

CREATIVE ENVIRONMENTAL TECHNOLOGIES, INC.

PROVIDING ENVIRONMENTAL SERVICES TO THE NORTHWEST FOR OVER 15 YEARS



CAMERON YAKIMA CONTAMINATED SOIL REMOVAL PROJECT
FOR WASHINGTON DEPARTMENT OF ECOLOGY
BY ASPEN ENVIRONMENTAL, INC.

**CAMERON YAKIMA CONTAMINATED SOIL REMOVAL PROJECT
REMEDIAL ACTION REPORT**

PROJECT NAME: Cameron Yakima Contaminated Soil Removal Project

LOCATION: Site of former Cameron Yakima, Inc. facility
1414 S. First Street, Yakima, Washington

This document is part of the official
Administrative Record for the
Yakima Railroad Area.
Washington State
Department of Ecology



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**CAMERON YAKIMA CONTAMINATED SOIL REMOVAL PROJECT
FINAL REMEDIAL ACTION REPORT**

1.0 INTRODUCTION

Aspen Environmental, LLC (Aspen) was awarded a contract to excavate and dispose of contaminated soil located at the Cameron Yakima Facility (CYF) in Yakima, Washington. Aspen contracted with Creative Environmental Technologies, Inc. (CETI) to complete the project scope of work and project analytical setup, manage soil and groundwater sampling activities on site and report findings to the Department of Ecology (Ecology). The project Scope of Work was written by CETI and outlined the remedial activities that would take place along with the Health and Safety Aspects and Quality Assurance Quality Control (QA/QC) required by Ecology. The project scope of work is attached in a file title "Project Work Plan." All project work plans are attached in Adobe Acrobat 4.0 format.

This report is a review and summary of activities during the remediation project. The remediation activities were started the first of December 1999, and continued through the winter. Work was placed on hold when weather conditions became too extreme. Daily/Weekly logs were written and sent to Ecology by CETI and are attached in two files entitled "Attachment G - Supervisor Daily Logs" and "Attachment H - Technician Daily Logs." These files provide a detailed look at site excavation activities and sampling activities throughout the project. Analytical reports are also attached in two files entitled "Attachment E - Preliminary Analytical Results" and "Attachment F - Verification Analytical Results". These files contain the results of all the analysis completed during the course of the project. Each of these files are saved in Adobe Acrobat 4.0 and are book marked by the chain of custody number and sample collection location.

A detailed site map was kept during the excavation showing sample locations and depths. This map has been divided into three individual maps. They are entitled "Attachment A - Western Excavation Sample Location Map", "Attachment B - Eastern Excavation Soil Sample Location Map", and "Attachment C - Verification Soil Sample Location Map".

The project was separated into two phases - Phase 1 was the remediation and disposal of the contaminated soils on the western half of the property as outlined in the project work plan. Phase 2 was the excavation of the Shano ditch and the excavation of the eastern property as outlines in the project work plan.

1.1 Project Scope Of Work Summary

Aspen Environmental, Ltd. was contracted by Ecology to remove an estimated 27,000 cubic yards of contaminated soil from the site of the former Cameron Yakima facility and remove and dispose of a 30-ton, multiple hearth kiln from the subject property based on the project scope of work.

Creative Environmental Technologies, Inc. (CETI), was hired by Aspen to provide soil and groundwater sampling, track analytical results, provide input regarding the extent of contamination, provide input on the disposal of excavated soils, monitor dust control, and implement the health and safety plan. Analytical laboratory services were provided by North Creek Analytical Labs (NCA), with a mobile onsite laboratory and at NCA's stationary laboratory located in Beaverton, Oregon.

The kiln was prepared for transport and then trucked to the Waste Management Inc., a hazardous waste landfill located in Arlington, Oregon. Contaminated soils that were designated as dangerous or hazardous waste were hauled to either the Waste Management Inc. hazardous waste landfill or the Envirosafe Services of Idaho (ESSI) landfill in Grandview, Idaho. Coarse soils (rock) that the specified cleanup standards were stockpiled offsite and used to backfill the excavation. Fine soils (excluding clean backfill) were hauled to the Regional Disposal Company (RDC) landfill located in Roosevelt, Washington.

The first task of Phase 1 was to remove the kiln from the property and the sealing of the eastern property asphalt. According to Ecology, the kiln was never used on the property. Next was the excavation of concrete, asphalt and contaminated soil from the western portion of the site (western excavation area), soil sampling to determine vertical and horizontal extent of contamination, the excavation of contaminated soils and soil sampling in the vicinity of the Shano Ditch, the replacement of the Shano Ditch and soil sampling for verification of clean soils. Phase 2 encompassed the excavation of asphalt, concrete and contaminated soil from the eastern portion of the site (eastern excavation area), soil sampling to determine vertical and horizontal extent of contamination, soil sampling for verification of clean soils and the backfilling and compaction of excavated areas of the property.

The excavated soil was screened to separate rocks greater than 2 inches in diameter, and stockpiled on a lined surface. Soil samples were obtained following the excavation of 4 to 5 feet of soil, based on a 40-by-60-foot grid pattern, to determine the extent of excavation needed and the degree of contamination of excavated fine and coarse soils. Verification sampling was completed following clean preliminary sample results to confirm that residual contaminant levels in the floor and sides of the excavation did not exceed the specified project cleanup levels.

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Once the verification sample results indicated that residual soils met the cleanup levels, the excavated areas were backfilled both with the clean coarse material that was stockpiled offsite and with imported clean fill. This area was then graded and compacted in lifts, to match the original site grade.

1.2 Project Health & Safety Summary

The Health and Safety Plan (HSP) was designed in substantial conformance with the guidelines outlined in the EPA Standard Operating Safety Guide and the U.S. Department of Labor OSHA Standards at CFR Part 1910 (e.g., 29 CFR 1910.120 on hazardous waste).

All employees, visitors, officials, subcontractors, and other personnel entering the work area were briefed in an onsite meeting prior to the commencement of site activities. As field conditions changed, or potential health and safety issues pertaining to site specific contaminants, hazardous work areas and emergency response procedures changed, workers were briefed in daily and weekly meetings.

Daily and weekly informal meeting and briefings were held between CETI's on site tactician and project workers. Site briefings were conducted with all personnel to review all hazards that were known or suspected to be found at the site. Site briefing topics included a review of the toxicological and physico-chemical data, required personal protective gear, use of the gear, warning signs of exposure and overexposure, evacuation routes, and other emergency procedures relevant to the days operations.

No major violations of the Health and Safety plan warranting project suspension or employee reprimand were observed or recorded. Minor violations of the health and safety plan were observed throughout the project; these were quickly rectified through additional training and safety sessions with project workers.

2.0 SITE PREPARATION

Before any excavation activities the kiln location on the eastern half of the property was prepared for disposal. All openings in the kiln were welded shut and the kiln was painted with a latex paint to seal the kiln surface area. Once the kiln was sealed, a crane was used to lower the kiln onto a flatbed trailer. The kiln was then encapsulated with plastic and transported to Waste Management's disposal facility in Arlington, Oregon.

Next, the eastern half of the property's asphalt areas were sealed with asphalt patch. Areas where asphalt was missing or areas that were not paved, were paved in order to

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encapsulate the entire eastern half of the property.

A decontamination station was set up in northeastern corner of the property. This area was used to decontaminate workers upon exiting the work area.

North Creek Analytical's mobile laboratory was placed along side the decontamination area. An office was set up in a building set aside for use by the contractor just outside the eastern fence line of the subject property. The property was laid out in a 40 foot by 60 foot grid pattern starting from the northwestern corner of the property. Since over-excavation onto the adjacent properties was in the scope of work, grid A1 through A9 comprised the southern end of the northern adjacent property. The excavation grids on the subject property started with grid B1 in the northwest corner of the property.

Prior to starting excavation work all monitoring wells associated with the subject property were sampled. The sampling event was completed by CETI in November 1999. A description of groundwater sampling events is addressed in section 3.0 of this report.

Preparation of the southern adjacent property was also completed. An area adjacent to the southeastern property line was cleared and leveled to allow truck access onto the subject property for removal of contaminated material for disposal. Other areas on the southern adjacent property were also used to store clean fill material that was imported to be used for backfilling the property. These storage areas for the imported material were graded and staked off.

3.0 GROUNDWATER SAMPLING

During the project, three groundwater sampling events were required by Ecology - one at the beginning to the project prior to excavation activities, one in the middle of the project following the excavation and backfilling of the western excavation area, and one following the completion of the excavation project and backfilling of the entire property. Sample analysis was performed by NCA in Beaverton Oregon. Sample results from each sample event were submitted to Ecology for interpretation. Analytical results can be found in Attachment F - Verification Analytical Results.

The first groundwater sampling event included both onsite monitoring wells and off-site monitoring wells in November 1999. This groundwater sampling event was completed over a two day period. Each well was opened, a photoionization detector was inserted and readings collected for oxygen, carbon monoxide, and volatile organic compounds (PID). The water depth indicator was inserted in the well and depth to water measured. Water samples were collected from each well following the purging of three well volumes of water. The first round of

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groundwater sampling used disposable Teflon bailors. Samples were collected using these bailors and the water placed into appropriate sample collection jars.

The second round sampling event for the groundwater monitoring wells saw no changes from the first sampling event other than the five monitoring wells inside the work area were not sampled. During the excavation process, the on-site monitoring wells were abandoned. Rather than using disposable Teflon bailors, reusable Teflon bailors were used and decontaminated between each purge and sampling event. All purged water from each well was collected and stored in 55 gallon drums in common areas between well groups. Samples were collected using these bailors and the water placed into appropriate sample collection jars.

The third sampling event for the groundwater monitoring wells saw no changes from the second sampling event. All purged water from each well was collected and stored in 55 gallon drums in common areas between well groups. Samples were collected using reusable Teflon bailors and the water placed into appropriate sample collection jars.

4.0 SOIL EXCAVATION AND STOCKPILE MANAGEMENT

The contaminated soil that was excavated was moved with a front-end loader to a screening unit located on-site. This loader was equipped with a scale so that the pre-screened material weight could be tallied. The soil was placed in a hopper by the front end loader. The screening unit load area was equipped with a 12 inch grate to separate out rock greater than one foot in diameter. The remaining material was transported via conveyor and then sifted through a two inch steel screen. The screened material was transported by an addition conveyer to the screened stockpile. The coarse material or two inch or greater material would fall away from the screening unit and be stockpiled in a coarse material stockpile (rock stockpile).

Both the screened soil and rock were stockpiled until the stockpile reached 1,000 to 2,000 cubic yards of material. Once the stockpile limit was reached, soil samples were collected from each stockpile. The soil samples collected from the screened pile were analyzed for TCLP metals per the Department of Ecology's request in the project work plan.

Initially, ten samples were collected from the rockpile, however as additional rock stockpiles were created, Ecology determined that collecting three samples from each stockpile was adequate. These samples were analyzed for all target analytes. These included volatile organic compounds, method 8260, semi-volatile organic compounds, method 8270, RCRA 8 priority total metals method 6000/7000, and pesticides including organophosphorous, method 8081 and organochlorine method 8041. Analysis results on one of the stockpile samples indicated volatile levels above the clean-up target level for the property. These results were

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conveyed to Ecology. Rick Roder, Ecology project manager, made the decision to use the rock as fill material.

4.1 Phase 1 - Western Excavation

Prior to the excavation of soil, asphalt and concrete throughout the western excavation area was removed. Most of the concrete removed had carbon adhered to its underside. It appeared that the concrete was poured directly onto the carbon. No technique was available to remove the carbon from the concrete. The asphalt and carbon-laden concrete were stockpiled separately and then disposed of at the Rabanco disposal facility.

During the excavation of the western half of the property, an onsite lab provided by North Creek Analytical Services, completed onsite analysis for target analytes tetrachloroethylene, trichloroethylene, dichloroethylene and vinyl chloride. Onsite analysis of these target analytes drove the remediation process and delineated the horizontal and vertical extent of the contamination.

Each grid was sampled for onsite analysis following the excavation of 4 to 5 foot lifts. Sample collection numbers for each grid ranged between 3 and 6. Additional sampling was necessary in grids C3, C4, C5, D3, D4, D5, E3, E4, E5 since the excavated soil showed both visual and olfactory indication of carbon and site specific contamination. Additional excavation was necessary in grids where site specific contaminants (SSC) concentrations above the cleanup level were measured through onsite analysis. Also, additional excavation was necessary in grids E4 and E5 on to the southern adjacent property. Sample results along the southern excavation limit resulted in the excavation of 10 feet into the southern adjacent property in both grids E4 and E5. Final depths ranged throughout the western property. These depths can be found in table 1.

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Table 1
 Soil Excavation Depth Per Grid
 Grid depth bgs (below ground surface)

	1	2	3	4	5	6	7	8	9
B	4' bgs	5' bgs	5' bgs	8' bgs	10' bgs	8' bgs	5' bgs	5' bgs	5' bgs
C	8' bgs	8' bgs	8' bgs	8' bgs	8' bgs	8' bgs	7' bgs	7' bgs	7' bgs
D	5' bgs	5' bgs	8' bgs	16' bgs	16' bgs	5' bgs	5' bgs	5' bgs	5' bgs
E	5' bgs	5' bgs	8' bgs	16' bgs	16' bgs	5' bgs	5' bgs	10' bgs	5' bgs

During the excavation, a 36-inch diameter brick lined sump was observed in grid B5. A 6-inch pipe was observed leading from the sump area to the east towards B6 and the northern property line. Soil samples were collected from the sump excavation following the removal of the sump. Sample results showed elevated concentrations of SSC's and required additional excavation of the area. Final depth was 10 feet BGS in grid B5 east half. The pipe observed was removed and was not attached to anything.

Other buried debris such as concrete was observed throughout the western excavation area. Several areas had large concrete footings and other concrete debris. Most of the subsurface debris was located in grids D5-6', E5-6'. This area had a very large amount of concrete footings and other buried concrete material. All of the material excavated was covered with carbon.

4.2 Western Excavation Additional Contamination

During the excavation of grids D4 and E4 unexpected contamination was observed at 10 to 12 feet bgs, 5 to 7 feet above groundwater soil interface. This contamination was different from the contamination outlined in the Scope of Work based on field observations and analytical results. Two soil samples were collected of this material and sent to North Creek's Portland laboratory for analysis. Analysis of this material indicated that the contamination consisted of gasoline, diesel, heavier petroleum hydrocarbon analytes along with benzene, toluene, ethylbenzene, and xylene. The material was excavated, trucked and disposed of at the Rabanco facility. Along with this unexpected contamination, a vertical, 10 inch steel pipe was located just east of the new contamination area. The pipe went from 2 feet bgs to 25 feet bgs and possibly deeper. During its removal it was broken two feet below the water table. It is unknown if the pipe was associated with the additional contamination.

4.3 Phase 2 - Eastern Excavation

Following the western property backfilling, the on-site decontamination area was moved to the western end of the property. Prior to excavation of soils on the eastern half of the property one asphalt sample was pulled from each grid throughout the eastern half of the property and analyzed for SSC. Several grids had elevated levels of SSC and were disposed of with the soils and logged in the daily logs. Following the sampling, the asphalt was removed and stockpiled.

The soils directly below the asphalt appeared heavily laden with carbon throughout the eastern half of the property. Soil from 5 to 7 feet bgs was removed from the eastern half of the property encompassing grids B, C, D and E7, B, C, D, and E8, B, C, D, and E9. Carbon was observed in all of these grids with a thicker more defined layer along the eastern property boundary. This layer of carbon on the eastern boundary of the property through grids B7, B8 and parts of B9 had a depth of up to 8 feet bgs.

During the excavation of the first lift of soil, three sump systems as well as three septic systems were encountered along the northern boundary of the property in grids B6, B7, B8 and B9. Three of them along the northern boundary in grids B7, B8 and B9 were connected by a 4 to 6 inch pipe. Each system was removed on site with an excavator and samples were collected from directly below the location of the removed system. Also, during the excavation along the northern boundary of grids B6, B, a 10 to 12 inch pipe was observed directly below one of the storage/septic devices located in this grid. This pipe ran into the ground approximately 10-12 feet bgs. When investigated the pipe appeared to be full of sand and dirt at 12 feet bgs. Further excavation could not be completed due to sloping from the northern property boundary. Sampling collected from the pipe location were free of target SSC's. Following the removal of the septic drainage systems from the northern property boundary and the removal of 5 to 8 feet of soil throughout the entire eastern half of the property, preliminary and verification sampling was completed in each grid with no indication of contamination.

In grids E8 and D8, five test pits were excavated to 10 feet (bgs). Sampling was completed in these test pits at 4-6, 6-8 and 8-10 feet bgs. No indication of contamination by SSC was observed in any test pit. A metal like material was observed in grid E8 to 6 feet bgs. This material is discussed section 4.4 Eastern Excavation Additional Contamination

Confirmation samples were collected from each grid, three per grid throughout the eastern side of the property. These confirmation samples also were collected from the perimeter of the eastern side of the property along the north-end, south-end and east-end of the property in each border grid. All samples collected were free of SSC's with the exception of grid E8. Sample results from grid E8 southern boundary confirmation sample showed elevated levels of DDT in the soil. The area was excavated and re-sampled for DDT. Analytical results showed

low levels in one of the six DDT verification samples. Ecology was notified and they authorized backfilling the area along with the rest of the eastern excavation area.

4.4 Eastern Excavation Additional Contamination

As with the western excavation area, following the removal of concrete and asphalt in each grid, a layer of carbon laden dirt from 6" to 5' thick was observed throughout the property. It was estimated that there was at 200-400 yards located throughout the property. Upon completion of the excavation process over 12,000 yards of carbon-laden material had been excavated from the property and un-screened to the Rabanco disposal facility. Several initial profile samples were collected of this material and analyzed for target analytes. Concentrations did not exceeded the limits for disposal at a state licensed disposal facility.

Upon completion of excavation activities, verification samples were collected from each grid throughout the property to determine that the remaining soils were free of contamination. Two areas were observed to have elevated levels of the semi-volatile compound DDT. Grid B1 west boundary and grid E8 southern boundary. Both grids had elevated levels of DDT, however grid E8 extended onto the subject property and warranted further remediation. E8 was excavated 5 feet deep and in a 10 foot radius from the initial sample point. Samples were collected from all four side walls and from the bottom of the excavated area. All samples were free of DDT except for E8-BN-5'. This sample was collected from the bottom north end of the excavated area. Analytical results show this sample as having concentrations of DDT at 4620 ppb (ug/kg).

During the excavation of grid E7 and D7 a metal slag-like material was observed both on the surface and at approximately 6-12 inches bgs. This material was excavated and stockpiled until further analysis for TCLP metals could be completed. Analytical results for TCLP metals were below cleanup limits, however, the material still showed signs of carbon and was disposed of at the Rabanco facility.

4.5 Storm Water Collection & Storage

During the excavation process, storm water from rain and snow was collected on the eastern end of the property. The asphalt area on the eastern half of the property was sloped to a catch basin where water collected. This water was pumped from the catch basin and the surrounding areas into a 20,000 gallon holding tank placed on site by Aspen for the purpose of storage of potentially contaminated storm water.

Following the completion of the western half of the property, samples of the water from inside of the tank were collected and analyzed for SSC's. When analytical results showed no indication of SSC's, the water in the storage tank was used for onsite dust control. This practice

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was approved by Rick Roeder, Ecology project manager. Once the tank was emptied, it was removed from the property and a smaller 2,000 gallon tank was set up along the southwestern corner of the property for water storage in case of extreme rain events. In March during a sudden rain event, water overflowed the Shano ditch and flooded the southern adjacent property and part of the subject property. This water quickly dissipated into surface soils

5.0 SHANO DITCH EXCAVATION AND REPLACEMENT

Following the excavation and backfilling of the western half of the property, the Shano ditch was excavated, the existing galvanized and concrete ditch structure was removed, and the underlying soil sampled. During the excavation of the Shano ditch contamination, was observed along the northern end in grids B6 and C6, however contamination did not exceed 6 feet bgs.

During the excavation of soil and carbon material under and around the existing Shano ditch, a temporary ditch was installed 10 feet to the west. Grids B6 and C6 were excavated to depths 6 to 8 feet bgs. Grids D6 and E6 were excavated to depths between 4 and 6 feet bgs. The varying depths were due to carbon layers in the underlying soil and elevated levels of target analytes in the initial sampling of each grid.

Following the excavation of all contaminated and carbon-laden materials from the ditch line in grids B6, C6, D6 and E6 the temporary ditch was removed and a new 36" galvanized steel ditch was installed in grids B6, C6, D6 and E6.

6.0 PROJECT CONCLUSION

The purpose of this report was to outline significant site activities throughout the course of the excavation process. Site excavation activities and soil disposal were completed the second week of May 2000. Backfilling of the eastern half of the property and the disposal of carbon contaminated soil completed the excavation and disposal process of this job. The eastern half of the property following this excavation and clean verifications samples was backfilled and compacted to meet Ecology specifications. According to Aspen Environmental, the eastern half of the property was completed the first of June 2000, with fences being reinstalled throughout the month of June 2000 and into July 2000.

Site work that needed to be completed by Aspen on the southern adjacent property was completed at the end of June 2000. The final groundwater sampling event was completed by CETI in July 2000.

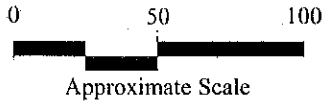
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All efforts were made to achieve the highest quality of the site sampling activities and analytical results possible for this project. Attached to this report are several files that contain both analytical results, photo documentation of site activities, initial work plans outlining site activities, trucking and disposal records, daily e-mail logs outlining site activities and site excavation maps showing soil sample locations throughout the property. Final cut elevation can be found in the soil sample identification number i.e. B2-B1-5' = B2(sample number)-B1(sample location)-6'(sample depth). All files have been saved in Adobe Acrobat 4.0 "pdf" format.

Final sample analytical results from all onsite verification sample locations show no site specific contamination present. Also, the additional contamination observed in grids E4, D4, E5, D5 impacted groundwater in those areas and warrants additional monitoring through the installation of additional groundwater monitoring wells.

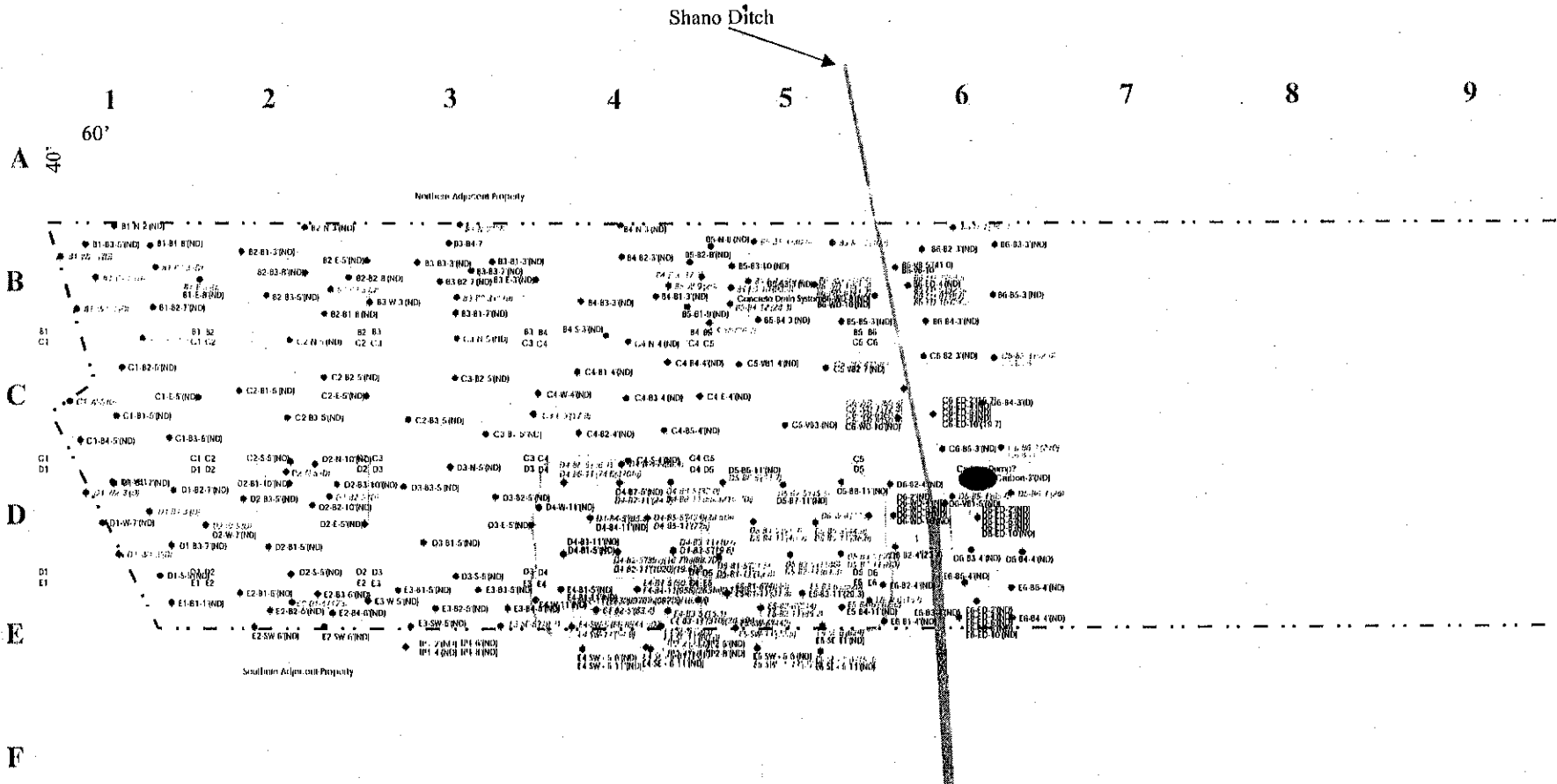
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- Preliminary Soil Sample Location
- Test Pit Location



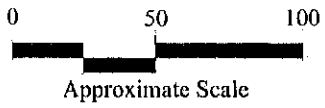
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Preliminary Soil Sample Location Map
Western Excavation
Site Map With 40' x 60' Grid
1414 S. First Street
Yakima, WA



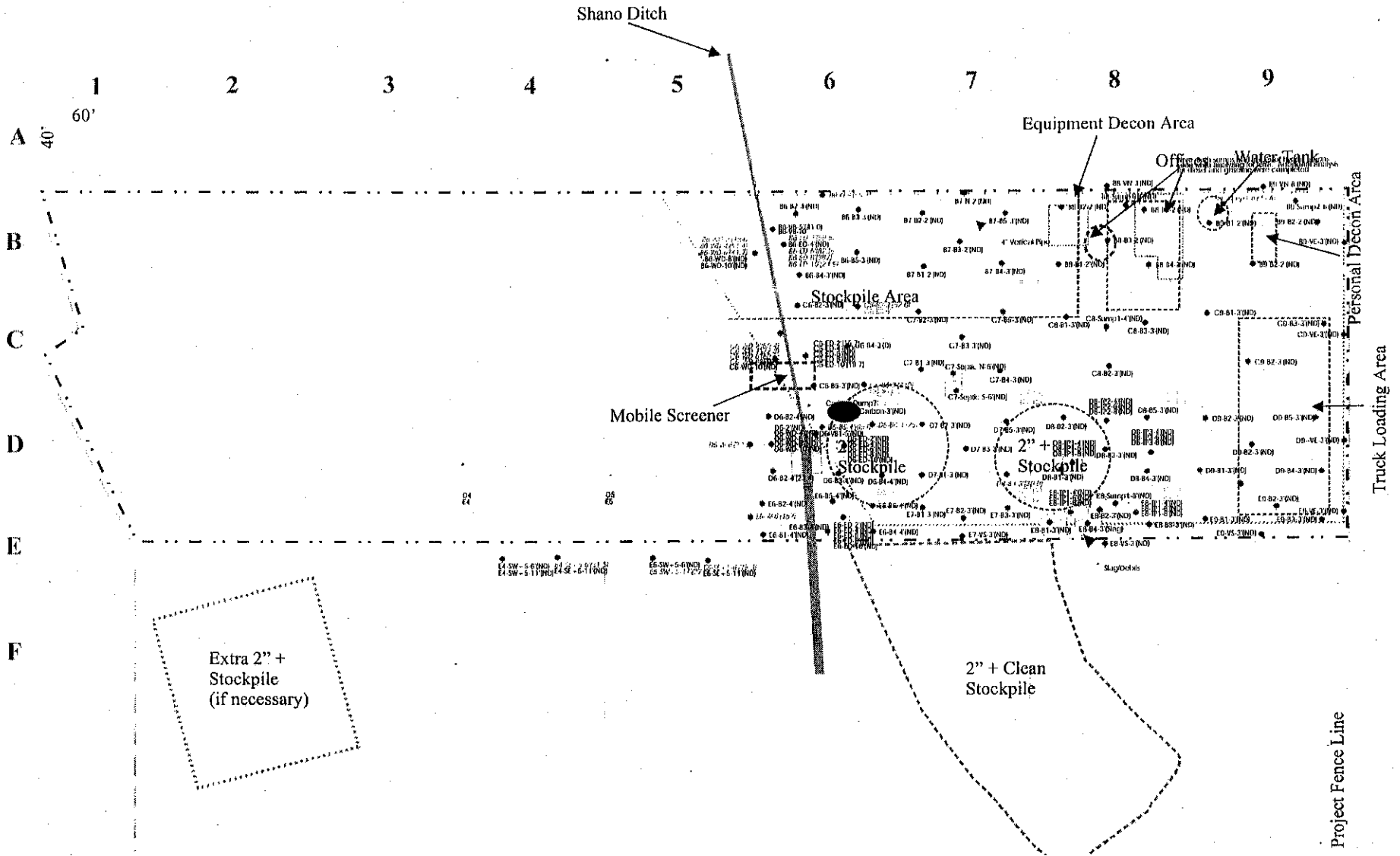


● Preliminary Soil Sample Location
 ○ Test Pit Location



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Preliminary Soil Sample Location Map
 Eastern Excavation
 Site Map With 40' x 60' Grid
 1414 S. First Street
 Yakima, WA



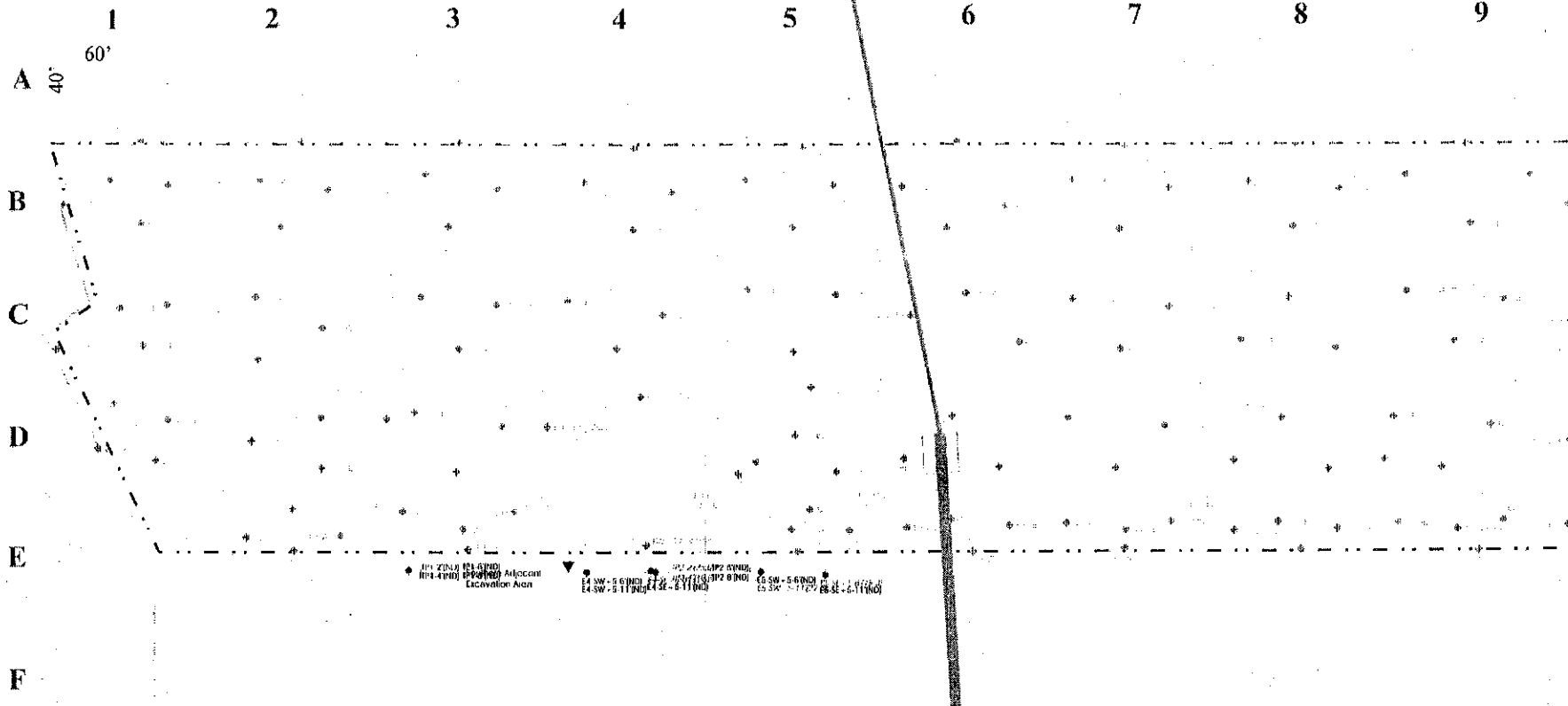
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Verification Soil Sample Location Map
Site Map With 40' x 60' Grid
1414 S. First Street
Yakima, WA



* Verification Soil Sample Location
+ Test Pit Location

Shano Ditch





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**CAMERON YAKIMA CONTAMINATED SOIL REMOVAL PROJECT
PHOTOGRAPH LOG**

PROJECT NAME: Cameron Yakima Contaminated Soil Removal Project

LOCATION: Site of former Cameron Yakima, Inc. facility, 1414 S. First Street,
Yakima, Washington

Introduction

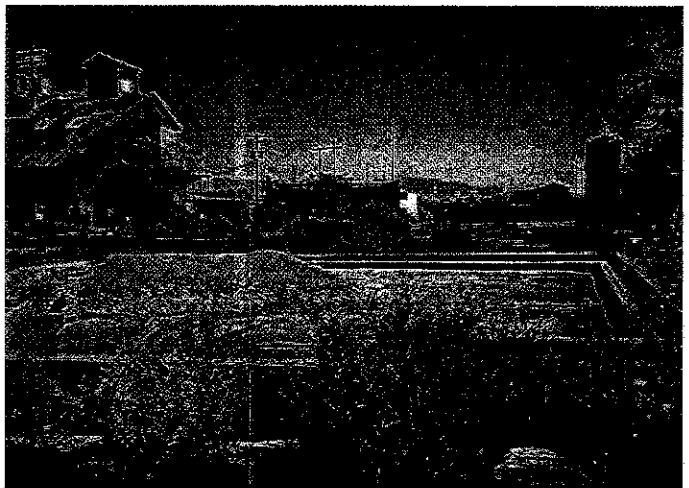
Attached in the following pages are the Aspen Environmental Supervisor Photograph Log for the Cameron Yakima Contaminated soil removal project.

Site Photograph Log

Cameron - Yakima Contaminated Soil Removal



Subject Property Facing West - Prior To Excavation



Subject Property Facing East - Prior To Excavation

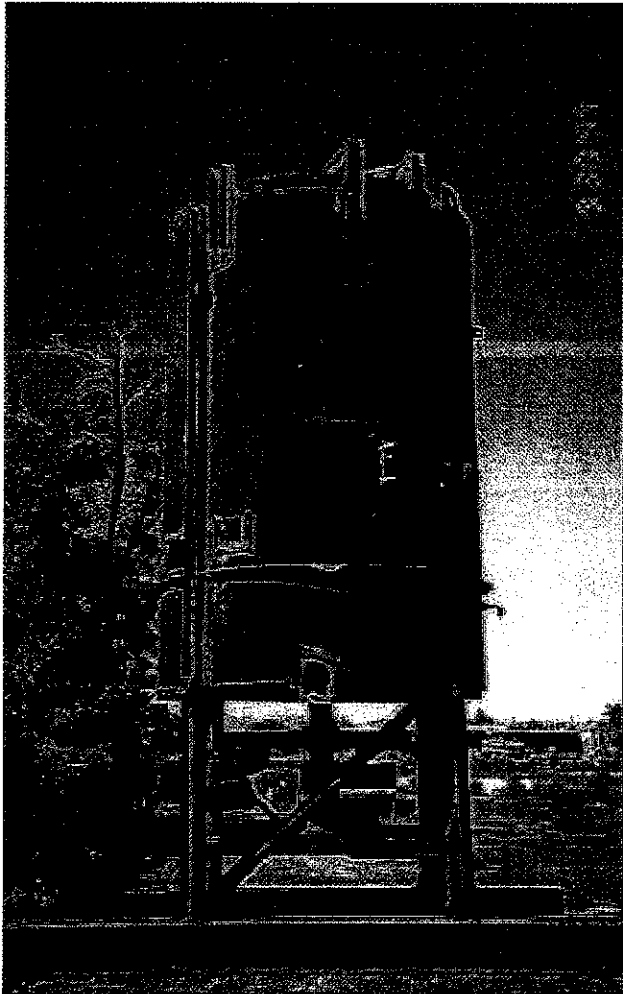


Drums On Site Prior To Project Start

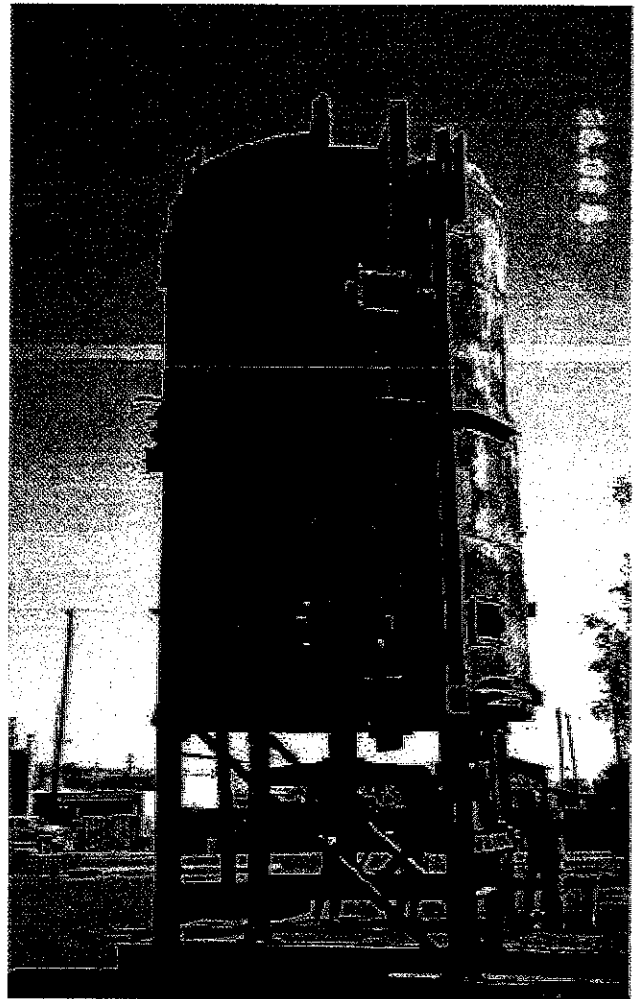


Subject Property Facing West

Site Photographs
Cameron - Yakima Contaminated Soil Removal
Cameron Yakima Facility

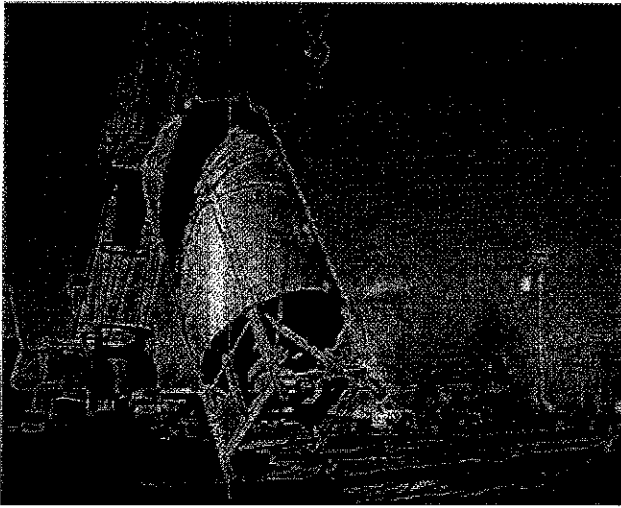


Kiln-FacingWest

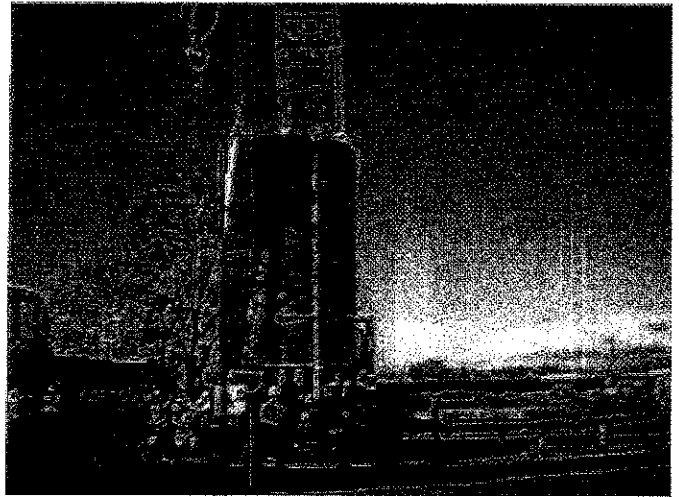


Kiln-FacingEast

Site Photographs
Cameron - Yakima Contaminated Soil Removal
Cameron Yakima Facility



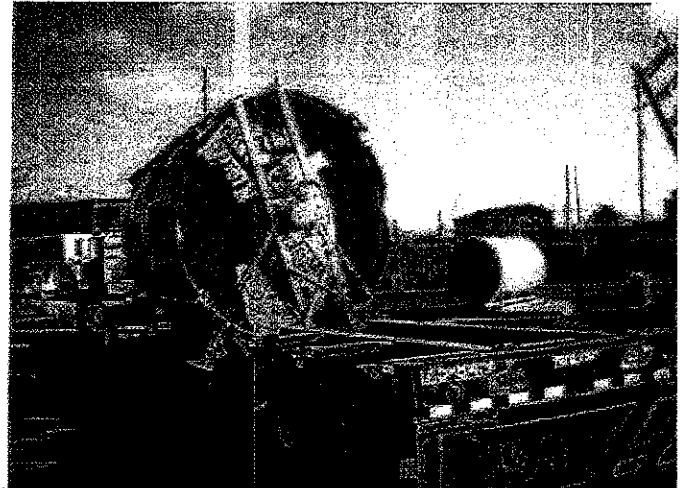
Kiln - sealed and being lowered for removal



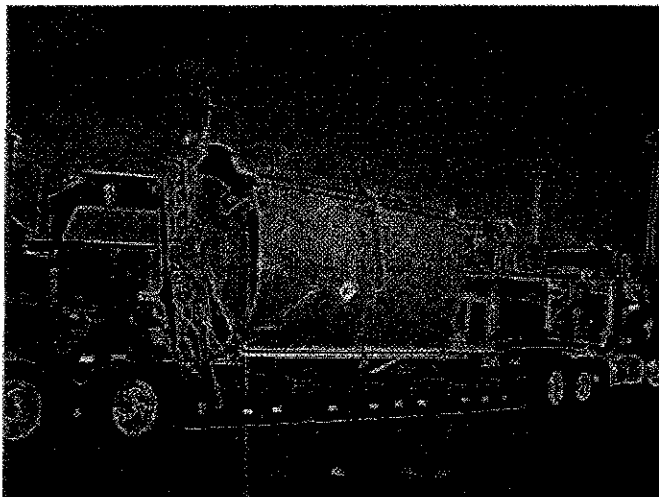
Kiln-sealed and being lowered for removal



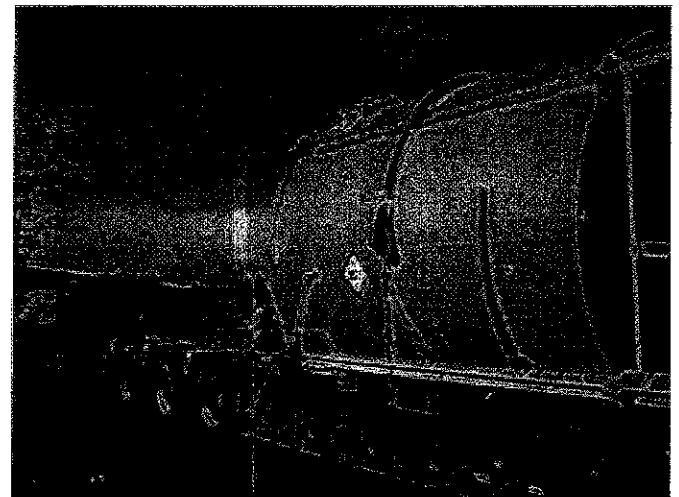
Kiln-sealed and being lowered for removal



Kiln-onboard trailer for transport offsite

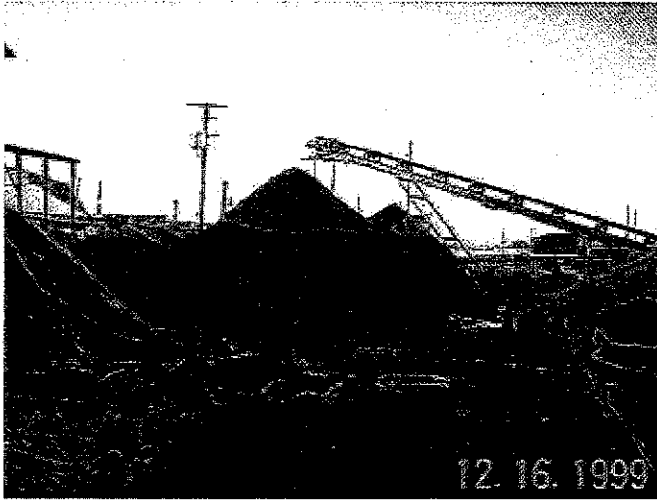


Kiln-onboard trailer for transport offsite



Kiln-onboard trailer for transport offsite

Site Photographs
Cameron - Yakima Contaminated Soil Removal
Cameron Yakima Facility



ScreenedStockpile



ScreenedSoil Stockpile



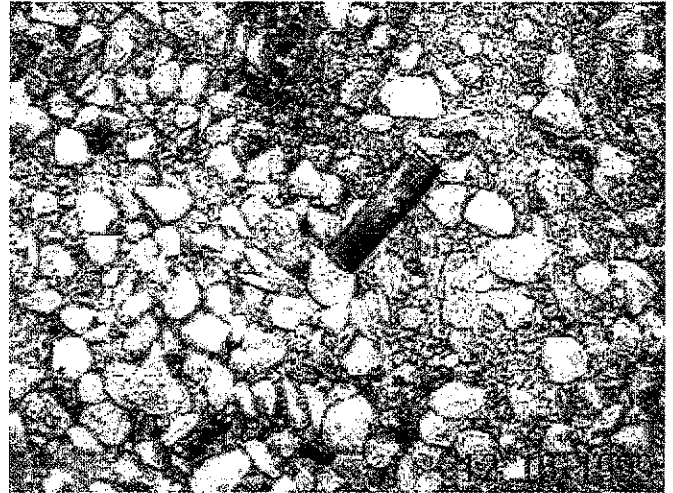
Excavationof gridC1



Excavationof gridC1



Carbon insoil



Debris

SitePhotographs
Cameron-YakimaContaminatedSoil Removal
CameronYakima Facility



Excavation of grids E1-3, D1-3, C1-3



Noticeable carbon below asphalt and concrete



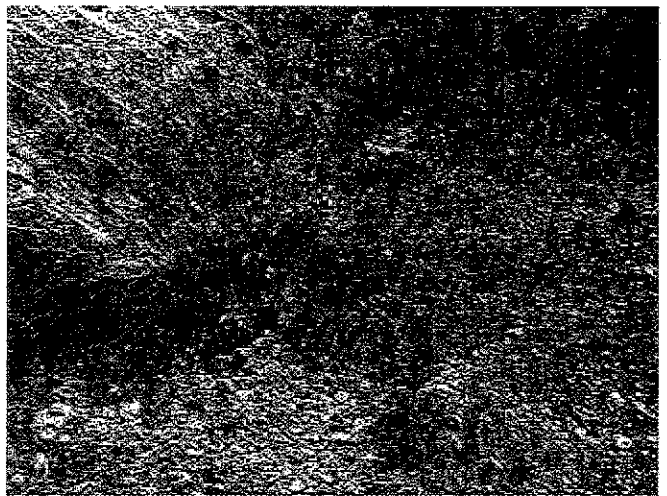
Grids E1-3, D1-3, C1-3 following removal of 3 to 5 feet of soil



Grids B1-2, C1-2 following removal of 3 to 5 feet of soil, notice carbon in upper left



Excavation depths to 6 feet bgs, notice carbon



Excavation depths to 6 feet bgs, notice carbon

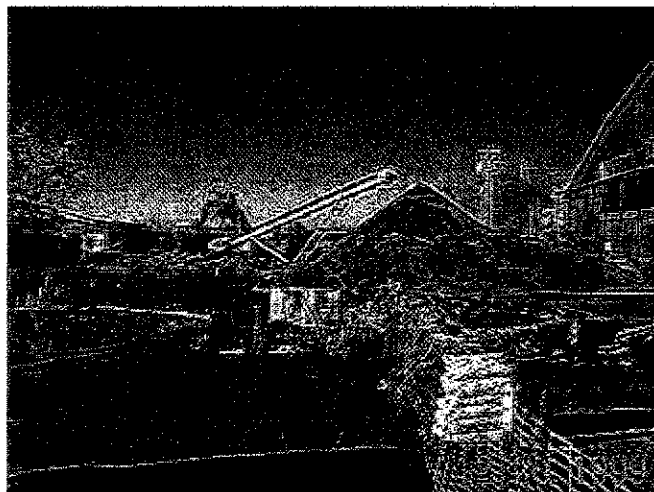
Site Photographs
Cameron - Yakima Contaminated Soil Removal
Cameron Yakima Facility



Decommissioning monitoring wells on property



Decommissioning monitoring wells on property



Screened soil stockpile



Water storage and decontamination area



Covered stockpile

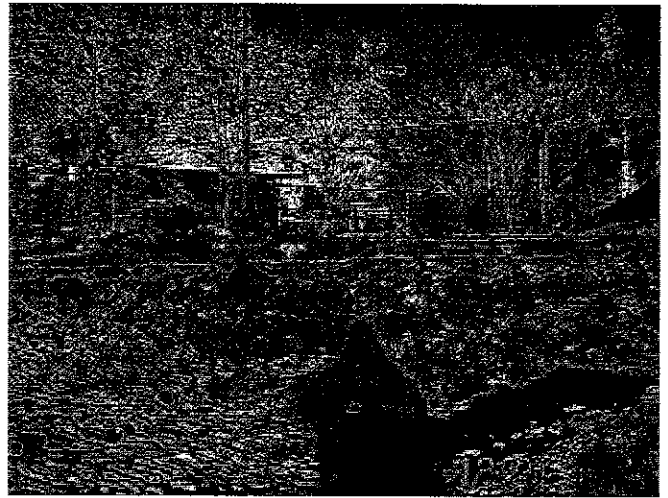


Covered stockpile

Site Photographs
Cameron - Yakima Contaminated Soil Removal
Cameron Yakima Facility



Concrete debris



Grids B2-3, C2-3



Grid B2 excavation to 3 feet bgs



Grid B2 excavation to 3 feet bgs



Breaking concrete



Loading pre-screened soil

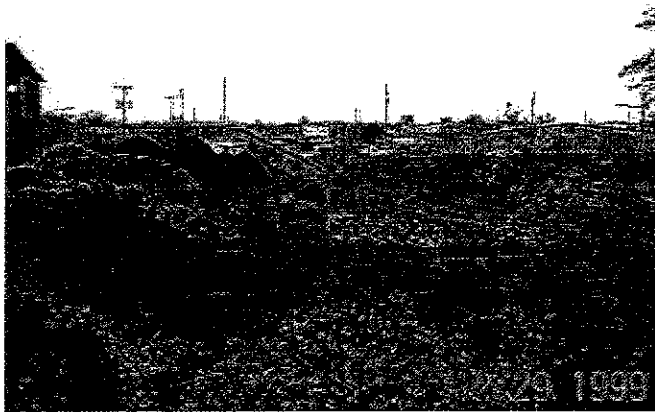
Site Photographs
Cameron - Yakima Contaminated Soil Removal
Cameron Yakima Facility



Western half excavated 3 to 5 feet bgs



Excavating grids B3-4, C3-4



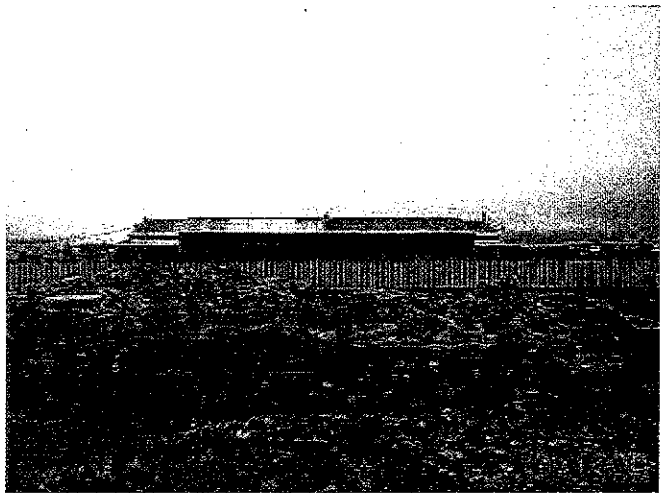
Screening unit and stockpile



Carbon laden concrete stockpile

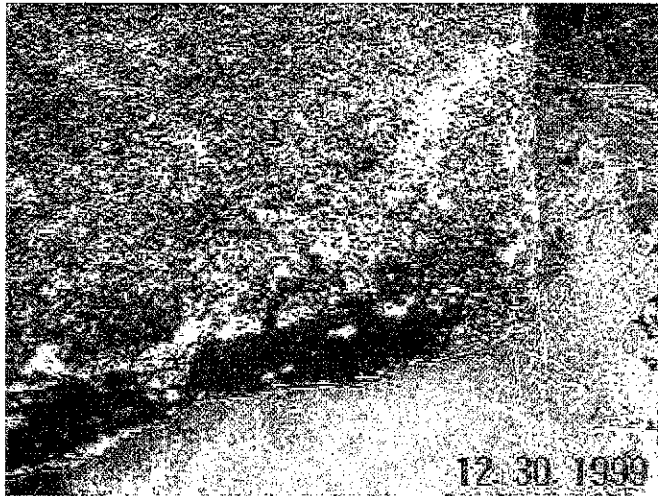


Surface concrete stockpile



Surface concrete stockpile

Site Photographs
Cameron - Yakima Contaminated Soil Removal
Cameron Yakima Facility



Carbon observed imbedded in concrete



Concrete broken up in grids E5, D5



Screening unit in operation



Stockpile of concrete from grids E5, D5



Screened rockpile



Loading out carbon laden soil stockpile

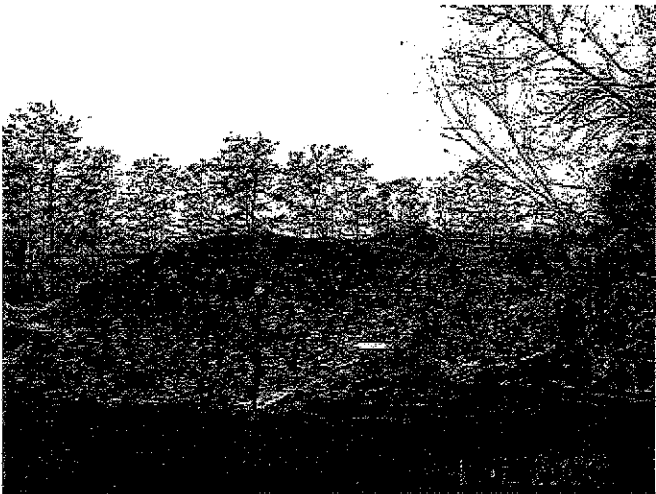
Site Photographs
Cameron - Yakima Contaminated Soil Removal
Cameron Yakima Facility



Grids B1-5, C1-5 after concrete and asphalt was removed



Grids B1-5, C1-5 after concrete and asphalt was removed



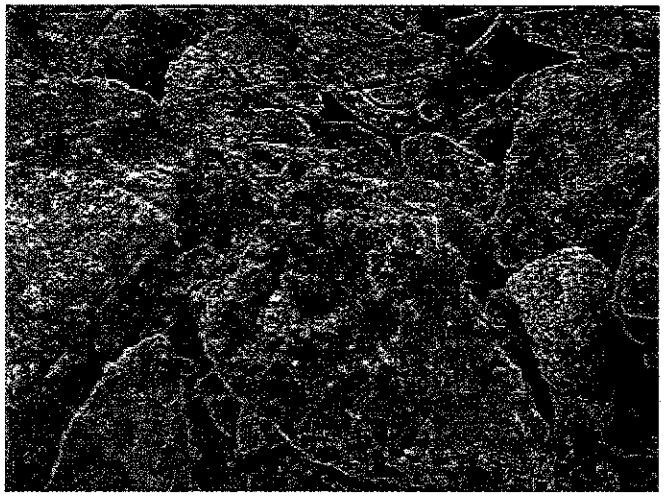
Screened rock stockpile on souther adjacent property



Screened rock and soil stockpiles

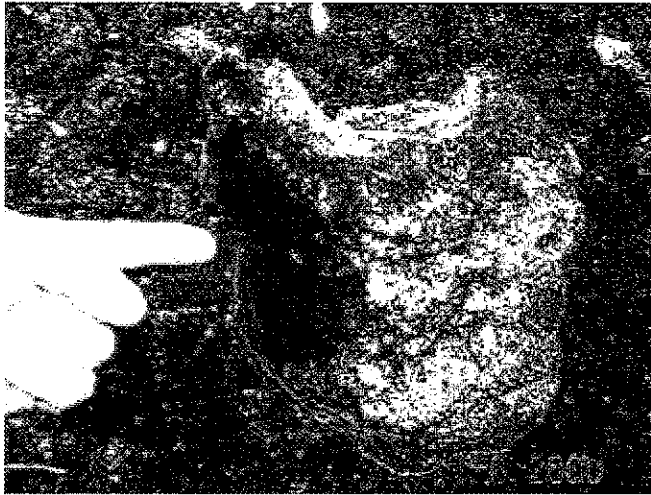


Screening unit

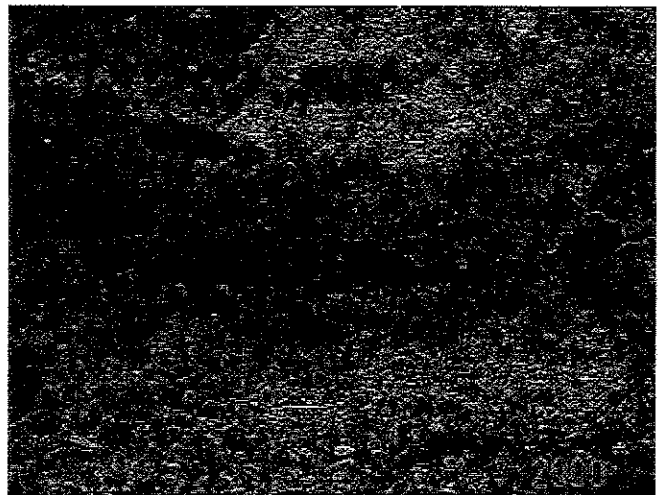


Carbon adhering to concrete

Site Photographs
Cameron - Yakima Contaminated Soil Removal
Cameron Yakima Facility



Carbon imbedded in concrete



Carbon lense in soil grids B4-5



Brick lined sump grid B5



Excavated area around B5 sump



View of west excavation area



Test pits grids E3-5 southern adjacent property

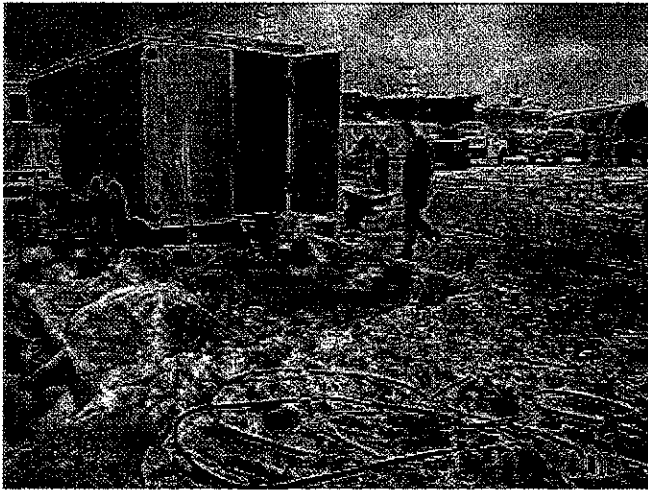
Site Photographs
Cameron - Yakima Contaminated Soil Removal
Cameron Yakima Facility



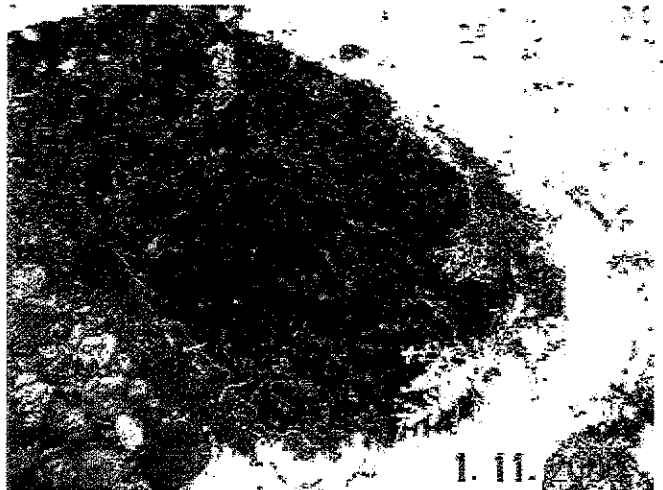
Screening unit shut down on snow day



Test pits on souther adjacent property



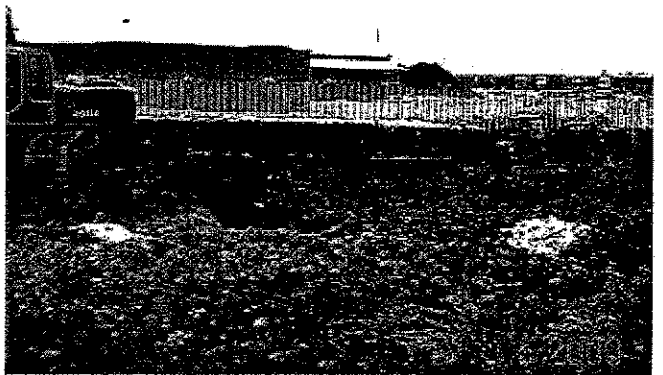
Decon area on snow day



Test pit on southern adjacent property



Excavation of grids E4-5, D4-5

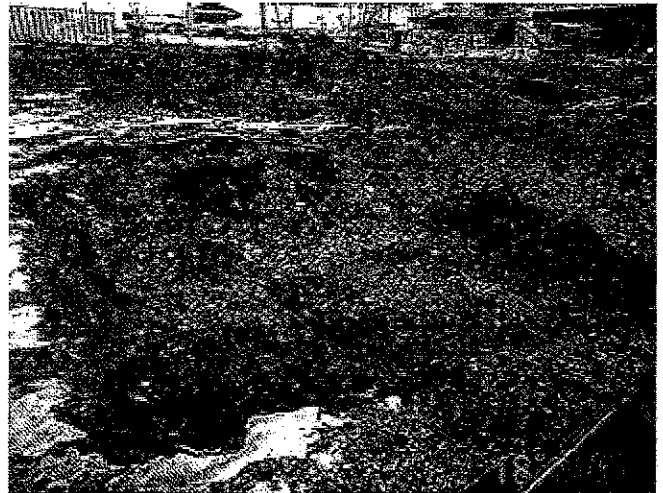


Excavation of grids E4-5, D4-5

Site Photographs
Cameron - Yakima Contaminated Soil Removal
Cameron Yakima Facility



Excavation of grids B4-5



Excavation of grids E4-5, D4-5



On site laboratory



On site laboratory



Excavation of Shano ditch

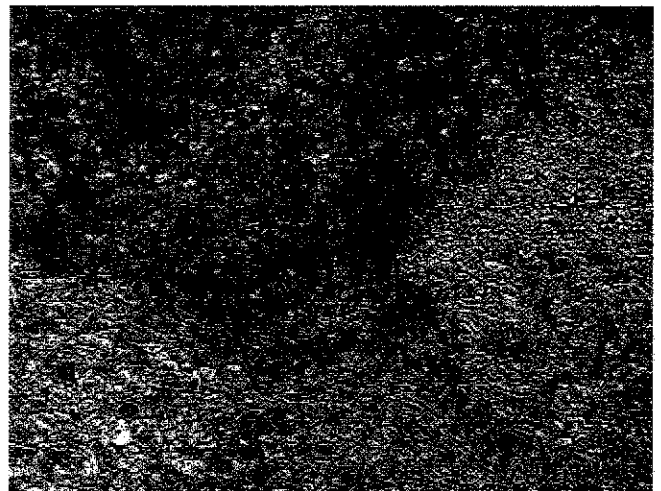


Excavation of Shano ditch

Site Photographs
Cameron - Yakima Contaminated Soil Removal
Cameron Yakima Facility



Excavation of grids C4-5



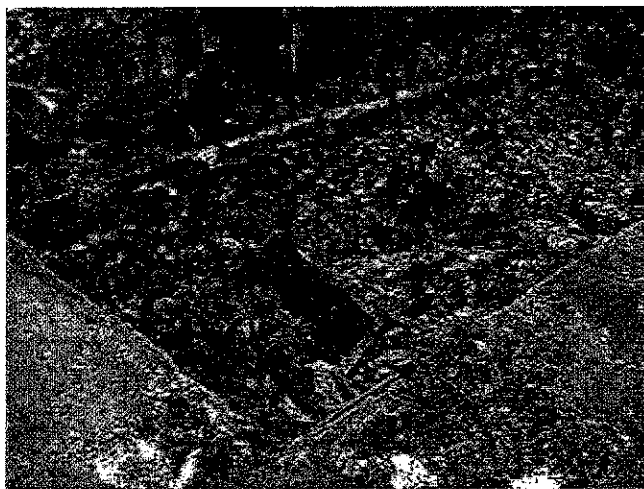
First indication of gray hydrocarbon contaminated soil



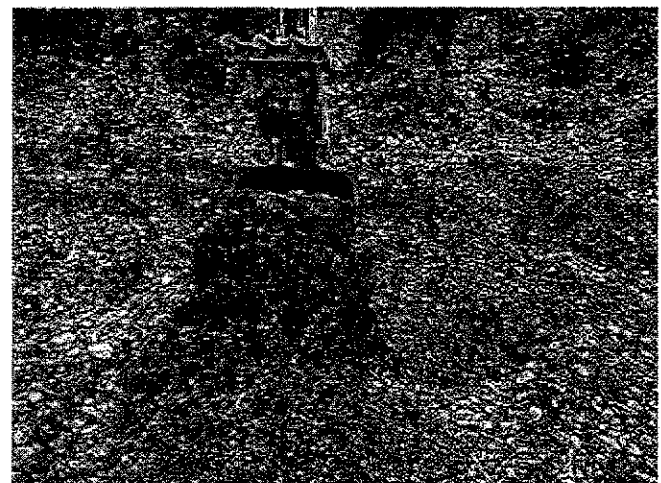
Excavation of grids E3-5, D3-5



Rock stockpile

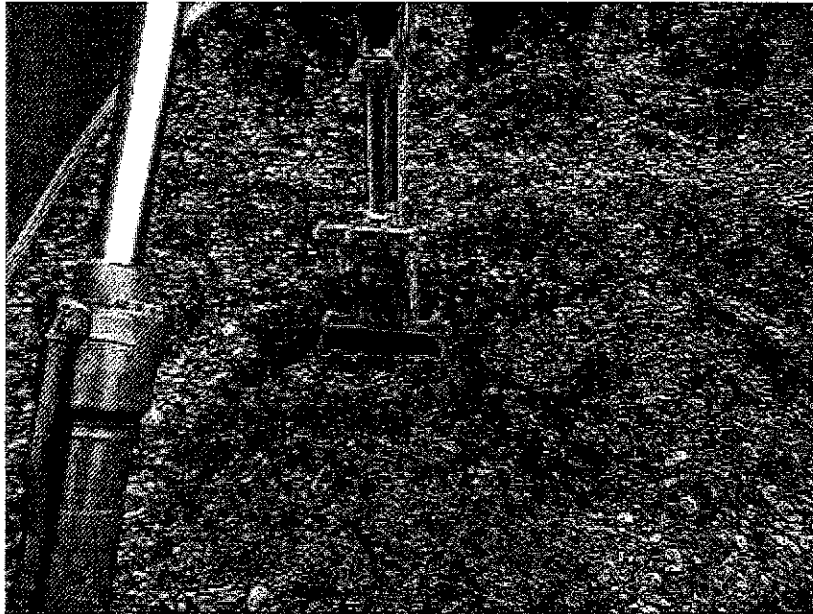


Excavation of east end grids E5, D5

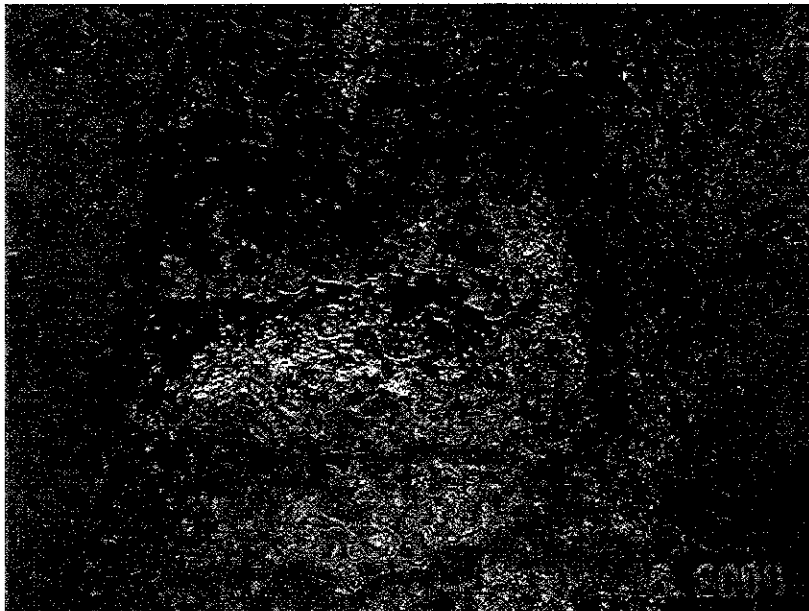


Test pit grid D4

Site Photographs
Cameron - Yakima Contaminated Soil Removal
Cameron Yakima Facility



Test pit grid D4

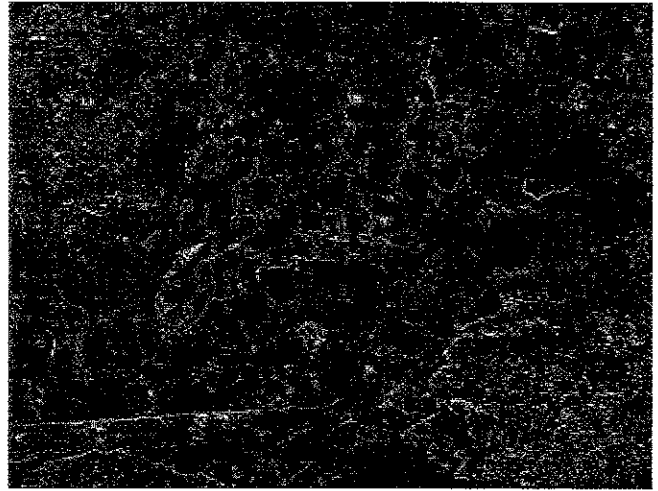


Test pit grid D4 14 16 feet bgs

Site Photographs
Cameron - Yakima Contaminated Soil Removal
Cameron Yakima Facility



8" verticle pipe east end grid D4



Brick lined well or sump Grid B5



Excavated area grids E6-7, D6-7



Shano ditch looking north



Excavation of grids E4-5, D4-5 "gray soil"

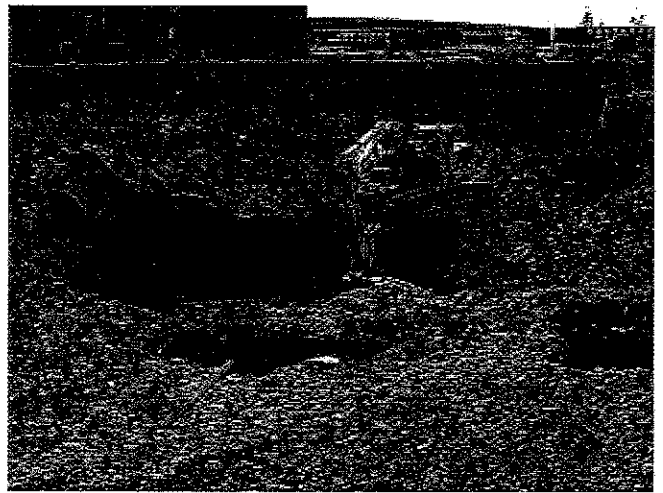


Excavation of grids E4-5, D4-5 "gray soil"

Site Photographs
Cameron - Yakima Contaminated Soil Removal
Cameron Yakima Facility



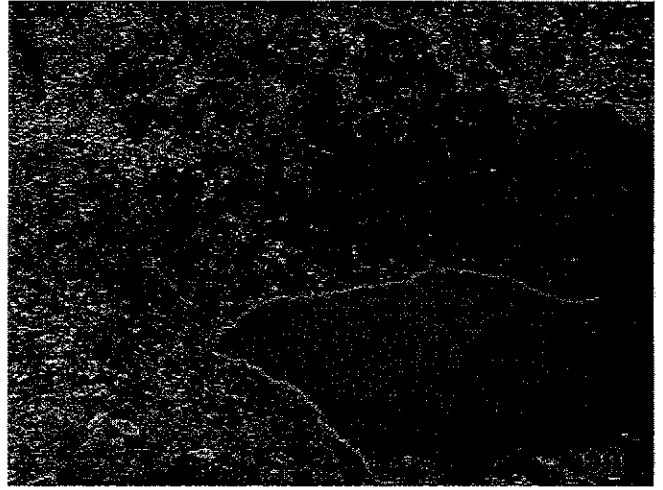
Excavation of grids E4-5, D4-5 "gray soil"



Excavation of grids E4-5, D4-5 "gray soil"



Excavation of grids E4-5, D4-5 "gray soil"



Excavation of grids E4-5, D4-5 "gray soil"



Backfilling grids B1-3, C1-3, D1-3, E1-3

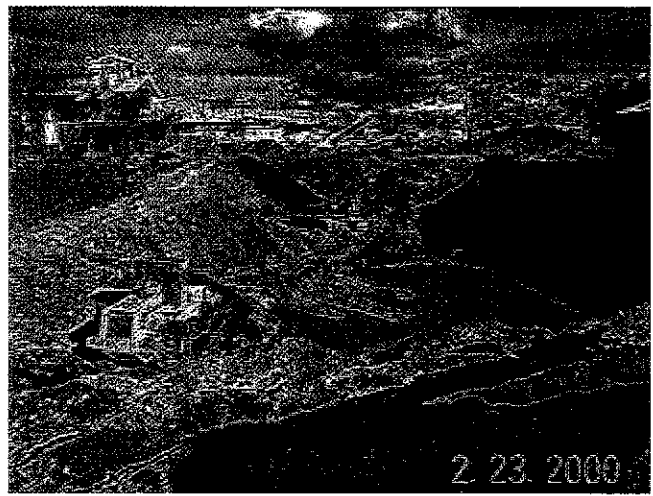


Backfilling grids B1-3, C1-3, D1-3, E1-3

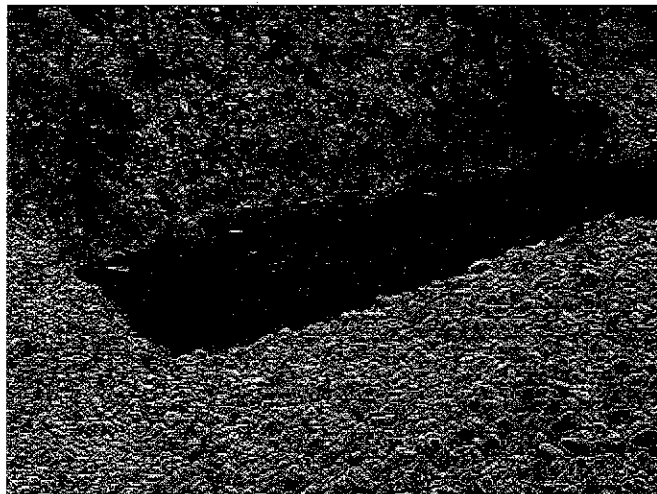
Site Photographs
Cameron - Yakima Contaminated Soil Removal
Cameron Yakima Facility



Loading out "gray material" to stockpile area



Loading out "gray material" to stockpile area



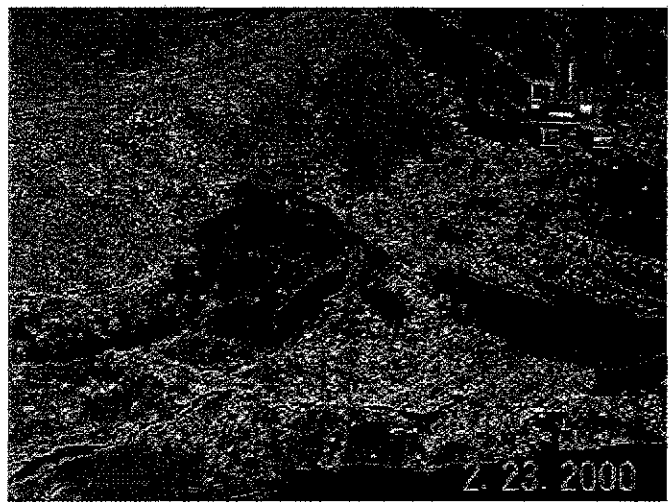
Oil residue on groundwater following excavation of "gray material"



Oil residue on groundwater following excavation of "gray material"

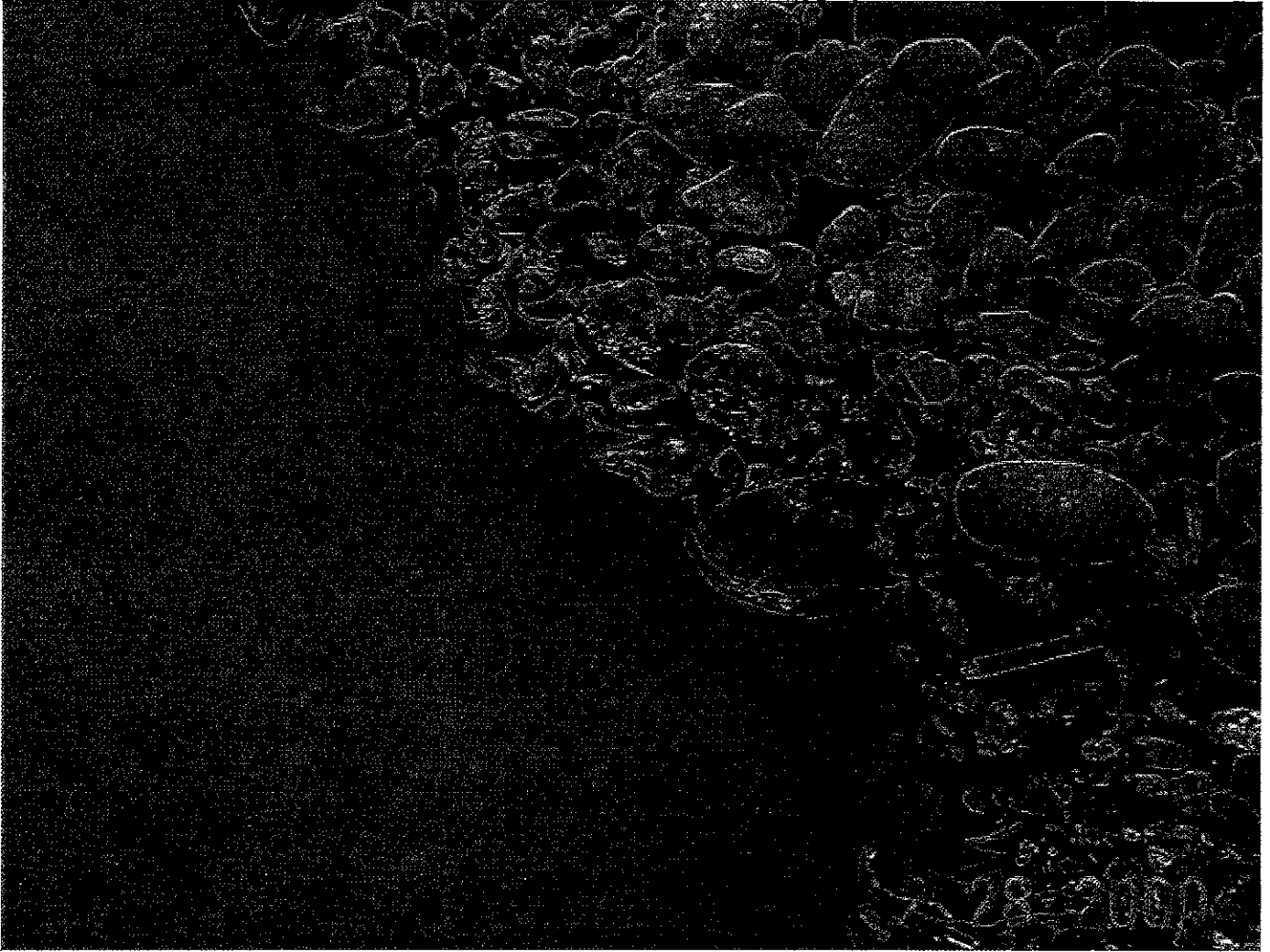


Loading out contaminated soil to stockpile



Loading out contaminated soil to stockpile

Site Photographs
Cameron - Yakima Contaminated Soil Removal
Cameron Yakima Facility

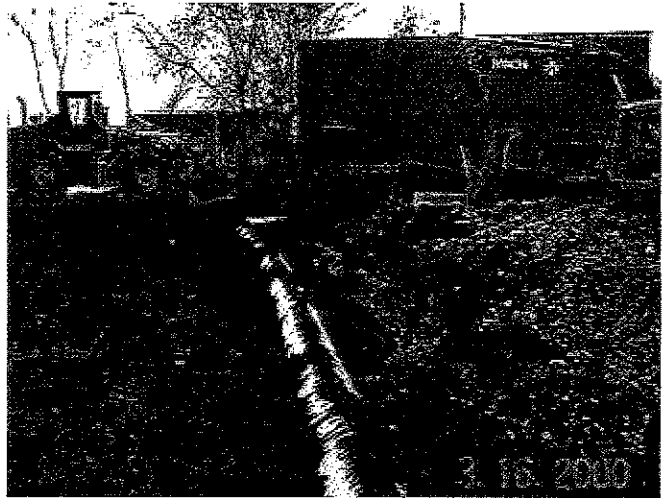


Oil residue on groundwater and rocks around perimeter of "gray material" excavation area
grids E4-5, D4-5 west half subject property

Site Photographs
Cameron - Yakima Contaminated Soil Removal
Cameron Yakima Facility



Backfilling of west half of property complete, instillation of temporary Shano ditch underway



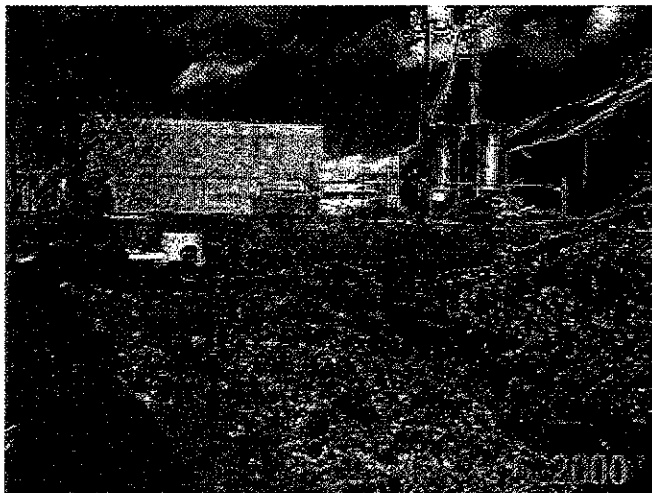
Excavation of Shano ditch underway following installation of temporary ditch



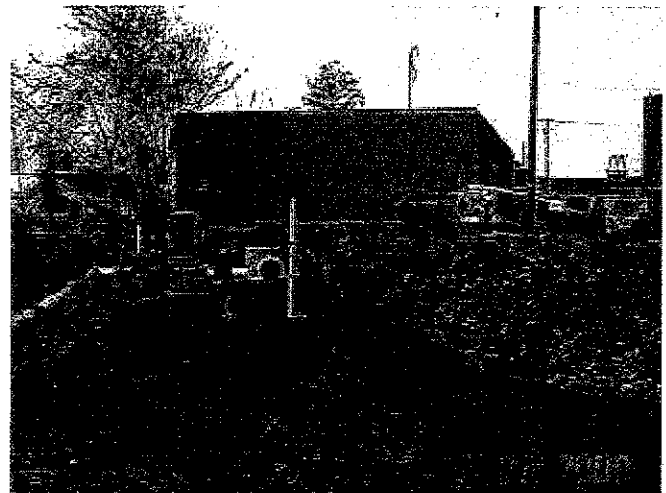
Excavation of Shano ditch underway following installation of temporary ditch



Excavation of Shano ditch underway following installation of temporary ditch

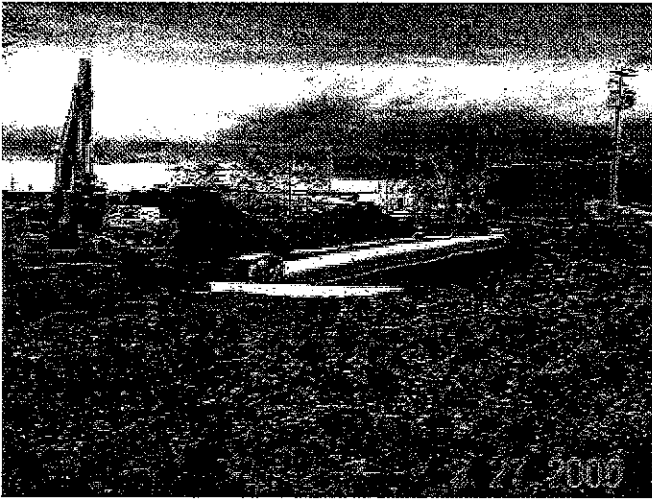


Excavation of Shano ditch underway following installation of temporary ditch

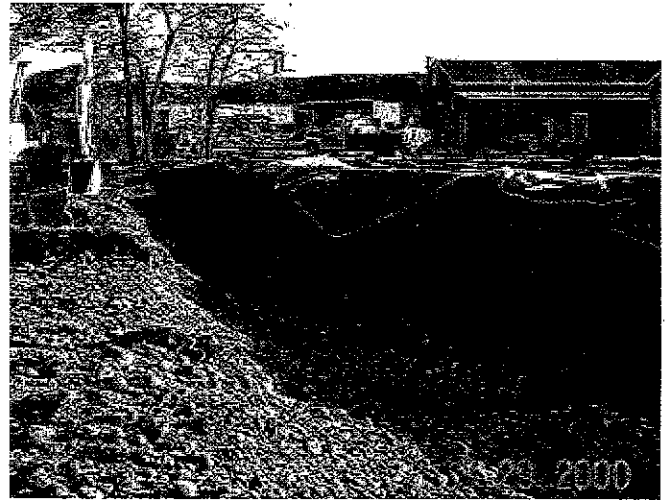


Excavation of Shano ditch underway following installation of temporary ditch

Site Photographs
Cameron - Yakima Contaminated Soil Removal
Cameron Yakima Facility



Installation of new Shano ditch



Removal of temporary Shano ditch



Excavation of carbon material from grids D7, C7



Excavation of grids C-7-8, D7-8

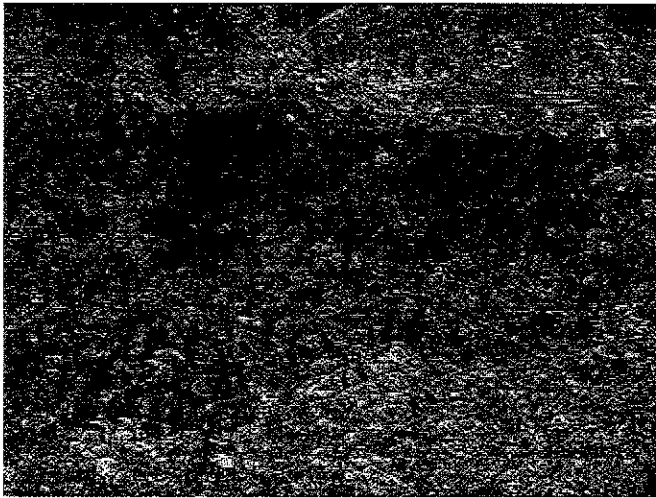


Carbon stockpile from grids C6-8, D6-8, E6-8

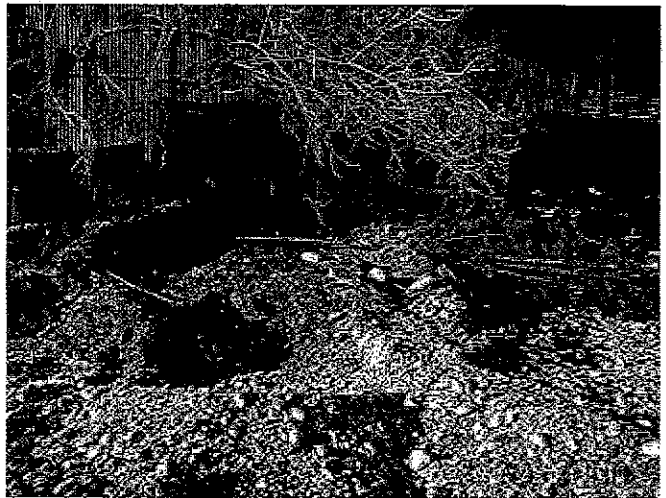


Carbon observed along eastern edge of grids E7, D6

Site Photographs
Cameron - Yakima Contaminated Soil Removal
Cameron Yakima Facility



Carbon observed along norther edge of grids D-7



Carbon observed along northern property boundary grid B7



Concrete colloms found in grid D7-8



Concrete colloms found in grid D7-8



Carbon observed along northern property boundary grid B7



Preparation of western screening area

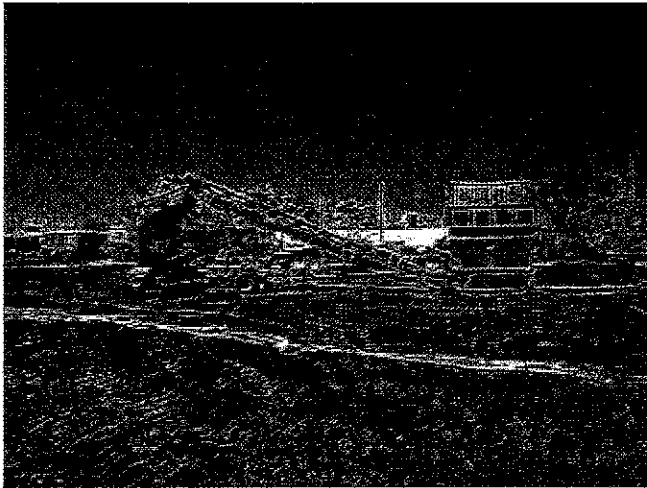
Site Photographs
Cameron - Yakima Contaminated Soil Removal
Cameron Yakima Facility



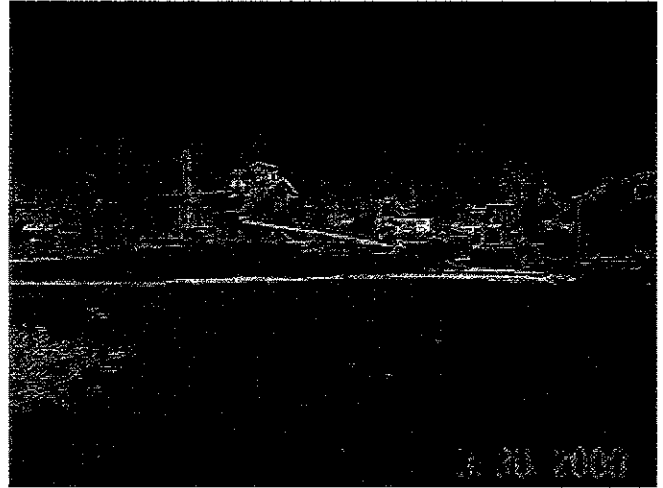
Screener area setup on west end of property



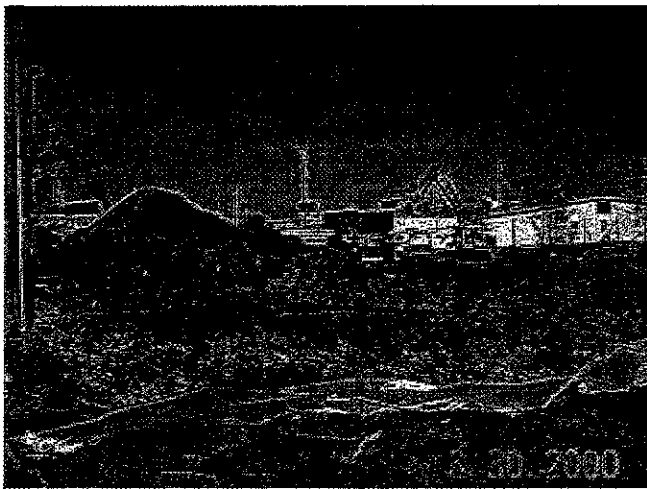
Excavation area grids B6-8, C6-8, D6-8



Screener area setup on west end of property



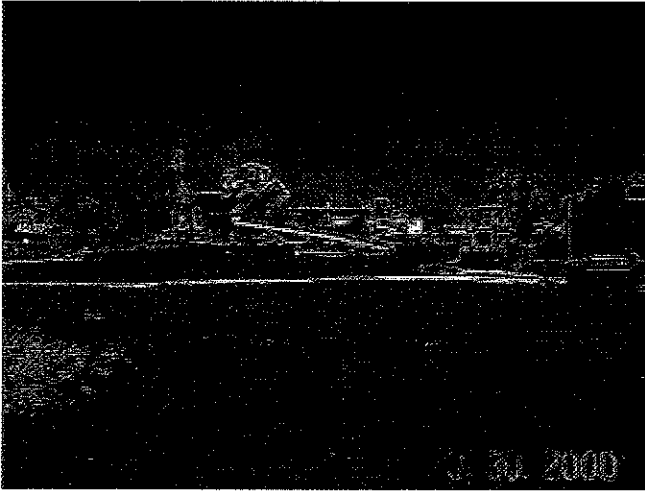
Screener area setup on west end of property



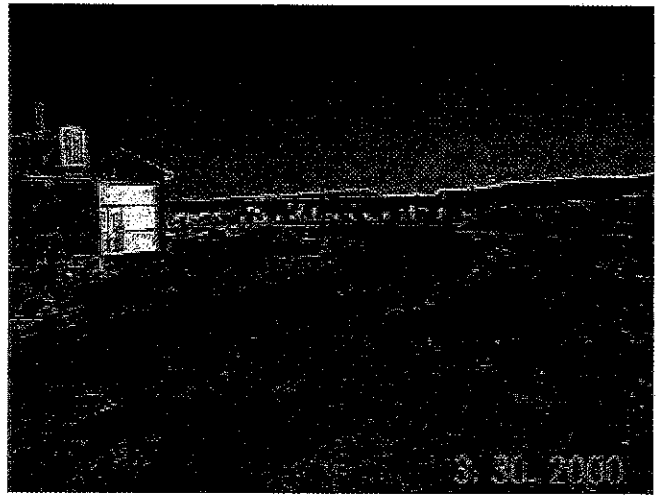
Excavation area east end of property



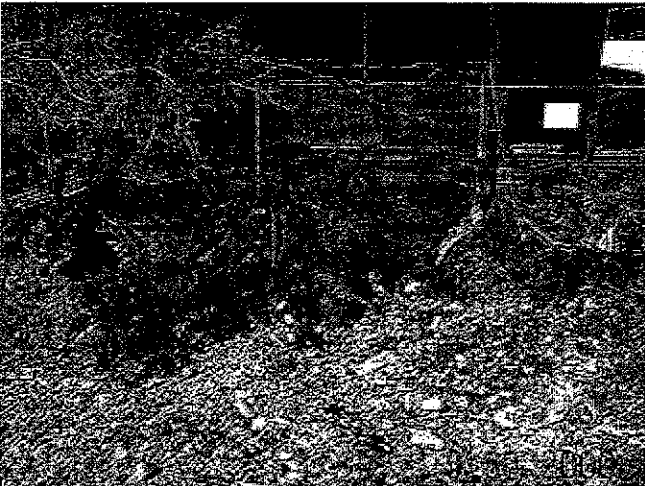
Shano ditch outfall southern adjacent property



West end property screening area



Access road onto west end of subject property looking south onto southern adjacent property



Carbon along northern property boundary grid B-7



Carbon along northern property boundary grid B-7



Metal slag stockpile grids E8, D8



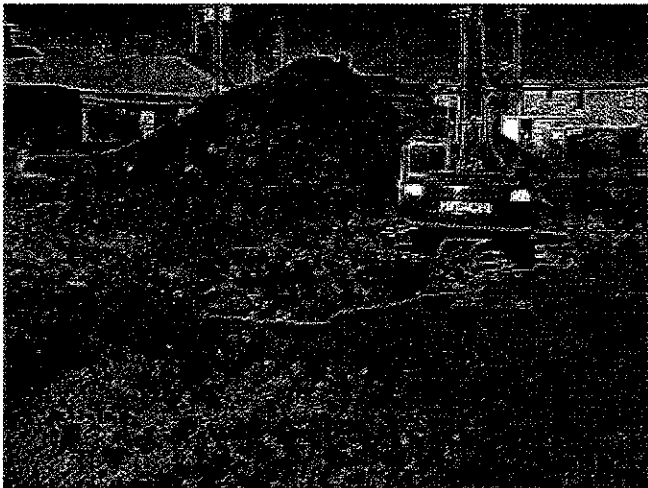
Excavation of sumps along northern property boundary



Excavation of sumps and subsurface concrete
norther property boundary grids B7-8, C7-8



Carbon along norther property boundary grids B7-8



Excavation of grids D7-8, C7-8



Eastern property excavation area



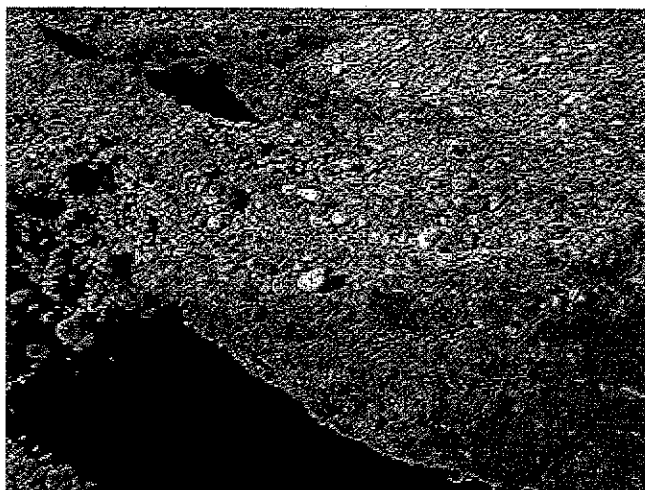
Eastern property excavation area



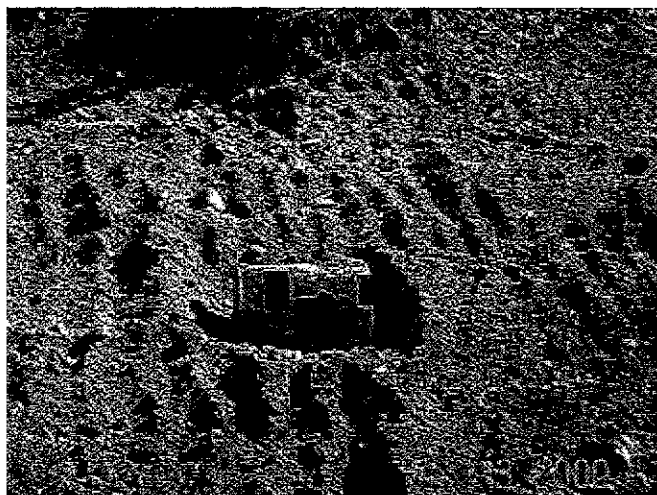
Eastern property excavation area



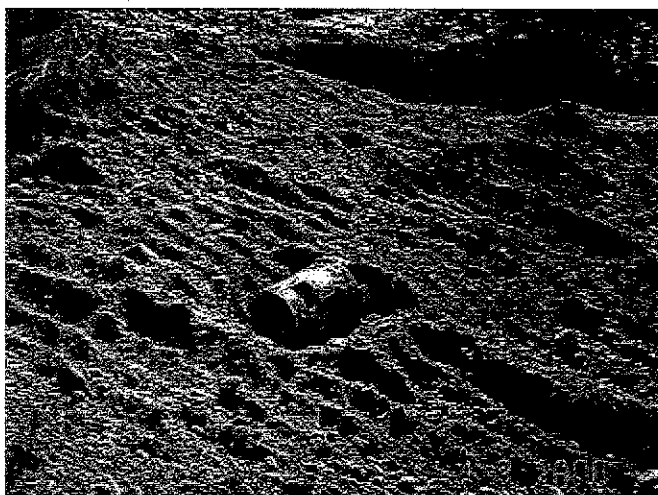
Excavating test pits grids E8, D8



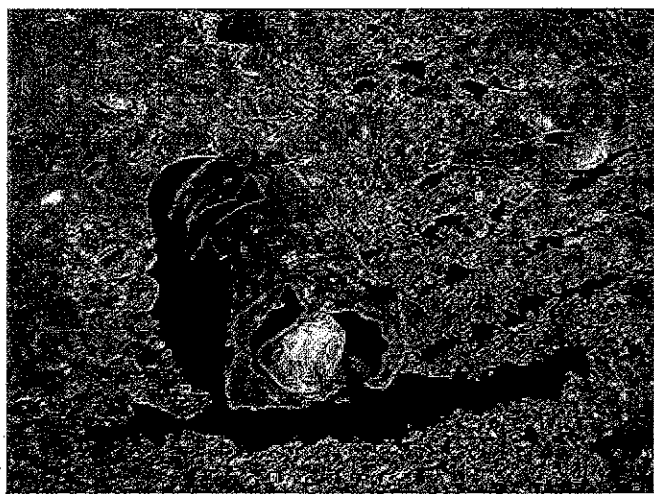
Excavating test pits grids E8, D8



Drum or cylinder found at 3 feet bgs grid D8



Drum or cylinder found at 3 feet bgs grid D8



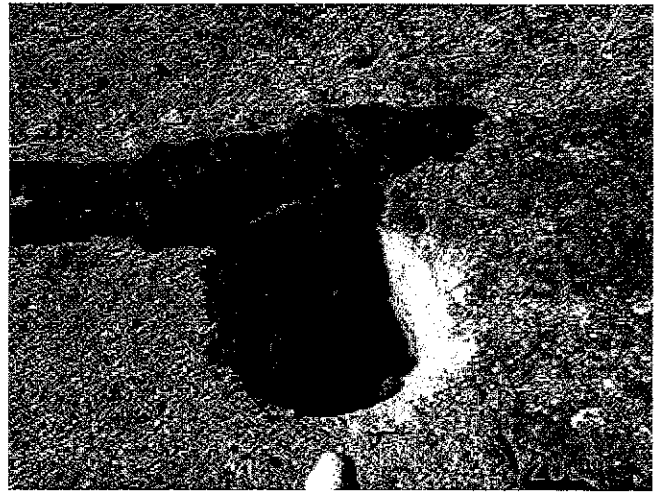
Drum or cylinder found at 3 feet bgs grid D8



Removal of asphalt east excavation area



Brick lined sump grid D-8



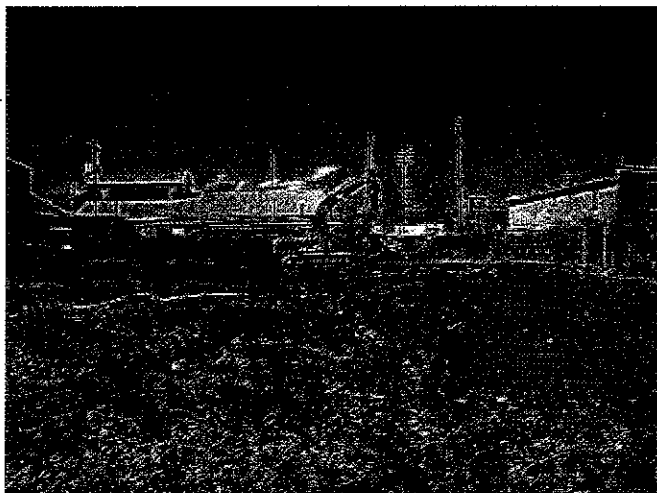
Sump found in grid C-8



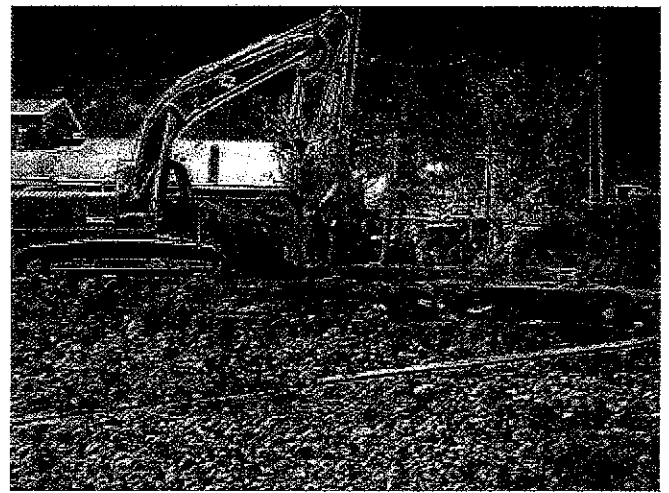
Excavation of soils and carbon grids E8-9, D8-9
5-6 feet bgs



Excavation of grids E8-9, D8-9



Excavation of grids B8-9, C8-9



Excavation of grids B8-9, C8-9



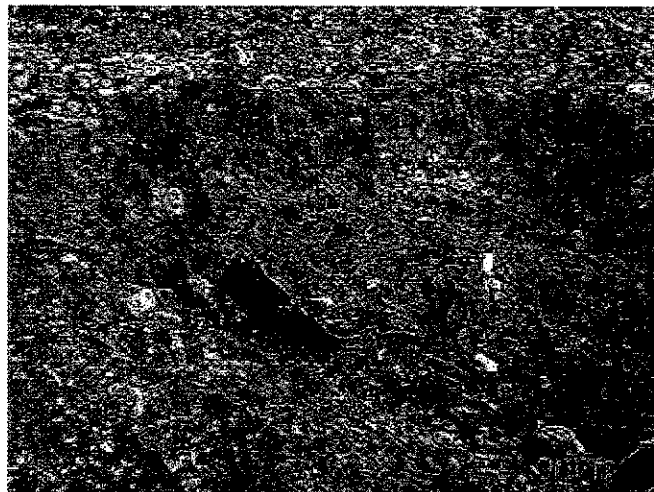
Excavation of sump grids B7



Property line grids B7-8



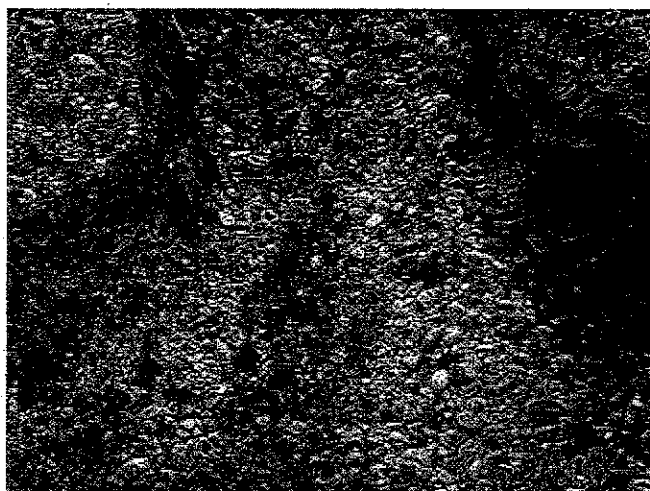
Excavation of sumps grids B7-9



Excavation of sumps grids B7-9



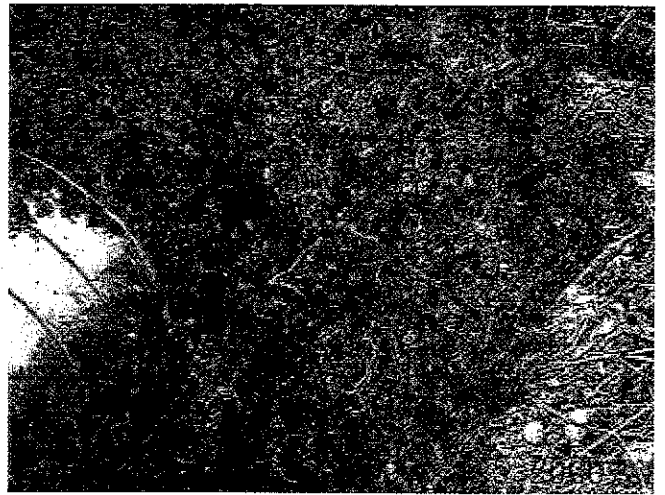
Excavation of sumps grids B7-9



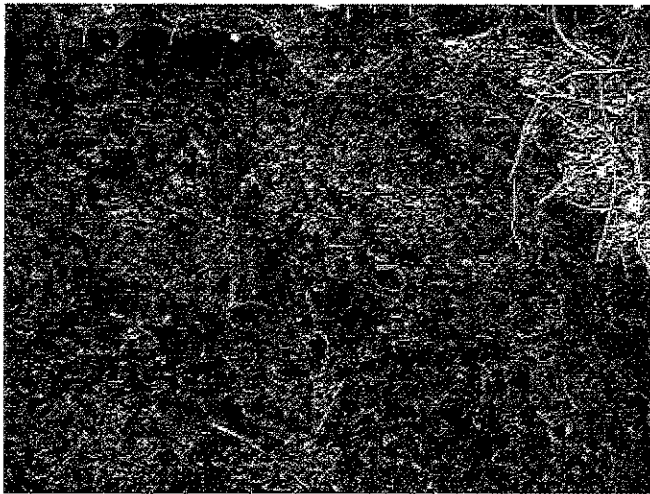
Excavation of sumps grids B7-9



Excavation of sumps grids B7-9



Excavation of sumps grids B7-9



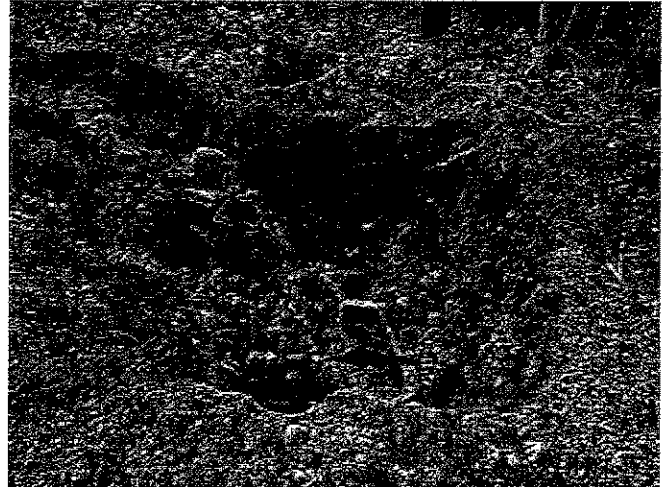
Excavation of sumps grids B7-9



Excavation of sumps grids B7-9



Excavation of sumps grids B7-9



Excavation of sumps grids B7-9



**CAMERON YAKIMA CONTAMINATED SOIL REMOVAL PROJECT
FOR WASHINGTON DEPARTMENT OF ECOLOGY
BY ASPEN ENVIRONMENTAL, INC.**

**CAMERON YAKIMA CONTAMINATED SOIL REMOVAL PROJECT
PRELIMINARY ANALYTICAL RESULTS
SOIL SAMPLING**

PROJECT NAME: Cameron Yakima Contaminated Soil Removal Project

LOCATION: Site of former Cameron Yakima, Inc. facility, 1414 S. First Street,
Yakima, WA

Introduction

Attached in the following pages are the preliminary soil sampling analytical results for the Cameron Yakima Contaminated Soil Removal Project.

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/13/99 Received: 12/13/99 Reported: 12/14/99 09:04
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
D2-W-5'	M912002-01	Soil	12/13/99
D2-S-5'	M912002-02	Soil	12/13/99
D2-B1-5'	M912002-03	Soil	12/13/99

Aspen Environmental. Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: . Project Manager: Scott Waldal	Sampled: 12/13/99 Received: 12/13/99 Reported: 12/14/99 09:04
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**Volatile Compounds per GC/ECD Headspace Screen
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>D2-W-5'</u>				<u>M912002-01</u>			<u>Soil</u>	
Trichloroethene	1290004	12/13/99	12/13/99		50.0	ND	ug/kg	
Tetrachloroethene	"	"	"		50.0	DET	"	
<i>Surrogate: 4-BFB</i>	"	"	"	75.0-125		87.7	%	

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/13/99 Received: 12/13/99 Reported: 12/14/99 09:04
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>D2-S-5'</u>				<u>M912002-02</u>			<u>Soil</u>	
Vinyl chloride	1290005	12/13/99	12/13/99		50.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		50.0	ND	"	
Trichloroethene	"	"	"		50.0	ND	"	
Tetrachloroethene	"	"	"		50.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		92.9	%	
<u>D2-B1-5'</u>				<u>M912002-03</u>			<u>Soil</u>	
Vinyl chloride	1290005	12/13/99	12/13/99		50.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		50.0	ND	"	
Trichloroethene	"	"	"		50.0	ND	"	
Tetrachloroethene	"	"	"		50.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		82.0	%	

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/13/99 Received: 12/13/99 Reported: 12/14/99 09:04
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Volatile Compounds per GC/ECD Headspace Screen Quality Control
North Creek Analytical - Mobile Lab

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1290004			Date Prepared: 12/13/99		Extraction Method: Headspace					
Blank			1290004-BLK1							
Trichloroethene	12/13/99			ND	ug/kg	50.0				
Tetrachloroethene	"			ND	"	50.0				
Surrogate: 4-BFB	"	DET		DET	"	75.0-125	93.6			
LCS			1290004-BS1							
Trichloroethene	12/13/99	40		42.6	ug/kg	75.0-125	107			1
Tetrachloroethene	"	40		40.7	"	75.0-125	102			1
Surrogate: 4-BFB	"	DET		DET	"	75.0-125	100			
Matrix Spike			1290004-MS1 M912002-01							
Trichloroethene	12/13/99	40	0	51.3	ug/kg	75.0-125	128			2
Tetrachloroethene	"	40	66.3	104	"	75.0-125	94.3			
Surrogate: 4-BFB	"	DET		DET	"	75.0-125	79.8			

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/13/99 Received: 12/13/99 Reported: 12/14/99 09:04
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1290005		Date Prepared: 12/13/99			Extraction Method: EPA 5035M				
Blank		1290005-BLK1							
Vinyl chloride	12/13/99			ND	ug/kg	50.0			
cis-1,2-Dichloroethene	"			ND	"	50.0			
Trichloroethene	"			ND	"	50.0			
Tetrachloroethene	"			ND	"	50.0			
<i>Surrogate: a,a,a-TFT</i>	"	100		112	"	65.0-130	112		
LCS		1290005-BS1							
Vinyl chloride	12/13/99	100		102	ug/kg	75.0-125	102		
cis-1,2-Dichloroethene	"	100		110	"	75.0-125	110		
Trichloroethene	"	100		103	"	75.0-125	103		
Tetrachloroethene	"	100		104	"	75.0-125	104		
<i>Surrogate: a,a,a-TFT</i>	"	100		108	"	65.0-130	108		
Matrix Spike		1290005-MS1 M912002-02							
Vinyl chloride	12/13/99	82.0	ND	69.9	ug/kg	75.0-125	85.2		
cis-1,2-Dichloroethene	"	82.0	ND	75.2	"	75.0-125	91.7		
Trichloroethene	"	82.0	ND	78.5	"	75.0-125	95.7		
Tetrachloroethene	"	82.0	ND	79.9	"	75.0-125	97.4		
<i>Surrogate: a,a,a-TFT</i>	"	82.0		75.2	"	65.0-130	91.7		
Matrix Spike Dup		1290005-MSD1 M912002-02							
Vinyl chloride	12/13/99	52.1	ND	51.6	ug/kg	75.0-125	99.0	20.0	15.0
cis-1,2-Dichloroethene	"	52.1	ND	54.8	"	75.0-125	105	20.0	13.5
Trichloroethene	"	52.1	ND	50.9	"	75.0-125	97.7	20.0	2.07
Tetrachloroethene	"	52.1	ND	52.6	"	75.0-125	101	20.0	3.63
<i>Surrogate: a,a,a-TFT</i>	"	52.1		50.4	"	65.0-130	96.7		

Aspen Environmental. Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/13/99 Received: 12/13/99 Reported: 12/14/99 09:04
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Notes and Definitions

#	Note
1	MRL's for these analytes were lowered to generate recovery data.
2	The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/14/99 Received: 12/14/99 Reported: 12/15/99 10:56
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
D2-B2-5'	M912003-01	Soil	12/14/99
D2-N-5'	M912003-02	Soil	12/14/99
D2-E-5'	M912003-03	Soil	12/14/99
D3-B1-5'	M912003-04	Soil	12/14/99
D3-S-5'	M912003-05	Soil	12/14/99
D3-E-5'	M912003-06	Soil	12/14/99
D3-B2-5'	M912003-07	Soil	12/14/99

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/14/99 Received: 12/14/99 Reported: 12/15/99 10:56
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>D2-B2-5'</u>				<u>M912003-01</u>		<u>Soil</u>		
Vinyl chloride	1290007	12/14/99	12/14/99		50.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		50.0	ND	"	
Trichloroethene	"	"	"		50.0	ND	"	
Tetrachloroethene	"	"	"		50.0	51.1	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		108	%	
<u>D2-N-5'</u>				<u>M912003-02</u>		<u>Soil</u>		
Vinyl chloride	1290007	12/14/99	12/14/99		50.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		50.0	ND	"	
Trichloroethene	"	"	"		50.0	ND	"	
Tetrachloroethene	"	"	"		50.0	138	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		99.2	%	
<u>D2-E-5'</u>				<u>M912003-03</u>		<u>Soil</u>		
Vinyl chloride	1290007	12/14/99	12/14/99		50.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		50.0	ND	"	
Trichloroethene	"	"	"		50.0	ND	"	
Tetrachloroethene	"	"	"		50.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		109	%	
<u>D3-B1-5'</u>				<u>M912003-04</u>		<u>Soil</u>		
Vinyl chloride	1290007	12/14/99	12/14/99		50.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		50.0	ND	"	
Trichloroethene	"	"	"		50.0	ND	"	
Tetrachloroethene	"	"	"		50.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		110	%	
<u>D3-S-5'</u>				<u>M912003-05</u>		<u>Soil</u>		
Vinyl chloride	1290007	12/14/99	12/14/99		50.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		50.0	ND	"	
Trichloroethene	"	"	"		50.0	ND	"	
Tetrachloroethene	"	"	"		50.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		64.3	%	1
<u>D3-E-5'</u>				<u>M912003-06</u>		<u>Soil</u>		
Vinyl chloride	1290007	12/14/99	12/14/99		50.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		50.0	ND	"	
Trichloroethene	"	"	"		50.0	ND	"	

North Creek Analytical - Mobile Lab

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/14/99 Received: 12/14/99 Reported: 12/15/99 10:56
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>D3-E-5' (continued)</u>				<u>M912003-06</u>			<u>Soil</u>	
Tetrachloroethene	1290007	12/14/99	12/14/99		50.0	ND	ug/kg	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		111	%	
<u>D3-B2-5'</u>				<u>M912003-07</u>			<u>Soil</u>	
Vinyl chloride	1290007	12/14/99	12/14/99		50.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		50.0	ND	"	
Trichloroethene	"	"	"		50.0	ND	"	
Tetrachloroethene	"	"	"		50.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		112	%	

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/14/99 Received: 12/14/99 Reported: 12/15/99 10:56
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1290007		Date Prepared: 12/14/99			Extraction Method: EPA 5035M				
Blank		1290007-BLK1							
Vinyl chloride	12/14/99			ND	ug/kg	50.0			
cis-1,2-Dichloroethene	"			ND	"	50.0			
Trichloroethene	"			ND	"	50.0			
Tetrachloroethene	"			ND	"	50.0			
<i>Surrogate: a,a,a-TFT</i>	"	100		106	"	65.0-130	106		
LCS		1290007-BS1							
Vinyl chloride	12/14/99	100		97.8	ug/kg	75.0-125	97.8		
cis-1,2-Dichloroethene	"	100		110	"	75.0-125	110		
Trichloroethene	"	100		103	"	75.0-125	103		
Tetrachloroethene	"	100		104	"	75.0-125	104		
<i>Surrogate: a,a,a-TFT</i>	"	100		103	"	65.0-130	103		
Matrix Spike		1290007-MS1 M912003-01							
Vinyl chloride	12/14/99	73.0	ND	60.4	ug/kg	75.0-125	82.7		
cis-1,2-Dichloroethene	"	73.0	ND	67.0	"	75.0-125	91.8		
Trichloroethene	"	73.0	ND	67.7	"	75.0-125	92.7		
Tetrachloroethene	"	73.0	51.1	115	"	75.0-125	87.5		
<i>Surrogate: a,a,a-TFT</i>	"	73.0		47.8	"	65.0-130	65.5		
Matrix Spike Dup		1290007-MSD1 M912003-01							
Vinyl chloride	12/14/99	68.0	ND	59.2	ug/kg	75.0-125	87.1	20.0	5.18
cis-1,2-Dichloroethene	"	68.0	ND	62.6	"	75.0-125	92.1	20.0	0.326
Trichloroethene	"	68.0	ND	62.8	"	75.0-125	92.4	20.0	0.324
Tetrachloroethene	"	68.0	51.1	91.2	"	75.0-125	59.0	20.0	38.9
<i>Surrogate: a,a,a-TFT</i>	"	68.0		43.5	"	65.0-130	64.0		3

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/14/99 Received: 12/14/99 Reported: 12/15/99 10:56
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Notes and Definitions

#	Note
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- 1 The surrogate recovery for this sample is out of NCA established control limits, which may be due to carbon particles in the sample matrix.
- 2 The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte already present in the sample.
- 3 The surrogate recovery is outside of NCA established control limits; review of associated batch QC indicates the recovery for this surrogate spike does not represent an out-of-control condition for this batch.

- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- Recov. Recovery
- RPD Relative Percent Difference

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Exceeds lower control limit	VOC 8021B Screen	1290007-MSD1	a,a,a-TFT
Exceeds lower control limit	VOC 8021B Screen	1290007-MSD1	Tetrachloroethene
Exceeds RPD limit	VOC 8021B Screen	1290007-MSD1	Tetrachloroethene
A-01 (3)	VOC 8021B Screen	1290007-MSD1	a,a,a-TFT
Q-03 (2)	VOC 8021B Screen	1290007-MSD1	Tetrachloroethene
Exceeds lower control limit	VOC 8021B Screen	M912003-05	a,a,a-TFT
A-02 (1)	VOC 8021B Screen	M912003-05	a,a,a-TFT
Partial report/invoice			
Report calculations are based on the MRL			
Report modified			

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/15/99 Received: 12/15/99 Reported: 12/16/99 07:59
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
D2-B3-5'	M912004-01	Soil	12/15/99
D3-N-5'	M912004-02	Soil	12/15/99
D3-B3-5'	M912004-03	Soil	12/15/99

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/15/99 Received: 12/15/99 Reported: 12/16/99 07:59
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>D2-B3-5'</u>				<u>M912004-01</u>		<u>Soil</u>		
Vinyl chloride	1290009	12/15/99	12/15/99		50.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		50.0	ND	"	
Trichloroethene	"	"	"		50.0	ND	"	
Tetrachloroethene	"	"	"		50.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		107	%	
<u>D3-N-5'</u>				<u>M912004-02</u>		<u>Soil</u>		
Vinyl chloride	1290009	12/15/99	12/15/99		50.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		50.0	ND	"	
Trichloroethene	"	"	"		50.0	ND	"	
Tetrachloroethene	"	"	"		50.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		97.3	%	
<u>D3-B3-5'</u>				<u>M912004-03</u>		<u>Soil</u>		
Vinyl chloride	1290009	12/15/99	12/15/99		50.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		50.0	ND	"	
Trichloroethene	"	"	"		50.0	ND	"	
Tetrachloroethene	"	"	"		50.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		104	%	

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/15/99 Received: 12/15/99 Reported: 12/16/99 07:59
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Recov. Limits	RPD %	RPD Limit	RPD %	Notes*
Batch: 1290009		Date Prepared: 12/15/99			Extraction Method: EPA 5035M					
Blank		1290009-BLK1								
Vinyl chloride	12/15/99			ND	ug/kg	50.0				
cis-1,2-Dichloroethene	"			ND	"	50.0				
Trichloroethene	"			ND	"	50.0				
Tetrachloroethene	"			ND	"	50.0				
<i>Surrogate: a,a,a-TFT</i>	"	100		112	"	65.0-130	112			
LCS		1290009-BS1								
Vinyl chloride	12/15/99	100		78.0	ug/kg	75.0-125	78.0			
cis-1,2-Dichloroethene	"	100		112	"	75.0-125	112			
Trichloroethene	"	100		104	"	75.0-125	104			
Tetrachloroethene	"	100		107	"	75.0-125	107			
<i>Surrogate: a,a,a-TFT</i>	"	100		109	"	65.0-130	109			
Matrix Spike		1290009-MS1 M912004-01								
Vinyl chloride	12/15/99	87.7	ND	59.4	ug/kg	75.0-125	67.7			1
cis-1,2-Dichloroethene	"	87.7	ND	84.2	"	75.0-125	96.0			
Trichloroethene	"	87.7	ND	87.9	"	75.0-125	100			
Tetrachloroethene	"	87.7	ND	88.8	"	75.0-125	101			
<i>Surrogate: a,a,a-TFT</i>	"	87.7		86.2	"	65.0-130	98.3			
Matrix Spike Dup		1290009-MSD1 M912004-01								
Vinyl chloride	12/15/99	70.2	ND	56.8	ug/kg	75.0-125	80.9	20.0	17.8	
cis-1,2-Dichloroethene	"	70.2	ND	81.6	"	75.0-125	116	20.0	18.9	
Trichloroethene	"	70.2	ND	71.9	"	75.0-125	102	20.0	1.98	
Tetrachloroethene	"	70.2	ND	74.0	"	75.0-125	105	20.0	3.88	
<i>Surrogate: a,a,a-TFT</i>	"	70.2		76.8	"	65.0-130	109			

Aspen Environmental, Ltd.
PO Box 318
Mukilteo, Wa 98275

Project: Cameron-Yakima Contaminated Soil Removal
Project Number:
Project Manager: Scott Waldal

Sampled: 12/15/99
Received: 12/15/99
Reported: 12/16/99 07:59

Notes and Definitions

#	Note
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1 The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

Recov. Recovery

RPD Relative Percent Difference

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Exceeds lower control limit	VOC 8021B Screen	1290009-MS1	Vinyl chloride
Q-01 (1)	VOC 8021B Screen	1290009-MS1	Vinyl chloride
Partial report/invoice			
Report calculations are based on the MRL			
Report modified			

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/16/99 Received: 12/16/99 Reported: 12/17/99 09:19
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
D1-W-3'-1	M912005-01	Soil	12/16/99
D1-W-3'-2	M912005-02	Soil	12/16/99
C1-N-3'	M912005-03	Soil	12/16/99
D1-B1-3'	M912005-04	Soil	12/16/99
C1-B1-5'	M912005-05	Soil	12/16/99
C1-E-5'	M912005-06	Soil	12/16/99

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/16/99 Received: 12/16/99 Reported: 12/17/99 09:19
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**Volatile Compounds per GC/ECD Headspace Screen
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>D1-W-3'-1</u>				<u>M912005-01</u>			<u>Soil</u>	
Trichloroethene	1290010	12/16/99	12/16/99		50.0	ND	ug/kg	
Tetrachloroethene	"	"	"		50.0	DET	"	
Surrogate: 4-BFB	"	"	"	75.0-125		51.3	%	1
<u>D1-W-3'-2</u>				<u>M912005-02</u>			<u>Soil</u>	
Trichloroethene	1290010	12/16/99	12/16/99		50.0	ND	ug/kg	
Tetrachloroethene	"	"	"		50.0	DET	"	
Surrogate: 4-BFB	"	"	"	75.0-125		112	%	
<u>C1-N-3'</u>				<u>M912005-03</u>			<u>Soil</u>	
Trichloroethene	1290010	12/16/99	12/16/99		50.0	ND	ug/kg	
Tetrachloroethene	"	"	"		50.0	DET	"	
Surrogate: 4-BFB	"	"	"	75.0-125		117	%	
<u>D1-B1-3'</u>				<u>M912005-04</u>			<u>Soil</u>	
Trichloroethene	1290010	12/16/99	12/16/99		50.0	ND	ug/kg	
Tetrachloroethene	"	"	"		50.0	ND	"	
Surrogate: 4-BFB	"	"	"	75.0-125		125	%	

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/16/99 Received: 12/16/99 Reported: 12/17/99 09:19
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
D1-B1-3'				<u>M912005-04</u>			<u>Soil</u>	
Vinyl chloride	1290011	12/16/99	12/17/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	80.3	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		93.9	%	
C1-B1-5'				<u>M912005-05</u>			<u>Soil</u>	
Vinyl chloride	1290011	12/16/99	12/17/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		114	%	
C1-E-5'				<u>M912005-06</u>			<u>Soil</u>	
Vinyl chloride	1290011	12/16/99	12/17/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	15.4	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		111	%	

Aspen Environmental, Ltd.
 PO Box 318
 Mukilteo, Wa 98275

Project: Cameron-Yakima Contaminated Soil Removal
 Project Number:
 Project Manager: Scott Waldal

Sampled: 12/16/99
 Received: 12/16/99
 Reported: 12/17/99 09:19

Volatile Compounds per GC/ECD Headspace Screen/Quality Control
North Creek Analytical - Mobile Lab

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1290010		Date Prepared: 12/16/99			Extraction Method: Headspace					
Blank		1290010-BLK1								
Trichloroethene	12/16/99			ND	ug/kg	50.0				
Tetrachloroethene	"			ND	"	50.0				
Surrogate: 4-BFB	"	DET		DET	"	75.0-125	106			
LCS		1290010-BS1								
Trichloroethene	12/16/99	40		38.7	ug/kg	75.0-125	97			
Tetrachloroethene	"	40		38.2	"	75.0-125	96			
Surrogate: 4-BFB	"	DET		DET	"	75.0-125	105			
Matrix Spike		1290010-MS1 M912005-04								
Trichloroethene	12/16/99	80	0	78.1	ug/kg	75.0-125	98			
Tetrachloroethene	"	80	44.3	129.3	"	75.0-125	106			2,3
Surrogate: 4-BFB	"	DET		DET	"	75.0-125	100			

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/16/99 Received: 12/16/99 Reported: 12/17/99 09:19
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1290011		Date Prepared: 12/16/99			Extraction Method: EPA 5035M				
Blank		1290011-BLK1							
Vinyl chloride	12/17/99			ND	ug/kg	15.0			
cis-1,2-Dichloroethene	"			ND	"	15.0			
Trichloroethene	"			ND	"	15.0			
Tetrachloroethene	"			ND	"	15.0			
Surrogate: a,a,a-TFT	"	100		103	"	65.0-130	103		
LCS		1290011-BS1							
Vinyl chloride	12/17/99	100		106	ug/kg	75.0-125	106		
cis-1,2-Dichloroethene	"	100		122	"	75.0-125	122		
Trichloroethene	"	100		102	"	75.0-125	102		
Tetrachloroethene	"	100		105	"	75.0-125	105		
Surrogate: a,a,a-TFT	"	100		110	"	65.0-130	110		
Matrix Spike		1290011-MS1 M912005-05							
Vinyl chloride	12/17/99	65.6	ND	58.0	ug/kg	75.0-125	88.4		
cis-1,2-Dichloroethene	"	65.6	ND	72.3	"	75.0-125	110		
Trichloroethene	"	65.6	ND	60.7	"	75.0-125	92.5		
Tetrachloroethene	"	65.6	ND	69.7	"	75.0-125	106		
Surrogate: a,a,a-TFT	"	65.6		69.0	"	65.0-130	105		
Matrix Spike Dup		1290011-MSD1 M912005-05							
Vinyl chloride	12/17/99	65.4	ND	59.6	ug/kg	75.0-125	91.1	20.0	3.01
cis-1,2-Dichloroethene	"	65.4	ND	70.8	"	75.0-125	108	20.0	1.83
Trichloroethene	"	65.4	ND	62.7	"	75.0-125	95.9	20.0	3.61
Tetrachloroethene	"	65.4	ND	70.3	"	75.0-125	107	20.0	0.939
Surrogate: a,a,a-TFT	"	65.4		64.1	"	65.0-130	98.0		

Aspen Environmental. Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/16/99 Received: 12/16/99 Reported: 12/17/99 09:19
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Notes and Definitions

#	Note
1	The surrogate recovery for this sample is outside of NCA established control limits due to suspected matrix interference.
2	The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte already present in the sample.
3	MRL's for these analytes were lowered to generate recovery data.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Q-03 (2)	VOC Headspace	1290010-MSI	Tetrachloroethene
Status is Analyzed	VOC Headspace	M912005-01	
Exceeds lower control limit	VOC Headspace	M912005-01	4-BFB
A-01 (1)	VOC Headspace	M912005-01	4-BFB
Status is Analyzed	VOC Headspace	M912005-02	
Status is Analyzed	VOC Headspace	M912005-03	
Status is Analyzed	VOC Headspace	M912005-04	
Status is Analyzed	VOC Headspace	M912005-05	
Status is Analyzed	VOC Headspace	M912005-06	
Report calculations are based on the MRL			

Aspen Environmental, Ltd.
PO Box 318
Mukilteo, Wa 98275

Project: Cameron-Yakima Contaminated Soil Removal
Project Number:
Project Manager: Scott Waldal

Sampled: 12/17/99
Received: 12/17/99
Reported: 12/20/99 07:49

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
C1-CONCRETE-6"	M912006-01	Soil	12/17/99
D4-E-4'	M912006-02	Soil	12/17/99
D4-E-7'	M912006-03	Soil	12/17/99
D4-B1-7'	M912006-04	Soil	12/17/99
B1-N-2'	M912006-05	Soil	12/17/99
B1-E-3'	M912006-06	Soil	12/17/99
B1-W-2'-2	M912006-07	Soil	12/17/99
B1-W-3'-1	M912006-08	Soil	12/17/99
B1-B1-3'	M912006-09	Soil	12/17/99
B1-B2-3'	M912006-10	Soil	12/17/99

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/17/99 Received: 12/17/99 Reported: 12/20/99 07:49
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**Volatile Compounds per GC/ECD Headspace Screen
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>C1-CONCRETE-6"</u>								
Trichloroethene	1290012	12/17/99	12/17/99	<u>M912006-01</u>	50.0	DET	Soil ug/kg	
Tetrachloroethene	"	"	"		50.0	DET	"	
Surrogate: 4-BFB	"	"	"	75.0-125		50.4	%	1
<u>D4-E-4'</u>								
Trichloroethene	1290012	12/17/99	12/17/99	<u>M912006-02</u>	50.0	ND	Soil ug/kg	
Tetrachloroethene	"	"	"		50.0	DET	"	
Surrogate: 4-BFB	"	"	"	75.0-125		81.0	%	
<u>D4-E-7'</u>								
Trichloroethene	1290012	12/17/99	12/17/99	<u>M912006-03</u>	50.0	ND	Soil ug/kg	
Tetrachloroethene	"	"	"		50.0	DET	"	
Surrogate: 4-BFB	"	"	"	75.0-125		30.3	%	1
<u>B1-B1-3'</u>								
Trichloroethene	1290012	12/17/99	12/17/99	<u>M912006-09</u>	50.0	ND	Soil ug/kg	
Tetrachloroethene	"	"	"		50.0	DET	"	
Surrogate: 4-BFB	"	"	"	75.0-125		77.1	%	
<u>B1-B2-3'</u>								
Trichloroethene	1290012	12/17/99	12/17/99	<u>M912006-10</u>	50.0	ND	Soil ug/kg	
Tetrachloroethene	"	"	"		50.0	DET	"	
Surrogate: 4-BFB	"	"	"	75.0-125		66.1	%	1

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/17/99 Received: 12/17/99 Reported: 12/20/99 07:49
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
D4-B1-7'				M912006-04			Soil	
Vinyl chloride	1290013	12/17/99	12/17/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		76.5	%	
B1-N-2'				M912006-05			Soil	
Vinyl chloride	1290013	12/17/99	12/17/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		89.5	%	
B1-E-3'				M912006-06			Soil	
Vinyl chloride	1290013	12/17/99	12/17/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	24.7	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		94.2	%	
B1-W-2'-2				M912006-07			Soil	
Vinyl chloride	1290013	12/17/99	12/17/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	18.9	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		92.0	%	
B1-W-3'-1				M912006-08			Soil	
Vinyl chloride	1290013	12/17/99	12/17/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	36.3	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		83.3	%	

North Creek Analytical - Mobile Lab

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/17/99 Received: 12/17/99 Reported: 12/20/99 07:49
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Volatile Compounds per GC/ECD Headspace Screen/Quality Control
North Creek Analytical - Mobile Lab

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1290012		Date Prepared: 12/17/99			Extraction Method: Headspace					
Blank		1290012-BLK1								
Trichloroethene	12/17/99			ND	ug/kg	50.0				
Tetrachloroethene	"			ND	"	50.0				
Surrogate: 4-BFB	"	DET		DET	"	75.0-125	118			
LCS		1290012-BS1								
Trichloroethene	12/17/99	40		39.9	ug/kg	75.0-125	99.8			
Tetrachloroethene	"	40		39.1	"	75.0-125	97.8			
Surrogate: 4-BFB	"	DET		DET	"	75.0-125	92.0			
Matrix Spike		1290012-MS1 M912006-02								
Trichloroethene	12/17/99	40	36.9	72.6	ug/kg	75.0-125	89.3			
Tetrachloroethene	"	40	55.3	70.1	"	75.0-125	37.0			2
Surrogate: 4-BFB	"	DET		DET	"	75.0-125	75.0			

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/17/99 Received: 12/17/99 Reported: 12/20/99 07:49
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VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Mobile Lab

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1290013									
Blank									
Date Prepared: 12/17/99									
1290013-BLKI									
Vinyl chloride	12/17/99			ND	ug/kg	15.0			
cis-1,2-Dichloroethene	"			ND	"	15.0			
Trichloroethene	"			ND	"	15.0			
Tetrachloroethene	"			ND	"	15.0			
Surrogate: a,a,a-TFT	"	100		106	"	65.0-130	106		
LCS									
1290013-BS1									
Vinyl chloride	12/17/99	100		94.5	ug/kg	75.0-125	94.5		
cis-1,2-Dichloroethene	"	100		89.3	"	75.0-125	89.3		
Trichloroethene	"	100		89.0	"	75.0-125	89.0		
Tetrachloroethene	"	100		89.8	"	75.0-125	89.8		
Surrogate: a,a,a-TFT	"	100		91.5	"	65.0-130	91.5		
Matrix Spike									
1290013-MS1 M912006-05									
Vinyl chloride	12/17/99	81.6	ND	59.4	ug/kg	75.0-125	72.8		2
cis-1,2-Dichloroethene	"	81.6	ND	76.5	"	75.0-125	93.8		
Trichloroethene	"	81.6	ND	70.6	"	75.0-125	86.5		
Tetrachloroethene	"	81.6	ND	75.9	"	75.0-125	93.0		
Surrogate: a,a,a-TFT	"	81.6		71.4	"	65.0-130	87.5		
Matrix Spike Dup									
1290013-MSD1 M912006-05									
Vinyl chloride	12/17/99	82.3	ND	57.2	ug/kg	75.0-125	69.5	20.0	4.64
cis-1,2-Dichloroethene	"	82.3	ND	75.9	"	75.0-125	92.2	20.0	1.72
Trichloroethene	"	82.3	ND	63.4	"	75.0-125	77.0	20.0	11.6
Tetrachloroethene	"	82.3	ND	69.8	"	75.0-125	84.8	20.0	9.22
Surrogate: a,a,a-TFT	"	82.3		73.0	"	65.0-130	88.7		

Aspen Environmental. Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: . Project Manager: Scott Waldal	Sampled: 12/17/99 Received: 12/17/99 Reported: 12/20/99 07:49
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Notes and Definitions

#	Note
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- 1 The surrogate recovery is out of NCA control limits due to suspected matrix interference.
- 2 The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- Recov. Recovery
- RPD Relative Percent Difference

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analvte or General Method</u>
Exceeds lower control limit	VOC 8021B Screen	1290013-MS1	Vinyl chloride
Q-01 (3)	VOC 8021B Screen	1290013-MS1	Vinyl chloride
Exceeds lower control limit	VOC 8021B Screen	1290013-MSD1	Vinyl chloride
Status is Analyzed	VOC 8021B Screen	M912006-04	
Status is Analyzed	VOC 8021B Screen	M912006-05	
Status is Analyzed	VOC 8021B Screen	M912006-06	
Status is Analyzed	VOC 8021B Screen	M912006-07	
Status is Analyzed	VOC 8021B Screen	M912006-08	
No true value	VOC Headspace	1290012-MS1	Tetrachloroethene
No true value	VOC Headspace	1290012-MS1	Trichloroethene
Q-01 (3)	VOC Headspace	1290012-MS1	Tetrachloroethene
Q-01 (3)	VOC Headspace	1290012-MS1	Trichloroethene
Status is Analyzed	VOC Headspace	M912006-01	
Exceeds lower control limit	VOC Headspace	M912006-01	4-BFB
A-01 (1)	VOC Headspace	M912006-01	4-BFB
Status is Analyzed	VOC Headspace	M912006-02	
Status is Analyzed	VOC Headspace	M912006-03	
Exceeds lower control limit	VOC Headspace	M912006-03	4-BFB
A-01 (1)	VOC Headspace	M912006-03	4-BFB
Status is Analyzed	VOC Headspace	M912006-04	
Status is Analyzed	VOC Headspace	M912006-05	
Status is Analyzed	VOC Headspace	M912006-06	
Status is Analyzed	VOC Headspace	M912006-07	
Status is Analyzed	VOC Headspace	M912006-08	
Status is Analyzed	VOC Headspace	M912006-09	
Status is Analyzed	VOC Headspace	M912006-10	
Exceeds lower control limit	VOC Headspace	M912006-10	4-BFB
A-01 (2)	VOC Headspace	M912006-10	4-BFB

Report calculations are based on the MRL

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/20/99 Received: 12/20/99 Reported: 12/21/99 08:06
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
C1-B2-5'	M912007-01	Soil	12/20/99
C1-B3-5'	M912007-02	Soil	12/20/99
B1-B1-8'	M912007-03	Soil	12/20/99
B1-B2-7'	M912007-04	Soil	12/20/99
B1-B3-5'	M912007-05	Soil	12/20/99
B2-N-3'	M912007-06	Soil	12/20/99
B2-B1-3'	M912007-07	Soil	12/20/99

North Creek Analytical - Mobile Lab *The results in this report apply to the samples analyzed in accordance with the chain of custody document.
This analytical report must be reproduced in its entirety.*

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: . Project Manager: Scott Waldal	Sampled: 12/20/99 Received: 12/20/99 Reported: 12/21/99 08:06
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>C1-B2-5'</u>				<u>M912007-01</u>		Soil		
Vinyl chloride	1290015	12/20/99	12/20/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		102	%	
<u>C1-B3-5'</u>				<u>M912007-02</u>		Soil		
Vinyl chloride	1290015	12/20/99	12/20/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		111	%	
<u>B1-B1-8'</u>				<u>M912007-03</u>		Soil		
Vinyl chloride	1290015	12/20/99	12/20/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		105	%	
<u>B1-B2-7'</u>				<u>M912007-04</u>		Soil		
Vinyl chloride	1290015	12/20/99	12/20/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		106	%	
<u>B1-B3-5'</u>				<u>M912007-05</u>		Soil		
Vinyl chloride	1290015	12/20/99	12/20/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		107	%	
<u>B2-N-3'</u>				<u>M912007-06</u>		Soil		
Vinyl chloride	1290015	12/20/99	12/20/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

North Creek Analytical - Mobile Lab

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/20/99 Received: 12/20/99 Reported: 12/21/99 08:06
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>B2-N-3' (continued)</u>				<u>M912007-06</u>			<u>Soil</u>	
Tetrachloroethene	1290015	12/20/99	12/20/99		15.0	ND	ug/kg	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		72.0	%	
<u>B2-B1-3'</u>				<u>M912007-07</u>			<u>Soil</u>	
Vinyl chloride	1290015	12/20/99	12/20/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		88.1	%	

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/20/99 Received: 12/20/99 Reported: 12/21/99 08:06
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VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Mobile Lab

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1290015		Date Prepared: 12/20/99			Extraction Method: EPA 5035M				
Blank		1290015-BLKI							
Vinyl chloride	12/20/99			ND	ug/kg	15.0			
cis-1,2-Dichloroethene	"			ND	"	15.0			
Trichloroethene	"			ND	"	15.0			
Tetrachloroethene	"			ND	"	15.0			
Surrogate: a,a,a-TFT	"	40.0		45.1	"	65.0-130	113		
LCS		1290015-BS1							
Vinyl chloride	12/20/99	40.0		32.5	ug/kg	75.0-125	81.3		
cis-1,2-Dichloroethene	"	40.0		36.0	"	75.0-125	90.0		
Trichloroethene	"	40.0		35.8	"	75.0-125	89.5		
Tetrachloroethene	"	40.0		36.7	"	75.0-125	91.8		
Surrogate: a,a,a-TFT	"	40.0		39.8	"	65.0-130	99.5		
Matrix Spike		1290015-MS1 M912007-01							
Vinyl chloride	12/20/99	62.1	ND	41.1	ug/kg	75.0-125	66.2		
cis-1,2-Dichloroethene	"	62.1	ND	64.0	"	75.0-125	103		
Trichloroethene	"	62.1	ND	61.8	"	75.0-125	99.5		
Tetrachloroethene	"	62.1	ND	66.5	"	75.0-125	107		
Surrogate: a,a,a-TFT	"	62.1		63.4	"	65.0-130	102		
Matrix Spike Dup		1290015-MSD1 M912007-01							
Vinyl chloride	12/20/99	57.6	ND	37.2	ug/kg	75.0-125	64.6		2.45
cis-1,2-Dichloroethene	"	57.6	ND	56.5	"	75.0-125	98.1		4.87
Trichloroethene	"	57.6	ND	50.6	"	75.0-125	87.8	20.0	12.5
Tetrachloroethene	"	57.6	ND	54.6	"	75.0-125	94.8		12.1
Surrogate: a,a,a-TFT	"	57.6		55.8	"	65.0-130	96.9		

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/20/99 Received: 12/20/99 Reported: 12/21/99 08:06
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Notes and Definitions

#	Note
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Exceeds lower control limit	VOC 8021B Screen	1290015-MS1	Vinyl chloride
At least one missing control limit	VOC 8021B Screen	1290015-MSD1	cis-1,2-Dichloroethene
At least one missing control limit	VOC 8021B Screen	1290015-MSD1	Tetrachloroethene
At least one missing control limit	VOC 8021B Screen	1290015-MSD1	Vinyl chloride
Exceeds lower control limit	VOC 8021B Screen	1290015-MSD1	Vinyl chloride
Status is Analyzed	VOC 8021B Screen	M912007-01	
Status is Analyzed	VOC 8021B Screen	M912007-02	
Status is Analyzed	VOC 8021B Screen	M912007-03	
Status is Analyzed	VOC 8021B Screen	M912007-04	
Status is Analyzed	VOC 8021B Screen	M912007-05	
Status is Analyzed	VOC 8021B Screen	M912007-06	
Status is Analyzed	VOC 8021B Screen	M912007-07	
Partial report/invoice			
Report calculations are based on the MRL			
Report modified			

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/21/99 Received: 12/21/99 Reported: 12/22/99 04:22
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
B2-B2-5'	M912008-01	Soil	12/21/99
B2-E-5'	M912008-02	Soil	12/21/99
D1-S-5'	M912008-03	Soil	12/21/99
D2-W-7'	M912008-04	Soil	12/21/99
D1-B3-7'	M912008-05	Soil	12/21/99
D1-B1-7'	M912008-06	Soil	12/21/99
D1-B2-7'	M912008-07	Soil	12/21/99
C1-B4-5'	M912008-08	Soil	12/21/99
B1-E-8'	M912008-09	Soil	12/21/99
C1-W-5'	M912008-10	Soil	12/21/99
B1-W-7'	M912008-11	Soil	12/21/99

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/21/99 Received: 12/21/99 Reported: 12/22/99 04:22
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
				<u>M912008-01</u>			Soil	
Vinyl chloride	1290017	12/21/99	12/21/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	35.8	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		81.5	%	
				<u>M912008-02</u>			Soil	
Vinyl chloride	1290017	12/21/99	12/21/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		98.2	%	
				<u>M912008-03</u>			Soil	
Vinyl chloride	1290017	12/21/99	12/21/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		96.3	%	
				<u>M912008-04</u>			Soil	
Vinyl chloride	1290017	12/21/99	12/21/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		98.5	%	
				<u>M912008-05</u>			Soil	
Vinyl chloride	1290017	12/21/99	12/21/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		100	%	
				<u>M912008-06</u>			Soil	
Vinyl chloride	1290017	12/21/99	12/21/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

North Creek Analytical - Mobile Lab

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd. PO Box 318. Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/21/99 Received: 12/21/99 Reported: 12/22/99 04:22
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>D1-B1-7' (continued)</u>								
Tetrachloroethene	1290017	12/21/99	12/21/99		15.0	ND	Soil ug/kg	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		105	%	
<u>D1-B2-7'</u>								
Vinyl chloride	1290017	12/21/99	12/21/99		15.0	ND	Soil ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		105	%	
<u>C1-B4-5'</u>								
Vinyl chloride	1290017	12/21/99	12/21/99		15.0	ND	Soil ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		101	%	
<u>B1-E-8'</u>								
Vinyl chloride	1290017	12/21/99	12/21/99		15.0	ND	Soil ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		101	%	
<u>C1-W-5'</u>								
Vinyl chloride	1290017	12/21/99	12/21/99		15.0	ND	Soil ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	58.7	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		90.8	%	
<u>B1-W-7'</u>								
Vinyl chloride	1290017	12/21/99	12/21/99		15.0	ND	Soil ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		106	%	

North Creek Analytical - Mobile Lab

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/21/99 Received: 12/21/99 Reported: 12/22/99 04:22
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1290017		Date Prepared: 12/21/99			Extraction Method: EPA 5035M					
Blank										
Vinyl chloride	12/21/99			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	80.0		78.0	"	65.0-130	97.5			
LCS										
1290017-BS1										
Vinyl chloride	12/21/99	80.0		72.8	ug/kg	75.0-125	91.0			
cis-1,2-Dichloroethene	"	80.0		70.2	"	75.0-125	87.7			
Trichloroethene	"	80.0		72.4	"	75.0-125	90.5			
Tetrachloroethene	"	80.0		73.2	"	75.0-125	91.5			
Surrogate: a,a,a-TFT	"	80.0		70.6	"	65.0-130	88.2			
Matrix Spike										
1290017-MS1 M912008-02										
Vinyl chloride	12/21/99	90.1	ND	70.3	ug/kg	75.0-125	78.0			
cis-1,2-Dichloroethene	"	90.1	ND	63.5	"	75.0-125	70.5			
Trichloroethene	"	90.1	ND	62.8	"	75.0-125	69.7			1
Tetrachloroethene	"	90.1	ND	61.0	"	75.0-125	67.7			1
Surrogate: a,a,a-TFT	"	90.1		66.2	"	65.0-130	73.5			
Matrix Spike Dup										
1290017-MSD1 M912008-02										
Vinyl chloride	12/21/99	94.8	ND	71.8	ug/kg	75.0-125	75.7	20.0	2.99	
cis-1,2-Dichloroethene	"	94.8	ND	73.9	"	75.0-125	78.0	20.0	10.1	
Trichloroethene	"	94.8	ND	67.8	"	75.0-125	71.5	20.0	2.55	1
Tetrachloroethene	"	94.8	ND	66.6	"	75.0-125	70.3	20.0	3.77	1
Surrogate: a,a,a-TFT	"	94.8		71.8	"	65.0-130	75.7			

Aspen Environmental, Ltd.
PO Box 318
Mukilteo, Wa 98275

Project: Cameron-Yakima Contaminated Soil Removal
Project Number: .
Project Manager: Scott Waldal

Sampled: 12/21/99
Received: 12/21/99
Reported: 12/22/99 04:22

Notes and Definitions

#	Note
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i The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

Recov. Recovery

RPD Relative Percent Difference

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Exceeds lower control limit	VOC 8021B Screen	1290017-MS1	cis-1,2-Dichloroethene
Exceeds lower control limit	VOC 8021B Screen	1290017-MS1	Tetrachloroethene
Exceeds lower control limit	VOC 8021B Screen	1290017-MS1	Trichloroethene
Q-01 (1)	VOC 8021B Screen	1290017-MS1	Tetrachloroethene
Q-01 (1)	VOC 8021B Screen	1290017-MS1	Trichloroethene
Exceeds lower control limit	VOC 8021B Screen	1290017-MSD1	Tetrachloroethene
Exceeds lower control limit	VOC 8021B Screen	1290017-MSD1	Trichloroethene
Q-01 (1)	VOC 8021B Screen	1290017-MSD1	Tetrachloroethene
Q-01 (1)	VOC 8021B Screen	1290017-MSD1	Trichloroethene
Status is Analyzed	VOC 8021B Screen	M912008-01	
Status is Analyzed	VOC 8021B Screen	M912008-02	
Status is Analyzed	VOC 8021B Screen	M912008-03	
Status is Analyzed	VOC 8021B Screen	M912008-04	
Status is Analyzed	VOC 8021B Screen	M912008-05	
Status is Analyzed	VOC 8021B Screen	M912008-06	
Status is Analyzed	VOC 8021B Screen	M912008-07	
Status is Analyzed	VOC 8021B Screen	M912008-08	
Status is Analyzed	VOC 8021B Screen	M912008-09	
Status is Analyzed	VOC 8021B Screen	M912008-10	
Status is Analyzed	VOC 8021B Screen	M912008-11	
Partial report/invoice			
Report calculations are based on the MRL			
Report modified			

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/29/99 Received: 12/29/99 Reported: 1/26/00 09:08
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
B2-B3-5	M912010-01	Soil	12/29/99
C3-E-5	M912010-02	Soil	12/29/99
C3-N-5	M912010-03	Soil	12/29/99
C3-B1-5	M912010-04	Soil	12/29/99
C3-B2-5	M912010-05	Soil	12/29/99
C3-B3-5	M912010-06	Soil	12/29/99

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/29/99 Received: 12/29/99 Reported: 1/26/00 09:08
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>B2-B3-5</u>				<u>M912010-01</u>			<u>Soil</u>	
Vinyl chloride	1290018	12/29/99	12/29/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		112	%	
<u>C3-E-5</u>				<u>M912010-02</u>			<u>Soil</u>	
Vinyl chloride	1290018	12/29/99	12/29/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	17.6	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		88.6	%	
<u>C3-N-5</u>				<u>M912010-03</u>			<u>Soil</u>	
Vinyl chloride	1290018	12/29/99	12/29/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		101	%	
<u>C3-B1-5</u>				<u>M912010-04</u>			<u>Soil</u>	
Vinyl chloride	1290018	12/29/99	12/29/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		110	%	
<u>C3-B2-5</u>				<u>M912010-05</u>			<u>Soil</u>	
Vinyl chloride	1290018	12/29/99	12/29/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		111	%	
<u>C3-B3-5</u>				<u>M912010-06</u>			<u>Soil</u>	
Vinyl chloride	1290018	12/29/99	12/29/99		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Stephen Wilson, Environmental Services Group Leader

Page 2 of 5

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/29/99 Received: 12/29/99 Reported: 1/26/00 09:08
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Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
C3-B3-5 (continued)				M912010-06			Soil	
Tetrachloroethene	1290018	12/29/99	12/29/99		15.0	ND	ug/kg	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		109	%	

Aspen Environmental, Ltd.
 PO Box 318
 Mukilteo, Wa 98275

Project: Cameron-Yakima Contaminated Soil Removal
 Project Number: .
 Project Manager: Scott Waldal

Sampled: 12/29/99
 Received: 12/29/99
 Reported: 1/26/00 09:08

**VOC Screening per EPA Method 8021B/Quality Control
 North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1290018									
Blank									
Date Prepared: 12/29/99									
Extraction Method: EPA 5035M									
1290018-BLK1									
Vinyl chloride	12/29/99			ND	ug/kg	15.0			
cis-1,2-Dichloroethene	"			ND	"	15.0			
Trichloroethene	"			ND	"	15.0			
Tetrachloroethene	"			ND	"	15.0			
Surrogate: a,a,a-TFT	"	40.0		36.0	"	65.0-130	90.0		
LCS									
1290018-BS1									
Vinyl chloride	12/29/99	40.0		34.0	ug/kg	75.0-125	85.0		
cis-1,2-Dichloroethene	"	40.0		37.6	"	75.0-125	94.0		
Trichloroethene	"	40.0		34.7	"	75.0-125	86.8		
Tetrachloroethene	"	40.0		35.4	"	75.0-125	88.5		
Surrogate: a,a,a-TFT	"	40.0		33.9	"	65.0-130	84.8		
Matrix Spike									
1290018-MS1 M912009-02									
Vinyl chloride	12/29/99	70.9	ND	61.7	ug/kg	75.0-125	87.0		
cis-1,2-Dichloroethene	"	70.9	ND	74.6	"	75.0-125	105		
Trichloroethene	"	70.9	ND	64.0	"	75.0-125	90.3		
Tetrachloroethene	"	70.9	ND	68.1	"	75.0-125	96.1		
Surrogate: a,a,a-TFT	"	70.9		64.7	"	65.0-130	91.3		
Matrix Spike Dup									
1290018-MSD1 M912009-02									
Vinyl chloride	12/29/99	85.1	ND	70.9	ug/kg	75.0-125	83.3	20.0	4.35
cis-1,2-Dichloroethene	"	85.1	ND	85.3	"	75.0-125	100	20.0	4.88
Trichloroethene	"	85.1	ND	72.3	"	75.0-125	85.0	20.0	6.05
Tetrachloroethene	"	85.1	ND	73.2	"	75.0-125	86.0	20.0	11.1
Surrogate: a,a,a-TFT	"	85.1		73.2	"	65.0-130	86.0		

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 12/29/99 Received: 12/29/99 Reported: 1/26/00 09:08
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Notes and Definitions

#	Note
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical, Inc.

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Status is Analyzed	VOC 8021B Screen	M912010-01	
Status is Analyzed	VOC 8021B Screen	M912010-02	
Status is Analyzed	VOC 8021B Screen	M912010-03	
Status is Analyzed	VOC 8021B Screen	M912010-04	
Status is Analyzed	VOC 8021B Screen	M912010-05	
Status is Analyzed	VOC 8021B Screen	M912010-06	

Report calculations are based on the MRL

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/7/00 Received: 1/10/00 Reported: 1/11/01 08:56
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
B3-W-3'	M001001-01	Soil	1/7/00
B3-B1-3'	M001001-02	Soil	1/7/00
B3-B2-3'	M001001-03	Soil	1/7/00
B3-B3-3'	M001001-04	Soil	1/7/00
B3-E-3'	M001001-05	Soil	1/7/00
B3-N-3'	M001001-06	Soil	1/7/00
B4-N-3'	M001001-07	Soil	1/7/00
B4-B1-3'	M001001-08	Soil	1/7/00
B4-B2-3'	M001001-09	Soil	1/7/00
B4-B3-3'	M001001-10	Soil	1/7/00

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/7/00 Received: 1/10/00 Reported: 1/11/01 08:56
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>B3-W-3'</u>				<u>M001001-01</u>			<u>Soil</u>	
Vinyl chloride	0100001	1/10/00	1/10/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		68.3	%	
<u>B3-B1-3'</u>				<u>M001001-02</u>			<u>Soil</u>	
Vinyl chloride	0100001	1/10/00	1/10/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		85.8	%	
<u>B3-B2-3'</u>				<u>M001001-03</u>			<u>Soil</u>	
Vinyl chloride	0100001	1/10/00	1/10/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	119	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		74.0	%	
<u>B3-B3-3'</u>				<u>M001001-04</u>			<u>Soil</u>	
Vinyl chloride	0100001	1/10/00	1/10/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	19.1	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		90.0	%	
<u>B3-E-3'</u>				<u>M001001-05</u>			<u>Soil</u>	
Vinyl chloride	0100001	1/10/00	1/10/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		105	%	
<u>B3-N-3'</u>				<u>M001001-06</u>			<u>Soil</u>	
Vinyl chloride	0100001	1/10/00	1/10/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Stephen Wilson, Environmental Services Group Leader

Page 2 of 5

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/7/00 Received: 1/10/00 Reported: 1/11/01 08:56
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Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B3-N-3' (continued)				M001001-06			Soil	
Tetrachloroethene	0100001	1/10/00	1/10/00		15.0	26.5	ug/kg	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		62.1	%	1
B4-N-3'				M001001-07			Soil	
Vinyl chloride	0100001	1/10/00	1/10/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		21.5	%	1
B4-B1-3'				M001001-08			Soil	
Vinyl chloride	0100001	1/10/00	1/10/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		109	%	
B4-B2-3'				M001001-09			Soil	
Vinyl chloride	0100001	1/10/00	1/10/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		113	%	
B4-B3-3'				M001001-10			Soil	
Vinyl chloride	0100001	1/10/00	1/10/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		94.5	%	

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/7/00 Received: 1/10/00 Reported: 1/11/01 08:56
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0100001		Date Prepared: 1/10/00			Extraction Method: EPA 5035M					
Blank		0100001-BLK1								
Vinyl chloride	1/10/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
<i>Surrogate: a,a,a-TFT</i>	"	40.0		40.5	"	65.0-130	101			
LCS		0100001-BS1								
Vinyl chloride	1/10/00	40.0		36.6	ug/kg	75.0-125	91.5			
cis-1,2-Dichloroethene	"	40.0		39.2	"	75.0-125	98.0			
Trichloroethene	"	40.0		36.6	"	75.0-125	91.5			
Tetrachloroethene	"	40.0		38.3	"	75.0-125	95.7			
<i>Surrogate: a,a,a-TFT</i>	"	40.0		37.8	"	65.0-130	94.5			
Matrix Spike		0100001-MS1		M001001-01						
Vinyl chloride	1/10/00	64.3	ND	26.8	ug/kg	75.0-125	41.7			2
cis-1,2-Dichloroethene	"	64.3	ND	62.2	"	75.0-125	96.7			
Trichloroethene	"	64.3	ND	56.3	"	75.0-125	87.6			
Tetrachloroethene	"	64.3	ND	63.8	"	75.0-125	99.2			
<i>Surrogate: a,a,a-TFT</i>	"	64.3		54.2	"	65.0-130	84.3			
Matrix Spike Dup		0100001-MSD1		M001001-01						
Vinyl chloride	1/10/00	76.9	ND	31.0	ug/kg	75.0-125	40.3	20.0	3.41	2
cis-1,2-Dichloroethene	"	76.9	ND	73.5	"	75.0-125	95.6	20.0	1.14	
Trichloroethene	"	76.9	ND	68.1	"	75.0-125	88.6	20.0	1.14	
Tetrachloroethene	"	76.9	ND	78.3	"	75.0-125	102	20.0	2.78	
<i>Surrogate: a,a,a-TFT</i>	"	76.9		67.7	"	65.0-130	88.0			

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/7/00 Received: 1/10/00 Reported: 1/11/01 08:56
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Notes and Definitions

#	Note
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- 1 The surrogate recovery for this sample is out of NCA established control limits, which may be due to carbon particles in the sample matrix.

- 2 The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.

- DET Analyte DETECTED

- ND Analyte NOT DETECTED at or above the reporting limit

- NR Not Reported

- dry Sample results reported on a dry weight basis

- Recov. Recovery

- RPD Relative Percent Difference

North Creek Analytical, Inc.

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Exceeds lower control limit Q-01 (2)	VOC 8021B Screen	0100001-MS1	Vinyl chloride
Exceeds lower control limit Q-01 (2)	VOC 8021B Screen	0100001-MS1	Vinyl chloride
Status is Analyzed	VOC 8021B Screen	0100001-MSD1	Vinyl chloride
Status is Analyzed	VOC 8021B Screen	0100001-MSD1	Vinyl chloride
Status is Analyzed	VOC 8021B Screen	M001001-01	
Status is Analyzed	VOC 8021B Screen	M001001-02	
Status is Analyzed	VOC 8021B Screen	M001001-03	
Status is Analyzed	VOC 8021B Screen	M001001-04	
Status is Analyzed	VOC 8021B Screen	M001001-05	
Status is Analyzed	VOC 8021B Screen	M001001-06	
Exceeds lower control limit A-01 (1)	VOC 8021B Screen	M001001-06	a,a,a-TFT
Status is Analyzed	VOC 8021B Screen	M001001-06	a,a,a-TFT
Exceeds lower control limit A-01 (1)	VOC 8021B Screen	M001001-07	
Status is Analyzed	VOC 8021B Screen	M001001-07	a,a,a-TFT
Status is Analyzed	VOC 8021B Screen	M001001-07	a,a,a-TFT
Status is Analyzed	VOC 8021B Screen	M001001-08	
Status is Analyzed	VOC 8021B Screen	M001001-09	
Status is Analyzed	VOC 8021B Screen	M001001-10	

Report calculations are based on the MRL

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/10/00 Received: 1/10/00 Reported: 1/12/00 08:48
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
B4-E-3'	M001002-01	Soil	1/10/00
B4-S-3'	M001002-02	Soil	1/7/00
BLK-01-011000	M001002-03	Soil	1/10/00
BS-FD-10'	M001002-04	Soil	1/10/00
BS-B1-8'	M001002-05	Soil	1/10/00
BS-B2-8'	M001002-06	Soil	1/10/00
BS-B3-8'	M001002-07	Soil	1/10/00

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/10/00 Received: 1/10/00 Reported: 1/12/00 08:48
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>B4-E-3'</u>				<u>M001002-01</u>			<u>Soil</u>	
Vinyl chloride	0100002	1/11/00	1/12/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	37.7	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		88.8	%	
<u>B4-S-3'</u>				<u>M001002-02</u>			<u>Soil</u>	
Vinyl chloride	0100002	1/11/00	1/12/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		105	%	
<u>BLK-01-011000</u>				<u>M001002-03</u>			<u>Soil</u>	1
Vinyl chloride	0100002	1/11/00	1/12/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	328	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		62.5	%	
<u>BS-FD-10'</u>				<u>M001002-04</u>			<u>Soil</u>	
Vinyl chloride	0100002	1/11/00	1/12/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	93.4	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		96.1	%	
<u>BS-B1-8'</u>				<u>M001002-05</u>			<u>Soil</u>	
Vinyl chloride	0100002	1/11/00	1/12/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		106	%	
<u>BS-B2-8'</u>				<u>M001002-06</u>			<u>Soil</u>	
Vinyl chloride	0100002	1/11/00	1/12/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

North Creek Analytical - Mobile Lab

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/10/00 Received: 1/10/00 Reported: 1/12/00 08:48
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>BS-B2-8' (continued)</u>				<u>M001002-06</u>			<u>Soil</u>	
Tetrachloroethene	0100002	1/11/00	1/12/00		15.0	ND	ug/kg	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		110	%	
<u>BS-B3-8'</u>				<u>M001002-07</u>			<u>Soil</u>	
Vinyl chloride	0100002	1/11/00	1/12/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		110	%	

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/10/00 Received: 1/10/00 Reported: 1/12/00 08:48
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**VOC Screening per EPA Method 821B/Quality Control
North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Recov. Limits	RPD %	RPD Limit	RPD %	Notes*
Batch: 0100002		Date Prepared: 1/11/00			Extraction Method: EPA 5035M					
Blank		0100002-BLK1								
Vinyl chloride	1/12/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	40.0		44.2	"	65.0-130	111			
LCS		0100002-BS1								
Vinyl chloride	1/12/00	40.0		39.7	ug/kg	75.0-125	99.3			
cis-1,2-Dichloroethene	"	40.0		39.5	"	75.0-125	98.8			
Trichloroethene	"	40.0		37.0	"	75.0-125	92.5			
Tetrachloroethene	"	40.0		39.0	"	75.0-125	97.5			
Surrogate: a,a,a-TFT	"	40.0		37.6	"	65.0-130	94.0			
Matrix Spike		0100002-MS1 M001002-03								1.2
Vinyl chloride	1/12/00	61.0	ND	32.9	ug/kg	75.0-125	53.9			
cis-1,2-Dichloroethene	"	61.0	ND	35.2	"	75.0-125	57.7			
Trichloroethene	"	61.0	ND	32.0	"	75.0-125	52.5			
Tetrachloroethene	"	61.0	328	101	"	75.0-125	NR			
Surrogate: a,a,a-TFT	"	61.0		25.9	"	65.0-130	42.5			
Matrix Spike Dup		0100002-MSD1 M001002-03								1.2
Vinyl chloride	1/12/00	67.6	ND	39.7	ug/kg	75.0-125	58.7	20.0	8.53	
cis-1,2-Dichloroethene	"	67.6	ND	42.9	"	75.0-125	63.5	20.0	9.57	
Trichloroethene	"	67.6	ND	37.5	"	75.0-125	55.5	20.0	5.56	
Tetrachloroethene	"	67.6	328	149	"	75.0-125	NR	20.0		
Surrogate: a,a,a-TFT	"	67.6		30.2	"	65.0-130	44.7			

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/10/00 Received: 1/10/00 Reported: 1/12/00 08:48
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Notes and Definitions

#	Note
1	The surrogate recovery for this sample is out of NCA established control limits, which may be due to carbon particles in the sample matrix.
2	The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Exceeds lower control limit	VOC 8021B Screen	0100002-MS1	a,a,a-TFT
Exceeds lower control limit	VOC 8021B Screen	0100002-MS1	cis-1,2-Dichloroethene
Exceeds lower control limit	VOC 8021B Screen	0100002-MS1	Tetrachloroethene
Exceeds lower control limit	VOC 8021B Screen	0100002-MS1	Trichloroethene
Exceeds lower control limit	VOC 8021B Screen	0100002-MS1	Vinyl chloride
Q-18 (1)	VOC 8021B Screen	0100002-MS1	
Q-01 (2)	VOC 8021B Screen	0100002-MS1	
Exceeds lower control limit	VOC 8021B Screen	0100002-MSD1	a,a,a-TFT
Exceeds lower control limit	VOC 8021B Screen	0100002-MSD1	cis-1,2-Dichloroethene
Exceeds lower control limit	VOC 8021B Screen	0100002-MSD1	Tetrachloroethene
Exceeds lower control limit	VOC 8021B Screen	0100002-MSD1	Trichloroethene
Exceeds lower control limit	VOC 8021B Screen	0100002-MSD1	Vinyl chloride
Q-18 (1)	VOC 8021B Screen	0100002-MSD1	
Q-01 (2)	VOC 8021B Screen	0100002-MSD1	
Exceeds lower control limit	VOC 8021B Screen	M001002-03	a,a,a-TFT
Q-18 (1)	VOC 8021B Screen	M001002-03	
Status is Received	VOC Headspace	M001002-01	
Status is Received	VOC Headspace	M001002-02	
Status is Received	VOC Headspace	M001002-03	
Status is Received	VOC Headspace	M001002-04	
Status is Received	VOC Headspace	M001002-05	
Status is Received	VOC Headspace	M001002-06	
Status is Received	VOC Headspace	M001002-07	

Report calculations are based on the MRL

January 13, 2000

Scott Waldal
Aspen Environmental. Ltd.
PO Box 318
Mukilteo, Wa 98275

RE: Cameron-Yakima Contaminated Soil Removal

Dear Scott Waldal

Enclosed are the results of analyses for sample(s) received by the laboratory on January 11, 2000. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kody Phillis
Mobile Lab Chemist

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/11/00 Received: 1/11/00 Reported: 1/13/00 08:25
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
TP1-2'	M001003-01	Soil	1/11/00
TP1-4'	M001003-02	Soil	1/11/00
TP1-6'	M001003-03	Soil	1/11/00
TP1-8'	M001003-04	Soil	1/11/00
TP2-2'	M001003-05	Soil	1/11/00
TP2-4'	M001003-06	Soil	1/11/00
TP2-6'	M001003-07	Soil	1/11/00
TP2-8'	M001003-08	Soil	1/11/00
B3-B1-7'	M001003-09	Soil	1/11/00
B3-B2-7'	M001003-10	Soil	1/11/00
B3-B3-7'	M001003-11	Soil	1/11/00
B3-B4-7'	M001003-12	Soil	1/11/00

North Creek Analytical - Mobile Lab *The results in this report apply to the samples analyzed in accordance with the chain of custody document.
This analytical report must be reproduced in its entirety.*

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/11/00 Received: 1/11/00 Reported: 1/13/00 08:25
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
TP1-2'				M001003-01			Soil	
Vinyl chloride	0100003	1/12/00	1/12/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		90.8	%	
TP1-4'				M001003-02			Soil	
Vinyl chloride	0100003	1/12/00	1/12/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		87.6	%	
TP1-6'				M001003-03			Soil	
Vinyl chloride	0100003	1/12/00	1/12/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		98.4	%	
TP1-8'				M001003-04			Soil	
Vinyl chloride	0100003	1/12/00	1/12/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		106	%	
TP2-2'				M001003-05			Soil	
Vinyl chloride	0100003	1/12/00	1/12/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	25.0	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		79.3	%	
TP2-4'				M001003-06			Soil	
Vinyl chloride	0100003	1/12/00	1/12/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

North Creek Analytical - Mobile Lab

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/11/00 Received: 1/11/00 Reported: 1/13/00 08:25
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
TP2-4' (continued)				M001003-06			Soil	
Tetrachloroethene	0100003	1/12/00	1/12/00		15.0	16.3	ug/kg	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		89.1	%	
TP2-6'				M001003-07			Soil	
Vinyl chloride	0100003	1/12/00	1/12/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		110	%	
TP2-8'				M001003-08			Soil	
Vinyl chloride	0100003	1/12/00	1/12/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		104	%	
B3-B1-7'				M001003-09			Soil	
Vinyl chloride	0100003	1/12/00	1/12/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		111	%	
B3-B2-7'				M001003-10			Soil	
Vinyl chloride	0100003	1/12/00	1/12/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		106	%	
B3-B3-7'				M001003-11			Soil	
Vinyl chloride	0100003	1/12/00	1/13/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		87.0	%	

North Creek Analytical - Mobile Lab

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/11/00 Received: 1/11/00 Reported: 1/13/00 08:25
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>B3-B4-7'</u>				<u>M001003-12</u>			<u>Soil</u>	
Vinyl chloride	0100003	1/12/00	1/13/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		98.5	%	

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Walda	Sampled: 1/11/00 Received: 1/11/00 Reported: 1/13/00 08:25
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0100003		Date Prepared: 1/12/00			Extraction Method: EPA 5035M				
Blank		0100003-BLK1							
Vinyl chloride	1/12/00			ND	ug/kg	15.0			
cis-1,2-Dichloroethene	"			ND	"	15.0			
Trichloroethene	"			ND	"	15.0			
Tetrachloroethene	"			ND	"	15.0			
Surrogate: a,a,a-TFT	"	40.0		45.6	"	65.0-130	114		
LCS		0100003-BS1							
Vinyl chloride	1/12/00	40.0		35.3	ug/kg	75.0-125	88.2		
cis-1,2-Dichloroethene	"	40.0		43.0	"	75.0-125	108		
Trichloroethene	"	40.0		40.7	"	75.0-125	102		
Tetrachloroethene	"	40.0		42.8	"	75.0-125	107		
Surrogate: a,a,a-TFT	"	40.0		41.6	"	65.0-130	104		
Matrix Spike		0100003-MS1 M001003-03							
Vinyl chloride	1/12/00	79.4	ND	61.1	ug/kg	75.0-125	77.0		
cis-1,2-Dichloroethene	"	79.4	ND	73.0	"	75.0-125	91.9		
Trichloroethene	"	79.4	ND	66.3	"	75.0-125	83.5		
Tetrachloroethene	"	79.4	ND	73.6	"	75.0-125	92.7		
Surrogate: a,a,a-TFT	"	79.4		66.3	"	65.0-130	83.5		
Matrix Spike Dup		0100003-MSD1 M001003-03							
Vinyl chloride	1/12/00	79.7	ND	65.7	ug/kg	75.0-125	82.4	20.0	6.78
cis-1,2-Dichloroethene	"	79.7	ND	80.7	"	75.0-125	101	20.0	9.43
Trichloroethene	"	79.7	ND	73.1	"	75.0-125	91.7	20.0	9.36
Tetrachloroethene	"	79.7	ND	80.5	"	75.0-125	101	20.0	8.57
Surrogate: a,a,a-TFT	"	79.7		74.3	"	65.0-130	93.2		

Aspen Environmental, Ltd.
PO Box 318
Mukilteo, Wa 98275

Project: Cameron-Yakima Contaminated Soil Removal
Project Number: .
Project Manager: Scott Waldal

Sampled: 1/11/00
Received: 1/11/00
Reported: 1/13/00 08:25

Notes and Definitions

#	Note
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DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Status is Received	VOC Headspace	M001003-01	
Status is Received	VOC Headspace	M001003-02	
Status is Received	VOC Headspace	M001003-03	
Status is Received	VOC Headspace	M001003-04	
Status is Received	VOC Headspace	M001003-05	
Status is Received	VOC Headspace	M001003-06	
Status is Received	VOC Headspace	M001003-07	
Status is Received	VOC Headspace	M001003-08	
Status is Received	VOC Headspace	M001003-09	
Status is Received	VOC Headspace	M001003-10	
Status is Received	VOC Headspace	M001003-11	
Status is Received	VOC Headspace	M001003-12	

Report calculations are based on the MRL

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/12/00 Received: 1/12/00 Reported: 1/14/00 08:29
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E3-B1-5'	M001004-01	Soil	1/12/00
E3-B2-5'	M001004-02	Soil	1/12/00
E3-B3-5'	M001004-03	Soil	1/12/00
E3-B4-5'	M001004-04	Soil	1/12/00
E3-SW-5'	M001004-05	Soil	1/12/00
E3-SE-5'	M001004-06	Soil	1/12/00
E3-W-5'	M001004-07	Soil	1/12/00

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/12/00 Received: 1/12/00 Reported: 1/14/00 08:29
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E3-B1-5'</u>				<u>M001004-01</u>			<u>Soil</u>	
Vinyl chloride	0100004	1/13/00	1/13/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		99.9	%	
<u>E3-B2-5'</u>				<u>M001004-02</u>			<u>Soil</u>	
Vinyl chloride	0100004	1/13/00	1/13/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		39.1	%	1
<u>E3-B3-5'</u>				<u>M001004-03</u>			<u>Soil</u>	
Vinyl chloride	0100004	1/13/00	1/13/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		91.6	%	
<u>E3-B4-5'</u>				<u>M001004-04</u>			<u>Soil</u>	
Vinyl chloride	0100004	1/13/00	1/13/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		77.8	%	
<u>E3-SW-5'</u>				<u>M001004-05</u>			<u>Soil</u>	
Vinyl chloride	0100004	1/13/00	1/13/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		57.6	%	2
<u>E3-SE-5'</u>				<u>M001004-06</u>			<u>Soil</u>	
Vinyl chloride	0100004	1/13/00	1/13/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

North Creek Analytical - Mobile Lab

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/12/00 Received: 1/12/00 Reported: 1/14/00 08:29
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E3-SE-5' (continued)</u>			<u>M001004-06</u>			<u>Soil</u>		
Tetrachloroethene	0100004	1/13/00	1/13/00		15.0	19.1	ug/kg	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		97.4	%	
<u>E3-W-5'</u>			<u>M001004-07</u>			<u>Soil</u>		
Vinyl chloride	0100004	1/13/00	1/13/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		86.7	%	

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/12/00 Received: 1/12/00 Reported: 1/14/00 08:29
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VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Mobile Lab

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0100004		Date Prepared: 1/13/00		Extraction Method: EPA 5035M					
Blank		0100004-BLK1							
Vinyl chloride	1/13/00			ND	ug/kg	15.0			
cis-1,2-Dichloroethene	"			ND	"	15.0			
Trichloroethene	"			ND	"	15.0			
Tetrachloroethene	"			ND	"	15.0			
Surrogate: a,a,a-TFT	"	40.0		42.2	"	65.0-130	106		
LCS		0100004-BS1							
Vinyl chloride	1/13/00	40.0		38.3	ug/kg	75.0-125	95.7		
cis-1,2-Dichloroethene	"	40.0		40.9	"	75.0-125	102		
Trichloroethene	"	40.0		37.2	"	75.0-125	93.0		
Tetrachloroethene	"	40.0		39.5	"	75.0-125	98.8		
Surrogate: a,a,a-TFT	"	40.0		39.5	"	65.0-130	98.8		
Matrix Spike		0100004-MS1 M001004-02							
Vinyl chloride	1/13/00	53.1	ND	ND	ug/kg	75.0-125	NR		3,4
cis-1,2-Dichloroethene	"	53.1	ND	ND	"	75.0-125	NR		3,4
Trichloroethene	"	53.1	ND	50.3	"	75.0-125	94.7		3
Tetrachloroethene	"	53.1	ND	56.1	"	75.0-125	106		3
Surrogate: a,a,a-TFT	"	53.1		52.0	"	65.0-130	97.9		3
Matrix Spike Dup		0100004-MSD1 M001004-02							
Vinyl chloride	1/13/00	53.9	ND	41.4	ug/kg	75.0-125	76.8	20.0	200 3
cis-1,2-Dichloroethene	"	53.9	ND	44.7	"	75.0-125	82.9	20.0	200 3
Trichloroethene	"	53.9	ND	41.2	"	75.0-125	76.4	20.0	21.4 3
Tetrachloroethene	"	53.9	ND	46.1	"	75.0-125	85.5	20.0	21.4 3
Surrogate: a,a,a-TFT	"	53.9		39.9	"	65.0-130	74.0		3

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/12/00 Received: 1/12/00 Reported: 1/14/00 08:29
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Notes and Definitions

#	Note
1	The surrogate recovery for this sample is outside of NCA established control limits.
2	The surrogate recovery for this sample is out of NCA established control limits, which may be due to carbon particles in the sample matrix.
3	The RPD is above the control limit due to a non-homogeneous sample matrix.
4	The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Exceeds lower control limit	VOC 8021B Screen	0100004-MS1	cis-1,2-Dichloroethene
Exceeds lower control limit	VOC 8021B Screen	0100004-MS1	Vinyl chloride
Q-14 (3)	VOC 8021B Screen	0100004-MS1	a,a,a-TFT
Q-14 (3)	VOC 8021B Screen	0100004-MS1	cis-1,2-Dichloroethene
Q-01 (4)	VOC 8021B Screen	0100004-MS1	cis-1,2-Dichloroethene
Q-14 (3)	VOC 8021B Screen	0100004-MS1	Tetrachloroethene
Q-14 (3)	VOC 8021B Screen	0100004-MS1	Trichloroethene
Q-14 (3)	VOC 8021B Screen	0100004-MS1	Vinyl chloride
Q-01 (4)	VOC 8021B Screen	0100004-MS1	Vinyl chloride
Exceeds RPD limit	VOC 8021B Screen	0100004-MSD1	cis-1,2-Dichloroethene
Exceeds RPD limit	VOC 8021B Screen	0100004-MSD1	Tetrachloroethene
Exceeds RPD limit	VOC 8021B Screen	0100004-MSD1	Trichloroethene
Exceeds RPD limit	VOC 8021B Screen	0100004-MSD1	Vinyl chloride
Q-14 (3)	VOC 8021B Screen	0100004-MSD1	a,a,a-TFT
Q-14 (3)	VOC 8021B Screen	0100004-MSD1	cis-1,2-Dichloroethene
Q-14 (3)	VOC 8021B Screen	0100004-MSD1	Tetrachloroethene
Q-14 (3)	VOC 8021B Screen	0100004-MSD1	Trichloroethene
Q-14 (3)	VOC 8021B Screen	0100004-MSD1	Vinyl chloride
Exceeds lower control limit	VOC 8021B Screen	M001004-02	a,a,a-TFT
S-03 (1)	VOC 8021B Screen	M001004-02	a,a,a-TFT
Exceeds lower control limit	VOC 8021B Screen	M001004-05	a,a,a-TFT
Q-18 (2)	VOC 8021B Screen	M001004-05	a,a,a-TFT

Partial report/invoice

Report calculations are based on the MRL

Report modified

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/13/00 Received: 1/13/00 Reported: 1/19/00 15:31
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E4-B1-5'	M001005-01	Soil	1/13/00
E4-B2-5'	M001005-02	Soil	1/13/00
E4-B3-5'	M001005-03	Soil	1/13/00
E4-B4-5'	M001005-04	Soil	1/13/00
E4-SW-5'	M001005-05	Soil	1/13/00
E4-SE-5'	M001005-06	Soil	1/13/00
D4-B1-5'	M001005-07	Soil	1/13/00
D4-B2-5'	M001005-08	Soil	1/13/00
D4-B3-5'	M001005-09	Soil	1/13/00
D4-B4-5'	M001005-10	Soil	1/13/00
D4-B5-5'	M001005-11	Soil	1/13/00
D4-B6-5'	M001005-12	Soil	1/13/00
D4-B7-5'	M001005-13	Soil	1/13/00
D4-B8-5'	M001005-14	Soil	1/13/00

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*The results in this report apply to the samples analyzed in accordance with the chain of custody document.
This analytical report must be reproduced in its entirety.*

Kody Phillis, Mobile Lab Chemist

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Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/13/00 Received: 1/13/00 Reported: 1/19/00 15:31
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E4-B1-5'</u>				<u>M001005-01</u>		<u>Soil</u>		
Vinyl chloride	0100005	1/14/00	1/15/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		75.6	%	
<u>E4-B2-5'</u>				<u>M001005-02</u>		<u>Soil</u>		
Vinyl chloride	0100005	1/14/00	1/15/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	63.4	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		80.5	%	
<u>E4-B3-5'</u>				<u>M001005-03</u>		<u>Soil</u>		
Vinyl chloride	0100005	1/14/00	1/15/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	15.1	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		81.7	%	
<u>E4-B4-5'</u>				<u>M001005-04</u>		<u>Soil</u>		
Vinyl chloride	0100005	1/14/00	1/15/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	50.1	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		83.7	%	
<u>E4-SW-5'</u>				<u>M001005-05</u>		<u>Soil</u>		
Vinyl chloride	0100004	1/13/00	1/14/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	44.5	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	66.8	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		79.4	%	
<u>E4-SE-5'</u>				<u>M001005-06</u>		<u>Soil</u>		
Vinyl chloride	0100004	1/13/00	1/14/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

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*Refer to end of report for text of notes and definitions.

Kody Phillis, Mobile Lab Chemist

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Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/13/00 Received: 1/13/00 Reported: 1/19/00 15:31
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Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E4-SE-5' (continued)				M001005-06		Soil		
Tetrachloroethene	0100004	1/13/00	1/14/00		15.0	363	ug/kg	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		52.7	%	
D4-B1-5'				M001005-07		Soil		
Vinyl chloride	0100005	1/14/00	1/15/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		88.7	%	
D4-B2-5'				M001005-08		Soil		
Vinyl chloride	0100005	1/14/00	1/15/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	88.7	"	
Trichloroethene	"	"	"		15.0	16.7	"	
Tetrachloroethene	"	"	"		15.0	397	"	1
Surrogate: a,a,a-TFT	"	"	"	65.0-130		70.7	%	
D4-B3-5'				M001005-09		Soil		
Vinyl chloride	0100005	1/14/00	1/15/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	19.6	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		104	%	
D4-B4-5'				M001005-10		Soil		
Vinyl chloride	0100005	1/14/00	1/15/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	85.3	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		85.7	%	
D4-B5-5'				M001005-11		Soil		
Vinyl chloride	0100005	1/14/00	1/15/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	29.6	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	434	"	1
Surrogate: a,a,a-TFT	"	"	"	65.0-130		77.7	%	

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*Refer to end of report for text of notes and definitions.

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VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/13/00 Received: 1/13/00 Reported: 1/19/00 15:31
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<u>D4-B6-5'</u>		<u>M001005-12</u>			<u>Soil</u>	
Vinyl chloride	0100004	1/13/00	1/14/00	15.0	ND	ug/kg
cis-1,2-Dichloroethene	"	"	"	15.0	ND	"
Trichloroethene	"	"	"	15.0	ND	"
Tetrachloroethene	"	"	"	15.0	26.1	"
<i>Surrogate: a,a,a-TFT</i>	"	"	"	<i>65.0-130</i>	<i>91.9</i>	<i>%</i>

<u>D4-B7-5'</u>		<u>M001005-13</u>			<u>Soil</u>	
Vinyl chloride	0100005	1/14/00	1/15/00	15.0	ND	ug/kg
cis-1,2-Dichloroethene	"	"	"	15.0	ND	"
Trichloroethene	"	"	"	15.0	ND	"
Tetrachloroethene	"	"	"	15.0	ND	"
<i>Surrogate: a,a,a-TFT</i>	"	"	"	<i>65.0-130</i>	<i>81.5</i>	<i>%</i>

<u>D4-B8-5'</u>		<u>M001005-14</u>			<u>Soil</u>	
Vinyl chloride	0100005	1/14/00	1/15/00	15.0	ND	ug/kg
cis-1,2-Dichloroethene	"	"	"	15.0	ND	"
Trichloroethene	"	"	"	15.0	ND	"
Tetrachloroethene	"	"	"	15.0	32.0	"
<i>Surrogate: a,a,a-TFT</i>	"	"	"	<i>65.0-130</i>	<i>101</i>	<i>%</i>

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/13/00 Received: 1/13/00 Reported: 1/19/00 15:31
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0100004		Date Prepared: 1/13/00		Extraction Method: EPA 5035M					
Blank		0100004-BLK1							
Vinyl chloride	1/14/00		ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"		ND	"	15.0				
Trichloroethene	"		ND	"	15.0				
Tetrachloroethene	"		ND	"	15.0				
Surrogate: a,a,a-TFT	"	40.0	42.2	"	65.0-130	106			
LCS		0100004-BS1							
Vinyl chloride	1/14/00	40.0	38.3	ug/kg	75.0-125	95.7			
cis-1,2-Dichloroethene	"	40.0	40.9	"	75.0-125	102			
Trichloroethene	"	40.0	37.2	"	75.0-125	93.0			
Tetrachloroethene	"	40.0	39.5	"	75.0-125	98.8			
Surrogate: a,a,a-TFT	"	40.0	39.5	"	65.0-130	98.8			
Matrix Spike		0100004-MS1							
Vinyl chloride	1/14/00	53.1	ND	ug/kg	75.0-125				2,3
cis-1,2-Dichloroethene	"	53.1	ND	"	75.0-125				2,3
Trichloroethene	"	53.1	50.3	"	75.0-125				3
Tetrachloroethene	"	53.1	56.1	"	75.0-125				3
Surrogate: a,a,a-TFT	"	53.1	52.0	"	65.0-130	97.9			3
Matrix Spike Dup		0100004-MSD1							
Vinyl chloride	1/14/00	53.9	41.4	ug/kg	75.0-125				3
cis-1,2-Dichloroethene	"	53.9	44.7	"	75.0-125				3
Trichloroethene	"	53.9	41.2	"	75.0-125		20.0		3
Tetrachloroethene	"	53.9	46.1	"	75.0-125				3
Surrogate: a,a,a-TFT	"	53.9	39.6	"	65.0-130	73.5			3
Batch: 0100005		Date Prepared: 1/14/00		Extraction Method: EPA 5035M					
Blank		0100005-BLK1							
Vinyl chloride	1/15/00		ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"		ND	"	15.0				
Trichloroethene	"		ND	"	15.0				
Tetrachloroethene	"		ND	"	15.0				
Surrogate: a,a,a-TFT	"	40.0	45.4	"	65.0-130	114			
LCS		0100005-BS1							
Vinyl chloride	1/15/00	40.0	33.6	ug/kg	75.0-125	84.0			

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*Refer to end of report for text of notes and definitions.

Kody Phillis, Mobile Lab Chemist

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Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/13/00 Received: 1/13/00 Reported: 1/19/00 15:31
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Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
LCS (continued)		0100005-BS1								
cis-1,2-Dichloroethene	1/15/00	40.0		32.9	ug/kg	75.0-125	82.3			
Trichloroethene	"	40.0		33.6	"	75.0-125	84.0			
Tetrachloroethene	"	40.0		35.1	"	75.0-125	87.7			
Surrogate: a,a,a-TFT	"	40.0		31.4	"	65.0-130	78.5			
Matrix Spike		0100005-MS1								
Vinyl chloride	1/15/00	64.3		47.4	ug/kg	75.0-125				
cis-1,2-Dichloroethene	"	64.3		67.0	"	75.0-125				
Trichloroethene	"	64.3		60.8	"	75.0-125				
Tetrachloroethene	"	64.3		69.9	"	75.0-125				
Surrogate: a,a,a-TFT	"	64.3		66.9	"	65.0-130	104			
Matrix Spike Dup		0100005-MSD1								
Vinyl chloride	1/15/00	57.1		43.3	ug/kg	75.0-125				
cis-1,2-Dichloroethene	"	57.1		56.6	"	75.0-125				
Trichloroethene	"	57.1		54.4	"	75.0-125			20.0	
Tetrachloroethene	"	57.1		64.3	"	75.0-125				
Surrogate: a,a,a-TFT	"	57.1		55.6	"	65.0-130	97.4			

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Kody Phillis, Mobile Lab Chemist

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Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal *	Sampled: 1/13/00 Received: 1/13/00 Reported: 1/19/00 15:31
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Notes and Definitions

#	Note
1	The reported value is an estimated value. The analyte was detected at a level which is higher than the calibration curve.
2	The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
3	The RPD is above the control limit due to a non-homogeneous sample matrix.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
No source sample number	VOC 8021B Screen	0100004-MS1	
Q-14 (3)	VOC 8021B Screen	0100004-MS1	a,a,a-TFT
Q-01 (2)	VOC 8021B Screen	0100004-MS1	cis-1,2-Dichloroethene
Q-14 (3)	VOC 8021B Screen	0100004-MS1	cis-1,2-Dichloroethene
Q-14 (3)	VOC 8021B Screen	0100004-MS1	Tetrachloroethene
Q-14 (3)	VOC 8021B Screen	0100004-MS1	Trichloroethene
Q-01 (2)	VOC 8021B Screen	0100004-MS1	Vinyl chloride
Q-14 (3)	VOC 8021B Screen	0100004-MS1	Vinyl chloride
No source sample number	VOC 8021B Screen	0100004-MSD1	
Q-14 (3)	VOC 8021B Screen	0100004-MSD1	a,a,a-TFT
Q-14 (3)	VOC 8021B Screen	0100004-MSD1	cis-1,2-Dichloroethene
Q-14 (3)	VOC 8021B Screen	0100004-MSD1	Tetrachloroethene
Q-14 (3)	VOC 8021B Screen	0100004-MSD1	Trichloroethene
Q-14 (3)	VOC 8021B Screen	0100004-MSD1	Vinyl chloride
No source sample number	VOC 8021B Screen	0100005-MS1	
No source sample number	VOC 8021B Screen	0100005-MSD1	
Exceeds lower control limit	VOC 8021B Screen	M001005-06	a,a,a-TFT
A-01 (1)	VOC 8021B Screen	M001005-08	Tetrachloroethene
A-01 (1)	VOC 8021B Screen	M001005-11	Tetrachloroethene
Status is Received	VOC Headspace	M001005-01	
Status is Received	VOC Headspace	M001005-02	
Status is Received	VOC Headspace	M001005-03	
Status is Received	VOC Headspace	M001005-04	
Status is Received	VOC Headspace	M001005-05	
Status is Received	VOC Headspace	M001005-06	
Status is Received	VOC Headspace	M001005-07	
Status is Received	VOC Headspace	M001005-08	
Status is Received	VOC Headspace	M001005-09	
Status is Received	VOC Headspace	M001005-10	
Status is Received	VOC Headspace	M001005-11	
Status is Received	VOC Headspace	M001005-12	
Status is Received	VOC Headspace	M001005-13	
Status is Received	VOC Headspace	M001005-14	

Report calculations are based on the MRL

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/13/00 to 1/14/00 Received: 1/14/00 Reported: 1/19/00 15:28
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
B5-B1-9'	M001006-01	Soil	1/13/00
B5-B2-9'	M001006-02	Soil	1/13/00
B5-B3-10'	M001006-03	Soil	1/13/00
B5-B4-12'	M001006-04	Soil	1/13/00
B5-N-8'	M001006-05	Soil	1/14/00
B5-W-9'	M001006-06	Soil	1/14/00
B5-E-12'	M001006-07	Soil	1/14/00
B5-S-10'	M001006-08	Soil	1/14/00

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/13/00 to 1/14/00 Received: 1/14/00 Reported: 1/19/00 15:28
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>B5-B1-9'</u>				<u>M001006-01</u>			<u>Soil</u>	
Vinyl chloride	0100006	1/17/00	1/16/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		88.6	%	
<u>B5-B2-9'</u>				<u>M001006-02</u>			<u>Soil</u>	
Vinyl chloride	0100006	1/17/00	1/16/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		92.0	%	
<u>B5-B3-10'</u>				<u>M001006-03</u>			<u>Soil</u>	
Vinyl chloride	0100006	1/17/00	1/16/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		75.7	%	
<u>B5-B4-12'</u>				<u>M001006-04</u>			<u>Soil</u>	
Vinyl chloride	0100006	1/17/00	1/16/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	28.3	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		82.0	%	
<u>B5-N-8'</u>				<u>M001006-05</u>			<u>Soil</u>	
Vinyl chloride	0100006	1/17/00	1/16/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		118	%	
<u>B5-W-9'</u>				<u>M001006-06</u>			<u>Soil</u>	
Vinyl chloride	0100006	1/17/00	1/16/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

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*Refer to end of report for text of notes and definitions.

Kody Phillis, Mobile Lab Chemist

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Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/13/00 to 1/14/00 Received: 1/14/00 Reported: 1/19/00 15:28
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Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B5-W-9' (continued)				M001006-06			Soil	
Tetrachloroethene	0100006	1/17/00	1/16/00		15.0	20.0	ug/kg	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		77.0	%	
B5-E-12'				M001006-07			Soil	
Vinyl chloride	0100006	1/17/00	1/16/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	193	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		40.5	%	
B5-S-10'				M001006-08			Soil	
Vinyl chloride	0100006	1/17/00	1/16/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	26.7	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		88.0	%	

Aspen Environmental, Ltd.
 PO Box 318
 Mukilteo, Wa 98275

Project: Cameron-Yakima Contaminated Soil Removal
 Project Number: .
 Project Manager: Scott Waldal

Sampled: 1/13/00 to 1/14/00
 Received: 1/14/00
 Reported: 1/19/00 15:28

VOC Screening per EPA Method 8021B/Quality Control
 North Creek Analytical - Mobile Lab

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0100006		Date Prepared: 1/17/00			Extraction Method: EPA 5035M					
Blank		0100006-BLK1								
Vinyl chloride	1/16/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	40.0		38.8	"	65.0-130	97.0			
LCS		0100006-BS1								
Vinyl chloride	1/16/00	40.0		36.4	ug/kg	75.0-125	91.0			
cis-1,2-Dichloroethene	"	40.0		34.9	"	75.0-125	87.3			
Trichloroethene	"	40.0		38.1	"	75.0-125	95.2			
Tetrachloroethene	"	40.0		41.0	"	75.0-125	103			
Surrogate: a,a,a-TFT	"	40.0		36.9	"	65.0-130	92.3			
Matrix Spike		0100006-MS1								
Vinyl chloride	1/16/00	56.8		53.8	ug/kg	75.0-125				
cis-1,2-Dichloroethene	"	56.8		51.4	"	75.0-125				
Trichloroethene	"	56.8		50.9	"	75.0-125				
Tetrachloroethene	"	56.8		54.4	"	75.0-125				
Surrogate: a,a,a-TFT	"	56.8		48.4	"	65.0-130	85.2			
Matrix Spike Dup		0100006-MSD1								
Vinyl chloride	1/16/00	65.1		61.9	ug/kg	75.0-125				
cis-1,2-Dichloroethene	"	65.1		62.4	"	75.0-125				
Trichloroethene	"	65.1		58.3	"	75.0-125			20.0	
Tetrachloroethene	"	65.1		62.1	"	75.0-125				
Surrogate: a,a,a-TFT	"	65.1		54.4	"	65.0-130	83.6			

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*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/13/00 to 1/14/00 Received: 1/14/00 Reported: 1/19/00 15:28
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Notes and Definitions

#	Note
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical, Inc.

Kody Phillis, Mobile Lab Chemist

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
No source sample number	VOC 8021B Screen	0100006-MS1	
No source sample number	VOC 8021B Screen	0100006-MSD1	
Exceeds lower control limit	VOC 8021B Screen	M001006-07	a.a.a-TFT
Status is Received	VOC Headspace	M001006-01	
Status is Received	VOC Headspace	M001006-02	
Status is Received	VOC Headspace	M001006-03	
Status is Received	VOC Headspace	M001006-04	
Status is Received	VOC Headspace	M001006-05	
Status is Received	VOC Headspace	M001006-06	
Status is Received	VOC Headspace	M001006-07	
Status is Received	VOC Headspace	M001006-08	

Report calculations are based on the MRL

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/18/00 Received: 1/18/00 Reported: 1/19/00 12:11
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
D2-B1-10'	M001007-01	Soil	1/18/00
D2-B2-10'	M001007-02	Soil	1/18/00
D2-B3-10'	M001007-03	Soil	1/18/00
D2-N-10'	M001007-04	Soil	1/18/00
E1-B1-1'	M001007-05	Soil	1/18/00
E2-B2-1'	M001007-06	Soil	1/18/00

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/18/00 Received: 1/18/00 Reported: 1/19/00 12:11
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VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
D2-B1-10'				M001007-01		Soil		
Vinyl chloride	0100007	1/18/00	1/19/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		98.1	%	
D2-B2-10'				M001007-02		Soil		
Vinyl chloride	0100007	1/18/00	1/19/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		96.4	%	
D2-B3-10'				M001007-03		Soil		
Vinyl chloride	0100007	1/18/00	1/19/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		111	%	
D2-N-10'				M001007-04		Soil		
Vinyl chloride	0100007	1/18/00	1/19/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		107	%	
E1-B1-1'				M001007-05		Soil		
Vinyl chloride	0100007	1/18/00	1/19/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		110	%	
E2-B2-1'				M001007-06		Soil		
Vinyl chloride	0100007	1/18/00	1/19/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

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*Refer to end of report for text of notes and definitions.

Kody Phillis, Mobile Lab Chemist

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Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/18/00 Received: 1/18/00 Reported: 1/19/00 12:11
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Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E2-B2-1' (continued)				M001007-06			Soil	
Tetrachloroethene	0100007	1/18/00	1/19/00		15.0	173	ug/kg	
<i>Surrogate: a.a.a-TFT</i>	"	"	"	65.0-130		84.8	%	

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/18/00 Received: 1/18/00 Reported: 1/19/00 12:11
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0100007		Date Prepared: 1/18/00		Extraction Method: EPA 5035M						
Blank		0100007-BLK1								
Vinyl chloride	1/19/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	40.0		36.5	"	65.0-130	91.3			
LCS		0100007-BS1								
Vinyl chloride	1/19/00	40.0		35.7	ug/kg	75.0-125	89.3			
cis-1,2-Dichloroethene	"	40.0		36.2	"	75.0-125	90.5			
Trichloroethene	"	40.0		35.9	"	75.0-125	89.8			
Tetrachloroethene	"	40.0		37.9	"	75.0-125	94.8			
Surrogate: a,a,a-TFT	"	40.0		33.7	"	65.0-130	84.3			
Matrix Spike		0100007-MS1 M001007-04								
Vinyl chloride	1/19/00	69.0	ND	66.0	ug/kg	75.0-125	95.7			
cis-1,2-Dichloroethene	"	69.0	ND	78.4	"	75.0-125	114			
Trichloroethene	"	69.0	ND	66.0	"	75.0-125	95.7			
Tetrachloroethene	"	69.0	ND	74.1	"	75.0-125	107			
Surrogate: a,a,a-TFT	"	69.0		71.0	"	65.0-130	103			
Matrix Spike Dup		0100007-MSD1 M001007-04								
Vinyl chloride	1/19/00	69.2	ND	61.9	ug/kg	75.0-125	89.5	20.0	6.70	
cis-1,2-Dichloroethene	"	69.2	ND	75.4	"	75.0-125	109	20.0	4.48	
Trichloroethene	"	69.2	ND	63.1	"	75.0-125	91.2	20.0	4.82	
Tetrachloroethene	"	69.2	ND	69.2	"	75.0-125	100	20.0	6.76	
Surrogate: a,a,a-TFT	"	69.2		67.1	"	65.0-130	97.0			

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/18/00 Received: 1/18/00 Reported: 1/19/00 12:11
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Notes and Definitions

#	Note
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Status is Received	VOC Headspace	M001007-01	
Status is Received	VOC Headspace	M001007-02	
Status is Received	VOC Headspace	M001007-03	
Status is Received	VOC Headspace	M001007-04	
Status is Received	VOC Headspace	M001007-05	
Status is Received	VOC Headspace	M001007-06	

Report calculations are based on the MRL

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/20/00 Received: 1/20/00 Reported: 1/21/00 11:05
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E2-SW-6'	M001009-01	Soil	1/20/00
E2-SE-6'	M001009-02	Soil	1/20/00
E2-B1-6'	M001009-03	Soil	1/20/00
E2-B2-6'	M001009-04	Soil	1/20/00
E2-B3-6'	M001009-05	Soil	1/20/00
E2-B4-6'	M001009-06	Soil	1/20/00
D4-B1-11'	M001009-07	Soil	1/20/00
D4-B4-11'	M001009-08	Soil	1/20/00
D4-B6-11'	M001009-09	Soil	1/20/00
D4-W-11'	M001009-10	Soil	1/20/00

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/20/00 Received: 1/20/00 Reported: 1/21/00 11:05
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E2-SW-6'</u>				<u>M001009-01</u>		<u>Soil</u>		
Vinyl chloride	0100009	1/20/00	1/21/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		70.0	%	
<u>E2-SE-6'</u>				<u>M001009-02</u>		<u>Soil</u>		
Vinyl chloride	0100009	1/20/00	1/21/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		72.3	%	
<u>E2-B1-6'</u>				<u>M001009-03</u>		<u>Soil</u>		
Vinyl chloride	0100009	1/20/00	1/21/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		91.4	%	
<u>E2-B2-6'</u>				<u>M001009-04</u>		<u>Soil</u>		
Vinyl chloride	0100009	1/20/00	1/21/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		87.3	%	
<u>E2-B3-6'</u>				<u>M001009-05</u>		<u>Soil</u>		
Vinyl chloride	0100009	1/20/00	1/21/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		86.7	%	
<u>E2-B4-6'</u>				<u>M001009-06</u>		<u>Soil</u>		
Vinyl chloride	0100009	1/20/00	1/21/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Kody Phillis, Mobile Lab Chemist

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/20/00 Received: 1/20/00 Reported: 1/21/00 11:05
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Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E2-B4-6' (continued)				M001009-06			Soil	
Tetrachloroethene	0100009	1/20/00	1/21/00		15.0	ND	ug/kg	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		81.3	%	
D4-B1-11'				M001009-07			Soil	
Vinyl chloride	0100009	1/20/00	1/21/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		75.2	%	
D4-B4-11'				M001009-08			Soil	
Vinyl chloride	0100009	1/20/00	1/21/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		81.8	%	
D4-B6-11'				M001009-09			Soil	
Vinyl chloride	0100009	1/20/00	1/21/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	370	"	1
Tetrachloroethene	"	"	"		15.0	744	"	1
Surrogate: a,a,a-TFT	"	"	"	65.0-130		NR	%	1,2
D4-W-11'				M001009-10			Soil	
Vinyl chloride	0100009	1/20/00	1/21/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		98.6	%	

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*Refer to end of report for text of notes and definitions.

Kody Phillis, Mobile Lab Chemist

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Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/20/00 Received: 1/20/00 Reported: 1/21/00 11:05
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0100009		Date Prepared: 1/20/00		Extraction Method: EPA 5035M						
Blank		0100009-BLK1								
Vinyl chloride	1/21/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
<i>Surrogate: a,a,a-TFT</i>	"	40.0		37.0	"	65.0-130	92.5			
LCS		0100009-BS1								
Vinyl chloride	1/21/00	40.0		32.4	ug/kg	75.0-125	81.0			
cis-1,2-Dichloroethene	"	40.0		32.9	"	75.0-125	82.3			
Trichloroethene	"	40.0		32.1	"	75.0-125	80.2			
Tetrachloroethene	"	40.0		33.9	"	75.0-125	84.8			
<i>Surrogate: a,a,a-TFT</i>	"	40.0		31.6	"	65.0-130	79.0			
Matrix Spike		0100009-MS1 M001009-02								
Vinyl chloride	1/21/00	53.3	ND	41.5	ug/kg	75.0-125	77.9			3
cis-1,2-Dichloroethene	"	53.3	ND	44.8	"	75.0-125	84.1			3
Trichloroethene	"	53.3	ND	39.2	"	75.0-125	73.5			3
Tetrachloroethene	"	53.3	ND	46.9	"	75.0-125	88.0			3
<i>Surrogate: a,a,a-TFT</i>	"	53.3		37.1	"	65.0-130	69.6			3
Matrix Spike Dup		0100009-MSD1 M001009-02								
Vinyl chloride	1/21/00	59.0	ND	44.5	ug/kg	75.0-125	75.4	20.0	3.26	3
cis-1,2-Dichloroethene	"	59.0	ND	47.5	"	75.0-125	80.5	20.0	4.37	3
Trichloroethene	"	59.0	ND	45.1	"	75.0-125	76.4	20.0	3.87	3
Tetrachloroethene	"	59.0	ND	52.2	"	75.0-125	88.5	20.0	0.567	3
<i>Surrogate: a,a,a-TFT</i>	"	59.0		42.5	"	65.0-130	72.0			3

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Kody Phillis, Mobile Lab Chemist

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Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/20/00 Received: 1/20/00 Reported: 1/21/00 11:05
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Notes and Definitions

#	Note
1	The reported result is an estimated value. The analyte was detected at a level which is higher than the calibration curve.
2	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.
3	The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical, Inc.

Kody Phillis, Mobile Lab Chemist

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Exceeds lower control limit	VOC 8021B Screen	0100009-MS1	Trichloroethene
Q-01 (3)	VOC 8021B Screen	0100009-MS1	a,a,a-TFT
Q-01 (3)	VOC 8021B Screen	0100009-MS1	cis-1,2-Dichloroethene
Q-01 (3)	VOC 8021B Screen	0100009-MS1	Tetrachloroethene
Q-01 (3)	VOC 8021B Screen	0100009-MS1	Trichloroethene
Q-01 (3)	VOC 8021B Screen	0100009-MS1	Vinyl chloride
Q-01 (3)	VOC 8021B Screen	0100009-MSD1	a,a,a-TFT
Q-01 (3)	VOC 8021B Screen	0100009-MSD1	cis-1,2-Dichloroethene
Q-01 (3)	VOC 8021B Screen	0100009-MSD1	Tetrachloroethene
Q-01 (3)	VOC 8021B Screen	0100009-MSD1	Trichloroethene
Q-01 (3)	VOC 8021B Screen	0100009-MSD1	Vinyl chloride
Exceeds upper control limit	VOC 8021B Screen	M001009-09	a,a,a-TFT
A-01 (1)	VOC 8021B Screen	M001009-09	a,a,a-TFT
S-02 (2)	VOC 8021B Screen	M001009-09	a,a,a-TFT
A-01 (1)	VOC 8021B Screen	M001009-09	Tetrachloroethene
A-01 (1)	VOC 8021B Screen	M001009-09	Trichloroethene
Status is Received	VOC Headspace	M001009-01	
Status is Received	VOC Headspace	M001009-02	
Status is Received	VOC Headspace	M001009-03	
Status is Received	VOC Headspace	M001009-04	
Status is Received	VOC Headspace	M001009-05	
Status is Received	VOC Headspace	M001009-06	
Status is Received	VOC Headspace	M001009-07	
Status is Received	VOC Headspace	M001009-08	
Status is Received	VOC Headspace	M001009-09	
Status is Received	VOC Headspace	M001009-10	

Report calculations are based on the MRL

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/25/00 Received: 1/25/00 Reported: 1/26/00 09:29
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
D4-B3-11'	M001010-01	Soil	1/25/00
D4-B5-11'	M001010-02	Soil	1/25/00
D4-B7-11'	M001010-03	Soil	1/25/00
D4-B8-11'	M001010-04	Soil	1/25/00
D4-B2-11'	M001010-05	Soil	1/25/00
E4-B1-11'	M001010-06	Soil	1/25/00
E4-B2-11'	M001010-07	Soil	1/25/00
E4-B4-11'	M001010-08	Soil	1/25/00
E4-B3-11'	M001010-09	Soil	1/25/00
E4-SW-11'	M001010-10	Soil	1/25/00

Aspen Environmental, Ltd.
 PO Box 318
 Mukilteo, Wa 98275

Project: Cameron-Yakima Contaminated Soil Removal
 Project Number: .
 Project Manager: Scott Waldal

Sampled: 1/25/00
 Received: 1/25/00
 Reported: 1/26/00 09:29

VOC Screening per EPA Method 8021B
 North Creek Analytical - Mobile Lab

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
D4-B3-11'				M001010-01		Soil		
Vinyl chloride	0100010	1/25/00	1/25/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	407	"	1
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		83.1	%	
D4-B5-11'				M001010-02		Soil		
Vinyl chloride	0100010	1/25/00	1/25/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	775	"	1
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		71.3	%	
D4-B7-11'				M001010-03		Soil		
Vinyl chloride	0100010	1/25/00	1/25/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	24.7	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		99.4	%	
D4-B8-11'				M001010-04		Soil		
Vinyl chloride	0100010	1/25/00	1/25/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	16.7	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	55.3	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		102	%	
D4-B2-11'				M001010-05		Soil		
Vinyl chloride	0100010	1/25/00	1/25/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	19.6	"	
Tetrachloroethene	"	"	"		15.0	1020	"	1
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		72.5	%	
E4-B1-11'				M001010-06		Soil		
Vinyl chloride	0100010	1/25/00	1/25/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

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*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd.
 PO Box 318
 Mukilteo, Wa 98275

Project: Cameron-Yakima Contaminated Soil Removal
 Project Number:
 Project Manager: Scott Waldal

Sampled: 1/25/00
 Received: 1/25/00
 Reported: 1/26/00 09:29

VOC Screening per EPA Method 8021B
 North Creek Analytical - Mobile Lab

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E4-B1-11' (continued)</u>				<u>M001010-06</u>		<u>Soil</u>		
Tetrachloroethene	0100010	1/25/00	1/25/00		15.0	ND	ug/kg	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		79.5	%	
<u>E4-B2-11'</u>				<u>M001010-07</u>		<u>Soil</u>		
Vinyl chloride	0100010	1/25/00	1/25/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		96.5	%	
<u>E4-B4-11'</u>				<u>M001010-08</u>		<u>Soil</u>		
Vinyl chloride	0100010	1/25/00	1/25/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	113	"	
Trichloroethene	"	"	"		15.0	263	"	
Tetrachloroethene	"	"	"		15.0	956	"	1
Surrogate: a,a,a-TFT	"	"	"	65.0-130		NR	%	2
<u>E4-B3-11'</u>				<u>M001010-09</u>		<u>Soil</u>		
Vinyl chloride	0100010	1/25/00	1/25/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	26.5	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	310	"	1
Surrogate: a,a,a-TFT	"	"	"	65.0-130		109	%	
<u>E4-SW-11'</u>				<u>M001010-10</u>		<u>Soil</u>		
Vinyl chloride	0100010	1/25/00	1/25/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	54.9	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		108	%	

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*Refer to end of report for text of notes and definitions.

Craig Bradle, Mobile Lab Chemist

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Aspen Environmental, Ltd.
 PO Box 318
 Mukilteo, Wa 98275

Project: Cameron-Yakima Contaminated Soil Removal
 Project Number:
 Project Manager: Scott Waldal

Sampled: 1/25/00
 Received: 1/25/00
 Reported: 1/26/00 09:29

VOC Screening per EPA Method 8021B/Quality Control
 North Creek Analytical - Mobile Lab

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0100010			Date Prepared: 1/25/00		Extraction Method: EPA 5035M					
Blank			0100010-BLK1							
Vinyl chloride	1/25/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	40.0		43.0	"	65.0-130	108			
Blank			0100010-BLK2							
Vinyl chloride	1/25/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	40.0		50.9	"	65.0-130	127			
LCS			0100010-BS1							
Vinyl chloride	1/25/00	40.0		44.8	ug/kg	75.0-125	112			
cis-1,2-Dichloroethene	"	40.0		36.0	"	75.0-125	90.0			
Trichloroethene	"	40.0		33.4	"	75.0-125	83.5			
Tetrachloroethene	"	40.0		35.8	"	75.0-125	89.5			
Surrogate: a,a,a-TFT	"	40.0		38.2	"	65.0-130	95.5			
Matrix Spike			0100010-MS1 M001010-06							
Vinyl chloride	1/25/00	37.7	ND	28.5	ug/kg	75.0-125	75.6			
cis-1,2-Dichloroethene	"	37.7	ND	37.8	"	75.0-125	100			
Trichloroethene	"	37.7	ND	31.4	"	75.0-125	83.3			
Tetrachloroethene	"	37.7	ND	38.1	"	75.0-125	101			
Surrogate: a,a,a-TFT	"	37.7		35.8	"	65.0-130	95.0			
Matrix Spike Dup			0100010-MSD1 M001010-06							
Vinyl chloride	1/25/00	38.8	ND	24.8	ug/kg	75.0-125	63.9	20.0	16.8	3
cis-1,2-Dichloroethene	"	38.8	ND	34.6	"	75.0-125	89.2	20.0	11.4	
Trichloroethene	"	38.8	ND	29.1	"	75.0-125	75.0	20.0	10.5	
Tetrachloroethene	"	38.8	ND	35.8	"	75.0-125	92.3	20.0	9.00	
Surrogate: a,a,a-TFT	"	38.8		33.1	"	65.0-130	85.3			

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Craig Bradle, Mobile Lab Chemist

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Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/25/00 Received: 1/25/00 Reported: 1/26/00 09:29
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Notes and Definitions

#	Note
1	The concentration reported is an estimated value above the linear concentration range.
2	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.
3	The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Exceeds lower control limit	VOC 8021B Screen	0100010-MSD1	Vinyl chloride
Q-01 (3)	VOC 8021B Screen	0100010-MSD1	Vinyl chloride
A-01 (1)	VOC 8021B Screen	M001010-01	Tetrachloroethene
A-01 (1)	VOC 8021B Screen	M001010-02	Tetrachloroethene
A-01 (1)	VOC 8021B Screen	M001010-05	Tetrachloroethene
Exceeds lower control limit	VOC 8021B Screen	M001010-08	a,a,a-TFT
S-02 (2)	VOC 8021B Screen	M001010-08	a,a,a-TFT
A-01 (1)	VOC 8021B Screen	M001010-08	Tetrachloroethene
A-01 (1)	VOC 8021B Screen	M001010-09	Tetrachloroethene

Report calculations are based on the MRL

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/25/00 to 1/26/00 Received: 1/25/00 Reported: 1/27/00 09:15
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E4-W-11'	M001011-01	Soil	1/25/00
E4-E-11'	M001011-02	Soil	1/25/00
E4-SE-11'	M001011-03	Soil	1/25/00
D4-W-11'	M001011-04	Soil	1/25/00
D4-E-11'	M001011-05	Soil	1/25/00
D4-N-11'	M001011-06	Soil	1/25/00
E5-B1-6'	M001011-07	Soil	1/26/00
E5-B2-6'	M001011-08	Soil	1/26/00
E5-B3-6'	M001011-09	Soil	1/26/00
E5-B4-6'	M001011-10	Soil	1/26/00

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/25/00 to 1/26/00 Received: 1/25/00 Reported: 1/27/00 09:15
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E4-W-11'</u>				<u>M001011-01</u>		<u>Soil</u>		
Vinyl chloride	0100011	1/26/00	1/26/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		95.8	%	
<u>E4-E-11'</u>				<u>M001011-02</u>		<u>Soil</u>		
Vinyl chloride	0100011	1/26/00	1/26/00		15.0	16.7	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	982	"	1
Trichloroethene	"	"	"		15.0	970	"	1
Tetrachloroethene	"	"	"		15.0	2630	"	1
Surrogate: a,a,a-TFT	"	"	"	65.0-130		117	%	
<u>E4-SE-11'</u>				<u>M001011-03</u>		<u>Soil</u>		
Vinyl chloride	0100011	1/26/00	1/26/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	32.5	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	60.0	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		95.3	%	
<u>D4-W-11'</u>				<u>M001011-04</u>		<u>Soil</u>		
Vinyl chloride	0100011	1/26/00	1/26/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		94.2	%	
<u>D4-E-11'</u>				<u>M001011-05</u>		<u>Soil</u>		
Vinyl chloride	0100011	1/26/00	1/26/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		106	%	
<u>D4-N-11'</u>				<u>M001011-06</u>		<u>Soil</u>		
Vinyl chloride	0100011	1/26/00	1/26/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/25/00 to 1/26/00 Received: 1/25/00 Reported: 1/27/00 09:15
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
D4-N-11' (continued)				M001011-06			Soil	
Tetrachloroethene	0100011	1/26/00	1/26/00		15.0	36.4	ug/kg	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		90.7	%	
E5-B1-6'				M001011-07			Soil	
Vinyl chloride	0100011	1/26/00	1/26/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	160	"	
Trichloroethene	"	"	"		15.0	482	"	1
Tetrachloroethene	"	"	"		15.0	4040	"	1
Surrogate: a,a,a-TFT	"	"	"	65.0-130		94.0	%	
E5-B2-6'				M001011-08			Soil	
Vinyl chloride	0100011	1/26/00	1/26/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	214	"	1
Surrogate: a,a,a-TFT	"	"	"	65.0-130		105	%	
E5-B3-6'				M001011-09			Soil	
Vinyl chloride	0100011	1/26/00	1/26/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	24.3	"	
Trichloroethene	"	"	"		15.0	58.3	"	
Tetrachloroethene	"	"	"		15.0	2520	"	1
Surrogate: a,a,a-TFT	"	"	"	65.0-130		79.0	%	
E5-B4-6'				M001011-10			Soil	
Vinyl chloride	0100011	1/26/00	1/26/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	17.0	"	
Trichloroethene	"	"	"		15.0	24.1	"	
Tetrachloroethene	"	"	"		15.0	1050	"	1
Surrogate: a,a,a-TFT	"	"	"	65.0-130		49.9	%	2

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Craig Bradle, Mobile Lab Chemist

Page 3 of 6

Aspen Environmental, Ltd.
 PO Box 318
 Mukilteo, Wa 98275

Project: Cameron-Yakima Contaminated Soil Removal
 Project Number:
 Project Manager: Scott Waldal

Sampled: 1/25/00 to 1/26/00
 Received: 1/25/00
 Reported: 1/27/00 09:15

**VOC Screening per EPA Method 8021B/Quality Control
 North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0100011			Date Prepared: 1/26/00		Extraction Method: EPA 5035M					
Blank			0100011-BLK1							
Vinyl chloride	1/26/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	40.0		46.3	"	65.0-130	116			
Blank			0100011-BLK2							
Vinyl chloride	1/26/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	40.0		47.4	"	65.0-130	119			
LCS			0100011-BS1							
Vinyl chloride	1/26/00	40.0		40.3	ug/kg	75.0-125	101			
cis-1,2-Dichloroethene	"	40.0		39.3	"	75.0-125	98.2			
Trichloroethene	"	40.0		35.6	"	75.0-125	89.0			
Tetrachloroethene	"	40.0		39.0	"	75.0-125	97.5			
Surrogate: a,a,a-TFT	"	40.0		42.8	"	65.0-130	107			
LCS			0100011-BS2							
Vinyl chloride	1/26/00	40.0		36.6	ug/kg	75.0-125	91.5			
cis-1,2-Dichloroethene	"	40.0		39.4	"	75.0-125	98.5			
Trichloroethene	"	40.0		38.0	"	75.0-125	95.0			
Tetrachloroethene	"	40.0		49.2	"	75.0-125	123			
Surrogate: a,a,a-TFT	"	40.0		41.9	"	65.0-130	105			
Matrix Spike			0100011-MS1 M001011-01							
Vinyl chloride	1/26/00	99.5	ND	87.6	ug/kg	75.0-125	88.0			
cis-1,2-Dichloroethene	"	99.5	ND	98.8	"	75.0-125	99.3			
Trichloroethene	"	99.5	ND	91.3	"	75.0-125	91.8			
Tetrachloroethene	"	99.5	ND	131	"	75.0-125	132			4
Surrogate: a,a,a-TFT	"	99.5		110	"	65.0-130	111			
Matrix Spike Dup			0100011-MSD1 M001011-01							
Vinyl chloride	1/26/00	78.4	ND	58.8	ug/kg	75.0-125	75.0	20.0	16.0	
cis-1,2-Dichloroethene	"	78.4	ND	62.0	"	75.0-125	79.1	20.0	22.6	3

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/25/00 to 1/26/00 Received: 1/25/00 Reported: 1/27/00 09:15
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike Dup (continued)	0100011-MSD1	M001011-01								
Trichloroethene	1/26/00	78.4	ND	64.1	ug/kg	75.0-125	81.8	20.0	11.5	
Tetrachloroethene	"	78.4	ND	73.3	"	75.0-125	93.5	20.0	34.1	3
Surrogate: a,a,a-TFT	"	78.4		68.6	"	65.0-130	87.5			

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/25/00 to 1/26/00 Received: 1/25/00 Reported: 1/27/00 09:15
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Notes and Definitions

=	Note
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- 1 The concentration reported is an estimated value above the linear quantitation range.
 - 2 Re-analysis confirms that low surrogate recovery may be due to adsorption by the sample matrix.
 - 3 The RPD is above the control limit due to a non-homogeneous sample matrix.
 - 4 The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- Recov. Recovery
- RPD Relative Percent Difference

North Creek Analytical, Inc.

Craig Bradle, Mobile Lab Chemist

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Exceeds upper control limit	VOC 8021B Screen	0100011-MS1	Tetrachloroethene
Exceeds RPD limit	VOC 8021B Screen	0100011-MSD1	cis-1,2-Dichloroethene
Exceeds RPD limit	VOC 8021B Screen	0100011-MSD1	Tetrachloroethene
Q-14 (3)	VOC 8021B Screen	0100011-MSD1	cis-1,2-Dichloroethene
Q-14 (3)	VOC 8021B Screen	0100011-MSD1	Tetrachloroethene
A-01 (1)	VOC 8021B Screen	M001011-02	cis-1,2-Dichloroethene
A-01 (1)	VOC 8021B Screen	M001011-02	Tetrachloroethene
A-01 (1)	VOC 8021B Screen	M001011-02	Trichloroethene
Status is Batched	VOC 8021B Screen	M001011-03	
A-01 (1)	VOC 8021B Screen	M001011-07	Tetrachloroethene
A-01 (1)	VOC 8021B Screen	M001011-07	Trichloroethene
Status is Batched	VOC 8021B Screen	M001011-08	
A-01 (1)	VOC 8021B Screen	M001011-08RE1	Tetrachloroethene
A-01 (1)	VOC 8021B Screen	M001011-09	Tetrachloroethene
Status is Batched	VOC 8021B Screen	M001011-10	
Exceeds lower control limit	VOC 8021B Screen	M001011-10RE1	a,a,a-TFT
S-14 (2)	VOC 8021B Screen	M001011-10RE1	a,a,a-TFT
A-01 (1)	VOC 8021B Screen	M001011-10RE1	Tetrachloroethene

Report calculations are based on the MRL

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/26/00 to 1/27/00 Received: 1/26/00 Reported: 1/28/00 09:02
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E5-SW-6'	M001012-01	Soil	1/26/00
E5-SE-6'	M001012-02	Soil	1/26/00
D5-B1-5'	M001012-03	Soil	1/27/00
D5-B2-5'	M001012-04	Soil	1/27/00
D5-B3-5'	M001012-05	Soil	1/27/00
D5-B4-5'	M001012-06	Soil	1/27/00
D5-B5-5'	M001012-07	Soil	1/27/00
D5-B6-5'	M001012-08	Soil	1/27/00
D5-B7-5'	M001012-09	Soil	1/27/00

North Creek Analytical, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document.
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Craig Bradle, Mobile Lab Chemist

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/26/00 to 1/27/00 Received: 1/26/00 Reported: 1/28/00 09:02
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E5-SW-6'</u>				<u>M001012-01</u>		Soil		
Vinyl chloride	0100012	1/27/00	1/27/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	442	"	1
Surrogate: a,a,a-TFT	"	"	"	65.0-130		49.2	%	2
<u>E5-SE-6'</u>				<u>M001012-02</u>		Soil		
Vinyl chloride	0100012	1/27/00	1/27/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	18.4	"	
Trichloroethene	"	"	"		15.0	15.9	"	
Tetrachloroethene	"	"	"		15.0	829	"	1
Surrogate: a,a,a-TFT	"	"	"	65.0-130		47.5	%	2
<u>D5-B1-5'</u>				<u>M001012-03</u>		Soil		
Vinyl chloride	0100012	1/27/00	1/27/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	21.5	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		83.1	%	
<u>D5-B2-5'</u>				<u>M001012-04</u>		Soil		
Vinyl chloride	0100012	1/27/00	1/27/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	67.8	"	
Trichloroethene	"	"	"		15.0	39.9	"	
Tetrachloroethene	"	"	"		15.0	1180	"	1
Surrogate: a,a,a-TFT	"	"	"	65.0-130		62.0	%	2
<u>D5-B3-5'</u>				<u>M001012-05</u>		Soil		
Vinyl chloride	0100012	1/27/00	1/27/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	60.2	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		92.2	%	
<u>D5-B4-5'</u>				<u>M001012-06</u>		Soil		
Vinyl chloride	0100012	1/27/00	1/27/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/26/00 to 1/27/00 Received: 1/26/00 Reported: 1/28/00 09:02
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
D5-B4-5' (continued)				M001012-06			Soil	
Tetrachloroethene	0100012	1/27/00	1/27/00		15.0	51.4	ug/kg	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		84.8	%	
D5-B5-5'				M001012-07			Soil	
Vinyl chloride	0100012	1/27/00	1/27/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	44.9	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		99.3	%	
D5-B6-5'				M001012-08			Soil	
Vinyl chloride	0100012	1/27/00	1/27/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	32.7	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		91.6	%	
D5-B7-5'				M001012-09			Soil	
Vinyl chloride	0100012	1/27/00	1/27/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	45.5	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		113	%	

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/26/00 to 1/27/00 Received: 1/26/00 Reported: 1/28/00 09:02
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0100012		Date Prepared: 1/27/00			Extraction Method: EPA 5035M					
Blank		0100012-BLK1								
Vinyl chloride	1/27/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	40.0		46.6	"	65.0-130	116			
Blank		0100012-BLK2								
Vinyl chloride	1/27/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	40.0		46.6	"	65.0-130	116			
LCS		0100012-BS1								
Vinyl chloride	1/27/00	40.0		38.8	ug/kg	75.0-125	97.0			
cis-1,2-Dichloroethene	"	40.0		40.7	"	75.0-125	102			
Trichloroethene	"	40.0		36.3	"	75.0-125	90.7			
Tetrachloroethene	"	40.0		39.8	"	75.0-125	99.5			
Surrogate: a,a,a-TFT	"	40.0		40.8	"	65.0-130	102			
LCS		0100012-BS2								
Vinyl chloride	1/27/00	40.0		36.6	ug/kg	75.0-125	91.5			
cis-1,2-Dichloroethene	"	40.0		41.6	"	75.0-125	104			
Trichloroethene	"	40.0		37.3	"	75.0-125	93.2			
Tetrachloroethene	"	40.0		41.8	"	75.0-125	104			
Surrogate: a,a,a-TFT	"	40.0		43.3	"	65.0-130	108			
Matrix Spike		0100012-MS1		M001012-03						
Vinyl chloride	1/27/00	78.7	ND	64.2	ug/kg	75.0-125	81.6			
cis-1,2-Dichloroethene	"	78.7	ND	78.9	"	75.0-125	100			
Trichloroethene	"	78.7	ND	72.6	"	75.0-125	92.2			
Tetrachloroethene	"	78.7	21.5	97.6	"	75.0-125	96.7			
Surrogate: a,a,a-TFT	"	78.7		81.5	"	65.0-130	104			
Matrix Spike Dup		0100012-MSDI		M001012-03						
Vinyl chloride	1/27/00	67.1	ND	54.9	ug/kg	75.0-125	81.8	20.0	0.245	
cis-1,2-Dichloroethene	"	67.1	ND	66.8	"	75.0-125	99.6	20.0	0.401	

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 1/26/00 to 1/27/00 Received: 1/26/00 Reported: 1/28/00 09:02
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>Matrix Spike Dup (continued)</u>										
	<u>0100012-MSD1</u>	<u>M001012-03</u>								
Trichloroethene	1/27/00	67.1	ND	61.2	ug/kg	75.0-125	91.2	20.0	1.09	
Tetrachloroethene	"	67.1	21.5	78.2	"	75.0-125	84.5	20.0	13.5	
Surrogate: a,a,a-TFT	"	67.1		68.1	"	65.0-130	101			

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: . Project Manager: Scott Waldal	Sampled: 1/26/00 to 1/27/00 Received: 1/26/00 Reported: 1/28/00 09:02
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Notes and Definitions

#	Note
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- 1 The concentration reported is an estimated value above the linear quantitation range.
- 2 Re-analysis confirms that low surrogate recovery may be due to adsorption by the sample matrix.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- Recov. Recovery
- RPD Relative Percent Difference

North Creek Analytical, Inc.

Craig Bradle, Mobile Lab Chemist

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Exceeds lower control limit	VOC 8021B Screen	M001012-01	a,a,a-TFT
A-01 (2)	VOC 8021B Screen	M001012-01	a,a,a-TFT
O-03 (1)	VOC 8021B Screen	M001012-01	Tetrachloroethene
Exceeds lower control limit	VOC 8021B Screen	M001012-02	a,a,a-TFT
A-01 (2)	VOC 8021B Screen	M001012-02	a,a,a-TFT
O-03 (1)	VOC 8021B Screen	M001012-02	Tetrachloroethene
Exceeds lower control limit	VOC 8021B Screen	M001012-04	a,a,a-TFT
A-01 (2)	VOC 8021B Screen	M001012-04	a,a,a-TFT
O-03 (1)	VOC 8021B Screen	M001012-04	Tetrachloroethene

Report calculations are based on the MRL

Aspen Environmental, Ltd.
PO Box 318
Mukilteo, Wa 98275

Project: Cameron-Yakima Contaminated Soil Removal
Project Number: .
Project Manager: Scott Waldal
Sampled: 2/2/00
Received: 2/2/00
Reported: 2/3/00 08:23

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
D5-B1-11'	M002002-01	Soil	2/2/00
D5-B2-11'	M002002-02	Soil	2/2/00
D5-B3-11'	M002002-03	Soil	2/2/00
D5-B4-11'	M002002-04	Soil	2/2/00
D5-B5-11'	M002002-05	Soil	2/2/00
E4-SW+5-6'	M002002-06	Soil	2/2/00
E4-SE+5-6'	M002002-07	Soil	2/2/00
E5-SW+5-6'	M002002-08	Soil	2/2/00
E5-SE+5-6'	M002002-09	Soil	2/2/00

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Kody Phillis, Mobile Lab Chemist

Page 1 of 5

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/2/00 Received: 2/2/00 Reported: 2/3/00 08:23
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>D5-B1-11'</u>				<u>M002002-01</u>			<u>Soil</u>	
Vinyl chloride	0200002	2/2/00	2/2/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	19.8	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		82.0	%	
<u>D5-B2-11'</u>				<u>M002002-02</u>			<u>Soil</u>	
Vinyl chloride	0200002	2/2/00	2/2/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	64.3	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		92.8	%	
<u>D5-B3-11'</u>				<u>M002002-03</u>			<u>Soil</u>	
Vinyl chloride	0200002	2/2/00	2/2/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		87.3	%	
<u>D5-B4-11'</u>				<u>M002002-04</u>			<u>Soil</u>	
Vinyl chloride	0200002	2/2/00	2/2/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	40.7	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		92.3	%	
<u>D5-B5-11'</u>				<u>M002002-05</u>			<u>Soil</u>	
Vinyl chloride	0200002	2/2/00	2/2/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	36.8	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		87.3	%	
<u>E4-SW+5-6'</u>				<u>M002002-06</u>			<u>Soil</u>	
Vinyl chloride	0200002	2/2/00	2/3/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

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*Refer to end of report for text of notes and definitions.

Kody Phillis, Mobile Lab Chemist

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Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/2/00 Received: 2/2/00 Reported: 2/3/00 08:23
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Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E4-SW+5-6' (continued)								
				M002002-06				
Tetrachloroethene	0200002	2/2/00	2/3/00		15.0	ND	Soil ug/kg	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		101	%	
E4-SE+5-6'								
				M002002-07				
Vinyl chloride	0200002	2/2/00	2/3/00		15.0	ND	Soil ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	31.5	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		96.3	%	
E5-SW+5-6'								
				M002002-08				
Vinyl chloride	0200002	2/2/00	2/3/00		15.0	ND	Soil ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		114	%	
E5-SE+5-6'								
				M002002-09				
Vinyl chloride	0200002	2/2/00	2/3/00		15.0	ND	Soil ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	15.3	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		115	%	

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/2/00 Received: 2/2/00 Reported: 2/3/00 08:23
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0200002		Date Prepared: 2/2/00		Extraction Method: EPA 5035M						
Blank		0200002-BLK1								
Vinyl chloride	2/2/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	40.0		40.5	"	65.0-130	101			
LCS		0200002-BS1								
Vinyl chloride	2/2/00	40.0		32.5	ug/kg	75.0-125	81.3			
cis-1,2-Dichloroethene	"	40.0		32.1	"	75.0-125	80.2			
Trichloroethene	"	40.0		32.9	"	75.0-125	82.3			
Tetrachloroethene	"	40.0		35.6	"	75.0-125	89.0			
Surrogate: a,a,a-TFT	"	40.0		35.2	"	65.0-130	88.0			
Matrix Spike		0200002-MS1 M002002-03								
Vinyl chloride	2/2/00	62.9	ND	48.4	ug/kg	75.0-125	76.9			
cis-1,2-Dichloroethene	"	62.9	ND	58.0	"	75.0-125	92.2			
Trichloroethene	"	62.9	ND	50.8	"	75.0-125	80.8			
Tetrachloroethene	"	62.9	ND	64.3	"	75.0-125	102			
Surrogate: a,a,a-TFT	"	62.9		59.4	"	65.0-130	94.4			
Matrix Spike Dup		0200002-MSD1 M002002-03								
Vinyl chloride	2/2/00	58.0	ND	51.4	ug/kg	75.0-125	88.6	20.0	14.1	
cis-1,2-Dichloroethene	"	58.0	ND	59.7	"	75.0-125	103	20.0	11.1	
Trichloroethene	"	58.0	ND	52.2	"	75.0-125	90.0	20.0	10.8	
Tetrachloroethene	"	58.0	ND	68.8	"	75.0-125	119	20.0	15.4	
Surrogate: a,a,a-TFT	"	58.0		60.1	"	65.0-130	104			

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/2/00 Received: 2/2/00 Reported: 2/3/00 08:23
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Notes and Definitions

#	Note
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- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- Recov. Recovery
- RPD Relative Percent Difference

North Creek Analytical, Inc.

Kody Phillis, Mobile Lab Chemist

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Status is Received	VOC Headspace	M002002-01	
Status is Received	VOC Headspace	M002002-02	
Status is Received	VOC Headspace	M002002-03	
Status is Received	VOC Headspace	M002002-04	
Status is Received	VOC Headspace	M002002-05	
Status is Received	VOC Headspace	M002002-06	
Status is Received	VOC Headspace	M002002-07	
Status is Received	VOC Headspace	M002002-08	
Status is Received	VOC Headspace	M002002-09	

Report calculations are based on the MRL

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/3/00 Received: 2/3/00 Reported: 2/4/00 09:47
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
B3-VB2-D	M002003-01	Soil	2/3/00
B3-VN-D	M002003-02	Soil	2/3/00
C3-VB1-D	M002003-03	Soil	2/3/00
C3-VB3-D	M002003-04	Soil	2/3/00
D3-VB3-D	M002003-05	Soil	2/3/00
E3-VB2-D	M002003-06	Soil	2/3/00
E4-SE+5-11'	M002003-07	Soil	2/3/00
E4-SW+5-11'	M002003-08	Soil	2/3/00
E5-SW+5-11'	M002003-09	Soil	2/3/00
D5-N-11'	M002003-10	Soil	2/3/00
D5-B6-11'	M002003-11	Soil	2/3/00
D5-E-11'	M002003-12	Soil	2/3/00

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/3/00 Received: 2/3/00 Reported: 2/4/00 09:47
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>B3-VB2-D</u>				<u>M002003-01</u>			<u>Soil</u>	
Vinyl chloride	0200003	2/3/00	2/4/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		91.9	%	
<u>B3-VN-D</u>				<u>M002003-02</u>			<u>Soil</u>	
Vinyl chloride	0200003	2/3/00	2/4/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		76.1	%	
<u>C3-VB1-D</u>				<u>M002003-03</u>			<u>Soil</u>	
Vinyl chloride	0200003	2/3/00	2/4/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		84.2	%	
<u>C3-VB3-D</u>				<u>M002003-04</u>			<u>Soil</u>	
Vinyl chloride	0200003	2/3/00	2/4/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		73.5	%	
<u>D3-VB3-D</u>				<u>M002003-05</u>			<u>Soil</u>	
Vinyl chloride	0200003	2/3/00	2/4/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		95.3	%	
<u>E3-VB2-D</u>				<u>M002003-06</u>			<u>Soil</u>	
Vinyl chloride	0200003	2/3/00	2/4/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

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*Refer to end of report for text of notes and definitions.

Kody Phillis, Mobile Lab Chemist

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Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/3/00 Received: 2/3/00 Reported: 2/4/00 09:47
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Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E3-VB2-D (continued)				M002003-06			Soil	
Tetrachloroethene	0200003	2/3/00	2/4/00		15.0	ND	ug/kg	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		91.7	%	
E4-SE+5-11'				M002003-07			Soil	
Vinyl chloride	0200003	2/3/00	2/4/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		93.8	%	
E4-SW+5-11'				M002003-08			Soil	
Vinyl chloride	0200003	2/3/00	2/4/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		84.4	%	
E5-SW+5-11'				M002003-09			Soil	
Vinyl chloride	0200003	2/3/00	2/4/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	27.3	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		104	%	
D5-N-11'				M002003-10			Soil	
Vinyl chloride	0200003	2/3/00	2/4/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		100	%	
D5-B6-11'				M002003-11			Soil	
Vinyl chloride	0200003	2/3/00	2/4/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		94.7	%	

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*Refer to end of report for text of notes and definitions.

Kody Phillis, Mobile Lab Chemist

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VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Aspen Environmental, Ltd.	Project: Cameron-Yakima Contaminated Soil Removal	Sampled: 2/3/00
PO Box 318	Project Number:	Received: 2/3/00
Mukilteo, Wa 98275	Project Manager: Scott Waldal	Reported: 2/4/00 09:47

<u>D5-E-11'</u>			<u>M002003-12</u>			<u>Soil</u>
Vinyl chloride	0200003	2/3/00	2/4/00	15.0	ND	ug/kg
cis-1,2-Dichloroethene	"	"	"	15.0	ND	"
Trichloroethene	"	"	"	15.0	ND	"
Tetrachloroethene	"	"	"	15.0	ND	"
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130	73.6	%

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/3/00 Received: 2/3/00 Reported: 2/4/00 09:47
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0200003		Date Prepared: 2/3/00			Extraction Method: EPA 5035M					
Blank		0200003-BLK1								
Vinyl chloride	2/4/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	40.0		46.2	"	65.0-130	116			
LCS		0200003-BS1								
Vinyl chloride	2/4/00	40.0		41.6	ug/kg	75.0-125	104			
cis-1,2-Dichloroethene	"	40.0		34.5	"	75.0-125	86.3			
Trichloroethene	"	40.0		30.4	"	75.0-125	76.0			
Tetrachloroethene	"	40.0		33.6	"	75.0-125	84.0			
Surrogate: a,a,a-TFT	"	40.0		32.7	"	65.0-130	81.8			
Matrix Spike		0200003-MS1		M002003-01						
Vinyl chloride	2/4/00	63.5	ND	56.8	ug/kg	75.0-125	89.4			
cis-1,2-Dichloroethene	"	63.5	ND	55.2	"	75.0-125	86.9			
Trichloroethene	"	63.5	ND	50.0	"	75.0-125	78.7			
Tetrachloroethene	"	63.5	ND	56.8	"	75.0-125	89.4			
Surrogate: a,a,a-TFT	"	63.5		55.9	"	65.0-130	88.0			
Matrix Spike Dup		0200003-MSD1		M002003-01						
Vinyl chloride	2/4/00	67.1	ND	57.9	ug/kg	75.0-125	86.3	20.0	3.53	
cis-1,2-Dichloroethene	"	67.1	ND	50.3	"	75.0-125	75.0	20.0	14.7	
Trichloroethene	"	67.1	ND	51.5	"	75.0-125	76.8	20.0	2.44	
Tetrachloroethene	"	67.1	ND	55.9	"	75.0-125	83.3	20.0	7.06	
Surrogate: a,a,a-TFT	"	67.1		50.8	"	65.0-130	75.7			

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/3/00 Received: 2/3/00 Reported: 2/4/00 09:47
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Notes and Definitions

#	Note
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical, Inc.

Kody Phillis, Mobile Lab Chemist

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Status is Received	VOC Headspace	M002003-01	
Status is Received	VOC Headspace	M002003-02	
Status is Received	VOC Headspace	M002003-03	
Status is Received	VOC Headspace	M002003-04	
Status is Received	VOC Headspace	M002003-05	
Status is Received	VOC Headspace	M002003-06	
Status is Received	VOC Headspace	M002003-07	
Status is Received	VOC Headspace	M002003-08	
Status is Received	VOC Headspace	M002003-09	
Status is Received	VOC Headspace	M002003-10	
Status is Received	VOC Headspace	M002003-11	
Status is Received	VOC Headspace	M002003-12	

Report calculations are based on the MRL

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/4/00 Received: 2/4/00 Reported: 2/7/00 11:08
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
D5-B7-11'	M002004-01	Soil	2/4/00
D5-B8-11'	M002004-02	Soil	2/4/00
E5-SE+5-11'	M002004-03	Soil	2/4/00
D5-E-11'	M002004-04	Soil	2/4/00
D6-W-6'	M002004-05	Soil	2/4/00
E6-W-6'	M002004-06	Soil	2/4/00

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/4/00 Received: 2/4/00 Reported: 2/7/00 11:08
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>D5-B7-11'</u>				<u>M002004-01</u>			<u>Soil</u>	<u>1</u>
Vinyl chloride	0200004	2/4/00	2/6/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		56.2	%	
<u>D5-B8-11'</u>				<u>M002004-02</u>			<u>Soil</u>	
Vinyl chloride	0200004	2/4/00	2/6/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		90.2	%	
<u>E5-SE+5-11'</u>				<u>M002004-03</u>			<u>Soil</u>	
Vinyl chloride	0200004	2/4/00	2/6/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		84.8	%	
<u>D5-E-11'</u>				<u>M002004-04</u>			<u>Soil</u>	
Vinyl chloride	0200004	2/4/00	2/6/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		92.5	%	
<u>D6-W-6'</u>				<u>M002004-05</u>			<u>Soil</u>	
Vinyl chloride	0200004	2/4/00	2/6/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	22.3	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		90.3	%	
<u>E6-W-6'</u>				<u>M002004-06</u>			<u>Soil</u>	<u>2</u>
Vinyl chloride	0200004	2/4/00	2/6/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

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*Refer to end of report for text of notes and definitions.

Kody Phillis, Mobile Lab Chemist

Page 2 of 5

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/4/00 Received: 2/4/00 Reported: 2/7/00 11:08
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Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E6-W-6' (continued)				M002004-06			Soil	2
Tetrachloroethene	0200004	2/4/00	2/6/00		15.0	157	ug/kg	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		19.6	%	

Aspen Environmental, Ltd.
 PO Box 318
 Mukilteo, Wa 98275

Project: Cameron-Yakima Contaminated Soil Removal
 Project Number:
 Project Manager: Scott Waldal

Sampled: 2/4/00
 Received: 2/4/00
 Reported: 2/7/00 11:08

VOC Screening per EPA Method 8021B/Quality Control
 North Creek Analytical - Mobile Lab

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0200004			Date Prepared: 2/4/00			Extraction Method: EPA 5035M				
Blank			0200004-BLK1							
Vinyl chloride	2/6/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	40.0		35.5	"	65.0-130	88.8			
LCS			0200004-BS1							
Vinyl chloride	2/6/00	40.0		36.1	ug/kg	75.0-125	90.2			
cis-1,2-Dichloroethene	"	40.0		34.3	"	75.0-125	85.7			
Trichloroethene	"	40.0		35.8	"	75.0-125	89.5			
Tetrachloroethene	"	40.0		38.6	"	75.0-125	96.5			
Surrogate: a,a,a-TFT	"	40.0		35.8	"	65.0-130	89.5			
Matrix Spike			0200004-MS1 M002004-03							
Vinyl chloride	2/6/00	84.4	ND	65.8	ug/kg	75.0-125	78.0			
cis-1,2-Dichloroethene	"	84.4	ND	82.9	"	75.0-125	98.2			
Trichloroethene	"	84.4	ND	70.7	"	75.0-125	83.8			
Tetrachloroethene	"	84.4	ND	93.2	"	75.0-125	110			
Surrogate: a,a,a-TFT	"	84.4		84.2	"	65.0-130	99.8			
Matrix Spike Dup			0200004-MSD1 M002004-03							
Vinyl chloride	2/6/00	60.1	ND	42.8	ug/kg	75.0-125	71.2	20.0	9.12	1
cis-1,2-Dichloroethene	"	60.1	ND	55.0	"	75.0-125	91.5	20.0	7.06	
Trichloroethene	"	60.1	ND	47.7	"	75.0-125	79.4	20.0	5.39	
Tetrachloroethene	"	60.1	ND	60.5	"	75.0-125	101	20.0	8.53	
Surrogate: a,a,a-TFT	"	60.1		53.2	"	65.0-130	88.5			

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/4/00 Received: 2/4/00 Reported: 2/7/00 11:08
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Notes and Definitions

#	Note
1	The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
2	The surrogate recovery for this sample is out of NCA established control limits, which may be due to carbon particles in the sample matrix.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Exceeds lower control limit	VOC 8021B Screen	0200004-MSD1	Vinyl chloride
Q-01 (1)	VOC 8021B Screen	0200004-MSD1	Vinyl chloride
Exceeds lower control limit	VOC 8021B Screen	M002004-01	a.a.a-TFT
Q-01 (1)	VOC 8021B Screen	M002004-01	
Exceeds lower control limit	VOC 8021B Screen	M002004-06	a.a.a-TFT
Q-18 (2)	VOC 8021B Screen	M002004-06	
Status is Received	VOC Headspace	M002004-01	
Status is Received	VOC Headspace	M002004-02	
Status is Received	VOC Headspace	M002004-03	
Status is Received	VOC Headspace	M002004-04	
Status is Received	VOC Headspace	M002004-05	
Status is Received	VOC Headspace	M002004-06	

Report calculations are based on the MRL

Aspen Environmental, Ltd.
PO Box 318
Mukilteo, Wa 98275

Project: Cameron-Yakima Contaminated Soil Removal
Project Number:
Project Manager: Scott Waldal
Sampled: 2/8/00
Received: 2/8/00
Reported: 2/9/00 08:24

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
B6-WD-2'	M002005-01	Soil	2/8/00
B6-WD-4'	M002005-02	Soil	2/8/00
B6-WD-6'	M002005-03	Soil	2/8/00
B6-WD-8'	M002005-04	Soil	2/8/00
B6-WD-10'	M002005-05	Soil	2/8/00
B6-ED-2'	M002005-06	Soil	2/8/00
B6-ED-4'	M002005-07	Soil	2/8/00
B6-ED-6'	M002005-08	Soil	2/8/00
B6-ED-8'	M002005-09	Soil	2/8/00
B6-ED-10'	M002005-10	Soil	2/8/00

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*The results in this report apply to the samples analyzed in accordance with the chain of custody document.
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Kody Phillis, Mobile Lab Chemist

Aspen Environmental, Ltd.
 PO Box 318
 Mukilteo, Wa 98275

Project: Cameron-Yakima Contaminated Soil Removal
 Project Number:
 Project Manager: Scott Waldal

Sampled: 2/8/00
 Received: 2/8/00
 Reported: 2/9/00 08:24

VOC Screening per EPA Method 8021B
 North Creek Analytical - Mobile Lab

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
				<u>M002005-01</u>			<u>Soil</u>	<u>1</u>
Vinyl chloride	0200005	2/8/00	2/9/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	184	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		61.8	%	
				<u>M002005-02</u>			<u>Soil</u>	
Vinyl chloride	0200005	2/8/00	2/9/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	51.4	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		72.8	%	
				<u>M002005-03</u>			<u>Soil</u>	<u>1</u>
Vinyl chloride	0200005	2/8/00	2/9/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	41.7	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		61.3	%	
				<u>M002005-04</u>			<u>Soil</u>	
Vinyl chloride	0200005	2/8/00	2/9/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		95.3	%	
				<u>M002005-05</u>			<u>Soil</u>	
Vinyl chloride	0200005	2/8/00	2/9/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		84.1	%	
				<u>M002005-06</u>			<u>Soil</u>	<u>1</u>
Vinyl chloride	0200005	2/8/00	2/9/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

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*Refer to end of report for text of notes and definitions.

Kody Phillis, Mobile Lab Chemist

Page 2 of 5

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/8/00 Received: 2/8/00 Reported: 2/9/00 08:24
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Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B6-ED-2' (continued)				M002005-06			Soil	1
Tetrachloroethene	0200005	2/8/00	2/9/00		15.0	59.5	ug/kg	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		61.3	%	
B6-ED-4'				M002005-07			Soil	
Vinyl chloride	0200005	2/8/00	2/9/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		72.0	%	
B6-ED-6'				M002005-08			Soil	
Vinyl chloride	0200005	2/8/00	2/9/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	82.9	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		89.8	%	
B6-ED-8'				M002005-09			Soil	1
Vinyl chloride	0200005	2/8/00	2/9/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	16.2	"	
Tetrachloroethene	"	"	"		15.0	387	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		50.8	%	
B6-ED-10'				M002005-10			Soil	
Vinyl chloride	0200005	2/8/00	2/9/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	24.9	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		91.0	%	

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Kody Phillis, Mobile Lab Chemist

Page 3 of 5

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/8/00 Received: 2/8/00 Reported: 2/9/00 08:24
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0200005			Date Prepared: 2/8/00			Extraction Method: EPA 5035M				
Blank			0200005-BLK1							
Vinyl chloride	2/9/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	40.0		41.4	"	65.0-130	104			
LCS			0200005-BS1							
Vinyl chloride	2/9/00	40.0		44.3	ug/kg	75.0-125	111			
cis-1,2-Dichloroethene	"	40.0		37.9	"	75.0-125	94.8			
Trichloroethene	"	40.0		34.9	"	75.0-125	87.3			
Tetrachloroethene	"	40.0		38.7	"	75.0-125	96.8			
Surrogate: a,a,a-TFT	"	40.0		39.1	"	65.0-130	97.7			
Matrix Spike			0200005-MS1 M002005-07							
Vinyl chloride	2/9/00	62.9	ND	31.3	ug/kg	75.0-125	49.8			2
cis-1,2-Dichloroethene	"	62.9	ND	42.9	"	75.0-125	68.2			2
Trichloroethene	"	62.9	ND	39.3	"	75.0-125	62.5			2
Tetrachloroethene	"	62.9	ND	63.2	"	75.0-125	100			2
Surrogate: a,a,a-TFT	"	62.9		34.3	"	65.0-130	54.5			2
Matrix Spike Dup			0200005-MSD1 M002005-07							
Vinyl chloride	2/9/00	72.5	ND	38.9	ug/kg	75.0-125	53.7	20.0	7.54	2
cis-1,2-Dichloroethene	"	72.5	ND	56.9	"	75.0-125	78.5	20.0	14.0	2
Trichloroethene	"	72.5	ND	52.2	"	75.0-125	72.0	20.0	14.1	2
Tetrachloroethene	"	72.5	ND	82.1	"	75.0-125	113	20.0	12.2	2
Surrogate: a,a,a-TFT	"	72.5		44.9	"	65.0-130	61.9			2

North Creek Analytical, Inc. *Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/8/00 Received: 2/8/00 Reported: 2/9/00 08:24
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Notes and Definitions

=	Note
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- 1 The surrogate recovery for this sample is out of NCA established control limits, which may be due to carbon particles in the sample matrix.
- 2 The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- Recov. Recovery
- RPD Relative Percent Difference

North Creek Analytical, Inc.

Kody Phillis, Mobile Lab Chemist

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Exceeds lower control limit	VOC 8021B Screen	0200005-MS1	a.a.a-TFT
Exceeds lower control limit	VOC 8021B Screen	0200005-MS1	cis-1,2-Dichloroethene
Exceeds lower control limit	VOC 8021B Screen	0200005-MS1	Trichloroethene
Exceeds lower control limit	VOC 8021B Screen	0200005-MS1	Vinyl chloride
Q-01 (2)	VOC 8021B Screen	0200005-MS1	a.a.a-TFT
Q-01 (2)	VOC 8021B Screen	0200005-MS1	cis-1,2-Dichloroethene
Q-01 (2)	VOC 8021B Screen	0200005-MS1	Tetrachloroethene
Q-01 (2)	VOC 8021B Screen	0200005-MS1	Trichloroethene
Q-01 (2)	VOC 8021B Screen	0200005-MS1	Vinyl chloride
Exceeds lower control limit	VOC 8021B Screen	0200005-MSD1	a.a.a-TFT
Exceeds lower control limit	VOC 8021B Screen	0200005-MSD1	Trichloroethene
Exceeds lower control limit	VOC 8021B Screen	0200005-MSD1	Vinyl chloride
Q-01 (2)	VOC 8021B Screen	0200005-MSD1	a.a.a-TFT
Q-01 (2)	VOC 8021B Screen	0200005-MSD1	cis-1,2-Dichloroethene
Q-01 (2)	VOC 8021B Screen	0200005-MSD1	Tetrachloroethene
Q-01 (2)	VOC 8021B Screen	0200005-MSD1	Trichloroethene
Q-01 (2)	VOC 8021B Screen	0200005-MSD1	Vinyl chloride
Exceeds lower control limit	VOC 8021B Screen	M002005-01	a.a.a-TFT
Q-18 (1)	VOC 8021B Screen	M002005-01	
Exceeds lower control limit	VOC 8021B Screen	M002005-03	a.a.a-TFT
Q-18 (1)	VOC 8021B Screen	M002005-03	
Exceeds lower control limit	VOC 8021B Screen	M002005-06	a.a.a-TFT
Q-18 (1)	VOC 8021B Screen	M002005-06	
Exceeds lower control limit	VOC 8021B Screen	M002005-09	a.a.a-TFT
Q-18 (1)	VOC 8021B Screen	M002005-09	
Status is Received	VOC Headspace	M002005-01	
Status is Received	VOC Headspace	M002005-02	
Status is Received	VOC Headspace	M002005-03	
Status is Received	VOC Headspace	M002005-04	
Status is Received	VOC Headspace	M002005-05	
Status is Received	VOC Headspace	M002005-06	
Status is Received	VOC Headspace	M002005-07	
Status is Received	VOC Headspace	M002005-08	
Status is Received	VOC Headspace	M002005-09	
Status is Received	VOC Headspace	M002005-10	

Report calculations are based on the MRL

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/10/00 Received: 2/10/00 Reported: 2/11/00 08:12
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
B5-B1-3'	M002006-01	Soil	2/10/00
B5-B2-3'	M002006-02	Soil	2/10/00
B5-B3-3'	M002006-03	Soil	2/10/00
B5-B4-3'	M002006-04	Soil	2/10/00
B5-B5-3'	M002006-05	Soil	2/10/00
C6-WD-2'	M002006-06	Soil	2/10/00
C6-WD-4'	M002006-07	Soil	2/10/00
C6-WD-6'	M002006-08	Soil	2/10/00
C6-WD-8'	M002006-09	Soil	2/10/00
C6-WD-10'	M002006-10	Soil	2/10/00

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/10/00 Received: 2/10/00 Reported: 2/11/00 08:12
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>B5-B1-3'</u>				<u>M002006-01</u>		<u>Soil</u>		
Vinyl chloride	0200006	2/10/00	2/11/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	30.6	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		69.3	%	
<u>B5-B2-3'</u>				<u>M002006-02</u>		<u>Soil</u>		
Vinyl chloride	0200006	2/10/00	2/11/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	102	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		45.9	%	1
<u>B5-B3-3'</u>				<u>M002006-03</u>		<u>Soil</u>		
Vinyl chloride	0200006	2/10/00	2/11/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		82.8	%	
<u>B5-B4-3'</u>				<u>M002006-04</u>		<u>Soil</u>		
Vinyl chloride	0200006	2/10/00	2/11/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		84.7	%	
<u>B5-B5-3'</u>				<u>M002006-05</u>		<u>Soil</u>		
Vinyl chloride	0200006	2/10/00	2/11/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		86.2	%	
<u>C6-WD-2'</u>				<u>M002006-06</u>		<u>Soil</u>		
Vinyl chloride	0200006	2/10/00	2/11/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Kody Phillis, Mobile Lab Chemist

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/10/00 Received: 2/10/00 Reported: 2/11/00 08:12
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Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
C6-WD-2' (continued)				M002006-06				Soil
Tetrachloroethene	0200006	2/10/00	2/11/00		15.0	60.4	ug/kg	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		102	%	
C6-WD-4'				M002006-07				Soil
Vinyl chloride	0200006	2/10/00	2/11/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	72.8	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		85.8	%	
C6-WD-6'				M002006-08				Soil
Vinyl chloride	0200006	2/10/00	2/11/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	60.6	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		75.5	%	
C6-WD-8'				M002006-09				Soil
Vinyl chloride	0200006	2/10/00	2/11/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	50.4	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		73.9	%	
C6-WD-10'				M002006-10				Soil
Vinyl chloride	0200006	2/10/00	2/11/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		112	%	

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*Refer to end of report for text of notes and definitions.

Kody Phillis, Mobile Lab Chemist

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Aspen Environmental, Ltd.
 PO Box 318
 Mukilteo, Wa 98275

Project: Cameron-Yakima Contaminated Soil Removal
 Project Number:
 Project Manager: Scott Waldal

Sampled: 2/10/00
 Received: 2/10/00
 Reported: 2/11/00 08:12

**VOC Screening per EPA Method 8021B/Quality Control
 North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0200006			Date Prepared: 2/10/00			Extraction Method: EPA 5035M				
Blank			0200006-BLK1							
Vinyl chloride	2/11/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	40.0		36.8	"	65.0-130	92.0			
LCS			0200006-BS1							
Vinyl chloride	2/11/00	40.0		36.8	ug/kg	75.0-125	92.0			
cis-1,2-Dichloroethene	"	40.0		37.4	"	75.0-125	93.5			
Trichloroethene	"	40.0		35.2	"	75.0-125	88.0			
Tetrachloroethene	"	40.0		37.6	"	75.0-125	94.0			
Surrogate: a,a,a-TFT	"	40.0		47.0	"	65.0-130	118			
Matrix Spike			0200006-MS1 M002006-04							
Vinyl chloride	2/11/00	46.1	ND	35.7	ug/kg	75.0-125	77.4			
cis-1,2-Dichloroethene	"	46.1	ND	44.4	"	75.0-125	96.3			
Trichloroethene	"	46.1	ND	37.4	"	75.0-125	81.1			
Tetrachloroethene	"	46.1	ND	52.0	"	75.0-125	113			
Surrogate: a,a,a-TFT	"	46.1		41.2	"	65.0-130	89.4			
Matrix Spike Dup			0200006-MSD1 M002006-04							
Vinyl chloride	2/11/00	42.7	ND	35.8	ug/kg	75.0-125	83.8	20.0	7.94	
cis-1,2-Dichloroethene	"	42.7	ND	42.6	"	75.0-125	99.8	20.0	3.57	
Trichloroethene	"	42.7	ND	36.2	"	75.0-125	84.8	20.0	4.46	
Tetrachloroethene	"	42.7	ND	48.4	"	75.0-125	113	20.0	0	
Surrogate: a,a,a-TFT	"	42.7		39.0	"	65.0-130	91.3			

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*Refer to end of report for text of notes and definitions.

Kody Phillis, Mobile Lab Chemist

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: . Project Manager: Scott Waldal	Sampled: 2/10/00 Received: 2/10/00 Reported: 2/11/00 08:12
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Notes and Definitions

#	Note
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- 1 The surrogate recovery for this sample is out of NCA established control limits, which may be due to carbon particles in the sample matrix.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- Recov. Recovery
- RPD Relative Percent Difference

North Creek Analytical, Inc.

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Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Exceeds lower control limit	VOC 8021B Screen	M002006-02	a.a.a-TFT
Q-18 (1)	VOC 8021B Screen	M002006-02	a.a.a-TFT
Status is Received	VOC Headspace	M002006-01	
Status is Received	VOC Headspace	M002006-02	
Status is Received	VOC Headspace	M002006-03	
Status is Received	VOC Headspace	M002006-04	
Status is Received	VOC Headspace	M002006-05	
Status is Received	VOC Headspace	M002006-06	
Status is Received	VOC Headspace	M002006-07	
Status is Received	VOC Headspace	M002006-08	
Status is Received	VOC Headspace	M002006-09	
Status is Received	VOC Headspace	M002006-10	

Report calculations are based on the MRL

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/11/00 Received: 2/11/00 Reported: 2/14/00 12:58
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
C6-ED-2'	M002007-01	Soil	2/11/00
C6-ED-4'	M002007-02	Soil	2/11/00
C6-ED-6'	M002007-03	Soil	2/11/00
C6-ED-8'	M002007-04	Soil	2/11/00
C6-ED-10'	M002007-05	Soil	2/11/00

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Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/11/00 Received: 2/11/00 Reported: 2/14/00 12:58
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
C6-ED-2'				M002007-01			Soil	1
Vinyl chloride	0200007	2/11/00	2/14/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	15.7	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		62.8	%	
C6-ED-4'				M002007-02			Soil	
Vinyl chloride	0200007	2/11/00	2/14/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		88.8	%	
C6-ED-6'				M002007-03			Soil	
Vinyl chloride	0200007	2/11/00	2/14/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		95.3	%	
C6-ED-8'				M002007-04			Soil	
Vinyl chloride	0200007	2/11/00	2/14/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		98.7	%	
C6-ED-10'				M002007-05			Soil	
Vinyl chloride	0200007	2/11/00	2/14/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	19.7	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		94.5	%	

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Kody Phillis, Mobile Lab Chemist

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Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/11/00 Received: 2/11/00 Reported: 2/14/00 12:58
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0200007		Date Prepared: 2/11/00		Extraction Method: EPA 5035M						
Blank		0200007-BLK1								
Vinyl chloride	2/14/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	40.0		37.9	"	65.0-130	94.8			
LCS		0200007-BS1								
Vinyl chloride	2/14/00	40.0		36.3	ug/kg	75.0-125	90.7			
cis-1,2-Dichloroethene	"	40.0		36.2	"	75.0-125	90.5			
Trichloroethene	"	40.0		33.7	"	75.0-125	84.3			
Tetrachloroethene	"	40.0		35.1	"	75.0-125	87.7			
Surrogate: a,a,a-TFT	"	40.0		45.8	"	65.0-130	114			
Matrix Spike		0200007-MS1 M002007-05								
Vinyl chloride	2/14/00	48.8	ND	41.1	ug/kg	75.0-125	84.2			
cis-1,2-Dichloroethene	"	48.8	ND	53.9	"	75.0-125	110			
Trichloroethene	"	48.8	ND	44.4	"	75.0-125	91.0			
Tetrachloroethene	"	48.8	19.7	65.4	"	75.0-125	93.6			
Surrogate: a,a,a-TFT	"	48.8		47.7	"	65.0-130	97.7			
Matrix Spike Dup		0200007-MSD1 M002007-05								
Vinyl chloride	2/14/00	46.2	ND	39.3	ug/kg	75.0-125	85.1	20.0	1.06	
cis-1,2-Dichloroethene	"	46.2	ND	52.4	"	75.0-125	113	20.0	2.69	
Trichloroethene	"	46.2	ND	42.3	"	75.0-125	91.6	20.0	0.657	
Tetrachloroethene	"	46.2	19.7	73.3	"	75.0-125	116	20.0	21.4	2
Surrogate: a,a,a-TFT	"	46.2		44.7	"	65.0-130	96.8			

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: . Project Manager: Scott Waldal	Sampled: 2/11/00 Received: 2/11/00 Reported: 2/14/00 12:58
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Notes and Definitions

#	Note
1	The surrogate recovery for this sample is out of NCA established control limits, which may be due to carbon particles in the sample matrix.
2	The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical, Inc.

Kody Phillis, Mobile Lab Chemist

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Exceeds RPD limit	VOC 8021B Screen	0200007-MSD1	Tetrachloroethene
Q-01 (2)	VOC 8021B Screen	0200007-MSD1	Tetrachloroethene
Exceeds lower control limit	VOC 8021B Screen	M002007-01	a,a,a-TFT
Q-18 (1)	VOC 8021B Screen	M002007-01	
Status is Received	VOC Headspace	M002007-01	
Status is Received	VOC Headspace	M002007-02	
Status is Received	VOC Headspace	M002007-03	
Status is Received	VOC Headspace	M002007-04	
Status is Received	VOC Headspace	M002007-05	

Report calculations are based on the MRL

Aspen Environmental, Ltd.
PO Box 318
Mukilteo, Wa 98275

Project: Cameron-Yakima Contaminated Soil Removal
Project Number:
Project Manager: Scott Waldal

Sampled: 2/15/00
Received: 2/15/00
Reported: 2/16/00 09:32

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
C6-B2-3'	M002010-01	Soil	2/15/00
C6-B3-3'	M002010-02	Soil	2/15/00
C6-B4-3'	M002010-03	Soil	2/15/00
C6-B5-3'	M002010-04	Soil	2/15/00
D6-CARBON-3'	M002010-05	Soil	2/15/00
C6-B1-4'	M002010-06	Soil	2/15/00
C6-B6-4'	M002010-07	Soil	2/15/00
D6-B1-4'	M002010-08	Soil	2/15/00
D6-B2-4'	M002010-09	Soil	2/15/00
E6-B1-4'	M002010-10	Soil	2/15/00
E6-B2-4'	M002010-11	Soil	2/15/00

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Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/15/00 Received: 2/15/00 Reported: 2/16/00 09:32
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>C6-B2-3'</u>				<u>M002010-01</u>			<u>Soil</u>	
Vinyl chloride	0200009	2/15/00	2/16/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		88.0	%	
<u>C6-B3-3'</u>				<u>M002010-02</u>			<u>Soil</u>	
Vinyl chloride	0200009	2/15/00	2/16/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	52.0	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		71.2	%	
<u>C6-B4-3'</u>				<u>M002010-03</u>			<u>Soil</u>	
Vinyl chloride	0200009	2/15/00	2/16/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		78.8	%	
<u>C6-B5-3'</u>				<u>M002010-04</u>			<u>Soil</u>	
Vinyl chloride	0200009	2/15/00	2/16/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		128	%	
<u>D6-CARBON-3'</u>				<u>M002010-05</u>			<u>Soil</u>	1
Vinyl chloride	0200009	2/15/00	2/16/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT*</i>	"	"	"	65.0-130		27.5	%	
<u>C6-B1-4'</u>				<u>M002010-06</u>			<u>Soil</u>	
Vinyl chloride	0200009	2/15/00	2/16/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

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*Refer to end of report for text of notes and definitions.

Kody Phillis, Mobile Lab Chemist

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Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/15/00 Received: 2/15/00 Reported: 2/16/00 09:32
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Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
C6-B1-4' (continued)								
				M002010-06				
Tetrachloroethene	0200009	2/15/00	2/16/00		15.0	ND	Soil ug/kg	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		85.3	%	
C6-B6-4'								
				M002010-07				
Vinyl chloride	0200009	2/15/00	2/16/00		15.0	ND	Soil ug/kg	1
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	210	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		64.4	%	
D6-B1-4'								
				M002010-08				
Vinyl chloride	0200009	2/15/00	2/16/00		15.0	ND	Soil ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		81.3	%	
D6-B2-4'								
				M002010-09				
Vinyl chloride	0200009	2/15/00	2/16/00		15.0	ND	Soil ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	23.4	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		89.0	%	
E6-B1-4'								
				M002010-10				
Vinyl chloride	0200009	2/15/00	2/16/00		15.0	ND	Soil ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		82.5	%	
E6-B2-4'								
				M002010-11				
Vinyl chloride	0200009	2/15/00	2/16/00		15.0	ND	Soil ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		85.8	%	

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/15/00 Received: 2/15/00 Reported: 2/16/00 09:32
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0200009		Date Prepared: 2/15/00		Extraction Method: EPA 5035M						
Blank		0200009-BLK1								
Vinyl chloride	2/16/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	40.0		38.8	"	65.0-130	97.0			
LCS		0200009-BS1								
Vinyl chloride	2/16/00	40.0		30.5	ug/kg	75.0-125	76.3			
cis-1,2-Dichloroethene	"	40.0		37.0	"	75.0-125	92.5			
Trichloroethene	"	40.0		33.8	"	75.0-125	84.5			
Tetrachloroethene	"	40.0		35.2	"	75.0-125	88.0			
Surrogate: a,a,a-TFT	"	40.0		33.8	"	65.0-130	84.5			
Matrix Spike		0200009-MS1 M002010-04								
Vinyl chloride	2/16/00	65.8	ND	59.2	ug/kg	75.0-125	90.0			
cis-1,2-Dichloroethene	"	65.8	ND	61.8	"	75.0-125	93.9			
Trichloroethene	"	65.8	ND	55.6	"	75.0-125	84.5			
Tetrachloroethene	"	65.8	ND	68.1	"	75.0-125	103			
Surrogate: a,a,a-TFT	"	65.8		58.9	"	65.0-130	89.5			
Matrix Spike Dup		0200009-MSD1 M002010-04								
Vinyl chloride	2/16/00	63.1	ND	52.2	ug/kg	75.0-125	82.7	20.0	8.45	
cis-1,2-Dichloroethene	"	63.1	ND	65.1	"	75.0-125	103	20.0	9.24	
Trichloroethene	"	63.1	ND	56.0	"	75.0-125	88.7	20.0	4.85	
Tetrachloroethene	"	63.1	ND	69.6	"	75.0-125	110	20.0	6.57	
Surrogate: a,a,a-TFT	"	63.1		60.9	"	65.0-130	96.5			

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/15/00 Received: 2/15/00 Reported: 2/16/00 09:32
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Notes and Definitions

#	Note
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- 1 The surrogate recovery for this sample is out of NCA established control limits, which may be due to carbon particles in the sample matrix.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- Recov. Recovery
- RPD Relative Percent Difference

North Creek Analytical, Inc.

Kody Phillis, Mobile Lab Chemist

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Exceeds lower control limit	VOC 8021B Screen	M002010-05	a,a,a-TFT
Q-18 (1)	VOC 8021B Screen	M002010-05	
Exceeds lower control limit	VOC 8021B Screen	M002010-07	a,a,a-TFT
Q-18 (1)	VOC 8021B Screen	M002010-07	
Status is Received	VOC Headspace	M002010-01	
Status is Received	VOC Headspace	M002010-02	
Status is Received	VOC Headspace	M002010-03	
Status is Received	VOC Headspace	M002010-04	
Status is Received	VOC Headspace	M002010-05	
Status is Received	VOC Headspace	M002010-06	
Status is Received	VOC Headspace	M002010-07	
Status is Received	VOC Headspace	M002010-08	
Status is Received	VOC Headspace	M002010-09	
Status is Received	VOC Headspace	M002010-10	
Status is Received	VOC Headspace	M002010-11	

Report calculations are based on the MRL

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/17/00 Received: 2/17/00 Reported: 2/17/00 21:28
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E6-B4-4'	M002012-01	Soil	2/17/00
E6-B3-4'	M002012-02	Soil	2/17/00
D6-B3-4'	M002012-03	Soil	2/17/00
D6-B4-4'	M002012-04	Soil	2/17/00
D6-B5-4'	M002012-05	Soil	2/17/00
D6-B6-4'	M002012-06	Soil	2/17/00
E6-ED-2'	M002012-07	Soil	2/17/00
E6-ED-4'	M002012-08	Soil	2/17/00
E6-ED-6'	M002012-09	Soil	2/17/00
E6-ED-8'	M002012-10	Soil	2/17/00
E6-ED-10'	M002012-11	Soil	2/17/00
E6-B5-4'	M002012-12	Soil	2/17/00
E6-B6-4'	M002012-13	Soil	2/17/00

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*The results in this report apply to the samples analyzed in accordance with the chain of custody document.
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Page 1 of 6

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/17/00 Received: 2/17/00 Reported: 2/17/00 21:28
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E6-B4-4'</u>				<u>M002012-01</u>		<u>Soil</u>		
Vinyl chloride	0200011	2/17/00	2/17/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		78.8	%	
<u>E6-B3-4'</u>				<u>M002012-02</u>		<u>Soil</u>		
Vinyl chloride	0200011	2/17/00	2/17/00		15.0	ND	ug/kg	1
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		60.7	%	
<u>D6-B3-4'</u>				<u>M002012-03</u>		<u>Soil</u>		
Vinyl chloride	0200011	2/17/00	2/17/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		78.3	%	
<u>D6-B4-4'</u>				<u>M002012-04</u>		<u>Soil</u>		
Vinyl chloride	0200011	2/17/00	2/17/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		81.5	%	
<u>D6-B5-4'</u>				<u>M002012-05</u>		<u>Soil</u>		
Vinyl chloride	0200011	2/17/00	2/17/00		15.0	ND	ug/kg	1
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	43.9	"	
Tetrachloroethene	"	"	"		15.0	657	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		39.0	%	
<u>D6-B6-4'</u>				<u>M002012-06</u>		<u>Soil</u>		
Vinyl chloride	0200011	2/17/00	2/17/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

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*Refer to end of report for text of notes and definitions.

Kody Phillis, Mobile Lab Chemist

Page 2 of 6

Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/17/00 Received: 2/17/00 Reported: 2/17/00 21:28
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Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
D6-B6-4' (continued)								
				M002012-06			Soil	
Tetrachloroethene	0200011	2/17/00	2/17/00		15.0	25.0	ug/kg	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		89.3	%	
E6-ED-2'								
				M002012-07			Soil	1
Vinyl chloride	0200011	2/17/00	2/17/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		63.1	%	
E6-ED-4'								
				M002012-08			Soil	
Vinyl chloride	0200011	2/17/00	2/17/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		73.6	%	
E6-ED-6'								
				M002012-09			Soil	
Vinyl chloride	0200011	2/17/00	2/17/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		103	%	
E6-ED-8'								
				M002012-10			Soil	
Vinyl chloride	0200011	2/17/00	2/17/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		91.9	%	
E6-ED-10'								
				M002012-11			Soil	
Vinyl chloride	0200011	2/17/00	2/17/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		90.0	%	

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*Refer to end of report for text of notes and definitions.

Kody Phillis, Mobile Lab Chemist

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VOC Screening per EPA Method 8021B
North Creek Analytical - Mobile Lab

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/17/00 Received: 2/17/00 Reported: 2/17/00 21:28
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<u>E6-B5-4'</u>				<u>M002012-12</u>			<u>Soil</u>	<u>1</u>
Vinyl chloride	0200011	2/17/00	2/17/00	15.0	ND	ug/kg		
cis-1,2-Dichloroethene	"	"	"	15.0	ND	"		
Trichloroethene	"	"	"	15.0	ND	"		
Tetrachloroethene	"	"	"	15.0	ND	"		
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130	60.0	%		
<u>E6-B6-4'</u>				<u>M002012-13</u>			<u>Soil</u>	<u>1</u>
Vinyl chloride	0200011	2/17/00	2/17/00	15.0	ND	ug/kg		
cis-1,2-Dichloroethene	"	"	"	15.0	ND	"		
Trichloroethene	"	"	"	15.0	ND	"		
Tetrachloroethene	"	"	"	15.0	ND	"		
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130	58.2	%		

North Creek Analytical, Inc.

**Refer to end of report for text of notes and definitions.*

Kody Phillis, Mobile Lab Chemist

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Aspen Environmental, Ltd. PO Box 318 Mukilteo, Wa 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 2/17/00 Received: 2/17/00 Reported: 2/17/00 21:28
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Mobile Lab**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0200011		Date Prepared: 2/17/00			Extraction Method: EPA 5035M					
Blank		0200011-BLK1								
Vinyl chloride	2/17/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	40.0		38.9	"	65.0-130	97.3			
LCS		0200011-BS1								
Vinyl chloride	2/17/00	40.0		33.1	ug/kg	75.0-125	82.7			
cis-1,2-Dichloroethene	"	40.0		41.8	"	75.0-125	104			
Trichloroethene	"	40.0		44.0	"	75.0-125	110			
Tetrachloroethene	"	40.0		46.7	"	75.0-125	117			
Surrogate: a,a,a-TFT	"	40.0		43.9	"	65.0-130	110			
Matrix Spike		0200011-MS1 M002012-01								
Vinyl chloride	2/17/00	75.2	ND	57.3	ug/kg	75.0-125	76.2			
cis-1,2-Dichloroethene	"	75.2	ND	70.5	"	75.0-125	93.8			
Trichloroethene	"	75.2	ND	60.7	"	75.0-125	80.7			
Tetrachloroethene	"	75.2	ND	64.8	"	75.0-125	86.2			
Surrogate: a,a,a-TFT	"	75.2		65.0	"	65.0-130	86.4			
Matrix Spike Dup		0200011-MSD1 M002012-01								
Vinyl chloride	2/17/00	66.9	ND	47.0	ug/kg	75.0-125	70.3	20.0	8.05	
cis-1,2-Dichloroethene	"	66.9	ND	46.3	"	75.0-125	69.2	20.0	30.2	
Trichloroethene	"	66.9	ND	49.5	"	75.0-125	74.0	20.0	8.66	
Tetrachloroethene	"	66.9	ND	52.2	"	75.0-125	78.0	20.0	9.99	
Surrogate: a,a,a-TFT	"	66.9		47.8	"	65.0-130	71.4			

Aspen Environmental, Ltd.
PO Box 318
Mukilteo, Wa 98275

Project: Cameron-Yakima Contaminated Soil Removal
Project Number: .
Project Manager: Scott Waldal

Sampled: 2/17/00
Received: 2/17/00
Reported: 2/17/00 21:28

Notes and Definitions

#	Note
1	The surrogate recovery for this sample is out of NCA established control limits, which may be due to carbon particles in the sample matrix.
2	The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical, Inc.

Kody Phillis, Mobile Lab Chemist

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
Exceeds lower control limit	VOC 8021B Screen	0200011-MSD1	cis-1,2-Dichloroethene
Exceeds RPD limit	VOC 8021B Screen	0200011-MSD1	cis-1,2-Dichloroethene
Exceeds lower control limit	VOC 8021B Screen	0200011-MSD1	Trichloroethene
Exceeds lower control limit	VOC 8021B Screen	0200011-MSD1	Vinyl chloride
Q-01 (2)	VOC 8021B Screen	0200011-MSD1	
Exceeds lower control limit	VOC 8021B Screen	M002012-02	a.a.a-TFT
Q-18 (1)	VOC 8021B Screen	M002012-02	
Exceeds lower control limit	VOC 8021B Screen	M002012-05	a.a.a-TFT
Q-18 (1)	VOC 8021B Screen	M002012-05	
Exceeds lower control limit	VOC 8021B Screen	M002012-07	a.a.a-TFT
Q-18 (1)	VOC 8021B Screen	M002012-07	
Exceeds lower control limit	VOC 8021B Screen	M002012-12	a.a.a-TFT
Q-18 (1)	VOC 8021B Screen	M002012-12	
Exceeds lower control limit	VOC 8021B Screen	M002012-13	a.a.a-TFT
Q-18 (1)	VOC 8021B Screen	M002012-13	
Status is Received	VOC Headspace	M002012-01	
Status is Received	VOC Headspace	M002012-02	
Status is Received	VOC Headspace	M002012-03	
Status is Received	VOC Headspace	M002012-04	
Status is Received	VOC Headspace	M002012-05	
Status is Received	VOC Headspace	M002012-06	
Status is Received	VOC Headspace	M002012-07	
Status is Received	VOC Headspace	M002012-08	
Status is Received	VOC Headspace	M002012-09	
Status is Received	VOC Headspace	M002012-10	
Status is Received	VOC Headspace	M002012-11	
Status is Received	VOC Headspace	M002012-12	
Status is Received	VOC Headspace	M002012-13	

Report calculations are based on the MRL

March 9, 2000

Scott Waldal
Aspen Environmental, Ltd
PO Box 318
Milkiiteo, WA 98275

RE: Cameron-Yakima Contaminated Soil Removal

Dear Scott Waldal

Enclosed are the results of analyses for sample(s) received by the laboratory on March 8, 2000. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Stephen Wilson
Environmental Services Group Leader

Aspen Environmental, Ltd
PO Box 318
Milkiteo, WA 98275

Project: Cameron-Yakima Contaminated Soil Removal
Project Number:
Project Manager: Scott Waldal

Sampled: 3/8/00
Received: 3/8/00
Reported: 3/9/00 11:48

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
B5-VB1	C003069-01	Soil	3/8/00
B5-VB2	C003069-02	Soil	3/8/00
B5-VB3	C003069-03	Soil	3/8/00
B5-VN	C003069-04	Soil	3/8/00
C5-VB2	C003069-05	Soil	3/8/00

North Creek Analytical - Bend

*The results in this report apply to the samples analyzed in accordance with the chain of custody document.
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Stephen Wilson, Environmental Services Group Leader

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Aspen Environmental, Ltd
 PO Box 318
 Milkiteo, WA 98275

Project: Cameron-Yakima Contaminated Soil Removal
 Project Number:
 Project Manager: Scott Waldal

Sampled: 3/8/00
 Received: 3/8/00
 Reported: 3/9/00 11:48

VOC Screening per EPA Method 8021B
 North Creek Analytical - Bend

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B5-VB1				C003069-01		Soil		
Vinyl chloride	0300027	3/8/00	3/8/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		122	%	
B5-VB2				C003069-02		Soil		
Vinyl chloride	0300027	3/8/00	3/8/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		127	%	
B5-VB3				C003069-03		Soil		
Vinyl chloride	0300027	3/8/00	3/8/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		122	%	
B5-VN				C003069-04		Soil		
Vinyl chloride	0300027	3/8/00	3/8/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		126	%	
C5-VB2				C003069-05		Soil		
Vinyl chloride	0300027	3/8/00	3/8/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		126	%	

North Creek Analytical - Bend

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd
 PO Box 318
 Milkilteo, WA 98275

Project: Cameron-Yakima Contaminated Soil Removal
 Project Number:
 Project Manager: Scott Waldal

Sampled: 3/8/00
 Received: 3/8/00
 Reported: 3/9/00 11:48

VOC Screening per EPA Method 8021B/Quality Control
 North Creek Analytical - Bend

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0300027										
Blank										
Date Prepared: 3/8/00										
Extraction Method: General Preparation										
0300027-BLK1										
Vinyl chloride	3/8/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	100		122	"	65.0-130	122			
LCS										
0300027-BS1										
Vinyl chloride	3/8/00	100		109	ug/kg	75.0-125	109			
cis-1,2-Dichloroethene	"	100		108	"	75.0-125	108			
Trichloroethene	"	100		91.3	"	75.0-125	91.3			
Tetrachloroethene	"	100		109	"	75.0-125	109			
Surrogate: a,a,a-TFT	"	100		112	"	65.0-130	112			
Duplicate										
0300027-DUP1 C003069-01										
Vinyl chloride	3/8/00		ND	ND	ug/kg				20.0	
cis-1,2-Dichloroethene	"		ND	ND	"				20.0	
Trichloroethene	"		ND	ND	"				20.0	
Tetrachloroethene	"		ND	ND	"				20.0	
Surrogate: a,a,a-TFT	"	102		120	"	65.0-130	118			
Matrix Spike										
0300027-MS1 C003069-01										
Vinyl chloride	3/8/00	69.9	ND	76.4	ug/kg	75.0-125	109			
cis-1,2-Dichloroethene	"	69.9	ND	77.1	"	75.0-125	110			
Trichloroethene	"	69.9	ND	66.8	"	75.0-125	95.6			
Tetrachloroethene	"	69.9	ND	78.3	"	75.0-125	112			
Surrogate: a,a,a-TFT	"	69.9		81.3	"	65.0-130	116			
Matrix Spike Dup										
0300027-MSD1 C003069-01										
Vinyl chloride	3/8/00	50.4	ND	57.3	ug/kg	75.0-125	114	20.0	4.48	
cis-1,2-Dichloroethene	"	50.4	ND	57.2	"	75.0-125	113	20.0	2.69	
Trichloroethene	"	50.4	ND	50.4	"	75.0-125	100	20.0	4.50	
Tetrachloroethene	"	50.4	ND	60.1	"	75.0-125	119	20.0	6.06	
Surrogate: a,a,a-TFT	"	50.4		61.0	"	65.0-130	121			

Aspen Environmental, Ltd PO Box 318 Milkilteo, WA 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 3/8/00 Received: 3/8/00 Reported: 3/9/00 11:48
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Notes and Definitions

#	Note
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- 1 Analyses are not controlled on RPD values from sample concentrations less than 5 times the reporting limit.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- Recov. Recovery
- RPD Relative Percent Difference

Report Exceptions List
(for internal use only)

Exception

At least one excess analyte
Q-06 (1)

Report calculations are based on the MRL

Analysis or Specific Method

VOC 8021B Screen
VOC 8021B Screen

Lab Number

0300027-DUP1
0300027-DUP1

Analyte or General Method

March 17, 2000

Scott Waldal
Aspen Environmental, Ltd
PO Box 318
Milkiiteo, WA 98275

RE: Cameron-Yakima Contaminated Soil Removal

Dear Scott Waldal

Enclosed are the results of analyses for sample(s) received by the laboratory on March 17, 2000. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Stephen Wilson
Environmental Services Group Leader

Aspen Environmental, Ltd PO Box 318 Milkilteo, WA 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 3/16/00 Received: 3/17/00 Reported: 3/17/00 15:16
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
C6-VB1-5	C003114-01	Soil	3/16/00
B6-VB1-5	C003114-02	Soil	3/16/00
D6-VB1-5	C003114-03	Soil	3/16/00
E6-VB1-5	C003114-04	Soil	3/16/00

Aspen Environmental, Ltd PO Box 318 Milkilteo, WA 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 3/16/00 Received: 3/17/00 Reported: 3/17/00 15:16
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Bend**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>C6-VB1-5</u>								
				<u>C003114-01</u>			<u>Soil</u>	
Vinyl chloride	0300055	3/17/00	3/17/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		108	%	
<u>B6-VB1-5</u>								
				<u>C003114-02</u>			<u>Soil</u>	
Vinyl chloride	0300055	3/17/00	3/17/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	46.3	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		87.5	%	
<u>D6-VB1-5</u>								
				<u>C003114-03</u>			<u>Soil</u>	
Vinyl chloride	0300055	3/17/00	3/17/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		106	%	
<u>E6-VB1-5</u>								
				<u>C003114-04</u>			<u>Soil</u>	
Vinyl chloride	0300055	3/17/00	3/17/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		110	%	

North Creek Analytical - Bend

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd PO Box 318 Milkiteo, WA 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 3/16/00 Received: 3/17/00 Reported: 3/17/00 15:16
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Bend**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0300055		Date Prepared: 3/17/00			Extraction Method: General Preparation					
Blank		0300055-BLK1								
Vinyl chloride	3/17/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	100		120	"	65.0-130	120			
LCS		0300055-BS1								
Vinyl chloride	3/17/00	100		101	ug/kg	75.0-125	101			
cis-1,2-Dichloroethene	"	100		109	"	75.0-125	109			
Trichloroethene	"	100		92.0	"	75.0-125	92.0			
Tetrachloroethene	"	100		103	"	75.0-125	103			
Surrogate: a,a,a-TFT	"	100		112	"	65.0-130	112			
Matrix Spike		0300055-MS1		C003114-01						
Vinyl chloride	3/17/00	60.8	ND	57.1	ug/kg	75.0-125	93.9			
cis-1,2-Dichloroethene	"	60.8	ND	62.9	"	75.0-125	103			
Trichloroethene	"	60.8	ND	52.1	"	75.0-125	85.7			
Tetrachloroethene	"	60.8	ND	58.1	"	75.0-125	95.6			
Surrogate: a,a,a-TFT	"	60.8		62.9	"	65.0-130	103			
Matrix Spike Dup		0300055-MSD1		C003114-01						
Vinyl chloride	3/17/00	75.8	ND	74.4	ug/kg	75.0-125	98.2	20.0	4.48	
cis-1,2-Dichloroethene	"	75.8	ND	82.2	"	75.0-125	108	20.0	4.74	
Trichloroethene	"	75.8	ND	69.5	"	75.0-125	91.7	20.0	6.76	
Tetrachloroethene	"	75.8	ND	77.5	"	75.0-125	102	20.0	6.48	
Surrogate: a,a,a-TFT	"	75.8		84.1	"	65.0-130	111			

Aspen Environmental, Ltd	Project: Cameron-Yakima Contaminated Soil Removal	Sampled: 3/16/00
PO Box 318	Project Number: .	Received: 3/17/00
Milkiiteo, WA 98275	Project Manager: Scott Waldal	Reported: 3/17/00 15:16

Notes and Definitions

#	Note
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DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

Report Exceptions List
(for internal use only)

Exception

Report calculations are based on the MRL

Analysis or Specific Method

Lab Number

Analyte or General Method

March 24, 2000

Scott Waldal
Aspen Environmental, Ltd
PO Box 318
Milkiiteo, WA 98275

RE: Cameron-Yakima Contaminated Soil Removal

Dear Scott Waldal

Enclosed are the results of analyses for sample(s) received by the laboratory on March 23, 2000. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Craig Bradle
Project Manager

Aspen Environmental, Ltd PO Box 318 Milkiteo, WA 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 3/22/00 Received: 3/23/00 Reported: 3/24/00 10:12
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ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
C6-B3-6	C003153-01	Soil	3/22/00
C6-B6-6	C003153-02	Soil	3/22/00
B6-VB1-10	C003153-03	Soil	3/22/00

Aspen Environmental, Ltd PO Box 318 Milkilteo, WA 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 3/22/00 Received: 3/23/00 Reported: 3/24/00 10:12
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Bend**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>C6-B3-6</u>				<u>C003153-01</u>			<u>Soil</u>	
Vinyl chloride	0300071	3/23/00	3/23/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a.a.a-TFT	"	"	"	65.0-130		92.4	%	
<u>C6-B6-6</u>				<u>C003153-02</u>			<u>Soil</u>	
Vinyl chloride	0300071	3/23/00	3/23/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a.a.a-TFT	"	"	"	65.0-130		94.4	%	
<u>B6-VB1-10</u>				<u>C003153-03</u>			<u>Soil</u>	
Vinyl chloride	0300071	3/23/00	3/23/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a.a.a-TFT	"	"	"	65.0-130		77.3	%	

Aspen Environmental, Ltd PO Box 318 Milkilteo, WA 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 3/22/00 Received: 3/23/00 Reported: 3/24/00 10:12
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Bend**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0300071		Date Prepared: 3/23/00		Extraction Method: General Preparation						
Blank		0300071-BLK1								
Vinyl chloride	3/23/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	100		89.0	"	65.0-130	89.0			
LCS		0300071-BS1								
Vinyl chloride	3/23/00	100		90.8	ug/kg	75.0-125	90.8			
cis-1,2-Dichloroethene	"	100		95.3	"	75.0-125	95.3			
Trichloroethene	"	100		81.3	"	75.0-125	81.3			
Tetrachloroethene	"	100		92.3	"	75.0-125	92.3			
Surrogate: a,a,a-TFT	"	100		102	"	65.0-130	102			
Duplicate		0300071-DUP1 C003153-02								
Vinyl chloride	3/23/00		ND	ND	ug/kg					
cis-1,2-Dichloroethene	"		ND	ND	"					
Trichloroethene	"		ND	ND	"					
Tetrachloroethene	"		ND	ND	"					
Surrogate: a,a,a-TFT	"	65.4		54.9	"	65.0-130	83.9			
Matrix Spike		0300071-MS1 C003153-03								
Vinyl chloride	3/23/00	66.4	ND	45.0	ug/kg	75.0-125	67.8			1
cis-1,2-Dichloroethene	"	66.4	ND	54.3	"	75.0-125	81.8			
Trichloroethene	"	66.4	ND	48.5	"	75.0-125	73.0			1
Tetrachloroethene	"	66.4	ND	53.2	"	75.0-125	80.1			
Surrogate: a,a,a-TFT	"	66.4		57.5	"	65.0-130	86.6			
Matrix Spike Dup		0300071-MSD1 C003153-03								
Vinyl chloride	3/23/00	58.3	ND	45.6	ug/kg	75.0-125	78.2	20.0	14.2	
cis-1,2-Dichloroethene	"	58.3	ND	49.4	"	75.0-125	84.7	20.0	3.48	
Trichloroethene	"	58.3	ND	43.9	"	75.0-125	75.3	20.0	3.10	
Tetrachloroethene	"	58.3	ND	46.2	"	75.0-125	79.2	20.0	1.13	
Surrogate: a,a,a-TFT	"	58.3		50.0	"	65.0-130	85.8			

North Creek Analytical - Bend

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd PO Box 318 Milkilteo, WA 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 3/22/00 Received: 3/23/00 Reported: 3/24/00 10:12
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Notes and Definitions

#	Note
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- | | |
|--------|---|
| 1 | The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch. |
| DET | Analyte DETECTED |
| ND | Analyte NOT DETECTED at or above the reporting limit |
| NR | Not Reported |
| dry | Sample results reported on a dry weight basis |
| Recov. | Recovery |
| RPD | Relative Percent Difference |

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
At least one excess analyte	VOC 8021B Screen	0300071-DUP1	
Exceeds lower control limit	VOC 8021B Screen	0300071-MS1	Trichloroethene
Exceeds lower control limit	VOC 8021B Screen	0300071-MS1	Vinyl chloride
Q-01 (1)	VOC 8021B Screen	0300071-MS1	Trichloroethene
Q-01 (1)	VOC 8021B Screen	0300071-MS1	Vinyl chloride

Report calculations are based on the MRL

April 1, 2000

Scott Waldal
Aspen Environmental, Ltd
PO Box 318
Milkiiteo, WA 98275

RE: Cameron-Yakima Contaminated Soil Removal

Dear Scott Waldal

Enclosed are the results of analyses for sample(s) received by the laboratory on March 30, 2000. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Stephen Wilson
Environmental Services Group Leader

Aspen Environmental, Ltd
PO Box 318
Milkilteo, WA 98275

Project: Cameron-Yakima Contaminated Soil Removal
Project Number:
Project Manager: Scott Waldal

Sampled: 3/28/00
Received: 3/30/00
Reported: 4/1/00 19:13

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E8-B1-3	C003198-01	Soil	3/28/00
E8-B2-3	C003198-02	Soil	3/28/00
E8-B3-3	C003198-03	Soil	3/28/00
D8-B1-3	C003198-04	Soil	3/28/00
D8-B2-3	C003198-05	Soil	3/28/00
D8-B3-3	C003198-06	Soil	3/28/00
D8-B4-3	C003198-07	Soil	3/28/00
D8-B5-3	C003198-08	Soil	3/28/00
C7-B1-3	C003198-09	Soil	3/28/00
C7-B2-3	C003198-10	Soil	3/28/00
C7-B3-3	C003198-11	Soil	3/28/00
C7-B4-3	C003198-12	Soil	3/28/00
C7-B5-3	C003198-13	Soil	3/28/00
B7-B1-2	C003198-14	Soil	3/28/00
B7-B2-2	C003198-15	Soil	3/28/00
B7-B3-2	C003198-16	Soil	3/28/00
B7-B4-3	C003198-17	Soil	3/28/00
B7-B5-3	C003198-18	Soil	3/28/00
B7-N-2	C003198-19	Soil	3/28/00

North Creek Analytical - Bend

*The results in this report apply to the samples analyzed in accordance with the chain of custody document.
This analytical report must be reproduced in its entirety.*

Aspen Environmental, Ltd
 PO Box 318
 Milkiteo, WA 98275

Project: Cameron-Yakima Contaminated Soil Removal
 Project Number:
 Project Manager: Scott Waldal

Sampled: 3/28/00
 Received: 3/30/00
 Reported: 4/1/00 19:13

VOC Screening per EPA Method 8021B
 North Creek Analytical - Bend

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E8-B1-3</u>				<u>C003198-01</u>		<u>Soil</u>		
Vinyl chloride	0300099	3/30/00	3/30/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		63.5	%	1
<u>E8-B2-3</u>				<u>C003198-02</u>		<u>Soil</u>		
Vinyl chloride	0300099	3/30/00	3/30/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	25.7	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		70.3	%	
<u>E8-B3-3</u>				<u>C003198-03</u>		<u>Soil</u>		
Vinyl chloride	0300099	3/30/00	3/30/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		64.9	%	1
<u>D8-B1-3</u>				<u>C003198-04</u>		<u>Soil</u>		
Vinyl chloride	0300099	3/30/00	3/30/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		64.6	%	1
<u>D8-B2-3</u>				<u>C003198-05</u>		<u>Soil</u>		
Vinyl chloride	0300099	3/30/00	3/31/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		72.7	%	
<u>D8-B3-3</u>				<u>C003198-06</u>		<u>Soil</u>		
Vinyl chloride	0300099	3/30/00	3/31/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

North Creek Analytical - Bend

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd PO Box 318 Milkilteo, WA 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 3/28/00 Received: 3/30/00 Reported: 4/1/00 19:13
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Bend**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>D8-B3-3 (continued)</u>				<u>C003198-06</u>			<u>Soil</u>	
Tetrachloroethene	0300099	3/30/00	3/31/00		15.0	ND	ug/kg	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		65.2	%	
<u>D8-B4-3</u>				<u>C003198-07</u>			<u>Soil</u>	
Vinyl chloride	0300099	3/30/00	3/30/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		73.2	%	
<u>D8-B5-3</u>				<u>C003198-08</u>			<u>Soil</u>	
Vinyl chloride	0300099	3/30/00	3/30/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		76.3	%	
<u>C7-B1-3</u>				<u>C003198-09</u>			<u>Soil</u>	
Vinyl chloride	0300099	3/30/00	3/30/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		49.9	%	1
<u>C7-B2-3</u>				<u>C003198-10</u>			<u>Soil</u>	
Vinyl chloride	0300099	3/30/00	3/30/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		80.7	%	
<u>C7-B3-3</u>				<u>C003198-11</u>			<u>Soil</u>	
Vinyl chloride	0300099	3/30/00	3/30/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		53.8	%	1

North Creek Analytical - Bend

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd
 PO Box 318
 Milkilteo, WA 98275

Project: Cameron-Yakima Contaminated Soil Removal
 Project Number:
 Project Manager: Scott Waldal

Sampled: 3/28/00
 Received: 3/30/00
 Reported: 4/1/00 19:13

VOC Screening per EPA Method 8021B
 North Creek Analytical - Bend

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
C7-B4-3				C003198-12			Soil	
Vinyl chloride	0300099	3/30/00	3/30/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		99.5	%	
C7-B5-3				C003198-13			Soil	
Vinyl chloride	0300099	3/30/00	3/30/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		87.3	%	
B7-B1-2				C003198-14			Soil	
Vinyl chloride	0300099	3/30/00	3/30/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		53.0	%	1
B7-B2-2				C003198-15			Soil	
Vinyl chloride	0300099	3/30/00	3/30/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		66.7	%	
B7-B3-2				C003198-16			Soil	
Vinyl chloride	0300099	3/31/00	3/31/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		88.2	%	
B7-B4-3				C003198-17			Soil	
Vinyl chloride	0300099	3/30/00	3/31/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

North Creek Analytical - Bend

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd PO Box 318 Milkiteo, WA 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: . Project Manager: Scott Waldal	Sampled: 3/28/00 Received: 3/30/00 Reported: 4/1/00 19:13
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Bend**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>B7-B4-3 (continued)</u>				<u>C003198-17</u>			<u>Soil</u>	
Tetrachloroethene	0300099	3/30/00	3/31/00		15.0	ND	ug/kg	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		71.4	%	
<u>B7-B5-3</u>				<u>C003198-18</u>			<u>Soil</u>	
Vinyl chloride	0300099	3/30/00	3/31/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		74.0	%	
<u>B7-N-2</u>				<u>C003198-19</u>			<u>Soil</u>	
Vinyl chloride	0300099	3/30/00	3/31/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
<i>Surrogate: a,a,a-TFT</i>	"	"	"	65.0-130		46.0	%	1

Aspen Environmental, Ltd
 PO Box 318
 Milkiteo, WA 98275

Project: Cameron-Yakima Contaminated Soil Removal
 Project Number:
 Project Manager: Scott Waldal

Sampled: 3/28/00
 Received: 3/30/00
 Reported: 4/1/00 19:13

**VOC Screening per EPA Method 8021B/Quality Control
 North Creek Analytical - Bend**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Recov. Limits	RPD %	RPD Limit	RPD %	Notes*
Batch: 0300099		Date Prepared: 3/30/00		Extraction Method: General Preparation						
Blank		0300099-BLK1								
Vinyl chloride	3/30/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	100		111	"	65.0-130	111			
Blank		0300099-BLK2								
Vinyl chloride	3/31/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	100		87.0	"	65.0-130	87.0			
LCS		0300099-BS1								
Vinyl chloride	3/30/00	100		88.8	ug/kg	75.0-125	88.8			
cis-1,2-Dichloroethene	"	100		96.5	"	75.0-125	96.5			
Trichloroethene	"	100		88.8	"	75.0-125	88.8			
Tetrachloroethene	"	100		92.5	"	75.0-125	92.5			
Surrogate: a,a,a-TFT	"	100		93.5	"	65.0-130	93.5			
LCS		0300099-BS2								
Vinyl chloride	3/31/00	100		95.3	ug/kg	75.0-125	95.3			
cis-1,2-Dichloroethene	"	100		85.3	"	75.0-125	85.3			
Trichloroethene	"	100		87.5	"	75.0-125	87.5			
Tetrachloroethene	"	100		92.0	"	75.0-125	92.0			
Surrogate: a,a,a-TFT	"	100		96.3	"	65.0-130	96.3			
Duplicate		0300099-DUP1		C003198-19						
Vinyl chloride	3/31/00		ND	ND	ug/kg					
cis-1,2-Dichloroethene	"		ND	ND	"					
Trichloroethene	"		ND	ND	"					
Tetrachloroethene	"		ND	ND	"					
Surrogate: a,a,a-TFT	"	77.5		36.2	"	65.0-130	46.7			1
Matrix Spike		0300099-MS1		C003198-12						
Vinyl chloride	3/31/00	73.3	ND	45.2	ug/kg	75.0-125	61.7			2
cis-1,2-Dichloroethene	"	73.3	ND	37.9	"	75.0-125	51.7			

North Creek Analytical - Bend

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd PO Box 318 Milkilteo, WA 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 3/28/00 Received: 3/30/00 Reported: 4/1/00 19:13
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Bend**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike (continued)	0300099-MS1	C003198-12								2
Trichloroethene	3/31/00	73.3	ND	45.2	ug/kg	75.0-125	61.7			
Tetrachloroethene	"	73.3	ND	47.1	"	75.0-125	64.3			
Surrogate: a,a,a-TFT	"	73.3		45.4	"	65.0-130	61.9			
Matrix Spike	0300099-MS2	C003198-13								2
Vinyl chloride	3/31/00	84.0	ND	60.7	ug/kg	75.0-125	72.3			
cis-1,2-Dichloroethene	"	84.0	ND	64.7	"	75.0-125	77.0			
Trichloroethene	"	84.0	ND	65.3	"	75.0-125	77.7			
Tetrachloroethene	"	84.0	ND	66.6	"	75.0-125	79.3			
Surrogate: a,a,a-TFT	"	84.0		68.1	"	65.0-130	81.1			
Matrix Spike Dup	0300099-MSD1	C003198-12								2
Vinyl chloride	3/31/00	77.2	ND	57.5	ug/kg	75.0-125	74.5	20.0	18.8	
cis-1,2-Dichloroethene	"	77.2	ND	54.2	"	75.0-125	70.2	20.0	30.4	
Trichloroethene	"	77.2	ND	56.8	"	75.0-125	73.6	20.0	17.6	
Tetrachloroethene	"	77.2	ND	58.9	"	75.0-125	76.3	20.0	17.1	
Surrogate: a,a,a-TFT	"	77.2		63.1	"	65.0-130	81.7			
Matrix Spike Dup	0300099-MSD2	C003198-13								2
Vinyl chloride	3/31/00	86.2	ND	59.7	ug/kg	75.0-125	69.3	20.0	4.24	
cis-1,2-Dichloroethene	"	86.2	ND	65.5	"	75.0-125	76.0	20.0	1.31	
Trichloroethene	"	86.2	ND	59.1	"	75.0-125	68.6	20.0	12.4	
Tetrachloroethene	"	86.2	ND	61.0	"	75.0-125	70.8	20.0	11.3	
Surrogate: a,a,a-TFT	"	86.2		73.1	"	65.0-130	84.8			

Aspen Environmental, Ltd PO Box 318 Milkilteo, WA 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 3/28/00 Received: 3/30/00 Reported: 4/1/00 19:13
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Notes and Definitions

#	Note
1	The surrogate spike recovery is out of control limits. Re-analysis confirms low recovery may be due to carbon particles present in the sample matrix.
2	The spike recoveries for this QC sample are out of control limits. Re-analysis confirms that this may be due to carbon particles present in the sample matrix.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
At least one excess analyte	VOC 8021B Screen	0300099-DUP1	
Exceeds lower control limit	VOC 8021B Screen	0300099-DUP1	a,a,a-TFT
A-01 (1)	VOC 8021B Screen	0300099-DUP1	a,a,a-TFT
Exceeds lower control limit	VOC 8021B Screen	0300099-MS1	a,a,a-TFT
Exceeds lower control limit	VOC 8021B Screen	0300099-MS1	cis-1,2-Dichloroethene
Exceeds lower control limit	VOC 8021B Screen	0300099-MS1	Tetrachloroethene
Exceeds lower control limit	VOC 8021B Screen	0300099-MS1	Trichloroethene
Exceeds lower control limit	VOC 8021B Screen	0300099-MS1	Vinyl chloride
A-02 (2)	VOC 8021B Screen	0300099-MS1	
Exceeds lower control limit	VOC 8021B Screen	0300099-MS2	Vinyl chloride
A-02 (2)	VOC 8021B Screen	0300099-MS2	
Exceeds lower control limit	VOC 8021B Screen	0300099-MSD1	cis-1,2-Dichloroethene
Exceeds RPD limit	VOC 8021B Screen	0300099-MSD1	cis-1,2-Dichloroethene
Exceeds lower control limit	VOC 8021B Screen	0300099-MSD1	Trichloroethene
Exceeds lower control limit	VOC 8021B Screen	0300099-MSD1	Vinyl chloride
A-02 (2)	VOC 8021B Screen	0300099-MSD1	
Exceeds lower control limit	VOC 8021B Screen	0300099-MSD2	Tetrachloroethene
Exceeds lower control limit	VOC 8021B Screen	0300099-MSD2	Trichloroethene
Exceeds lower control limit	VOC 8021B Screen	0300099-MSD2	Vinyl chloride
A-02 (2)	VOC 8021B Screen	0300099-MSD2	
Exceeds lower control limit	VOC 8021B Screen	C003198-01RE1	a,a,a-TFT
A-01 (1)	VOC 8021B Screen	C003198-01RE1	a,a,a-TFT
Exceeds lower control limit	VOC 8021B Screen	C003198-03	a,a,a-TFT
A-01 (1)	VOC 8021B Screen	C003198-03	a,a,a-TFT
Exceeds lower control limit	VOC 8021B Screen	C003198-04	a,a,a-TFT
A-01 (1)	VOC 8021B Screen	C003198-04	a,a,a-TFT
Exceeds lower control limit	VOC 8021B Screen	C003198-09	a,a,a-TFT
A-01 (1)	VOC 8021B Screen	C003198-09	a,a,a-TFT
Exceeds lower control limit	VOC 8021B Screen	C003198-11	a,a,a-TFT
A-01 (1)	VOC 8021B Screen	C003198-11	a,a,a-TFT
Exceeds lower control limit	VOC 8021B Screen	C003198-14	a,a,a-TFT
A-01 (1)	VOC 8021B Screen	C003198-14	a,a,a-TFT
Exceeds lower control limit	VOC 8021B Screen	C003198-19	a,a,a-TFT
A-01 (1)	VOC 8021B Screen	C003198-19	a,a,a-TFT

Report calculations are based on the MRL

April 4, 2000

Scott Waldal
Aspen Environmental, Ltd
PO Box 318
Milkiteo, WA 98275

RE: Cameron-Yakima Contaminated Soil Removal

Dear Scott Waldal

Enclosed are the results of analyses for sample(s) received by the laboratory on March 31, 2000. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Stephen Wilson
Environmental Services Group Leader

Aspen Environmental, Ltd
PO Box 318
Milkilteo, WA 98275

Project: Cameron-Yakima Contaminated Soil Removal
Project Number:
Project Manager: Scott Waldal

Sampled: 3/31/00
Received: 3/31/00
Reported: 4/4/00 16:12

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E8-TP1-4	C003209-01	Soil	3/31/00
E8-TP1-6	C003209-02	Soil	3/31/00
E8-TP1-8	C003209-03	Soil	3/31/00
E8-TP2-4	C003209-04	Soil	3/31/00
E8-TP2-6	C003209-05	Soil	3/31/00
E8-TP2-8	C003209-06	Soil	3/31/00
D8-TP1-4	C003209-07	Soil	3/31/00
D8-TP1-6	C003209-08	Soil	3/31/00
D8-TP1-8	C003209-09	Soil	3/31/00
D8-TP2-4	C003209-10	Soil	3/31/00
D8-TP2-6	C003209-11	Soil	3/31/00
D8-TP2-8	C003209-12	Soil	3/31/00
D8-TP3-4	C003209-13	Soil	3/31/00
D8-TP3-6	C003209-14	Soil	3/31/00
D8-TP3-8	C003209-15	Soil	3/31/00

North Creek Analytical - Bend

*The results in this report apply to the samples analyzed in accordance with the chain of custody document.
This analytical report must be reproduced in its entirety.*

Aspen Environmental, Ltd PO Box 318 Milkiteo, WA 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 3/31/00 Received: 3/31/00 Reported: 4/4/00 16:12
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Bend**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E8-TP1-4</u>				<u>C003209-01</u>			<u>Soil</u>	
Vinyl chloride	0400002	4/1/00	4/1/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		106	%	
<u>E8-TP1-6</u>				<u>C003209-02</u>			<u>Soil</u>	
Vinyl chloride	0400002	4/1/00	4/1/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		102	%	
<u>E8-TP1-8</u>				<u>C003209-03</u>			<u>Soil</u>	
Vinyl chloride	0400002	4/1/00	4/1/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		67.3	%	
<u>E8-TP2-4</u>				<u>C003209-04</u>			<u>Soil</u>	
Vinyl chloride	0400002	4/1/00	4/1/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		94.8	%	
<u>E8-TP2-6</u>				<u>C003209-05</u>			<u>Soil</u>	
Vinyl chloride	0400002	4/1/00	4/1/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		84.4	%	
<u>E8-TP2-8</u>				<u>C003209-06</u>			<u>Soil</u>	
Vinyl chloride	0400002	4/1/00	4/1/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

North Creek Analytical - Bend

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd
 PO Box 318
 Milkilteo, WA 98275

Project: Cameron-Yakima Contaminated Soil Removal
 Project Number:
 Project Manager: Scott Waldal

Sampled: 3/31/00
 Received: 3/31/00
 Reported: 4/4/00 16:12

VOC Screening per EPA Method 8021B
 North Creek Analytical - Bend

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E8-TP2-8 (continued)</u>				<u>C003209-06</u>			<u>Soil</u>	
Tetrachloroethene	0400002	4/1/00	4/1/00		15.0	ND	ug/kg	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		83.5	%	
<u>D8-TP1-4</u>				<u>C003209-07</u>			<u>Soil</u>	
Vinyl chloride	0400002	4/1/00	4/1/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		88.2	%	
<u>D8-TP1-6</u>				<u>C003209-08</u>			<u>Soil</u>	
Vinyl chloride	0400002	4/1/00	4/2/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		102	%	
<u>D8-TP1-8</u>				<u>C003209-09</u>			<u>Soil</u>	
Vinyl chloride	0400002	4/1/00	4/2/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	16.1	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		84.0	%	
<u>D8-TP2-4</u>				<u>C003209-10</u>			<u>Soil</u>	
Vinyl chloride	0400002	4/1/00	4/2/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		85.7	%	
<u>D8-TP2-6</u>				<u>C003209-11</u>			<u>Soil</u>	
Vinyl chloride	0400002	4/1/00	4/2/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		80.6	%	

North Creek Analytical - Bend

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd PO Box 318 Milkilteo, WA 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 3/31/00 Received: 3/31/00 Reported: 4/4/00 16:12
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Bend**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>D8-TP2-8</u>				<u>C003209-12</u>		<u>Soil</u>		
Vinyl chloride	0400002	4/1/00	4/2/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		80.1	%	
<u>D8-TP3-4</u>				<u>C003209-13</u>		<u>Soil</u>		
Vinyl chloride	0400002	4/1/00	4/2/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		79.5	%	
<u>D8-TP3-6</u>				<u>C003209-14</u>		<u>Soil</u>		
Vinyl chloride	0400002	4/2/00	4/2/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		93.9	%	
<u>D8-TP3-8</u>				<u>C003209-15</u>		<u>Soil</u>		
Vinyl chloride	0400002	4/2/00	4/2/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		81.7	%	

Aspen Environmental, Ltd PO Box 318 Milkiteo, WA 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 3/31/00 Received: 3/31/00 Reported: 4/4/00 16:12
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Bend**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0400002		Date Prepared: 4/1/00			Extraction Method: General Preparation					
Blank		0400002-BLK1								
Vinyl chloride	4/1/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	100		94.0	"	65.0-130	94.0			
Blank		0400002-BLK2								
Vinyl chloride	4/2/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	100		91.5	"	65.0-130	91.5			
LCS		0400002-BS1								
Vinyl chloride	4/1/00	100		98.3	ug/kg	75.0-125	98.3			
cis-1,2-Dichloroethene	"	100		85.5	"	75.0-125	85.5			
Trichloroethene	"	100		87.8	"	75.0-125	87.8			
Tetrachloroethene	"	100		91.5	"	75.0-125	91.5			
Surrogate: a,a,a-TFT	"	100		92.0	"	65.0-130	92.0			
LCS		0400002-BS2								
Vinyl chloride	4/2/00	100		95.3	ug/kg	75.0-125	95.3			
cis-1,2-Dichloroethene	"	100		83.3	"	75.0-125	83.3			
Trichloroethene	"	100		84.5	"	75.0-125	84.5			
Tetrachloroethene	"	100		89.0	"	75.0-125	89.0			
Surrogate: a,a,a-TFT	"	100		88.5	"	65.0-130	88.5			
Duplicate		0400002-DUP1		C003209-15						
Vinyl chloride	4/2/00		ND	ND	ug/kg					
cis-1,2-Dichloroethene	"		ND	ND	"					
Trichloroethene	"		ND	ND	"					
Tetrachloroethene	"		ND	ND	"					
Surrogate: a,a,a-TFT	"	69.0		63.4	"	65.0-130	91.9			
Matrix Spike		0400002-MS1		C003209-04						
Vinyl chloride	4/1/00	84.4	ND	44.9	ug/kg	75.0-125	53.2			1
cis-1,2-Dichloroethene	"	84.4	ND	45.4	"	75.0-125	53.8			

North Creek Analytical - Bend

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd
 PO Box 318
 Milkiteo, WA 98275

Project: Cameron-Yakima Contaminated Soil Removal
 Project Number:
 Project Manager: Scott Waldal

Sampled: 3/31/00
 Received: 3/31/00
 Reported: 4/4/00 16:12

VOC Screening per EPA Method 8021B/Quality Control
 North Creek Analytical - Bend

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike (continued)		0400002-MS1	C003209-04							1
Trichloroethene	4/1/00	84.4	ND	49.8	ug/kg	75.0-125	59.0			
Tetrachloroethene	"	84.4	ND	49.4	"	75.0-125	58.5			
Surrogate: a.a.a-TFT	"	84.4		45.6	"	65.0-130	54.0			
Matrix Spike Dup		0400002-MSD1	C003209-04							1
Vinyl chloride	4/1/00	84.7	ND	55.9	ug/kg	75.0-125	66.0	20.0	21.5	
cis-1,2-Dichloroethene	"	84.7	ND	60.4	"	75.0-125	71.3	20.0	28.0	
Trichloroethene	"	84.7	ND	62.9	"	75.0-125	74.3	20.0	23.0	
Tetrachloroethene	"	84.7	ND	63.1	"	75.0-125	74.5	20.0	24.1	
Surrogate: a.a.a-TFT	"	84.7		60.2	"	65.0-130	71.1			

Aspen Environmental, Ltd PO Box 318 Milkiteo, WA 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 3/31/00 Received: 3/31/00 Reported: 4/4/00 16:12
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Notes and Definitions

#	Note
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- 1 The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.

- DET Analyte DETECTED

- ND Analyte NOT DETECTED at or above the reporting limit

- NR Not Reported

- dry Sample results reported on a dry weight basis

- Recov. Recovery

- RPD Relative Percent Difference

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
At least one excess analyte	VOC 8021B Screen	0400002-DUP1	
Exceeds lower control limit	VOC 8021B Screen	0400002-MS1	a,a,a-TFT
Exceeds lower control limit	VOC 8021B Screen	0400002-MS1	cis-1,2-Dichloroethene
Exceeds lower control limit	VOC 8021B Screen	0400002-MS1	Tetrachloroethene
Exceeds lower control limit	VOC 8021B Screen	0400002-MS1	Trichloroethene
Exceeds lower control limit	VOC 8021B Screen	0400002-MS1	Vinyl chloride
Q-01 (1)	VOC 8021B Screen	0400002-MS1	
Exceeds lower control limit	VOC 8021B Screen	0400002-MSD1	cis-1,2-Dichloroethene
Exceeds RPD limit	VOC 8021B Screen	0400002-MSD1	cis-1,2-Dichloroethene
Exceeds lower control limit	VOC 8021B Screen	0400002-MSD1	Tetrachloroethene
Exceeds RPD limit	VOC 8021B Screen	0400002-MSD1	Tetrachloroethene
Exceeds lower control limit	VOC 8021B Screen	0400002-MSD1	Trichloroethene
Exceeds RPD limit	VOC 8021B Screen	0400002-MSD1	Trichloroethene
Exceeds lower control limit	VOC 8021B Screen	0400002-MSD1	Vinyl chloride
Exceeds RPD limit	VOC 8021B Screen	0400002-MSD1	Vinyl chloride
Q-01 (1)	VOC 8021B Screen	0400002-MSD1	
Report calculations are based on the MRL			

April 6, 2000

Scott Waldal
Aspen Environmental, Ltd
PO Box 318
Milkiteo, WA 98275

RE: Cameron-Yakima Contaminated Soil Removal

Dear Scott Waldal

Enclosed are the results of analyses for sample(s) received by the laboratory on April 5, 2000. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Stephen Wilson
Environmental Services Group Leader

Aspen Environmental, Ltd
PO Box 318
Milkilteo, WA 98275

Project: Cameron-Yakima Contaminated Soil Removal
Project Number:
Project Manager: Scott Waldal

Sampled: 4/4/00
Received: 4/5/00
Reported: 4/6/00 09:47

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E9-B1-3	C004026-01	Soil	4/4/00
E9-B2-3	C004026-02	Soil	4/4/00
E9-B3-3	C004026-03	Soil	4/4/00
D9-B1-3	C004026-04	Soil	4/4/00
D9-B2-3	C004026-05	Soil	4/4/00
D9-B3-3	C004026-06	Soil	4/4/00
D9-B4-3	C004026-07	Soil	4/4/00
D9-B5-3	C004026-08	Soil	4/4/00
Septic N-C7-6	C004026-09	Soil	4/4/00
Septic S-C7-6	C004026-10	Soil	4/4/00
Sump-E8-6	C004026-11	Soil	4/4/00

North Creek Analytical - Bend

*The results in this report apply to the samples analyzed in accordance with the chain of custody document.
This analytical report must be reproduced in its entirety.*

Stephen Wilson, Environmental Services Group Leader

Page 1 of 6

Aspen Environmental, Ltd
 PO Box 318
 Milkiiteo, WA 98275

Project: Cameron-Yakima Contaminated Soil Removal
 Project Number:
 Project Manager: Scott Waldal

Sampled: 4/4/00
 Received: 4/5/00
 Reported: 4/6/00 09:47

VOC Screening per EPA Method 8021B
 North Creek Analytical - Bend

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E9-B1-3</u>								
				<u>C004026-01</u>			Soil	
Vinyl chloride	0400012	4/5/00	4/5/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		76.2	%	
<u>E9-B2-3</u>								
				<u>C004026-02</u>			Soil	
Vinyl chloride	0400012	4/5/00	4/5/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		86.4	%	
<u>E9-B3-3</u>								
				<u>C004026-03</u>			Soil	
Vinyl chloride	0400012	4/5/00	4/5/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		66.2	%	
<u>D9-B1-3</u>								
				<u>C004026-04</u>			Soil	
Vinyl chloride	0400012	4/5/00	4/5/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		90.5	%	
<u>D9-B2-3</u>								
				<u>C004026-05</u>			Soil	
Vinyl chloride	0400012	4/5/00	4/5/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		85.6	%	
<u>D9-B3-3</u>								
				<u>C004026-06</u>			Soil	
Vinyl chloride	0400012	4/5/00	4/5/00		15.0	ND	ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	

North Creek Analytical - Bend

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd PO Box 318 Milkiteo, WA 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 4/4/00 Received: 4/5/00 Reported: 4/6/00 09:47
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**VOC Screening per EPA Method 8021B
North Creek Analytical - Bend**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
D9-B3-3 (continued)								
Tetrachloroethene	0400012	4/5/00	4/5/00	<u>C004026-06</u>	15.0	ND	<u>Soil</u> ug/kg	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		90.6	%	
D9-B4-3								
Vinyl chloride	0400012	4/5/00	4/5/00	<u>C004026-07</u>	15.0	ND	<u>Soil</u> ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		85.0	%	
D9-B5-3								
Vinyl chloride	0400012	4/5/00	4/5/00	<u>C004026-08</u>	15.0	ND	<u>Soil</u> ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		88.7	%	
Septic N-C7-6								
Vinyl chloride	0400012	4/5/00	4/5/00	<u>C004026-09</u>	15.0	ND	<u>Soil</u> ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		85.4	%	
Septic S-C7-6								
Vinyl chloride	0400012	4/5/00	4/5/00	<u>C004026-10</u>	15.0	ND	<u>Soil</u> ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		84.4	%	
Sump-E8-6								
Vinyl chloride	0400012	4/5/00	4/5/00	<u>C004026-11</u>	15.0	ND	<u>Soil</u> ug/kg	
cis-1,2-Dichloroethene	"	"	"		15.0	ND	"	
Trichloroethene	"	"	"		15.0	ND	"	
Tetrachloroethene	"	"	"		15.0	ND	"	
Surrogate: a,a,a-TFT	"	"	"	65.0-130		68.6	%	

North Creek Analytical - Bend

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd
 PO Box 318
 Milkiteo, WA 98275

Project: Cameron-Yakima Contaminated Soil Removal
 Project Number:
 Project Manager: Scott Waldal

Sampled: 4/4/00
 Received: 4/5/00
 Reported: 4/6/00 09:47

VOC Screening per EPA Method 8021B/Quality Control
 North Creek Analytical - Bend

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0400012		Date Prepared: 4/5/00		Extraction Method: General Preparation						
Blank		0400012-BLK1								
Vinyl chloride	4/5/00			ND	ug/kg	15.0				
cis-1,2-Dichloroethene	"			ND	"	15.0				
Trichloroethene	"			ND	"	15.0				
Tetrachloroethene	"			ND	"	15.0				
Surrogate: a,a,a-TFT	"	100		68.5	"	65.0-130	68.5			
LCS		0400012-BS1								
Vinyl chloride	4/5/00	100		97.0	ug/kg	75.0-125	97.0			
cis-1,2-Dichloroethene	"	100		81.3	"	75.0-125	81.3			
Trichloroethene	"	100		82.8	"	75.0-125	82.8			
Tetrachloroethene	"	100		88.0	"	75.0-125	88.0			
Surrogate: a,a,a-TFT	"	100		85.3	"	65.0-130	85.3			
LCS		0400012-BS2								
Vinyl chloride	4/5/00	100		103	ug/kg	75.0-125	103			
cis-1,2-Dichloroethene	"	100		84.0	"	75.0-125	84.0			
Trichloroethene	"	100		82.3	"	75.0-125	82.3			
Tetrachloroethene	"	100		87.8	"	75.0-125	87.8			
Surrogate: a,a,a-TFT	"	100		85.0	"	65.0-130	85.0			
Duplicate		0400012-DUP1		C004026-06						
Vinyl chloride	4/5/00		ND	ND	ug/kg					
cis-1,2-Dichloroethene	"		ND	ND	"					
Trichloroethene	"		ND	ND	"					
Tetrachloroethene	"		ND	ND	"					
Surrogate: a,a,a-TFT	"	43.6		19.8	"	65.0-130	45.4			1
Matrix Spike		0400012-MS1		C004026-05						
Vinyl chloride	4/5/00	51.4	ND	36.9	ug/kg	75.0-125	71.8			2
cis-1,2-Dichloroethene	"	51.4	ND	35.6	"	75.0-125	69.3			
Trichloroethene	"	51.4	ND	37.7	"	75.0-125	73.3			
Tetrachloroethene	"	51.4	ND	39.1	"	75.0-125	76.1			
Surrogate: a,a,a-TFT	"	51.4		35.2	"	65.0-130	68.5			
Matrix Spike Dup		0400012-MSD1		C004026-05						
Vinyl chloride	4/5/00	51.9	ND	38.8	ug/kg	75.0-125	74.8	20.0	4.09	2
cis-1,2-Dichloroethene	"	51.9	ND	42.9	"	75.0-125	82.7	20.0	17.6	

North Creek Analytical - Bend

*Refer to end of report for text of notes and definitions.

Aspen Environmental, Ltd PO Box 318 Milkiteo, WA 98275	Project: Cameron-Yakima Contaminated Soil Removal Project Number: Project Manager: Scott Waldal	Sampled: 4/4/00 Received: 4/5/00 Reported: 4/6/00 09:47
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**VOC Screening per EPA Method 8021B/Quality Control
North Creek Analytical - Bend**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike Dup (continued)	0400012-MSD1	C004026-05								<u>2</u>
Trichloroethene	4/5/00	51.9	ND	41.9	ug/kg	75.0-125	80.7	20.0	9.61	
Tetrachloroethene	"	51.9	ND	44.0	"	75.0-125	84.8	20.0	10.8	
Surrogate: a,a,a-TFT	"	51.9		42.9	"	65.0-130	82.7			

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Notes and Definitions

#	Note
1	The surrogate recovery for this sample is outside of NCA established control limits.
2	The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

Report Exceptions List
(for internal use only)

<u>Exception</u>	<u>Analysis or Specific Method</u>	<u>Lab Number</u>	<u>Analyte or General Method</u>
At least one excess analyte	VOC 8021B Screen	0400012-DUP1	
Exceeds lower control limit	VOC 8021B Screen	0400012-DUP1	a,a,a-TFT
S-03 (1)	VOC 8021B Screen	0400012-DUP1	a,a,a-TFT
Exceeds lower control limit	VOC 8021B Screen	0400012-MS1	cis-1,2-Dichloroethene
Exceeds lower control limit	VOC 8021B Screen	0400012-MS1	Trichloroethene
Exceeds lower control limit	VOC 8021B Screen	0400012-MS1	Vinyl chloride
Q-01 (2)	VOC 8021B Screen	0400012-MS1	
Exceeds lower control limit	VOC 8021B Screen	0400012-MSD1	Vinyl chloride
Q-01 (2)	VOC 8021B Screen	0400012-MSD1	

Report calculations are based on the MRL