	0.000 mg/m^3	0.0 ppm	
15	9:05	0.000 mg/m^3	0.0 ppm	
16	9:07	0.000 mg/m^3	0.0 ppm	
17	9:09	0.000 mg/m^3	0.0 ppm	
18	9:11	0.000 mg/m^3	0.0 ppm	
19	9:17	0.001 mg/m^3	0.0 ppm	
20	9:19	0.000 mg/m^3	0.0 ppm	
21	8:21	0.000 mg/m^3	0.0 ppm	
22	8:09	0.000 mg/m^3	0.0 ppm	
23	8:11	0.000 mg/m^3	0.0 ppm	
24	8:13	0.000 mg/m^3	0.0 ppm	
25	8:15	0.000 mg/m^3	0.0 ppm	

Date: 3-9-99	**Weather:**	**Temp:** 69	F	**Round:** 2
IH: LARRY HOWARD		**Humidity:** 55	%	**Day:** TUESDAY
		Wind: NE @ 15	mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ GN308	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GN308	ISOBUTANE	LP931	1000 PPM	03/00
	21243	n/a	n/a	n/a	PDE DATE: 7/99

Sample #	Time	Particulate	FID	Comment
1	10:42	0.012 mg/m³	0.0 ppm	HEAVY EQUIPMENT OPERATING IN SCREEN PILE YELL,
2	10:44	0.011mg/m³	0.0 ppm	PROCESS CELL, AND TREATMENT CELL 1 WHILE TAKING
3	10:46	0.000 mg/m³	0.0 ppm	READINGS FOR AIR SAMPLING SITES 1-25.
4	10:48	0.000 mg/m³	0.0 ppm	
5	10:51	0.000 mg/m³	0.0 ppm	
6	10:53	0.000 mg/m³	0.2 ppm	
7	10:55	0.000 mg/m³	0.2 ppm	
8	10:57	0.001 mg/m³	1.1 ppm	
9	11:00	0.010 mg/m³	1.1 ppm	
10	11:02	0.000 mg/m³	1.5 ppm	
11	11:04	0.000 mg/m³	1.9 ppm	
12	11:06	0.074 mg/m³	2.0 ppm	
13	11:08	0.000 mg/m³	2.5 ppm	
14	11:10	0.032 mg/m³	2.2 ppm	
15	11:12	0.300 mg/m³	2.6 ppm	
16	11:14	0.000 mg/m³	2.4 ppm	
17	11:16	0.000 mg/m³	2.1 ppm	
18	11:19	0.076 mg/m³	2.1 ppm	
19	~~11:21~~ 11:25	~~0.000 mg/m³~~ 0.000 mg/m³	~~2.0 ppm~~ 2.0 PPM	
20	11:27	0.000 mg/m³	1.9 ppm	
21	11:29	0.000 mg/m³	1.5 ppm	
22	11:31	0.002 mg/m³	1.3 ppm	
23	11:33	0.000 mg/m³	1.2 ppm	
24	11:21	0.082 mg/m³	2.1 ppm	
25	11:25	0.000 mg/m³	1.9 ppm	

Date: 3-9-99	**Weather:**	**Temp:** 79	F	**Round:** 3	
IH: LARRY NOWARD		**Humidity:** 42	%	**Day:** TUESDAY	
		Wind: E @ 7	mph		

Direct Read Instrument(s):	**Type**	**Mfr**	**Model#**	**Serial #**	**NOTE**
	FID	PHOTOVAC	MICRO FID	CZ GN30T	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	**DRI Serial #**	**Span Gas**	**Lot #**	**Obs Res**	**NOTE**
	CZ GN30T	METHANE	49931	1000 ppm	03/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	**Time**	**Particulate**	**FID**	**Comment**
1	1:49	0.000 mg/m³	0.0 ppm	HEAVY EQUIPMENT OPERATING IN CONCRETE PILE CELL,
2	1151	0.021 mg/m³	0.1 ppm	PROCESS CELL, TREATMENT CELL 1 WHILE TAKING READING
3	1:53	0.000 mg/m³	0.4 ppm	FOR AIR SAMPLING SITES 1-25.
4	1:59	0.000 mg/m³	0.7 ppm	
5	1:58	0.000 mg/m³	1.0 ppm	
6	2:00	0.000 mg/m³	1.2 ppm	
7	2:02	0.000 mg/m³	1.8 ppm	
8	2:04	0.000 mg/m³	2.2 ppm	
9	2:07	0.000 mg/m³	2.2 ppm	
10	2:09	0.002 mg/m³	2.6 PPM	
11	2:11	0.010 mg/m³	2.9 ppm	
12	2:13	0.000 mg/m³	3.0 ppm	TRAIN COMP BY ON WEST SIDE
13	2:15	0.009 mg/m³	3.5 ppm	
14	2:19	0.000 mg/m³	3.8 ppm	
15	2:21	0.002 mg/m³	3.6 ppm	
16	2:28	0.038 mg/m³	3.4 ppm	
17	2:25	0.048 mg/m³	3.7 ppm	
18	8:28	0.000 mg/m³	4.1 ppm	
19	@ 2:34	@ 0.0010 mg/m³	@ 2.1 ppm	
20	@ 2:36	@ 0.016 mg/m³	@ 1.6 ppm	
21	2:38	0.015 mg/m³	1.8 ppm	
22	2:40	0.018 mg/m³	1.5 ppm	
23	2:42	0.000 mg/m³	1.4 ppm	
24	2:30	0.000 mg/m³	2.2 ppm	
25	2:32	0.000 mg/m³	2.0 ppm	

Date: 3-9-99	Weather: Temp: ____ F	Round: 4
IH: LARRY HOWARD	Humidity: ____ %	Day: TUESDAY
____	Wind: ____ @ ____ mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ GN308	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GN308	METHANE	99931	1000 PPM	03/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	FID	Comment
1	3:52	0.000 mg/m^3	0.0 ppm	
2	3:54	0.005 mg/m^3	0.0 ppm	
3	3:56	0.000 mg/m^3	0.0 ppm	
4	3:58	0.000 mg/m^3	0.2 ppm	
5	4:01	0.008 mg/m^3	0.3 ppm	
6	4:03	0.113 mg/m^3	0.5 ppm	
7	4:05	0.000 mg/m^3	0.8 ppm	
8	4:07	0.000 mg/m^3	1.0 ppm	
9	4:10	0.000 mg/m^3	0.7 ppm	
10	4:12	0.037 mg/m^3	1.0 ppm	
11	4:14	0.012 mg/m^3	1.1 ppm	
12	4:16	0.026 mg/m^3	1.1 ppm	
13	4:18	0.005 mg/m^3	1.4 ppm	
14	4:20	0.005 mg/m^3	1.3 ppm	
15	4:22	0.652 mg/m^3	1.0 ppm	
16	4:24	0.016 mg/m^3	0.3 ppm	
17	4:26	0.004 mg/m^3	0.2 ppm	
18	4:29	0.027 mg/m^3	0.2 ppm	
19	4:31	0.000 mg/m^3	0.0 ppm	
20	~~4:33~~ 4:37	~~0.000 mg/m^3~~ 0.003 mg/m^3	~~0.0 ppm~~ 0.1 ppm	
21	4:39	0.018 mg/m^3	0.1 ppm	
22	4:41	0.001 mg/m^3	0.2 ppm	
23	4:43	0.002 mg/m^3	0.5 ppm	
24	4:33	0.100 mg/m^3	0.1 ppm	
25	4:35	0.000 mg/m^3	0.1 ppm	

Date: 3-10-99	Weather:	Temp: 65	F	Round: BACKGROUND
IH: LARRY HOWARD		Humidity: 100	%	Day: WEDNESDAY
		Wind: SE @ 7	mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	PHOTOVAC FID	CZ GN308	
	PARTICULATE	TSI	8520 DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GN308	METHANE	49931	1000 PPM	03/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	FID	Comment
BACKGROUND				NO FID READING HOWARD'T START HYDROGEN FLAME.
3	9:02	0.078 mg/m³		

Date: 3-10-99	Weather:	Temp: 65	F	Round: 1	
IH: LARRY HOWARD		Humidity: 100	%	Day: WEDNESDAY	
		Wind: SE @ 7	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ GH308	
	PARTICULATE	TSI	DUST TRAK 8500	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GH308	METHANE	49931	1000 ppm	03/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	FID	Comment
1	9:05	0.000 mg/m³		HEAVY EQUIPMENT OPERATING IN COVERED PILE
2	9:07	0.000 mg/m³		CELL, PROCESS CELL, AND TREATMENT CELL 2
3	9:09	0.000 mg/m³		WHILE TAKING READINGS FOR AIR SAMPLING SITES
4	9:11	0.000 mg/m³		1-25. NO FID READINGS INVOLVED IT START
5	9:15	0.000 mg/m³		HYDROGEN FLAME.
6	9:17	0.000 mg/m³		
7	9:19	0.000 mg/m³		
8	9:21	0.000 mg/m³		
9	9:24	0.000 mg/m³		
10	9:26	0.200 mg/m³		FRONT LOADER PASS BY.
11	9:28	0.015 mg/m³		
12	9:30	0.005 mg/m³		
13	9:32	0.003 mg/m³		
14	9:34	0.002 mg/m³		
15	9:36	0.014 mg/m³		
16	9:38	0.020 mg/m³		
17	9:40	0.027 mg/m³		
18	9:42	0.029 mg/m³		
19	9:45	0.017 mg/m³		
20	9:47	0.023 mg/m³		
21	9:49	0.016 mg/m³		
22	9:51	0.014 mg/m³		
23	9:53	0.013 mg/m³		
24	9:55	0.029 mg/m³		
25	9:57	0.013 mg/m³		

Date: 3-10-99	Weather:	Temp: 70	F	Round: 2	
IH: LARRY HOWARD		Humidity: 90	%	Day: WEDNESDAY	
		Wind: E @ 7	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PARTICULATE	TSI	8520 DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	FID	Comment
1	12:58	0.000 mg/m³		HEAVY EQUIPMENT OPERATING IN CONFINED FUEL CELL PROCESS AND TREATMENT CELL 1 WHILE TAKING READINGS FOR AIR SAMPLING SITES 1-25. FID WAS PICKED UP BY WSI.
2	1:00	0.000 mg/m³		
3	1:02	0.000 mg/m³		
4	1:04	0.000 mg/m³		
5	1:06	0.000 mg/m³		
6	1:08	0.000 mg/m³		
7	1:10	0.000 mg/m³		
8	1:12	0.000 mg/m³		
9	1:15	0.000 mg/m³		
10	1:17	0.000 mg/m³		
11	1:19	0.000 mg/m³		
12	1:21	0.000 mg/m³		
13	1:23	0.000 mg/m³		
14	1:25	0.000 mg/m³		
15	1:27	0.000 mg/m³		
16	1:29	0.000 mg/m³		
17	1:31	0.010 mg/m³		
18	1:34	0.000 mg/m³		
19	1:36	0.001 mg/m³		
20	1:38	0.000 mg/m³		
21	1:40	0.002 mg/m³		
22	1:42	0.000 mg/m³		
23	1:44	0.000 mg/m³		
24	1:46	0.000 mg/m³		
25	1:48	0.001 mg/m³		

Date: 3/10/99	Weather:	Temp: 71	F	Round: 3	
IH: LARRY HOWARD		Humidity: 90	%	Day: WEDNESDAY	
B Hazuma		Wind: E @ 9	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	P.I.D.	Rae	MiniRae 2000	110001159	
	PARTICULATE	TSI	8520 DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	Isobutylene 100ppm	93998	100 ppm	Exp Date 09/00
	21243	n/a	n/a	n/a	EXP DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	3:37	0.014 mg/m³	0.0 ppm	
2	3:39	0.000 mg/m³	0.0 ppm	
3	3:41	0.000 mg/m³	0.0 ppm	
4	3:43	0.000 mg/m³	0.0 ppm	
5	3:46	0.014 mg/m³	0.0 ppm	
6	3:48	0.005 mg/m³	0.0 ppm	
7	3:50	0.001 mg/m³	0.0 ppm	
8	3:53	0.002 mg/m³	0.0 ppm	
9	3:55	0.000 mg/m³	0.0 ppm	
10	3:57	0.007 mg/m³	0.0 ppm	
11	3:59	0.010 mg/m³	0.0 ppm	
12	4:01	0.001 mg/m³	0.0 ppm	
13	4:03	0.002 mg/m³	0.0 ppm	
14	4:05	0.000 mg/m³	0.0 ppm	
15	4:07	0.000 mg/m³	0.0 ppm	
16	4:09	0.025 mg/m³	0.0 ppm	
17	4:11	0.019 mg/m³	0.0 ppm	
18	4:14	0.000 mg/m³	0.0 ppm	
19	4:17	0.001 mg/m³	0.0 ppm	
20	4:22	0.022 mg/m³	0.0 ppm	
21	4:24	0.003 mg/m³	0.0 ppm	
22	4:26	0.000 mg/m³	0.0 ppm	
23	4:28	0.000 mg/m³	0.0 ppm	
24	4:16	0.000 mg/m³	0.0 ppm	
25	4:20	0.016 mg/m³	0.0 ppm	

Date: 3-11-99	Weather:	Temp: 68	F	Round: BACKGROUND
IH: LARRY NOWARD		Humidity: 97	%	Day: THURSDAY
		Wind: 35 @ 8	mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001654	
	PARTICULATE	TSI	DUST TRAK 8520	2424/3	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001197	ISOBUTYLENE	53783	100 PPM	EXP. DATE: 9/00
	2424/3 (LW)	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
BACKGROUND	7:45	0.050 mg/m³	0.0 PPM	
3				

Date: 3-11-99	Weather: Temp: 68 F	Round: 1
IH: LARRY HOWARD	Humidity: 97 %	Day: TUESDAY
	Wind: SE @ 8 mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINI-RAE 2000	110001159	
	PARTICULATE	TSI	DUSTTRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53988	100 ppm	EXP. DATE: 9/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	7:09	0.016 mg/m³	0.0 ppm	
2	7:53 @	0.000 mg/m³	0.0 ppm	
3	7:54	0.000 mg/m³	0.0 ppm	
4	7:56	0.001 mg/m³	0.0 ppm	
5	7:58	0.005 mg/m³	0.0 ppm	
6	8:01	0.004 mg/m³	0.0 ppm	
7	8:03	0.001 mg/m³	0.0 ppm	
8	8:05	0.000 mg/m³	0.0 ppm	
9	8:05	0.000 mg/m³	0.0 ppm	
10	8:10	0.000 mg/m³	0.0 ppm	
11	8:12	0.004 mg/m³	0.0 ppm	
12	8:14	0.000 mg/m³	0.0 ppm	
13	8:16	0.000 mg/m³	0.0 ppm	
14	8:18	0.036 mg/m³	0.0 ppm	BOTH WORKING ON NORTH PILE
15	8:21	0.002 mg/m³	0.0 ppm	
16	8:23	0.000 mg/m³	0.0 ppm	
17	8:25	0.000 mg/m³	0.0 ppm	
18	8:28	0.000 mg/m³	0.0 ppm	
19	8:30	0.000 mg/m³	0.0 ppm	
20	8:32	0.000 mg/m³	0.0 ppm	
21	8:34	0.000 mg/m³	0.0 ppm	
22	8:36	0.000 mg/m³	0.0 ppm	
23	8:38	0.000 mg/m³	0.0 ppm	
24	8:40	0.000 mg/m³	0.0 ppm	
25	8:42	0.000 mg/m³	0.0 ppm	

Date: 3-11-99	Weather:	Temp: 70	F	Round: 2	
IH: LARRY HOWARD		Humidity: 93	%	Day: THURSDAY	
		Wind: E @ 9	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53988	100 PPM	EXP. DATE: 9/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	10:27	0.000 mg/m³	0.0 ppm	HEAVY EQUIPMENT OPERATING IN SURROUNDING AREA,
2	10:29	0.000 mg/m³	0.0 ppm	PROCESS AREA, TREATMENT CELL 2 WHILE TAKING
3	10:31	0.000 mg/m³	0.0 ppm	READINGS FOR AIR SAMPLING SITES 1-25.
4	10:33	0.000 mg/m³	0.0 ppm	
5	10:36	0.000 mg/m³	0.0 ppm	
6	10:38	0.000 mg/m³	0.0 ppm	
7	10:40	0.000 mg/m³	0.0 ppm	
8	10:42	0.000 mg/m³	0.0 ppm	
9	10:45	0.000 mg/m³	0.0 ppm	
10	10:47	0.000 mg/m³	0.0 ppm	
11	10:49	0.000 mg/m³	0.0 ppm	
12	10:51	0.000 mg/m³	0.0 ppm	
13	10:53	0.000 mg/m³	0.0 ppm	
14	10:55	0.000 mg/m³	0.0 ppm	
15	10:57	0.000 mg/m³	0.0 ppm	
16	10:59	0.000 mg/m³	0.0 ppm	
17	11:02	0.000 mg/m³	0.3 ppm	TRAIN PASSED BY ON WEST SIDE.
18	11:05	0.000 mg/m³	0.0 ppm	
19	11:07	0.000 mg/m³	0.0 ppm	
20	11:09	0.000 mg/m³	0.0 ppm	
21	11:11	0.000 mg/m³	0.0 ppm	
22	11:13	0.000 mg/m³	0.0 ppm	
23	11:15	0.000 mg/m³	0.0 ppm	
24	11:17	0.000 mg/m³	0.0 ppm	
25	11:19	0.000 mg/m³	0.0 ppm	

Date: 3-11-99	**Weather:**	**Temp:** 75	F	**Round:** 3
IH: LARRY KOWARD		**Humidity:** 82	%	**Day:** THURSDAY
		Wind: E @ 10	mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINI RAE 2000	110001159	
	PARTICULATE	TSI	DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53188	100 ppm	EXP. DATE: 9/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	1:33	0.000 mg/m³	0.0 ppm	HEAVY EQUIPMENT OPERATING IN CONFINED PILE CELL
2	1:35	0.000 mg/m³	0.0 ppm	PROCESS CELL, TREATMENT CELL 1 WHILE TAKING
3	1:37	0.000 mg/m³	0.0 PPM	READINGS FOR AIR SAMPLING SITES 1-25.
4	1:39	0.000 mg/m³	0.0 PPM	
5	1:42	0.000 mg/m³	0.0 PPM	
6	1:44	0.000 mg/m³	0.0 PPM	
7	1:47	0.000 mg/m³	0.0 PPM	
8	1:49	0.000 mg/m³	0.0 PPM	
9	1:52	0.000 mg/m³	0.0 PPM	
10	1:54	0.000 mg/m³	0.0 PPM	
11	1:56	0.000 mg/m³	0.0 PPM	
12	1:58	0.000 mg/m³	0.0 PPM	
13	2:00	0.000 mg/m³	0.0 PPM	
14	2:02	0.000 mg/m³	0.0 PPM	
15	2:04	0.000 mg/m³	0.0 PPM	
16	2:06	0.000 mg/m³	0.0 PPM	DOZER PASSED BY
17	2:08	0.000 mg/m³	0.0 PPM	
18	2:11	0.000 mg/m³	0.0 PPM	
19	2:13	0.000 mg/m³	0.0 PPM	
20	2:15	0.000 mg/m³	0.0 PPM	
21	2:17	0.000 mg/m³	0.0 PPM	
22	2:19	0.000 mg/m³	0.0 PPM	
23	2:21	0.000 mg/m³	0.0 PPM	
24	2:23	0.000 mg/m³	0.0 PPM	
25	2:25	0.000 mg/m³	0.0 PPM	

Date: 3-11-99	**Weather:** **Temp:** 74 F	**Round:** 4
IH: LARRY KOWARD	**Humidity:** 82 %	**Day:** THURSDAY
	Wind: E @ 10 mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	CLIMATE 9000	110001159	
	PARTICULATE	TSI	8520 DUST TRAK	21293	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53988	100 PPM	09/00
	21293	N/A	N/A	N/A	EXP DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	4:11	0.000 mg/m^3	0.0 ppm	HEAVY EQUIPMENT OPERATING IN COVERED PILE CELL
2	4:13	0.000 mg/m^3	0.0 PPM	PROCESS CELL AND TREATMENT CELL 1 WHILE
3	4:15	0.000 mg/m^3	0.0 PPM	TAKING READINGS FOR AIR SAMPLING SITES 1-25.
4	4:17	0.000 mg/m^3	0.0 PPM	
5	4:20	0.000 mg/m^3	0.0 PPM	
6	4:23	0.000 mg/m^3	0.0 PPM	
7	4:24	0.000 mg/m^3	0.0 PPM	
8	4:26	0.000 mg/m^3	0.0 PPM	
9	4:29	0.000 mg/m^3	0.0 PPM	
10	4:31	0.000 mg/m^3	0.0 PPM	
11	4:33	0.000 mg/m^3	0.0 PPM	
12	4:35	0.000 mg/m^3	0.0 PPM	
13	4:37	0.000 mg/m^3	0.0 PPM	
14	4:39	0.000 mg/m^3	0.0 PPM	
15	4:41	0.000 mg/m^3	0.0 PPM	
16	4:43	0.000 mg/m^3	0.0 PPM	
17	4:45	0.000 mg/m^3	0.3 PPM	
18	4:48	0.021 mg/m^3	0.0 PPM	DUMP TRUCK PASSES BY.
19	4:50	0.000 mg/m^3	0.0 PPM	
20	4:52	0.000 mg/m^3	0.0 PPM	
21	4:54	0.000 mg/m^3	0.0 PPM	
22	4:56	0.000 mg/m^3	0.0 PPM	
23	4:58	0.000 mg/m^3	0.0 PPM	
24	5:00	0.000 mg/m^3	0.0 PPM	
25	5:02	0.000 mg/m^3	0.0 PPM	

EAGLE

Industrial Hygiene (DRI) Data Sheet

Date: 3-12-99	Weather: Temp: 68 F		Round: BACKGROUND
IH: LARRY HOWARD	Humidity: 100 %		Day: FRIDAY
	Wind: E @ 12 mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ 6N308	
	PARTICULATE	TSI	DUSTTRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ 6N308	METHANE	49931	1000 PPM	05/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	FID	Comment
BACKGROUND				
4	8:30	0.048 mg/m³	0.0 PPM	

EAGLE

Industrial Hygiene (DRI) Data Sheet

Date: 3-12-99	Weather:	Temp: 62	F	Round: 1	
IH: LARRY NOWARD		Humidity: 100	%	Day: FRIDAY	
		Wind: E @ 12	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ GN308	
	PARTICULATE	TSI	8520 DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GN308	METHANE	49931	1000 PPM	03/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	FID	Comment
1	9:38	0.000 mg/m³	0.0 ppm	
2	9:40	0.000 mg/m³	0.0 ppm	
3	9:42	0.005 mg/m³	0.0 ppm	
4	9:44	0.007 mg/m³	0.0 ppm	
5	9:47	0.005 mg/m³	0.0 ppm	
6	9:49	0.000 mg/m³	0.0 ppm	
7	9:51	0.048 mg/m³	0.0 ppm	
8	9:53	0.000 mg/m³	0.0 ppm	
9	9:56	0.000 mg/m³	0.0 ppm	
10	9:58	0.000 mg/m³	0.0 ppm	
11	10:00	0.000 mg/m³	0.0 ppm	
12	10:02	0.000 mg/m³	0.0 ppm	
13	10:04	0.013 mg/m³	0.0 ppm	
14	10:06	0.004 mg/m³	0.0 ppm	
15	10:08	0.000 mg/m³	0.0 ppm	
16	10:10	0.000 mg/m³	0.0 ppm	
17	10:12	0.000 mg/m³	0.0 ppm	
18	10:15	0.024 mg/m³	0.0 ppm	
19	10:17	0.000 mg/m³	0.0 ppm	
20	10:19	0.000 mg/m³	0.0 ppm	
21	9:21	0.000 mg/m³	0.0 ppm	
22	9:23	0.000 mg/m³	0.0 ppm	
23	9:24	0.010 mg/m³	0.0 ppm	
24	9:26	0.000 mg/m³	0.0 ppm	
25	9:28	0.000 mg/m³	0.0 ppm	

Date: 3-12-99	**Weather:**	**Temp:** 62	F	**Round:** 2
IH: LARRY NOURZAD		**Humidity:** 100	%	**Day:** FRIDAY
		Wind: E @ 9	mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	FID	PHOTOVAC	MICRO FID	CZ GH308	
	PARTICULATE	TSI	P320 DUST TRAK	21343	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	CZ GH308	METHANE	4999	1000 PPM	03/00
	21343	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	FID	Comment
1	11:45	0.035		HEAVY EQUIPMENT OPERATING IN ADJACENT EXCAVATION CELL.
2	11:47	0.036		EXCAVATE CELL, TREATMENT CELL 1 WHILE TAKING
3	11:49	0.070		READINGS FOR AIR SAMPLING TASK 1-25.
4	11:51	0.072		
5	11:53	0.065		
6	11:55	0.052		
7	11:57	0.047		
8	11:59	0.038		
9	12:00	0.041		
10	12:01	0.037		
11	12:04	0.035		
12	12:08	0.040		
13	12:10	0.031		
14	12:12	0.028		
15	12:14	0.030		
16	12:16	0.026		
17	12:18	0.022		
18	12:21	0.018		
19	12:23	0.020		
20	12:25	0.019		
21	12:27	0.024		
22	12:29	0.033		
23	12:31	0.041		
24	12:33	0.016		
25	12:35	0.019		

Date: 3-12-99	Weather:	Temp: 77	F	Round: 3	
IH: LARRY HOWARD		Humidity: 74	%	Day: FRIDAY	
		Wind: S @ 16	mph	GUSTING 23	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	PARTICULATE	TSI	8530 DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53988	100 ppm	09/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	3:57	0.000 mg/m³	0.0 ppm	HEAVY EQUIPMENT OPERATIONS IN COVERED PAD
2	3:55	0.000 mg/m³	0.0 ppm	CELL, PROCESS CELL, TREATMENT CELL 1 WHILE
3	3:57	0.000 mg/m³	0.0 ppm	TAKING READINGS FOR AIR SAMPLING SITES 1-25.
4	3:59	0.000 mg/m³	0.0 ppm	
5	4:08	0.000 mg/m³	0.0 ppm	
6	4:10	0.000 mg/m³	0.0 ppm	
7	4:14	0.000 mg/m³	0.0 ppm	
8	4:16	0.000 mg/m³	0.0 ppm	
9	4:21	0.000 mg/m³	0.0 ppm	
10	4:23	0.000 mg/m³	0.0 ppm	
11	4:25	0.000 mg/m³	0.0 ppm	
12	4:27	0.000 mg/m³	0.0 ppm	
13	4:29	0.000 mg/m³	0.0 ppm	
14	4:31	0.000 mg/m³	0.0 ppm	
15	4:33	0.003 mg/m³	0.0 ppm	TRAIN COMING BY ON THE WEST SIDE.
16	4:35	0.010 mg/m³	0.0 ppm	
17	4:37	0.000 mg/m³	0.0 ppm	
18	4:40	0.000 mg/m³	0.0 ppm	
19	4:41	0.000 mg/m³	0.0 ppm	
20	4:43	0.000 mg/m³	0.0 ppm	
21	4:50	0.000 mg/m³	0.0 ppm	
22	4:12	0.000 mg/m³	0.0 ppm	
23	4:18	0.000 mg/m³	0.0 ppm	
24	4:42	0.000 mg/m³	0.0 ppm	
25	4:46	0.000 mg/m³	0.0 ppm	

Date: 3-15-99	**Weather:**	**Temp:** 39	F	**Round:** BACKGROUND
IH: LARRY HOWARD		**Humidity:** 76	%	**Day:** MONDAY
		Wind: N @ 5	mph	

Direct Read Instrument(s):	**Type**	**Mfr**	**Model#**	**Serial #**	**NOTE**
	PID	RAE SYSTEMS	MINIRAE 3000	110001159	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	**DRI Serial #**	**Span Gas**	**Lot #**	**Obs Res**	**NOTE**
	110001159	ISOBUTYLENE	AD 83788	100 PPM	9/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	**Time**	**Particulate**	**PID**	**Comment**
BACKGROUND			0.0 PPM	
	7:41	0.026 mg/m³		

Date: 3-15-99	**Weather:** **Temp:** 39 F	**Round:** 1
IH: LARRY HOWARD	**Humidity:** 76 %	**Day:** MONDAY
	Wind: N @ 5 mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 3000	110001159	
	PARTICULATE	TSI	8520 DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53981	100 PPM	9/00
	21243	N/A	N/A	N/A	EXP DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	8:11	0.000 mg/m³	0.0 PPM	
2	8:39	0.000 mg/m³	0.0 PPM	
3	8:37	0.000 mg/m³	0.0 PPM	
4	8:35	0.000 mg/m³	0.0 PPM	
5	8:33	0.000 mg/m³	0.0 PPM	
6	8:30	0.000 mg/m³	0.0 PPM	
7	8:27	0.000 mg/m³	0.0 PPM	
8	8:25	0.000 mg/m³	0.0 PPM	
9	8:22	0.000 mg/m³	0.0 PPM	
10	8:20	0.000 mg/m³	0.0 PPM	
11	8:17	0.000 mg/m³	0.0 PPM	
12	7:44	0.000 mg/m³	0.0 PPM	
13	7:46	0.000 mg/m³	0.0 PPM	
14	7:48	0.000 mg/m³	0.0 PPM	
15	7:50	0.000 mg/m³	0.0 PPM	
16	7:52	0.000 mg/m³	0.0 PPM	
17	7:55	0.000 mg/m³	0.0 PPM	TRAIN COMING BY ON THE WEST SIDE.
18	7:58	0.000 mg/m³	0.0 PPM	
19	8:05	0.000 mg/m³	0.0 PPM	
20	8:07	0.000 mg/m³	0.0 PPM	TRAIN COMING AT 7 ON THE WEST SIDE.
21	8:09	0.000 mg/m³	0.0 PPM	
22	8:11	0.000 mg/m³	0.0 PPM	
23	8:13	0.000 mg/m³	0.0 PPM	
24	8:01	0.000 mg/m³	0.0 PPM	
25	8:03	0.000 mg/m³	0.0 PPM	

Date: 3-15-99	Weather: Temp: NO PHONE F		Round: 2
IH: LARRY HOWARD	Humidity: N/A %		Day: MONDAY
	Wind: N/A @ N/A mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINI RAE 2000	110001159	
	PARTICULATE	TSI	DUST TRAK 8520	21343	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53988	100 PPM	9/00
	21343	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	10:22	0.000 mg/m³	0.0 PPM	HEAVY EQUIPMENT OPERATING IN CARRIER PHASE I,
2	10:24	0.000 mg/m³	0.0 PPM	PROCESS I, AND TREATMENT CELL 2 WHILE TAKING
3	10:26	0.000 mg/m³	0.0 PPM	READINGS FOR AIR SAMPLING SITES 1-25.
4	10:28	0.000 mg/m³	0.0 PPM	
5	10:29	0.000 mg/m³	0.0 PPM	
6	10:33	0.000 mg/m³	0.0 PPM	
7	10:35	0.000 mg/m³	0.0 PPM	
8	10:37	0.000 mg/m³	0.0 PPM	
9	10:40	0.000 mg/m³	0.0 PPM	
10	10:42	0.001 mg/m³	0.3 PPM	
11	10:44	0.000 mg/m³	0.0 PPM	
12	10:46	0.005 mg/m³	0.0 PPM	
13	10:48	0.000 mg/m³	0.0 PPM	
14	10:50	0.000 mg/m³	0.0 PPM	
15	10:52	0.000 mg/m³	0.0 PPM	
16	10:54	0.000 mg/m³	0.0 PPM	
17	10:57	0.000 mg/m³	0.0 PPM	
18	11:00	0.000 mg/m³	0.0 PPM	
19	11:02	0.000 mg/m³	0.0 PPM	
20	11:04	0.000 mg/m³	0.0 PPM	
21	11:06	0.000 mg/m³	0.0 PPM	
22	11:08	0.004 mg/m³	0.0 PPM	
23	11:10	0.000 mg/m³	0.0 PPM	
24	11:13	0.000 mg/m³	0.0 PPM	
25	11:15	0.000 mg/m³	0.0 PPM	

Date: 3-15-99	Weather:	Temp: 64	F	Round: 3	
IH: LARRY HOWARD		Humidity: 35	%	Day: MONDAY	
		Wind: VARIABLE @ 6	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53998	100 ppm	9/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	2:13	0.000 mg/m³	0.0 ppm	HEAVY EQUIPMENT OPERATING IN COVERED PUG CELL
2	2:15	0.000 mg/m³	0.0 PPM	PROCESS CELL AND TREATMENT BAY. 1 MINUTE TAKING
3	2:17	0.000 mg/m³	0.0 PPM	READINGS FOR AIR SAMPLING SITES 1-25.
4	2:19	0.000 mg/m³	0.0 PPM	
5	2:22	0.000 mg/m³	0.0 PPM	
6	2:24	0.000 mg/m³	0.0 PPM	
7	2:26	0.000 mg/m³	0.0 PPM	
8	2:28	0.000 mg/m³	0.0 PPM	
9	2:32	0.000 mg/m³	0.2 PPM	
10	2:34	0.000 mg/m³	0.0 PPM	
11	2:36	0.000 mg/m³	0.0 PPM	
12	2:38	0.000 mg/m³	0.0 PPM	
13	2:40	0.000 mg/m³	0.0 PPM	
14	2:42	0.000 mg/m³	0.0 PPM	
15	2:44	0.000 mg/m³	0.0 PPM	
16	2:46	0.000 mg/m³	0.0 PPM	
17	2:48	0.000 mg/m³	0.0 PPM	
18	2:51	0.000 mg/m³	0.0 PPM	
19	2:53	0.000 mg/m³	0.0 PPM	
20	2:59	0.000 mg/m³	0.2 PPM	
21	3:01	0.000 mg/m³	0.0 PPM	
22	3:03	0.000 mg/m³	0.0 PPM	
23	3:05	0.000 mg/m³	0.0 PPM	
24	3:53	0.000 mg/m³	0.0 PPM	
25	3:55	0.000 mg/m³	0.0 PPM	

EAGLE

Industrial Hygiene (DRI) Data Sheet

Date: 3-15-99	Weather:	Temp: 64	F	Round: 4	
IH: LARRY NAVARRO		Humidity: 32	%	Day: MONDAY	
		Wind: S @ 8	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000 PS:20	110001159	
	PARTICULATE	TSI	DUSTTRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53988	100 ppm	09/00
	21243	N/A	N/A	N/A	CAL. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	5:01	0.020 mg/m³	0.0 ppm	HEAVY EQUIPMENT OPERATING IN CHARGE BUILDING,
2	5:03	0.000 mg/m³	0.0 ppm	PROCESS CELL, TREATMENT CELL 1 WHILE TAKING
3	5:05	0.000 mg/m³	0.0 ppm	READINGS FOR AIR SAMPLING SITES 1-25.
4	5:07	0.000 mg/m³	0.0 ppm	
5	5:10	0.000 mg/m³	0.0 ppm	
6	5:12	0.005 mg/m³	0.0 ppm	
7	5:14	0.000 mg/m³	0.0 ppm	
8	5:16	0.000 mg/m³	0.0 ppm	
9	5:24	0.000 mg/m³	0.0 ppm	
10	5:26	0.000 mg/m³	0.0 ppm	
11	5:28	0.000 mg/m³	0.0 ppm	
12	5:30	0.000 mg/m³	0.0 ppm	
13	5:32	0.000 mg/m³	0.0 ppm	
14	5:34	0.000 mg/m³	0.0 ppm	
15	5:36	0.000 mg/m³	0.0 ppm	
16	5:38	0.000 mg/m³	0.0 ppm	
17	5:40	0.000 mg/m³	0.0 ppm	
18	5:43	0.000 mg/m³	0.0 ppm	
19	5:47	0.000 mg/m³	0.0 ppm	
20	5:50	0.000 mg/m³	0.0 ppm	
21	5:53	0.000 mg/m³	0.0 ppm	
22	5:14	0.000 mg/m³	0.0 ppm	
23	5:81	0.000 mg/m³	0.0 ppm	
24	5:15	0.000 mg/m³	0.0 ppm	
25	5:49	0.000 mg/m³	0.0 ppm	

Date: 3-16-99	**Weather:**	**Temp:** 45	F	**Round:** BACKGROUND
IH: LARRY HOWARD		**Humidity:** 93	%	**Day:** TUESDAY
		Wind: E @ 5	mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000 PGM-7600	110001159	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53998	100 ppm	09/00
	21243	N/A	N/A	N/A	EXP. DATE 7/99

Sample #	Time	Particulate	PID	Comment
BACKGROUND				
4	1:48	0.130 mg/m³	0.0 ppm	

Date: 3-16-99	**Weather:**	**Temp:** 45	F	**Round:** 1
IH: LARRY HOWARD		**Humidity:** 93	%	**Day:** TUESDAY
		Wind: E @ 5	mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53988	100 PPM	03/00
	21243	n/a	n/a	n/a	EXP DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	7:52	0.005 mg/m³	0.0 PPM	
2	7:55	0.000 mg/m³	0.0 PPM	
3	7:57	0.004 mg/m³	0.0 PPM	
4	7:59	0.000 mg/m³	0.0 PPM	
5	8:02	0.000 mg/m³	0.0 PPM	
6	8:04	0.000 mg/m³	0.0 PPM	
7	8:08	0.000 mg/m³	0.2 PPM	
8	8:11	0.000 mg/m³	0.3 PPM	
9	8:17	0.000 mg/m³	0.0 PPM	
10	8:19	0.000 mg/m³	0.0 PPM	
11	8:21	0.000 mg/m³	0.0 PPM	
12	8:23	0.000 mg/m³	0.0 PPM	
13	8:25	0.000 mg/m³	0.0 PPM	
14	8:27	0.000 mg/m³	0.0 PPM	
15	8:30	0.000 mg/m³	0.0 PPM	
16	8:32	0.000 mg/m³	0.3 PPM	
17	8:35	0.000 mg/m³	0.4 PPM	
18	8:38	0.000 mg/m³	0.1 PPM	
19	8:40	0.000 mg/m³	0.1 PPM	
20	8:46	0.000 mg/m³	0.0 PPM	
21	8:48	0.000 mg/m³	0.0 PPM	
22	8:06	0.000 mg/m³	0.0 PPM	
23	8:19	0.000 mg/m³	0.0 PPM	
24	8:40	0.000 mg/m³	0.1 PPM	
25	8:44	0.000 mg/m³	0.3 PPM	DUMP TRUCK 3L COMING BY

EAGLE

Industrial Hygiene (DRI) Data Sheet

Date: 3-16-99	Weather:	Temp: 67	F	Round: 2	
IH: LARRY HOWARD		Humidity: 68	%	Day: TUESDAY	
		Wind: S @ 15	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	537988	100 ppm	09/99
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	10:24	0.000 mg/m³	0.0 ppm	HEAVY EQUIPMENT OPERATING IN COVERED PLC CELL,
2	10:26	0.000 mg/m³	0.0 ppm	PROCESS CELL, AND TREATMENT CELL 1 WHILE TAKING
3	10:28	0.000 mg/m³	0.0 ppm	READINGS FOR AIR SAMPLING SITES 1-25.
4	10:30	0.000 mg/m³	0.0 ppm	
5	10:33	0.000 mg/m³	0.0 ppm	
6	10:35	0.000 mg/m³	0.0 ppm	
7	10:37 (AM)	0.000 mg/m³	0.0 ppm	
8	10:42	0.000 mg/m³	0.0 ppm	
9	10:47	0.000 mg/m³	0.0 ppm	
10	10:49	0.000 mg/m³	0.0 ppm	
11	10:51	0.000 mg/m³	0.0 ppm	
12	10:53	0.000 mg/m³	0.0 ppm	
13	10:56	0.000 mg/m³	0.0 ppm	
14	10:58	0.000 mg/m³	0.0 ppm	
15	11:00	0.000 mg/m³	0.0 ppm	
16	11:02	0.000 mg/m³	0.0 ppm	
17	11:04	0.000 mg/m³	0.0 ppm	
18	11:07	0.000 mg/m³	0.0 ppm	
19	11:11	0.000 mg/m³	0.0 ppm	
20	11:13	0.000 mg/m³	0.0 ppm	
21	11:17	0.000 mg/m³	0.0 ppm	
22	10:39	0.000 mg/m³	0.0 ppm	
23	10:41	0.000 mg/m³	0.0 ppm	
24	11:09	0.000 mg/m³	0.0 ppm	
25	11:19	0.000 mg/m³	0.0 ppm	

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Date: 3-16-99	Weather:	Temp: 70	F	Round: 3	
IH: LARRY HOWARD		Humidity: 61	%	Day: TUESDAY	
		Wind: SE @ 14	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53988	100 ppm	09/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	12:49	0.000 mg/m³	0.0 ppm	HEAVY EQUIPMENT OPERATING IN COVERED PILE CELL,
2	12:51	0.000 mg/m³	0.0 ppm	PROCESS CELL, TREATMENT CELL 1 WHILE TAKING
3	12:52	0.000 mg/m³	0.5 ppm	READINGS FOR AIR SAMPLING SITES 1-25.
4	12:55	0.000 mg/m³	0.0 ppm	
5	12:58	0.000 mg/m³	0.0 ppm	
6	1:00	0.000 mg/m³	0.0 ppm	
7	1:05	0.000 mg/m³	0.0 ppm	
8	1:07	0.000 mg/m³	0.5 ppm	
9	1:13	0.000 mg/m³	0.0 ppm	
10	1:15	0.000 mg/m³	0.1 ppm	
11	1:17	0.000 mg/m³	0.0 ppm	
12	1:19	0.000 mg/m³	0.1 ppm	
13	1:21	0.000 mg/m³	0.2 ppm	
14	1:23	0.000 mg/m³	0.1 ppm	
15	1:25	0.000 mg/m³	0.5 ppm	
16	1:27	0.000 mg/m³	0.0 ppm	
17	1:29	0.000 mg/m³	1.9 ppm	
18	1:32	0.000 mg/m³	0.1 ppm	
19	1:35	0.000 mg/m³	0.2 ppm	
20	1:40	0.000 mg/m³	2.0 ppm	
21	1:42	0.000 mg/m³	0.0 ppm	
22	1:02	0.000 mg/m³	0.1 ppm	
23	1:04	0.000 mg/m³	0.0 ppm	
24	1:34	0.000 mg/m³	0.4 ppm	
25	1:38	0.000 mg/m³	0.1 ppm	

EAGLE

Industrial Hygiene (DRI) Data Sheet

Date: 3-16-99	**Weather:**	**Temp:** 70	F	**Round:** 3	
IH: LAIDLAW HOWARD		**Humidity:** 61	%	**Day:** TUESDAY	
		Wind: SE @ 14	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	PARTICULATE	TSI	8530 DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53988	100 ppm	09/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	12:59	0.000 mg/m³	0.0 ppm	HEAVY EQUIPMENT OPERATING IN COVERED BLE CELL,
2	12:51	0.000 mg/m³	0.0 ppm	PROCESS CELL, TREATMENT CELL 1 WHILE TAKING
3	12:52	0.000 mg/m³	0.0 ppm	READINGS FOR AIR SAMPLING SITES 1-25.
4	12:55	0.000 mg/m³	0.0 ppm	
5	12:58	0.000 mg/m³	0.0 ppm	
6	1:00	0.000 mg/m³	0.0 ppm	
7	1:05	0.000 mg/m³	0.0 ppm	
8	1:07	0.000 mg/m³	0.0 ppm	
9	1:13	0.000 mg/m³	0.0 ppm	
10	1:15	0.000 mg/m³	0.0 ppm	
11	1:17	0.000 mg/m³	0.0 ppm	
12	1:19	0.000 mg/m³	0.1 ppm	
13	1:21	0.000 mg/m³	0.2 ppm	
14	1:23	0.000 mg/m³	0.1 ppm	
15	1:25	0.000 mg/m³	0.1 ppm	
16	1:27	0.000 mg/m³	0.0 ppm	
17	1:29	0.000 mg/m³	0.1 ppm	
18	1:32	0.000 mg/m³	0.1 ppm	
19	1:36	0.000 mg/m³	0.0 ppm	
20	1:40	0.000 mg/m³	0.0 ppm	
21	1:42	0.000 mg/m³	0.0 ppm	
22	1:02	0.000 mg/m³	0.0 ppm	
23	1:09	0.000 mg/m³	0.0 ppm	
24	1:34	0.000 mg/m³	0.4 ppm	
25	1:38	0.000 mg/m³	0.1 ppm	

Date: 3-16-99	Weather: Temp: 70 F		Round: 4
IH: LARRY HOWARD	Humidity: 61 %		Day: TUESDAY
	Wind: SE @ 15 mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	PARTICULATE	TSI	DUST TRAK $8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53998	100 ppm	09/00
	21243	N/A	N/A	N/A	CAL. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	3:55	0.000 mg/m³	0.0 ppm	HEAVY EQUIPMENT OPERATING IN COVERED PILE CELL,
2	4:37	0.000 mg/m³	0.0 ppm	PROCESS CELL, AND TREATMENT CELL 1 WHILE TAKING
3	4:59	0.000 mg/m³	0.0 ppm	READINGS FOR AIR SAMPLING SITES 1-25.
4	5:01	0.000 mg/m³	0.0 ppm	
5	5:04	0.000 mg/m³	0.0 ppm	
6	5:06	0.000 mg/m³	0.0 ppm	
7	5:10	0.000 mg/m³	0.0 ppm	
8	5:12	0.000 mg/m³	0.0 ppm	
9	5:17	0.000 mg/m³	0.0 ppm	
10	5:19	0.000 mg/m³	0.0 ppm	
11	5:21	0.000 mg/m³	0.0 ppm	
12	5:23	0.000 mg/m³	0.0 ppm	
13	5:25	0.000 mg/m³	0.0 ppm	
14	5:27	0.000 mg/m³	0.0 ppm	
15	5:29	0.000 mg/m³	0.0 ppm	
16	5:31	0.000 mg/m³	0.0 ppm	
17	5:34	0.000 mg/m³	1.8 ppm	
18	5:37	0.000 mg/m³	0.3 ppm	
19	5:41	0.000 mg/m³	0.1 ppm	
20	5:45	0.000 mg/m³	0.2 ppm	
21	5:47	0.000 mg/m³	0.0 ppm	
22	5:50	0.000 mg/m³	0.0 ppm	
23	5:51	0.000 mg/m³	0.0 ppm	
24	5:55	0.000 mg/m³	0.0 ppm	
25	5:57	0.000 mg/m³	0.0 ppm	

Date: 3-17-99	Weather:	Temp: 64	F	Round: BACKGROUND
IH: LARRY HOWARD		Humidity: 81	%	Day: WEDNESDAY
		Wind: SE @ 5	mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000 PGM-7320	110001139	
	PARTICULATE	TSI	DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53988	100PPM	09/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
BACKGROUND				
4	1:22	0.029 mg/m^3	0.0 PPM	

Date: 3-17-99	Weather:	Temp: 64	F	Round: 1	
IH: LARRY HOWARD		Humidity: 81	%	Day: WEDNESDAY	
		Wind: SE @ 5	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	PARTICULATE	TSI	DUST TRAK PS30	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53988	100 ppm	09/00
	21243	n/a	n/a	n/a	EXP DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	7:36	0.000 mg/m³	0.0 ppm	
2	7:38	0.000 mg/m³	0.0 ppm	
3	7:40	0.000 mg/m³	0.0 ppm	
4	7:42	0.000 mg/m³	0.0 ppm	
5	7:43	0.000 mg/m³	0.0 ppm	
6	7:37	0.000 mg/m³	0.0 ppm	
7	7:46 (A)	0.000 mg/m³	0.0 ppm	
8	7:44	0.000 mg/m³	0.0 ppm	
9	7:49	0.000 mg/m³	0.0 ppm	
10	7:51	0.000 mg/m³	0.0 ppm	
11	7:33	0.000 mg/m³	0.0 ppm	
12	7:55	0.000 mg/m³	0.0 ppm	
13	7:57	0.000 mg/m³	0.0 ppm	
14	7:59	0.000 mg/m³	0.0 ppm	
15	8:02	0.000 mg/m³	0.0 ppm	
16	8:04	0.000 mg/m³	0.0 ppm	
17	8:07	0.000 mg/m³	0.0 ppm	
18	8:10	0.000 mg/m³	0.0 ppm	
19	8:14	0.000 mg/m³	0.0 ppm	
20	8:18	0.000 mg/m³	0.0 ppm	
21	8:20	0.000 mg/m³	0.0 ppm	
22	7:39	0.000 mg/m³	0.0 ppm	
23	7:46	0.000 mg/m³	0.0 ppm	
24	8:12	0.000 mg/m³	0.0 ppm	
25	8:16	0.000 mg/m³	0.0 ppm	

Date: 3-17-99	Weather:	Temp: 70	F	Round: 2	
IH: LARRY HOWARD		Humidity: 71	%	Day: WEDNESDAY	
		Wind: S @ 14	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53988	100 ppm	09/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	9:52	0.000 mg/m³	0.0 ppm	HEAVY EQUIPMENT (4) OPERATING IN COVERED PILE CELL
2	9:54	0.000 mg/m³	0.0 ppm	PROCESS CELL, AND TREATMENT CELL 1 WHILE TAKING
3	9:56	0.000 mg/m³	0.0 ppm	READINGS FOR AIR SAMPLING SITES 1-25.
4	9:58	0.001 mg/m³	0.0 ppm	
5	10:01	0.000 mg/m³	0.0 ppm	
6	10:03	0.000 mg/m³	0.0 ppm	
7	10:05	0.001 mg/m³	0.0 ppm	
8	10:10	0.000 mg/m³	0.0 ppm	
9	10:15	0.001 mg/m³	0.0 ppm	
10	10:17	0.000 mg/m³	0.0 ppm	
11	10:19	0.000 mg/m³	0.0 ppm	
12	10:21	0.001 mg/m³	0.0 ppm	
13	10:23	0.000 mg/m³	0.0 ppm	
14	10:25	0.000 mg/m³	0.0 ppm	
15	10:27	0.000 mg/m³	0.0 ppm	
16	10:30	0.000 mg/m³	0.0 ppm	
17	10:32	0.000 mg/m³	0.0 ppm	
18	10:35	0.001 mg/m³	0.0 ppm	
19	10:38	0.000 mg/m³	0.0 ppm	
20	10:43	0.000 mg/m³	0.0 ppm	
21	10:45	0.000 mg/m³	0.0 ppm	
22	10:05	0.000 mg/m³	0.0 ppm	
23	10:12	0.000 mg/m³	0.0 ppm	
24	10:07	0.000 mg/m³	0.0 ppm	
25	10:41	0.000 mg/m³	0.0 ppm	

Date: 3-17-99	**Weather:** **Temp:** 75 F		**Round:** 3
IH: LARRY HOWARD	**Humidity:** 60 %		**Day:** WEDNESDAY
	Wind: SE @ 14 mph		

Direct Read Instrument(s):	**Type**	**Mfr**	**Model#**	**Serial #**	**NOTE**
	PID	ZAP SYSTEMS	MINIRAE 2000	110001159	
	PARTICULATE	TSI	8520 DUST TRAK	21243	

Calibration Data:	**DRI Serial #**	**Span Gas**	**Lot #**	**Obs Res**	**NOTE**
	110001159	ISOBUTYLENE	53988	100 ppm	09/00
	21243	N/A	N/A	N/A	EXP DATE: 7/99

Sample #	**Time**	**Particulate**	**PID**	**Comment**
1	12:58	0.000 mg/m³	0.0 PPM	HEAVY EQUIPMENT OPERATING (HERCO PILE SAW AND
2	12:59	0.007 mg/m³	0.0 PPM	PROCESS COOL) WHILE TAKING READINGS FOR AIR SAMPLING
3	12:56	0.000 mg/m³	0.0 PPM	SITES 1-35.
4	12:58	0.000 mg/m³	0.0 PPM	
5	1:01	0.000 mg/m³	0.0 PPM	
6	1:03	0.000 mg/m³	0.0 PPM	
7	1:10	0.009 mg/m³	0.0 PPM	
8	1:12	0.030 mg/m³	0.0 PPM	
9	1:17	0.000 mg/m³	0.0 PPM	
10	1:19	0.000 mg/m³	0.0 PPM	
11	1:21	0.000 mg/m³	0.0 PPM	
12	1:24	0.000 mg/m³	0.0 PPM	
13	1:26	0.001 mg/m³	0.0 PPM	
14	1:28	0.000 mg/m³	0.2 PPM	
15	1:31	0.030 mg/m³	0.3 PPM	
16	1:33	0.540 mg/m³	0.5 PPM	
17	1:35	0.321 mg/m³	0.4 PPM	
18	1:38	0.230 mg/m³	0.0 PPM	
19	1:42	0.000 mg/m³	0.0 PPM	
20	1:46	0.000 mg/m³	0.0 PPM	
21	1:48	0.030 mg/m³	0.0 PPM	
22	1:05	0.000 mg/m³	0.0 PPM	
23	1:14	0.000 mg/m³	0.0 PPM	
24	1:40	0.003 mg/m³	0.0 PPM	
25	1:44	0.000 mg/m³	0.0 PPM	

Date: 3-17-99	**Weather:**	**Temp:** 72	F	**Round:** 4	
IH: LARRY NOWARD		**Humidity:** 71	%	**Day:** WEDNESDAY	
		Wind: SE @ 13	mph GUSTING 18		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 3000	110001159	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53988	100 PPM	09/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	2:17	0.000 mg/m³	0.0 PPM	HEAVY EQUIPMENT OPERATING IN COARSE PILE CELL
2	2:19	0.000 mg/m³	0.0 PPM	AND PROCESS CELL WHILE TAKING READINGS FOR AIR SAMPLING
3	2:21	0.000 mg/m³	0.0 PPM	TUBES 1-25.
4	2:23	0.000 mg/m³	0.0 PPM	
5	2:26	0.000 mg/m³	0.0 PPM	
6	2:28	0.000 mg/m³	0.0 PPM	
7	2:30	0.000 mg/m³	0.0 PPM	
8	2:35	0.000 mg/m³	0.0 PPM	
9	2:40	0.000 mg/m³	0.0 PPM	
10	2:42	0.000 mg/m³	0.0 PPM	
11	2:44	0.000 mg/m³	0.0 PPM	
12	2:46	0.000 mg/m³	0.0 PPM	
13	2:50	0.000 mg/m³	0.0 PPM	
14	2:52	0.000 mg/m³	0.0 PPM	
15	2:54	0.000 mg/m³	0.0 PPM	
16	2:56	0.000 mg/m³	0.0 PPM	
17	2:58	0.000 mg/m³	0.2 PPM	
18	4:01	0.000 mg/m³	0.0 PPM	
19	4:03	0.000 mg/m³	0.0 PPM	
20	4:09	0.000 mg/m³	0.0 PPM	
21	4:11	0.000 mg/m³	0.0 PPM	
22	3:30	0.000 mg/m³	0.0 PPM	
23	5:27	0.000 mg/m³	0.0 PPM	
24	4:04	0.000 mg/m³	0.0 PPM	
25	4:07	0.000 mg/m³	0.0 PPM	

EAGLE

Industrial Hygiene (DRI) Data Sheet

Date: 3-18-99	Weather: Temp: 65 F	Round: BACKGROUND
IH: LARRY HOWARD	Humidity: 93 %	Day: THURSDAY
	Wind: E @ 9 mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	PARTICULATE	TSI	DUST TRAK 8520	21348	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53983	100 ppm	07/00
	21343	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
BACKGROUND				
1	7:06	0.029 mg/m³	0.0 ppm	

EAGLE

Industrial Hygiene (DRI) Data Sheet

Date: 3-18-99	Weather:	Temp: 65	F	Round: 1	
IH: LARRY HOWARD		Humidity: 93	%	Day: THURSDAY	
		Wind: E @ 9	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 3000	110001159	
	PARTICULATE	TSI	8520 DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53988	100 PPM	09/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	7:52	0.000 mg/m³	0.0 PPM	
2	7:54	0.000 mg/m³	0.0 PPM	
3	7:54	0.000 mg/m³	0.0 PPM	
4	7:55	0.000 mg/m³	0.0 PPM	
5	7:57	0.000 mg/m³	0.0 PPM	
6	7:01	0.000 mg/m³	0.0 PPM	
7	8:06	0.000 mg/m³	0.0 PPM	
8	8:08	0.000 mg/m³	0.0 PPM	
9	8:14	0.000 mg/m³	0.0 PPM	
10	8:16	0.000 mg/m³	0.0 PPM	
11	8:18	0.000 mg/m³	0.0 PPM	
12	8:21	0.000 mg/m³	0.0 PPM	
13	8:23	0.000 mg/m³	0.0 PPM	
14	8:26	0.000 mg/m³	0.0 PPM	
15	8:28	0.000 mg/m³	0.0 PPM	
16	8:30	0.000 mg/m³	0.0 PPM	
17	8:33	0.000 mg/m³	0.0 PPM	
18	8:36	0.000 mg/m³	0.0 PPM	
19	8:40	0.000 mg/m³	0.0 PPM	
20	8:45	0.014 mg/m³	0.0 PPM	
21	8:47	0.000 mg/m³	0.0 PPM	
22	8:05	0.000 mg/m³	0.0 PPM	
23	9:10	0.000 mg/m³	0.0 PPM	
24	8:38	0.000 mg/m³	0.0 PPM	
25	8:48	0.000 mg/m³	0.0 PPM	

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EAGLE

Industrial Hygiene (DRI) Data Sheet

Date: 3-18-99	Weather:	Temp: 71	F	Round: 2	
IH: LARRY NOWARD		Humidity: 76	%	Day: THURSDAY	
		Wind: E @ 13	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	[illegible]	TSI	DUST TRAK 8520	212413	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53998	100 ppm	09/00
	212413	n/a	n/a	n/a	EXP. DATE: 7/77

Sample #	Time	Particulate	PID	Comment
1	10:17	0.000 mg/m³	0.0 PPM	HEAVY EQUIPMENT OPERATING IN GASOLINE FUEL CELL
2	10:30	0.000 mg/m³	0.0PPM	PROCESS CELL, SOIL TREATMENT CELL 1 WHILE
3	10:32	0.000 mg/m³	0.0PPM	TAKING READINGS FOR AIR SAMPLING SITES 1-25.
4	10:34	0.000 mg/m³	0.0PPM	
5	10:37	0.000 mg/m³	0.0PPM	
6	10:39	0.000 mg/m³	0.0PPM	
7	10:40	0.000 mg/m³	0.0PPM	
8	10:46	0.000 mg/m³	0.0PPM	
9	10:51	0.000 mg/m³	0.0PPM	
10	10:53	0.000 mg/m³	0.0PPM	
11	10:55	0.000 mg/m³	0.0PPM	
12	10:58	0.000 mg/m³	0.0PPM	
13	11:00	0.000 mg/m³	0.0PPM	
14	11:02	0.000 mg/m³	0.0PPM	
15	11:04	0.000 mg/m³	0.0PPM	
16	11:07	0.000 mg/m³	0.0PPM	
17	11:09	0.000 mg/m³	0.5 PPM	
18	11:12	0.000 mg/m³	0.6 PPM	
19	11:14	0.000 mg/m³	0.2PPM	
20	11:16	0.000 mg/m³	0.0 PPM	
21	11:18	0.000 mg/m³	0.0 PPM	
22	10:41	0.000 mg/m³	0.0PPM	
23	10:48	0.000 mg/m³	0.0PPM	
24	11:14	0.000 mg/m³	0.7 PPM	
25	11:18	0.000 mg/m³	0.6 PPM	

Date: 3-18-99	**Weather:**	**Temp:** 71	F	**Round:** 3	
IH: LARRY HOWARD		**Humidity:** 68	%	**Day:** THURSDAY	
		Wind: E @ 18	mph	GUSTING 23	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINI RAE 2000	110001159	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	57998	100 PPM	09/00
	21243	N/A	N/A	N/A	CAL. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	12:57	0.000 mg/m³	0.0 PPM	HEAVY EQUIPMENT OPERATING IN COVERED PIG CELL
2	1:00	0.000 mg/m³	0.0 PPM	PROFILE CELL WHILE TAKING READINGS FOR AIR
3	1:03	0.000 mg/m³	0.0 PPM	SAMPLING SITES 1-25.
4	1:04	0.000 mg/m³	0.0 PPM	
5	1:07	0.000 mg/m³	0.0 PPM	
6	1:09	0.000 mg/m³	0.0 PPM	
7	1:14	0.000 mg/m³	0.0 PPM	
8	1:17	0.000 mg/m³	0.0 PPM	
9	1:22	0.000 mg/m³	0.0 PPM	
10	1:24	0.000 mg/m³	0.0 PPM	
11	1:26	0.000 mg/m³	0.0 PPM	
12	1:29	0.000 mg/m³	0.0 PPM	
13	1:31	0.000 mg/m³	0.0 PPM	
14	1:34	0.000 mg/m³	0.0 PPM	
15	1:36	0.000 mg/m³	0.0 PPM	
16	1:38	0.000 mg/m³	0.0 PPM	
17	1:41	0.000 mg/m³	0.5 PPM	
18	1:44	0.000 mg/m³	0.5 PPM	
19	1:48	0.091 mg/m³	0.3 PPM	
20	1:53	0.000 mg/m³	0.0 PPM	
21	1:55	0.000 mg/m³	0.0 PPM	
22	1:11	0.000 mg/m³	0.0 PPM	
23	1:19	0.000 mg/m³	0.5 PPM	
24	1:46	0.000 mg/m³	1.1 PPM	
25	1:50	0.000 mg/m³	0.1	

Date: 3-18-97	**Weather:** **Temp:** NOT AVAILABLE FOR ROUND F		**Round:** 4
IH: LARRY HOWARD	**Humidity:** N/A %		**Day:** THURSDAY
	Wind: N/A @ N/A mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	PORTACHLORTE	TSI	DUST TRAK PM10 8520	21245	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTENE	53988	100 ppm	09/00
	21243	n/a	n/a	n/a	EXP. DATE: 7/97

Sample #	Time	Particulate	PID	Comment
1	9:24	0.000 mg/m³	0.0 PPM	HEAVY EQUIPMENT OPERATING IN COVERED PILE CELL, PROCESS CELL, AND TREATMENT CELL 2 WHILE TAKING READINGS FOR AIR SCREENING SITES 1-25.
2	9:25	0.00 mg/m³	0.0 PPM	
3	9:28	0.000 mg/m³	0.0 PPM	
4	9:30	0.000 mg/m³	0.0 PPM	
5	9:32	0.000 mg/m³	0.0 PPM	
6	9:35	0.000 mg/m³	0.0 PPM	
7	9:39	0.000 mg/m³	0.0 PPM	
8	9:42	0.000 mg/m³	0.0 PPM	
9	9:47	0.000 mg/m³	0.0 PPM	
10	9:49	0.000 mg/m³	0.0 PPM	
11	9:51	0.000 mg/m³	0.0 PPM	
12	9:53	0.000 mg/m³	0.0 PPM	
13	9:55	0.000 mg/m³	0.0 PPM	
14	9:57	0.000 mg/m³	0.0 PPM	
15	9:59	0.000 mg/m³	0.0 PPM	
16	4:01	0.000 mg/m³	0.0 PPM	
17	4:03	0.000 mg/m³	0.0 PPM	
18	4:05	0.000 mg/m³	0.0 PPM	
19	4:10	0.000 mg/m³	0.0 PPM	
20	4:14	0.000 mg/m³	0.0 PPM	
21	4:16			
22	9:37	0.000 mg/m³	0.0 PPM	
23	9:44	0.000 mg/m³	0.0 PPM	
24	4:09	0.000 mg/m³	0.0 PPM	
25	4:12	0.000 mg/m³	0.0 PPM	

Date: 3-22-99	**Weather:** **Temp:** NO ENGINE AVAILABLE F	**Round:** BACKGROUND
IH: LARRY HOWARD	**Humidity:** N/A %	**Day:** MONDAY
	Wind: N/A @ N/A mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	PARTICULATE	TSI	8520 DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	100 BUTYLENE	53951	100 ppm	09/00
	21243	N/A	N/A	N/A	EXP DATE: 7/99

Sample #	Time	Particulate	PID	Comment
BACKGROUND				
3	7:46	0.037 mg/m³	0.0 ppm	

Date: 3-22-99	**Weather:**	**Temp:** NO PHONE AVAILABLE	F	**Round:** 1	
IH: LARRY HOWARD		**Humidity:** N/A	%	**Day:** MONDAY	
		Wind: N/A @ N/A	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINI RAE 2000	110001159	
	PARTICULATE	TSI	8520 DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53988	100 PPM	09/00
	21243	N/A	N/A	N/A	EXP DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	7:50	0.000 mg/m³	0.0 PPM	
2	7:52	0.000 mg/m³	0.0 PPM	
3	7:54	0.000 mg/m³	0.0 PPM	
4	7:56	0.000 mg/m³	0.0 PPM	TRUCK LEAVING SITE ON THE HAUL ROAD.
5	7:59	0.000 mg/m³	0.0 PPM	
6	8:01	0.000 mg/m³	0.0 PPM	
7	8:03	0.000 mg/m³	0.0 PPM	
8	8:05	0.000 mg/m³	0.0 PPM	
9	8:07	0.000 mg/m³	0.0 PPM	
10	8:09	0.000 mg/m³	0.0 PPM	
11	8:11	0.000 mg/m³	0.0 PPM	
12	8:13	0.000 mg/m³	0.0 PPM	
13	8:16	0.000 mg/m³	0.0 PPM	
14	8:18	0.000 mg/m³	0.0 PPM	
15	8:20	0.000 mg/m³	0.0 PPM	
16	8:22	0.000 mg/m³	0.0 PPM	
17	8:24	0.000 mg/m³	0.0 PPM	
18	8:27	0.000 mg/m³	0.0 PPM	
19	8:29	0.000 mg/m³	0.0 PPM	
20	8:31	0.000 mg/m³	0.0 PPM	
21	8:48	0.000 mg/m³	0.0 PPM	
22	8:52	0.000 mg/m³	0.0 PPM	
23	8:54	0.000 mg/m³	0.0 PPM	
24	8:59	0.000 mg/m³	0.0 PPM	
25	9:01	0.000 mg/m³	0.0 PPM	

Date: 3-22-99	**Weather:**	**Temp:** NO PHONE AVAILABLE	F	**Round:** 2	
IH: LARRY HOWARD		**Humidity:** N/A	%	**Day:** MONDAY	
		Wind: N/A @ N/A	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53988	100 PPM	09/00
	21243	N/A	N/A	N/A	CAL DUE: 7/99

Sample #	Time	Particulate	PID	Comment
1	12:38	0.000 mg/m³	0.0 PPM	HEAVY EQUIPMENT OPERATING IN COVERED FILL CELL,
2	12:40	0.000 mg/m³	0.0 PPM	PROCESS FILL WHILE TAKING READINGS FOR AIR
3	12:43	0.000 mg/m³	0.0 PPM	SAMPLING SITES 1-25.
4	12:44	0.000 mg/m³	0.0 PPM	
5	12:47	0.000 mg/m³	0.0 PPM	
6	12:48	0.000 mg/m³	0.0 PPM	
7	12:54	0.000 mg/m³	0.0 PPM	
8	12:56	0.000 mg/m³	0.0 PPM	
9	1:01	0.000 mg/m³	0.0 PPM	
10	1:05	0.000 mg/m³	0.0 PPM	
11	1:05	0.000 mg/m³	0.0 PPM	
12	1:07	0.000 mg/m³	0.0 PPM	
13	1:09	0.000 mg/m³	0.0 PPM	
14	1:11	0.000 mg/m³	0.0 PPM	
15	1:13	0.000 mg/m³	0.0 PPM	
16	1:15	0.000 mg/m³	0.0 PPM	
17	1:19	0.000 mg/m³	0.0 PPM	
18	1:21	0.000 mg/m³	0.0 PPM	
19	1:25	0.000 mg/m³	0.0 PPM	
20	1:31	0.000 mg/m³	0.0 PPM	
21	1:31	0.000 mg/m³	0.0 PPM	
22	12:51	0.000 mg/m³	0.0 PPM	
23	12:58	0.000 mg/m³	0.0 PPM	TRAIN CREW BY ON THE WEST SIDE.
24	1:23	0.000 mg/m³	0.4 PPM	
25	1:27	0.000 mg/m³	0.1 PPM	

Date: 3-22-99	**Weather:**	**Temp:** NO PHONE AVAILABLE	F	**Round:** 3	
IH: LARRY HOWARD		**Humidity:** n/a	%	**Day:** MONDAY	
		Wind: n/a @ n/a	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINI RAE 2000	110001159	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53188	100 PPM	09/00
	21243	n/a	n/a	n/a	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	3:36	0.000 mg/m³	2.0 PPM	KNOWN EQUIPMENT OPERATING IN ENTIRE AIR CELL
2	3:38	0.000 mg/m³	0.0 PPM	AND PROCESS CELL WHILE TAKING READINGS FOR
3	3:40	0.000 mg/m³	0.0 PPM	AIR SAMPLING RATES 1:25.
4	3:42	0.000 mg/m³	0.0 PPM	
5	3:45	0.000 mg/m³	0.0 PPM	
6	3:47	0.000 mg/m³	0.0 PPM	
7	3:53	0.000 mg/m³	0.0 PPM	
8	3:55	0.000 mg/m³	0.0 PPM	
9	4:00	0.000 mg/m³	0.0 PPM	
10	4:03	0.000 mg/m³	0.0 PPM	
11	4:04	0.000 mg/m³	0.0 PPM	
12	4:06	0.000 mg/m³	0.0 PPM	
13	4:08	0.000 mg/m³	0.0 PPM	
14	4:10	0.000 mg/m³	0.0 PPM	
15	4:12	0.000 mg/m³	0.0 PPM	
16	4:14	0.000 mg/m³	0.0 PPM	
17	4:17	0.000 mg/m³	0.1 PPM	
18	4:20	0.000 mg/m³	0.0 PPM	
19	4:24	0.000 mg/m³	0.0 PPM	
20	4:28	0.000 mg/m³	0.0 PPM	
21	4:30	0.000 mg/m³	0.0 PPM	
22	5:49	0.000 mg/m³	0.0 PPM	
23	3:57	0.001 mg/m³	0.3 PPM	
24	4:22	0.000 mg/m³	0.0 PPM	
25	4:26	0.000 mg/m³	0.0 PPM	

Date: 3-23-99	Weather: Temp: 61 F		Round: BACKGROUND
IH: LARRY HOWARD	Humidity: 100 %		Day: TUESDAY
	Wind: SE @ 5 mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINI RAE 2000 PGM-20	110001159	
	PARTICULATE	TSI	DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53998	100 ppm	09/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
BACKGROUND	9:10	0.044 mg/m^3	0.0 ppm	
4				

Date: 3-23-99	Weather:	Temp: 64	F	Round: 1	
IH: LARRY HOWARD		Humidity: 100	%	Day: TUESDAY	
		Wind: SE @ 5	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 3000	110001159	
	PARTICULATE	TSI	DUST TRAK 8500	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53398	100 ppm	09/09
	21243	n/a	n/a	N/A	EXP DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	9:15	0.000 mg/m³	0.0 ppm	HEPA EQUIPMENT OPERATING IN LOWER PILE CELL
2	9:17	0.000 mg/m³	0.0 ppm	PROCESS CELL, AND TREATMENT CELL 1 WHILE
3	9:19	0.000 mg/m³	0.0 ppm	TAKING BASELINE FOR AIR SAMPLING SITES 1-25.
4	9:21	0.000 mg/m³	0.0 ppm	
5	9:24	0.000 mg/m³	0.0 ppm	
6	9:26	0.000 mg/m³	0.0 ppm	
7	9:31	0.000 mg/m³	0.0 ppm	
8	9:33	0.000 mg/m³	0.1 ppm	
9	9:39	0.000 mg/m³	0.2 ppm	
10	9:41	0.000 mg/m³	0.2 ppm	
11	9:43	0.000 mg/m³	0.3 ppm	
12	9:46	0.000 mg/m³	0.2 ppm	
13	9:48	0.000 mg/m³	0.2 ppm	
14	9:50	0.000 mg/m³	0.2 ppm	
15	9:52	0.000 mg/m³	0.2 ppm	
16	9:55	0.000 mg/m³	0.2 ppm	
17	9:57	0.000 mg/m³	0.5 ppm	
18	10:00	0.000 mg/m³	0.7 ppm	
19	10:04	0.000 mg/m³	0.2 ppm	
20	10:08	0.000 mg/m³	0.4 ppm	
21	10:10	0.000 mg/m³	0.4 ppm	
22	9:28	0.000 mg/m³	0.0 ppm	
23	9:32	0.000 mg/m³	2.3 ppm	
24	10:02	0.000 mg/m³	1.1 ppm	
25	10:06	0.000 mg/m³	0.6 ppm	

Date: 3-23-99	**Weather:**	**Temp:** 74	F	**Round:** 2
IH: LARRY HOWARD		**Humidity:** 76	%	**Day:** TUESDAY
		Wind: S @ 10	mph	

Direct Read Instrument(s):	**Type**	**Mfr**	**Model#**	**Serial #**	**NOTE**
	PID	TRAC SYSTEMS	MINIRAE 2000	1100011159	
	PARTICULATE	TSI	9500 DUST TRAK	21243	

Calibration Data:	**DRI Serial #**	**Span Gas**	**Lot #**	**Obs Res**	**NOTE**
	1100011159	ISOBUTYLENE	53988	100 ppm	97/100
	21243	N/A	N/A	N/A	CAL DATE: 7/99

Sample #	**Time**	**Particulate**	**PID**	**Comment**
1	12:58	0.000 mg/m³	0.0 ppm	HEAVY EQUIPMENT OPERATING IN COVERED PIT CELL.
2	12:55	0.001 mg/m³	0.0 ppm	AND PROCESS CELL WHILE TOWING. READINGS FOR AIR
3	12:49	0.000 mg/m³	0.0 ppm	SAMPLING SITES 1-25.
4	12:49	0.000 mg/m³	0.0 ppm	
5	12:54	0.000 mg/m³	0.0 ppm	
6	12:54	0.000 mg/m³	0.0 ppm	
7	12:57	0.000 mg/m³	0.0 ppm	
8	1:01	0.000 mg/m³	0.0 ppm	
9	1:06	0.001 mg/m³	0.0 ppm	
10	1:05	0.000 mg/m³	0.0 ppm	
11	1:13	0.000 mg/m³	0.0 ppm	
12	1:08	0.000 mg/m³	0.0 ppm	
13	1:17	0.000 mg/m³	0.0 ppm	
14	1:19	0.000 mg/m³	0.0 ppm	
15	1:21	0.000 mg/m³	0.0 ppm	
16	1:23	0.000 mg/m³	0.0 ppm	TRAIN CAMERA #4 ON THE WEST SIDE.
17	1:26	0.000 mg/m³	0.0 ppm	
18	1:29	0.000 mg/m³	0.0 ppm	
19	1:33	0.000 mg/m³	0.0 ppm	
20	1:38	0.000 mg/m³	0.0 ppm	
21	1:40	0.000 mg/m³	0.0 ppm	
22	10:50	0.000 mg/m³	0.0 ppm	
23	1:03	0.000 mg/m³	0.0 ppm	
24	1:31	0.000 mg/m³	0.0 ppm	
25	1:36	0.000 mg/m³	0.0 ppm	

Date: 3-23-99	Weather:	Temp: 76	F	Round: 3	
IH: LARRY HOWARD		Humidity: 71	%	Day: TUESDAY	
		Wind: S @ 10	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53988	100 PPM	09/20
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	3:31	0.000 mg/m³	0.0 PPM	HEAVY EQUIPMENT OPERATING IN PROCESS CELL WHILE
2	3:35	0.000 mg/m³	0.0 PPM	TAKING READINGS FOR AIR SAMPLING SITES 1-25.
3	3:39	0.000 mg/m³	0.0 PPM	
4	3:37	0.000 mg/m³	0.0 PPM	
5	3:40	0.000 mg/m³	0.0 PPM	
6	3:42	0.000 mg/m³	0.0 PPM	
7	3:46	0.000 mg/m³	0.0 PPM	
8	3:48	0.000 mg/m³	0.0 PPM	
9	3:53	0.000 mg/m³	0.2 PPM	
10	3:55	0.000 mg/m³	0.0 PPM	
11	3:57	0.000 mg/m³	0.0 PPM	
12	3:59	0.000 mg/m³	0.0 PPM	
13	4:01	0.000 mg/m³	0.0 PPM	
14	4:03	0.000 mg/m³	0.0 PPM	
15	4:05	0.000 mg/m³	0.0 PPM	
16	4:07	0.000 mg/m³	0.0 PPM	
17	4:10	0.000 mg/m³	0.0 PPM	
18	4:13	0.000 mg/m³	0.0 PPM	
19	4:17	0.000 mg/m³	0.0 PPM	
20	4:21	0.000 mg/m³	0.0 PPM	
21	4:23	0.000 mg/m³	0.0 PPM	
22	3:44	0.000 mg/m³	0.0 PPM	
23	5:50	0.000 mg/m³	0.0 PPM	
24	9:15	0.000 mg/m³	0.5 PPM	
25	4:19	0.000 mg/m³	0.0 PPM	

Date: 3-24-99	Weather: Temp: 65 F	Round: BACKGROUND
IH: LARRY HOWARD	Humidity: 100 %	Day: WEDNESDAY
	Wind: SE @ 5 mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	PARTICULATE	TSI	8520 DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	100 ppm ISOBUTYLENE	53703	100 ppm	08/00
	21243	N/A	N/A	N/A	EXP DATE: 7/99

Sample #	Time	Particulate	PID	Comment
BACKGROUND				
"	7:57	0.078 mg/m³	0.0 ppm	

Date: 3-24-99	Weather: Temp: 65 F	Round: 1
IH: LARRY NOWARD	Humidity: 100 %	Day: WEDNESDAY
	Wind: SE @ 5 mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	PARTICULATE	TSI	8520 DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53805	100 ppm	08/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	7:29	0.000 mg/m³	0.0 ppm	
2	7:35	0.000 mg/m³	0.0 ppm	
3	7:45	0.000 mg/m³	0.0 ppm	
4	7:50	0.000 mg/m³	0.0 ppm	
5	7:57	0.003 mg/m³	0.0 ppm	
6	8:08	0.000 mg/m³	0.0 ppm	
7	8:20	0.000 mg/m³	0.0 ppm	
8	8:32	0.000 mg/m³	0.0 ppm	
9	8:38 (LD)	0.000 mg/m³	0.0 ppm	
10	8:39	0.000 mg/m³	0.0 ppm	
11	8:41	0.000 mg/m³	0.0 ppm	
12	8:43	0.000 mg/m³	0.0 ppm	
13	8:45	0.000 mg/m³	0.0 ppm	
14	8:47	0.000 mg/m³	0.0 ppm	
15	8:49	0.000 mg/m³	0.0 ppm	
16	8:51	0.000 mg/m³	0.0 ppm	
17	8:53	0.000 mg/m³	0.0 ppm	
18	8:54	0.000 mg/m³	0.0 ppm	
19	8:56	0.000 mg/m³	0.0 ppm	
20	8:58	0.000 mg/m³	0.0 ppm	
21	8:56	0.000 mg/m³	0.0 ppm	
22	8:17	0.000 mg/m³	0.0 ppm	
23	8:29	0.000 mg/m³	0.0 ppm	
24	8:43	0.000 mg/m³	0.0 ppm	
25	8:52	0.000 mg/m³	0.0 ppm	

Date: 3-24-99	Weather: Temp: 73 F	Round: 2
IH: LARRY HOWARD	Humidity: 81 %	Day: WEDNESDAY
	Wind: SE @ 6 mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53903	100 PPM	08/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	10:29	0.000 mg/m³	0.0 PPM	HEAVY EQUIPMENT OPERATING IN TREATMENT CELL 1 WHILE
2	10:33	0.000 mg/m³	0.0 PPM	TAKING READINGS FOR AIR SAMPLING SITES 1-25.
3	10:36	0.000 mg/m³	0.0 PPM	
4	10:46	0.000 mg/m³	0.0 PPM	
5	10:38	0.000 mg/m³	0.0 PPM	
6	10:41	0.000 mg/m³	0.0 PPM	
7	10:45	0.000 mg/m³	0.0 PPM	
8	10:47	0.000 mg/m³	0.0 PPM	
9	10:52	0.000 mg/m³	0.0 PPM	
10	10:54	0.000 mg/m³	0.0 PPM	
11	10:56	0.000 mg/m³	0.0 PPM	
12	10:58	0.000 mg/m³	0.0 PPM	
13	11:00	0.000 mg/m³	0.0 PPM	
14	11:02	0.000 mg/m³	0.0 PPM	
15	11:04	0.000 mg/m³	0.0 PPM	
16	11:06	0.000 mg/m³	0.0 PPM	
17	11:08	0.000 mg/m³	0.0 PPM	
18	11:11	0.000 mg/m³	0.0 PPM	
19	11:15	0.000 mg/m³	0.0 PPM	
20	11:19	0.000 mg/m³	0.0 PPM	
21	11:21	0.000 mg/m³	0.0 PPM	
22	10:18	0.000 mg/m³	0.0 PPM	
23	10:49	0.000 mg/m³	0.0 PPM	
24	10:53	0.000 mg/m³	0.0 PPM	
25	11:17	0.000 mg/m³	0.0 PPM	

Date: 3-24-99	Weather:	Temp: 77	F	Round: 3	
IH: LARRY HOWARD		Humidity: 69	%	Day: WEDNESDAY	
		Wind: SE @ 5	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	PARTICULATE	TSI	8520 DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	57303	100 ppm	08/00
	21243	n/a	n/a	n/a	CAL DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	1:37	0.000 mg/m^3	0.0 ppm	HIGH EQUIPMENT OPERATING IN PROCESS CELL AND
2	1:31	0.000 mg/m^3	0.0 ppm	TREATMENT CELL 1 WHILE TAKING READINGS FOR
3	1:33	0.000 mg/m^3	0.0 ppm	AIR SAMPLING SITES 1-25.
4	1:35	0.000 mg/m^3	0.0 ppm	
5	1:38	0.000 mg/m^3	0.0 ppm	
6	1:40	0.000 mg/m^3	0.0 ppm	
7	1:44	0.000 mg/m^3	0.0 ppm	
8	1:46	0.000 mg/m^3	0.0 ppm	
9	1:49	0.000 mg/m^3	0.0 ppm	
10	1:51	0.000 mg/m^3	0.0 ppm	
11	1:53	0.000 mg/m^3	0.0 ppm	
12	1:55	0.000 mg/m^3	0.0 ppm	
13	1:57	0.000 mg/m^3	0.0 ppm	
14	2:00	0.000 mg/m^3	0.0 ppm	
15	2:02	0.000 mg/m^3	0.0 ppm	
16	2:04	0.000 mg/m^3	0.0 ppm	
17	2:07	0.000 mg/m^3	0.0 ppm	
18	2:10	0.000 mg/m^3	0.0 ppm	
19	2:13	0.000 mg/m^3	0.0 ppm	
20	2:17	0.000 mg/m^3	0.0 ppm	
21	2:20	0.000 mg/m^3	0.0 ppm	
22	1:42	0.000 mg/m^3	0.0 ppm	
23	2:24	0.000 mg/m^3	0.0 ppm	
24	2:12	0.000 mg/m^3	0.0 ppm	
25	2:17	0.000 mg/m^3	0.0 ppm	

Date: 3-24-99	Weather: Temp: 77 F		Round: 4
IH: LARRY HOWARD	Humidity: 71 %		Day: WEDNESDAY
	Wind: S @ 13 mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	ISOBUTYLENE	110001159	
	PORTACHLORE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53903	100 ppm	08/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	9:11	0.000 mg/m³	0.0 ppm	HEAVY EQUIPMENT OPERATIONS IN PROCESS CELL AND
2	4:14	0.000 mg/m³	0.0 ppm	TREATMENT CELL 2 WHILE TAKING READINGS FOR
3	4:16	0.000 mg/m³	0.0 ppm	AIR SAMPLING SITES 1-25.
4	4:18	0.000 mg/m³	0.0 ppm	
5	4:21	0.000 mg/m³	0.0 ppm	
6	4:23	0.000 mg/m³	0.0 ppm	
7	4:27	0.000 mg/m³	0.0 ppm	
8	4:30	0.000 mg/m³	0.0 ppm	
9	4:34	0.000 mg/m³	0.0 ppm	
10	4:36	0.000 mg/m³	0.0 ppm	
11	4:38	0.000 mg/m³	0.0 ppm	
12	4:40	0.000 mg/m³	0.0 ppm	
13	4:42	0.000 mg/m³	0.0 ppm	
14	4:44	0.000 mg/m³	0.0 ppm	
15	4:46	0.000 mg/m³	0.0 ppm	
16	4:48	0.000 mg/m³	0.0 ppm	
17	4:51	0.000 mg/m³	0.0 ppm	
18	4:54	0.000 mg/m³	0.0 ppm	
19	4:58	0.000 mg/m³	0.0 ppm	
20	5:05	0.000 mg/m³	0.0 ppm	
21	5:04	0.000 mg/m³	0.0 ppm	
22	4:25	0.000 mg/m³	0.0 ppm	
23	4:31	0.000 mg/m³	0.0 ppm	
24	4:36	0.000 mg/m³	0.0 ppm	
25	5:00	0.000 mg/m³	0.0 ppm	

Date: 3-25-99	Weather: Temp: 64 F	Round: BACKGROUND
IH: LARIZA HOWARD	Humidity: 90 %	Day: THURSDAY
	Wind: N @ 9 mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE PID	110001159	
	PARTICULATE	TSI	TSI DUST TRAK	21343	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	33905	100 ppm	08/00
	21343	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
BACKGROUND				
13	8:42	0.072 mg/m³	0.0 ppm	

Date: 3-25-99	Weather:	Temp: 64	F	Round: 1	
IH: LARRY HOLMGREN		Humidity: 90	%	Day: THURSDAY	
		Wind: N @ 8	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000 PGM-7320	110001159	
	PARTICULATE	TSI	DUSTTRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53905	100 ppm	08/00
	21243	N/A	N/A	N/A	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	8:04	0.000 mg/m^3	0.0 PPM	
2	8:26	0.000 mg/m^3	0.0 PPM	
3	8:28	0.000 mg/m^3	0.0 PPM	
4	8:30	0.000 mg/m^3	0.0 PPM	
5	8:33	0.000 mg/m^3	0.0 PPM	
6	8:35	0.001 mg/m^3	0.1 PPM	
7	8:40	0.000 mg/m^3	0.0 PPM	
8	8:42	0.000 mg/m^3	0.0 PPM	
9	8:47	0.000 mg/m^3	0.1 PPM	
10	8:49	0.000 mg/m^3	0.1 PPM	
11	8:51	0.000 mg/m^3	0.0 PPM	
12	8:53	0.000 mg/m^3	0.0 PPM	
13	8:55	0.000 mg/m^3	0.0 PPM	
14	8:57	0.000 mg/m^3	0.0 PPM	
15	8:59	0.000 mg/m^3	0.0 PPM	
16	9:01	0.000 mg/m^3	0.0 PPM	
17	9:03	0.000 mg/m^3	0.0 PPM	
18	9:06	0.000 mg/m^3	0.0 PPM	
19	9:10	0.000 mg/m^3	0.0 PPM	
20	9:14	0.000 mg/m^3	0.0 PPM	
21	9:16	0.000 mg/m^3	0.0 PPM	
22	8:57	0.000 mg/m^3	0.1 PPM	
23	8:44	0.000 mg/m^3	0.2 PPM	
24	9:03	0.000 mg/m^3	0.5 PPM	
25	9:12	0.000 mg/m^3	0.0 PPM	

Date: 3-25-99	Weather:	Temp: 71	F	Round: 2	
IH: LARRY HOWARD		Humidity: 68	%	Day: THURSDAY	
		Wind: N @ 14	mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	FORTIM LITE	TSI	8520 DUSTTRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53303	100 ppm	08/00
	21243	n/a	n/a	n/a	EXP DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	11:00	0.000 mg/m³	0.2 ppm	HEAVY EQUIPMENT OPERATING IN PROCESS CELL AND
2	11:02	0.000 mg/m³	0.0 ppm	TREATMENT CELL I WHILE TAKING READINGS FOR AIR
3	11:04	0.000 mg/m³	0.6 ppm	SAMPLING SITES 1-25.
4	11:06	0.000 mg/m³	0.2 ppm	
5	11:09	0.000 mg/m³	0.2 ppm	
6	11:11	0.000 mg/m³	0.2 ppm	
7	11:15	0.000 mg/m³	0.2 ppm	
8	11:17	0.000 mg/m³	0.0 ppm	
9	11:24	0.000 mg/m³	0.0 ppm	
10	11:26	0.000 mg/m³	0.0 ppm	
11	11:28	0.000 mg/m³	0.0 ppm	
12	11:30	0.000 mg/m³	0.0 ppm	
13	11:32	0.000 mg/m³	0.0 ppm	
14	11:34	0.000 mg/m³	0.0 ppm	
15	11:36	0.000 mg/m³	0.0 ppm	
16	11:38	0.000 mg/m³	0.0 ppm	
17	11:40	0.000 mg/m³	0.0 ppm	
18	11:43	0.000 mg/m³	0.1 ppm	
19	11:47	0.000 mg/m³	0.0 ppm	
20	11:51	0.000 mg/m³	0.2 ppm	
21	11:53	0.000 mg/m³	0.2 ppm	
22	11:18	0.000 mg/m³	0.2 ppm	
23	11:19	0.000 mg/m³	0.0 ppm	
24	11:45	0.000 mg/m³	0.0 ppm	
25	11:45	0.000 mg/m³	0.0 ppm	

Date: 3-25-99	Weather: Temp: 69 F		Round: 3
IH: LARRY HOWARD	Humidity: 66 %		Day: THURSDAY
	Wind: N @ 14 mph		

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	PORTACHLORITE	TSI	8530 IAQ TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53903	100 ppm	08/00
	21243	n/a	n/a	n/a	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	2:29	0.000 mg/m³	0.0 ppm	HEAVY EQUIPMENT OPERATING IN POWER CELL AND
2	2:31	0.000 mg/m³	0.0 ppm	TREATMENT CELL 1 WHILE TAKING READINGS FOR DRI
3	2:33	0.000 mg/m³	0.0 ppm	SAMPLING SITES 1-25.
4	2:35	0.000 mg/m³	0.0 ppm	
5	2:38	0.000 mg/m³	0.0 ppm	
6	2:40	0.000 mg/m³	0.0 ppm	
7	2:44	0.000 mg/m³	0.0 ppm	
8	2:46	0.000 mg/m³	0.0 ppm	
9	2:50	0.000 mg/m³	0.0 ppm	
10	2:53	0.000 mg/m³	0.0 ppm	
11	2:55	0.000 mg/m³	0.0 ppm	
12	2:57	0.000 mg/m³	0.0 ppm	
13	2:59	0.000 mg/m³	0.0 ppm	
14	3:01	0.000 mg/m³	0.0 ppm	
15	3:05	0.000 mg/m³	0.0 ppm	
16	3:07	0.000 mg/m³	0.0 ppm	
17	3:09	0.000 mg/m³	0.1 ppm	
18	3:11	0.000 mg/m³	0.1 ppm	
19	3:15	0.000 mg/m³	0.0 ppm	
20	3:19	0.000 mg/m³	0.0 ppm	
21	3:21	0.000 mg/m³	0.0 ppm	
22	3:42	0.000 mg/m³	0.0 ppm	
23	3:45	0.000 mg/m³	0.3 ppm	
24	3:49	0.000 mg/m³	0.5 ppm	
25	3:17	0.000 mg/m³	0.0 ppm	

Date: 3-25-99	Weather: Temp: 68 F	Round: 4
IH: LARRY HOWARD	Humidity: 63 %	Day: THURSDAY
	Wind: N @ 9 mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	PARTICULATE	TSI	DUST TRAK 8520	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53703	100 PPM	08/00
	21243	N/A	N/A	N/A	EXP DATE: 7/99

Sample #	Time	Particulate	PID	Comment
1	4:54	0.000 mg/m³	0.0 PPM	HERE'S EQUIPMENT UNWRAPPING IN PROCESS (CL)
2	4:56	0.000 mg/m³	0.0 PPM	WHILE TAKING READINGS FOR AIR SAMPLING
3	4:58	0.000 mg/m³	0.0 PPM	NOTES 1-25.
4	5:00	0.000 mg/m³	0.0 PPM	
5	5:03	0.000 mg/m³	0.0 PPM	
6	5:05	0.000 mg/m³	0.0 PPM	
7	5:10	0.000 mg/m³	0.0 PPM	
8	5:12	0.000 mg/m³	0.0 PPM	
9	5:17	0.000 mg/m³	0.0 PPM	
10	5:19	0.000 mg/m³	0.0 PPM	
11	5:21	0.000 mg/m³	0.0 PPM	
12	5:24	0.000 mg/m³	0.0 PPM	
13	5:26	0.000 mg/m³	0.0 PPM	
14	5:28	0.000 mg/m³	0.0 PPM	
15	5:35	0.000 mg/m³	0.0 PPM	
16	5:37	0.000 mg/m³	0.0 PPM	
17	5:38	0.000 mg/m³	0.0 PPM	
18	5:38	0.000 mg/m³	0.0 PPM	
19	5:43	0.000 mg/m³	0.0 PPM	
20	5:46	0.000 mg/m³	0.0 PPM	
21	5:48	0.000 mg/m³	0.0 PPM	
22	5:07	0.000 mg/m³	0.0 PPM	
23	5:44	0.000 mg/m³	0.0 PPM	
24	5:46	0.000 mg/m³	0.0 PPM	
25	5:44	0.000 mg/m³	0.0 PPM	

Date: 3-26-99	Weather:	Temp: 54	F	Round: BACKGROUND # 1
IH: LARRY NAVARRO		Humidity: 86	%	Day: FRIDAY
		Wind: E @ 7	mph	

Direct Read Instrument(s):	Type	Mfr	Model#	Serial #	NOTE
	PID	RAE SYSTEMS	MINIRAE 2000	110001159	
	PARTICULATE	TSI	8520 DUST TRAK	21243	

Calibration Data:	DRI Serial #	Span Gas	Lot #	Obs Res	NOTE
	110001159	ISOBUTYLENE	53905	100 ppm	68/00
	21243	n/a	n/a	n/a	EXP. DATE: 7/99

Sample #	Time	Particulate	PID	Comment
BACKGROUND #1	7:44	0.011 mg/m³	0.0 ppm	
1	7:48	0.000 mg/m³	0.0 ppm	
2	7:50	0.000 mg/m³	0.0 ppm	
3	7:52	0.000 mg/m³	0.0 ppm	
4	7:54	0.000 mg/m³	0.0 ppm	
5	7:57	0.000 mg/m³	0.0 ppm	
6	7:59	0.000 mg/m³	0.0 ppm	
7	8:03	0.000 mg/m³	0.0 ppm	
8	8:05	0.000 mg/m³	0.0 ppm	
9	8:09	0.000 mg/m³	0.0 ppm	
10	8:11	0.000 mg/m³	0.0 ppm	
11	8:13	0.000 mg/m³	0.0 ppm	
12	8:15	0.000 mg/m³	0.0 ppm	
13	8:17	0.000 mg/m³	0.0 ppm	
14	8:19	0.000 mg/m³	0.0 ppm	
15	8:21	0.000 mg/m³	0.0 ppm	
16	8:23	0.000 mg/m³	0.0 ppm	
17	8:25	0.000 mg/m³	0.1 ppm	
18	8:27	0.000 mg/m³	0.1 ppm	
19	8:32	0.000 mg/m³	0.0 ppm	
20	8:35	0.000 mg/m³	0.0 ppm	
21	8:38	0.000 mg/m³	0.0 ppm	
22	8:40	0.000 mg/m³	0.0 ppm	
23	8:42	0.000 mg/m³	0.2 ppm	
24	8:39	0.000 mg/m³	0.4 ppm	

DATE	SAMPLE #	ROUND #	TIME	PARTICULATE[1] (mg/m^3)	TOTAL HYDROCARBONS[2] (ppm)	TOTAL HYDROCARBONS[3] (ppm)	COMMENT(s)
3/2/99	8	backgrd	10:29	0.05	n/a	n/a	FID out of cal.
	8	backgrd	1:11	n/a	0.00	n/a	Obtained particulate background earlier.
	1	1	10:01	0.00	n/a	n/a	FID out of cal. for readings 1-21. Calibrated for high
	2	1	10:04	0.00	n/a	n/a	range instead of low range.
	3	1	10:06	0.00	n/a	n/a	
	4	1	10:09	0.00	n/a	n/a	
	5	1	10:15	0.00	n/a	n/a	
	6	1	10:17	0.01	n/a	n/a	
	7	1	10:28	0.00	n/a	n/a	
	8	1	10:29	0.00	n/a	n/a	
	9	1	10:31	0.05	n/a	n/a	
	10	1	10:33	0.00	n/a	n/a	
	11	1	10:34	0.05	n/a	n/a	
	12	1	10:36	0.00	n/a	n/a	
	13	1	10:38	0.01	n/a	n/a	
	14	1	10:42	0.00	n/a	n/a	
	15	1	10:44	0.00	n/a	n/a	
	16	1	10:48	0.00	n/a	n/a	
	17	1	10:50	0.00	n/a	n/a	
	18	1	10:55	0.01	n/a	n/a	Train coming by on the west side.
	19	1	10:58	0.00	n/a	n/a	
	20	1	11:00	0.01	n/a	n/a	
	21	1	11:02	0.00	n/a	n/a	
3/2/99	1	2	1:00	0.01	0.00	n/a	*Heavy equipment operating in treatment cells 1&2*
	2	2	1:01	0.00	0.00	n/a	while taking readings for air sampling sites 10-21.
	3	2	1:02	0.01	0.00	n/a	FID out of cal. for readings 1-21. Calibrated for high
	4	2	1:04	0.03	0.00	n/a	range instead of low range.
	5	2	1:06	0.01	0.00	n/a	
	6	2	1:08	0.01	0.00	n/a	
	7	2'	1:09	0.01	0.00	n/a	
	8	2	1:11	0.02	0.00	n/a	
	9	2	1:13	0.01	0.00	n/a	
	10	2	1:14	0.23	0.00	n/a	
	11	2	1:15	0.16	0.00	n/a	
	12	2	1:17	0.02	1.70	n/a	
	13	2	1:18	0.01	2.20	n/a	

	14	2	1:20	0.01	4.30	n/a	
	15	2	1:21	0.01	5.00	n/a	
	16	2	1:22	0.01	5.70	n/a	
	17	2	1:23	0.01	7.50	n/a	
	18	2	1:25	0.02	9.30	n/a	
	19	2	1:27	0.02	11.60	n/a	
	20	2	1:28	0.03	11.80	n/a	
	21	2	1:30	0.01	11.90	n/a	
3/2/99	1	3	3:01	0.01	0.00	n/a	Heavy equipment operating in treatment cells 1&2
	2	3	3:02	0.08	0.00	n/a	while taking readings for air sampling sites 1-21.
	3	3	3:03	0.01	0.00	n/a	FID out of cal. for readings 1-21. Calibrated for high
	4	3	3:04	0.01	0.00	n/a	range instead of low range.
	5	3	3:06	0.00	0.00	n/a	
	6	3	3:07	0.06	0.00	n/a	
	7	3	3:26	0.02	13.50	n/a	
	8	3	3:28	0.01	14.70	n/a	
	9	3	3:29	0.01	21.20	n/a	
	10	3	3:30	0.01	22.20	n/a	
	11	3	3:32	0.03	21.40	n/a	
	12	3	3:34	0.00	23.60	n/a	
	13	3	3:35	0.00	22.90	n/a	
	14	3	3:36	0.01	20.70	n/a	
	15	3	3:37	0.01	20.20	n/a	
	16	3	3:38	0.01	21.70	n/a	
	17	3	3:39	0.00	18.10	n/a	
	18	3	3:40	0.00	20.50	n/a	
	19	3	3:41	0.01	20.40	n/a	
	20	3	3:43	0.01	16.70	n/a	
	21	3	3:44	0.02	18.80	n/a	
3/2/99	1	4	4:45	0.04	0.00	n/a	FID out of cal. for readings 1-21. Calibrated for high
	2	4	4:47	0.14	0.00	n/a	range instead of low range.
	3	4	4:48	0.00	0.00	n/a	
	4	4	4:49	0.03	0.00	n/a	
	5	4	4:50	0.04	0.00	n/a	
	6	4	4:51	0.03	0.00	n/a	
	7	4	4:52	0.01	0.00	n/a	
	8	4	4:53	0.01	0.00	n/a	
	9	4	4:55	0.00	0.00	n/a	
	10	4	4:56	0.00	0.00	n/a	
	11	4	4:57	0.07	0.00	n/a	

	12	4	4:58	0.02	0.20	n/a	
	13	4	4:59	0.02	0.50	n/a	
	14	4	5:00	0.00	2.60	n/a	
	15	4	5:01	0.01	2.60	n/a	
	16	4	5:02	0.01	3.80	n/a	
	17	4	5:03	0.02	3.10	n/a	
	18	4	5:04	0.01	7.80	n/a	
	19	4	5:06	0.02	6.60	n/a	
	20	4	5:07	0.05	7.00	n/a	
	21	4	5:08	0.08	6.70	n/a	
3/3/99	7	backgrd	7:22	0.02	0.00	n/a	
	1	1	7:15	0.00	0.00	n/a	FID out of cal. for readings 1-21. Calibrated for high
	2	1	7:16	0.00	0.00	n/a	range instead of low range.
	3	1	7:17	0.01	0.00	n/a	
	4	1	7:18	0.00	0.00	n/a	
	5	1	7:20	0.00	0.00	n/a	
	6	1	7:21	0.00	0.00	n/a	
	7	1	7:22	0.00	0.00	n/a	
	8	1	7:24	0.00	0.00	n/a	
	9	1	7:26	0.02	0.00	n/a	
	10	1	7:27	0.01	0.00	n/a	
	11	1	728	0.02	0.00	n/a	
	12	1	7:29	0.01	0.00	n/a	
	13	1	7:30	0.00	0.00	n/a	
	14	1	7:32	0.01	0.20	n/a	
	15	1	7:33	0.02	1.10	n/a	
	16	1	7:34	0.01	3.60	n/a	
	17	1	7:35	0.00	4.70	n/a	
	18	1	7:37	0.00	8.20	n/a	
	19	1	7:39	0.01	11.40	n/a	
	20	1	7:40	0.00	13.90	n/a	
	21	1	7:41	0.01	14.50	n/a	
3/3/99	1	2	10:13	0.00	1.80	n/a	FID out of cal. for readings 1-21. Calibrated for high
	2	2	10:15	0.00	4.70	n/a	range instead of low range.
	3	2	10:18	0.01	3.70	n/a	
	4	2	10:21	0.00	4.90	n/a	
	5	2	10:23	0.00	4.80	n/a	
	6	2	10:26	0.00	5.80	n/a	
	7	2	10:29	0.00	5.20	n/a	
	8	2	10:32	0.00	0.00	n/a	

	9	2	10:35	0.00	0.00	n/a	
	10	2	10:37	0.01	0.00	n/a	
	11	2	10:39	0.00	0.00	n/a	
	12	2	10:42	0.00	0.00	n/a	
	13	2	10:46	0.02	0.00	n/a	
	14	2	10:48	0.00	0.00	n/a	
	15	2	10:50	0.00	0.00	n/a	
	16	2	10:52	0.00	0.50	n/a	
	17	2	10:54	0.00	1.00	n/a	
	18	2	10:57	0.01	n/a	n/a	Detector reading cooling down.
	19	2	10:59	0.00	n/a	n/a	Detector reading cooling down.
	20	2	11:01	0.00	n/a	n/a	Detector reading cooling down.
	21	2	11:03	0.00	n/a	n/a	Detector reading cooling down.
3/3/99	1	3	1:02	0.00	0.00	n/a	FID out of cal. For readings 1-21. Calibrated for high
	2	3	1:04	0.00	1.70	n/a	range instead of low range.
	3	3	2:17	0.00	0.00	n/a	
	4	3	2:19	0.00	0.20	n/a	
	5	3	2:21	0.00	1.90	n/a	
	6	3	2:23	0.00	0.80	n/a	
	7	3	2:39	0.00	0.00	n/a	
	8	3	2:41	0.00	0.00	n/a	
	9	3	2:43	0.00	0.00	n/a	
	10	3	2:45	0.00	0.00	n/a	
	11	3	2:47	0.00	0.00	n/a	Train coming by on the east side.
	12	3	2:49	0.00	0.00	n/a	
	13	3	2:51	0.00	0.00	n/a	
	14	3	2:53	0.00	4.90	n/a	Train coming by on the east side.
	15	3	3:17	0.02	0.00	n/a	
	16	3	3:19	0.00	0.00	n/a	
	17	3	3:21	0.00	0.00	n/a	
	18	3	3:23	0.00	0.00	n/a	
	19	3	3:25	0.00	0.00	n/a	
	20	3	3:27	0.00	0.00	n/a	
	21	3	3:29	0.00	0.00	n/a	
3/3/99	1	4	4:49	0.00	0.00	n/a	FID out of cal. for readings 1-21. Calibrated for high
	2	4	4:51	0.00	0.00	n/a	range instead of low range.
	3	4	4:53	0.00	0.00	n/a	
	4	4	4:55	0.00	0.00	n/a	
	5	4	4:57	0.00	0.00	n/a	
	6	4	4:59	0.00	0.00	n/a	

	7	4	5:01	0.06	0.00	n/a	
	8	4	5:03	0.10	0.00	n/a	
	9	4	5:05	0.00	0.00	n/a	
	10	4	5:07	0.00	0.00	n/a	
	11	4	5:09	0.00	0.00	n/a	
	12	4	5:11	0.00	0.00	n/a	
	13	4	5:13	0.00	0.00	n/a	
	14	4	5:15	0.00	0.00	n/a	
	15	4	5:17	0.00	0.00	n/a	
	16	4	5:19	0.00	0.00	n/a	
	17	4	5:21	0.00	0.00	n/a	
	18	4	5:23	0.00	0.00	n/a	
	19	4	5:25	0.04	0.00	n/a	
	20	4	5:27	0.00	0.00	n/a	
	21	4	5:29	0.00	0.00	n/a	
3/4/99	5	backgrd	7:38	0.03	0.00	n/a	
	1	1	7:41	0.00	0.00	n/a	FID out of cal. For readings 1-21. Calibrated for high
	2	1	7:43	0.00	0.00	n/a	range instead of low range.
	3	1	7:45	0.02	0.00	n/a	
	4	1	7:47	0.03	0.00	n/a	Train coming by on the east side.
	5	1	7:50	0.01	0.00	n/a	
	6	1	7:52	0.00	0.00	n/a	
	7	1	7:54	0.00	0.00	n/a	
	8	1	7:56	0.00	0.00	n/a	
	9	1	8:29	0.00	1.60	n/a	
	10	1	8:31	0.00	4.60	n/a	
	11	1	8:33	0.01	4.70	n/a	
	12	1	8:35	0.02	9.60	n/a	
	13	1	8:37	0.00	6.10	n/a	
	14	1	8:40	0.00	10.40	n/a	
	15	1	8:42	0.03	16.30	n/a	
	16	1	8:44	0.05	19.60	n/a	
	17	1	8:46	0.01	18.80	n/a	
	18	1	8:48	0.02	22.30	n/a	
	19	1	8:50	0.02	25.40	n/a	
	20	1	8:52	0.02	27.70	n/a	
	21	1	8:54	0.02	30.20	n/a	
3/4/99	1	2	10:56	0.00	0.80	n/a	Heavy equipment operating in treatment cells 1&2
	2	2	10:58	0.00	0.90	n/a	while taking readings for air sampling sites 1-21.
	3	2	11:00	0.04	0.60	n/a	

	4	2	11:02	0.00	0.80	n/a	
	5	2	11:06	0.00	0.90	n/a	
	6	2	11:08	0.00	1.00	n/a	
	7	2	11:10	0.00	0.90	n/a	
	8	2	11:12	0.00	1.00	n/a	
	9	2	11:14	0.00	0.90	n/a	
	10	2	11:16	0.00	1.00	n/a	
	11	2	11:18	0.00	1.10	n/a	
	12	2	11:20	0.00	1.50	n/a	
	13	2	11:22	0.03	1.60	n/a	
	14	2	11:24	0.00	1.40	n/a	
	15	2	11:26	0.00	1.10	n/a	
	16	2	11:28	0.00	1.00	n/a	
	17	2	11:30	0.00	0.60	n/a	
	18	2	11:32	0.00	0.50	n/a	
	19	2	11:34	0.05	0.30	n/a	
	20	2	11:36	0.00	0.70	n/a	
	21	2	11:38	0.01	0.90	n/a	
3/4/99	1	3	1:10	0.00	0.00	n/a	Heavy equipment operating in treatment cells 1&2
	2	3	1:12	0.00	0.00	n/a	while taking readings for air sampling sites 1-21.
	3	3	1:14	0.00	0.00	n/a	
	4	3	1:16	0.00	0.00	n/a	
	5	3	1:19	0.00	0.20	n/a	
	6	3	1:21	0.01	0.50	n/a	
	7	3	1:24	0.00	1.00	n/a	
	8	3	1:26	0.00	0.80	n/a	
	9	3	1:29	0.00	0.80	n/a	
	10	3	1:31	0.00	0.90	n/a	
	11	3	1:33	0.00	1.30	n/a	
	12	3	1:36	0.00	1.60	n/a	
	13	3	1:38	0.01	2.20	n/a	
	14	3	1:40	0.00	2.40	n/a	
	15	3	1:42	0.00	2.20	n/a	
	16	3	1:44	0.00	1.90	n/a	
	17	3	1:46	0.00	1.90	n/a	
	18	3	1:48	0.00	1.20	n/a	
	19	3	1:50	0.00	0.80	n/a	
	20	3	1:52	0.00	0.50	n/a	
	21	3	1:55	0.15	0.50	n/a	
3/4/99	1	4	3:26	0.02	0.00	n/a	Heavy equipment operating in treatment cells 1&2

	2	4	3:28	0.01	0.00	n/a	while taking readings for air sampling sites 1-21.
	3	4	3:30	0.00	0.00	n/a	
	4	4	3:32	0.00	0.10	n/a	
	5	4	3:35	0.00	0.70	n/a	
	6	4	3:37	0.00	1.10	n/a	
	7	4	3:39	0.00	0.90	n/a	
	8	4	3:41	0.00	0.50	n/a	
	9	4	3:44	0.00	0.70	n/a	
	10	4	3:46	0.00	1.10	n/a	
	11	4	3:48	0.00	1.30	n/a	
	12	4	3:50	0.00	1.40	n/a	
	13	4	3:52	0.00	1.60	n/a	
	14	4	3:54	0.00	1.50	n/a	
	15	4	3:56	0.00	1.20	n/a	
	16	4	*3:58*	*0.00*	*0.70*	*n/a*	
	17	4	4:00	0.00	0.30	n/a	
	18	4	4:03	0.00	0.00	n/a	
	19	4	4:05	0.00	0.00	n/a	
	20	4	4:07	0.00	0.00	n/a	
	21	4	4:09	0.03	0.00	n/a	
3/4/99	1	5	5:00	0.00	0.00	n/a	
	2	5	5:02	0.00	0.00	n/a	
	3	5	5:04	0.00	0.00	n/a	
	4	5	5:06	0.00	0.00	n/a	
	5	5	5:09	0.00	0.00	n/a	
	6	5	5:11	0.00	0.00	n/a	
	7	5	5:13	0.00	0.00	n/a	
	8	5	5:15	0.00	0.00	n/a	
	9	*5*	*5:18*	*0.00*	*0.00*	*n/a*	
	10	5	5:20	0.00	0.00	n/a	
	11	5	5:22	0.00	0.00	n/a	
	12	5	5:24	0.00	0.00	n/a	
	13	5	5:26	0.00	0.00	n/a	
	14	5	5:28	0.00	0.00	n/a	
	15	5	5:30	0.00	0.00	n/a	
	16	*5*	*5:32*	*0.00*	*0.00*	*n/a*	
	17	5	5:34	0.00	0.00	n/a	
	18	5	5:36	0.00	0.00	n/a	
	19	5	5:38	0.00	0.00	n/a	
	20	5	5:40	0.00	0.00	n/a	

	21	5	5:42	0.00	0.00	n/a	
3/5/99	3	backgrd	7:24	0.03	0.00	n/a	
	1	1	7:29	0.01	0.00	n/a	
	2	1	7:31	0.00	0.00	n/a	
	3	1	7:33	0.00	0.00	n/a	
	4	1	7:35	0.01	0.00	n/a	
	5	1	7:38	0.00	0.00	n/a	
	6	1	7:40	0.03	0.00	n/a	
	7	1	7:42	0.00	0.00	n/a	
	8	1	7:44	0.00	0.00	n/a	
	9	1	7:47	0.00	0.00	n/a	
	10	1	7:49	0.00	0.00	n/a	
	11	1	7:51	0.00	0.00	n/a	
	12	1	7:53	0.00	0.00	n/a	
	13	1	7:55	0.00	0.00	n/a	
	14	1	7:57	0.00	0.00	n/a	
	15	1	7:59	0.00	0.00	n/a	
	16	1	8:01	0.00	0.00	n/a	
	17	1	8:03	0.00	0.00	n/a	
	18	1	8:06	0.00	0.00	n/a	
	19	1	8:08	0.00	0.00	n/a	
	20	1	8:10	0.00	0.00	n/a	
	21	1	8:12	0.00	0.00	n/a	
3/5/99	1	2	10:45	0.01	0.00	n/a	Heavy equipment operating in treatment cells 1&2
	2	2	10:47	0.03	0.00	n/a	while taking readings for air sampling sites 1-21.
	3	2	10:49	0.00	0.00	n/a	
	4	2	10:51	0.00	0.00	n/a	
	5	2	10:54	0.01	0.00	n/a	
	6	2	10:56	0.00	0.00	n/a	
	7	2	10:58	0.00	0.00	n/a	Train coming by on the east side.
	8	2	11:00	0.02	0.00	n/a	
	9	2	11:03	0.03	0.00	n/a	
	10	2	11:05	0.00	0.00	n/a	
	11	2	11:07	0.00	0.00	n/a	
	12	2	11:09	0.00	0.00	n/a	
	13	2	11:11	0.01	0.00	n/a	
	14	2	11:13	0.03	0.00	n/a	
	15	2	11:15	0.03	0.00	n/a	
	16	2	11:17	0.01	0.00	n/a	
	17	2	11:19	0.03	0.00	n/a	

	18	2	11:22	0.00	0.00	n/a	
	19	2	11:24	0.02	0.00	n/a	
	20	2	11:26	0.00	0.00	n/a	
	21	2	11:28	0.00	0.00	n/a	
3/5/99	1	3	1:39	0.00	0.00	n/a	Heavy equipment operating in treatment cells 1&2
	2	3	1:41	0.00	0.00	n/a	while taking readings for air sampling sites 1-21.
	3	3	1:43	0.00	0.00	n/a	
	4	3	1:45	0.00	0.00	n/a	
	5	3	1:48	0.00	0.00	n/a	
	6	3	1:50	0.00	0.00	n/a	
	7	3	1:52	0.00	0.00	n/a	
	8	3	1:54	0.01	0.00	n/a	
	9	3	1:57	0.00	0.00	n/a	
	10	3	1:59	0.00	0.00	n/a	
	11	3	2:01	0.00	0.00	n/a	
	12	3	2:03	0.00	0.00	n/a	
	13	3	2:05	0.00	0.00	n/a	
	14	3	2:07	0.00	0.00	n/a	
	15	3	2:09	0.00	0.00	n/a	
	16	3	2:11	0.00	0.00	n/a	
	17	3	2:13	0.00	0.00	n/a	
	18	3	2:16	0.00	0.00	n/a	
	19	3	2:18	0.00	0.00	n/a	
	20	3	2:20	0.00	0.00	n/a	
	21	3	2:22	0.00	0.00	n/a	
3/5/99	1	4	5:11	0.00	0.00	0.00	
	2	4	5:13	0.01	0.00	0.00	
	3	4	5:15	0.00	0.00	0.00	
	4	4	5:17	0.03	0.00	0.00	
	5	4	5:20	0.01	0.00	0.00	
	6	4	5:22	0.00	0.00	0.00	
	7	4	5:24	0.01	0.00	0.00	
	8	4	5:26	0.00	0.00	0.00	
	9	4	5:29	0.01	0.00	0.00	
	10	4	5:31	0.02	0.00	0.00	
	11	4	5:33	0.00	0.00	0.00	
	12	4	5:35	0.00	0.00	0.00	
	13	4	5:37	0.00	0.00	0.00	
	14	4	5:39	0.01	0.00	0.00	
	15	4	5:41	0.00	0.00	0.00	

	16	4	5:43	0.00	0.00	0.00	
	17	4	5:45	0.01	0.00	0.00	
	18	4	5:56	0.00	0.00	0.00	
	19	4	5:58	0.00	0.00	0.00	
	20	4	6:00	0.01	0.00	0.00	
	21	4	6:02	0.00	0.00	0.00	
3/6/99	5	backgrd	8:11	0.05	0.00	0.00	
	1	1	8:15	0.00	0.00	n/a	
	2	1	8:17	0.00	0.20	n/a	
	3	1	8:22	0.06	0.70	n/a	Train coming by on the west side.
	4	1	8:24	0.00	0.80	n/a	
	5	1	8:26	0.01	0.70	n/a	
	6	1	8:28	0.01	0.70	n/a	
	7	1	8:30	0.00	0.50	n/a	
	8	1	8:32	0.00	0.60	n/a	
	9	1	8:35	0.00	0.60	n/a	
	10	1	8:37	0.00	0.50	n/a	
	11	1	8:39	0.00	0.40	n/a	
	12	1	8:41	0.00	0.60	n/a	
	13	1	8:43	0.00	0.60	n/a	
	14	1	8:45	0.00	0.60	n/a	
	15	1	8:47	0.00	0.50	n/a	
	16	1	8:49	0.00	0.20	n/a	
	17	1	8:51	0.00	0.20	n/a	
	18	1	8:54	0.00	0.10	n/a	
	19	1	8:56	0.00	0.00	n/a	
	20	1	8:58	0.00	0.00	n/a	
	21	1	9:00	0.00	0.00	n/a	
3/6/99	1	2	10:58	0.00	0.00	0.00	Heavy equipment operating in covered pile cell and
	2	2	11:00	0.01	0.70	0.00	process while taking readings for air sampling sites
	3	2	11:02	0.03	0.90	0.00	1-21.
	4	2	11:04	0.02	1.40	0.00	FID out of cal. FID didn't drop back down to zero after
	5	2	11:07	0.03	2.00	0.00	readings were taken.
	6	2	11:09	0.03	2.30	0.00	Took lunch between air sampling sites 6&7.
	7	2	11:47	0.02	0.30	0.00	
	8	2	11:49	0.05	1.00	0.00	
	9	2	11:52	0.03	1.60	0.00	
	10	2	11:54	0.00	2.10	0.00	
	11	2	11:56	0.00	2.70	0.00	
	12	2	11:58	0.00	3.30	0.00	

	13	2	12:00	0.00	3.60	0.00	
	14	2	12:02	0.00	3.80	0.00	
	15	2	12:04	0.00	4.10	0.00	
	16	2	12:06	0.00	4.10	0.00	
	17	2	12:08	0.00	4.30	0.00	
	18	2	12:10	0.01	4.90	0.00	
	19	2	12:12	0.11	5.60	0.00	
	20	2	12:14	0.00	5.70	0.00	
	21	2	12:16	0.00	5.90	0.00	Dump truck sitting next to air sampling site 21.
3/8/99	3	backgrd	9:19	0.05	n/a	n/a	
	1	1	9:37	0.00	n/a	n/a	Heavy equipment operating in covered pile cell,
	2	1	9:39	0.00	n/a	n/a	process cell, and treatment cell 1 while taking
	3	1	9:41	0.00	n/a	n/a	readings for air sampling sites 1-25.
	4	1	9:43	0.00	n/a	n/a	FID (hydrogen flame) wouldn't ignite. No readings for
	5	1	9:45	0.00	n/a	n/a	FID.
	6	1	9:47	0.00	n/a	n/a	
	7	1	9:49	0.00	n/a	n/a	
	8	1	9:51	0.00	n/a	n/a	
	9	1	9:54	0.00	n/a	n/a	
	10	1	9:56	0.00	n/a	n/a	
	11	1	9:58	0.00	n/a	n/a	
	12	1	10:00	0.00	n/a	n/a	
	13	1	10:02	0.01	n/a	n/a	Train coming by on the east side.
	14	1	10:04	0.00	n/a	n/a	
	15	1	10:07	0.01	n/a	n/a	
	16	1	10:09	0.00	n/a	n/a	
	17	1	10:11	0.01	n/a	n/a	
	18	1	10:13	0.00	n/a	n/a	
	19	1	10:15	0.00	n/a	n/a	
	20	1	10:17	0.00	n/a	n/a	
	21	1	10:19	0.05	n/a	n/a	
	22	1	9:22	0.00	n/a	n/a	
	23	1	9:24	0.00	n/a	n/a	
	24	1	9:26	0.00	n/a	n/a	
	25	1	9:28	0.00	n/a	n/a	
3/8/99	1	2	11:57	0.00	0.00	n/a	Heavy equipment operating in covered pile cell,
	2	2	11:59	0.00	0.00	n/a	process cell, and treatment cell 1 while taking
	3	2	12:01	0.05	0.00	n/a	readings for air sampling sites 1-25.
	4	2	12:03	0.01	0.00	n/a	
	5	2	12:06	0.02	0.00	n/a	

	6	2	12:08	0.00	0.00	n/a	
	7	2	12:20	0.00	0.00	n/a	
	8	2	12:22	0.00	0.20	n/a	
	9	2	12:25	0.01	0.00	n/a	
	10	2	12:27	0.02	0.20	n/a	
	11	2	12:29	0.00	0.00	n/a	
	12	2	12:31	0.09	0.10	n/a	
	13	2	12:33	0.01	0.10	n/a	
	14	2	12:35	0.00	0.00	n/a	
	15	2	12:37	0.00	0.00	n/a	
	16	2	12:39	0.00	0.00	n/a	
	17	2	12:41	0.00	0.00	n/a	
	18	2	12:44	0.00	0.00	n/a	
	19	2	12:47	0.00	0.00	n/a	
	20	2	12:49	0.00	n/a	n/a	FID battery dead.
	21	2	12:51	0.00	n/a	n/a	FID battery dead.
	22	2	12:10	0.00	0.00	n/a	
	23	2	12:12	0.00	0.00	n/a	
	24	2	12:14	0.00	0.00	n/a	
	25	2	12:16	0.02	0.00	n/a	
3/8/99	1	3	2:45	0.00	0.60	n/a	Heavy equipment operating in covered pile cell,
	2	3	2:47	0.00	0.70	n/a	process cell, and treatment cell 1 while taking
	3	3	2:49	0.00	0.80	n/a	readings for air sampling sites 1-25.
	4	3	2:51	0.01	0.90	n/a	
	5	3	2:53	0.00	0.70	n/a	
	6	3	2:55	0.00	1.00	n/a	
	7	3	3:06	0.01	0.90	n/a	
	8	3	3:08	0.01	1.40	n/a	
	9	3	3:11	0.01	1.00	n/a	
	10	3	3:13	0.01	1.00	n/a	
	11	3	3:15	0.07	0.90	n/a	
	12	3	3:17	0.00	0.80	n/a	
	13	3	3:19	0.00	0.60	n/a	
	14	3	3:21	0.00	0.80	n/a	
	15	3	3:23	0.00	0.90	n/a	
	16	3	3:25	0.00	1.00	n/a	
	17	3	3:27	0.00	1.10	n/a	
	18	3	3:30	0.00	1.00	n/a	
	19	3	3:32	0.00	1.00	n/a	
	20	3	3:34	0.00	1.00	n/a	

	21	3	3:36	0.00	1.10	n/a	
	22	3	2:56	0.00	1.30	n/a	
	23	3	2:58	0.00	0.90	n/a	
	24	3	3:00	0.00	0.70	n/a	
	25	3	3:02	0.00	0.60	n/a	
3/9/99	13	backgrd	8:03	0.04	0.00	n/a	
	1	1	8:37	0.00	0.00	n/a	
	2	1	8:39	0.00	0.00	n/a	
	3	1	8:41	0.03	0.00	n/a	
	4	1	8:43	0.00	0.00	n/a	
	5	1	8:45	0.00	0.00	n/a	
	6	1	8:23	0.00	0.00	n/a	
	7	1	8:48	0.00	0.00	n/a	
	8	1	8:50	0.00	0.00	n/a	
	9	1	8:53	0.00	0.00	n/a	
	10	1	8:55	0.00	0.00	n/a	
	11	1	8:57	0.00	0.00	n/a	
	12	1	8:59	0.00	0.00	n/a	
	13	1	9:01	0.00	0.00	n/a	
	14	1	9:03	0.00	0.00	n/a	
	15	1	9:05	0.00	0.00	n/a	
	16	1	9:07	0.00	0.00	n/a	
	17	1	9:09	0.00	0.00	n/a	
	18	1	9:11	0.00	0.00	n/a	
	19	1	8:17	0.00	0.00	n/a	
	20	1	8:19	0.00	0.00	n/a	
	21	1	8:21	0.00	0.00	n/a	
	22	1	8:09	0.00	0.00	n/a	
	23	1	8:11	0.00	0.00	n/a	
	24	1	8:13	0.00	0.00	n/a	
	25	1	8:15	0.00	0.00	n/a	
3/9/99	1	2	10:42	0.01	0.00	n/a	Heavy equipment operating in covered pile cell,
	2	2	10:44	0.01	0.00	n/a	process cell, and treatment cell 1 while taking
	3	2	10:46	0.00	0.00	n/a	readings for air sampling sites 1-25.
	4	2	10:48	0.00	0.00	n/a	
	5	2	10:51	0.00	0.00	n/a	
	6	2	10:53	0.00	0.20	n/a	
	7	2	10:55	0.00	0.60	n/a	
	8	2	10:57	0.00	1.10	n/a	
	9	2	11:00	0.01	1.10	n/a	

	10	2	11:02	0.00	1.50	n/a	
	11	2	11:04	0.00	1.90	n/a	
	12	2	11:06	0.07	2.00	n/a	
	13	2	11:08	0.00	2.50	n/a	
	14	2	11:10	0.03	2.20	n/a	
	15	2	11:12	0.00	2.60	n/a	
	16	2	11:14	0.00	2.40	n/a	
	17	2	11:16	0.00	2.30	n/a	
	18	2	11:19	0.08	2.10	n/a	
	19	2	11:23	0.00	2.00	n/a	
	20	2	11:27	0.00	1.90	n/a	
	21	2	11:29	0.00	1.50	n/a	
	22	2	11:31	0.00	1.30	n/a	
	23	2	11:33	0.00	1.20	n/a	
	24	2	11:21	0.09	2.10	n/a	
	25	2	11:25	0.00	1.90	n/a	
3/9/99	1	3	1:49	0.00	0.00	n/a	Heavy equipment operating in covered pile cell,
	2	3	1:51	0.21	0.10	n/a	process cell, and treatment cell 1 while taking
	3	3	1:53	0.00	0.40	n/a	readings for air sampling sites 1-25.
	4	3	1:55	0.00	0.70	n/a	
	5	3	1:58	0.00	1.00	n/a	
	6	3	2:00	0.00	1.60	n/a	
	7	3	2:02	0.00	1.80	n/a	
	8	3	2:04	0.00	2.30	n/a	
	9	3	2:07	0.00	2.20	n/a	
	10	3	2:09	0.00	2.60	n/a	
	11	3	2:11	0.01	2.90	n/a	
	12	3	2:13	0.00	3.00	n/a	Train coming by on the west side.
	13	3	2:15	0.01	3.50	n/a	
	14	3	2:19	0.00	3.80	n/a	
	15	3	2:21	0.00	3.60	n/a	
	16	3	2:23	0.03	3.40	n/a	
	17	3	2:25	0.04	3.70	n/a	
	18	3	2:28	0.00	3.10	n/a	
	19	3	2:34	0.00	2.40	n/a	
	20	3	2:36	0.02	1.60	n/a	
	21	3	2:38	0.02	1.80	n/a	
	22	3	2:40	0.01	1.50	n/a	
	23	3	2:42	0.00	1.40	n/a	
	24	3	2:30	0.00	2.20	n/a	

	25	3	2:32	0.00	2.00	n/a	
3/9/99	1	4	3:52	0.00	0.00	n/a	
	2	4	3:54	0.01	0.00	n/a	
	3	4	3:56	0.00	0.00	n/a	
	4	4	3:58	0.00	0.20	n/a	
	5	4	4:01	0.00	0.30	n/a	
	6	4	4:03	0.11	0.80	n/a	
	7	4	4:05	0.00	0.80	n/a	
	8	4	4:07	0.00	1.00	n/a	
	9	4	4:10	0.00	0.90	n/a	
	10	4	4:12	0.09	1.00	n/a	
	11	4	4:14	0.01	1.10	n/a	
	12	4	4:16	0.03	1.10	n/a	
	13	4	4:18	0.01	1.40	n/a	
	14	4	4:20	0.01	1.30	n/a	
	15	4	4:22	0.05	1.00	n/a	
	16	4	4:24	0.02	0.80	n/a	
	17	4	4:26	0.00	0.70	n/a	
	18	4	4:29	0.04	0.20	n/a	
	19	4	4:31	0.00	0.00	n/a	
	20	4	4:37	0.00	0.10	n/a	
	21	4	4:39	0.01	0.10	n/a	
	22	4	4:41	0.00	0.20	n/a	
	23	4	4:43	0.00	0.50	n/a	
	24	4	4:33	0.10	0.10	n/a	
	25	4	4:35	0.00	0.10	n/a	
3/10/99	3	backgrd	9:02	0.07	n/a	n/a	No FID readings. Hydrogen flame will not ignite.
	1	1	9:05	0.00	n/a	n/a	Heavy equipment operating in covered pile cell,
	2	1	9:07	0.00	n/a	n/a	process cell, and treatment cell 1 while taking
	3	1	9:09	0.00	n/a	n/a	readings for air sampling sites 1-25.
	4	1	9:11	0.00	n/a	n/a	No FID readings. Hydrogen flame will not ignite.
	5	1	9:15	0.00	n/a	n/a	
	6	1	9:17	0.00	n/a	n/a	
	7	1	9:19	0.00	n/a	n/a	
	8	1	9:21	0.00	n/a	n/a	
	9	1	9:24	0.00	n/a	n/a	
	10	1	9:26	0.20	n/a	n/a	Front loader coming by.
	11	1	9:28	0.02	n/a	n/a	
	12	1	9:30	0.01	n/a	n/a	
	13	1	9:32	0.00	n/a	n/a	

	14	1	9:34	0.00	n/a	n/a	
	15	1	9:36	0.01	n/a	n/a	
	16	1	9:38	0.02	n/a	n/a	
	17	1	9:40	0.03	n/a	n/a	
	18	1	9:43	0.02	n/a	n/a	
	19	1	9:45	0.02	n/a	n/a	
	20	1	9:47	0.02	n/a	n/a	
	21	1	9:49	0.02	n/a	n/a	
	22	1	9:51	0.01	n/a	n/a	
	23	1	9:53	0.02	n/a	n/a	
	24	1	9:55	0.02	n/a	n/a	
	25	1	9:57	0.01	n/a	n/a	
3/10/99	1	2	12:58	0.01	n/a	n/a	Heavy equipment operating in covered pile cell,
	2	2	1:00	0.00	n/a	n/a	process cell, and treatment cell 1 while taking
	3	2	1:02	0.00	n/a	n/a	readings for air sampling sites 1-25.
	4	2	1:04	0.00	n/a	n/a	No FID readings. WSI is repairing.
	5	2	1:06	0.00	n/a	n/a	
	6	2	1:08	0.00	n/a	n/a	
	7	2	1:10	0.00	n/a	n/a	
	8	2	1:12	0.00	n/a	n/a	
	9	2	1:15	0.00	n/a	n/a	
	10	2	1:17	0.00	n/a	n/a	
	11	2	1:19	0.00	n/a	n/a	
	12	2	1:21	0.00	n/a	n/a	
	13	2	1:23	0.00	n/a	n/a	
	14	2	1:25	0.00	n/a	n/a	
	15	2	1:27	0.00	n/a	n/a	
	16	2	1:29	0.00	n/a	n/a	
	17	2	1:31	0.01	n/a	n/a	
	18	2	1:34	0.00	n/a	n/a	
	19	2	1:36	0.00	n/a	n/a	
	20	2	1:38	0.00	n/a	n/a	
	21	2	1:40	0.00	n/a	n/a	
	22	2	1:42	0.00	n/a	n/a	
	23	2	1:44	0.00	n/a	n/a	
	24	2	1:46	0.00	n/a	n/a	
	25	2	1:48	0.00	n/a	n/a	
3/10/99	1	3	3:37	0.01	n/a	0.00	
	2	3	3:39	0.00	n/a	0.00	
	3	3	3:41	0.00	n/a	0.00	

	4	3	3:43	0.00	n/a	0.00	
	5	3	3:46	0.01	n/a	0.00	
	6	3	3:48	0.01	n/a	0.00	
	7	3	3:50	0.00	n/a	0.00	
	8	3	3:52	0.00	n/a	0.00	
	9	3	3:55	0.00	n/a	0.00	
	10	3	3:57	0.01	n/a	0.00	
	11	3	3:59	0.01	n/a	0.00	
	12	3	4:01	0.00	n/a	0.00	
	13	3	4:03	0.00	n/a	0.00	
	14	3	4:05	0.00	n/a	0.00	
	15	3	4:07	0.00	n/a	0.00	
	16	3	4:09	0.03	n/a	0.00	
	17	3	4:11	0.01	n/a	0.00	
	18	3	4:14	0.00	n/a	0.00	
	19	3	4:18	0.00	n/a	0.00	
	20	3	4:22	0.02	n/a	0.00	
	21	3	4:24	0.00	n/a	0.00	
	22	3	4:26	0.00	n/a	0.00	
	23	3	4:28	0.00	n/a	0.00	
	24	3	4:16	0.00	n/a	0.00	
	25	3	4:20	0.01	n/a	0.00	
3/11/99	3	backgrd	7:46	0.08	n/a	0.00	
	1	1	7:49	0.02	n/a	0.00	
	2	1	7:52	0.00	n/a	0.00	
	3	1	7:54	0.00	n/a	0.00	
	4	1	7:56	0.00	n/a	0.00	
	5	1	7:59	0.01	n/a	0.00	
	6	1	8:01	0.00	n/a	0.00	
	7	1	8:03	0.00	n/a	0.00	
	8	1	8:05	0.00	n/a	0.00	
	9	1	8:08	0.00	n/a	0.00	
	10	1	8:10	0.00	n/a	0.00	
	11	1	8:12	0.00	n/a	0.00	
	12	1	8:14	0.00	n/a	0.00	
	13	1	8:16	0.00	n/a	0.00	
	14	1	8:18	0.04	n/a	0.00	Dozer working on north pile.
	15	1	8:21	0.00	n/a	0.00	
	16	1	8:23	0.00	n/a	0.00	
	17	1	8:25	0.00	n/a	0.00	

	18	1	8:28	0.00	n/a	0.00	
	19	1	8:30	0.00	n/a	0.00	
	20	1	8:32	0.00	n/a	0.00	
	21	1	8:34	0.00	n/a	0.00	
	22	1	8:36	0.00	n/a	0.00	
	23	1	8:38	0.00	n/a	0.00	
	24	1	8:40	0.00	n/a	0.00	
	25	1	8:42	0.00	n/a	0.00	
3/11/99	1	2	10:27	0.00	n/a	0.00	Heavy equipment operating in covered pile cell,
	2	2	10:29	0.00	n/a	0.00	process cell, and treatment cell 1 while taking
	3	2	10:31	0.00	n/a	0.00	readings for air sampling sites 1-25.
	4	2	10:33	0.00	n/a	0.00	
	5	2	10:36	0.00	n/a	0.00	
	6	2	10:38	0.00	n/a	0.00	
	7	2	10:40	0.00	n/a	0.00	
	8	2	10:42	0.00	n/a	0.00	
	9	2	10:45	0.00	n/a	0.00	
	10	2	10:47	0.00	n/a	0.00	
	11	2	10:49	0.00	n/a	0.00	
	12	2	10:51	0.00	n/a	0.00	
	13	2	10:53	0.00	n/a	0.00	
	14	2	10:55	0.00	n/a	0.00	
	15	2	10:57	0.00	n/a	0.00	
	16	2	10:59	0.00	n/a	0.00	
	17	2	11:02	0.00	n/a	0.30	Train coming by on the west side.
	18	2	11:05	0.00	n/a	0.00	
	19	2	11:07	0.00	n/a	0.00	
	20	2	11:09	0.00	n/a	0.00	
	21	2	11:11	0.00	n/a	0.00	
	22	2	11:13	0.00	n/a	0.00	
	23	2	11:15	0.00	n/a	0.00	
	24	2	11:17	0.00	n/a	0.00	
	25	2	11:19	0.00	n/a	0.00	
3/11/99	1	3	1:33	0.00	n/a	0.00	Heavy equipment operating in covered pile cell,
	2	3	1:35	0.00	n/a	0.00	process cell, and treatment cell 1 while taking
	3	3	1:37	0.00	n/a	0.00	readings for air sampling sites 1-25.
	4	3	1:39	0.00	n/a	0.00	
	5	3	1:42	0.00	n/a	0.00	
	6	3	1:44	0.00	n/a	0.00	
	7	3	1:47	0.00	n/a	0.00	

	8	3	1:49	0.00	n/a	0.00	
	9	3	1:52	0.00	n/a	0.00	
	10	3	1:54	0.00	n/a	0.00	
	11	3	1:56	0.00	n/a	0.00	
	12	3	1:58	0.00	n/a	0.00	
	13	3	2:00	0.00	n/a	0.00	
	14	3	2:02	0.00	n/a	0.00	
	15	3	2:04	0.00	n/a	0.00	
	16	3	2:06	0.19	n/a	0.00	Dozer passing by.
	17	3	2:08	0.03	n/a	0.00	
	18	3	2:11	0.00	n/a	0.00	
	19	3	2:13	0.00	n/a	0.00	
	20	3	2:15	0.00	n/a	0.00	
	21	3	2:17	0.00	n/a	0.00	
	22	3	2:19	0.00	n/a	0.00	
	23	3	2:21	0.00	n/a	0.00	
	24	3	2:23	0.00	n/a	0.00	
	25	3	2:25	0.00	n/a	0.00	
3/11/99	1	4	4:11	0.00	n/a	0.00	Heavy equipment operating in covered pile cell,
	2	4	4:13	0.00	n/a	0.00	process cell, and treatment cell 1 while taking
	3	4	4:15	0.00	n/a	0.00	readings for air sampling sites 1-25.
	4	4	4:17	0.00	n/a	0.00	
	5	4	4:20	0.00	n/a	0.00	
	6	4	4:22	0.00	n/a	0.00	
	7	4	4:24	0.00	n/a	0.00	
	8	4	4:26	0.00	n/a	0.00	
	9	4	4:29	0.00	n/a	0.00	
	10	4	4:31	0.00	n/a	0.00	
	11	4	4:33	0.00	n/a	0.00	
	12	4	4:35	0.00	n/a	0.00	
	13	4	4:37	0.00	n/a	0.00	
	14	4	4:39	0.00	n/a	0.00	
	15	4	4:41	0.00	n/a	0.00	
	16	4	4:43	0.00	n/a	0.00	
	17	4	4:45	0.00	n/a	0.30	
	18	4	4:48	0.02	n/a	0.00	Dump truck passing by.
	19	4	4:50	0.00	n/a	0.00	
	20	4	4:52	0.00	n/a	0.00	
	21	4	4:54	0.00	n/a	0.00	
	22	4	4:56	0.00	n/a	0.00	

	23	4	4:58	0.00	n/a	0.00	
	24	4	5:00	0.00	n/a	0.00	
	25	4	5:02	0.00	n/a	0.00	
3/12/99	4	backgrd	8:30	0.05	0.00	n/a	
	1	1	8:38	0.02	0.00	n/a	
	2	1	8:40	0.00	0.00	n/a	
	3	1	8:42	0.01	0.00	n/a	
	4	1	8:44	0.01	0.00	n/a	
	5	1	8:47	0.01	0.00	n/a	
	6	1	8:49	0.00	0.00	n/a	
	7	1	8:51	0.04	0.00	n/a	
	8	1	8:53	0.00	0.00	n/a	
	9	1	8:56	0.00	0.00	n/a	
	10	1	8:58	0.00	0.00	n/a	
	11	1	9:00	0.00	0.00	n/a	
	12	1	9:02	0.00	0.00	n/a	
	13	1	9:04	0.01	0.00	n/a	
	14	1	9:06	0.00	0.00	n/a	
	15	1	9:08	0.00	0.00	n/a	
	16	1	9:10	0.00	0.00	n/a	
	17	1	9:12	0.00	0.00	n/a	
	18	1	9:15	0.03	0.30	n/a	
	19	1	9:17	0.00	0.00	n/a	
	20	1	9:19	0.00	0.00	n/a	
	21	1	9:21	0.00	0.00	n/a	
	22	1	9:23	0.00	0.00	n/a	
	23	1	9:24	0.01	0.00	n/a	
	24	1	9:26	0.00	0.00	n/a	
	25	1	9:28	0.00	0.00	n/a	
3/12/99	1	2	11:45	0.10	n/a	n/a	Heavy equipment operating in covered pile cell,
	2	2	11:47	0.04	n/a	n/a	process cell, and treatment cell 1 while taking
	3	2	11:49	0.08	n/a	n/a	readings for air sampling sites 1-25.
	4	2	11:51	0.72	n/a	n/a	No FID readings. Hydrogen flame will not ignite.
	5	2	11:53	0.07	n/a	n/a	
	6	2	11:55	0.05	n/a	n/a	
	7	2	11:57	0.05	n/a	n/a	
	8	2	11:59	0.03	n/a	n/a	
	9	2	12:02	0.04	n/a	n/a	
	10	2	12:04	0.04	n/a	n/a	
	11	2	12:06	0.04	n/a	n/a	

	12	2	12:08	0.04	n/a	n/a	
	13	2	12:10	0.03	n/a	n/a	
	14	2	12:12	0.04	n/a	n/a	
	15	2	12:14	0.03	n/a	n/a	
	16	2	12:16	0.03	n/a	n/a	
	17	2	12:18	0.02	n/a	n/a	
	18	2	12:21	0.01	n/a	n/a	
	19	2	12:23	0.02	n/a	n/a	
	20	2	12:25	0.02	n/a	n/a	
	21	2	12:27	0.02	n/a	n/a	
	22	2	12:29	0.03	n/a	n/a	
	23	2	12:31	0.04	n/a	n/a	
	24	2	12:33	0.02	n/a	n/a	
	25	2	12:35	0.02	n/a	n/a	
3/12/99	1	3	3:53	0.00	n/a	0.00	Heavy equipment operating in covered pile cell,
	2	3	3:55	0.00	n/a	0.00	process cell, and treatment 1 cell while taking
	3	3	3:57	0.00	n/a	0.00	readings for air sampling sites 1-25.
	4	3	3:59	0.00	n/a	0.00	
	5	3	4:08	0.00	n/a	0.00	
	6	3	4:10	0.00	n/a	0.00	
	7	3	4:14	0.00	n/a	0.00	
	8	3	4:16	0.00	n/a	0.00	
	9	3	4:21	0.00	n/a	0.00	
	10	3	4:23	0.00	n/a	0.00	
	11	3	4:25	0.00	n/a	0.00	
	12	3	4:27	0.00	n/a	0.00	
	13	3	4:29	0.00	n/a	0.00	
	14	3	4:31	0.00	n/a	0.00	
	15	3	4:33	0.00	n/a	0.00	Train coming by on the west side.
	16	3	4:35	0.01	n/a	0.00	
	17	3	4:37	0.00	n/a	0.00	
	18	3	4:40	0.00	n/a	0.00	
	19	3	4:44	0.00	n/a	0.00	
	20	3	4:48	0.00	n/a	0.00	
	21	3	4:50	0.00	n/a	0.00	
	22	3	4:12	0.00	n/a	0.00	
	23	3	4:18	0.00	n/a	0.00	
	24	3	4:42	0.00	n/a	0.00	
	25	3	4:46	0.00	n/a	0.00	
3/15/99	13	backgrd	7:41	0.03	n/a	0.00	

	1	1	8:41	0.00	n/a	0.00	
	2	1	8:39	0.00	n/a	0.00	
	3	1	8:37	0.00	n/a	0.00	
	4	1	8:35	0.00	n/a	0.00	
	5	1	8:32	0.00	n/a	0.00	
	6	1	8:30	0.00	n/a	0.00	
	7	1	8:27	0.00	n/a	0.00	
	8	1	8:25	0.00	n/a	0.00	
	9	1	8:22	0.00	n/a	0.00	
	10	1	8:20	0.00	n/a	0.00	
	11	1	8:18	0.00	n/a	0.00	
	12	1	7:44	0.00	n/a	0.00	
	13	1	7:46	0.00	n/a	0.00	
	14	1	7:48	0.00	n/a	0.00	
	15	1	7:50	0.00	n/a	0.00	
	16	1	7:52	0.00	n/a	0.00	
	17	1	7:55	0.00	n/a	0.00	Train coming by on the west side.
	18	1	7:59	0.00	n/a	0.00	
	19	1	8:05	0.00	n/a	0.00	
	20	1	8:07	0.00	n/a	0.00	Train coming by on the west side.
	21	1	8:09	0.00	n/a	0.00	
	22	1	8:11	0.00	n/a	0.00	
	23	1	8:13	0.00	n/a	0.00	
	24	1	8:01	0.00	n/a	0.00	
	25	1	8:03	0.00	n/a	0.00	
3/15/99	1	2	10:22	0.00	n/a	0.00	Heavy equipment operating in covered pile cell,
	2	2	10:24	0.00	n/a	0.00	process cell, and treatment cell 1 while taking
	3	2	10:26	0.00	n/a	0.00	readings for air sampling sites 1-25.
	4	2	10:28	0.00	n/a	0.00	
	5	2	10:31	0.00	n/a	0.00	
	6	2	10:33	0.00	n/a	0.00	
	7	2	10:35	0.00	n/a	0.00	
	8	2	10:37	0.00	n/a	0.00	
	9	2	10:40	0.00	n/a	0.00	
	10	2	10:42	0.00	n/a	0.30	
	11	2	10:44	0.00	n/a	0.00	
	12	2	10:46	0.01	n/a	0.00	
	13	2	10:48	0.00	n/a	0.00	
	14	2	10:50	0.00	n/a	0.00	
	15	2	10:52	0.00	n/a	0.00	

	16	2	10:54	0.00	n/a	0.00	
	17	2	10:57	0.00	n/a	0.00	
	18	2	11:00	0.00	n/a	0.00	
	19	2	11:02	0.00	n/a	0.00	
	20	2	11:04	0.00	n/a	0.00	
	21	2	11:06	0.00	n/a	0.00	
	22	2	11:08	0.00	n/a	0.00	
	23	2	11:10	0.00	n/a	0.00	
	24	2	11:13	0.00	n/a	0.00	
	25	2	11:15	0.00	n/a	0.00	
3/15/99	1	3	2:13	0.00	n/a	0.00	Heavy equipment operating in covered pile cell,
	2	3	2:15	0.00	n/a	0.00	process cell, and treatment cell 1 while taking
	3	3	2:17	0.00	n/a	0.00	readings for air sampling sites 1-25.
	4	3	2:19	0.00	n/a	0.00	
	5	3	2:22	0.00	n/a	0.00	
	6	3	2:24	0.00	n/a	0.00	
	7	3	2:26	0.00	n/a	0.00	
	8	3	2:29	0.00	n/a	0.00	
	9	3	2:32	0.00	n/a	0.70	
	10	3	2:34	0.00	n/a	0.00	
	11	3	2:36	0.00	n/a	0.00	
	12	3	2:38	0.00	n/a	0.00	
	13	3	2:40	0.00	n/a	0.00	
	14	3	2:42	0.00	n/a	0.00	
	15	3	2:44	0.00	n/a	0.00	
	16	3	2:46	0.00	n/a	0.00	
	17	3	2:48	0.00	n/a	0.00	
	18	3	2:51	0.00	n/a	0.00	
	19	3	2:57	0.00	n/a	0.00	
	20	3	2:59	0.00	n/a	0.00	
	21	3	3:01	0.00	n/a	0.00	
	22	3	3:03	0.00	n/a	0.00	
	23	3	3:05	0.00	n/a	0.00	
	24	3	2:53	0.00	n/a	0.00	
	25	3	2:55	0.00	n/a	0.00	
3/15/99	1	4	5:01	0.00	n/a	0.00	Heavy equipment operating in covered pile cell,
	2	4	5:03	0.00	n/a	0.00	process cell, and treatment cell 1 while taking
	3	4	5:05	0.00	n/a	0.00	readings for air sampling sites 1-25.
	4	4	5:07	0.00	n/a	0.00	
	5	4	5:10	0.00	n/a	0.00	

	6	4	5:12	0.00	n/a	0.00	
	7	4	5:17	0.00	n/a	0.00	
	8	4	5:19	0.00	n/a	0.00	
	9	4	5:24	0.00	n/a	0.00	
	10	4	5:26	0.00	n/a	0.00	
	11	4	5:28	0.00	n/a	0.00	
	12	4	5:30	0.00	n/a	0.00	
	13	4	5:32	0.00	n/a	0.00	
	14	4	5:34	0.00	n/a	0.00	
	15	4	5:36	0.00	n/a	0.00	
	16	4	5:38	0.00	n/a	0.00	
	17	4	5:40	0.00	n/a	0.00	
	18	4	5:43	0.00	n/a	0.00	
	19	4	5:47	0.00	n/a	0.00	
	20	4	5:51	0.00	n/a	0.00	
	21	4	5:53	0.00	n/a	0.00	
	22	4	5:14	0.00	n/a	0.00	
	23	4	5:21	0.00	n/a	0.00	
	24	4	5:45	0.00	n/a	0.00	
	25	4	5:49	0.00	n/a	0.00	
3/16/99	4	backgrd	7:48	0.12	n/a	0.00	
	1	1	7:52	0.01	n/a	0.00	
	2	1	7:55	0.00	n/a	0.00	
	3	1	7:57	0.00	n/a	0.00	
	4	1	7:59	0.00	n/a	0.00	
	5	1	8:02	0.00	n/a	0.00	
	6	1	8:04	0.00	n/a	0.00	
	7	1	8:08	0.00	n/a	0.00	
	8	1	8:11	0.00	n/a	0.00	
	9	1	8:17	0.00	n/a	0.00	
	10	1	8:19	0.00	n/a	0.00	
	11	1	8:21	0.00	n/a	0.00	
	12	1	8:23	0.00	n/a	0.00	
	13	1	8:25	0.00	n/a	0.00	
	14	1	8:27	0.00	n/a	0.00	
	15	1	8:30	0.00	n/a	0.00	
	16	1	8:32	0.00	n/a	0.80	
	17	1	8:35	0.00	n/a	1.40	
	18	1	8:38	0.00	n/a	0.10	
	19	1	8:42	0.00	n/a	0.10	

	20	1	8:46	0.00	n/a	0.00	
	21	1	8:48	0.00	n/a	0.00	
	22	1	8:06	0.00	n/a	0.00	
	23	1	8:13	0.00	n/a	0.00	
	24	1	8:40	0.00	n/a	0.10	
	25	1	8:44	0.00	n/a	0.30	Heavy equipment operating in covered pile cell,
3/16/99	1	2	10:24	0.00	n/a	0.00	process cell, and treatment cell 1 while taking
	2	2	10:26	0.00	n/a	0.00	readings for air sampling sites 1-25.
	3	2	10:28	0.00	n/a	0.00	
	4	2	10:30	0.00	n/a	0.00	
	5	2	10:33	0.00	n/a	0.00	
	6	2	10:35	0.00	n/a	0.00	
	7	2	10:39	0.00	n/a	0.00	
	8	2	10:42	0.00	n/a	0.00	
	9	2	10:47	0.00	n/a	0.00	
	10	2	10:49	0.00	n/a	0.00	
	11	2	10:51	0.00	n/a	0.00	
	12	2	10:54	0.00	n/a	0.00	
	13	2	10:56	0.00	n/a	0.00	
	14	2	10:58	0.00	n/a	0.00	
	15	2	11:00	0.00	n/a	0.50	
	16	2	11:02	0.00	n/a	0.70	
	17	2	11:04	0.00	n/a	0.30	
	18	2	11:07	0.00	n/a	0.00	
	19	2	11:11	0.00	n/a	0.20	
	20	2	11:15	0.00	n/a	0.00	
	21	2	11:17	0.00	n/a	0.00	
	22	2	10:37	0.00	n/a	0.00	
	23	2	10:44	0.00	n/a	0.00	
	24	2	11:09	0.00	n/a	0.00	
	25	2	11:13	0.00	n/a	0.20	
3/16/99	1	3	12:49	0.00	n/a	0.00	Heavy equipment operating in covered pile cell,
	2	3	12:51	0.00	n/a	0.00	process cell, and treatment cell 1 while taking
	3	3	12:53	0.00	n/a	0.00	readings for air sampling sites 1-25.
	4	3	12:55	0.00	n/a	0.00	
	5	3	12:58	0.00	n/a	0.00	
	6	3	1:00	0.00	n/a	0.00	
	7	3	1:05	0.00	n/a	0.00	
	8	3	1:07	0.00	n/a	0.00	
	9	3	1:13	0.00	n/a	0.00	

	10	3	1:15	0.00	n/a	0.60	
	11	3	1:17	0.00	n/a	0.00	
	12	3	1:19	0.00	n/a	0.10	
	13	3	1:21	0.00	n/a	0.20	
	14	3	1:23	0.00	n/a	0.10	
	15	3	1:25	0.00	n/a	0.50	
	16	3	1:27	0.00	n/a	0.00	
	17	3	1:29	0.00	n/a	1.80	
	18	3	1:32	0.00	n/a	0.10	
	19	3	1:36	0.00	n/a	0.00	
	20	3	1:40	0.00	n/a	0.00	
	21	3	1:42	0.00	n/a	0.00	
	22	3	1:02	0.00	n/a	0.00	
	23	3	1:09	0.00	n/a	0.00	
	24	3	1:34	0.00	n/a	0.40	
	25	3	1:38	0.00	n/a	0.10	
3/16/99	1	4	3:55	0.00	n/a	0.00	Heavy equipment operating in covered pile cell,
	2	4	3:57	0.00	n/a	0.00	process cell, and treatment cell 1 while taking
	3	4	3:59	0.00	n/a	0.00	readings for air sampling sites 1-25.
	4	4	4:01	0.00	n/a	0.00	
	5	4	4:04	0.00	n/a	0.00	
	6	4	4:06	0.00	n/a	0.00	
	7	4	4:10	0.00	n/a	0.00	
	8	4	4:12	0.00	n/a	0.00	
	9	4	4:17	0.00	n/a	0.00	
	10	4	4:19	0.00	n/a	0.00	
	11	4	4:21	0.00	n/a	0.00	
	12	4	4:23	0.00	n/a	0.00	
	13	4	4:25	0.00	n/a	0.00	
	14	4	4:27	0.00	n/a	0.00	
	15	4	4:29	0.00	n/a	0.00	
	16	4	4:32	0.00	n/a	0.00	
	17	4	4:34	0.00	n/a	1.80	
	18	4	4:37	0.00	n/a	0.20	
	19	4	4:41	0.00	n/a	0.10	
	20	4	4:45	0.00	n/a	0.00	
	21	4	4:47	0.00	n/a	0.00	
	22	4	4:08	0.00	n/a	0.00	
	23	4	4:14	0.00	n/a	0.00	
	24	4	4:39	0.00	n/a	0.00	

	25	4	4:43	0.00	n/a	0.00	
3/17/99	4	backgrd	7:22	0.04	n/a	0.00	
	1	1	7:26	0.00	n/a	0.00	
	2	1	7:28	0.00	n/a	0.00	
	3	1	7:30	0.00	n/a	0.00	
	4	1	7:32	0.00	n/a	0.00	
	5	1	7:35	0.00	n/a	0.00	
	6	1	7:37	0.00	n/a	0.00	
	7	1	7:42	0.00	n/a	0.00	
	8	1	7:44	0.00	n/a	0.00	
	9	1	7:49	0.00	n/a	0.00	
	10	1	7:51	0.00	n/a	0.00	
	11	1	7:53	0.00	n/a	0.00	
	12	1	7:55	0.00	n/a	0.00	
	13	1	7:57	0.00	n/a	0.00	
	14	1	7:59	0.00	n/a	0.00	
	15	1	8:02	0.01	n/a	0.00	
	16	1	8:04	0.00	n/a	0.00	
	17	1	8:07	0.00	n/a	0.40	
	18	1	8:10	0.00	n/a	0.00	
	19	1	8:14	0.00	n/a	0.00	
	20	1	8:18	0.00	n/a	0.00	
	21	1	8:20	0.00	n/a	0.00	
	22	1	7:39	0.00	n/a	0.00	
	23	1	7:46	0.00	n/a	0.00	
	24	1	8:12	0.00	n/a	0.00	
	25	1	8:16	0.00	n/a	0.00	
3/17/99	1	2	9:52	0.00	n/a	0.00	Heavy equipment operating in covered pile cell,
	2	2	9:54	0.00	n/a	0.00	process cell, and treatment cell 1 while taking
	3	2	9:56	0.00	n/a	0.00	readings for air sampling sites 1-25.
	4	2	9:58	0.00	n/a	0.00	
	5	2	10:01	0.00	n/a	0.00	
	6	2	10:03	0.00	n/a	0.00	
	7	2	10:07	0.00	n/a	0.00	
	8	2	10:10	0.00	n/a	0.00	
	9	2	10:15	0.00	n/a	0.00	
	10	2	10:17	0.00	n/a	0.00	
	11	2	10:19	0.00	n/a	0.00	
	12	2	10:21	0.00	n/a	0.00	
	13	2	10:23	0.00	n/a	0.00	

	14	2	10:25	0.00	n/a	0.00	
	15	2	10:27	0.00	n/a	0.20	
	16	2	10:30	0.00	n/a	0.00	
	17	2	10:32	0.10	n/a	0.00	
	18	2	10:35	0.15	n/a	0.00	
	19	2	10:39	0.00	n/a	0.00	
	20	2	10:43	0.00	n/a	0.00	
	21	2	10:45	0.00	n/a	0.00	
	22	2	10:05	0.00	n/a	0.00	
	23	2	10:12	0.00	n/a	0.00	
	24	2	10:37	0.10	n/a	0.00	
	25	2	10:41	0.00	n/a	0.00	
3/17/99	1	3	12:52	0.00	n/a	0.00	Heavy equipment operating in covered pile cell
	2	3	12:54	0.00	n/a	0.00	and process cell while taking readings for air
	3	3	12:56	0.00	n/a	0.00	sampling sites 1-25.
	4	3	12:58	0.00	n/a	0.00	
	5	3	1:01	0.00	n/a	0.00	
	6	3	1:03	0.00	n/a	0.00	
	7	3	1:10	0.00	n/a	0.00	
	8	3	1:12	0.00	n/a	0.00	
	9	3	1:17	0.00	n/a	0.00	
	10	3	1:19	0.00	n/a	0.00	
	11	3	1:21	0.00	n/a	0.00	
	12	3	1:24	0.00	n/a	0.00	
	13	3	1:26	0.00	n/a	0.00	
	14	3	1:28	0.00	n/a	0.00	
	15	3	1:31	0.00	n/a	0.20	
	16	3	1:33	0.00	n/a	0.50	
	17	3	1:35	0.02	n/a	0.60	
	18	3	1:38	0.00	n/a	0.00	
	19	3	1:42	0.00	n/a	0.00	
	20	3	1:46	0.00	n/a	0.00	
	21	3	1:48	0.00	n/a	0.00	
	22	3	1:05	0.00	n/a	0.00	
	23	3	1:14	0.00	n/a	0.00	
	24	3	1:40	0.00	n/a	0.00	
	25	3	1:44	0.00	n/a	0.00	
3/17/99	1	4	3:17	0.00	n/a	0.00	Heavy equipment operating in covered pile cell
	2	4	3:19	0.00	n/a	0.00	and process cell while taking readings for air
	3	4	3:21	0.00	n/a	0.00	sampling sites 1-25.

	4	4	3:23	0.00	n/a	0.00	
	5	4	3:26	0.00	n/a	0.00	
	6	4	3:28	0.00	n/a	0.00	
	7	4	3:33	0.00	n/a	0.00	
	8	4	3:35	0.00	n/a	0.00	
	9	4	3:40	0.00	n/a	0.00	
	10	4	3:42	0.00	n/a	0.00	
	11	4	3:44	0.00	n/a	0.00	
	12	4	3:48	0.00	n/a	0.00	
	13	4	3:50	0.00	n/a	0.00	
	14	4	3:52	0.00	n/a	0.00	
	15	4	3:54	0.00	n/a	0.00	
	16	4	3:56	0.00	n/a	0.00	
	17	4	3:58	0.01	n/a	0.20	
	18	4	4:01	0.00	n/a	0.00	
	19	4	4:05	0.01	n/a	0.00	
	20	4	4:09	0.00	n/a	0.00	
	21	4	4:11	0.00	n/a	0.00	
	22	4	3:30	0.00	n/a	0.00	
	23	4	3:37	0.00	n/a	0.00	
	24	4	4:03	0.00	n/a	0.00	
	25	4	4:07	0.00	n/a	0.00	
3/18/99	4	backgrd	7:36	0.05	n/a	0.00	
	1	1	7:42	0.00	n/a	0.00	
	2	1	7:44	0.00	n/a	0.00	
	3	1	7:54	0.00	n/a	0.00	
	4	1	7:56	0.00	n/a	0.00	
	5	1	7:59	0.00	n/a	0.00	
	6	1	8:01	0.00	n/a	0.00	
	7	1	8:06	0.00	n/a	0.00	
	8	1	8:08	0.00	n/a	0.00	
	9	1	8:14	0.00	n/a	0.00	
	10	1	8:16	0.00	n/a	0.00	
	11	1	8:18	0.00	n/a	0.00	
	12	1	8:21	0.00	n/a	0.00	
	13	1	8:23	0.00	n/a	0.00	
	14	1	8:26	0.00	n/a	0.00	
	15	1	8:28	0.00	n/a	0.00	
	16	1	8:30	0.00	n/a	0.00	
	17	1	8:33	0.00	n/a	0.00	

	18	1	8:36	0.00	n/a	0.00	
	19	1	8:40	0.01	n/a	0.00	
	20	1	8:45	0.00	n/a	0.00	
	21	1	8:47	0.00	n/a	0.00	
	22	1	8:03	0.00	n/a	0.00	
	23	1	8:10	0.00	n/a	0.00	
	24	1	8:38	0.00	n/a	0.00	
	25	1	8:42	0.00	n/a	0.20	
3/18/99	1	2	10:27	0.00	n/a	0.00	Heavy equipment operating in covered pile cell,
	2	2	10:30	0.00	n/a	0.00	process cell, and treatment cell 1 while taking
	3	2	10:32	0.00	n/a	0.00	readings for air sampling sites 1-25.
	4	2	10:34	0.00	n/a	0.00	
	5	2	10:37	0.00	n/a	0.00	
	6	2	10:39	0.00	n/a	0.00	
	7	2	10:44	0.00	n/a	0.00	
	8	2	10:46	0.00	n/a	0.00	
	9	2	10:51	0.00	n/a	0.00	
	10	2	10:53	0.00	n/a	0.00	
	11	2	10:55	0.00	n/a	0.00	
	12	2	10:58	0.00	n/a	0.00	
	13	2	11:00	0.00	n/a	0.00	
	14	2	11:02	0.00	n/a	0.00	
	15	2	11:04	0.00	n/a	0.00	
	16	2	11:07	0.00	n/a	0.00	
	17	2	11:09	0.00	n/a	0.50	
	18	2	11:12	0.01	n/a	0.60	
	19	2	11:16	0.01	n/a	0.20	
	20	2	11:20	0.00	n/a	0.00	
	21	2	11:22	0.00	n/a	0.00	
	22	2	10:41	0.00	n/a	0.00	
	23	2	10:48	0.00	n/a	0.00	
	24	2	11:14	0.00	n/a	0.90	
	25	2	11:18	0.00	n/a	0.10	
3/18/99	1	3	12:58	0.00	n/a	0.00	Heavy equipment operating in covered pile cell and
	2	3	1:00	0.00	n/a	0.00	process cell while taking readings for air sampling
	3	3	1:02	0.00	n/a	0.00	sites 1-25.
	4	3	1:04	0.00	n/a	0.00	
	5	3	1:07	0.00	n/a	0.00	
	6	3	1:09	0.00	n/a	0.00	
	7	3	1:14	0.00	n/a	0.00	

	8	3	1:17	0.00	n/a	0.00	
	9	3	1:22	0.00	n/a	0.00	
	10	3	1:24	0.00	n/a	0.00	
	11	3	1:26	0.00	n/a	0.00	
	12	3	1:29	0.00	n/a	0.00	
	13	3	1:31	0.00	n/a	0.00	
	14	3	1:34	0.00	n/a	0.00	
	15	3	1:36	0.00	n/a	0.00	
	16	3	1:38	0.00	n/a	0.00	
	17	3	1:41	0.00	n/a	0.30	
	18	3	1:44	0.00	n/a	0.80	
	19	3	1:48	0.10	n/a	0.30	
	20	3	1:52	0.00	n/a	0.00	
	21	3	1:55	0.00	n/a	0.00	
	22	3	1:11	0.00	n/a	0.00	
	23	3	1:19	0.00	n/a	0.50	
	24	3	1:46	0.00	n/a	1.10	
	25	3	1:50	0.00	n/a	0.10	
3/18/99	1	4	3:24	0.00	n/a	0.00	Heavy equipment operating in covered pile cell,
	2	4	3:26	0.00	n/a	0.00	process cell, and treatment cell 1 while taking
	3	4	3:28	0.00	n/a	0.00	readings for air sampling sites 1-25.
	4	4	3:30	0.00	n/a	0.00	
	5	4	3:33	0.00	n/a	0.00	
	6	4	3:35	0.00	n/a	0.00	
	7	4	3:39	0.00	n/a	0.00	
	8	4	3:42	0.00	n/a	0.00	
	9	4	3:47	0.00	n/a	0.00	
	10	4	3:49	0.00	n/a	0.00	
	11	4	3:51	0.00	n/a	0.00	
	12	4	3:53	0.00	n/a	0.00	
	13	4	3:55	0.00	n/a	0.00	
	14	4	3:57	0.00	n/a	0.00	
	15	4	3:59	0.00	n/a	0.00	
	16	4	4:01	0.00	n/a	0.00	
	17	4	4:03	0.00	n/a	0.00	
	18	4	4:06	0.00	n/a	0.40	
	19	4	4:10	0.02	n/a	0.30	
	20	4	4:14	0.00	n/a	0.00	
	21	4	4:16	0.00	n/a	0.00	
	22	4	3:37	0.00	n/a	0.00	

	23	4	3:44	0.00	n/a	0.00	
	24	4	4:08	0.00	n/a	0.90	
	25	4	4:12	0.00	n/a	0.30	
3/22/99	3	backgrd	7:46	0.20	n/a	0.00	
	1	1	7:50	0.00	n/a	0.00	
	2	1	7:52	0.00	n/a	0.00	
	3	1	7:54	0.00	n/a	0.00	
	4	1	7:56	0.00	n/a	0.00	Train coming by on the east side.
	5	1	7:59	0.00	n/a	0.00	
	6	1	8:01	0.00	n/a	0.00	
	7	1	8:10	0.00	n/a	0.00	
	8	1	8:12	0.00	n/a	0.00	
	9	1	8:17	0.00	n/a	0.00	
	10	1	8:19	0.00	n/a	0.00	
	11	1	8:21	0.00	n/a	0.00	
	12	1	8:24	0.00	n/a	0.00	
	13	1	8:26	0.00	n/a	0.00	
	14	1	8:28	0.00	n/a	0.00	
	15	1	8:30	0.00	n/a	0.00	
	16	1	8:32	0.00	n/a	0.00	
	17	1	8:34	0.00	n/a	0.20	
	18	1	8:37	0.00	n/a	0.20	
	19	1	8:42	0.00	n/a	0.10	
	20	1	8:46	0.00	n/a	0.00	
	21	1	8:48	0.00	n/a	0.00	
	22	1	8:03	0.00	n/a	0.00	
	23	1	8:14	0.00	n/a	0.00	
	24	1	8:39	0.00	n/a	0.30	
	25	1	8:41	0.00	n/a	0.10	
3/22/99	1	2	12:38	0.00	n/a	0.00	Heavy equipment operating in covered pile cell and
	2	2	12:40	0.00	n/a	0.00	process cell while taking readings for air sampling
	3	2	12:42	0.00	n/a	0.00	sites 1-25.
	4	2	12:44	0.00	n/a	0.00	
	5	2	12:47	0.00	n/a	0.00	
	6	2	12:49	0.00	n/a	0.00	
	7	2	12:54	0.00	n/a	0.00	
	8	2	12:56	0.00	n/a	0.00	
	9	2	1:01	0.00	n/a	0.00	
	10	2	1:03	0.00	n/a	0.00	
	11	2	1:05	0.00	n/a	0.00	

	12	2	1:07	0.00	n/a	0.00	
	13	2	1:09	0.00	n/a	0.00	
	14	2	1:11	0.00	n/a	0.00	
	15	2	1:13	0.00	n/a	0.00	
	16	2	1:15	0.00	n/a	0.00	
	17	2	1:18	0.00	n/a	0.00	
	18	2	1:21	0.00	n/a	0.20	
	19	2	1:25	0.00	n/a	0.20	
	20	2	1:29	0.00	n/a	0.10	
	21	2	1:31	0.00	n/a	0.00	
	22	2	12:51	0.00	n/a	0.00	
	23	2	12:58	0.00	n/a	0.40	
	24	2	1:23	0.00	n/a	0.40	
	25	2	1:27	0.00	n/a	0.10	
3/22/99	1	3	3:36	0.00	n/a	0.00	Heavy equipment operating in covered pile cell and
	2	3	3:38	0.00	n/a	0.00	process cell while taking readings for air sampling
	3	3	3:40	0.00	n/a	0.00	sites 1-25.
	4	3	3:42	0.00	n/a	0.00	
	5	3	3:45	0.00	n/a	0.00	
	6	3	3:47	0.00	n/a	0.00	
	7	3	3:52	0.00	n/a	0.00	
	8	3	3:55	0.00	n/a	0.00	
	9	3	4:00	0.00	n/a	0.00	
	10	3	4:02	0.00	n/a	0.00	
	11	3	4:04	0.00	n/a	0.00	
	12	3	4:06	0.00	n/a	0.00	
	13	3	4:08	0.00	n/a	0.00	
	14	3	4:10	0.00	n/a	0.00	
	15	3	4:12	0.00	n/a	0.00	
	16	3	4:14	0.00	n/a	0.00	
	17	3	4:17	0.00	n/a	0.10	
	18	3	4:20	0.00	n/a	0.00	
	19	3	4:24	0.00	n/a	0.00	
	20	3	4:28	0.00	n/a	0.00	
	21	3	4:30	0.00	n/a	0.00	
	22	3	3:49	0.00	n/a	0.00	
	23	3	3:57	0.00	n/a	0.30	
	24	3	4:22	0.00	n/a	0.00	
	25	3	4:26	0.00	n/a	0.00	
3/23/99	4	backgrd	9:10	0.04	n/a	0.00	

	1	1	9:15	0.00	n/a	0.00	Heavy equipment operating in covered pile cell,
	2	1	9:17	0.00	n/a	0.00	process cell, and treatment cell 1 while taking
	3	1	9:19	0.00	n/a	0.00	readings for air sampling sites 1-25.
	4	1	9:21	0.00	n/a	0.00	
	5	1	9:24	0.00	n/a	0.00	
	6	1	9:26	0.00	n/a	0.00	
	7	1	9:31	0.00	n/a	0.00	
	8	1	9:33	0.00	n/a	0.10	
	9	1	9:39	0.00	n/a	0.20	
	10	1	9:41	0.00	n/a	0.30	
	11	1	9:43	0.00	n/a	0.30	
	12	1	9:46	0.00	n/a	0.30	
	13	1	9:48	0.00	n/a	0.20	
	14	1	9:50	0.00	n/a	0.20	
	15	1	9:52	0.00	n/a	0.20	
	16	1	9:55	0.00	n/a	0.60	
	17	1	9:57	0.00	n/a	0.50	
	18	1	10:00	0.00	n/a	0.70	
	19	1	10:04	0.00	n/a	0.50	
	20	1	10:08	0.00	n/a	0.40	
	21	1	10:10	0.00	n/a	0.40	
	22	1	9:28	0.00	n/a	0.00	
	23	1	9:35	0.00	n/a	2.30	
	24	1	10:02	0.00	n/a	1.10	
	25	1	10:06	0.00	n/a	0.60	
3/23/99	1	2	12:42	0.00	n/a	0.00	Heavy equipment operating in covered pile cell and
	2	2	12:45	0.00	n/a	0.00	process cell while taking readings for air sampling
	3	2	12:47	0.00	n/a	0.00	sites 1-25.
	4	2	12:49	0.00	n/a	0.00	
	5	2	12:52	0.00	n/a	0.00	
	6	2	12:54	0.00	n/a	0.00	
	7	2	12:59	0.00	n/a	0.00	
	8	2	1:01	0.00	n/a	0.00	
	9	2	1:06	0.00	n/a	0.00	
	10	2	1:08	0.00	n/a	0.00	
	11	2	1:13	0.00	n/a	0.00	
	12	2	1:15	0.00	n/a	0.00	
	13	2	1:17	0.00	n/a	0.00	
	14	2	1:19	0.00	n/a	0.00	
	15	2	1:21	0.00	n/a	0.00	

	16	2	1:23	0.00	n/a	0.00	Train coming by on the west side.
	17	2	1:26	0.00	n/a	0.40	
	18	2	1:29	0.00	n/a	0.20	
	19	2	1:33	0.00	n/a	0.00	
	20	2	1:38	0.00	n/a	0.00	
	21	2	1:40	0.00	n/a	0.00	
	22	2	12:56	0.00	n/a	0.00	
	23	2	1:03	0.00	n/a	0.80	
	24	2	1:31	0.00	n/a	0.30	
	25	2	1:36	0.00	n/a	0.00	
3/23/99	1	3	3:31	0.00	n/a	0.00	Heavy equipment operating in process cell while
	2	3	3:33	0.00	n/a	0.00	taking readings for air sampling sites 1-25.
	3	3	3:35	0.00	n/a	0.00	
	4	3	3:37	0.00	n/a	0.00	
	5	3	3:40	0.00	n/a	0.00	
	6	3	3:42	0.00	n/a	0.00	
	7	3	3:46	0.00	n/a	0.00	
	8	3	3:48	0.00	n/a	0.00	
	9	3	3:53	0.00	n/a	0.00	
	10	3	3:55	0.00	n/a	0.00	
	11	3	3:57	0.00	n/a	0.00	
	12	3	3:59	0.00	n/a	0.00	
	13	3	4:01	0.00	n/a	0.00	
	14	3	4:03	0.00	n/a	0.00	
	15	3	4:05	0.00	n/a	0.00	
	16	3	4:07	0.00	n/a	0.00	
	17	3	4:10	0.00	n/a	0.00	
	18	3	4:13	0.00	n/a	0.00	
	19	3	4:17	0.00	n/a	0.00	
	20	3	4:21	0.00	n/a	0.00	
	21	3	4:23	0.00	n/a	0.00	
	22	3	3:44	0.00	n/a	0.00	
	23	3	3:50	0.00	n/a	0.00	
	24	3	4:15	0.00	n/a	0.50	
	25	3	4:19	0.00	n/a	0.00	
3/24/99	3	backgrd	7:59	0.06	n/a	0.00	
	1	1	8:03	0.00	n/a	0.00	
	2	1	8:05	0.00	n/a	0.00	
	3	1	8:08	0.00	n/a	0.00	
	4	1	8:10	0.00	n/a	0.00	

	5	1	8:13	0.00	n/a	0.00	
	6	1	8:15	0.00	n/a	0.00	
	7	1	8:20	0.00	n/a	0.00	
	8	1	8:22	0.00	n/a	0.00	
	9	1	8:27	0.00	n/a	0.00	
	10	1	8:29	0.00	n/a	0.00	
	11	1	8:31	0.00	n/a	0.00	
	12	1	8:33	0.00	n/a	0.00	
	13	1	8:35	0.00	n/a	0.00	
	14	1	8:37	0.00	n/a	0.00	
	15	1	8:39	0.00	n/a	0.00	
	16	1	8:41	0.00	n/a	0.00	
	17	1	8:43	0.00	n/a	0.00	
	18	1	8:46	0.00	n/a	0.00	
	19	1	8:50	0.00	n/a	0.00	
	20	1	8:54	0.00	n/a	0.00	
	21	1	8:56	0.00	n/a	0.00	
	22	1	8:17	0.00	n/a	0.00	
	23	1	8:24	0.00	n/a	0.00	
	24	1	8:48	0.00	n/a	0.00	
	25	1	8:52	0.00	n/a	0.00	
3/24/99	1	2	10:29	0.00	n/a	0.00	Heavy equipment operating in treatment cell 1
	2	2	10:32	0.00	n/a	0.00	while taking readings for air sampling sites 1-25.
	3	2	10:34	0.00	n/a	0.00	
	4	2	10:36	0.00	n/a	0.00	
	5	2	10:39	0.00	n/a	0.00	
	6	2	10:41	0.00	n/a	0.00	
	7	2	10:45	0.00	n/a	0.00	
	8	2	10:47	0.00	n/a	0.00	
	9	2	10:52	0.00	n/a	0.00	
	10	2	10:54	0.00	n/a	0.00	
	11	2	10:56	0.00	n/a	0.00	
	12	2	10:58	0.00	n/a	0.00	
	13	2	11:00	0.00	n/a	0.00	
	14	2	11:02	0.00	n/a	0.00	
	15	2	11:04	0.00	n/a	0.00	
	16	2	11:06	0.00	n/a	0.00	
	17	2	11:08	0.00	n/a	0.00	
	18	2	11:11	0.00	n/a	0.60	
	19	2	11:15	0.00	n/a	0.10	

	20	2	11:19	0.00	n/a	0.00	
	21	2	11:21	0.00	n/a	0.00	
	22	2	10:43	0.00	n/a	0.00	
	23	2	10:49	0.00	n/a	0.30	
	24	2	11:13	0.00	n/a	0.20	
	25	2	11:17	0.00	n/a	0.00	
3/24/99	1	3	1:29	0.00	n/a	0.00	Heavy equipment operating in process cell and
	2	3	1:31	0.00	n/a	0.00	treatment cell 1 while taking readings for air
	3	3	1:33	0.00	n/a	0.00	sampling sites 1-25.
	4	3	1:35	0.00	n/a	0.00	
	5	3	1:38	0.00	n/a	0.00	
	6	3	1:40	0.00	n/a	0.00	
	7	3	1:44	0.00	n/a	0.00	
	8	3	1:46	0.00	n/a	0.00	
	9	3	1:49	0.00	n/a	0.00	
	10	3	1:51	0.00	n/a	0.00	
	11	3	1:53	0.00	n/a	0.00	
	12	3	1:55	0.00	n/a	0.00	
	13	3	1:58	0.00	n/a	0.00	
	14	3	2:00	0.00	n/a	0.00	
	15	3	2:02	0.00	n/a	0.00	
	16	3	2:04	0.00	n/a	0.00	
	17	3	2:07	0.00	n/a	0.20	
	18	3	2:10	0.00	n/a	0.00	
	19	3	2:15	0.00	n/a	0.00	
	20	3	2:19	0.00	n/a	0.00	
	21	3	2:21	0.00	n/a	0.00	
	22	3	1:42	0.00	n/a	0.00	
	23	3	2:24	0.00	n/a	0.00	
	24	3	2:12	0.00	n/a	0.00	
	25	3	2:17	0.00	n/a	0.00	
3/24/99	1	4	4:11	0.00	n/a	0.00	Heavy equipment operating in process cell and
	2	4	4:14	0.00	n/a	0.00	treatment cell 1 while taking readings for air
	3	4	4:16	0.00	n/a	0.00	sampling sites 1-25.
	4	4	4:18	0.00	n/a	0.00	
	5	4	4:21	0.00	n/a	0.00	
	6	4	4:23	0.00	n/a	0.00	
	7	4	4:27	0.00	n/a	0.00	
	8	4	4:29	0.00	n/a	0.00	
	9	4	4:34	0.00	n/a	0.00	

	10	4	4:36	0.00	n/a	0.00	
	11	4	4:38	0.00	n/a	0.00	
	12	4	4:40	0.00	n/a	0.00	
	13	4	4:42	0.00	n/a	0.00	
	14	4	4:44	0.00	n/a	0.00	
	15	4	4:46	0.00	n/a	0.00	
	16	4	4:48	0.00	n/a	0.00	
	17	4	4:51	0.00	n/a	0.20	
	18	4	4:54	0.00	n/a	0.00	
	19	4	4:58	0.00	n/a	0.00	
	20	4	5:02	0.00	n/a	0.00	
	21	4	5:04	0.00	n/a	0.00	
	22	4	4:25	0.00	n/a	0.00	
	23	4	4:31	0.00	n/a	0.40	
	24	4	4:56	0.00	n/a	0.80	
	25	4	5:00	0.00	n/a	0.00	
3/25/99	13	backgrd	8:12	0.07	n/a	0.00	
	1	1	8:24	0.00	n/a	0.00	
	2	1	8:26	0.00	n/a	0.00	
	3	1	8:28	0.00	n/a	0.00	
	4	1	8:30	0.00	n/a	0.00	
	5	1	8:33	0.00	n/a	0.00	
	6	1	8:35	0.00	n/a	0.10	
	7	1	8:40	0.00	n/a	0.00	
	8	1	8:42	0.00	n/a	0.10	
	9	1	8:47	0.00	n/a	0.10	
	10	1	8:49	0.00	n/a	0.10	
	11	1	8:51	0.00	n/a	0.00	
	12	1	8:53	0.00	n/a	0.00	
	13	1	8:55	0.00	n/a	0.00	
	14	1	8:57	0.00	n/a	0.00	
	15	1	8:59	0.00	n/a	0.00	
	16	1	9:01	0.00	n/a	0.00	
	17	1	9:03	0.00	n/a	0.00	
	18	1	9:06	0.00	n/a	0.00	
	19	1	9:10	0.00	n/a	0.00	
	20	1	9:14	0.00	n/a	0.00	
	21	1	9:16	0.00	n/a	0.00	
	22	1	8:37	0.00	n/a	0.10	
	23	1	8:44	0.00	n/a	0.20	

	24	1	9:08	0.00	n/a	0.50	
	25	1	9:12	0.00	n/a	0.00	
3/25/99	1	2	11:00	0.00	n/a	0.00	Heavy equipment operating in process cell and
	2	2	11:02	0.00	n/a	0.00	treatment cell 1 while taking readings for air
	3	2	11:04	0.00	n/a	0.00	sampling sites 1-25.
	4	2	11:06	0.00	n/a	0.00	
	5	2	11:09	0.00	n/a	0.00	
	6	2	11:11	0.00	n/a	0.30	
	7	2	11:15	0.00	n/a	0.00	
	8	2	11:17	0.00	n/a	0.00	
	9	2	11:24	0.00	n/a	0.00	
	10	2	11:26	0.00	n/a	0.00	
	11	2	11:28	0.00	n/a	0.00	
	12	2	11:30	0.00	n/a	0.00	
	13	2	11:32	0.00	n/a	0.00	
	14	2	11:34	0.00	n/a	0.00	
	15	2	11:36	0.00	n/a	0.00	
	16	2	11:38	0.00	n/a	0.00	
	17	2	11:40	0.00	n/a	0.00	
	18	2	11:43	0.00	n/a	0.10	
	19	2	11:47	0.00	n/a	0.00	
	20	2	11:51	0.00	n/a	0.00	
	21	2	11:53	0.00	n/a	0.00	
	22	2	11:13	0.00	n/a	0.20	
	23	2	11:19	0.00	n/a	0.00	
	24	2	11:45	0.00	n/a	0.00	
	25	2	11:49	0.00	n/a	0.00	
3/25/99	1	3	2:29	0.00	n/a	0.00	Heavy equipment operating in process cell and
	2	3	2:31	0.00	n/a	0.00	treatment cell 1 while taking readings for air
	3	3	2:33	0.00	n/a	0.00	sampling sites 1-25.
	4	3	2:35	0.00	n/a	0.00	
	5	3	2:38	0.00	n/a	0.00	
	6	3	2:40	0.00	n/a	0.00	
	7	3	2:44	0.00	n/a	0.00	
	8	3	2:46	0.00	n/a	0.00	
	9	3	2:51	0.00	n/a	0.00	
	10	3	2:53	0.00	n/a	0.00	
	11	3	2:55	0.00	n/a	0.00	
	12	3	2:57	0.00	n/a	0.00	
	13	3	2:59	0.00	n/a	0.00	

	14	3	3:01	0.00	n/a	0.00	
	15	3	3:03	0.00	n/a	0.00	
	16	3	3:05	0.00	n/a	0.00	
	17	3	3:08	0.00	n/a	0.10	
	18	3	3:11	0.00	n/a	0.10	
	19	3	3:15	0.00	n/a	0.00	
	20	3	3:19	0.00	n/a	0.00	
	21	3	3:21	0.00	n/a	0.00	
	22	3	2:42	0.00	n/a	0.00	
	23	3	2:48	0.00	n/a	0.30	
	24	3	3:13	0.00	n/a	0.50	
	25	3	3:17	0.00	n/a	0.00	
3/25/99	1	4	4:54	0.00	n/a	0.00	Heavy equipment operating in process cell while
	2	4	4:56	0.00	n/a	0.00	taking readings for air sampling sites 1-25.
	3	4	4:58	0.00	n/a	0.00	
	4	4	5:00	0.00	n/a	0.00	
	5	4	5:03	0.00	n/a	0.00	
	6	4	5:05	0.00	n/a	0.00	
	7	4	5:10	0.00	n/a	0.00	
	8	4	5:12	0.00	n/a	0.00	
	9	4	5:17	0.00	n/a	0.00	
	10	4	5:19	0.00	n/a	0.00	
	11	4	5:21	0.00	n/a	0.00	
	12	4	5:24	0.00	n/a	0.00	
	13	4	5:26	0.00	n/a	0.00	
	14	4	5:28	0.00	n/a	0.00	
	15	4	5:30	0.00	n/a	0.00	
	16	4	5:32	0.00	n/a	0.00	
	17	4	5:35	0.00	n/a	0.20	
	18	4	5:38	0.00	n/a	0.60	
	19	4	5:42	0.00	n/a	0.00	
	20	4	5:46	0.00	n/a	0.00	
	21	4	5:48	0.00	n/a	0.00	
	22	4	5:07	0.00	n/a	0.00	
	23	4	5:14	0.00	n/a	0.80	
	24	4	5:40	0.00	n/a	0.40	
	25	4	5:44	0.00	n/a	0.00	

DATE	The date the air sample was collected.
SAMPLE #	The sample point number of the air sample, as identified by a geographical landmark at the facility.
ROUND #	The frequency by individual day at which the sample point locations were utilized for air sampling.
TIME	The time by indidual day at which the air sample point was collected
PARTICULATE	Also referred to as Total Particulate results collected utilizing a Particulate Meter.
TOTAL HYDROCARBONS[2]	Also referred to as Total Hydrocarbons results collected utilizing a Flame Ionization Detector.
TOTAL HYDROCARBONS[3]	Also referred to as Total Hydrocarbons results collected utilizing a Photo Ionization Detector.
COMMENT(s)	Any additional commentary or special notes regarding the sample collected

NOTE[1]: Particulate(s) results were collected utilizing a Dust-Track Portable Dust Meter. Accuracy +/- 1%.

NOTE[2]: Total Hydrocarbon(s) results were collected utilizing a Photovac MicroFID Flame Ionization Detector. Accuracy +/- 1%.

NOTE[3]: Total Hydrocarbon(s) results were collected utilizing a Rae MiniRae Photo Ionization Detector. Accuracy +/- 1%.

Rae MiniRae
Serial #102618
Model # PGM-761S
10.6eV Lamp
WSI #102618

EAGLE CONSTRUCTION & ENVIRONMENTAL SERVICES, INC.

P.O. Box 872
9701 I-20 East
Eastland, Texas 76448
PHONE (254)629-1718
FAX (254)629-8625
e-mail: ecesi@eastland.net

July 15, 1999

Ms. Robin Cosgrove
IT Corporation
2525 Ridge Point Drive,
Suite 300
Austin, Texas 78754

Dear Ms. Cosgrove:

Please accept this as Notice of Final Completion of the Closure Phase pursuant to Section 01700 of the contract documents. If you have any questions please call me at (254) 629-1718.

Very truly yours,

Marc Walraven
Vice President

nd15\itcorp.mw

EAGLE
CONSTRUCTION
& ENVIRONMENTAL
SERVICES, INC.

P.O. Box 872
9701 I-20 East
Eastland, Texas 76448
PHONE (254)629-1718
FAX (254)629-8625
e-mail: ecesi@eastland.net

August 5, 1999

Ms. Robin Cosgrove
IT Corporation
2525 Ridge Point Drive,
Suite 300
Austin, Texas 78754

Dear Ms. Cosgrove:

Please accept this as Notice of Final Completion of the Closure Phase pursuant to Section 01700 of the contract documents. If you have any questions please call me at (254) 629-1718.

Very truly yours,

Marc Walraven
Vice President

nd15\itcorp.mw

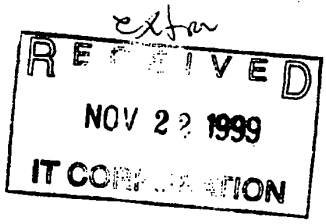
Appendix "D"

DOCUMENT TRANSMITTAL

RE: North Cavalcade Submittals

Date: November 18, 1999

TO: Robin Cosgrove
IT Corporation
2525 Ridge Point Drive
Suite 300
Austin, Texas 78754



SUBMITTAL NO.: 01050-1B

PROJECT PHASE: [ ] CONSTRUCTION [ ] TREATMENT [X] CLOSURE

SUBMITTAL DESCRIPTION: Survey Records

[X] FIRST SUBMITTAL
[ ] RESUBMITTAL

[ ] FOR APPROVAL
[X] FOR YOUR FILES

REMARKS:

EAGLE CONSTRUCTION

NAME: Marc W. Walraven

(Signature)

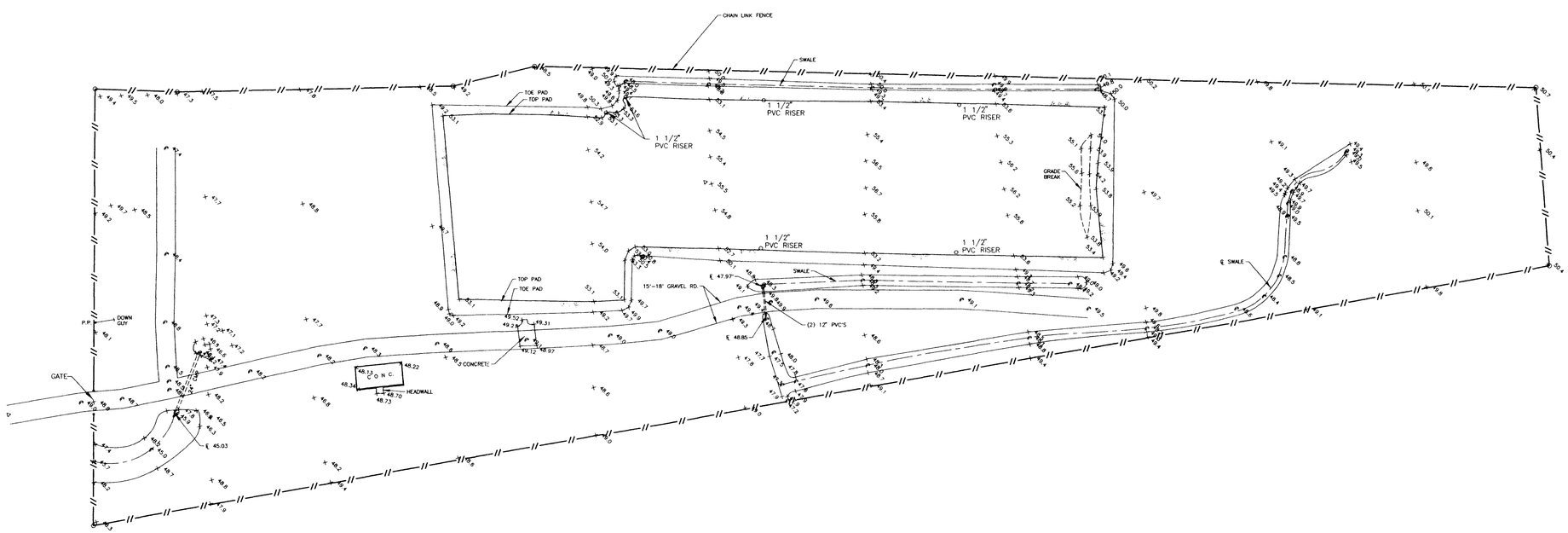
ENGINEER'S RESPONSE

APPROVED	[ ]
APPROVED AS CORRECTED	[ ]
REVISE AND RESUBMIT	[ ]
NOT APPROVED	[ ]

Approval is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be conformed and correlated at the job site; for information that pertains solely to the fabrication processes or to techniques of construction; and for coordination of the work of all trades.

Date: It Corporation
By:

Remarks:



DRAWING SHOWING THE TOPOGRAPHY AT THE NORTH CAVALCADE STREET SUPERFUND SITE HOUSTON, HARRIS COUNTY, TEXAS

AUGUST 13, 1999

BENCHMARK:
NGS MONUMENT Z 1149 (1959): DISK IN THE TOP OT THE WEST END SOUTH CONCRETE ABUTMENT OF S.H. 610 UNDERPASS, 5' WEST OF RAIL. ELEV. 56.767 (1987 ADJ)

DATUM ADJUSTMENTS:
ADD 0.986 TO SHOWN ELEVATIONS TO ADJUST TO 1978 ADJ. DATUM
ADD 1.785 TO SHOWN ELEVATIONS TO ADJUST TO 1973 ADJ. DATUM

DRAWN BY: RGH	APPROVED BY:	REVISIONS
DATE: 8-3-99	PROJ. NO. 99072	
DWG. NO.: 99072	DWG. 99072.DWG	

11-15-99
STATE OF TEXAS REGISTERED 4607 SURVEYOR

Prepared by
Land Surveying, Inc.
4301 Center Street
Deer Park, Texas 77536 USA
Phone: (281) 930-0201
Fax: (281) 930-8110

RECEIVED
NOV 22 1999
IT CORPORATION

Z:\DWG\99072\99072.DWG Mon Nov 15 13:32:34 1999 RGH

1050-1B
019020

DOCUMENT TRANSMITTAL

RE: North Cavalcade Submittals Date: September 27, 1999

TO: Robin Cosgrove
IT Corporation
2525 Ridge Point Drive
Suite 300
Austin, Texas 78754

SUBMITTAL NO.: 1065-1A

PROJECT PHASE: [ ] CONSTRUCTION [ ] TREATMENT [X] CLOSURE

SUBMITTAL DESCRIPTION: Addendum - Health & Safety Report

[X] FIRST SUBMITTAL
[ ] RESUBMITTAL

[ ] FOR APPROVAL
[X] FOR YOUR FILES

REMARKS:

EAGLE CONSTRUCTION

NAME: Marc W. Walraven

(Signature)

ENGINEER'S RESPONSE

APPROVED	[ ]
APPROVED AS CORRECTED	[ ]
REVISE AND RESUBMIT	[ ]
NOT APPROVED	[ ]

Approval is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be conformed and correlated at the job site; for information that pertains solely to the fabrication processes or to techniques of construction; and for coordination of the work of all trades.

Date: It Corporation
By:

Remarks:

ADDENDUM TO SUBMITTAL 1065-1
HEALTH & SAFETY REPORT

Procedure for Equipment Decontamination

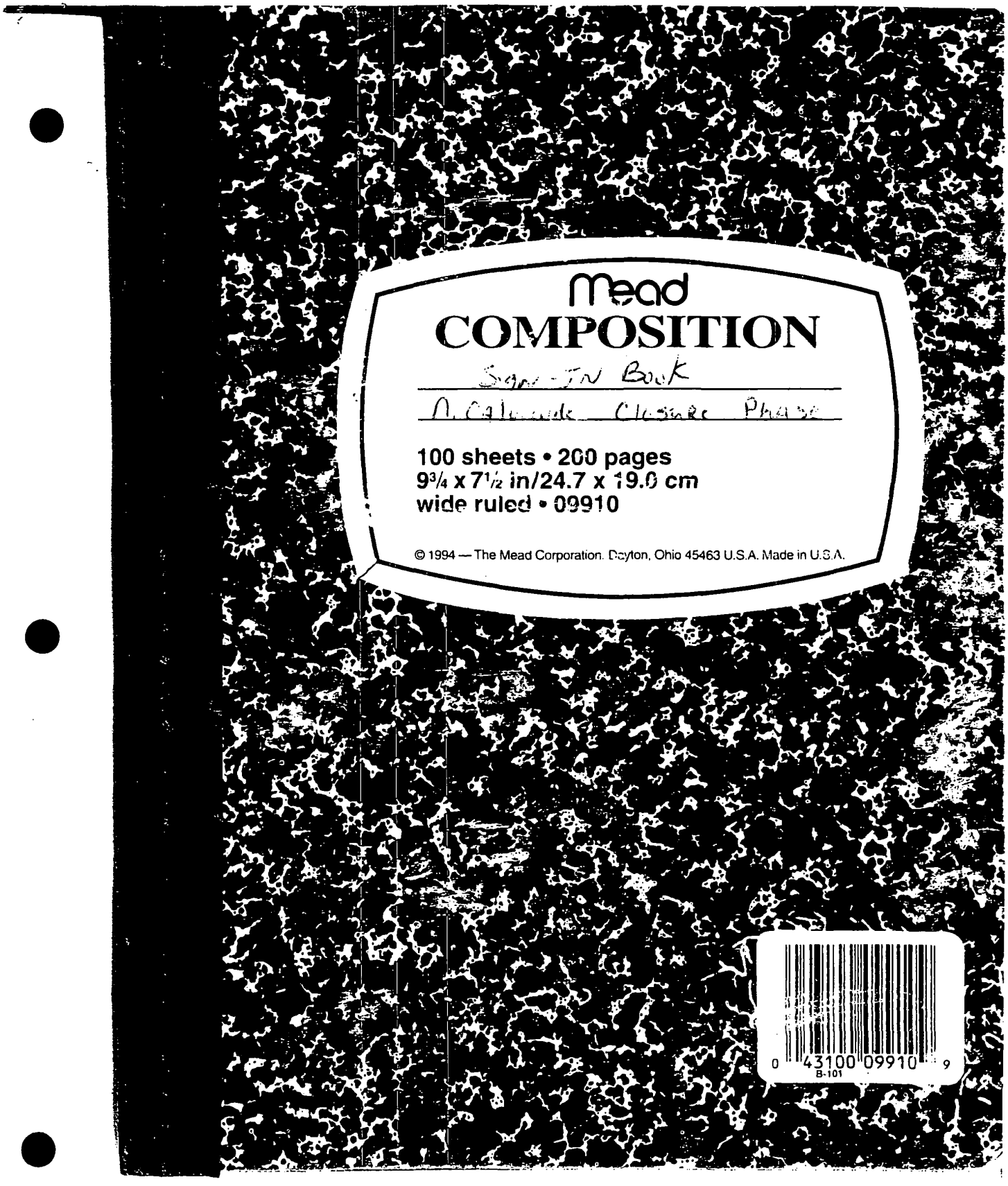
All equipment was decontaminated in accordance with the procedure that was established in the Construction and Treatment Phases of the project.

Equipment was first placed on the decontamination pad. Crews donned modified Level D PPE and performed gross decontamination with hand tools, including shovels, brooms, etc. A 3000 psi heated pressure washer was used to remove final contaminants and triple rinse. A non-phosphorous surfactant was applied with the pressure washer to aid in decontamination.

The site supervisor then made a final visual inspection to certify decontamination of each piece of equipment.

Sign In/Out Log

A copy of the project sign in/out log is attached.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COMPOSITION
100 sheets • 200 pages
9¾ x 7½ in/24.7 x 19.0 cm
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0 43100 09910 9
B-101

3-1-99

	NAME	SSN	Signature	
	DON JOSEY	433-46-9844	Don Josey	IT. Cont.
	Percy Dekon	434-56-1738	Percy Dekon	
	Lee Romero	104-46-3685	LRomero	Nations Rent
	LAVid moore	246-02-1570	David moore	
	LARRY R. HOWARD	462-77-9955	L R. H	
	BILL HAGEMAN	441-76-8352	B Hageman	

3-2-99

BILL HAGEMAN	442-76-8382	B Hageman	
LARRY R HOWARD	462-77-9955	L. H	
Troy J. Boodell	459-67-6300		
DON JOSEY	433-46-9844	I.T. Cont.	
Pilo de Leon	591-07-5748	Porfirio de L	

3-3-99

07:00	LARRY HOWARD	462-77-9955	L R H
08:00	John A Manuel	435-45-3908	John A Manuel
09:15	DICKIE Mc Whirter	440-68-9650	Dickie Mc Whirter

[redacted]

[redacted]

3-3-99 CONT.

8:45	Don Josey I.T. Corp-	433-46-5[illegible]	
2 56	Porfirio de Leon	591-07-5748	
47	Percy Dalton	434-56-1738	
5:00	[illegible]	486-62-8476	

3-4-99

[redacted]	LARRY HOWARD	462-78-9955	
:00	John A Manuel	435-45-3908	
7:00	Edward C. Jones	450-79-8058	
7:00	Jimmy Mitchell	460-82-2292	
7:00	Roy Milsaps	464-11-1863	
00	Pilo de Leon	591-07-5748	
:35	Rob D Schuach	512-892-8051	Robin Schumacher
7:35	LEL MEDFORD	512/239-2440	TNRCC
0:30	Glenn Celorier	214 665 8523	EPA
:20	D. Josey	433-46-5[illegible]	I.T. Corp
7:01	Jason Walters	638-12-5470	
[redacted] 3-5-99	Jason Walters	638-12-5470	

3-9

3-12

019025

3-5-99

Pilo de L

DON JOSEY - 433-76-5866 Don Josey

TJ CANN - HPO

3/8/99

3/8/99

Joe Palmer 3/8/99 439/69/1151 Joe Palmer

~~DON JOSEY - 433-76-5866 -~~ Don Josey

3/8/99

3/9/99

Dwight LaVan 455-48-0152

Dwight LaVan

3-9-99

Pilo de Leon 591-07-5748

3-12-99 DON JOSEY 433-76-5866

[redacted]

3/10/99

Don Jason 433-46-5864

Michael Brown 467-82-1817

Ken Gregory 464-47-4319

Rodney Lowe 460-19-4072

Jason Walters 638.12-5470

Joe Palmer 439-69-1151 Joe Palmer

[redacted] 440-68-4650

[redacted] 591.24 5748

Don Jason 433-46-5864

Don Jason 433-46-5864

MARC WARRAIN
254-629-1718

3/11/99

Reggie Adams 465-21-5362

[redacted] 462-30-6343 LEL MEEKER

[redacted] 467-25-9723 MIKE ROBERTSON

3-15-99 DON JOSEY 433-66-9866

3-16-99 DON JOSEY 433-46-9866

3-17-99 D. JOSEY 433-46-9866

3-18-99 D. JOSEY 433-46-9866

3-18-99 D McWhirter 440-68-4650 - D. McWhirter

3-29-99 Don Josey II 433-66-9866

WEEKLY PROGRESS MEETING MINUTES
SOILS OPERABLE UNIT
NORTH CAVALCADE SUPERFUND SITE
IT PROJECT NO. 448373

01200-2-1
SUBMITTAL NO. ~~1200-1~~, MARCH 4, 1999
MARCH 16, 1999

Prepared for:

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
Austin, Texas

Prepared by:

EAGLE CONSTRUCTION AND ENVIRONMENTAL SERVICES, INC.
P. O. Box 872
Eastland, Texas 76448

APPROVAL

NORTH CAVALCADE STREET SUPERFUND SITE
CLOSURE PHASE KICKOFF MEETING MINUTES

MARCH 04, 1999

PARTICIPANTS

In Attendance	By Telephone
Marc Walraven, Eagle	None
Reggie Grimes, Eagle	
Bill Hegaman, Eagle	
Lel Medford, TNRCC	
Robin Schumacher, IT	
Glen Celerier, EPA	

AGENDA

1) **Delivery of the Meeting Minutes and Tape to the Engineer by 03/18/99.**

2) **Review of completed work in progress:**

- Raze building.
- Remove trailers and sheds.
- Removal of soil, sacrificial layer, leachate collection layer, and geomembrane from open cell.

As of: March 04, 1999

Closure Phase Start Date:	March 1, 1999
Elapsed Closure Calender Days:	3
Delay or Add-On Days:	0
Remaining Calender Days:	87

3) **Review of schedule and ongoing work:**

- Removal of soil, sacrificial layer, leachate collection layer and geomembrane from soil stockpile. Soil processing cell to remain until end.
- Compaction of soil and liner preparation
- Air monitoring by hand units will surface for remainder of project.
- Submittal preparation.

4) **Planned progress for next month:**

- Submittal Preparation.
- Air Monitoring.
- Cap Cell.
- Remove all equipment and materials from site.
- Grade site.
- Final site survey.
- Disconnect remaining utilities.
- Final walk-thru.

5) Pending changes/modifications:

- None

6) Action Items:

Contractor Items

- Next meeting - Date and time: Wednesday, March 11, 1999 at 11:00 a.m.

Engineer Items

- Review of submittals - ongoing.

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WEEKLY PROGRESS MEETING MINUTES
SOILS OPERABLE UNIT
NORTH CAVALCADE SUPERFUND SITE
IT PROJECT NO. 448373

01200-22

Copy

SUBMITTAL NO. ~~1200~~-1, MARCH 11, 1999
MARCH 16, 1999

Prepared for:

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
Austin, Texas

Prepared by:

EAGLE CONSTRUCTION AND ENVIRONMENTAL SERVICES, INC.
P. O. Box 872
Eastland, Texas 76448

APPROVAL

NORTH CAVALCADE STREET SUPERFUND SITE
CLOSURE PHASE WEEKLY MEETING MINUTES

MARCH 11, 1999

PARTICIPANTS

In Attendance	By Telephone
Reggie Grimes, Eagle Lel Medford, TNRCC	None

AGENDA

1) Delivery of the Meeting Minutes and Tape to the Engineer by 03/25/99.

2) Review of completed work in progress:

- Raze building - Decontamination on March 15 and March 16.
- Remove trailers and sheds - Decontamination of Trailer and Removal, March 15 and March 16.
- Removal of soil and geomembrane from soil stockpile - Three-fourths finished. Furnish pad locks for gates at closure and give TNRCC keys (Master Lock).

As of:	March 11, 1996
Closure Phase Start Date:	March 1, 1999
Elapsed Closure Calender Days:	10
Delay or Add-On Days:	0
Remaining Calender Days:	80

3) Review of schedule and ongoing work:

- Removal of soil, sacrificial layer, leachate collection layer and geomembrane from soil processing cell.
- Compaction of soil and liner preparation
- Air monitoring.
- Submittal preparation.

4) Planned progress for next month:

- Submittal Preparation.
- Air Monitoring.
- Cap Cell.
- Remove all equipment and materials from site.
- Grade site.
- Final site survey.
- Disconnect remaining utilities.
- Final walk-thru.

5) Pending changes/modifications:

- None

6) Action Items:

Contractor Items

- Next meeting - Date and time: March 25, 1999 at 10:00 a.m.

Engineer Items

- Review of submittals - ongoing.

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WEEKLY PROGRESS MEETING MINUTES
SOILS OPERABLE UNIT
NORTH CAVALCADE SUPERFUND SITE
IT PROJECT NO. 448373

SUBMITTAL NO. 1200-1-03, MARCH 25, 1999
APRIL 7, 1999

Prepared for:

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
Austin, Texas

Prepared by:

EAGLE CONSTRUCTION AND ENVIRONMENTAL SERVICES, INC.
P. O. Box 872
Eastland, Texas 76448

APPROVAL

NORTH CAVALCADE STREET SUPERFUND SITE
CLOSURE PHASE WEEKLY MEETING MINUTES

MARCH 25, 1999

PARTICIPANTS

In Attendance	By Telephone
Reggie Grimes, Eagle John Manuel, Eagle Lel Medford, TNRCC Robin Schumacher, IT Don Josey, IT	None

MINUTES

1) **Delivery of the Meeting Minutes and Tape to the Engineer by 04/08/99.**

2) **Review of completed work in progress:**

- Remove trailers and sheds.
- Cell prepared for liner.
- Begin excavating anchor trench.

As of:	March 25, 1996
Closure Phase Start Date:	March 1, 1999
Elapsed Closure Calender Days:	24
Delay or Add-On Days:	0
Remaining Calender Days:	66

3) **Review of schedule and ongoing work:**

- Complete anchor trench.
- Begin liner installation.
- Air monitoring.
- Submittal preparation.

4) **Planned progress for next month:**

- Submittal Preparation.
- Air Monitoring.
- Cap Cell.
- Remove all equipment and materials from site.
- Grade site.
- Final site survey.
- Disconnect remaining utilities.
- Final walk-thru.

5) Pending changes/modifications:

- Request for Change Order #11 - Emcon, Inc.
- Request for Change Order #10 - Additional Liner Material
- Proposal to Cover Cell

6) Action Items:

Contractor Items

- Next meeting - Date and time: Thursday, April 1, 1999 @ 10:00 a.m.

Engineer Items

- Review of submittals - ongoing.

TNRCC Items

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WEEKLY PROGRESS MEETING MINUTES
SOILS OPERABLE UNIT
NORTH CAVALCADE SUPERFUND SITE
IT PROJECT NO. 448373

Extra Copy

SUBMITTAL NO. 1200-2-04, APRIL 1, 1999
APRIL 7, 1999

Prepared for:

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
Austin, Texas

Prepared by:

EAGLE CONSTRUCTION AND ENVIRONMENTAL SERVICES, INC.
P. O. Box 872
Eastland, Texas 76448

APPROVAL

NORTH CAVALCADE STREET SUPERFUND SITE
CLOSURE PHASE WEEKLY MEETING MINUTES

APRIL 1, 1999

PARTICIPANTS

In Attendance	By Telephone
Reggie Grimes, Eagle	None
Marc Walraven, Eagle	
John Manuel, Eagle	
Lel Medford, TNRCC	
Robin Schumacher, IT	
Don Josey, IT	

MINUTES

1) **Delivery of the Meeting Minutes and Tape to the Engineer by 04/15/99.**

2) **Review of completed work in progress:**

- Repair silt fence.
- Dig anchor trenches.
- Grade site.

As of:	April 1, 1999
Closure Phase Start Date:	March 1, 1999
Elapsed Closure Calender Days:	31
Delay or Add-On Days:	0
Remaining Calender Days:	59

3) **Review of schedule and ongoing work:**

- Remove building.
- Install liner.
- Air monitoring.
- Submittal preparation.

4) **Planned progress for next month:**

- *Submittal Preparation.*
- Air Monitoring.
- Remove all equipment and materials from site.
- Final site survey.
- Disconnect remaining utilities.
- Final walk-thru.

5) Pending changes/modifications:

- Request for Change Order #11 - Emcon, Inc.
- Request for Change Order #10 - Additional Liner Material
- Proposal to Cover Cell

6) Action Items:

Contractor Items

- Next meeting - Date and time: Thursday, April 8, 1999 at 10:00 a.m.

Engineer Items

- Review of submittals - ongoing.

TNRCC Items

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DOCUMENT TRANSMITTAL

RE: North Cavalcade Submittals

Date: July 8, 1999

TO: Robin Cosgrove
IT Corporation
2525 Ridge Point Drive
Suite 300
Austin, Texas 78754

Copy
RECEIVED
JUL 16 1999
IT CORPORATION

SUBMITTAL NO.: 01200-1-08 JULY 99 v-5

PROJECT PHASE: [ ] CONSTRUCTION [ ] TREATMENT [X] CLOSURE

SUBMITTAL DESCRIPTION: Weekly Progress Meeting Minutes/Summary

[X] FIRST SUBMITTAL
[ ] RESUBMITTAL

[ ] FOR APPROVAL
[X] FOR YOUR FILES

REMARKS:

EAGLE CONSTRUCTION

NAME: Marc W. Walraven

(Signature)

ENGINEER'S RESPONSE

APPROVED	[ ]
APPROVED AS CORRECTED	[ ]
REVISE AND RESUBMIT	[ ]
NOT APPROVED	[ ]

Approval is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be conformed and correlated at the job site; for information that pertains solely to the fabrication processes or to techniques of construction; and for coordination of the work of all trades.

Date: It Corporation
By:

Remarks:

WEEKLY PROGRESS MEETING MINUTES
SOILS OPERABLE UNIT
NORTH CAVALCADE SUPERFUND SITE
IT PROJECT NO. 448373

SUBMITTAL NO. 1200-1, JULY 8, 1999
JULY 13, 1999

Prepared for:

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
Austin, Texas

Prepared by:

EAGLE CONSTRUCTION AND ENVIRONMENTAL SERVICES, INC.
P. O. Box 872
Eastland, Texas 76448

APPROVAL

NORTH CAVALCADE STREET SUPERFUND SITE
CLOSURE PHASE MEETING MINUTES

JULY 8, 1999

PARTICIPANTS

In Attendance	By Telephone
Marc Walraven, Eagle	None
John Manuel, Eagle	
Lel Medford, TNRCC	
Robin Cosgrove, IT	
Ray Anderson, IT	

MINUTES

1) **Delivery of the Meeting Minutes and Tape to the Engineer by 07/22/99.**

2) **Review of completed work in progress:**

- Prepare cell for liner.
- *Begin installation of liner and backfill of anchor trench.*

As of:	July 8, 1999
Closure Phase Start Date:	March 1, 1999
Elapsed Closure Calender Days:	129
Delay or Add-On Days:	30
Remaining Calender Days:	23

3) **Review of schedule and ongoing work:**

- Completion of liner installation.
- Final site grade.
- Remove office trailer from site.
- Submittal preparation.
- Final demobilization.

4) **Planned progress for next month:**

N/A

5) **Pending changes/modifications:**

- None

6) Action Items:

Contractor Items

- Next meeting - Date and time: Thursday, July 15, 1999 - 10:00 a.m. (Final Inspection)

Engineer Items

- Review of submittals - ongoing.

TNRCC Items

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FOR THE FOLLOWING SUBMITTALS

SEE INITIAL COMBINED SUBMITTAL FILED IN SEPARATE FILE FOLDER AS CLOSURE PHASE SUBMITTAL 00000000

01420-2	**Chemical Quality Control Issues**
01540-2	Daily Security Log
01560-1	Air Contaminant Release Report
01564-1	Spill Notification
01564-2	Spill Release Incident Report
01650-1	Audit Results
01650-2	Air Monitoring Data
01700-2	Closure Phase Final Completion Notice
01720-1	Closure Phase Record Documents
02900-1	Completion Certification

FOR THE FOLLOWING SUBMITTALS

SEE INITIAL COMBINED SUBMITTAL FILED IN SEPARATE FILE FOLDER AS CLOSURE PHASE SUBMITTAL 00000000

01420-2	Chemical Quality Control Issues
01540-2	**Daily Security Log**
01560-1	Air Contaminant Release Report
01564-1	Spill Notification
01564-2	Spill Release Incident Report
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01720-1	Closure Phase Record Documents
02900-1	Completion Certification

FOR THE FOLLOWING SUBMITTALS

SEE INITIAL COMBINED SUBMITTAL FILED IN SEPARATE FILE FOLDER AS CLOSURE PHASE SUBMITTAL 00000000

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01650-2	Air Monitoring Data
01700-2	Closure Phase Final Completion Notice
01720-1	Closure Phase Record Documents
02900-1	Completion Certification

FOR THE FOLLOWING SUBMITTALS

SEE INITIAL COMBINED SUBMITTAL FILED IN SEPARATE FILE FOLDER AS CLOSURE PHASE SUBMITTAL 00000000

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01564-1	**Spill Notification**
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01650-1	Audit Results
01650-2	Air Monitoring Data
01700-2	Closure Phase Final Completion Notice
01720-1	Closure Phase Record Documents
02900-1	Completion Certification

FOR THE FOLLOWING SUBMITTALS

SEE INITIAL COMBINED SUBMITTAL FILED IN SEPARATE FILE FOLDER AS CLOSURE PHASE SUBMITTAL 00000000

01420-2	Chemical Quality Control Issues
01540-2	Daily Security Log
01560-1	Air Contaminant Release Report
01564-1	Spill Notification
01564-2	**Spill Release Incident Report**
01650-1	Audit Results
01650-2	Air Monitoring Data
01700-2	Closure Phase Final Completion Notice
01720-1	Closure Phase Record Documents
02900-1	Completion Certification

FOR THE FOLLOWING SUBMITTALS

SEE INITIAL COMBINED SUBMITTAL FILED IN SEPARATE FILE FOLDER AS CLOSURE PHASE SUBMITTAL 00000000

01420-2	Chemical Quality Control Issues
01540-2	Daily Security Log
01560-1	Air Contaminant Release Report
01564-1	Spill Notification
01564-2	Spill Release Incident Report
01650-1	**Audit Results**
01650-2	Air Monitoring Data
01700-2	Closure Phase Final Completion Notice
01720-1	Closure Phase Record Documents
02900-1	Completion Certification

FOR THE FOLLOWING SUBMITTALS

SEE INITIAL COMBINED SUBMITTAL FILED IN SEPARATE FILE FOLDER AS CLOSURE PHASE SUBMITTAL 00000000

01420-2	Chemical Quality Control Issues
01540-2	Daily Security Log
01560-1	Air Contaminant Release Report
01564-1	Spill Notification
01564-2	Spill Release Incident Report
01650-1	Audit Results
01650-2	**Air Monitoring Data**
01700-2	Closure Phase Final Completion Notice
01720-1	Closure Phase Record Documents
02900-1	Completion Certification

DOCUMENT TRANSMITTAL

RE: North Cavalcade Submittals Date: September 27, 1999

TO: Robin Cosgrove
IT Corporation
2525 Ridge Point Drive
Suite 300
Austin, Texas 78754

SUBMITTAL NO.: 01700-1A

PROJECT PHASE: [ ] CONSTRUCTION [ ] TREATMENT [X] CLOSURE

SUBMITTAL DESCRIPTION: Notice of Substantial Final Completion

[X] FIRST SUBMITTAL [ ] FOR APPROVAL
[ ] RESUBMITTAL [X] FOR YOUR FILES

REMARKS:

EAGLE CONSTRUCTION

NAME: Marc W. Walraven

(Signature)

ENGINEER'S RESPONSE

APPROVED	[ ]
APPROVED AS CORRECTED	[ ]
REVISE AND RESUBMIT	[ ]
NOT APPROVED	[ ]

Approval is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be conformed and correlated at the job site; for information that pertains solely to the fabrication processes or to techniques of construction; and for coordination of the work of all trades.

Date: It Corporation
By:

Remarks:

EAGLE CONSTRUCTION & ENVIRONMENTAL SERVICES, INC.

P.O. Box 872
9701 I-20 East
Eastland, Texas 76448
PHONE (254)629-1718
FAX (254)629-8625
e-mail: ecesi@eastland.net

July 15, 1999

Ms. Robin Cosgrove
IT Corporation
2525 Ridge Point Drive,
Suite 300
Austin, Texas 78754

Dear Ms. Cosgrove:

Please accept this as Notice of Substantial Final Completion of the Closure Phase pursuant to Section 01700 of the contract documents. If you have any questions please call me at (254) 629-1718.

Very truly yours,

Marc Walraven
Vice President

nd15\itcorp.mw

Appendix "C"

FOR THE FOLLOWING SUBMITTALS

SEE INITIAL COMBINED SUBMITTAL FILED IN SEPARATE FILE FOLDER AS CLOSURE PHASE SUBMITTAL 00000000

01420-2	Chemical Quality Control Issues
01540-2	Daily Security Log
01560-1	Air Contaminant Release Report
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01650-2	Air Monitoring Data
01700-2	**Closure Phase Final Completion Notice**
01720-1	Closure Phase Record Documents
02900-1	Completion Certification

DOCUMENT TRANSMITTAL

RE: North Cavalcade Submittals

Date: September 27, 1999

TO: Robin Cosgrove
IT Corporation
2525 Ridge Point Drive
Suite 300
Austin, Texas 78754

SUBMITTAL NO.: 01700-3

PROJECT PHASE: [ ] CONSTRUCTION [ ] TREATMENT [X] CLOSURE

SUBMITTAL DESCRIPTION: Release of Liens

[X] FIRST SUBMITTAL
[ ] RESUBMITTAL

[ ] FOR APPROVAL
[X] FOR YOUR FILES

REMARKS:

EAGLE CONSTRUCTION

NAME: Marc W. Walraven

(Signature)

ENGINEER'S RESPONSE

APPROVED	[ ]
APPROVED AS CORRECTED	[ ]
REVISE AND RESUBMIT	[ ]
NOT APPROVED	[ ]

Approval is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be conformed and correlated at the job site; for information that pertains solely to the fabrication processes or to techniques of construction; and for coordination of the work of all trades.

Date:

It Corporation
By:

Remarks:

SUBMITTAL 01700-3
RELEASE OF LIENS

Eagle utilized three subcontractor/vendors in the Closure Phase of the project. Attached are Releases of Lien from each.

WAIVER AND RELEASE OF LIEN RIGHTS

Partial _____ Final X

The undersigned subcontractor Land Surveyors, Inc. hereby acknowledges that upon receipt of payment in the sum of $ 1,005.00 as satisfaction in full for all labor, services and materials furnished to Eagle Construction and Environmental Services, Inc., this document shall become effective to release pro tanto any mechanics' liens, stop notices or bond rights the undersigned has in connection with Eagle's Project No. 950040 at the North Cavalcade Superfund Site in Houston, Texas.

The subcontractor certifies and warrants that it has fully paid and satisfied all claims for work, labor, materials, supplies, equipment and all other items used or furnished by subcontractor or its subcontractor(s) or materialmen in the performanc of said project through the date of September 24, 1999.

The subcontractor hereby expressly waives, releases and discharges owner of the property from any and all claims for mechanics' liens and rights to any such claim which the subcontractor has or may have for labor, services, or materials or otherwise in connection with payment for said work or improvements and every part thereof and does hereby agree that it will not levy or place any mechanics', attachment, judgment or other lien on or against the property described above for any existing indebtedness of the owner of the property to the subcontractor.

In addition, the subcontractor agrees to reimburse Eagle for any excess payment made by Eagle to the subcontractor, which may be discovered as a result of any audit performed by owner/Eagle pursuant to the contract/work authorization.

Invoice No: 775-99072

Subcontractor: Land Surveying, Inc.

By: _____ (Signature)

Name: Scott Lowrie (Print)

Date 9/27/99

Witness: _____ (Signature)

Name: Ronnie Harrison (Print)

mkm35\a:\pldg\waiverln.km

WAIVER AND RELEASE OF LIEN RIGHTS

Partial _____ Final X

The undersigned subcontractor Sky Cam hereby acknowledges that upon receipt of payment in the sum of $ 785.00 as satisfaction in full for all labor, services and materials furnished to Eagle Construction and Environmental Services, Inc., this document shall become effective to release pro tanto any mechanics' liens, stop notices or bond rights the undersigned has in connection with Eagle's Project No. 950040 at the North Cavalcade Superfund Site in Houston, Texas.

The subcontractor certifies and warrants that it has fully paid and satisfied all claims for work, labor, materials, supplies, equipment and all other items used or furnished by subcontractor or its subcontractor(s) or materialmen in the performanc of said project through the date of September 24, 1999.

The subcontractor hereby expressly waives, releases and discharges owner of the property from any and all claims for mechanics' liens and rights to any such claim which the subcontractor has or may have for labor, services, or materials or otherwise in connection with payment for said work or improvements and every part thereof and does hereby agree that it will not levy or place any mechanics', attachment, judgment or other lien on or against the property described above for any existing indebtedness of the owner of the property to the subcontractor.

In addition, the subcontractor agrees to reimburse Eagle for any excess payment made by Eagle to the subcontractor, which may be discovered as a result of any audit performed by owner/Eagle pursuant to the contract/work authorization.

Invoice No: N/A

Subcontractor: Sky Cam

By: _____
(Signature)

Name: Richard Ebbs
(Print)

Witness: Kathryn M. Zuckweiler
(Signature)

Date: 9/30/99

Name: Kathryn M. Zuckweiler
(Print)

mkm35\a:\pldg\waiverln.km

WAIVER AND RELEASE OF LIEN RIGHTS

Partial _____ Final X

The undersigned subcontractor In-Line Plastics hereby acknowledges that upon receipt of payment in the sum of $ -0- as satisfaction in full for all labor, services and materials furnished to Eagle Construction and Environmental Services, Inc., this document shall become effective to release pro tanto any mechanics' liens, stop notices or bond rights the undersigned has in connection with Eagle's Project No 950040 at the North Cavalcade Superfund Site in Houston, Texas.

The subcontractor certifies and warrants that it has fully paid and satisfied all claims for work, labor, materials, supplies, equipment and all other items used or furnished by subcontractor or its subcontractor(s) or materialmen in the performance of said project through the date of September 24, 1999.

The subcontractor hereby expressly waives, releases and discharges owner of the property from any and all claims for mechanics' liens and rights to any such claim which the subcontractor has or may have for labor, services, or materials or otherwise in connection with payment for said work or improvements and every part thereof and does hereby agree that it will not levy or place any mechanics', attachment, judgment or other lien on or against the property described above for any existing indebtedness of the owner of the property to the subcontractor.

In addition, the subcontractor agrees to reimburse Eagle for any excess payment made by Eagle to the subcontractor, which may be discovered as a result of any audit performed by owner/Eagle pursuant to the contract/work authorization. -(already done).

Invoice No: N/A

Subcontractor: In-Line Plastics

By _____ (Signature)

Name: Jennifer Fawcett (Print) Witness: _____ (Signature)

Date 10/6/99 Name: AL FLOREZ (Print)

:\wm95\a\pldg\waiverb.wm

DOCUMENT TRANSMITTAL

RE: North Cavalcade Submittals

Date: December 16, 1999

TO: Robin Cosgrove
IT Corporation
2525 Ridge Point Drive
Suite 300
Austin, Texas 78754

SUBMITTAL NO.: 01700-4A B FDC

PROJECT PHASE: [ ] CONSTRUCTION [ ] TREATMENT [X] CLOSURE

SUBMITTAL DESCRIPTION: Final Adjustment of Accounts

[ ] FIRST SUBMITTAL
[X] RESUBMITTAL

[ ] FOR APPROVAL
[X] FOR YOUR FILES

REMARKS:

EAGLE CONSTRUCTION

NAME: Marc W. Walraven

Marc W. Walraven
(Signature)

ENGINEER'S RESPONSE

APPROVED	[ ]
APPROVED AS CORRECTED	[ ]
REVISE AND RESUBMIT	[ ]
NOT APPROVED	[ ]

Approval is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be conformed and correlated at the job site; for information that pertains solely to the fabrication processes or to techniques of construction; and for coordination of the work of all trades.

Date: It Corporation
By:

Remarks:

FINAL ADJUSTMENT O[redacted]OUNTS - 01700-4	1. DATE 10/04/99[redacted]		SHEET 1 OF 3
2. CONTRACTOR AND [redacted]ESS EAGLE CONSTRUCTION AND ENVIRONMENTAL SERVICES, INC. P.O. BOX 872, 9701 EAST INTERSTATE 20 EASTLAND, TEXAS 76448		3. CONTRACT NO. 5300000012	4. PURCHASE ORDER NO. 582-5-19989
5. PROJECT NAME Soils Operable Unit	6. LOCATION North Cavalcade/Houston, Texas		7. REQUIRED COMPLETION DATE 6/9/99
8. PERIOD OF PERFORMANCE COVERED THIS REQUEST FROM: 03/01/99 09/30/99	9. PROJECT CLIENT Texas Natural Resource Conservation Commission	10. CLIENT ADDRESS P.O. BOX 13087 AUSTIN, TX 78711-3087	

		CONTRACT						CONTRACT TO DATE		BALANCE REMAINING ON CONTRACT	
ITEM NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT			QUANTITY	AMOUNT	QUANTITY	AMOUNT
	CONSTRUCTION PHASE										
1	BOND AND INSURANCE	1	LS	40,189.00	40,189.00			100.0%	40,189.00	0.0%	-
2	MOBILIZATION AND SITE SUPPORT FACILITIES	1	LS	105,080.00	105,080.00			100.0%	105,080.00	0.0%	-
3	SECURITY IMPLEMENTATION	1	LS	24,518.00	24,518.00			100.0%	24,518.00	0.0%	-
4	HEALTH AND SAFETY	1	LS	154,082.00	154,082.00			100.0%	154,082.00	0.0%	-
5	CONSTRUCTION CONTROLS AND SURVEYING	1	LS	16,855.00	16,855.00			100.0%	16,855.00	0.0%	-
6	TEMPORARY CONTROLS AND ENVIRONMENTAL PROTECTION	1	LS	30,080.00	30,080.00			100.0%	30,080.00	0.0%	-
7	FENCING	1	LS	33,811.00	33,811.00			100.0%	33,811.00	0.0%	-
8	DISPOSAL OF RUBBLE (ROLL OFF BOXES)	1	LS	17,425.00	17,425.00			100.0%	17,425.00	0.0%	-
9	ROAD EXTENSIONS	1	LS	40,542.00	40,542.00			100.0%	40,542.00	0.0%	-
10	WATER TREATMENT SYSTEM	1	LS	23,841.00	23,841.00			100.0%	23,841.00	0.0%	-
11	INSTALL BIOREMEDIATION SYSTEM	1	LS	284,858.00	284,858.00			100.0%	284,858.00	0.0%	-
12	DISPOSAL/PROTECTIVE SYSTEMS (SOIL STOCKPILE)	1	LS	22,959.00	22,959.00			3.2%	723.72	96.8%	22,235.28
13	EXCAVATING AND STOCKPILING (EAST DITCH)	1	LS	108,321.00	108,321.00			100.0%	108,321.00	0.0%	-
14	DISPOSAL OF RUBBLE AND DEBRIS	900	TON	17.07	15,363.00			631.73	10,783.63	29.8%	4,579.37
	CONTRACT AMENDMENTS										
C.O. #1	ENGINEERING OVERSIGHT EXPENSES (BUILDING OFF-LOADING OPERATIONS)	1	LS	(1,800.00)	(1,800.00)			100.0%	(1,800.00)	0.0%	-
	TREATMENT PHASE										
15	MAINTENANCE AND SITE SUPPORT SERVICES	1	LS	217,367.00	217,367.00			98.7%	214,552.96	1.3%	2,814.04
16	SECURITY IMPLEMENTATION	1	LS	4,205.00	4,205.00			100.0%	4,205.00	0.0%	-
17	HEALTH AND SAFETY IMPLEMENTATION	1	LS	587,882.00	587,882.00			81.6%	479,711.79	18.4%	108,170.21
18	CONSTRUCTION CONTROLS AND SURVEYING	1	LS	34,352.00	34,352.00			81.6%	28,031.33	18.4%	6,320.67
19	TEMPORARY CONTROLS AND ENVIRONMENTAL PROTECTIONS	1	LS	5,500.00	5,500.00			82.0%	4,510.00	18.0%	990.00

FINAL ADJUSTMENT OF ACCOUNTS - 01700-4	1. DATE 10/04/99		SHEET 1 OF 3
2. CONTRACTOR AND ADDRESS EAGLE CONSTRUCTION AND ENVIRONMENTAL SERVICES, INC. P.O. BOX 872, 9701 EAST INTERSTATE 20 EASTLAND, TEXAS 76448		3. CONTRACT NO. 5300000012	4. PURCHASE ORDER NO. 582-5-19989
5. PROJECT NAME Soils Operable Unit	6. LOCATION North Cavalcade/Houston, Texas		7. REQUIRED COMPLETION DATE 6/9/99
8. PERIOD OF PERFORMANCE COVERED THIS REQUEST FROM: 03/01/99 09/30/99	9. PROJECT CLIENT Texas Natural Resource Conservation Commission	10. CLIENT ADDRESS P.O. BOX 13087 AUSTIN, TX 78711-3087	

		CONTRACT						CONTRACT TO DATE		BALANCE REMAINING ON CONTRACT	
ITEM NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT			QUANTITY	AMOUNT	QUANTITY	AMOUNT
20	WATER TREATMENT	1	LS	72,145.00	72,145.00			81.8%	59,014.69	18.2%	13,130.31
21	SOIL TREATMENT (12000-16000 CUBIC YARDS)	16,000	CY	17.66	282,560.00					100.0%	282,560.00
	CONTRACT AMENDMENTS										
C.O. #2	PLUGGING AND ABANDONMENT OF NEWLY ENCOUNTERED WELL	1	LS	800.00	800.00			100.0%	800.00	0.0%	-
C.O. #3	TRANSPORT, EMPTY AND DISPOSE OF 32 DRUMS OF SOIL CUTTINGS AT THE SITE	1	LS	7,300.00	7,300.00			100.0%	7,300.00	0.0%	-
C.O. #4	ADDITIONAL INSURANCE AND SECURITY SERVICES	1	LS	18,332.00	18,332.00			100.0%	18,332.00	0.0%	-
C.O. #7	ADDITIONAL SITE MOWING AND WEED CONTROL	12	EA	425.00	5,100.00			12	5,100.00	0.0%	-
	CLOSURE PHASE										
22	MAINTENANCE OF SITE SUPPORT SERVICES	1	LS	29,910.00	29,910.00			100.00%	29,910.00	0.0%	-
23	SECURITY IMPLEMENTATION	1	LS	632.00	632.00			100.00%	632.00	0.0%	-
24	HEALTH AND SAFETY IMPLEMENTATION	1	LS	21,061.00	21,061.00			100.00%	21,061.00	0.0%	-
25	CONSTRUCTION CONTROLS AND SURVEYING	1	LS	19,341.00	19,341.00			100.00%	19,341.00	0.0%	-
26	SITE RESTORATION	1	LS	71,355.00	71,355.00			100.00%	71,355.00	0.0%	-
27	MONITORING WELL ABANDONMENT	410	LF	40.12	16,449.20			60.0	2,407.20	85.4%	14,042.00
28	DEMOBILIZATION	1	LS	13,308.00	13,308.00			100.00%	13,308.00	0.0%	-
	ALTERNATE BID ITEMS										
13a	EXCAVATION/STOCKPILING EAST DRAINAGE DITCH 10-12 FT	100	LF	138.13	13,813.00					100.0%	13,813.00
13b	EXCAVATION/STOCKPILING EAST DRAINAGE DITCH 12-14 FT	100	LF	159.13	15,913.00			15	2,386.95	85.0%	13,526.05
13c	EXCAVATION AND STOCKPILING OF CONTAMINATED SOILS IN MISCELLANEOUS AREAS	500	CY	20.60	10,300.00					100.0%	10,300.00
14a	DISPOSAL OF WASTE/CLASS 1 HAZARDOUS	20	TON	585.60	11,712.00					100.0%	11,712.00
20a	SOIL TREATMENT IN EXCESS OF BASE BID	3,000	CY	15.50	46,500.00					100.0%	46,500.00
20b	PREPARATION OF SOIL WITHOUT TREATMENT	8,000	CY	11.47	91,760.00					100.0%	91,760.00

FINAL ADJUSTMENT OF ACCOUNTS - 01700-4	1. DATE 10/04/99		SHEET 1 OF 3
2. CONTRACTOR AND ADDRESS EAGLE CONSTRUCTION AND ENVIRONMENTAL SERVICES, INC. P.O. BOX 872, 9701 EAST INTERSTATE 20 EASTLAND, TEXAS 76448		3. CONTRACT NO. 5300000012	4. PURCHASE ORDER NO. 582-5-19989
5. PROJECT NAME Soils Operable Unit	6. LOCATION North Cavalcade/Houston, Texas		7. REQUIRED COMPLETION DATE 6/9/99
8. PERIOD OF PERFORMANCE COVERED THIS REQUEST FROM: 03/01/99 09/30/99	9. PROJECT CLIENT Texas Natural Resource Conservation Commission	10. CLIENT ADDRESS P.O. BOX 13087 AUSTIN, TX 78711-3087	

		CONTRACT						CONTRACT TO DATE		BALANCE REMAINING ON CONTRACT	
ITEM NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT			QUANTITY	AMOUNT	QUANTITY	AMOUNT
	CONTRACT AMENDMENTS										
CO #8	INSURANCE, EXPANDED SECURITY, PHONE	1	LS	12,629.01	12,629.01			100.0%	12,629.01	0.0%	-
CO #9	CONSOLIDATE SOIL, CONSTRUCT RCRA CAP	1	LS	14,042.00	14,042.00			100.00%	14,042.00	0.0%	-
	A. CREDIT BALANCE OF LINE ITEM NO. 27	350	LF	40.12	(14,042.00)						(14,042.00)
CO #10	SOIL CONSOLIDATION IN THE SOIL PROCESS CELL AND THE COVERED TREATMENT CELL	1	LS	16,987.00	16,987.00			100.00%	16,987.00		
THRU AMENDMENT	TOTAL CON ------- --->				$2,543,337.21			75.3%	$ 1,914,926.28		$ 628,410.93
BALANCE OF CONTRACT UNPERFORMED											$ 628,410.93
LESS PREVIOUS PAYMENTS									$(1,896,262.68)		
RETAINAGE/BALANCE OF PROJECT DUE									$ 18,663.60	Ret. to date as of Inv. No. 25982	

IT Corporation
2525 Ridgepoint Drive. Suite 300
Austin. TX 78754-5209
Tel. 512.928.8051
Fax. 512.928.0077

A Member of The IT Group

448373

Submittal 01700-5C

December 28, 1999

Texas Natural Resource Conservation Commission
Technical Support Section
MC 225
P.O. Box 13087
Austin, Texas 78711
Attention: Ms. Grace Whitaker Windbigler

Re: **North Cavalcade Street Superfund Site**, OU-2/Soil
Contractor Pay Request - Closure Phase Retainage
Eagle Invoice 9504R

Dear Ms. Windbigler:

Attached is the current invoice from Eagle Construction requesting **final retainage payment** in the amount of $18,663.60 for work completed from March 1 through June 29, 1999. This invoice is for all remaining retainage held from the Treatment Phase of the contract. Invoiced amounts are as follows:

1999	Inv # 24764	$16,964.90
1999	Inv # 25982	$ 1,698.70
Total		$18,663.60

All release of liens have previously been submitted by the Contractor. Please give me a call at 512-928-8051 if further information about these matters is needed.

Sincerely,
IT Corporation

Robin D. Cosgrove

Robin D. Cosgrove, P.E.
Project Manager

/rc
Enclosure

cc: Lel Medford
Accounting Files
Project Files

IT Copy

INVOICE

EAGLE CONSTRUCTION & ENVIRONMENTAL SERVICES, INC.

P.O. BOX 872
EASTLAND, TEXAS 76448-0872
PHONE (254) 629-1718
FAX (254) 629-8625

INVOICE DATE	JOB REFERENCE	CUSTOMER ACCOUNT NUMBER
11-19-99	20024	9504R ✓
P.O. NUMBER	**WORK ORDER NO.**	
582-5-19989		

950040

TNRCC REMEDIATION DIVISION (MC 225)
CONTRACTS ADMINISTRATOR
ATTN: MS. GRACE WINDBIGLER
P.O. BOX 13087
AUSTIN, TX 78711-3087

SOILS OPERABLE UNIT
NORTH CAVALCADE SITE
HOUSTON, TEXAS
TNRCC CONTRACT NO. 5300000012
PAYMENT DUE: 11-30-99

ITEM	DESCRIPTION	AMOUNT
1	RETAINAGE FOR CLOSURE PHASE WORK FOR THE PERIOD OF 3-01-99 THROUGH ~~9-30-99~~ June 29, 1999 AT NORTH CAVALCADE SITE IN HOUSTON, TEXAS AS PER ATTACHED BREAKDOWN.	18,663.60 ✓
	GRAND TOTAL	18,663.60

EAGLE CONSTRUCTION & ENVIRONMENTAL SERVICES, INC.

NET 10. INTEREST CHARGED ON ALL PAST DUE ACCOUNTS.

019065

EAGLE CONST. & ENV. SER, INC.
P.O. BOX 872
EASTLAND, TEXAS
(254)629 1718

November 19, 1999

Ms. Grace Windbigler
Contracts Administrator
TNRCC Remediation Division (MC 225)
P.O. Box 13087
Austin, Texas 78711-3087

Dear Ms. Windbigler:

Eagle Construction & Environmental Services, Inc. is requesting payment for the TNRCC Contract listed below. Required information for this payment is outlined below:

Date of Mailing	11/19/99	
TNRCC Contract Number	5300000012 ✓	
TNRCC Requisition Number	N/A	
TNRCC Purchase Order Number	582-5-19989 ✓	
Invoice Number	9504R ✓	
Project Name and Phase	North Cavalcade	Final Retainage
LPST Number	None	
Site Name and City	North Cavalcade	Houston
Invoice Period	March 01, 1999 - ~~September 30, 1999~~ June 29, 1999	
Invoice Total	$ 18,663.60	
Retainage	$ -	
Amount Due	$ 18,663.60	
Contractor's Taxpayer ID Number	1-74-2366144-0	
Contractor's Project Manager	Robb Clay	
Contractor's Telephone Number	(254) 629-1718	
TNRCC Project Manager	Lel L. Medford	

If you have any questions about the attached invoice or above information, please call me at (254)-629-1718 ext. 227.

Sincerely,

James Whalley
Accounts Receivable Manager

Attachments

Attachment 5

Teaxs Water Commission

INTEROFFICE MEMORANDUM

POLLUTION CLEANUP DIVISION
DOCUMENT CONTROL SYSTEM
INVOICE TRACKING MEMO

FROM: CONTRACTOR: EAGLE CONSTRUCTION & ENVIRONMENTAL SERVICES, INC.
RE: CONTRACT: NORTH CAVALCADE SUPERFUND SITE INVOICE NO. 9504R
RECEIVED: AMOUNT: $ 18,663.60
WORK PERIOD: FROM MARCH 01, 1999 THROUGH ~~SEPTEMBER~~ 30, 1999

Jun 29, 1999

TO:	SIGNED	DATE	
CONTRACTS COORDINATOR (POLLUTION CLEANUP DIVISION)			
PROJECT MANAGER (POLLUTION CLEANUP DIVISION)			TECHNICAL REPORT STATUS BOX
TEAM LEADER			
DIVISION DIRECTOR			
GRANTS AND CONTRACTS (FISCAL)			
DISBURSEMENT AND PROCESSING (FISCAL)			(D DOCUMENT NO.)
RETURN TO CONTRACTS COORDINATOR (POLLUTION CLEANUP DIVISION)			

PURCHASE VOUCHER

Page ____ of ____

1. Vendor / alternate payee number	2. Agency number	3. Agency name	4. Current document number
	582	Texas Natural Resources Conservation Commission	

5. Effective date	6. Order (document) date	7. Due date	8. Data Agency

9. Payee identification number	10. POT	11. PCC	12. Requisition number	13. Document amount
74-2366144				

14. Payee name / address

Eagle Construction & Environmental Services, Inc.
P.O. Box 872
Eastland, Texas 76448

15. QSC order number

16. Lease number

17. AGENCY USE

18.	Rel Doc	SFX	M	TC	Index	PCA	AY	COBJ	AOBJ	Amount	R
SFX 001											

APPN	Fund	HAC/SAO Sub-Fund	Grant number	Grant year/phase	Project number	Project phase	Contract number	Multipurpose code

Invoice number	Description	AGENCY USE

18.	Rel Doc	SFX	M	TC	Index	PCA	AY	COBJ	AOBJ	Amount	R
SFX 002											

APPN	Fund	HAC/SAO Sub-Fund	Grant number	Grant year/phase	Project number	Project phase	Contract number	Multipurpose code

Invoice number	Description	AGENCY USE

18.	Rel Doc	SFX	M	TC	Index	PCA	AY	COBJ	AOBJ	Amount	R
SFX 003											

APPN	Fund	HAC/SAO Sub-Fund	Grant number	Grant year/phase	Project number	Project phase	Contract number	Multipurpose code

Invoice number	Description	AGENCY USE

19. SER / DEL DATE	20. DESCRIPTION OF GOODS OR SERVICES	21. QUANTITY	22. UNIT PRICE	23. AMOUNT
NOV.19,1999	North Cavalcade Street Superfund Site Soils Operable Unit Contract No. 5300000012			
Invoice # 9504R ✓	See Attached Schedule of Values Total Price Less 10% Retainage Total Amount Due			$ 18,663.60 -0- 18,663.60

24. Contact name	Phone (Area code and number)	25. Entered by
Marc W. Walraven	(254) 629-1718	

26. I approve this voucher for payment. The above goods or services correspond in every particular with the contract under which they were purchased. The invoice for the goods or services is correct. This payment complies with the General Appropriations Act.

Approved sign here	Phone (Area code and number)	Date

Approved sign here	Phone (Area code and number)	Date

019068

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Ms. Grace Windbigler, Contracts Manager
Contracts Team (MC 225)
Texas Natural Resource Conservation Commission
P.O. Box 13087
Austin, TX 78711-3087

Re: TNRCC Contract No. 5300000012
Final Retainage Amount: $18,663.60
Retainage through: March 01, 1999 through September 30, 1999

Dear Ms. Windbigler:

Upon payment of the partial retainage by the Texas Natural Resource Conservation Commission, Eagle Construction and Environmental Services, Inc. Releases the Texas Natural Resource Conservation Commission, its officers, agents and employees from all liabilities, obligations, claims or demands under Contract Number 5300000012 occurring during the time period ending September 30, 1999.

Sincerely,

By: Marc W. Walraven

Name: Marc W. Walraven
Company: Eagle Construction & Environmental Company

ATTACHMENT 4 to EXHIBIT IFB-1C
RETAINAGE INVOICE

Eagle Construction & Environmental Services, Inc.

Ms. Grace Windbigler
Contracts Administrator
TNRCC Remediation Division (MC 225)
P.O. Box 13087
Austin, Texas 78711-3087

RETAINAGE INVOICE

Contract No: 5300000012
Site Name: North Cavalcade-Houston, Texas
LPST No: None
Services Period: March 01,1999 through ~~September 30,~~ June 29, 1999 1999

Work Order No: 582-5-19989
Invoice Date: 19-Nov-99
Invoice No: 9504R

Date	Pay Request No.	Invoice No	Invoice Amount	Retainage Amount
8/18/99	46	24764	$ 169,649.00	$ 16,964.90
11/18/99	47	25982	$ 16,987.00	$ 1,698.70
Subtotal for 1999:			$ 186,636.00	$ 18,663.60
Total Amount of Retainage Due:				$ 18,663.60

PAYMENT ESTIMATE - CONTRACT PERFORMANCE	1. DATE 11/18/99	2. PAY REQUEST NO. 48	SHEET 1 OF 3
3. CONTRACTOR AND ADDRESS EAGLE CONSTRUCTION AND ENVIRONMENTAL SERVICES, INC. P.O. BOX 872, 9701 EAST INTERSTATE 20 EASTLAND, TEXAS 76448		4. CONTRACT NO. 5300000012	5. PURCHASE ORDER NO. 582-5-19989

6. PROJECT NAME	7. LOCATION	8. REQUIRED COMPLETION DATE
Soils Operable Unit	North Cavalcade/Houston, Texas	6/9/99

9. PERIOD OF PERFORMANCE COVERED THIS REQUEST	10. PROJECT CLIENT	11. CLIENT ADDRESS
FROM: 03/01/99 09/30/99	Texas Natural Resource Conservation Commission	P.O. BOX 13087 AUSTIN, TX 78711-3087

		CONTRACT				PREVIOUS REQUEST		THIS REQUEST		CONTRACT TO DATE	
ITEM NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT	QUANTITY	AMOUNT	QUANTITY	AMOUNT	QUANTITY	AMOUNT
	CONSTRUCTION PHASE										
1	BOND AND INSURANCE	1	LS	40,189.00	40,189.00	100.0%	40,189.00			100.0%	40,189.00
2	MOBILIZATION AND SITE SUPPORT FACILITIES	1	LS	105,080.00	105,080.00	100.0%	105,080.00			100.0%	105,080.00
3	SECURITY IMPLEMENTATION	1	LS	24,518.00	24,518.00	100.0%	24,518.00			100.0%	24,518.00
4	HEALTH AND SAFETY	1	LS	154,082.00	154,082.00	100.0%	154,082.00			100.0%	154,082.00
5	CONSTRUCTION CONTROLS AND SURVEYING	1	LS	16,855.00	16,855.00	100.0%	16,855.00			100.0%	16,855.00
6	TEMPORARY CONTROLS AND ENVIRONMENTAL PROTECTION	1	LS	30,080.00	30,080.00	100.0%	30,080.00			100.0%	30,080.00
7	FENCING	1	LS	33,811.00	33,811.00	100.0%	33,811.00			100.0%	33,811.00
8	DISPOSAL OF RUBBLE (ROLL OFF BOXES)	1	LS	17,425.00	17,425.00	100.0%	17,425.00			100.0%	17,425.00
9	ROAD EXTENSIONS	1	LS	40,542.00	40,542.00	100.0%	40,542.00			100.0%	40,542.00
10	WATER TREATMENT SYSTEM	1	LS	23,841.00	23,841.00	100.0%	23,841.00			100.0%	23,841.00
11	INSTALL BIOREMEDIATION SYSTEM	1	LS	284,858.00	284,858.00	100.0%	284,858.00			100.0%	284,858.00
12	DISPOSAL/PROTECTIVE SYSTEMS (SOIL STOCKPILE)	1	LS	22,959.00	22,959.00	3.2%	723.72			3.2%	723.72
13	EXCAVATING AND STOCKPILING (EAST DITCH)	1	LS	108,321.00	108,321.00	100.0%	108,321.00			100.0%	108,321.00
14	DISPOSAL OF RUBBLE AND DEBRIS	900	TON	17.07	15,363.00	631.73	10,783.63			631.73	10,783.63
	CONTRACT AMENDMENTS										
C.O. #1	ENGINEERING OVERSIGHT EXPENSES (BUILDING OFF-LOADING OPERATIONS)	1	LS	(1,800.00)	(1,800.00)	100.0%	(1,800.00)			100.0%	(1,800.00)

PAYMENT ESTIMATE - CONTRACT PERFORMANCE	1. DATE 11/18/99	2. PAY REQUEST NO. 48	SHEET 2 OF 3
3. CONTRACTOR AND ADDRESS EAGLE CONSTRUCTION AND ENVIRONMENTAL SERVICES, INC. P.O. BOX 872, 9701 EAST INTERSTATE 20 EASTLAND, TEXAS 76448		4. CONTRACT NO. 5300000012	5. PURCHASE ORDER NO. 582-5-19989
6. PROJECT NAME Soils Operable Unit	7. LOCATION North Cavalcade/Houston, Texas	6/9/99	
9. PERIOD OF PERFORMANCE COVERED THIS REQUEST FROM: 03/01/99 09/30/99	10. PROJECT CLIENT Texas Natural Resource Conservation Commission	11. CLIENT ADDRESS P.O. BOX 13087 AUSTIN, TX 78711-3087	

		CONTRACT				PREVIOUS REQUEST		THIS REQUEST		CONTRACT TO DATE	
ITEM NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT	QUANTITY	AMOUNT	QUANTITY	AMOUNT	QUANTITY	AMOUNT
	TREATMENT PHASE										
15	MAINTENANCE AND SITE SUPPORT SERVICES	1	LS	217,367.00	217,367.00	98.7%	214,552.96			98.7%	214,552.96
16	SECURITY IMPLEMENTATION	1	LS	4,205.00	4,205.00	100.0%	4,205.00			100.0%	4,205.00
17	HEALTH AND SAFETY IMPLEMENTATION	1	LS	587,882.00	587,882.00	81.6%	479,711.79			81.6%	479,711.79
18	CONSTRUCTION CONTROLS AND SURVEYING	1	LS	34,352.00	34,352.00	81.6%	28,031.33			81.6%	28,031.33
19	TEMPORARY CONTROLS AND ENVIRONMENTAL PROTECTIONS	1	LS	5,500.00	5,500.00	82.0%	4,510.00			82.0%	4,510.00
20	WATER TREATMENT	1	LS	72,145.00	72,145.00	81.8%	59,014.69			81.8%	59,014.69
21	SOIL TREATMENT (12000-16000 CUBIC YARDS)	16,000	CY	17.66	282,560.00						
	CONTRACT AMENDMENTS										
C.O. #2	PLUGGING AND ABANDONMENT OF NEWLY ENCOUNTERED WELL	1	LS	800.00	800.00	100.0%	800.00			100.0%	800.00
C.O. #3	TRANSPORT, EMPTY AND DISPOSE OF 32 DRUMS OF SOIL CUTTINGS AT THE SITE	1	LS	7,300.00	7,300.00	100.0%	7,300.00			100.0%	7,300.00
C.O. #4	ADDITIONAL INSURANCE AND SECURITY SERVICES	1	LS	18,332.00	18,332.00	100.0%	18,332.00			100.0%	18,332.00
C.O. #7	ADDITIONAL SITE MOWING AND WEED CONTROL	12	EA	425.00	5,100.00	12	5,100.00			12	5,100.00
	CLOSURE PHASE										
22	MAINTENANCE OF SITE SUPPORT SERVICES	1	LS	29,910.00	29,910.00	100.0%	29,910.00			100.00%	29,910.00
23	SECURITY IMPLEMENTATION	1	LS	632.00	632.00	100.0%	632.00			100.00%	632.00
24	HEALTH AND SAFETY IMPLEMENTATION	1	LS	21,061.00	21,061.00	100.0%	21,061.00			100.00%	21,061.00
25	CONSTRUCTION CONTROLS AND SURVEYING	1	LS	19,341.00	19,341.00	100.0%	19,341.00			100.00%	19,341.00
26	SITE RESTORATION	1	LS	71,355.00	71,355.00	100.0%	71355.00			100.00%	71,355.00

PAYMENT ESTIMATE [redacted]TRACT PERFORMANCE	1. DATE 11/[redacted]	2. PAY REQUEST NO. 48	SHEET 3 OF 3
3. CONTRACTOR AND ADDRESS EAGLE CONSTRUCTION AND ENVIRONMENTAL SERVICES, INC. P.O. BOX 872, 9701 EAST INTERSTATE 20 EASTLAND, TEXAS 76448		4. CONTRACT NO. 5300000012	5. PURCHASE ORDER NO. 582-5-19989
6. PROJECT NAME Soils Operable Unit	7. LOCATION North Cavalcade/Houston, Texas		6/9/99
9. PERIOD OF PERFORMANCE COVERED THIS REQUEST FROM: 03/01/99 09/30/99	10. PROJECT CLIENT Texas Natural Resource Conservation Commission	11. CLIENT ADDRESS P.O. BOX 13087 AUSTIN, TX 78711-3087	

		CONTRACT				PREVIOUS REQUEST		THIS REQUEST		CONTRACT TO DATE	
ITEM NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT	QUANTITY	AMOUNT	QUANTITY	AMOUNT	QUANTITY	AMOUNT
27	MONITORING WELL ABANDONMENT	410	LF	40.12	16,449.20	60.0	2,407.20			60.0	2,407.20
28	DEMOBILIZATION	1	LS	13,308.00	13,308.00	100.0%	13308.00			100.00%	13,308.00
	ALTERNATE BID ITEMS										
13a	EXCAVATION/STOCKPILING EAST DRAINAGE DITCH 10-12 FT	100	LF	138.13	13,813.00						
13b	EXCAVATION/STOCKPILING EAST DRAINAGE DITCH 12-14 FT	100	LF	159.13	15,913.00	15	2,386.95			15	2,386.95
13c	EXCAVATION AND STOCKPILING OF CONTAMINATED SOILS IN MISCELLANEOUS AREAS	500	CY	20.60	10,300.00						
14a	DISPOSAL OF WASTE/CLASS 1 HAZARDOUS	20	TON	585.60	11,712.00						
20a	SOIL TREATMENT IN EXCESS OF BASE BID	3,000	CY	15.50	46,500.00						
20b	PREPARATION OF SOIL WITHOUT TREATMENT	8,000	CY	11.47	91,760.00						
	CONTRACT AMENDMENTS										
CO #8	INSURANCE, EXPANDED SECURITY, PHONE	1	LS	12,629.01	12,629.01	100.0%	12,629.01			100.0%	12,629.01
CO #9	CONSOLIDATE SOIL, CONSTRUCT RCRA CAP	1	LS	14,042.00	14,042.00	100.0%	14042.00			100.00%	14,042.00
	A. CREDIT BALANCE OF LINE ITEM NO. 27	350	LF	40.12	(14,042.00)						
CO#10	SOIL CONSOLIDATION IN THE PROCESSING CELL AND COVER TREATMENT CELL W/30MIL LINER	1	LS	16,987.00	16,987.00	100.0%	16987.00			100.00%	16,987.00
THRU AMENDMENT	TOTAL CON ------ --->				$2,543,337.21	75.3%	$1,914,926.28	0.0%	$ -	EARNINGS TO DATE -->	$1,914,926.28

I CERTIFY that I have checked the quantities covered by this pay request that the work was actually performed: that the quantities are correct and consistent with all previous computations as actually checked: that the quantities and amounts are wholly consistent with the requirements of the contract or other instrument involved.

12. PRESENTED FOR PAYMENT

PAYEE
EAGLE CONS. & ENVIRONMENTAL SRVCS, INC.
P.O. BOX 872
EASTLAND, TEXAS 76448

EAGLE CONSTRUCTION REPRESENTATIVE
Marc W. Walraven
NAME: Marc W. Walraven

DATE
November 18,1999

TITLE
Vice President

13. REVIEWED

IT CORPORATION | TITLE | DATE

NAME:

14. APPROVED FOR PAYMENT

TNRCC | TITLE | DATE

NAME:

15.		
A.	PREVIOUS DEDUCTIONS OTHER THAN RETAINED PERCENTAGE	$0.00
B.	PREVIOUS RETAINED PERCENTAGE	$0.00
C.	PREVIOUS PAYMENTS	$1,896,262.68
D.	PREVIOUS EARNINGS (A+B+C)	$1,896,262.68
E.	EARNINGS THIS PERIOD (EARNINGS TO DATE MINUS D)	$ 18,663.60
F.	LESS RETAINED PERCENTAGE	$0.00
G.	LESS DEDUCTION OTHER THAN RETAINED PERCENTAGE	$0.00
H.	TOTAL DEDUCTION THIS PERIOD (F+G)	$ -
I.	AMOUNT DUE CONTRACTOR (E-H)	$ 18,663.60

RETAINAGE TO DATE $0.00 $1,914,926.28

FOR THE FOLLOWING SUBMITTALS

SEE INITIAL COMBINED SUBMITTAL FILED IN SEPARATE FILE FOLDER AS CLOSURE PHASE SUBMITTAL 00000000

01420-2	Chemical Quality Control Issues
01540-2	Daily Security Log
01560-1	Air Contaminant Release Report
01564-1	Spill Notification
01564-2	Spill Release Incident Report
01650-1	Audit Results
01650-2	Air Monitoring Data
01700-2	Closure Phase Final Completion Notice
01720-1	**Closure Phase Record Documents**
02900-1	Completion Certification

DOCUMENT TRANSMITTAL

RE: *North Cavalcade Submittals* Date: November 18, 1999

TO: Robin Cosgrove
IT Corporation
2525 Ridge Point Drive
Suite 300
Austin, Texas 78754

SUBMITTAL NO.: 01725-1B

PROJECT PHASE: [ ] CONSTRUCTION [ ] TREATMENT [X] CLOSURE

SUBMITTAL DESCRIPTION: As-Built Drawings – E/W Cross Section

[X] FIRST SUBMITTAL
[ ] RESUBMITTAL

[ ] FOR APPROVAL
[X] FOR YOUR FILES

Extra
RECEIVED
NOV 22 1999
IT CORPORATION

REMARKS:

EAGLE CONSTRUCTION

NAME: Marc W. Walraven

(Signature)

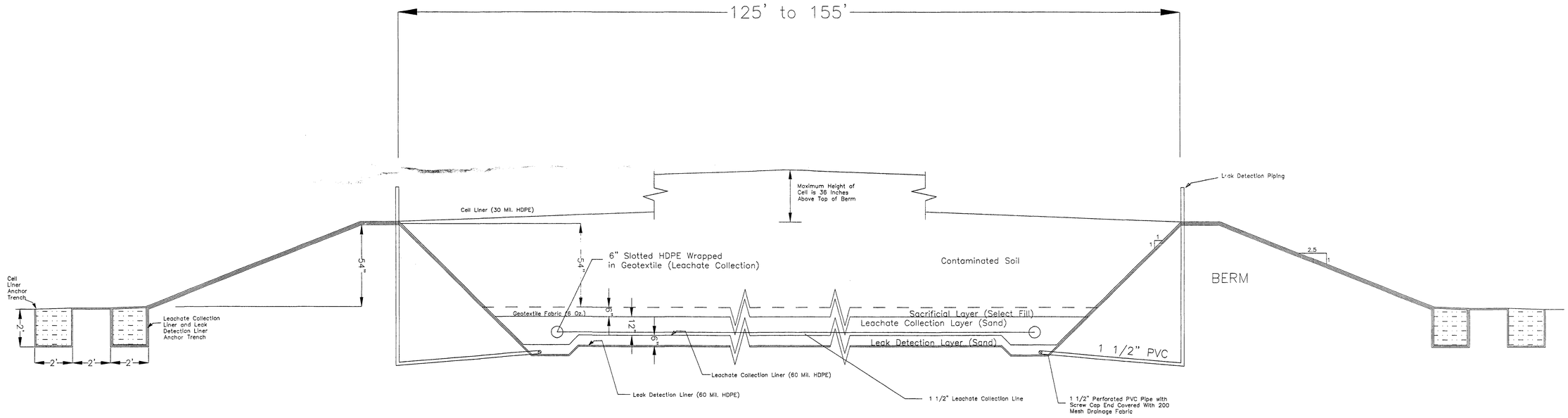
ENGINEER'S RESPONSE

APPROVED	[ ]
APPROVED AS CORRECTED	[ ]
REVISE AND RESUBMIT	[ ]
NOT APPROVED	[ ]

Approval is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be conformed and correlated at the job site; for information that pertains solely to the fabrication processes or to techniques of construction; and for coordination of the work of all trades.

Date: It Corporation
By:

Remarks:



NOTE: Approved detailed construction drawings can be found with Submittal 02820-1E, Bio-remediation Work Plan.

NO.	REVISION	BY	DATE	CHK'D	APR'VD

DRAWN BY: Jeff H.	STARTING DATE: 8/26/99
REVISED BY:	DATE LAST REV:
DRAFT. CHK.:	DATE:
ENG. CHK.:	DATE:
PROJ. MGR.:	DATE:

EAGLE CONSTRUCTION & ENVIRONMENTAL SERVICES, INC.
P.O. BOX 872
EASTLAND, TEXAS 76448-0872
(817) 629-1718

ASBUILT, TYPICAL E-W CROSS SECTION
NORTH CAVALCADE SUPERFUND SITE

PREPARED FOR

TNRCC
AUSTIN, TEXAS

PROJ. NO. 950040

Drawing: AB-CS 1

1225-13

DOCUMENT TRANSMITTAL

RE: North Cavalcade Submittals

Date: November 18, 1999

TO: Robin Cosgrove
IT Corporation
2525 Ridge Point Drive
Suite 300
Austin, Texas 78754

SUBMITTAL NO.: 01725-2

PROJECT PHASE: [ ] CONSTRUCTION [ ] TREATMENT [X] CLOSURE

SUBMITTAL DESCRIPTION: As-Built Drawings – N/S Cross Section

[X] FIRST SUBMITTAL
[ ] RESUBMITTAL

[ ] FOR APPROVAL
[X] FOR YOUR FILES

Extra
RECEIVED
NOV 22 1999
IT CORPORATION

REMARKS:

EAGLE CONSTRUCTION

NAME: Marc W. Walraven

(Signature)

ENGINEER'S RESPONSE

APPROVED	[ ]
APPROVED AS CORRECTED	[ ]
REVISE AND RESUBMIT	[ ]
NOT APPROVED	[ ]

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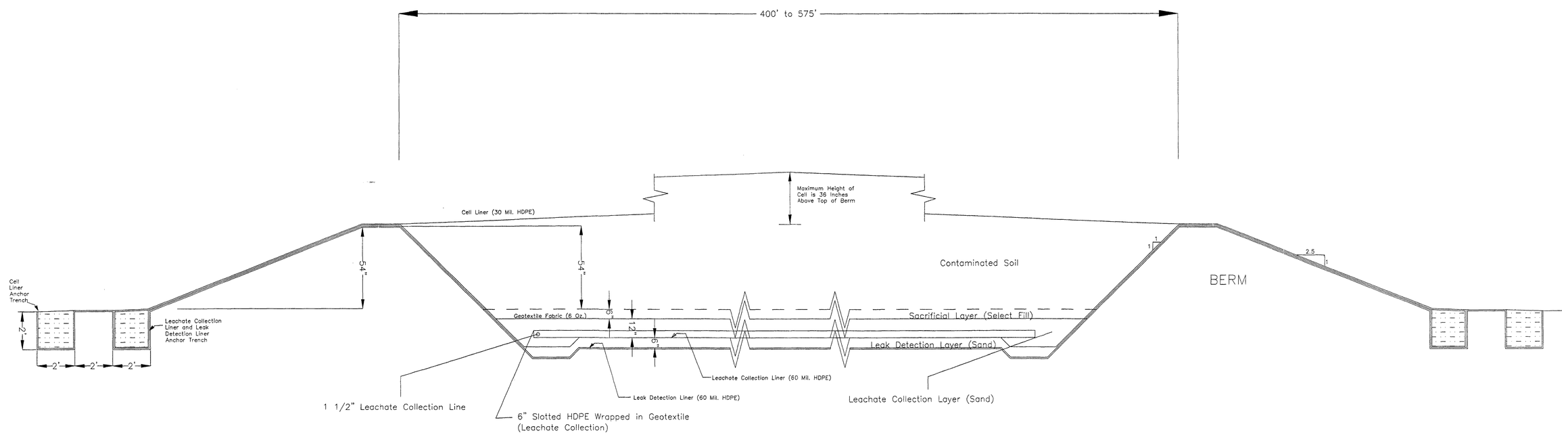
Date: It Corporation
By:

Remarks:



NOTE: Approved detailed construction drawings can be found with Submittal 02820-1E, Bio-remediation Work Plan.

1725-2

NO.	REVISION	BY	DATE	CHK'D	APP'D

DRAWN BY: Jeff H.	STARTING DATE: 8/26/99
REVISED BY:	DATE LAST REV:
DRAFT. CHK.:	DATE:
ENG. CHK.:	DATE:
PROJ. MGR.:	DATE:

EAGLE CONSTRUCTION & ENVIRONMENTAL SERVICES, INC.
P.O. BOX 872
EASTLAND, TEXAS 76448-0872
(817) 629-1718

ASBUILT, TYPICAL N-S CROSS SECTION
NORTH CAVALCADE SUPERFUND SITE

PREPARED FOR

TNRCC
AUSTIN, TEXAS

PROJ. NO. 950040

Drawing: AB-CS 2

019078

DOCUMENT TRANSMITTAL

RE: North Cavalcade Submittals

Date: November 18, 1999

TO: Robin Cosgrove
IT Corporation
2525 Ridge Point Drive
Suite 300
Austin, Texas 78754

SUBMITTAL NO.: 01725-3

PROJECT PHASE: [ ] CONSTRUCTION [ ] TREATMENT [X] CLOSURE

SUBMITTAL DESCRIPTION: As-Built Drawings – Plan View

[X] FIRST SUBMITTAL
[ ] RESUBMITTAL

[ ] FOR APPROVAL
[X] FOR YOUR FILES

Extra
RECEIVED
NOV 22 1999
IT CORPORATION

REMARKS:

EAGLE CONSTRUCTION

NAME: Marc W. Walraven

(Signature)

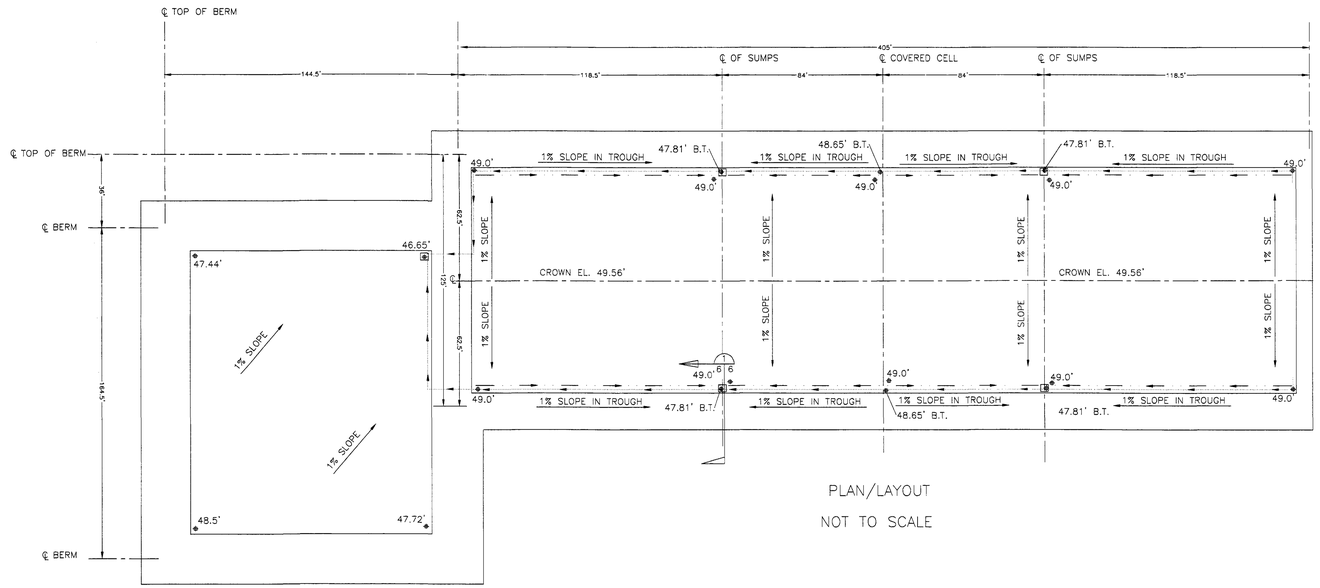
ENGINEER'S RESPONSE

APPROVED	[ ]
APPROVED AS CORRECTED	[ ]
REVISE AND RESUBMIT	[ ]
NOT APPROVED	[ ]

Approval is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be conformed and correlated at the job site; for information that pertains solely to the fabrication processes or to techniques of construction; and for coordination of the work of all trades.

Date: It Corporation
By:

Remarks:

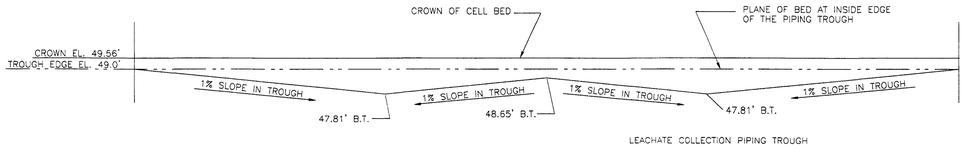


PLAN/LAYOUT

NOT TO SCALE

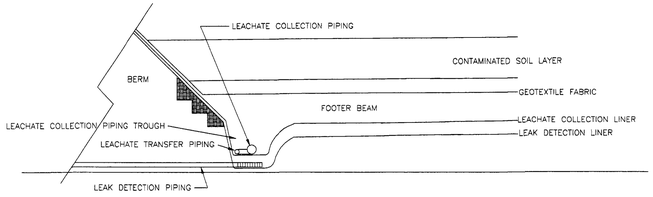
PLAN/LAYOUT

NOT TO SCALE



PROFILE/ELEVATION

NOT TO SCALE



EXPLANATION

LEACHATE COLLECTION PIPING AND FLOW DIRECTION

LEACHATE TRANSFER PIPING AND FLOW DIRECTION

LEACHATE COLLECTION SUMP

NO.	REVISION	BY	DATE	CHK'D	APR'VD

DRAWN BY:	STARTING DATE:
REVISED BY:	DATE LAST REV:
DRAFT. CHK.:	DATE:
ENG. CHK.:	DATE:
PROJ. MGR.:	DATE:

EAGLE CONSTRUCTION & ENVIRONMENTAL SERVICES, INC.

P.O. BOX 872
EASTLAND, TEXAS 76448-0872
(817) 629-1718

LEACHATE COLLECTION SYSTEM
PIPING, GRADING & DETAILS

PREPARED FOR

TNRCC
AUSTIN, TEXAS

PROJ. NO. 950040

SHEET 6

RECEIVED
NOV 9 1995
SOLID WASTE
PERMITTING SECTION
1725-3

019080

DOCUMENT TRANSMITTAL

RE: North Cavalcade Submittals

Date: November 11, 1999

TO: Robin Cosgrove
IT Corporation
2525 Ridge Point Drive
Suite 300
Austin, Texas 78754

RECEIVED
NOV 22 1999
IT CORPORATION

SUBMITTAL NO.: ~~01700-3~~ 02590-1A

PROJECT PHASE: [ ] CONSTRUCTION [ ] TREATMENT [X] CLOSURE

SUBMITTAL DESCRIPTION: Closure Phase Liner Submittal

[X] FIRST SUBMITTAL
[ ] RESUBMITTAL

[ ] FOR APPROVAL
[X] FOR YOUR FILES

REMARKS:

EAGLE CONSTRUCTION

NAME: Marc W. Walraven

(Signature)

ENGINEER'S RESPONSE

APPROVED	[ ]
APPROVED AS CORRECTED	[ ]
REVISE AND RESUBMIT	[ ]
NOT APPROVED	[ ]

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Date: It Corporation
By:

Remarks:

IN-LINE PLASTICS, LC

HERCULINE SPECIFICATIONS

Premium Grade Lining Material

Herculine high density polyethylene is produced from pipe grade virgin HDPE resin. Herculine HDPE has outstanding chemical resistance, mechanical properties, environmental stress crack resistance, dimensional stability and thermal aging characteristics. Herculine HDPE contains approximately 97.5% polymer and 2.5% carbon black, anti-oxidants and heat stabilizers, and contains no additives, fillers or extenders. Herculine HDPE has excellent UV resistance and is suitable for exposed conditions.

PROPERTIES	TEST METHOD	MINIMUM AVERAGE ROLL VALUES					
Thickness (mils)	ASTM D751	20	30	40	60	80	100
Density (g/cc) (Min.)	ASTM D1505	0.94	0.94	0.94	0.94	0.94	0.94
Melt Flow Index (g/10 minutes) (Max.)	ASTM D1238	0.3	0.3	0.3	0.3	0.3	0.3
Tensile Properties	ASTM D638 Type IV Dumbell, 2 ipm						
Tensile Strength at Break (lbs/in. width)		80	120	160	240	320	400
Tensile Strength at Yield (lbs/in. width)		45	70	95	140	190	240
Elongation at Break (percent), 2" gauge length		700	700	700	700	700	700
Elongation at Break (percent), 2.5" gauge length	(NSF 54 mod.)	560	560	560	560	560	560
Elongation at Yield (percent)		13	13	13	13	13	13
Modulus of Elasticity (psi)		80000	80000	80000	80000	80000	80000
Tear Resistance Initiation (lbs)	ASTM D1004 Die C	15	23	30	45	60	75
Puncture Resistance (lbs)	FTMS 101B Method 2031	88	110	175	220	350	440
	FTMS 101B Method 2065	26	40	52	80	105	130
	ASTM D4833	35	53	70	105	140	175
Carbon Black (percent)	ASTM D1603	2 to 3	2 to 3	2 to 3	2 to 3	2 to 3	2 to 3
Carbon Black Dispersion	ASTM D3015	A1,A2,B1	A1,A2,B1	A1,A2,B1	A1,A2,B1	A1,A2,B1	A1,A2,B1
Low Temperature Brittleness (°F)	ASTM D746 B	< -112	< -112	< -112	< -112	< -112	< -112
Dimensional Stability each Direction (% change max.)	ASTM D 1204 -212°F 1 hr.	± 2	± 2	± 2	± 2	± 2	± 2
Volatile Loss (max. percent)	ASTM D 1203 Meth. A	0.3	0.3	0.3	0.3	0.3	0.3
Resistance to Soil Burial (Max % change in original value)	ASTM D3083 using ASTM D638						
Tensile Strength at Break and Yield	Type IV Dumb-Bell	±10	±10	±10	±10	±10	±10
Elongation at Break and Yield	at 2 ipm	±10	±10	±10	±10	±10	±10
Ozone Resistance	ASTM D1149 7 days	No	No	No	No	No	No
	100 ppm 104°F	Cracks	Cracks	Cracks	Cracks	Cracks	Cracks
	104°F Magnification	7X	7X	7X	7X	7X	7X
Thermal Stability (% change)	ASTM D3895	2000	2000	2000	2000	2000	2000
	130°C, 800 psi O_2						
Environmental Stress Crack (min. hrs)	ASTM D1693	2000	2000	2000	2000	2000	2000
	10% Igepal, 50°C						
Water Absorption (max. % weight change)	ASTM D 570	0.1	0.1	0.1	0.1	0.1	0.1
Hydrostatic Resistance (psi)	ASTM D751 Method A	160	240	315	490	650	810
	Procedure 1						
Coef. Linear Thermal Expansion 10^{-4}/°C ($\times 10^{-4}$ cm/cm°C) max.	ASTM D 696	2.0	2.0	2.0	2.0	2.0	2.0
Moisture Vapor Transmission (g/m^2day)	ASTM E 96	0.1	0.1	0.1	0.1	0.1	0.1

*Note: All values are minimum average roll except when shown as minimum or maximum. This data is provided for informational purposes only. In-Line Plastics makes no warranties as to the fitness for a specific use or merchantability of products referred to, no guarantee of satisfactory results from reliance upon contained information or recommendation and disclaims all liability for resulting loss or damage.

8615 Golden Spike Lane • Houston, Texas 77086
(281) 272-1660 • Fax (281) 272-1673 • (800) 364-7688 • Fax (800) 449-5090

Eagle Construction
North Calvacade Superfund Site
30 mil HDPE

SAMPLE	Specimen Number	SHEAR TEST Strength #/in Width	SHEAR TEST Failure Mode	PEEL TEST Strength #/in Width	PEEL TEST Failure Mode
DS1	1	82	FTB	63	FTB
	2	78	FTB	65	FTB
	3	85	FTB	59	FTB
	4	83	FTB	62	FTB
	5	87	FTB	61	FTB

All Samples Pass.

Tested By _____
Al Florez, In-Line Plastics

FTB - Film Tear Bond

DOCUMENT TRANSMITTAL

RE: North Cavalcade Submittals

Date: March 3, 1999

TO: Robin Schumacher
IT Corporation
2525 Ridge Point Drive
Suite 300
Austin, Texas 78754

Original
RECEIVED
MAR 4 1999
IT CORPORATION

SUBMITTAL NO.: 02820-1

PROJECT PHASE: [ ] CONSTRUCTION [ ] TREATMENT [X] CLOSURE

SUBMITTAL DESCRIPTION: Closure Phase Submittals Including All Ancillary Work Submittals

[X] FIRST SUBMITTAL
[ ] RESUBMITTAL

[ ] FOR APPROVAL
[X] FOR YOUR FILES

REMARKS:

EAGLE CONSTRUCTION

NAME: Marc W. Walraven

(Signature)

CLOSURE PHASE CONSTRUCTION SUBMITTALS
SOILS OPERABLE UNIT
NORTH CAVALCADE SUPERFUND SITE
IT PROJECT NO. 448373

MARCH 3, 999

Prepared for:

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
Austin, Texas

Prepared by:

EAGLE CONSTRUCTION AND ENVIRONMENTAL SERVICES, INC.
P. O. Box 872
Eastland, Texas 76448

APPROVAL

1.0 Introduction

This submittal presents the Closure Phase objectives, as recently modified, and the methods that will be employed in their execution. This document summarizes the scope of work to be performed during the Closure Phase. The activities will be performed as outlined on the attached Closure Phase Project Schedule. This schedule will be updated, as needed, and submitted to the Engineer for concurrence.

1.1 Overview

The general scope of work to be executed, as recently amended in the Closure Phase includes the removal of the covered cell building and the placement of all potentially contaminated material from the other areas on site in the existing covered treatment cell. All material will be placed in the cell so that a 40 mil high density poly ethylene (HDPE) cover can be installed. The site will then be graded for positive drainage, incorporating the existing topsoil and wood chip stockpiles, and revegetated.

All underground electrical and piping will either be removed or capped and left in-place, at Eagle's option. All trailers, sheds, equipment and materials will be removed from the site. The existing perimeter security and silt fencing will be left in-place.

Critical work items identified and discussed in this plan are as follows:

- Site Security
- Health & Safety
- Quality Assurance/Quality Control
- Removal of the constructed building over the covered treatment cell
- Decommissioning of Covered Stockpile, Soil Processing Area, and Land Treatment Cells
- Installation of HDPE Cover over the existing covered treatment cell
- Decontamination of equipment
- Decommissioning of the Water Treatment System
- Site grading, restoration & decommissioning
- Demobilization

1.2 Equipment

The equipment to be used in the execution of the Closure Phase scope of work will include, but is not limited to the following:

- 14 cubic yard dump trucks
- Komatsu PC 200 trackhoe

- CAT D4 and/or D6 Dozer
- CAT 928 Loader
- CAT 426 Backhoe
- Dynopac 66 smooth drum vibratory compactor
- CAT 12G blade
- Miscellaneous hand tools
- Pressure washer
- Galion crane

2.0 Closure Phase Site Security Plan

Eagle will provide Site Security in accordance with Section 01540 of the Contract Documents and the approved Submittal 01540-1d, Site Security Plan. The Site Security procedures and protocols detailed will be utilized to prevent site entry of unauthorized personnel and to deter, prevent and control financial loss due to theft, embezzlement, vandalism, sabotage, arson or other criminal actions. These procedures and protocols conform to the requirements identified in Section 01540 of the specifications. The Project Health and Safety Officer shall be responsible for overall implementation of the Site Security Plan.

As in the Treatment Phase, the Project Health and Safety Officer will be responsible for controlling site access during the Closure Phase activities. At the beginning of each work shift, the work crew will assemble on-site and the site's security system will be deactivated. The Project Health and Safety Officer or his designee will check each personnel's identification, verify site access authorization, and record the individual's names on the Daily Site Entrance/Exit Log. Site access gates will be secured during the work shift. At the end of the workshift, on-site personnel will assemble outside the contaminant reduction zone. The Project Health and Safety Officer or his designee will record the individual's names leaving the site on the Daily Site Entrance/Exit Log. When all individuals have been accounted for and exit the site's perimeter, the gates will be locked and the site's security system will be activated.

Site access will be restricted to approved personnel who will be required to display proper individual identification. Authorized personnel and any on-site visitors approved by the engineer will be required to sign in and out on the Authorized Personnel/Visitor Roster. Contractor personnel will complete and submit to the Engineer, the Daily Security Log Form.

3.0 Health & Safety

During the execution of the Closure Phase scope of work, as described here in, all Eagle personnel and subcontractor's will adhere strictly to the protocols and procedures outlined in Section 01065 of the Contract Documents and Submittal 01065-1B, Site Specific Health and Safety Plan (SSHSP) and all pertinent addenda.

4.0 Quality Control

During the execution of the Closure Phase scope of work, as described here in, all Eagle personnel and subcontractor's will adhere strictly to the protocols and procedures outlined in Section 01700 of the Contract Documents and the approved Submittal 01400-1B, Site Specific Quality Management Plan (SSQMP).

5.0 Covered Treatment Building Removal

5.1 Building Removal

Eagle will remove the constructed building over the existing covered treatment cell. Eagle will employ methods for the removal similar to those used in its construction. The roof skins will be removed and staged adjacent to the structure or loaded directly onto trucks for removal from the site prior to razing the building structure. The building structure including purlings, trusses, and columns will be dismantled from the covered treatment cell and staged in an adjacent are or loaded directly onto trucks.

The existing concrete piers will remain in-place and be incorporated into the capped stockpile. All sumps and pumps will be removed and the leachate piping capped and left in-place.

All visible contamination (soil) encountered on the structure during the removal process will be removed and placed in the existing contaminated stockpile.

5.2 Disposal of Building Materials

All building materials and sump pumps removed from the site will remain property of Eagle. Any building material deemed unsuitable, by Eagle, for salvage will either be placed in the covered cell along with other contaminated material or will be disposed of at an off-site location in accordance with the project specifications and all local, state and federal regulations.

6.0 Decommissioning of Covered Stockpile, Soil Processing Area, and Uncovered Treatment Cell

The revised Closure Phase objectives includes removing all of the contaminated, sacrificial and leachate collection material, geotextile fabric and associated HDPE liner and placing it into the existing covered treatment cell. The material will be layered and compacted as it is placed in the cell in order to minimize any settling that may occur with time. The placed material will be graded for effective drainage and final compaction will be achieved using a smooth drum vibratory compactor. A 40 mil HDPE cover will be installed over the placed material upon completion.

Eagle will take a systematic approach to the decommissioning of the covered stockpile, soil processing area and the uncovered treatment cells. Eagle will initiate activities in the uncovered treatment cell followed by the soil processing area and finally the covered stockpile.

6.1 Uncovered Treatment Cell and Soil Processing Area Procedures

6.1.1 Soil, Geotextile and Liner Removal and Placement

Eagle will utilize a dozer to push the contaminated soil and sacrificial material into stockpiles of manageable size. The material will then be transferred to the covered cell using a trackhoe. The soil will be spread and compacted in the covered cell area using a dozer. Once all of the contaminated soil and sacrificial material has been removed, the geotextile material will be cut into manageable sized pieces, as determined by Eagle, and placed in the covered cell.

After the geotextile material has been removed, Eagle will remove the leachate collection layer and place it in the covered cell as described above. Any above ground leachate collection piping will be removed and placed in the covered cell. All below ground piping will be capped and remain in-place. Once all of the leachate collection material has been removed, the geotextile material will be cut into manageable sized pieces, as determined by Eagle, and placed in the covered cell. The liner will be placed in such a manner to prevent folding, minimize air spaces and maximize compaction.

The leak detection layer sand will then be placed on top of the geotextile and liner material previously placed into the covered cell. The sand will be spread and compacted using a dozer. Once the leak detection layer has been removed from the cell, the bottom

HDPE liner will be cut into manageable sized pieces and placed in the covered cell.

6.1.2 Sump Pump Removal

All sump pumps located in the covered and uncovered treatment cells and the soil processing area will be removed and placed in an area for later decontamination and salvage prior to demolition of the cells. All associated piping will be removed from the uncovered treatment cell and the soil processing area during the soil and liner removal phase and placed in the covered treatment cell for final disposition.

6.2 Covered Stockpile

Eagle will initiate the demolition of the covered stockpiled area once the soil processing area and the uncovered treatment cell have been completed. Eagle will first remove the remaining portion of the stockpile cover. The cover will be cut into manageable sized pieces and placed in the covered cell. The liner will be placed flat to prevent air spaces and maximize the compactibility of the material.

The soil remaining in the stockpile will then be loaded into 14 cubic yard dump trucks and transported to the covered cell where the material will be dumped. A CAT D4 dozer will spread and compact the material as it is dumped. All soil in the existing stockpile will be handled in this fashion. The last 100 cubic yards of material transported to the covered cell will be stockpiled and not spread until the bottom HDPE liner has been removed from the existing stockpile and placed in the covered cell. This liner will be handled as previously described. Once the liner has been placed, the soil will be spread over top and compacted using the dozer.

7.0 Installation HDPE Cap

All contaminated and potentially contaminated material generated during the site closure will be placed in the covered cell. It is anticipated that this volume of material will be sufficient to produce a mound that extends slightly above the existing berms. Should the quantity of placed material not be sufficient to provide an appropriate slope, clean berm material will be added to the stockpiled material to provide for effective drainage. The mound will be graded and sloped for proper drainage and to prevent any water from accumulating (ponding) on the liner surface.

7.1 Compaction

As the material (soil, sand, geotextile and HDPE liner) is placed into the covered cell it will be layered and compacted using a CAT D4 dozer. Once all of the material has been placed, Eagle will employ a Dynopac 66 smooth drum vibratory compactor to achieve final compaction. The intent of compacting the material is to minimize any settling that may occur in the future.

7.2 Surface Preparation

Compacted soils will be smoothed and shaped as to create a mound for effective drainage using a D4 dozer, Cat 12G Blade and a Dynopac 66 Smooth Drum Vibratory Compactor, as appropriate. The surface will be prepared in accordance with the direction of the liner installation subcontractor. The surface will be free of rocks, debris and other materials that may compromise the integrity of the liner after placement. Eagle will rework the surface until it is adequately prepared for liner placement. Prior to the installation of the liner, the subcontractor will accept the surface conditions in writing.

7.3 Installation of HDPE Geomembrane Liner

Eagle will install a 40 mil HDPE geomembrane liner over the prepared surface. Installation procedures will be in accordance with Section 02590 of the Contract Documents. The HDPE liner will be installed by a qualified installer in accordance with the manufacturer's recommendations. Eagle will supply a manufacturer's warranty for the material for a length not to exceed 5 years and a workmanship warranty not to exceed 1 year.

8.0 Decontamination Procedures

8.1 Equipment Decontamination

All equipment that has contacted or had the potential to contact contaminated soil and/or water will be decontaminated in accordance with the decontamination procedures described in previously approved in the Site Specific Health & Safety Plan (SSHSP).

8.2 Handling of Decontamination Fluids and Soils

All decontamination fluids and solids will be handled in accordance with this plan, the Contract Documents and all local, state and federal regulations. Eagle will move the contaminated equipment to the existing decontamination pad where all visible evidence of contamination will be removed. Decontamination procedures will include scraping any large quantity of contaminated soil off of the equipment followed be pressure washing. The machinery will be cleaned until no evidence of contamination exists. Eagle's site safety officer (SSO) will be responsible for inspecting each piece of equipment prior to its removal from the project site.

All solids generated during the decontamination process will be placed in the covered treatment cell prior to the installation of the HDPE cover. All fluids generated will be containerized, treated, tested and discharged, as appropriate, in accordance with the procedures outlined in the previously approved project submittals.

9.0 Decommissioning of Water Treatment System

9.1 Decontamination of Treatment Vessels and Tanks

Decontamination of all treatment vessels and tanks will be performed in accordance with the procedures outlined above and the previously approved SSHSP. As each piece of the treatment system is decontaminated, it will be removed from the project site and salvaged by Eagle.

9.2 Disposal of Non-Salvageable Process Equipment

All non-salvageable Water Treatment System process equipment will be either be placed in the covered treatment cell or disposed of in accordance with all federal and state regulations. It is anticipated that only the carbon contained in the two carbon vessels will require placement in the covered treatment cell. All other pieces will be decontaminated and removed from the project site.

9.3 Capping and Plugging Underground Lines

During the demolition of the site and upon removal of Water Treatment System trailer and frac tanks, all underground water and transfer piping will be capped, plugged and abandoned in place in accordance with the recently revised Closure Phase Requirements.

10.0 Site Restoration and Decommissioning

During the site decommissioning and demobilization process, all structures, utilities and equipment will be removed from the site. Only the utility feeds, roads and fencing will remain in-place.

10.1 Decommissioning of Decontamination Pad

Upon completion of the decontamination of all process equipment, Eagle will decontaminate the existing decontamination pad in accordance with the procedures previously described. All visible evidence of contamination will be removed from the concrete surface. Eagle will remove the sump pump and cap or plug all the transfer piping that extends to the water treatment unit. The electrical feed and city water feed will remain in-place. The decontamination pad will remain in-place in accordance with the recently revised Closure Phase Requirements.

10.2 Site Grading and Revegetation

Upon completion of decontamination activities, Eagle will begin final site grading operations. Initially, Eagle will raze the existing berms from the stockpile area, the uncovered treatment cell and the soil processing areas. The berm material will be spread and compacted using a dozer. During grading operations, Eagle will provide the necessary controls to ensure that the site is prepared so that proper drainage may be achieved. All grading operations will conform to standard industry practices and the requirements of the Contract Documents.

After the initial grading activities have occurred, Eagle will spread the existing wood chip and topsoil stockpiles and grade the site for positive drainage. No other topsoil or material will be imported to the site.

Prior to the placement of the hydromulch, Eagle will perform a final topographic survey of the site to verify that the graded areas will drain effectively (without ponding). Eagle will generate and deliver to the Engineer a final "as-built" drawing verifying that the graded area will properly drain.

Once the final topographic survey is complete, Eagle will notify the landscaping contractor that the site is suited for hydromulch application. The subcontractor will supply and place the hydromulch, seed and fertilizer in accordance with the procedures outlined in the Contract Documents and the previously approved submittals. One initial watering event will occur immediately after the seed placement. No other watering or maintenance events are planned or included in our revised scope of work.

10.3 Removal of Air Monitoring Stations, Trailers and Sheds

Prior to placement of the hydromulch, all trailers, sheds and portable units will be removed from the site once all utilities have been disconnected. All pins and strapping will be removed. Underground utilities leading to the portable units will either be capped and remain in-place or removed from the site.

10.4 Removal of Utilities

Upon removal of all equipment from the Site, Eagle will contact the local electric and water utility companies to disconnect utility services and pull utility meters in accordance with the recently revised Closure Phase Requirements. All utility poles and electrical feed lines will remain in-place. All underground utilities will either be capped and abandoned in-place or will be removed, at Eagle's option. All breaker boxes and disconnects will be removed from the project site. Eagle will notify the telephone company to remove the service from the site.

Closure Pr
Soils Or
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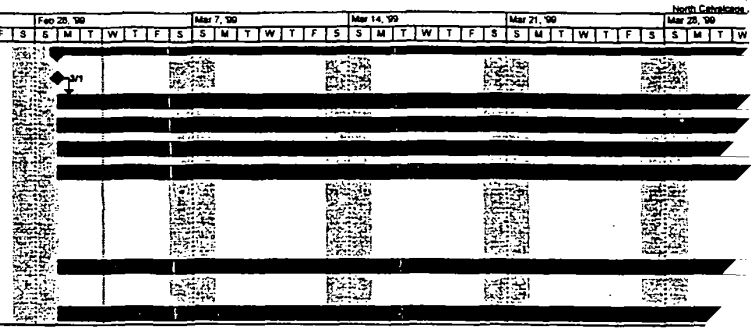
ID	Task Name	Duration	Start	Finish
1	Closure Phase	67 days	Mon 3/1/99	Tue 6/1/99
2	Remove Covered Treatment Building	0 days	Mon 3/1/99	Mon 3/1/99
3	Layer and Compact Soils from Existing Stockpile	25 days	Mon 3/1/99	Fri 4/2/99
4	Layer and Compact Soils from Soil Processing Area	25 days	Mon 3/1/99	Fri 4/2/99
5	Layer and Compact Soils from Open Cell	25 days	Mon 3/1/99	Fri 4/2/99
6	Cut-up and Layer Existing Geomembrane Liners	25 days	Mon 3/1/99	Fri 4/2/99
7	Cover and Seal Covered Bio-Cell with 40mil HDPE Liner	11 days	Mon 4/5/99	Mon 4/19/99
8	Grade Berm Soil over site for effective drainage	11 days	Mon 4/5/99	Mon 4/19/99
9	Spread stockpiled Woodchips and disain soil over site	11 days	Mon 4/5/99	Mon 4/19/99
10	Air Monitoring	36 days	Mon 3/1/99	Mon 4/19/99
11	Trailers, sheds and equipment to be decontaminated and removed from site	11 days	Mon 4/5/99	Mon 4/19/99
12	Closure Phase Submittals	67 days	Mon 3/1/99	Tue 6/1/99



Project: North Cevalcade
Date: 3/3/99

Task | Split | Progress | Milestone | Summary | Rolled Up Task | Roller

Page

11.0 Demobilization

Once all site activities have been completed and equipment has been removed from the site, Eagle will perform final demobilization activities. Eagle will visually inspect the existing perimeter security fencing, gates and silt fencing for damage. Should damaged be encountered, it will be repaired to a functional condition. Eagle will then request that a final completion walkthrough be held with TNRCC and Engineer representatives. Any items found to be deficient will be remedied and documented. Eagle will then demobilize from the site, turning over all keys to the perimeter gates to the TNRCC.

FOR THE FOLLOWING SUBMITTALS

SEE INITIAL COMBINED SUBMITTAL FILED IN SEPARATE FILE FOLDER AS CLOSURE PHASE SUBMITTAL 00000000

01420-2	Chemical Quality Control Issues
01540-2	Daily Security Log
01560-1	Air Contaminant Release Report
01564-1	Spill Notification
01564-2	Spill Release Incident Report
01650-1	Audit Results
01650-2	Air Monitoring Data
01700-2	Closure Phase Final Completion Notice
01720-1	Closure Phase Record Documents
02900-1	**Completion Certification**

DOCUMENT TRANSMITTAL

RE: North Cavalcade Submittals

Date: September 27, 1999

TO: Robin Cosgrove
IT Corporation
2525 Ridge Point Drive
Suite 300
Austin, Texas 78754

SUBMITTAL NO.: 011820-2

PROJECT PHASE: [ ] CONSTRUCTION [ ] TREATMENT [X] CLOSURE

SUBMITTAL DESCRIPTION: Water Treatment System Disposal Documents

[X] FIRST SUBMITTAL
[ ] RESUBMITTAL

[ ] FOR APPROVAL
[X] FOR YOUR FILES

REMARKS:

EAGLE CONSTRUCTION

NAME: Marc W. Walraven

(Signature)

ENGINEER'S RESPONSE

APPROVED	[ ]
APPROVED AS CORRECTED	[ ]
REVISE AND RESUBMIT	[ ]
NOT APPROVED	[ ]

Approval is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be conformed and correlated at the job site; for information that pertains solely to the fabrication processes or to techniques of construction; and for coordination of the work of all trades.

Date: It Corporation
By:

Remarks:

Submittal No. 11820-2
Water Treatment System

Disposal Documents

The treatment system was dismantled and decontaminated before leaving the site. All parts were salvaged for future use and/or recycled. There was no waste to dispose of.